

**Does Leadership on the Field Get You Noticed Off It?:  
What Value Do Corporate Recruiters Place on Leadership  
Credentials Earned through Varsity Sports?**

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An online correspondence study was conducted to explore whether professional recruiters screening candidates for entry-level -corporate jobs would view leadership skills, acquired through high level participation in amateur sport at the collegiate varsity level, more favorably than those acquired through non-sport activities. The experimental manipulation randomly varied candidates' athletic v. non-athletic leadership experience at university, their gender, and race. Eight hundred and twenty-eight corporate recruiters rated four potential candidate profiles on four of eight job-relevant leadership traits/skills they valued most when assessing a candidate and ranked the candidates for a callback interview. Varsity athletes were rated higher than non-athletes on the ability to work in a team and on being results-driven. However, recruiters rated athletes lower in critical thinking, follow-through on tasks, and organizational skills. Overall, athletes were no more likely than non-athlete candidates to be selected for a first interview. Results are interpreted in the context of signaling theory.

**T**here is a common perceived relationship between a collegiate varsity sport credential and business success. Not only is participation in college level sport presumed to confer leadership skills and character qualities that align with business culture, but the lexi-

con and framing of business leadership frequently draws on athletics as a source (Callow, Smith, Hardy, Arthur, & Hardy, 2009; Heifetz, Grashow, & Linsky, 2009; Price & Weiss, 2011). The Harvard Business Review didn't shrink from the comparison between athletics and business

in “Making Star Teams Out of Star Players” (Mankins, Bird, Root, 2013), nor did Bloomberg in drawing parallels between athletic experiences and skills prized in business (Shoshnick, 2013). This confluence is widely viewed to make university athletes appealing to many prospective corporate employers. The National Collegiate Athletic Association (NCAA, n.d.) has highlighted that “by competing in college sports, student-athletes learn important skills, like leadership, time management and how to effectively work with others toward a common goal.” NCAA goes on to claim that “companies have specifically said that they seek to hire former student-athletes, and the majority of student-athletes say that participating in college sports prepares them for life after graduation.” Corporate interest in college athletics is well documented and has led to criticism about the commercialization of “big-time” sports such as men’s football and basketball in the U.S. (Clotfelter, 2018; Sanderson and Siegfried, 2018; Thelin, 1996; Zimbalist, 2001).

Despite notable examples of corporations such as Enterprise Rent-A-Car committed to hiring college athletes (Enterprise Rent-A-Car, 2012, 2017), anecdotal stories in the popular press citing business leaders proclaiming their belief in seeking out and hiring college athletes, and prominent leaders citing their sport experience as a key factor in their own career success, research evidence linking college athletics to greater ease in gaining access to and finding success in business careers is relatively scarce. Research has

long shown links between high-school sport participation and greater university attendance and labor force participation among women (Stevenson, 2010) and an indication of higher wages later in life for males and females who played sports in high school (Curtis, McTeer, & White, 2003), with more recent studies finding both early and late career benefits. This includes the finding that some 60 years later, men who played competitive youth sports and varsity high school sports “demonstrate higher levels of leadership and enjoyed higher-status careers” (Kniffin, Wansink, & Shimizu, 2014). A nationwide survey of college alumni also shows college athletes reported higher salaries than non-athletes in the ten years following graduation (Sauer, Desmond, & Heintzelman, 2013), updating Long and Caudill’s (1991) earlier findings of a 4% higher annual income for male but not female athletes.

Sauer and colleagues’ (2013) study examines college graduates who successfully navigated a career launch. This research, however, is silent on a possible advantage for athletes in the recruitment process. A study by Chalfin, Weight, Osborne, and Johnson (2015) showed that employers value the leadership skills of athletes above many other leadership qualities students acquired in college in other arenas. However, the Chalfin et al. study surveyed companies self-selected to favor athletes as employees by virtue of attending a student-athlete career fair and having a presence on a website that connects former student-athletes with employers

seeking to hire them. Whether varsity athletics is a valued credential for gaining initial access to jobs offered by a wider swath of employers remains unanswered. Given the widespread assumption that athletics is a stepping stone to business success, we wanted to answer the following questions: What qualities do recruiters look for in new graduates? How is sport experience evaluated? Do athletes have an advantage when being screened for an initial interview? Do male and female, Black and White, and athlete and non-athlete candidates fare equally?

### **Youth Athletic Skill Development as an Investment**

With the increased profile of athletics in recent decades as seen in the growth of broadcast outlets and coverage, rising collegiate athletic budgets, and the prominence of athletic figures in popular media and cultural discourse, the hope of playing at a high level — in college or beyond — has become a popular dream for many youth. It is little wonder that high schools in many communities have made athletic teams central to their identities, with middle and elementary schools, along with community organizations, club programs, and specialized fitness companies offering training for young athletes. As a result, it has become increasingly common for some families to spend impressive amounts of time, money, and effort on a child's athletic development (Hyman, 2012). In recent years, there has been a divergence in

youth sport participation, falling among lower-income youth and rising among middle and upper-income youth whose parents make increasing sacrifices of time and money. (Aspen Institute, 2018). This robust investment pre-supposes a path and an end benefit that, in addition to the pleasure of play, reflects expectations for a youth's educational and financial success, even the opportunity to increase the chances of acceptance to a more competitive college or earn a scholarship. There exists a plethora of books on strategies of athletic recruiting, and an industry of consultants who will “package” prospective athletes. As the recent college admissions scandal reveals, there is a long-standing recognition that athletics offers an important advantage in college admissions, particularly as admissions to selective colleges have grown more competitive. Wealthy families exploited this avenue by having their children pretend to be athletes, through a counselor who then bribed coaches (Taylor, 2019). Yet, for legitimate college athletes, there is more than getting and/or earning a scholarship: becoming involved in athletics, particularly as part of a college athletic team, is widely believed to position one for easy entry to a business career and to later success. Although there is no formal name for this path, an industry of advisors, consultants, and coaches has sprung up to help youth navigate the athlete trajectory (Hyman, 2012).

## Gender and Race

The inclusion of gender and race in our research questions grows out of the history of athletic participation, which has been uneven among different segments of U.S. society. Treating athletics as an investment has been particularly salient for White and Black males, who tend to use athletic competency as a means for building social identity from a young age (Messner, 1990). Especially for Black males, Hoberman (2000) has drawn attention to the “involuntary athletic identity that has been inflicted on them over the past one hundred years.” Hoberman argues that because athletes are among the most celebrated class of Black male figures, sport is taken as an accepted pursuit worthy of investment and support, whether from family or outside boosters.

This set of beliefs has not existed in the same way for females, whose motivations and sport participation patterns historically have differed from males (Eccles & Harold, 1991). Despite anecdotes of high-profile female business leaders crediting an athletic background – 55 percent of females in top management played college sports (Flores, 2013; Goudreau, 2011) – the notion of women’s athletics as a codified training ground for leadership and career success has been notably absent from the research literature. A recent field experiment by Vick and Cunningham (2018) examined the white raters’ (currently or previously employed in the fitness industry) judgment of employability of presumed Latina and Afri-

can American applicants. The researchers found applicants’ race and raters’ gender influenced recommendations to hire.

There is increasing anecdotal evidence that athletics confers on women particular skills and reflects a certain moxie (Lawless & Fox, 2013). This recognition has brought early training and support for girls’ athletics into view as a worthwhile investment in some but not all communities, with Black females having less access to athletic opportunities than their White counterparts (Pickett, Dawkins, & Braddock, 2012). In some communities, particularly those with scarce resources, families place so little value on girls’ athletic participation that schools have difficulty fielding teams for interscholastic competition because the girls are needed to babysit or perform domestic duties (Beets, Cardinal, & Alderman, 2010; Craddock et al., 2002; Thomas, 2009). One of many studies showing lower participation in sport by Black teen girls recognizes that while “Black girls had more favorable attitudes toward physical activity,” White girls had greater access to equipment, safer places to play, and greater physical activity self-efficacy (Felton et al., 2002). While the issue of access post-Title IX has focused on female participation overall, more recently there is more focus on disparities of access based on race (Pickett, Dawkins, & Braddock, 2012). It is because of uneven gender and race interfaces with athletics that we examine if the varsity athletic credential operates similarly across race and gender.

## **Signaling Theory and the Varsity College Sport Credential**

The theoretical background for our research is framed by signaling theory (Spence, 1973, 2002), originally proposed to explain how signals can be used to reduce information asymmetry between job candidates and employers communicating in the job market. Spence has argued that information shared in an economic transaction (between an employer and a job applicant) is imperfect, which can upset the normal market for the exchange of goods and services. He proposed that the applicant and the employer could get around the problem of asymmetric information by sending a signal that would reveal some piece of relevant information to the employer. Studies of signaling in the relationship between education and employment (see Balart, 2016; Connelly, Certo, Ireland, & Reutzel, 2011; Zheng, 2017), emphasize that an educational credential such as a college diploma is a meaningful signal of desirable employee characteristics.

When varsity athletics is listed on the resume, the job seeker is hoping to convey information that will signal to the potential employer that she has the necessary qualifications for the job, by indicating that she has made an investment to become qualified. However, a key issue is that the informational value of the athletic credential depends on whether employers, including those conducting the initial screening of candidates,

perceive varsity athletic experience to be linked with stronger job-relevant ability (Spence, 2002). Given that resumes of varsity athletes may lack obvious and traditional workplace experiences such as internships and summer jobs which can often conflict with training schedules, how do potential employers evaluate athletic participation in the context of a job application? In a study that manipulated three factors of collegiate athletes' resumes – gender, type of sport and leadership in the sport – raters perceived higher teamwork skills depending on the sport, stronger leadership skills for team captains and found female athletes more well-rounded and likable than male athletes overall and as having stronger teamwork skills than similar male athletes (Tanguay, Camp, Endres, & Torres, 2012). While this study considers only resumes of college athletes, we wanted to judge both the skills that raters perceived a candidate developed through varsity athletic participation and whether raters perceived an advantage over non-athlete candidates.

In this study, we examine (1) what leadership traits/skills recruiters look for in candidates, (2) whether a varsity athletic credential signals added qualification among candidates who have a college diploma, and (3) whether a varsity athletic credential signal operates similarly across gender and Black and White race when screening applicants for entry-level corporate management jobs.

## Method

### Participants

Human resource professionals were recruited at the National Association of Colleges and Employers conferences for human resource managers (85%) in 2011, at the Society for Human Resource Management in 2012, or responded to an email invitation posted at their place of employment (15%). The invitation was to complete a five-minute online survey for an academic research project on evaluating graduating college seniors for entry-level management-track jobs. The project was described as being conducted by College Research Collaborative, a neutral designation that minimized information that might create expectations among participants about athletics, gender, or race.

Participants were informed they would have early access to study results and could enter to win an iPad mini. Survey-takers who did not indicate any relevant experience in corporate recruitment and hiring were thanked for their interest and not allowed to proceed. Potential participants were 1,134; the analyses reported in this paper are based on 828 participants (73%) who reported having recruitment or hiring experience and who provided complete ratings and rankings (see Survey Procedure). The survey protocol and study procedures were IRB approved.

Demographic characteristics of the final analysis sample are given in Table 1. Participants were largely White (67%), female (73%), and had five or more

years' experience as a recruiter (76%). The leisure activity was coded to indicate an interest in sport either as a spectator/fan (e.g., I like to watch NBA games) or a participant (e.g., I play softball in my neighborhood league). The rationale for asking about leisure activity was to examine whether any association with a participant's personal relationship to athletics would influence how they viewed varsity athletes as job candidates. Ten percent reported enjoying a sport-related leisure activity.

### Survey Procedure

The first question on the survey asked participants to select, from among list of eight job-relevant leadership traits/skills, the top four qualities they considered important when deciding to contact a candidate for follow-up for an entry-level management track position. These qualities (results-driven, follows through on tasks, able to work in a team, critical thinking, shows initiative, transferable skills, and flexibility/adaptability) were culled from research on what corporate employers look for in recent college graduates (Peter D. Hart Research Associates, 2013; Graduate Management Admissions Council, 2012; Peter D. Hart Research Associates, 2006) and vetted in two focus groups of corporate recruiters.

Participants were then asked to rate four randomly generated candidate profiles on each of their top four selected qualities along a scale from 1 (low) to 4 (high). The proportions of respondents selecting each of the eight qualities and

the average rating participants gave to each quality are shown in Table 1. Once these ratings were completed, the participants were asked to rank order the candidates for a first interview invitation.

The last part of the survey asked about the participants' own race/ethnicity, gender, and their two favorite leisure time activities, and whether the participant held a managerial role.

### **Experimental Design**

This research was designed as a correspondence study (Pager, 2007); participants were presented with randomly generated profiles of fictional applicants. Leadership experience (athletic or non-athletic activity as an extracurricular), gender, and race were randomly varied in the profiles (see Appendix for details). Because the combination of elements in the fictitious profiles was randomly generated, both survey takers and researchers were blind to the experimental condition of each survey completed, meeting the standard of double-blind experimental design (see Rosenthal, 1969).

The choice of particular athletic activities, track and basketball, was guided by a systematic search for sports in which both women and men and Black and White athletes compete, and which are largely familiar in mainstream North American culture. The search ruled out sports which are predominantly male, such as football and baseball; predominantly White, such as golf, tennis, ice hockey, rowing, or swimming; or relatively unfamiliar such as badminton, riflery,

fencing, or water polo. Extracurricular activities that reflect leadership experience in a non-athletic activity included Editor-in-Chief of the newspaper or representative to the Board of Trustees. Gender was signaled by first name, a practice that has been widely used in correspondence studies (e.g., Bertrand & Mullainathan, 2004). All names were selected from a list of most frequently given names 20 years prior to the date of data collection. The lists revealed some overlap in Black and White names, but none by gender. In this study, we chose to signal race primarily by specifying extracurricular activity containing reference to Black culture, an approach used successfully by other researchers (Bendick Jr, Jackson & Reinoso, 1994; Dovidio & Gaertner, 2004). The profiles included college major (business, psychology, communications, political science), GPA (ranging from 3.30 to 3.39 overall and 3.40 to 3.46 in the major), research experience, previous employment, and career interests.

### **Pilot Testing**

The operationalization of the experimental design elements resulting in the profiles of fictitious candidates emerged from consultations with colleagues in a graduate management degree program, which yielded a draft online survey. The survey was pilot tested in two sequential focus groups of human resource professionals with experience in recruitment and hiring, where feedback from the first focus group led to further revisions

Table 1

*Rater Characteristics (N = 828)*

Gender	<i>n</i>	%		
Female	596	73		
Male	223	27		
Missing	9	<1		
Race				
White	555	67		
Black	83	10		
Asian	41	5		
Hispanic	58	7		
Missing	91	11		
Role				
Recruiting experience				
1 = < 5 years	199	24		
2 = 5-7 years	132	16		
3 = 8-10 years	99	12		
4 = > 10 years	397	48		
Missing	1	<1		
Leisure activities				
Sport related	83	10		
Non-sport related	743	90		
Missing	2	<1		
Managerial experience				
Manager	389	47		
Non-manager	438	53		
Missing	1	<1		
Leadership Qualities	<i>n</i>	%	<i>M</i>	<i>SD</i>
Ability to work in a team	595	72	3.34	0.81
Shows initiative	554	67	3.22	0.77
Flexibility/Adaptability	470	57	2.92	0.81
Critical thinking	454	55	2.80	0.86
Results-driven	422	51	3.00	0.89
Transferable skills	297	36	2.71	0.87
Follows through on tasks	289	35	3.09	0.79
Organizational skills	231	28	3.02	0.83

*Note.* Because we asked respondents to select the four most important qualities they sought in a candidate, sample sizes vary across qualities. Proportion of the full sample who selected a given quality are provided.



used for the second. We asked a direct question about respondents' actual involvement in college athletics in the first focus group. The feedback we received indicated that the demand characteristics of such a question tipped off respondents, to the centrality of varsity sport participation in the study. In the second focus group we asked a broader question about interest and participation in sport, which did not arouse suspicion that we were interested in the impact of a varsity athletic credential. The feedback also showed that the signals of gender, race, and varsity leadership experience worked as intended; first names signaled gender, extracurricular activities signaled race, and athletic v. non-athletic leadership experiences were viewed to reflect similar stature. Focus group participants recommended limiting the number of leadership-related qualities to eight and profiles to four. They also suggested that profiles include previous employment experience and research experience, in addition to GPA, college major, and career interest to make them realistic applicants to an entry-level management-track job. We adjusted our profile design based on this feedback.

### **Analysis Framework**

Three analysis models were used to examine the effect of sport participation on the ratings (Model 1) and ranking (Model 2) of applicant profiles and the degree to which sport participation effects differed across corporate recruiters (Model 3). All three were multilevel

models; data from four applicant profiles (referred to as the "Within" level of analysis) are provided by each recruiter respondent (referred to as the "Between" level of analysis). In Models 1 and 2, sport participation effects were estimated at the Within level (applicant profile), merely conducting a statistical adjustment to account for the nested data. In Model 3, sport participation effects were estimated at the Between level (recruiter respondent). In other words, the impact of sport participation on ranking and rating qualities of an applicant profile was modeled as being dependent on who evaluated the profile. Recruiter respondent's gender, race/ethnicity, experience as a recruiter, interest in sport as a leisure time activity, and managerial experience were used to determine if there were systematic differences in the evaluation of applicant profiles.

In all models, the order in which a profile was presented to the recruiter respondent and the direct effects of applicant profile gender and race (independent of the interaction of gender and race with sport participation) were included as covariate effects. While only those respondents who ranked and rated all four profiles were included in the study, there was intentional missing data in the rating of leadership qualities due to the design of the survey; respondents not selecting a given quality among their top four were not asked to rate profiles for this quality. Unintentional missing data also occurred in the participants' characteristics (gender, race, manageri-

al role in recruitment, and leisure time activities). Therefore, Model 3 is estimated with list-wise deletion when recruiter respondent characteristics were absent. Depending on the distribution of the outcome variable, logistic regression (top-ranked) or linear regression models (leadership qualities) were estimated.

## Results

### Ranking for Callback (Model 1)

The results of Model 1, which predicts the likelihood of being ranked highest for a callback, are shown in Table 2. There were no significant direct ( $B = 0.03, SE = 0.08, ns$ ) or interaction effects of sport participation with the 4-way

combination of gender and race ( $B = 0.01, SE = 0.33, ns$ ) signaled in the applicant profile.

While not central to our research questions, the effects of covariates are worthy of note. The order of presentation and race both had direct effects on the rank order of the candidate profiles. Compared with the candidate presented last, candidate profiles presented first ( $B = 0.45, SE = 0.10, p < .001$ ) and second ( $B = 0.27, SE = 0.10, p < .01$ ) but not third ( $B = -0.05, SE = 0.11, ns$ ) had a significant advantage in ranking. Profiles signaling a Black candidate, regardless of athlete status, were more likely to be

Table 2

*Results of Multilevel Logistic Regression Model of the Effect of Sport Participation on the Likelihood of Receiving the Top Rank for an Interview Callback (Model 1)*

	Ranked #1		
	<i>N</i>	<i>B</i>	<i>SE</i>
Within	3202		
Order 1		0.45	0.10 ***
Order 2		0.27	0.10 **
Order 3		-0.05	0.11
Female		0.08	0.08
Black		0.23	0.08 **
Athlete		0.03	0.08
Female by Black		-0.12	0.15
Athlete by Female		-0.15	0.17
Athlete by Black		-0.24	0.17
Athlete by Female by Black		0.01	0.33

*Note.* All respondents performed the ranking task. Intercepts, residuals, and Between level estimates are not shown but are available upon request.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ranked highest than those not signaling Black race.

### **Ratings of Leadership Qualities (Model 2)**

The results of Model 2 are given in Table 3. Apart from Flexibility and Adaptability, all leadership qualities were associated in some way with varsity sport participation. Overall, sport participation effects were largely direct; sport participation predicted six of the eight leadership qualities. Only two of the eight qualities had significant 2-way interaction effects of sport participation and race, regardless of gender. There were no 2-way interaction effects of sport participation with gender and no 3-way interaction effects of sport participation, gender, and race. In this section, significant effects are discussed and predicted values of interaction effects are presented to aid interpretation. A summary of the overall effects of sport participation in an applicant's profile is presented in Figure 1.

The most frequently selected leadership quality, Ability to Work in a Team, was strongly predicted by varsity sport participation in a candidate's profile ( $B = 0.39$ ,  $SE = 0.03$ ,  $p < .001$ ). This effect did not differ across the gender or race of the applicant profile.

Similarly, sport participation predicted higher ratings of being Results-driven ( $B = 0.20$ ,  $SE = 0.04$ ,  $p < .001$ ). However, a negative interaction between sport participation and race effectively cancelled out the distinction between athletes and non-athletes for Black applicants ( $B =$

$-0.18$ ,  $SE = 0.08$ ,  $p < .05$ ). Rating of this quality predicted by the model results yielded the following group means on the 4-point scale: (1) White athletes = 3.04, (2) Black non-athletes = 2.95, (3) Black athletes = 2.89, and (4) White non-athletes = 2.84.

There are a number of qualities for which athletes were ranked lower than non-athletes: Follow-through on Tasks ( $B = -.15$ ,  $SE = 0.04$ ,  $p < .001$ ), Organizational Skills ( $B = -0.37$ ,  $SE = 0.04$ ,  $p < .001$ ), Transferable Skills ( $B = -0.19$ ,  $SE = 0.04$ ,  $p < .001$ ), and Critical Thinking ( $B = -0.20$ ,  $SE = 0.03$ ,  $p < .001$ ). In each of these models, there were no significant interaction effects.

Despite having no direct effect of sport participation, there was a significant interaction effect of sport participation with race predicting Shows Initiative (direct effect:  $B = -0.04$ ,  $SE = 0.03$ , *ns*; sport participation by race interaction:  $B = -0.13$ ,  $SE = 0.06$ ,  $p < .05$ ). Predicted values resulting from the model yield the following group means: (1) Black non-athletes = 3.22, (2) White non-athletes = 3.09, (3) White athletes = 3.05, and (4) Black athletes = 3.04.

Apart from sport-related effects, covariate characteristics also predicted leadership qualities. Profiles presented first and second but not third were rated higher on the Ability to Work in a Team than those presented last. First-presented profiles received higher ratings than last for Follow-through on Tasks and Shows Initiative but received significantly *lower* ratings on Transferable Skills and Critical

Table 3

*Multilevel Linear Regression Results: Effect of Sport Participation and Interactions with Gender and Race on Leadership Qualities (Model 2)*

	Ability to work in a team			Flexibility/Adaptability			Follows through on tasks			Organizational skills		
	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>
Within	2388			1876			1152			916		
Order 1		0.20	0.04 ***		-0.05	0.04		0.12	0.05 *		-0.05	0.07
Order 2		0.09	0.04 *		-0.05	0.05		-0.01	0.06		0.05	0.06
Order 3		0.06	0.04		0.00	0.05		0.03	0.05		0.01	0.07
Female		-0.05	0.03		-0.01	0.03		0.00	0.04		0.06	0.05
Black		0.05	0.03		0.01	0.03		0.16	0.04 ***		0.08	0.05
Athlete		0.39	0.03 ***		0.02	0.03		-0.15	0.04 ***		-0.37	0.04 ***
Female by Black		-0.11	0.07		-0.14	0.07 *		-0.01	0.08		-0.01	0.09
Athlete by Female		0.00	0.07		-0.03	0.07		-0.01	0.09		0.01	0.11
Athlete by Black		-0.09	0.06		-0.07	0.07		0.02	0.08		0.07	0.11
Athlete by Female by Black		0.17	0.12		-0.01	0.14		-0.23	0.17		-0.14	0.20

*Note.* These models are based on data from respondents who selected these qualities as among their top four. Intercepts, residuals, and between level estimates are not shown but are available upon request.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3 (cont.)

*Multilevel Linear Regression Results: Effect of Sport Participation and Interactions with Gender and Race on Leadership Qualities (Model 2)*

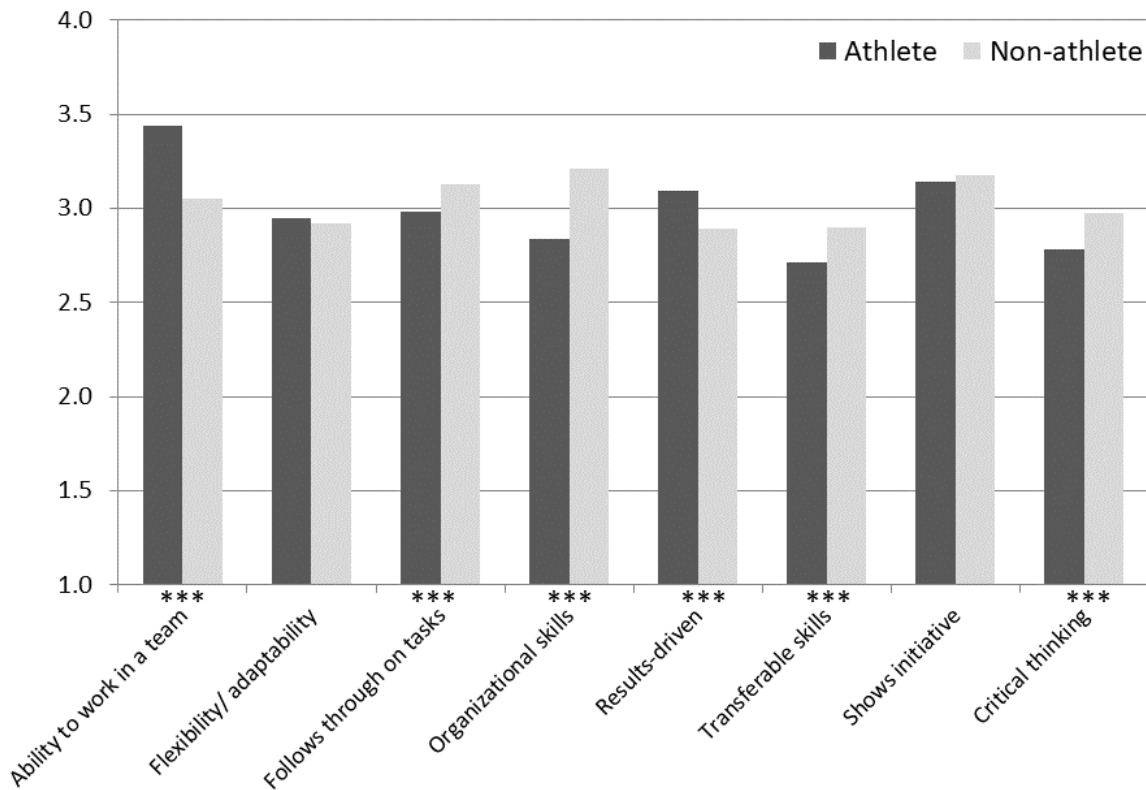
	Results-driven			Transferable skills			Shows initiative			Critical thinking		
	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>
Within	1684			1176			2228			1828		
Order 1		-0.10	0.05		-0.23	0.06		0.13	0.04		-0.14	0.05
Order 2		0.06	0.06		-0.09	0.06		0.07	0.04		-0.08	0.05
Order 3		0.06	0.05		-0.05	0.06		0.02	0.04		-0.10	0.05
Female		-0.02	0.04		-0.14	0.05		0.02	0.03		0.03	0.04
Black		0.10	0.04	*	0.12	0.04	**	0.18	0.03	***	0.14	0.04
Athlete		0.20	0.04	***	-0.19	0.04	***	-0.04	0.03		-0.20	0.03
Female by Black		0.02	0.08		0.01	0.09		-0.10	0.06		0.01	0.07
Athlete by Female		-0.02	0.08		-0.09	0.09		-0.01	0.06		-0.05	0.07
Athlete by Black		-0.18	0.08	*	-0.08	0.10		-0.13	0.06	*	0.04	0.07
Athlete by Female by Black		-0.14	0.17		-0.12	0.19		-0.02	0.12		0.03	0.14

*Note.* These models are based on data from respondents who selected these qualities as among their top four. Intercepts, residuals, and Between level estimates are not shown but are available upon request.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 1

*Predicted Values of Leadership Attributes by Applicant's Athletic Status.*



Thinking. Profiles signaling a female candidate received lower ratings of Transferable Skills than did those signaling a male candidate. Profiles signaling a Black candidate received higher ratings of Follow-through on Tasks, Results-driven, Transferable Skills, Shows Initiative, and Critical Thinking. Black candidates received higher ratings on Results-driven ( $B = 0.10, SE = 0.04, p < .05$ ).

### Participant Differences (Model 3)

The results of Model 3 are given in Table 4. The relationship between sport participation and most outcomes, leadership qualities and rank ordering for a callback, showed no significant variability across respondents. In other

words, the effects discussed in relation to most Model 2 leadership qualities were uniform across respondents. However, three of the eight qualities had significant variability in ratings of athletes' leadership across recruiter respondents even after controlling for participants' gender, race, experience level, managerial role in recruiting, and involvement in a varsity sport: Follow-through on Tasks, Organizational Skills, and Transferable Skills. We examined the degree to which personal characteristics (Between level of analysis) could be used to predict how a respondent rated athletes and non-athletes on these outcomes (Within level of analysis).

Table 4

*Multilevel Linear Regression Results: Differences in Effect of Sport Participation on Leadership Qualities (Model 3)*

	Follows through on tasks			Organizational skills			Transferable skills		
	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>	<i>n</i>	<i>B</i>	<i>SE</i>
Within	1148			908			1168		
Between	287			227			292		
Athlete v. Nonathlete									
Female		0.00	0.00		0.00	0.00		0.00	0.00
Black		0.28	0.16		0.33	0.16	*	-0.02	0.15
Asian		0.33	0.21		0.06	0.21		0.13	0.18
Hispanic		0.05	0.19		0.02	0.29		-0.13	0.30
Experience		-0.03	0.04		-0.03	0.05		-0.02	0.04
Leisure		0.06	0.16		-0.19	0.19		0.18	0.22
Manager		0.03	0.10		0.12	0.12		0.04	0.09

*Note.* These models are based on data from respondents who selected these qualities as among their top four. Sample sizes represent a subset of the respondents choosing a given leadership quality. Less than 1% of the respondents indicated that they were bi- or multi-racial; these were omitted from the rater-level models. All covariates (effects on outcomes independent of varsity sport participation in an applicant profile) were included at the Within level (order of presentation, applicant profile gender and race) and Between level (respondent gender, race/ethnicity, recruiting experience, sport as a leisure time activity, and managerial experience). These estimates are similar to those reported in Table 3 and are not reported here but are available upon request.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Black race predicted a stronger effect of sport participation on Organizational Skills ( $B = 0.33, SE = 0.16, p < .05$ ). That is, while both Black and White respondents rated athletes lower than non-athletes, this practice is less marked among Black participants. Predicted values obtained from model results produced the following group means of Organization Skills on a 4-point scale: (1) Black recruiters rating non-athlete applicants = 3.57, (2) White recruiters rating non-athlete applicants = 3.43, (3) Black recruiters rating athlete applicants = 3.39, and White recruiters rating athlete applicants = 2.92. No respondent characteristics predicted variability across respondents regarding athlete versus non-athlete differences in ratings of Follow-through on Tasks or Transferable Skills.

### Discussion

The results of this study suggest that recruiters presume that participation in college-level sports gives candidates for entry-level management positions an advantage with respect to teamwork skills, a key leadership quality considered in recruitment.

However, recruiters appear to view athletes to be weaker than non-athlete candidates in a number of other leadership qualities. They rated athletes as weaker critical thinking and organizational skills (although the latter attribution was less pronounced among Black recruiters). Recruiters also seemed to presume that athletes were weaker in following through on tasks and had fewer

transferable skills than non-athletes.

Our study does not support the hypothesis that an athletic credential is a factor in predicting which candidate will ultimately be called back for an interview. Given mixed findings regarding leadership qualities, a null finding might be expected. Perhaps recruiters did not believe that varsity athletes were more qualified *overall* than candidates who held other leadership positions.

This null finding, obtained in a general population of corporate human resource professionals experienced in recruitment (albeit largely limited to professionals who attend human resource conferences), contrasts with Chalfin and colleagues' (2015) results showing employers who seek student athletes as potential hires favor an athletic credential presumably because they believed student athletes would make good employees. This contrast may be due in part to the sample of recruiters who volunteered to participate in this study, only 10% of whom reported an interest in sport either as a participant or a fan. Our finding is consistent with signaling theory, that the sender and receiver of the signal must share an understanding of its value (Spence, 2002). In other words, while employers in the Claffin et al. study sought student athletes because they viewed an athletic credential to be signaling positive employee qualities, recruiters in our sample did not see athletics as signaling special qualities relevant to employment. Implication of our finding is that not all recruiters may value an athletic



ic credential – student athletes are likely to gain an advantage not from any and all recruiters but may do so from those who value an athletic credential. The findings reveal a key rub in the cultural currency of college athletic participation, which is valued, invested in and pursued by families with the broad (but untested) belief that it will pay off. There are holes in that presumption because the signaling for an athletic credential may depend on the recruiters' personal experiences and interests. Contrary to popular perception, it may not always be an obvious job-seeking advantage.

Recruiters in this study did perceive some small differences between Black and White athlete candidates. They believed Black athlete candidates, regardless of gender, to possess more initiative than Black non-athletes, White athletes, and White non-athletes. Recruiters considered White athletes, regardless of gender, to be more results-driven than all non-athletes, Black or White. Recruiters perceived White athletes to be more likely than White non-athletes to be results-driven, a difference not evident for Black candidates.

In view of the emergence of athletics as a socially sanctioned activity for girls and women, the absence of a gender difference in how an athletic credential was viewed by recruiters was unexpected. Male athletes appear to fare no more favorably than female athletes in the eyes of recruiters. This suggests that the popular tendency to presume a greater payoff for male athletes than for female athletes

may not be accurate in terms of gaining initial access to a corporate career. This hypothesis is particularly relevant to contemporary university graduates because these data represent a large and widespread sample of corporate recruiters.

Although not a focus of the research, our study shows a significant positive effect of race on candidate ranking for a call-back, counter to Bertrand and Mullainathan's (2004) findings that names signaling White race (Greg & Emily) received 50 percent more call backs from employers compared to names signaling Black race (Jamal & Lakisha). It is difficult to draw conclusions about the interpretation of race effects because the distinctively Black names Bertrand and Mullainathan used might also evoke in recruiters a signal of lower socioeconomic status as Fryer Jr. and Levitt (2004) argued. In the current study, our focus is on the signaling effects of being a varsity athlete, not on the signaling effects of race or gender outside of the context of sport participation. As such, we make no claims that the sport participation by race interaction effects apply equally across socioeconomic statuses.

This study does not address possible signaling differences between basketball and track & field. We specifically sought differently-situated sports – basketball and track & field – that are played by both male and female athletes, that could be differentiated as team vs. individual sports, and which did not require expensive equipment and access to elite places

to develop skills (as opposed to golf and skiing).

Another finding, again not a focus of the research, had to do with order in which profiles were presented. Any profile that was randomly chosen to be presented first or second was more likely to receive a high ranking for a call back. This finding reflects the primacy effect of impression formation research, which is a common cognitive bias that disproportionately increases the salience of stimuli presented first or second (see Anderson & Barrios, 1961; Jones & Goethals, 1972). It appears that in our experimental situation, perhaps reflecting behavior in real-life screening situations, recruiters were able to better retain and value the first two profiles they are asked to read before a degree of fatigue set in.

### **Limitations**

Our study design limits athlete-candidate profiles to two sports, track and basketball, and may reflect specific perceptions related to these sports and may not necessarily extend to perceptions about athletes overall. Studies are needed to examine how sports with a professional playing option compare with those not likely to lead to a continued career path as an athlete.

The study design also does not explore how candidates of other races or ethnicities (e.g., Hispanic, Asian, Native American) might be viewed. Similarly, the recruiters were asked to screen candidates for access to entry-level corporate jobs so results may not generalize

to non-corporate job opportunities. It is also important to note that this study examined whether a varsity athletic credential provides candidates an advantage in making the first cut of the screening for hiring process executed by corporate recruiters or hiring managers but does not inform us how athlete candidates might fare in an interview with those making actual hiring decisions.

Our sample sizes of Hispanic and Asian study participants were too small to draw valid conclusions about differential attributions across recruiters' race and ethnicity. Also, participants in this study were self-selected. Therefore, further study is needed to gauge the degree to which our findings generalize beyond this population of recruiters.

The study design itself offered an inherent challenge. Neumark (2012) warns that correspondence studies in which attributes relevant to the outcomes that are not varied in the experimental design may produce a bias in effects. In our case, GPA, major, career interests, and research and work experience were purposefully similarly strong across profiles. While varying the strength of these aspects would have allowed us to apply Neumark's recommendation to reduce effect bias, we believe that a short list of candidates to a leadership program will all have strong applications in practice and that varying these elements to reflect a range of applicant quality strength introduces evaluation that does not mimic the reality of corporate recruitment.

## Implications and Future Directions

There are important areas of inquiry to be addressed in future research. In particular, it would be helpful to study *how* college athletes use their leadership experiences and skills to gain a foothold in careers. Is there a network system that operates? There has been some research to suggest the clustering of athletes in particular majors (Schneider, Ross, & Fisher, 2010). While this is most often discussed in connection to football players, does it happen more broadly among other athletes and might it offer entry into formal or informal career networks? It is possible that athletes who make the first cut may be more successful in subsequent interviews than non-athletes, which is an empirical question that needs to be studied. It is also possible that athletic training and the leadership skills acquired (such as persistence, ability to deal with failure, etc.) may make candidates ultimately successful in a secured position without necessarily offering them a credential boost in landing a first interview. In addition, research by Rivera (2012) found that recruiters in elite service firms do not so much conduct skill sorting when assessing candidates as they do engage in cultural matching. In corporate cultures where participation in sport is valued, such as those studied by Chalfin and colleagues (2015), an athletic credential may have greater value.

Our research focused on the initial screening process for access to entry-level management-track jobs. It would be useful to explore if there are different

qualities that lead to actual hiring decisions and corporate success along a continuum of position levels. Might athletic experience, in other words, be more salient later in one's career? Alternatively, while business leaders commonly praise athletic attributes, our findings show that those at the gatekeeping level may not value sport participation in the same way, which may suggest that emphasis placed on certain leadership skills are understood differently at different corporate levels. Amateur athletes who expect to demonstrate leadership to employers based on collegiate sport experience should break down the elements and qualities of that experience. Recruiters may not intuit a transfer of skills so athletes should be prepared to explicitly catalogue what they are and how they were gained, much as is common in listings of workplace responsibilities. Similarly, recruiters may want to ask athletes in interviews about what skills they gained that have shaped their mindsets, work practice and ethics. In other words, how might the dedication to an amateur sport inform their professional lives? HR professionals who fail to delve into a college athletes' experience may miss the very candidate they may be seeking.

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## Appendix

### *Characteristics Used to Randomly Generate*

#### *Candidate Profiles*

- Elizabeth Reid
- Christopher Smith
- Elijah Davis
- Faith Banks
- Kayla Williams
- Amanda Phillips
- Michael Burke
- Jeremiah Taylor
- 2011 Bachelor of Arts degree in Psychology; 3.35 overall GPA, 3.44 in the major
- 2011 Bachelor of Arts degree in Communications; 3.35 overall GPA, 3.40 in the major
- 2011 Bachelor of Arts degree in Political Science; 3.37 overall GPA, 3.41 in the major
- 2011 Bachelor of Arts degree in Business Administration; 3.34 overall GPA, 3.45 in the major
- 2011 Bachelor of Arts degree in Psychology; 3.39 overall GPA, 3.42 in the major
- 2011 Bachelor of Arts degree in Communications; 3.30 overall GPA, 3.46 in the major
- 2011 Bachelor of Arts degree in Political Science; 3.32 overall GPA, 3.41 in the major
- 2011 Bachelor of Arts degree in Business Administration; 3.31 overall GPA, 3.42 in the major
- Senior thesis on “Revealing Individual Differences in Decision-Making Behavior.”
- Capstone project researched the effect of media reviews on consumer movie-going habits in four major U.S. cities
- Senior thesis on how celebrity endorsements and financial donations shape voter opinion of political candidates
- Capstone project studied how environmentally friendly practice can enhance or hurt a company’s bottom line
- Capstone project investigated ways to apply psychological research on motivation to managing the diverse workforce of a model service company
- Senior thesis on effective inter-office e-communication strategies
- Capstone project worked on a team that polled employees of three service-based companies on the value of various onsite benefits at workplaces
- Senior thesis on effective e-communication strategies for a diverse workforce
- Four-year member of the Varsity Track & Field Team; Top 400m sprinter and the anchor of the 4x400 relay team



- Forward on the Varsity Basketball team; 3-year starter and top rebounder
- Point guard for the Varsity Basketball team; top free throw shooter and 3-year starter
- Top hurdler at 110 and 300 meters on the Varsity Track & Field Team
- Serves as Editor-in-Chief of the Campus Press Herald
- Currently serves as Film Society president. Last May, organized a popular film series to raise student awareness of global carbon emissions
- Member of the college's residence life staff since sophomore year; currently head resident of the dormitory