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Paper Title Fostering Student-Athletes' Sense of Belonging: An Examination of Background Characteristics, Student Involvement, and Campus Climate

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Abstract

Although higher education research underscores the importance of sense of belonging (SoB) for students' academic success and degree completion, research on the development and impact of SoB for student-athletes is limited. Informed by Astin's (1993) Input-Environment-Output (I-E-O) model and Tinto's (1994) theory of student departure, this study seeks to expand existing scholarship by examining the influence of academic/social experiences and college climate on student-athletes' SoB. Analysis of NCAA Growth, Opportunity, Aspirations and Learning of Students in College (GOALS) survey data obtained from a sample of Division I student-athletes revealed significant differences in SoB across gender, race/ethnicity, and college sport. Additionally, numerous academic and social experiences, as well as team and campus climate dimensions, are associated with student-athlete SoB.

Fostering Student-Athletes' Sense of Belonging: An Examination of Background Characteristics, Student Involvement, and Campus Climate

Retaining student-athletes in good academic standing has become a major issue of importance for the National Collegiate Athletic Association (NCAA) and Division I member institutions, bolstered by public calls for reform (e.g., Sperber, 2000, 2002) and heightened concern over low graduation rates for student-athletes in high profile sports (e.g., football and men's basketball), poor academic performance, and student-athletes leaving college before degree completion (Mangold, Bean, & Adams, 2003). In 2003, the NCAA instituted the Academic Progress Rate (APR) in 2003 as a standard for holding Division I athletic departments and institutions accountable for improving student-athlete academic performance and retention. However, APR has not consistently produced increases in measures of student-athlete academic welfare, including persistence to graduation (Paskus, 2012).

To address the issue of student-athlete retention and persistence, this study examined factors influencing student-athletes' sense of belonging (SoB). Student-athletes represent a unique population in higher education, particularly on campuses with big-time athletic programs (e.g., Adler & Adler, 1991; Gaston-Gayles, 2004; Watt & Moore, 2001). Unlike their peers, student-athletes must commit substantial time each day to athletic requirements, in addition to meeting personal, social, and academic demands. Fulfilling all of their obligations is a weighty challenge (Adler & Adler, 1991; Comeaux & Harrison, 2011; Jolly, 2008); the time required to do so often leaves student-athletes feeling isolated from their non-athlete counterparts and excluded from valuable networking opportunities with faculty and peers. Such limited academic and social engagement presents challenges for integration into the college environment (Astin, 1993; Gayles & Hu, 2009), which subsequently impacts persistence and retention (Tinto, 1994). Relatedly, academic and social integration influence student-athletes' SoB on campus, and this can also impact their likelihood of persisting to graduation (Hoffman, Richmond, Morrow, & Salomone, 2002).

Purpose of the Study

Although researchers have adopted various approaches to examine the academic challenges of intercollegiate athletes (e.g., pre-college factors, educational experiences, social engagement, and

sport demands), the question remains: Why do student-athletes choose to leave college or transfer to another institution before degree completion? One possible explanation that has yet to be fully explored in the literature involves student-athletes' sense of belonging (SoB). Specifically, the current study addresses the following research questions:

1. Are there differences in reported sense of belonging across race, gender, and sport?
2. To what extent do perceived faculty and student attitudes toward student-athletes, academic and social involvement, and perceptions of campus and team climate influence student-athletes' sense of belonging after controlling for background characteristics?

This study contributes to the literature by identifying specific college experiences that lead to positive student outcomes. Furthermore, it lays a foundation for future exploration of how SoB can be enhanced to improve retention and persistence for student-athletes.

Literature Review

Scholars have devoted considerable attention to sense of belonging (SoB) among college students, due to its relationship with important outcomes such as retention, persistence, and academic success (Hausmann, Schofield, & Woods, 2007; Hoffman et al., 2002; Hurtado & Carter, 1997). *Sense of belonging* refers broadly to students' perceived sense of fit within the college environment, and "feelings of connection and identification or isolation and alienation within their campus community" (Johnson, 2012, p. 337). The construct includes both cognitive and affective dimensions, meaning that students evaluate their SoB within a given context and subsequently experience emotional or attitudinal responses to those assessments (Bollen & Hoyle, 1990; Hurtado & Carter, 1997). Further, a positive relationship between academic and social integration and SoB has been reported in the literature (Hausmann et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson, 2012).

Several studies have examined the relationship between institutional climate and SoB (e.g., Hoffman et al., 2002; Hurtado & Carter, 1997; Mallet et al., 2011). Social and academic support and classroom comfort, informed by positive peer relationships and perceptions of faculty, are important to fostering students' SoB (Hoffman et al., 2002). This research is notable in light of evidence suggesting that faculty often have negative perceptions of student-athletes that can affect performance and engagement in the classroom (Baucom & Lantz, 2001; Engstrom, Sedlacek, & McEwen, 1995). Additionally, research reveals that perceived campus racial climate can significantly influence SoB for students of color (Hurtado & Carter, 1997; Johnson, 2012). This is relevant to the current study given the number of student-athletes of color, among them African American males who are overrepresented in college sports (Harper, Williams, & Blackman, 2013) and for whom difficulty connecting with peers and faculty is common (Hurtado & Carter, 1997; Johnson, Soldner, Leonard, Alvares, Inkelas, Rowan-Kenyon, & Longerbeam, 2007).

Theoretical Framework

Astin's (1993) Input-Environment-Output (I-E-O) model and Tinto's (1994) theory of student departure serve as guiding frameworks for data analysis (see Figure 1). Astin's (1993) model has been widely applied in higher education to better understand how students' background characteristics (I) and college experiences (E) jointly shape their learning and personal development (O), both directly and indirectly. Thus, we were careful to include relevant inputs and environmental factors as possible predictors of sense of belonging. Tinto's (1994) model guided our attention toward two important aspects of the college environment: academic and social integration. The model suggests that likelihood of persistence in college increases when students have positive interactions with peers and faculty, experience academic success, and are engaged in campus activities. Conversely, negative experiences often lead to a lack of integration and, in some cases, student departure from an institution prior to degree completion (Tinto, 1994). We were therefore interested in the particular social and scholarly activities of student-athletes that fostered meaningful engagement within the college environment, as they have the capacity to enhance desirable student outcomes, including retention and persistence (Pascarella & Terenzini, 2005).

Methods

Data

Data for this study were derived from a sample of 4,453 Division I student-athletes collected as part of the NCAA Growth, Opportunity, Aspirations and Learning of Students in College (GOALS) research initiative. The GOALS survey included questions related to student-athletes' academic, athletic, and social experiences; their health and well-being; and their time commitments (National Collegiate Athletic Association [NCAA], 2007). The current study was designed to explore the extent to which various personal characteristics, college experiences, and perceptions of the campus climate influence student-athletes' sense of belonging.

Variables

The dependent variable in this study, sense of belonging (SoB), reflects individuals' perceptions of how well they fit within, and feel connected to, their college environment. SoB was measured as a composite variable constructed using three items measured on a seven-point scale (Strongly Agree/Very Positive to Strongly Disagree/Very Negative): "If I could start over again, I still would attend this school"; "So far in college, how do you feel about...Your relationships with the faculty?"; and "So far in college how do you feel about...Your overall college academic experience to this point?"

Informed by extant research, several independent variables were used in this study. Student-athletes' background characteristics included six dummy-coded variables: females, students of color, full (athletic) scholarship recipients, first-generation college students, off-campus residents, and revenue sport student-athletes. Class standing, self-reported college GPA (A, B, and C or below), major, and a two-item composite measure reflecting student-athletes' sense of athletic identity were also included as background characteristics. In light of existing research on the stigmas that intercollegiate athletes often encounter during college (e.g., Baucom & Lantz, 2001; Engstrom, Sedlacek, & McEwen, 1995), we also included a composite measure of

perceived faculty and student attitudes toward student-athletes. The study's guiding frameworks suggest that participation in curricular and co-curricular activities can enhance academic and social integration, which in turn improve persistence in college (Astin, 1993; Tinto, 1994). Therefore, the model includes measures of academic and social engagement. It also includes variables measuring student-athletes' perceptions of institutional climate and team climate. The climate variables reflect perceptions of inclusivity, appreciation toward diverse others, and diversity-related behaviors at the team and campus levels. (See Table 1 for a complete list of variables.)

Data Analysis

To understand the ways in which personal characteristics, college experiences, and perceptions of campus climate impact student-athletes' sense of belonging, we employed hierarchical multiple regression. We ensured that results were representative of the NCAA Division I student-athlete population, by including a weighting variable in our analysis.

Results

The analytic sample included 4,453 Division I student-athletes. To answer the first research question, we conducted t-tests comparing (a) White student-athletes and student-athletes of color, (b) male and female student-athletes, and (c) revenue sport and non-revenue sport student-athletes on sense of belonging (SoB). Females ($M = 5.47$, $SD = 1.14$) had significantly higher levels of SoB than males ($M = 5.14$, $SD = 1.43$), $t(7625) = -10.32$, $p < .001$. The SoB reported by White students ($M = 5.50$, $SD = 1.03$) was significantly higher than that of student-athletes of color ($M = 5.22$, $SD = 1.19$), $t(6769) = 9.79$, $p < .001$. The results also indicate that non-revenue sport athletes ($M = 5.38$, $SD = 1.21$) experience a significantly higher SoB on campus than do their revenue sport peers ($M = 4.97$, $SD = 1.59$), $t(7625) = 12.15$, $p < .001$.

To address the second research question, we used regression analysis to examine the influence of background characteristics, academic and social experiences, and institutional and team climate on overall SoB for student-athletes (see Table 2). The primary findings from the model indicate that two background characteristics matter most to SoB: grade point average and student-athletes' athletic identity, which was negatively related to SoB. In other words, student-athletes who identified themselves as an athlete more than a college student reported lower levels of SoB. Several specific academic activities were positively associated with SoB, including participation in classroom experiences, academic discussions with peers and professors, internships, and group projects. Two types of social experiences had a positive relationship to SoB—participation in campus sporting events and service activities—while others (e.g., participation in hobby-related groups) negatively impacted SoB. Perhaps the most interesting finding for the study was the extent to which institutional and team climate mattered to SoB. Both institutional climate and team climate were significant in the final model and together explained an additional 14% of the variance above and beyond background characteristics and academic and social experiences.

Discussion and Implications

Postsecondary institutions and NCAA constituents have a vested interest in the success of student-athletes within and outside their college sport experiences. In line with the mission and values of higher education it is imperative that higher education provides the support and opportunities necessary to prepare student-athletes for personal and professional journeys toward graduation and beyond. The results of this study underscore that these are complementary goals. It appears that student-athletes' sense of belonging (SoB) is enhanced when they feel accepted and engaged above and beyond their identity as athletes on campus. In particular, activities that allow them to fully participate in the scholarly aspects of college are positively associated with SoB and simultaneously help them achieve success in the classroom. Perhaps most importantly, student-athletes feel the strongest connection to their institutions when campus and team climates are seen as accepting and encouraging of diversity in a wide range of forms. As we know from the literature, it is within such college environments that some of the most significant learning and development occurs and a strong SoB is established (Astin, 1993; Hoffman et al., 2002; Pascarella & Terenzini, 2005).

The findings revealed in this study are closely aligned with what is already known about the benefits of academic and social involvement among student-athletes (e.g., Gayles & Hu, 2009; Potuto & O'Hanlon, 2007; Umbach, Palmer, Kuh, & Hannah, 2006). They also reinforce the utility of Astin (1993) and Tinto's (1994) theoretical models for examining outcomes within this distinct college student population. What is uniquely valuable about the current study is its identification of specific academic and social experiences that contribute to SoB and that can inform practical strategies for supporting student-athlete success on Division I campuses. Further, this study reinforces the need to consider, not only the institutional climate, but the athletic team climate relative to desired outcomes for student-athletes. Implications for research, theory, policy and practice will be discussed fully in the final paper.

References

- Adler, P. A., & Adler, P. (1991). *Backboards and blackboards: College athletes and role engulfment*. New York: Columbia University Press.
- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Baucom, C., & Lantz, C. D. (2001). Faculty attitudes toward male Division II student-athletes. *Journal of Sport Behavior*, 24(3), 265-276.
- Bollen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social forces*, 69(2), 479-504.
- Comeaux, E., & Harrison, K. C. (2011). A conceptual model of academic success for student-athletes, *Educational Researcher*, 40(5), 235-245.
- Engstrom, C. M., Sedlacek, W. E., & McEwen, M. K. (1995). Faculty attitudes toward male revenue and nonrevenue student-athletes. *Journal of College Student Development*, 36(3), 217-227.
- Gaston-Gayles, J. L. (2004). Examining academic and athletic motivation among student athletes at a Division I university. *Journal of College Student Development*, 45(1), 75-83.
- Gayles, J. G., & Hu, S. (2009). The influence of student engagement and sport participation on college outcomes among Division I student athletes. *The Journal of Higher Education*, 80(3), 315-333.
- Harper, S. R., Williams Jr, C. D., & Blackman, H. W. (2013). *Black male student-athletes and racial inequities in NCAA Division I college sports*. Philadelphia, PA: University of Pennsylvania, Center for the Study of Race & Equity in Education.
- Hausmann, L. R., Schofield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and White first-year college students. *Research in Higher Education*, 48(7), 803-839.
- Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention*, 4(3), 227-256.
- Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. *Sociology of Education*, 70(4), 324-345.

- Johnson, D. R. (2012). Campus racial climate perceptions and overall sense of belonging among racially diverse women in STEM majors. *Journal of College Student Development*, 53(2), 336-346.
- Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. T., & Longerbeam, S. D. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development*, 48(5), 525-542.
- Jolly, C. (2008). Raising the question #9: Is the student-athlete population unique? And why should we care? *Communication Education*, 57(1), 145-151.
- Mallett, R. K., Mello, Z. R., Wagner, D. E., Worrell, F., Burrow, R. N., & Andretta, J. R. (2011). Do I belong? It depends on when you ask. *Cultural Diversity and Ethnic Minority Psychology*, 17(4), 432-436.
- Mangold, W. D., Bean, L., & Adams, D. (2003). The impact of intercollegiate athletics on graduation rates among major NCAA Division I universities: Implications for college persistence theory and practice. *The Journal of Higher Education*, 74(5), 540-562.
- National Collegiate Athletic Association (NCAA). (2007, January). Student-athlete perspectives on their college experience: Preliminary findings from the NCAA GOALS and SCORE studies [PDF document]. Retrieved from <http://www.ncaa.org/sites/default/files/Student-Athlete%20Perspectives%20on%20Their%20College%20Experience.pdf>
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students (Vol. 2): A third decade of research*. San Francisco: Jossey-Bass.
- Paskus, T. S. (2012). A summary and commentary on the quantitative results of current NCAA academic reforms. *Journal of Intercollegiate Sport*, 5(1), 41-53.
- Potuto, J. R., & O'Hanlon, J. (2007). National Study of Student-Athletes regarding their experiences as college students (1). *College Student Journal*, 41(4), 947-966.
- Sperber, M. (2000). *Beer and circus: How big-time college sports is crippling undergraduate education*. New York, NY: Henry Holt and Company, LLC.
- Sperber, M. (2002). Will its new president bring real reform to the NCAA? *The Chronicle Review*, 49(9). Retrieved from <http://chronicle.com.proxy.lib.ncsu.edu/article/Will-Its-New-President-Bring/10339/>
- Tinto, V. (1994). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: University of Chicago Press.

Umbach, P. D., Palmer, M. M., Kuh, G. D., & Hannah, S. J. (2006). Intercollegiate athletes and effective educational practices: Winning combination or losing effort? *Research in Higher Education*, 47(6), 709-733.

Watt, S. K., & Moore, J. L. (2001). Who are student athletes? *New Directions for Student Services*, 2001(93), 7-18.

Figure 1

Conceptual Framework

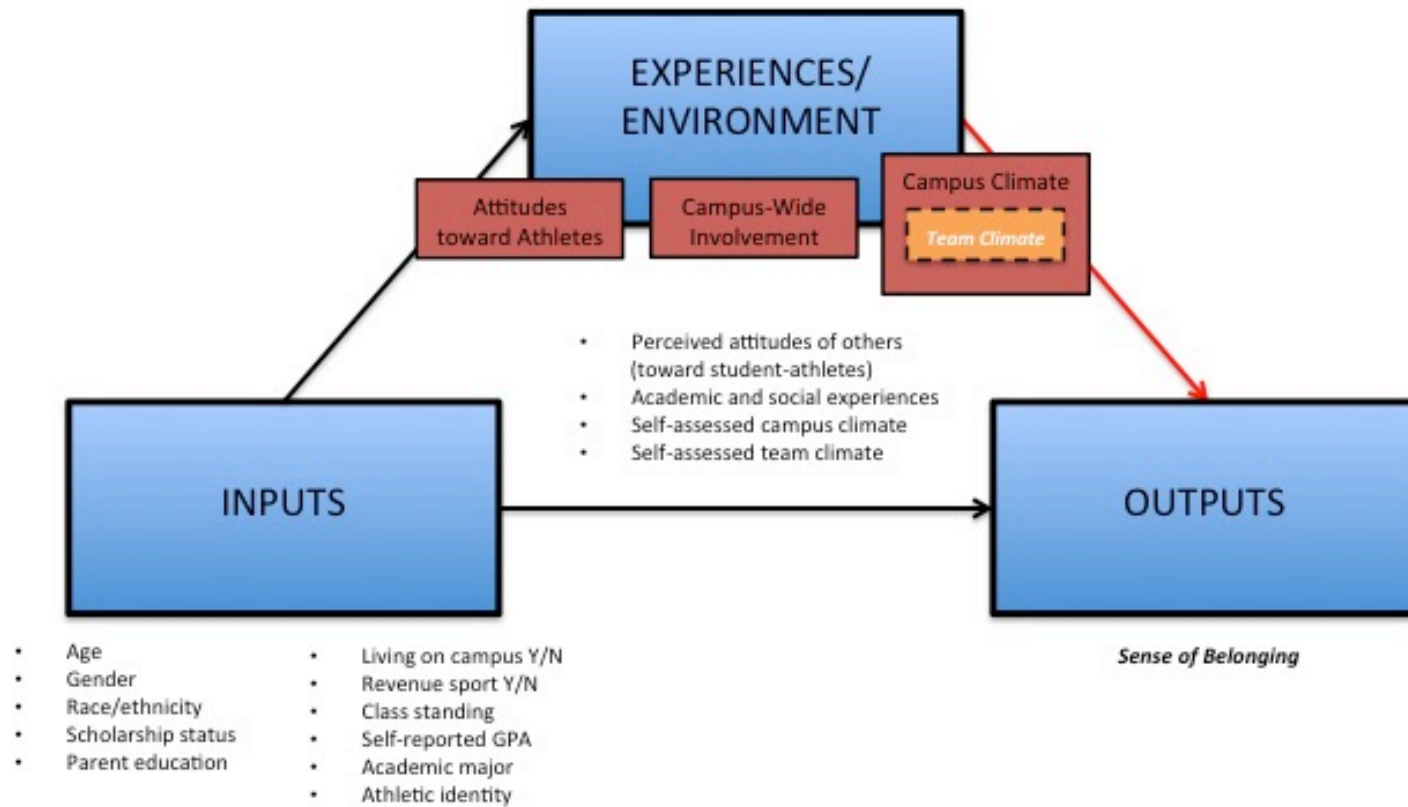


Table 1

Variables, Survey Item(s), and Coding Scheme

Variable	Block where First Entered	Survey Item(s)	Coding Scheme
		Please indicate your level of agreement with the following statement: If I could start over again, I would still attend this school. ^a	^a 7 = Strongly Agree; 6 = Agree; 5 = Somewhat Agree; 4 = Not Sure; 3 = Somewhat Disagree; 2 = Disagree; 1 = Strongly Disagree
Sense of Belonging (Composite)	Dependent Variable	So far in college, how do you feel about...Your relationships with the faculty? ^b	^b 7 = Very Positive; 6 = Positive; 5 = Somewhat Positive; 4 = Neutral; 3 = Somewhat Negative; 2 = Negative; 1 = Very Negative; 8 = No Major Yet
		So far in college, how do you feel about your overall college academic experience to this point? ^b	
Female	1	Dummy coded gender	Female = 1; Male = 0
Student of Color	1	Dummy coded race/ethnicity	White = 1; Student of Color = 0
Full Sport Scholarship	1	Dummy coded sport scholarship status	Full Scholarship = 1; Not Full Scholarship = 0
First Generation Student	1	Dummy coded first generation student	First Generation Student = 1; Not First Generation Student = 0
Off-Campus Resident	1	Dummy coded off-campus residence	Off-Campus Residence = 1; On-Campus Residence = 0
Revenue Sport Athlete	1	Dummy coded revenue sport participation	Revenue Sport Participation = 1; Non-Revenue Sport Participation = 0
Academic Classification	1	What is your current academic standing?	1 = Freshman; 2 = Sophomore; 3 = Junior; 4 = Senior; 5 = Graduate Student

GPA	1	Which of the following best describes your current overall grade point average?	3 = A; 2 = B; 1 = C and Below
Major	1	What is your major area of study?	1 = Not yet chosen; 2 = Biological Sciences; 3 = Business; 4 = Communications; 5 = Education; 6 = Engineering/Computer; 7 = Exercise, Sports; 8 = Humanities/Fine Arts; 9 = Physical Sciences/Math; 10 = Professional Studies; 11 = Social Sciences; 12 = Other
Athletic Identity (Composite)	1	<p><i>How much do you agree or disagree with each of the following statements?</i></p> <p>I view myself as more of an athlete than as a student.</p> <p>I spend more time thinking about my sport than academics.</p> <p><i>How much do you agree or disagree with each of the following statements?</i></p>	1 = Strongly Disagree; 2 = Disagree; 3 = Somewhat Disagree; 4 = Somewhat Agree; 5 = Agree; 6 = Strongly Agree
Perceptions of Faculty and Students' Attitudes and Actions toward Intercollegiate Athletes (Composite)	2	<p>I feel that other students view me as more of an athlete than as a student.</p> <p>I feel that my professors view me as more of an athlete than as a student.</p> <p>I feel that some of my professors discriminate against me because I am an athlete.</p> <p>I feel that some of my professors favor me because I am an athlete.</p> <p>I feel that some students treat me well because I am an athlete.</p> <p>I feel that some students treat me poorly because I am an athlete.</p>	1 = Strongly Disagree; 2 = Disagree; 3 = Somewhat Disagree; 4 = Somewhat Agree; 5 = Agree; 6 = Strongly Agree

Academic Experience - Research Project with Faculty Member Outside of Class	3	Which of the following experiences have you or will you be involved in during college...Work on a research project with a faculty member outside of class	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Academic Experience - Internship	3	Which of the following experiences have you or will you be involved in during college...Internship, practicum, field work, or co-op experience	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Academic Experience - Study Abroad	3	Which of the following experiences have you or will you be involved in during college...Study abroad	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Academic Experience - Designed Own Major or Independent Study Course	3	Which of the following experiences have you or will you be involved in during college...Work with a faculty member to design my own major or an independent study course	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Academic Experience - Thesis or Culminating Project or Experience	3	Which of the following experiences have you or will you be involved in during college...Senior thesis or other culminating academic project or experience	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Academic Experience - Come to Class without Reading	3	So far in college, how often do you...Come to class without completing assigned readings	1 = Always; 2 = Often; 3 = Sometimes; 4 = Rarely; 5 = Never
Academic Experience - Come to Class without Written Assignments	3	So far in college, how often do you...Come to class without completing written assignments, papers, etc.	1 = Always; 2 = Often; 3 = Sometimes; 4 = Rarely; 5 = Never

Academic Experience - Class Participation	3	So far in college, how often do you...Participate actively in class	5 = Always; 4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never
Academic Experience - Academic Discussions with Peers outside of Class	3	So far in college, how often do you...Discuss issues or ideas from classes with others outside of class	5 = Always; 4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never
Academic Experience - Academic Discussions with Professor	3	So far in college, how often do you...Discuss ideas, grades or assignments with a professor	5 = Always; 4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never
Academic Experience - Group Projects	3	So far in college, how often do you...Work with classmates (excluding tutors) in preparing group projects	5 = Always; 4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never
Academic Experience - Pleasure Reading Outside of Class	3	So far in college, how often do you...Read non-assigned books for pleasure outside of class	5 = Always; 4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never
Social Experience - Performance or Fine Art Groups	3	In which of the following extracurricular activities have you been or will you be involved during college...Performance or fine arts groups (e.g., music, theater, art)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Religious or Spiritual Organizations	3	In which of the following extracurricular activities have you been or will you be involved during college...Religious or spiritual organizations	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Fraternity or Sorority	3	In which of the following extracurricular activities have you been or will you be involved during college...Fraternity or sorority	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest

Social Experience - Student Government or University Service	3	In which of the following extracurricular activities have you been or will you be involved during college...Student government or university service (e.g., college judiciary committee)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Academic Groups, Honor Societies, or Pre-Professional Organizations	3	In which of the following extracurricular activities have you been or will you be involved during college...Academic groups (e.g., debate team), honor societies, or pre-professional organizations (e.g., nursing society)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Publication or Media Groups	3	In which of the following extracurricular activities have you been or will you be involved during college...Publications or media groups (e.g., newspaper, campus radio)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Intramural or Club Sports	3	In which of the following extracurricular activities have you been or will you be involved during college...Intramural or club sports	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Recreation or Hobby Groups	3	In which of the following extracurricular activities have you been or will you be involved during college...Recreation or hobby groups (e.g., chess club, ski club)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest
Social Experience - Culture Specific Groups	3	In which of the following extracurricular activities have you been or will you be involved during college...Culture specific groups (e.g., international student association)	3 = Yes, current/past involvement; 2 = Maybe; 1 = No, no time; 0 = No, no interest

Social Experience - Concerts	3	How often do you attend the following campus events (for fun or as a spectator)...Concerts	4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never, but would enjoy; 0 = Never, no interest
Social Experience - Plays	3	How often do you attend the following campus events (for fun or as a spectator)...Plays	4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never, but would enjoy; 0 = Never, no interest
Social Experience - Speakers	3	How often do you attend the following campus events (for fun or as a spectator)...Speakers	4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never, but would enjoy; 0 = Never, no interest
Social Experience - Art Exhibits	3	How often do you attend the following campus events (for fun or as a spectator)...Art Exhibits	4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never, but would enjoy; 0 = Never, no interest
Social Experience - Sporting Events	3	How often do you attend the following campus events (for fun or as a spectator)...Sporting Events	4 = Often; 3 = Sometimes; 2 = Rarely; 1 = Never, but would enjoy; 0 = Never, no interest
Social Experience - Service Projects or Volunteer Activities	3	On average over the past year, how much time have you spent taking part in service projects or volunteer activities of any type?	5 = Daily; 4 = Weekly; 3 = Monthly; 2 = Yearly; 1 = Never

Please indicate your level of agreement with each of the following statements about the atmosphere or climate at your school:

Campus Climate
(Composite)

4

This college has created an inclusive environment for all students.

This campus community is accepting of differing viewpoints and cultures.

This college makes a genuine effort to recruit a diverse student body.

There are many opportunities at this school to learn about or discuss other cultures or viewpoints.

I always feel comfortable expressing my social and political views on this campus.

I always feel comfortable expressing my religious views on this campus.

Members of the campus community are always respectful of members of the opposite sex.

Members of the campus community are always respectful of persons from other racial/ethnic groups.

In class, my instructors fairly discuss opposing viewpoints.

6 = Strongly Agree; 5 = Agree; 4 = Somewhat Agree; 3 = Somewhat Disagree; 2 = Disagree; 1 = Strongly Disagree

Please indicate your level of agreement with each of the following statements about the atmosphere or climate on your team:

My coaches have created an inclusive environment for all members of the team.

My coaches and teammates are accepting of differing viewpoints and cultures.

My coaches make a genuine effort to recruit a diverse group of student-athletes.

There are many opportunities on this team to learn about or discuss other cultures or viewpoints.

I always feel comfortable expressing my social and political views on this team.

I always feel comfortable expressing my religious views on this team.

My coaches and teammates are always respectful of members of the opposite sex.

My coaches and teammates are always respectful of persons from other racial/ethnic groups.

Team Climate (Composite)

5

6 = Strongly Agree; 5 = Agree; 4 = Somewhat Agree; 3 = Somewhat Disagree; 2 = Disagree; 1 = Strongly Disagree

Table 2

Hierarchical Regression Predicting Student-Athletes' Sense of Belonging

	<i>b</i> Block 1	<i>b</i> Block 2	<i>b</i> Block 3	<i>b</i> Block 4	<i>b</i> Block 5
Intercept (SE)	4.95*** (.09)	4.97*** (.10)	3.07*** (.14)	1.64*** (.15)	1.22*** (.15)
Female (SE)	.06 (.04)	.07 (.04)	-.02 (.04)	.02 (.03)	.01 (.03)
Student of Color (SE)	-.13*** (.04)	-.13*** (.04)	-.13*** (.04)	-.06 (.03)	-.09** (.03)
Full Sport Scholarship (SE)	.00 (.04)	.01 (.04)	.03 (.03)	.01 (.03)	-.00 (.03)
First Generation Student (SE)	.04 (.03)	.05 (.03)	.01 (.03)	.01 (.03)	.01 (.03)
Off-Campus Resident (SE)	-.00 (.03)	-.01 (.03)	-.01 (.03)	-.01 (.03)	-.01 (.03)
Revenue Sport Athlete (SE)	.05 (.04)	.06 (.04)	.02 (.04)	.06 (.04)	.04 (.04)
Academic Classification (SE)	.00 (.00)	.01 (.00)	.00 (.00)	.00 (.00)	.00 (.00)
GPA (SE)	.41*** (.02)	.41*** (.02)	.34*** (.02)	.35*** (.02)	.36*** (.02)
Major (SE)	.00 (.00)	.00 (.00)	.00 (.00)	.00 (.00)	.00* (.00)

Athletic Identity (SE)	- .10*** (.01)	- .09*** (.01)	- .04** (.01)	- .06*** (.01)	- .07*** (.01)
Perceptions of Faculty and Students' Attitudes and Actions toward Intercollegiate Athletes (SE)	-	- .02 (.02)	- .05** (.02)	- .03 (.02)	- .02 (.02)
Academic Experience - Research Project with Faculty Member Outside of Class (SE)	-	-	.02 (.02)	.02 (.02)	.02 (.02)
Academic Experience - Internship (SE)	-	-	.08*** (.02)	.06** (.02)	.06*** (.02)
Academic Experience - Study Abroad (SE)	-	-	-.01 (.02)	-.03 (.02)	-.02 (.02)
Academic Experience - Designed Own Major or Independent Study Course (SE)	-	-	-.02 (.02)	-.01 (.02)	-.01 (.02)
Academic Experience - Thesis or Culminating Project or Experience (SE)	-	-	.00 (.02)	.01 (.02)	.00 (.02)
Academic Experience - Come to Class without Reading (SE)	-	-	.01 (.01)	.00 (.00)	.00 (.00)
Academic Experience - Come to Class without Written Assignments (SE)	-	-	.00 (.00)	.00 (.00)	.00 (.00)
Academic Experience - Class Participation	-	-	.15***	.12***	.12***

(SE)			(.02)	(.02)	(.02)
Academic Experience - Academic Discussions with Peers outside of Class (SE)	-	-	.07*** (.02)	.05** (.02)	.04* (.02)
Academic Experience - Academic Discussions with Professor (SE)	-	-	.11*** (.02)	.09*** (.02)	.09*** (.02)
Academic Experience - Group Projects (SE)	-	-	.07*** (.02)	.05** (.02)	.04** (.02)
Academic Experience - Pleasure Reading Outside of Class (SE)	-	-	-.02*** (.01)	-.01 (.01)	-.01 (.01)
Social Experience - Performance or Fine Art Groups (SE)	-	-	-.02 (.02)	-.01 (.02)	-.01 (.01)
Social Experience - Religious or Spiritual Organizations (SE)	-	-	.02* (.01)	.01 (.01)	.01 (.01)
Social Experience - Fraternity or Sorority (SE)	-	-	-.04* (.02)	-.03 (.02)	-.02 (.02)
Social Experience - Student Government or University Service (SE)	-	-	-.02 (.02)	-.02 (.02)	-.02 (.02)
Social Experience - Academic Groups, Honor Societies, or Pre-Professional Organizations	-	-	.01	.02	.01

(SE)			(.02)	(.02)	(.01)
Social Experience - Publication or Media Groups	-	-	-.00	-.00	-.01
(SE)			(.02)	(.02)	(.02)
Social Experience - Intramural or Club Sports	-	-	-.04**	-.02	-.02
(SE)			(.01)	(.01)	(.01)
Social Experience - Recreation or Hobby Groups	-	-	-.02	-.04*	-.04*
(SE)			(.02)	(.02)	(.02)
Social Experience - Culture Specific Groups	-	-	.01	.03	.03
(SE)			(.02)	(.02)	(.02)
Social Experience - Concerts	-	-	.02	.00	.01
(SE)			(.02)	(.01)	(.01)
Social Experience - Plays	-	-	.02	.01	.02
(SE)			(.02)	(.02)	(.02)
Social Experience - Speakers	-	-	.00	.03*	.02*
(SE)			(.01)	(.01)	(.01)
Social Experience - Art Exhibits	-	-	.00	-.01	-.01
(SE)			(.02)	(.02)	(.02)
Social Experience - Sporting Events	-	-	.12***	.09***	.06**
(SE)			(.02)	(.02)	(.02)
Social Experience - Service Projects or Volunteer Activities	-	-	.04**	.04*	.03*
(SE)			(.02)	(.01)	(.01)

Campus Climate (SE)	-	-	-	.41*** (.02)	.28*** (.02)
Team Climate (SE)	-	-	-	-	.25*** (.02)
R^2	.10	.10	.22	.32	.36
ΔR^2	-	.00	.12	.10	.04
σ_{est}	.99	.98	.89	.83	.80

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