

Running Head: DIVERSE EXPERIENCES OF COLLEGIATE ATHLETES

What's the Score? Diverse Experiences among Collegiate Athletes and Non-Athletes

Ty M. Cruce and Thomas F. Nelson Laird

Indiana University

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Please direct all correspondence to:

Ty M. Cruce  
University Planning, Institutional Research, and Accountability  
Indiana University  
Poplars Building 805  
400 East Seventh Street  
Bloomington, Indiana 47405-3024  
812-856-0865 (voice)  
E-mail: [tcruce@indiana.edu](mailto:tcruce@indiana.edu)

### Abstract

Through the creation of the Office of Diversity and Inclusion, the National Collegiate Athletic Association is making the case that athletic departments should play an active, if not leading, role in connecting diversity and learning on college and university campuses, particularly for student athletes. While the NCAA suggests that athletic departments should monitor and assess their diversity and inclusion efforts, there has been little research documenting differences between athletes and non-athletes in terms of their experiences with diversity and the potential differential effects of those experiences on student-athlete outcomes. This study is a first step toward filling this research gap by comparing the diversity experiences of 55,506 senior athletes and non-athletes from 153 Division I institutions utilizing data from the 2008 administration of the National Survey of Student Engagement. In addition, this study examines whether the effect of diversity experiences on personal and social development during college differs for athletes and non-athletes.

### What's the Score? Diverse Experiences among Collegiate Athletes and Non-Athletes

In 2005, the National Collegiate Athletic Association (NCAA) formed the Office of Diversity and Inclusion (ODI), which was charged with the responsibility for “leading the Association in the development and implementation of strategies, policies and programs that promote diversity and inclusion throughout intercollegiate athletics” (NCAA, 2006, p. 6). As part of its new responsibility, the office disseminated a document outlining ten “best practices” for promoting diversity and inclusion. Among them were the provision of educational opportunities to enhance awareness of diversity and inclusion, the ongoing evaluation of policies and practices that shape diversity and inclusion, and the promotion of diversity and inclusion within the core philosophy of the athletic department and within the central mission of the institution (NCAA, 2007).

Through the creation of the ODI, the NCAA is making the case that athletic departments should play an active, if not leading, role in connecting diversity and learning on college and university campuses, particularly for student athletes. In doing so, the NCAA is suggesting that athletic departments must take intentional action to promote students’ engagement with diverse peoples and perspectives for the betterment of their learning. Supporting the NCAA’s position is a line of scholarship that suggests that inclusive campuses and experiences with diversity lead to improved student outcomes (Gurin, 1999; Gurin, Dey, Hurtado, & Gurin, 2002; Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Smith & Associates, 1997).

The argument for the connection between diversity and learning is straightforward. Campuses need to be diverse places to live, work, and study in order for students to be able to participate in formal (e.g., courses) and informal (e.g., casual conversations with peers) experiences with diversity. It is through those diversity experiences and the challenges they

present to students' current ways of knowing that students learn and develop along a wide range of outcomes. Supported by a substantial and growing body of evidence (Chang, Witt, Jones, & Hakuta, 2003; Gurin et al., 2002; Hurtado, Dey, Gurin, & Gurin, 2003; Milem & Hakuta, 2000; Smith & Associates, 1997), this logic informs the creation and maintenance of positions, courses, programs, policies, and offices (e.g., ODI) at numerous colleges and universities and the organizations that intersect with higher education institutions.

The current study draws on Gurin et al.'s (2002) concepts of curricular diversity and informal interactional diversity. Curricular diversity, students' exposure to diverse perspectives and ideas through an institution's formal curriculum, fosters students' cognitive complexity and a host of attitudinal and affective outcomes (Astin, 1993a,b; Chang, 2000, 2002; Gurin et al., 2002; Hurtado, 2001; Nelson Laird, 2005; Nelson Laird, Engberg, & Hurtado, 2005). Informal interactional diversity is a concept intended to capture both the quantity (how frequently) and quality (whether the interactions were positive or negative in orientation) of students' interactions with diverse peers while in college. There is substantial support for the assertion that interacting across race is related to several important educational outcomes, including intellectual and social self-confidence, openness to diversity, critical thinking, and problem solving (e.g., Chang, 1996; Hurtado, 2001; Hurtado, Engberg, Ponjuan, Landreman, 2002; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996, Pascarella, Palmer, Moye, & Pierson, 2001). In addition to supporting this other work, a distinguishing aspect of the work by Gurin and her colleagues (2002; also see Gurin, 1999) is that measures for the quality of students' interactions with diverse peers were used and found to be important predictors of student outcomes.

However, Gurin et al. (2002) as well as others (e.g., Nelson Laird, 2005) used measures of the quality of one's interactions across difference that conflated quantity and quality. In at

least some samples, this can lead to strong positive correlations between the overall amount of interactions, the amount of positive interactions, and the amount of negative interactions (see Nelson Laird et al., 2005). In the current study, we did not have access to scales previously used to measure the quality of one's interactions across difference and, consequently, took an alternative approach. Since learning to take on the perspectives of others is an outcome of interacting with people different from one's self (Hurtado et al., 2002), we used the amount students reflected on their learning experiences, including trying to better understand someone else's views and learning something that changed the way one understood an issue or concept, as an indicator of a positive orientation toward learning from diverse interactions.

Though there is considerable variation in sample and focus of studies examining the effects of diverse interactions, the scope of these investigations rarely extends beyond courses, diversity programs, or institutions. It is rare, for example, for these studies to examine student athletes or athletic programs, departments, or initiatives.

While the NCAA suggests that athletic departments should monitor and assess their efforts in expanding diversity and inclusion on their campuses, there is a lack of examples within educational research documenting differences between athletes and non-athletes in terms of their experiences with diversity and the potential differential effects of those experiences on student outcomes. Indeed, whereas other research areas for intercollegiate athletics such as differences in academic engagement and in academic achievement and cognitive development have received greater attention (e.g., Astin, 1993b; Hood, Craig, & Ferguson, 1992; Pascarella, Bohr, Nora, & Terenzini, 1996; Pascarella, Truckenmiller, Nora, Terenzini, Edison, & Hagedorn, 1999; Pascarella & Smart, 1991; Umbach, Palmer, Kuh, & Hannah, 2006), the study of the intersection

between intercollegiate athletics and students' engagement with diverse people and perspectives has not been actively pursued (Hirko, 2008).

From our review of the scant extant literature, we find that studies on diversity and intercollegiate athletics often do not include the attitudes and experiences of non-athletes as a point of reference. Without giving due consideration to non-athletes, it is difficult to disentangle the influence of the athletic program from the influence of other common college experiences on the student-athlete's engagement with diverse others and perspectives. Much of the existing research is also either qualitative in nature (e.g., Wolf-Wendel, Toma, & Morpew, 2001; Wolf-Wendel, Morpew, & Toma, 2001) or quantitative but absent multivariate techniques that statistically control for the impact of other competing influences on experiences with diversity (e.g., Hirko, 2008). According to Pascarella and associates (e.g., Pascarella et al., 1999; Wolniak, Pierson, & Pascarella, 2001), these techniques do not allow for the separation of the impact of recruitment from the impact of socialization within intercollegiate athletics.

Among those studies that most directly inform the intersection of intercollegiate athletics and diversity, Pascarella and colleagues (1996) found a negative but statistically non-significant difference between intercollegiate athletes and non-athletes in first-year openness to diversity and challenge—a learning orientation similar to the democratic outcome identified by Gurin et al. (2002) as “perspective taking,” which they found was predicted by interactions across difference. In a follow-up to the Pascarella et al. (1996) study that included measures of openness to diversity for the second and third years of college, Whitt, Edison, Pascarella, Terenzini, and Nora (2001) found a positive but statistically non-significant difference between intercollegiate athletes and non-athletes during the second year of college, and they found a positive and statistically significant difference between these two groups in the third year of college.

Expanding on this study by focusing on the differences in revenue-generating and other intercollegiate sports, Wolniak et al. (2001) found that male athletes in revenue-generating sports had gains in openness to diversity and challenge during the first three years of college that were essentially the same as the gains for non-athletes. Male athletes participating in non-revenue generating sports, however, had significantly lower gains in openness to diversity and challenge relative to non-athletes.

Taken together, these three studies suggest that development in openness to diversity among student athletes may begin to outpace their non-athlete peers over time, but that this development likely differs by type of sport and by gender. These studies, however, are all based on the same 18 four-year colleges and universities sampled for the National Study of Student Learning (NSSL) that ended data collection in the mid-1990s. If the NCAA is to be successful in its mission to promote diversity and inclusion within intercollegiate athletics departments and throughout institutions, the ODI requires a more extensive and recent research base from which to assess progress. The current study is a first step toward filling this gap in the literature. The research questions for this study are as follows:

1. To what extent does students' engagement with diverse perspectives differ between athletes and non-athletes?
2. To what extent does the impact of students' engagement with diverse perspectives on their reported personal-social gains differ between athletes and non-athletes?

## Methods

### *Data Source and Sample*

Data for this study are from the 2008 administration of the National Survey of Student Engagement (NSSE). NSSE assesses, for a random sample of first-year students and college

seniors at participating institutions, the extent to which students engage in empirically-vetted good educational practices, perceive that their college or university emphasizes these practices, and perceive that they have developed educationally and personally as a result of these experiences. NSSE is administered in the spring on an annual basis to students at baccalaureate-granting institutions in the U.S. and Canada. In 2008, NSSE was administered at 769 colleges and universities.

The institution sample for this study was limited to 153 institutions in the U.S. that are members of NCAA Division I. As the NCAA recognized 330 Division I schools during the 2007-08 academic year, our institutional sample represents 46.4% of this population. The student sample for this study comprised 55,506 full-time seniors that were randomly sampled from the participating institutions. Seniors in this study are those students who would have obtained enough credits to graduate from the institution during the spring term of the survey administration or after one additional academic term. By focusing this study on seniors who are near graduation, we obtain a self-reflection of the students' development over the course of their entire career at that institution. Response rates among seniors across these institutions ranged from 6% to 58% with median and mean response rates of 32% and 33%, respectively.

### *Variables*

The first dependent variable for this study is the students' critical engagement with diverse perspectives, a global measure that combines Gurin et al.'s (2002) two primary types of diversity experiences—curricular diversity and informal interactional diversity—and one of their key outcomes of diverse experiences—perspective taking. The first element of this outcome measure, curricular and informal interactional diversity, is comprised of items measuring the extent to which the student has included diverse perspectives in coursework, has had serious

conversations with students who are different from him- or herself, and has been encouraged to have contact with diverse others. The internal consistency for this set of items is 0.68. The second element of this outcome measure, perspective taking, is comprised of items that measure the extent to which the student has judged the value of information and the methods used to support conclusions, has examined the strengths and weaknesses of his or her own views, and has attempted to better understand the views of others. The internal consistency for this set of items is 0.75. These two elements have a correlation of 0.52. When combined, this measure goes beyond more common measures of diverse experiences (e.g., Chang, 1996) in that it captures both the *frequency* and, via perspective taking, the *quality* of the students' experiences. Cronbach's alpha coefficient for the internal consistency of this combined measure is 0.79 for the study sample.

The second dependent variable for this study is personal-social gains, a six-item summative scale that represents the students' perceptions of having gained personally or socially as a result of their college experiences. This scale has been used in previous research (e.g., Zhao & Kuh, 2004) illustrating the relationship between various forms of student engagement and personal and social development. Cronbach's alpha coefficient for the internal consistency of the scale items is 0.84 for the study sample. More detailed item descriptions for each measure are provided in Table 1.

[Table 1 Here]

The independent variable of interest is student athlete status, a single item on NSSE that asks respondents to verify whether or not they are a student athlete on an institution-sponsored varsity team during the current academic year. Given the findings of past research (e.g., Pascarella et al., 1995; Pascarella et al., 1999; Wolniak, et al., 2001) that has subdivided

intercollegiate athletics into revenue-generating and non-revenue-generating sports, we make a similar distinction in our study. Using the students' response for the particular athletic team or teams to which they belong, we subdivided college athletes into members of high profile (i.e., football and basketball for males, and basketball for females) and low profile sports (choosing this terminology over "revenue-generating" as not all high profile intercollegiate sports generate revenue during a given year).

Additional variables were added to control for the students' background characteristics (e.g., sex, race, and parents' education) and for the characteristics associated with their college experience (e.g., work status, college major and cumulative grades). Descriptive statistics for all study variables are provided in Table 2.

[Table 2 Here]

### Analysis

To account for the nested nature of the data and to appropriately weight institutions with lower response rates, a hierarchical linear model was estimated to answer each research question. For each research question, a null model for the outcome was first estimated to partition the total variance into within- and between-institution components. The within-institution variance for each outcome was then modeled using level-1 structural models that take the form:

$$(1) \quad DIVERSE_{ij} = \beta_{0j} + \beta_{1j}ATHLETE_{1j} + \sum_{q=1}^Q \beta_{qj}X_{qj} + r_{ij}$$

$$(2) \quad GAINS_{ij} = \beta_{0j} + \beta_{1j}ATHLETE_{1j} + \beta_{2j}DIVERSE_{2j} + \beta_{3j}ATHLETExDIVERSE_{3j} + \sum_{q=1}^Q \beta_{qj}X_{qj} + r_{ij}$$

where  $DIVERSE_{ij}$  and  $GAINS_{ij}$  are the outcomes under study for student  $i$  attending college  $j$ ,  $\beta_{0j}$  is the mean of the outcome for students at college  $j$ ,  $\beta_{1j}$  is the coefficient for the group mean-centered dummy variable indicating athlete status at college  $j$  (i.e.,  $ATHLETE_{1j}$ ),  $\beta_{2j}$  is the coefficient for group mean-centered diverse experiences in the personal-social gains

model, and  $\beta_{3j}$  is the coefficient for the uncentered interaction between group mean-centered athletic status and group mean-centered diverse experiences in the personal-social gains model. Finally,  $\beta_{qj}$  is a vector of coefficients for the  $X_{qj}$  vector of group-mean centered level-1 predictors, and  $r_{ij}$  is the random error term. For each outcome we first estimated a model that examined total differences between athletes and non-athletes and then we estimated a model that examined differences by high profile and low profile sports.

Given the research questions of interest, no attempt was made to model the between-institution variance. The intercept was allowed to vary in these models. The level-2 structural model thus takes the form:

$$(3) \quad \begin{aligned} \beta_{0j} &= \gamma_{00} + \mu_{0j} \\ \beta_{1j} &= \gamma_{10} \\ &\vdots \\ \beta_{qj} &= \gamma_{q0} \end{aligned}$$

where  $\gamma_{00}$  is the mean of the particular outcome under study and  $\mu_{0j}$  is the random error term. For this study, all slope coefficients are treated as fixed in the level-2 model. The works of Raudenbush and Bryk (2002) and Raudenbush, Bryk, Cheong, and Congdon (2004) provide more information on the estimation of hierarchical linear models.

### *Limitations*

One limitation of this study is the use of a survey with a cross-sectional design to study a longitudinal process such as the impact of intercollegiate athletics programs on the diverse experiences of athletes and the impact of these experiences on the personal and social development of students during college. Although we use a measure of self-reported gains as a proxy for pre- and post-measures of personal and social development, this approach has come under some scrutiny (e.g., Astin & Lee, 2003; Pascarella, 2001). However, according to Kuh (2001, p. 3-4), research (e.g., Bradburn & Sudman, 1988; Brandt, 1958; Converse & Presser,

1989; DeNisi & Shaw, 1977; Hansford & Hattie, 1982; Laing, Sawyer, & Noble 1989; Lowman & Williams, 1987; Pace, 1985; Pike, 1995) has suggested that self-reported measures are likely valid when the following conditions are met:

1. The information requested is known to the respondents.
2. The questions are phrased clearly and unambiguously.
3. The questions refer to recent activities.
4. The respondents think the questions merit a serious and thoughtful response.
5. Answering the question does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways.

The National Survey of Student Engagement was designed to meet these conditions.

Additionally, the generalizability of this study is limited to some degree by the self-selection of institutions that participate in NSSE and by the disproportionate survey non-response by students with certain characteristics (e.g., male students). Although almost half of all NCAA Division I schools participated in the 2008 administration of NSSE, self-selection by students and institutions requires that some caution be used when generalizing the results to all student athletes and seniors at NCAA Division I institutions.

## Results

### *Diverse Experiences*

An unconditional—or null—model was first estimated to partition the total variance in diverse experiences into between-institution and within-institution segments. The null hypothesis of no between-institution variance was rejected, as 3.4% of the total variance in diverse experiences was between institutions. The other 96.6% of the total variance was within institutions. The aggregate reliability of the dependent variable was 0.885, suggesting good

precision in the measurement of diverse experiences across the institutions in the study. Only the within-institution variance was modeled in this study.

Table 3 provides the parameter estimates and standard errors for the within-institution model of diverse experiences. Model 1—which includes an estimate of the general effect of athlete status on the students' experiences with diversity—explained 7.6% of the within-institution variance. Net of the effects of the students' background characteristics, college experiences, and past academic performance, seniors who participated in collegiate athletics at NCAA Division 1 schools had a level of diverse experiences that was greater than that of non-athletes by a factor of 0.07. Model 2 provides an estimate of the effect of athlete status on experiences with diversity by the high or low profile status of the sport. This model also explained 7.6% of the within-institution variance in diverse experiences. Net of the same set of confounding influences, seniors who participated in high profile sports had a level of diverse experiences that was greater than that of non-athletes by a factor of 0.13; for seniors who participated in low profile sports, this advantage over non-athletes in diverse experiences was smaller ( $B = 0.06$ ).

[Table 3 Here]

### *Self-Reported Gains*

Following the same analytic process as in the estimation of the diverse experiences models, an unconditional model was first estimated to partition the variance in self-reported social-personal gains into between-institution and within-institution segments. The null hypothesis of no between-institution variance was rejected, with 3.9% of the total variance in self-reported personal-social gains being between institutions. The other 96.1% of the variance in self-reported gains was within institutions. The aggregate reliability of the dependent variable

was 0.897, suggesting relatively good precision in the measurement of self-reported educational gains across the institutions in the study. Again, only the within-institution variance was modeled in this study.

Table 4 provides the parameter estimates and standard errors for the within-institution model of self-reported person-social gains. Model 1—which includes estimates of both the general effect of athlete status and the conditional effect of diverse experiences (by athlete status) on the students' self-reported gains—explained 25.7% of the within-institution variance. Because all other independent variables than the cross-product are group mean-centered, the coefficients for 'diverse experiences' and 'athlete' represent the general effects of these variables on self-reported personal-social gains, whereas the coefficient for the cross-product 'athlete x diverse experiences' represents the conditional—or differential—effect of diverse experiences by athlete status. Net of the effects of the students' background characteristics, college experiences, past academic performance, and experience with diversity, seniors who participated in collegiate athletics at NCAA Division 1 schools had a level of self-reported personal-social gains that was greater than that of non-athletes by a factor of 0.06. All else being equal, the general effect of experiences with diversity on self-reported gains was statistically significant and relatively large in magnitude. Specifically, for a one-standard deviation increase in experiences with diversity, the students' level of personal-social development increased by roughly one-half (0.47) of a standard deviation. The coefficient for the cross-product was not statistically significant, suggesting that the effect of experiences with diversity on personal-social development varies trivially or not at all by athlete status.

Model 2 provides an estimate of the effect of athlete status on personal-social development by the high or low profile status of the sport. This model also explained 25.7% of

the within-institution variance in self-reported gains. Net of the same set of confounding influences, seniors who participated in high profile sports had a level of self-reported personal-social development that was greater than that of non-athletes by a factor of 0.09; for seniors who participated in low profile sports, this advantage over non-athletes in self-reported personal-social development was smaller ( $B = 0.06$ ), but statistically significant.

[Table 4 Here]

### Discussion

Based on a sample of over 55,000 seniors attending 153 NCAA Division I institutions, we found that, net of a host of confounding influences, student athletes in general have significantly greater engagement with diversity than their non-athlete peers. When we re-estimated the model taking into consideration the type of sport, we found that the level of engagement with diversity is even greater for athletes participating in high-profile sports. Although we found no significant differences between student athletes and non-athletes with regard to the impact of these diverse perspectives on their social and personal gains during college, the general impact for all college seniors was substantial.

One possible explanation for our findings is that intercollegiate athletics programs provide an environment that fosters positive and meaningful experiences with diverse people and perspectives. According to Allport's (1954) intergroup contact theory, accruing the benefits of interaction with diverse others requires all members having equal status, working toward common goals, cooperating to achieve, and support or approval from authority or society. This theory has been extended to describe the conditions necessary for positive cross-racial interactions (e.g., Chang, Denson, Saenz, & Misa, 2006) and it has been extended specifically to

contextualize the effectiveness of athletics programs in fostering student community within a diverse group (e.g., Wolf-Wendel, Toma, & Morphey, 2001).

Although our study may provide some limited support for the impact of intercollegiate athletics programs on student-athlete's engagement with diversity, there are other competing explanations for our findings that may not be directly attributable to athletics programs. One such explanation for our findings is that intercollegiate athletes and non-athletes are entering college with such differences in critical engagement with diversity already established. There have been repeated calls (e.g., Astin & Lee, 2003; Pascarella, 2001, 2006; Pascarella & Terenzini, 1991) for the use of baseline measures of outcomes in research on student development during college. Of particular importance to research on intercollegiate athletes, Wolniak et al. (2001) found that comparisons of athletes to non-athletes without such baseline measures are likely to reflect the effects of recruitment—i.e., differences in background and experiences at the time of college entry—as opposed to the impact of athletics programs. Although our model controls for a number of characteristics (e.g., gender, race/ethnicity, parents' education) that might temper recruitment effects, a baseline measure of our diversity measure would strengthen the validity of any inference that the differences between athletes and non-athletes are due to the efforts of the athletics programs. A direction for future research is thus to estimate the same model for first year students using NSSE data. Although this analysis would help to establish some semblance of a baseline during the early years of college, making direct inferences about change during college using a cross-sectional design of first-year students and seniors is not advisable given other threats to internal validity such history, maturation and attrition. Ideally, this study would be replicated with longitudinal data.

Another competing explanation for our findings is that athletic teams may simply have more structural diversity than other student groups in which non-athletes participate. Although not sufficient, structural diversity is argued to be a necessary component for the type of informal interactions that are to have a stronger impact on student development (Gurin et al., 2002), and prior research (Pike & Kuh, 2006) has found a significant positive relationship between structural diversity and informal interactional diversity. Although we statistically controlled for the race/ethnicity of the individual student in our model, the structural diversity of the group may offer an environmental effect over and above the race/ethnicity of the individual. A direction for future research is thus to derive an estimate of the structural diversity of athletic teams given their responses to the race/ethnicity item on NSSE.

Although, given study limitations, the findings of this study cannot provide definitive proof of the positive role of athletic departments in promoting diversity and inclusion among student athletes, they do not rule out the possibility of this relationship. Indeed, by finding differences between athletes and non-athletes, this study provides some justification for more research that seeks to measure the direct impact of athletic departments on the diverse experiences of student athletes.

Our findings suggest there is room for the NCAA to build upon the experiences with diversity their student athletes are having. By implementing programs aimed at improving such experiences (both in quantity and quality), athletic programs may indeed be able to take a leading role on campus. If the NCAA is serious about taking up this work, it should be coupled with efforts by researchers, athletic departments, and the NCAA itself to document and assess students' experiences and the effects of those experiences on valued educational outcomes. Such research and assessment efforts can improve upon our work by accounting for additional

indicators of students' background and prior diversity experiences as well as the structural diversity of the campus experiences.

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Table 1.  
Items Representing Dependent Measures

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*Critical Engagement with Diverse Experiences* – the extent to which students:

Diverse Experiences

- Included diverse perspectives in class discussions or writing assignments
- Had serious conversations with students of a different race or ethnicity
- Had serious conversations with students who are very different in terms of their religious beliefs, political opinions, or personal values
- Were encouraged to have contact with students from different economic, social, and racial or ethnic backgrounds

Perspective Taking

- Made judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- Examined the strengths and weaknesses of their own views on a topic or issue
- Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
- Learned something that changed the way they understand an issue or concept

*Personal-Social Gains* – the extent to which students' experiences have increased their ability to:

- Work effectively with others
- Vote in local, state, or national elections
- Learn effectively on your own
- Understand themselves
- Understand people of other racial and ethnic backgrounds
- Develop a personal code of values and ethics

Table 2.  
Descriptive Statistics for Study Variables

Variable	Mean	SD	Min	Max
Diverse Experiences	0.00	1.00	-3.13	2.12
Personal-Social Gains	0.00	1.00	-2.59	1.71
Athlete	0.05	0.22	0.00	1.00
High Profile Sport (i.e., football, basketball)	0.01	0.08	0.00	1.00
Low Profile Sport	0.04	0.21	0.00	1.00
Female	0.61	0.49	0.00	1.00
African American	0.06	0.24	0.00	1.00
Asian American	0.06	0.24	0.00	1.00
Hispanic	0.04	0.20	0.00	1.00
White†	0.73	0.44	0.00	1.00
Other Race	0.10	0.30	0.00	1.00
International Student	0.04	0.20	0.00	1.00
Parents' Ed: Bachelor's Degree or More†	0.65	0.48	0.00	1.00
Parents' Ed: Some College	0.21	0.41	0.00	1.00
Parents' Ed: High School or Less	0.14	0.35	0.00	1.00
Cumulative College Grades	3.38	0.52	1.75	4.00
Transfer Student	0.32	0.47	0.00	1.00
Commuting Student	0.49	0.50	0.00	1.00
Learning Community Member	0.28	0.45	0.00	1.00
Fraternity/Sorority Member	0.15	0.36	0.00	1.00
Work On Campus	0.30	0.46	0.00	1.00
Work Off Campus	0.49	0.50	0.00	1.00
Arts and Humanities Major†	0.14	0.35	0.00	1.00
Biological Sciences Major	0.08	0.27	0.00	1.00
Business Major	0.17	0.37	0.00	1.00
Education Major	0.08	0.27	0.00	1.00
Engineering Major	0.09	0.29	0.00	1.00
Physical Science Major	0.04	0.19	0.00	1.00
Professional Major	0.09	0.28	0.00	1.00
Social Sciences Major	0.15	0.36	0.00	1.00
Other Major	0.16	0.37	0.00	1.00

N = 55,506

† Reference Group

Table 3.  
Results of HLM for Diverse Experiences

Parameter	Model 1			Model 2		
	B	SE	Sig	B	SE	Sig
Intercept	0.029	0.016	0.068	0.029	0.016	0.068
Athlete	0.072	0.019	0.000			
High Profile Sport				0.133	0.050	0.008
Low Profile Sport				0.063	0.020	0.002
Female	-0.025	0.010	0.010	-0.024	0.010	0.012
African American	0.179	0.022	0.000	0.178	0.022	0.000
Asian American	0.022	0.021	0.284	0.022	0.021	0.285
Hispanic	0.147	0.026	0.000	0.147	0.026	0.000
Other Race	0.179	0.014	0.000	0.179	0.014	0.000
International Student	0.042	0.024	0.080	0.042	0.024	0.080
Parents' Ed: Some College	0.004	0.012	0.733	0.004	0.012	0.739
Parents' Ed: High School or Less	-0.029	0.012	0.016	-0.029	0.012	0.016
Cumulative College Grades	0.160	0.011	0.000	0.160	0.011	0.000
Transfer Student	0.013	0.010	0.188	0.012	0.010	0.192
Commuting Student	-0.023	0.011	0.032	-0.023	0.011	0.032
Learning Community Member	0.403	0.011	0.000	0.403	0.011	0.000
Fraternity/Sorority Member	0.010	0.013	0.430	0.010	0.013	0.430
Work On Campus	0.107	0.009	0.000	0.107	0.009	0.000
Work Off Campus	0.073	0.009	0.000	0.073	0.009	0.000
Biological Sciences Major	-0.282	0.022	0.000	-0.282	0.022	0.000
Business Major	-0.273	0.018	0.000	-0.273	0.018	0.000
Education Major	-0.149	0.022	0.000	-0.149	0.022	0.000
Engineering Major	-0.460	0.023	0.000	-0.459	0.023	0.000
Physical Science Major	-0.408	0.027	0.000	-0.408	0.027	0.000
Professional Major	-0.191	0.021	0.000	-0.191	0.021	0.000
Social Sciences Major	0.035	0.018	0.053	0.035	0.018	0.053
Other Major	-0.301	0.019	0.000	-0.302	0.019	0.000
Within-Inst Variance Explained	7.6%			7.6%		

N = 55,506

Table 4.  
Results of HLM for Personal-Social Gains

Parameter	Model 1			Model 2		
	B	SE	Sig	B	SE	Sig
Intercept	0.022	0.017	0.181	0.022	0.017	0.181
Diverse Experiences	0.474	0.004	0.000	0.474	0.004	0.000
Athlete	0.060	0.018	0.001			
Athlete x Div Exp	-0.012	0.016	0.466			
High Profile Sport				0.089	0.037	0.017
High Prof x Div Exp				-0.005	0.044	0.908
Low Profile Sport				0.056	0.019	0.004
Low Prof x Div Exp				-0.013	0.016	0.411
Female	0.077	0.009	0.000	0.078	0.009	0.000
African American	0.081	0.025	0.002	0.080	0.025	0.002
Asian American	0.051	0.019	0.008	0.051	0.019	0.008
Hispanic	0.075	0.024	0.002	0.075	0.024	0.002
Other Race	-0.228	0.016	0.000	-0.229	0.016	0.000
International Student	0.066	0.020	0.002	0.066	0.020	0.002
Parents' Ed: Some College	0.063	0.010	0.000	0.063	0.010	0.000
Parents' Ed: High School or Less	0.082	0.011	0.000	0.082	0.011	0.000
Cumulative College Grades	0.031	0.009	0.001	0.031	0.009	0.001
Transfer Student	-0.120	0.011	0.000	-0.120	0.011	0.000
Commuting Student	-0.019	0.010	0.056	-0.019	0.010	0.056
Learning Community Member	0.136	0.008	0.000	0.136	0.008	0.000
Fraternity/Sorority Member	0.104	0.013	0.000	0.104	0.012	0.000
Work On Campus	-0.007	0.009	0.429	-0.007	0.009	0.431
Work Off Campus	-0.005	0.008	0.546	-0.005	0.008	0.550
Biological Sciences Major	0.066	0.017	0.000	0.066	0.017	0.000
Business Major	0.235	0.013	0.000	0.235	0.013	0.000
Education Major	0.138	0.018	0.000	0.138	0.018	0.000
Engineering Major	0.136	0.019	0.000	0.136	0.019	0.000
Physical Science Major	-0.002	0.021	0.928	-0.002	0.021	0.931
Professional Major	0.162	0.019	0.000	0.162	0.019	0.000
Social Sciences Major	0.084	0.014	0.000	0.084	0.014	0.000
Other Major	0.150	0.014	0.000	0.150	0.014	0.000
Within-Inst Variance Explained	25.7%			25.7%		

N = 55,506