

FIRST TO GO TO COLLEGE AND FIRST TO “GO GREEK:” ENGAGEMENT IN ACADEMICALLY ORIENTED ACTIVITIES BY SENIOR YEAR FIRST GENERATION STUDENTS WHO ARE FRATERNITY/SORORITY MEMBERS

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Using National Survey of Student Engagement (NSSE) data, this study examined levels of engagement in academically oriented activities by college seniors who experience college as both first-generation students and fraternity/sorority members. On four of five NSSE scales, first-generation college students who are members reported higher levels of engagement than those who are not members, and members and non-members who are not first-generation. Because engagement in academically oriented activities positively influences student success, knowing students' self-reported participation has implications for practitioners.

Student engagement, explained as involvement in classroom and out of classroom activities that are empirically linked to college success, has been found to be a factor in college students' persistence to graduation (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007; Wolf-Wendel, Ward & Kinzie, 2009). First-generation students, those whose parents did not graduate from college, are less likely than other students to know how to create the conditions that can help them to persist to graduation (Pascarella, Pierson, Wolniak & Terenzini, 2004; Pike & Kuh, 2005; Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007; Strayhorn, 2006). Lower levels of engagement may be influenced by predispositions; however, involvement in activities has been documented to positively influence first-generation students' persistence (Lundberg, Schreiner, Hovaguimian & Miller, 2007; Pike & Kuh, 2005; Somers, Woodhouse & Cofer, 2004). If first-generation students are less likely to be engaged, then connecting them to experiences that support their success is critical (Lundberg et al., 2007; Pascarella et al., 2004; Saenz et al., 2007; Somers et al., 2004). Specific activities have been linked to high levels of student engagement and ultimately student success. One such activity is fraternity/sorority membership (Bureau,

Ahren, Ryan, Shoup, & Torres, 2011; Hayek, Carini, O'Day, & Kuh, 2002; Pike, 2003). To date, there have been no studies that examine how involvement in fraternity/sorority life can influence first-generation students and their levels of engagement in activities that lead to student success. This study sought to fill that void and provide insight into a population of students who experience college as both first-generation and as a fraternity/sorority member.

To examine how first-generation students who are fraternity/sorority members participate in activities that can lead to success, this study used The National Survey of Student Engagement (NSSE). Annually, colleges and universities across North America participate in this survey through the use of an instrument called The College Student Report. The NSSE collects students' insights into how they engage in a number of academic and cocurricular activities. The research questions were: "Are there different reported levels of participation in academically oriented activities for first-generation senior-year students who are members of fraternities and sororities?" and "How do first-generation senior-year students who are fraternity and sorority members compare to non-first-generation members, non-members, and non-members who are first-

generation in reported levels of academically oriented activities?" Results expand the literature on first-generation students and fraternity and sorority members, specifically how these separate and intersecting populations perceive the academic world of college.

REVIEW OF LITERATURE

Engagement and Student Success

Engagement is explained as student participation in learning-oriented activities (Carini, Kuh, & Klein, 2006; Kuh, 2001, 2003; Wolf-Wendel & Kinzie, 2009) and consists of two key concepts: the time and effort students put into activities that foster student success and how institutions encourage students to participate in and benefit from these activities (Wolf-Wendel & Kinzie, 2009). Engagement extends involvement theory (Astin, 1993) and emphasizes how institutions enact processes and outcomes that help students find meaningful involvement rather than expecting the student to discover opportunities her or himself (Wolf-Wendel & Kinzie, 2009).

All higher educational experiences should foster engagement in order to improve students' learning, connectedness, sense of community, multicultural competence, and persistence to degree (AACU, 2007; Schuh, Kuh, Kinzie, & Manning, 2006; Zhao & Kuh, 2004). Numerous researchers have used NSSE data to compare the engagement levels of different populations of students including first-generation students (Pike & Kuh, 2005) and fraternity and sorority members (Bureau et al., 2011; Hayek et al., 2002; Pike, 2003). Student engagement levels of first-generation students who are fraternity/sorority members had yet to be considered.

First-Generation Students

The first-generation population is often explained as those whose parents did not complete college, but within the categorization there exists great diversity of demographic,

academic, and social backgrounds (Lundberg, et al., 2007; Saenz et al., 2007; Somers, et al., 2004; Strayhorn, 2006). While the population is diverse, first-generation students are commonly perceived to be the most at-risk students on college campuses (Saenz et al., 2007; Strayhorn, 2006). Characteristics include being less academically prepared than others to handle college, having less confidence in their leadership abilities, and often working to support their families (Saenz et al., 2007). This is particularly true for students of color, students from rural areas, and those from low-income backgrounds, each of which are overrepresented within the population of first-generation students (Saenz et al., 2007; Somers, et al., 2004; Strayhorn, 2006).

Much of the research focuses on characteristics that suppress persistence to graduation (Filkins & Doyle, 2002; Lundberg, et al., 2007; Martin, Lohfink & Paulsen, 2005; Saenz et al., 2007; Somers, et al., 2004; Strayhorn, 2006). Difficulties include navigating the college environment, managing academic expectations, determining career goals, and paying for higher education (Saenz et al., 2007; Strayhorn, 2006). These challenges are often cumulative and thus can seriously inhibit persistence (Martin, Lohfink, & Paulsen, 2005; Pike & Kuh, 2005; Somers, et al., 2004).

One characteristic that has particular importance to this study is the extent to which first-generation students demonstrate levels of engagement. Student predispositions correspond with involvement patterns in the college environment (Astin, 1993; Pike & Kuh, 2005; Strange & Banning, 2001), as a result first-generation students are less likely than peers to become engaged in learning experiences that contribute to persistence (Martin Lohfink & Paulsen, 2005; Pike & Kuh, 2005; Somers, et al., 2004; Strayhorn, 2006). This includes the extent to which students might live on campus (Pike & Kuh, 2005; Saenz et al., 2007), which has been linked to student engagement (Astin,

1993; Pascarella, et al., 2004; Zhao & Kuh, 2004). Pike and Kuh (2005) found, contrary to prior research in which first-generation student involvement was often attributed to predispositions, that institutional leaders often play a role in positively influencing engagement levels.

There are additional tactics researchers use to examine first-generation student potential for engagement in and out of the classroom. Strayhorn (2006) identified that predicting the grade point averages of first-generation students could be used to develop tactics to increase engagement in activities that lead to academic success. Filkins and Doyle (2002) indicated engagement in activities such as interacting with faculty members in and out of the classroom could help low-income, first-generation students grow cognitively and affectively during college. Somers, et al. (2004) found first-generation students who lived on campus and became engaged in curricular and co-curricular pursuits were more likely to graduate.

Fraternity and Sorority Membership

The literature on fraternities and sororities varies in terms of the benefits of membership (e.g. Asel, Seifert, & Pascarella, 2009; Bureau et al., 2011; DeBard, Lake & Binder, 2006; DeBard & Sacks, 2010; Guardia & Evans, 2008; Hayek, et al., 2002; Pascarella, Flowers, & Whitt, 2001; Terenzini, Pascarella, & Blimling, 1999). Participation in these organizations may negatively influence desired outcomes of higher education, as evidenced by increased consumption of alcohol (Danielson, Taylor, & Hartford, 2001; Wechsler, Kuh, & Davenport, 1996), participation in inappropriate activities such as hazing (Allan & Madden, 2008; Ellsworth, 2006), questionable influences on cognitive development (Terenzini et al., 1999), and homogeneity and a potential lack of consideration for diversity (Asel et al., 2009). It should be noted that Hayek et al. (2002) found that while members who join during

their first-year in college may experience more homogeneity, members and non-members were equally likely to have experiences with diverse others by the senior year.

Conversely, research shows that fraternity/sorority members are highly engaged in the college environment, including high rates of participation in campus activities, community service, leadership positions, and to some extent their academic pursuits (Astin, 1993; Bureau et al., 2011; DeBard & Sacks, 2010; Harms, Woods, Roberts, Bureau, & Green, 2006; Hayek et al., 2002; Kelley, 2008; Kimbrough & Hutchinson, 1998; Pike 2003). Studies indicate membership can lead to student retention and persistence to degree (Nelson, Halperin, Wasserman, Smith, & Graham, 2006). The same studies that identify concerns also indicate fraternities/sororities can be forums for cognitive and affective development (Asel et al., 2009; Blackburn & Janosik, 2009; Hayek et al., 2002; Pike, 2003). Research implies the experience is not explained monolithically; these organizations can represent the best and worst of the college experience (Asel et al., 2009; Jelke & Kuh, 2003).

The literature on student engagement has considered fraternity/sorority membership more specifically. Hayek et al. (2002) examined more than 42,000 students from 192 colleges and universities in a spring 2000 sample of the NSSE to examine members and non-members views on the college environment, reported differences, and experiences based on academic year, residence, and different institutional characteristics. The authors found fraternity/sorority members were more engaged than non-members on most measures including differences in diversity, practical competence, general education, involvement in classroom activities, and engagement in the college environment. This level of engagement was consistent across gender and class standing. Residence in a fraternity/sorority facility did not negatively impact and to some extent

encouraged member engagement in learning experiences. Findings from a more recent study using NSSE results to explain members compared to non-members (Bureau et al., 2011) reinforced findings by Hayek et al. (2002). In spite of these studies, exploring first-generation students was not specifically highlighted in either study.

Relative to engagement in academically oriented activities, studies indicate fraternity/sorority membership may hinder academic performance, inclination to participate in academic pursuits, and cognitive development (Astin, 1993; DeBard, Lake, & Binder, 2005; Nelson et al., 2006; Pascarella, Edison, Whitt, Nora, Hagedorn & Terenzini, 1996; Terenzini et al., 1999). The negative impact of fraternity/sorority membership on academic performance appears most during the first year; however, such impact often diminished by the senior year (Pascarella et al., 2001; Hayek et al., 2002; Pike, 2003). Terenzini et al. (1999) explained the negative aspects of fraternity/sorority membership during the first-year appear to be most pronounced for white males, with a lesser negative effect on women. For men of color, fraternity membership had a small positive influence on overall measures of academic achievement (Terenzini et al., 1999). Pike (2003) found the influence of membership on cognitive variables could be explained either as a direct, indirect, or random result of membership depending on diverse control variables. Therefore, fraternity/sorority membership may or may not negatively contribute to halted cognitive development.

Members may be predisposed to engagement in classroom and out-of-class activities (Asel et al., 2009), buttressing literature that explains entering characteristics are the greatest influence on the college experience (Astin, 1993; Strange & Banning, 2001). Hayek et al. (2002) found first-year students who are members reported

higher levels of engagement than non-members. Asel et al. (2009) duplicated these findings after controlling for high school experiences.

Consistent with the engagement construct, the quality of one's fraternity/sorority experience is likely a shared responsibility of students and institutions. Jelke and Kuh (2003) explained high-performing fraternity/sorority communities typically have expectations that students and institutions should work together. Shared expectations are central to the concept of student engagement (Wolf-Wendel et al., 2009). As this study sought to describe the engagement of senior-year first-generation students who are fraternity/sorority members, it is important to consider how predispositions, student attributes, and institutional interventions might coalesce to influence student engagement. NSSE measures are critical in illuminating this nexus.

METHODS

Overview of Survey Instrument

The data for this study came from the 2006, 2007 and 2008 NSSE administrations. During these years, NSSE was administered on almost 1000 campuses, many hosting fraternity and sorority communities (NSSE, 2010). Typically, the breakdown of institutions at which the NSSE is administered is consistent with the characteristics of all baccalaureate-granting colleges and universities in the United States (NSSE, 2008; NSSE 2010). NSSE examines participation in educational activities that prior research has determined is positively related to desired educational outcomes (Chickering & Gamson, 1987; Kuh, 2001, 2003; Pascarella & Terenzini, 2005). NSSE is designed to assess the level of engagement in and perceived benefit from students' experiences in college (Kuh, 2001). The survey has emerged as a leading instrument to assess students' perceptions of

the college experience (Kuh et al., 2007; NSSE, 2010; Wolf-Wendel et al., 2009).

Institutions typically self-select to participate and provide contact information for first-year and senior-year students who have been at the institution for at least one semester prior to administration. Because the survey is conducted in the spring, survey participants have enough experience with the institution to provide an informed judgment. In general, equal numbers of first-year and senior students are sampled for each institution. The survey is not anonymous and individualized links are distributed to students via the Center for Survey Research at Indiana University (NSSE, 2010b). The survey is available at the NSSE website, (www.nsse.iub.edu). Results are supplied to institutions in formatted reports as well as raw data. For many of these institutions, NSSE has informed institutional practice and improvement relative to students' curricular and co-curricular pursuits and the accomplishment of widely held learning outcomes (AACU, 2007; Kuh et al., 2007; NSSE, 2010).

While self-reported student data are not a direct measure of gains from students' involvement, it nevertheless provides valuable insight to the college experience and is valid under five conditions: (a) respondents have the information necessary to answer questions, (b) questions are clearly phrased, (c) questions refer to activities in which the respondent recently participated, (d) respondents believe questions merit a serious and thoughtful response, and (e) answering the questions does not jeopardize the privacy and safety of the respondent or encourage the them to respond in what they believe to be socially desirable answers (Carini, Hayek, Kuh, Kennedy & Ouimet, 2003). Each of these conditions is met by NSSE (Carini et al., 2003).

Among some researchers and institutional assessment experts the issue of self-reported perceptions has come under recent scrutiny. We

acknowledge the limitations of self-reported data that have been linked with other surveys (Bowman & Seifert, 2011). These limitations are mitigated by the fact that NSSE was created for the purpose of institutional assessment and to represent students' general – not specifically quantifiable – perceptions of engagement in activities that support their learning, not to measure “gains” per se (Gonyea & Miller, 2011). NSSE is intended to consider students' reports of engagement in effective educational practices as defined by a large body of existing literature and not to granularly measure gains or isolate students' perceived gains as an outcome of one aspect of the collective collegiate environment.

The NSSE has high reliability and validity. Researchers involved with NSSE have conducted 35 focus groups and 163 student interviews to gather feedback about the clarity of the items and to understand how the questions are interpreted. These interviews address basic elements of validity – do students understand the item in a consistent and intended manner (Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007). Additionally, NSSE has developed an extensive library for demonstrating its psychometric properties. Studies conducted in the early days of NSSE (Kuh, 2001b) through more recent reviews of the survey's scales (Nelson Laird, Shoup, & Kuh, 2008; Pike, 2006) reveal high levels of reliability for the survey. For instance, considering college seniors, reliability of the five scales used for the study at hand range from a low of .71 (Integrative Learning Subscale) to a high of .85 (Deep Learning Subscale) (National Survey of Student Engagement, 2010d).

Research Questions and Protocol

Research questions were “Are there different reported levels of participation in academically oriented activities for first-generation senior-year students who are members of fraternities and sororities?” and “How do first-generation senior-year students who are fraternity and

sorority members compare to non-first-generation members, non-members, and non-members who are first-generation in reported levels of differences of participation in academically oriented activities?" Three survey items were used to identify groups for the study:

1. Are you a member of a social fraternity or sorority? (Yes/No)
2. What is the highest level of education that your father completed? (Did not finish HS; Graduated from HS; Attended, no degree; Completed Associate's; Completed Bachelor's; Completed Master's; Completed Doctorate)
3. What is the highest level of education that your mother completed? (Did not finish HS; Graduated from HS; Attended, no degree; Completed Associate's; Completed Bachelor's; Completed Master's; Completed Doctorate)

As the survey is administered each spring, sometimes as early as January or February, first-year student respondents who indicate fraternity/sorority membership may have been members for six days or six months. Because time on task (Astin, 1993) influences college students' perceptions of their experience, we felt it was important that some proxy of time be considered as contributing to the fraternity/sorority membership, therefore the decision was made to only include senior-year students.

To focus our research on engagement in academically-oriented activities, which have been sources of concern for those involved in support programs for both first-generation students and fraternity and sorority members (Pike & Kuh, 2005; Pike, 2003), we examined

scales that are specifically connected to demonstrating learning. Because some measures combine items with different response sets and value ranges, we converted each item to a scale of 0 to 100. Afterward, scale scores were computed by taking the mean of the component items as long as the student answered at least three-fifths of the items. Table 1 explains academic achievement scales. Table 2 highlights the three deep learning subscales. Cronbach's Alpha is provided to explain the reliability of each scale. We controlled for 13 discrete student characteristics (including five other forms of involvement and eight demographic indicators) and one institutional characteristic, which are listed in Table 3.

The total respondent pool included 179,171 seniors who completed the survey and indicated either fraternity/sorority membership or first-generation status. First-generation was defined as neither parent completing a Bachelor's degree. Of all respondents, 14% indicated they were members of a social fraternity/sorority and 43% indicated they were first-generation students. Using these two variables the researchers identified four groups: Fraternity/sorority/first-generation ($n = 8149$), Fraternity/sorority/not first-generation ($n = 17,954$), not fraternity/sorority, first-generation ($n = 67,213$), and not fraternity/sorority and not first-generation ($n = 85,855$). Sixty-eight percent of the sample identified as Caucasian, 7% as Black or African American, 5% as Hispanic and 5% as Asian, Asian American or Pacific Islander. Four percent did not indicate ethnicity. Other racial identities comprised 2% or less of the sample each. Sixty-three percent of the sample identified their gender as female.

Table 1

Self-Reported Educational Outcomes and Component Items

Gains in General Education (4 items; $\alpha = .84$)	Writing clearly and effectively; Speaking clearly and effectively; Thinking critically and analytically; Acquiring a broad general education.
Grades	What have most of your grades been up to now at this institution? ^a

Variables use a 4-point scale: 1=Very Little, 2=Some, 3=Quite a Bit, 4=Very Much

^a Responses for this item were 1=C- or lower, 2=C, 3=C+, 4=B-, 5=B, 6=B+, 7=A-, 8=A

Table 2

Engagement Scales and Component Items: Deep Learning Subscales

Higher-Order Learning ^a (4 items; $\alpha = .83$)	Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components; Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships; Making 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; Applying theories or concepts to practical problems or in new situations.
Integrative Learning ^b (5 items; $\alpha = .70$)	Worked on a paper or project that required integrating ideas or information from various sources; Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments; Put together ideas or concepts from different courses when completing assignments or during class discussions; Discussed ideas from your readings or classes with faculty members outside of class; Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.).
Reflective Learning ^b (3 items; $\alpha = .81$)	Examined the strengths and weaknesses of your 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 you understand an issue or concept.

Variables use a 4-point scale:

^a Responses for this item were 1=Very Little, 2=Some, 3=Quite a Bit, 4=Very Much

^b Responses for this item were 1=Never, 2=Sometimes, 3=Often, 4=Very Often

Table 3*Control Variables*

Gender	0 = Male; 1 = Female
Age	0 = 24 or over, 1 = 23 or younger
Ethnicity ^a	Select from: African American, American Indian, Asian American, White, Mexican or Mexican American, Puerto Rican, Other Hispanic or Latino, Other, Multiple Ethnic Identifications, I prefer not to respond
International Status	0 = US National, 1 = International student or foreign national
Transfer Status	0 = Did not transfer; 1 = Transferred
Enrollment Status	0 = Part-time; 1 = Full-time
Live on campus	0 = Live off campus; 1 = Live on or near campus
Student Athlete	0 = Non-athlete; 1 = Student athlete on a team sponsored by the institution's athletic department
Major ^b	Arts and Humanities, Biology, Business, Education, Engineering, Physical Science, Professional, Social Science,
Institutional control	0 = Public; 1 = Private
Internship	0 = Completed an internship; 1 = Did not complete
Community Service	0 = Did not volunteer at all; 1 = Did some volunteer work
Study Abroad	0 = Did not study abroad; 1 = Completed study abroad
Learning Community	0 = Did not participate in a learning community; 1 = Did participate

^a Coded dichotomously (0 = not in group, 1 = in group), White was the reference group

^b Coded dichotomously (0 = not in group, 1 = in group), Arts & Humanities was reference group

Analysis examined differences between the four groups on self-reported educational outcomes and student engagement processes. Means were calculated for each group on the measures listed in Tables 1 and 2. The fraternity/sorority, first-generation group was selected as the comparison group, enabling us to examine whether the other three groups scored significantly above or below. Regression analyses were run first without, and then with, controls (Table 3) on each item and measure to estimate if the effects of the covariates influenced the basic relationships between group type and the dependent measures. In the regression models, all non-dichotomous variables were standardized prior to entry. As

a result, in each model, the unstandardized coefficient was an estimate of the effect size.

RESULTS

This research examined engagement levels of first-generation students who are senior fraternity/sorority members. Table 4 reflects means for each scale across the four populations. For four of the five scales, first-generation students who are members of a fraternity or sorority scored higher than the other three populations (non-first-generation members, first-generation non-members and non-first-generation nonmembers).

Table 4

Means by Dependent Variable and Group

Dependent Variable		Group	Mean	SD	SE
Gains in General Education		Greek First Gen	75.77	21.62	.24
		Greek Non-First Gen	75.30	21.58	.16
		Non-Greek First Gen	73.26	22.31	.09
		Non-Greek Non-First Gen	71.43	22.70	.08
Estimated GPA		Greek First Gen	3.30	.52	.01
		Greek Non-First Gen	3.37	.48	.00
		Non-Greek First Gen	3.33	.54	.00
		Non-Greek Non-First Gen	3.41	.51	.00
Higher Order Learning		Greek First Gen	73.18	21.42	.28
		Greek Non-First Gen	73.11	21.26	.16
		Non-Greek First Gen	70.07	22.32	.09
		Non-Greek Non-First Gen	70.70	21.82	.07
Integrative Learning		Greek First Gen	62.40	19.26	.07
		Greek Non-First Gen	61.44	19.03	.14
		Non-Greek First Gen	59.68	19.22	.07
		Non-Greek Non-First Gen	59.07	19.08	.07
Reflective Thinking		Greek First Gen	61.06	23.71	.26
		Greek Non-First Gen	60.72	23.43	.17
		Non-Greek First Gen	58.59	24.15	.09
		Non-Greek Non-First Gen	60.37	23.90	.08
N:	Greek First Gen		8,149		
	Greek Non-First Gen		17,954		
	Non-Greek First Gen		67,213		
	Non-Greek Non-First Gen		85,855		

Table 5 is a report of regression analysis of the comparison groups against first-generation fraternity and sorority members on two engagement scales. The target group demonstrated significantly higher scores than either non-member population ($p < .001$)

and a higher score than non-first generation fraternity/sorority members in General Education. Interestingly, all other groups significantly outperformed the first-generation fraternity/sorority members on GPA.

Table 5
Simultaneous Regression Analyses for Groups based on Fraternity/Sorority Membership and First-generation Status on Academic Achievement

Dependent Variable	Group	B	SE B	R ²
Gains in General Education	Greek Non-First Gen	-.019	.011	
	Non-Greek First Gen	-.109***	.012	.053
	Non-Greek Non-First Gen	-.191***	.012	
Estimated GPA	Greek Non-First Gen	.136***	.013	
	Non-Greek First Gen	-.105***	.011	.096
	Non-Greek Non-First Gen	.204***	.011	

*** $p < .001$

Table 6 lists the results of the regression analysis of the comparison groups against first-generation fraternity and sorority members on NSSE gains scales. First-generation fraternity/sorority members reported significantly higher scores than nonmembers in almost every deep

learning scale, though non-first-generation nonmembers outperformed the target group in Reflective Learning – a scale that focuses on changing one’s perspective as a result of interacting with others. R squared for these models ranged from .053 to .101.

Table 6

Simultaneous Regression Analyses for Groups based on Fraternity/Sorority Membership and First-generation Status on Deep Learning Gains Scales

Dependent Variable	Group	B	SE B	R ²
Higher Order Thinking	Greek Non-First Gen	-.002	.013	
	Non-Greek First Gen	-.140***	.012	.054
	Non-Greek Non-First Gen	-.111***	.012	
Integrative Learning	Greek Non-First Gen	-.044**	.013	
	Non-Greek First Gen	-.137**	.011	.101
	Non-Greek Non-First Gen	.031**	.011	
Reflective Learning	Greek Non-First Gen	-.013	.013	
	Non-Greek First Gen	-.018	.012	.067
	Non-Greek Non-First Gen	.041888	.011	

***p<.001

**p<.005

*p<.05

In no case did controls (Table 3) shift the significance of score differences between members who are first-generation, members who are not first-generation, and non-members and non-members who are first-generation. From these results, we can describe first-generation college students who are members as reporting higher levels of self-reported engagement in these academically oriented activities; however, effect sizes are relatively small across the board.

DISCUSSION

It is clear that fraternity and sorority membership is an activity in which students

spend significant amounts of time (Astin, 1993; Pascarella et al., 2001; Asel et al., 2009). Time spent on task in an environment is likely to result in that atmosphere influencing the student experience (Astin, 1993; Strange & Banning, 2001; Terenzini et al., 1999). This is consistent with the literature on campus culture (Kuh & Whitt, 1988), involvement (Astin, 1993), and engagement (Wolf-Wendel et al., 2009). Therefore, results here indicate that time as a member may contribute to higher self-reported engagement in activities that support achievement in general education, higher order thinking, integrative learning, and reflective learning, but may also distract first-generation members from securing a high GPA.

Research results indicate that students who are first-generation and members of fraternities and sororities self-report higher scores than other members and non-members who are or are not first-generation. Reported higher scores are an indicator of engagement in the college experience (Zhao & Kuh, 2004). Because engagement leads to persistence (Kuh & Pike, 2005) and first-generation students who become engaged are more likely to persist than those who do not (Pike & Kuh, 2005), it may also be inferred that membership in a fraternity or sorority may deserve partial credit for these first-generation students' persistence to graduation. We believe this to be true as long as the negative attributes of fraternity or sorority membership did not distract first-generation students from educational priorities. We also know the first year of college is critical (Upcraft, Gardner, & Barefoot, 2005); therefore, fraternities and sororities should enact programs and services to support students, particularly first-generation students, who join during the first year. We do not know the number of students, members or non-members, at these institutions that never persisted to the senior year; therefore we do not know how status as a first-generation student and/or as a member contributed to the attrition of students.

Given the results for the other four scales, an interesting finding was that first-generation members reported lower grade point averages than all other groups. The finding begs many questions relative to predispositions coming into college, desired grade performance while in college, and how the environment of membership in a fraternity or sorority contributes to academic goals. From this data, we cannot infer reasons for lower grade point averages, though concerns about academic performance and first-generation students and about fraternity and sorority members as distinct populations is evident in the literature (DeBard, Lake, & Binder, 2006; Strayhorn, 2006). Additionally, research indicates first-

generation students often lack tacit knowledge, cultural, economic, and social capital when compared to other students (Barratt, 2006; Lundberg, 2007; Ryan, 2009). Potentially, first-generation students may have to put more time and effort into understanding the social aspects of membership and may have to work to pay membership dues, which could detract from time dedicated to academic pursuits.

While results from this study indicate that first-generation students who are members report higher levels of engagement than first-generation students who are not members, the research did not consider what aspects of the fraternity/sorority might be beneficial or detrimental. Some chapters of fraternities and sororities have qualities divergent from widely held goals of higher education (Asel et al., 2009; Wechsler, Kuh, & Davenport, 1996). As such, this research cannot indicate unconditional support of all fraternities and sororities, or their general value for first-generation students who are the most at-risk students in the college environment (Saenz et al., 2007). While findings did not change when gender was applied as a control variable, past studies that used NSSE data to explain the experiences of members indicate difference in perceptions of engagement by gender (Hayek et al., 2002; Pike, 2003). It should be noted that fraternities and sororities are often generalized in the monolith, we believe that consistent with the literature on high performing fraternal organizations (Jelke & Kuh, 2003) and the research on institutional culture's influence on student success (Schuh et al., 2006), the context in which the fraternity/sorority experience occurs is likely to be a determining factor in whether or not membership adds or detracts from first-generation students' overall academic goals.

Given our results and the potential for a fraternity/sorority experience that is positive and beneficial, student affairs practitioners could do more to inform first-generation students

about involvement in fraternities/sororities. Understanding how to make decisions about joining may influence the first-generation student's overall success in college. For instance, practitioners need to partner with inter/national headquarters staff to better communicate with students about what participation in a fraternity/sorority actually requires in terms of time and expense. First-generation students should be provided with realistic expectations. University and fraternity/sorority local and international headquarter websites should include information about organizational operations, fees, and shared expectations. This is particularly important given the findings of lower reported grade point averages and the potential that first-generation students may not be able to manage the multiple roles associated with fraternity/sorority membership.

Campuses should examine how the goals of first-generation students and any student who wishes to join the fraternity/sorority community coalesce with the goals of the institution. For some campuses, there may be a need to delay joining until a student has developed an academic foundation. Deferred recruitment, which is defined by a process that occurs after at least the first month of fall classes (University of Georgia, 2005), may be needed in some cases to ensure a campus with a high number of first-generation students come to understand the benefits of fraternity/sorority membership and the responsibilities they have to first and foremost perform the academic tasks of life as a college student. It is important to note that the authors believe that deferred recruitment, whether it be one month into the first-year or asking students to wait until the second-year, should be grounded in the academic interests of the students. Therefore, evidence that these organizations provide an environment in which all students, including first-generation, can perform to their potential might be an alternative to delaying the opportunity to join. Recruitment options

might even be made available to chapters that demonstrate satisfaction of certain engagement goals, as defined by campus standards and culture. Ultimately, first-generation students seeking membership in these organizations need specific kinds of information and approaches to navigating the opportunities for fraternity/sorority membership. Given that it could be difficult to specifically target first-generation students in fraternity/sorority community marketing initiatives, overall efforts to ensure all potential and current members are academically successful must be a priority.

LIMITATIONS

This data describes self-reported views of engagement in specific activities by senior first-generation students who are members of fraternities and sororities. It does not speak to the fraternity and sorority as a factor in encouraging the engagement of its members, first-generation or not. However, while not a direct measure of environmental influence, characteristics of student engagement can inform how higher education constituents view environments as contributing to levels of student engagement in college (Astin, 1993; Kuh, 2003; Kuh & Whitt, 1988; Strange & Banning, 2001). Additionally, because time on task influences outcomes (Astin, 1993) and fraternities and sororities typically require engagement at some high level for some extensive period (Pascarella et al., 1996; 2001), we can infer that aspects of the experience in the fraternity or sorority influenced their levels of engagement in learning-oriented activities. Therefore, it is likely that the fraternity/sorority environment influenced these students' engagement in activities that led to the higher reported scores.

Additionally, the nature of these organizations is such that students are often involved in a range of campus activities (Pascarella et al., 1996). While this study does not attempt to examine the fraternity and sorority as the only

contributor to engagement, it aimed to explain how first-generation students who are members report higher scores from engagement and how that differs from fraternity/sorority members and non-members of either generational status. Results indicate that by the senior year, first-generation students who are fraternity/sorority members report being more engaged than non-members, first-generation or not, in experiences that lead to higher-order thinking, integrative learning, reflective learning, and greater scores in general education. Lower grade-point averages appear to be a concern for first-generation students engaged in fraternities and sororities. Future studies may examine why grades may be lower for students engaged in a range of activities, among them a fraternity/sorority.

Also, NSSE data is collected about and reported on first-year and senior students from all participating institutions in the spring semester. Institutions choose to participate in NSSE and students self-select to respond to survey. This sample is only a small number of the overall college and university population who are first-generation and fraternity and sorority members and is only based on seniors who persisted in both membership and enrollment. Additionally, the students sampled for this research responded to a question that asks if they are a member of a social fraternity/sorority. Therefore, students' experiences of those who were once members but no longer participate were not captured in this research. Persons interested in expanding this research might examine how to collect perspectives of a larger population of first-generation students who are current or disaffiliated members and do so at distinct points in their college career (i.e. after the sophomore year, by which time most students have joined) and in their experience as a member (i.e. immediately after becoming a full member).

Because the literature addresses ethnicity, social class, and geography (Lundberg et al., 2007; Somers, et al., 2004; Strayhorn, 2007) as influential in the experiences of first-generation students, there is more to examine as to how subsets of first-generation students may experience membership in a fraternity/sorority. Relative to ethnicity, while we found that controlling for ethnicity did not produce different results, White students were a large majority of our sample (68%). Also, we do not know if students of color belonged to a predominantly White fraternity/sorority or one that has a particular cultural affinity. Because the fraternity/sorority experience is segmented to some extent by race (Kimbrough, 2003), examining differences across membership in diverse types of fraternities and sororities (e.g. social versus cultural) is important. Future research on first-generation students who are members may want to examine differences in the experiences of those members who are not White and compare membership experiences based on type of organization. Of course, the question would need to be answered by instrumentation other than NSSE given the survey does not elicit this data with sufficient granularity.

Also, there is evidence that social class and socioeconomic status influences participation in fraternity/sorority life (Ryan, 2009). Some researchers suggest fraternity/sorority members are wealthier and maintain higher levels of social and cultural capital than students who are not members of Greek-letter organizations, making comparisons between first-generation students who choose to participate in fraternities/sororities less straight-forward (Ryan; Walpole 2011). NSSE does not collect data that explain the social class nor socioeconomic backgrounds of students. Therefore the sample does not indicate whether members are from wealthier families or the urbanity of their upbringing

and cannot provide insight into how first-generation students who come from varying social classes and socioeconomic backgrounds and who are or are not members of fraternities and sororities experience college. Future studies on first-generation students who join a fraternity or sorority may explore issues of how socioeconomics contribute to engagement.

Finally, examining institutional type as a control variable, no differences emerged. We know that institutional culture influences students and students influence institutional culture (Kuh & Whitt, 1988; Schuh et al., 2006). To that end, there is potential to expand this study with research about how first-generation students who join a fraternity or sorority compare to other populations at distinct institutional types.

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