

THE EFFECTS OF FRATERNITY/SORORITY MEMBERSHIP ON COLLEGE EXPERIENCES AND OUTCOMES: A PORTRAIT OF COMPLEXITY

ASHLEY M. ASEL, TRICIA A. SEIFERT, AND ERNEST T. PASCARELLA

This study estimated the effects of fraternity/sorosity membership on a wide range of college experiences and outcomes for first-year and senior college students at a large, public, Midwestern university. The findings suggest a complex portrait of the relationships between affiliation, engagement, and learning outcomes. Fraternity/sorosity membership appeared to facilitate social involvement during college but may have limited the diversity of relationships. It was associated with higher levels of community service, but also increased the odds of excessive alcohol use. In the presence of controls for important, confounding influences, being a fraternity/sorosity member had little consistent influence on grades or perceived impact of college. There was little support for gender differences in the impact of affiliation. Finally, implications for student affairs professionals in their work with undergraduate fraternity/sorosity leaders and members were considered.

Most institutions of higher education hold student learning and success as parts of their primary missions (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Kuh, Schuh, Whitt, & Associates, 1991). Faculty members, staff members, and administrators have attempted to distinguish between the in-class and out-of-class experiences that foster – as well as inhibit – student learning and success (American Association of Colleges & Universities [AAC&U], 2002). Developing a thorough understanding of the relationship between fraternity/sorosity membership, student engagement, and student learning has important implications for student affairs practice and institutional policy. The apparent lack of congruence between espoused values and fraternity/sorosity members' behavior, however, has led to debates on many campuses regarding the educational merits of the fraternity/sorosity community (Franklin Square Group, 2003). The present study adds to the body of research by examining the complex relationship between fraternity/sorosity affiliation and a wide array of college experiences and learning outcomes in students' first and senior years of college.

Literature Review

A body of research has examined the relationship between fraternity/sorosity membership, engagement in educationally-purposeful ac-

tivities, and student learning and development. Some researchers suggest fraternity/sorosity affiliation is associated positively with increased levels of volunteerism and civic responsibility, and increased willingness to donate to charitable and/or religious causes, as well as involvement in student organizations, general education gains (Hayek, Carini, O'Day, & Kuh, 2002; Whipple & Sullivan, 1998), and persistence through the senior year (Nelson, Halperin, Wasserman, Smith, & Graham, 2006). Fraternity/sorosity members may also experience greater gains in interpersonal skills than unaffiliated students (Hunt & Rentz, 1994; Pike, 2000). Several other researchers also have reported that fraternity/sorosity members tend to be more involved during college (Astin, 1977, 1993; Baier & Whipple, 1990; Pike & Askew, 1990).

Conversely some researchers suggest fraternity/sorosity affiliation inhibits student learning and contributes to negative health behaviors. Among the findings, fraternity/sorosity members have reported being less open to interacting with diverse peers or being challenged by diverse perspectives than their non-affiliated peers (Antonio, 2001; Milem, 1994; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996; Wood & Chesser, 1994). Researchers have also linked affiliation with higher rates of alcohol abuse (Wechsler, 1996; Wechsler, Davenport, Dowdall, Grossman, & Zanakos, 1997; Wechsler,

Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998; Wechsler, Kuh, & Davenport, 1996), and engaging in higher levels of drinking and unsafe sexual practices (Eberhardt, Rice, & Smith, 2003; Tampke, 1990; Wechsler, Kuh, & Davenport, 1996). Finally, fraternity/sorority members are more likely to admit to academic dishonesty during college than their unaffiliated peers (McCabe & Bowers, 1996; Storch, 2002).

In a major longitudinal study, the report of preliminary results included a negative impact of fraternity membership on men's critical thinking skills after the first year of college (Pascarella et al., 1996), but the first-year deficit in critical thinking skills did not persist through the rest of the men's college experience (Pascarella, Flowers, and Whitt, 1999). There was no evidence to support the assertion that being a member of a sorority had a significant effect on critical thinking skills.

The impact of fraternity/sorority membership on undergraduate student experiences and outcomes has yielded mixed results. The "significant under-representation of research on fraternities/sororities relative to their prevalence in the campus community," (Molasso, 2005, p. 5), and the fact that "psychosocial, cognitive and identity development issues are as important for this community as they are for the broader campus student body" (Molasso, p. 7), make apparent the need to further study the relationship between fraternity/sorority membership and a myriad of student engagement measures including learning outcomes.

What are some unique effects of fraternity/sorority membership on college first-year and senior students? According to Astin's theory of involvement (1984), if affiliated students were more engaged in their educational experience they should report greater learning outcomes as a consequence of their greater involvement. Unlike previous research, the rigorous analytic method used in the present study took into account both students' levels of precollege out-of-class engagement as well as their inclination to report an influential high school education. This

analytic approach provided for a conservative estimate of the relationship between affiliation and a wide range of in- and out-of-class experiences as well as desirable outcomes of college for both first-year and senior students, thus painting a relatively comprehensive picture of the effects of fraternity/sorority membership on a large sample of students at a major state research university where fraternity/sorority life involves thousands of students each year.

Methods

Institution

The site for the present study was a large, Midwestern, public, research university of approximately 20,300 undergraduates. Fraternity/sorority life is one of many—but one of the larger—opportunities for student involvement. Roughly 10% of the undergraduate population at the time of the study were members of 13 organizations affiliated with the Interfraternity Council (IFC) and 14 organizations affiliated with the National Panhellenic Conference (NPC). There were also eight National Pan-Hellenic Council, Inc. (NPHC) organizations primarily serving minority students, but the participant group included no more than 25 students total from these eight organizations. While the present study did not distinguish between IFC, NPC, and NPHC organizations, the overwhelming majority of affiliated students were associated with IFC and NPC organizations. There is a more diverse landscape of fraternities/sororities than is discussed in this paper (Torgerson & Parks, 2009), but results of this study are generalizable only to historically white fraternities/sororities.

Sample

The sample for the study consisted of first-year and senior students who completed a 30-minute, web-based survey. Employing questions that have been empirically shown to have the greatest impact on undergraduate student learning and persistence (Pascarella et al., 2006), the survey asked an extensive series of questions

about students' high school and college experiences. After two follow-up reminders, completed surveys were received from 3,153 students (1,477 first-year students and 1,676 seniors) for a 36.5% response rate.

Variables

The independent variable in all analyses was fraternity/sorority membership, coded 1 for affiliated and 0 for unaffiliated. Approximately 16.4% of first-year students ($N = 242$) and about 17.4% of senior students ($N = 291$) indicated that they were fraternity or sorority members. The effects of fraternity/sorority affiliation were examined on two types of dependent measures: college engagement and college outcomes. The engagement variables measured both in- and out-of-class engagement. The dichotomous engagement measures asked whether or not students had worked on a research project with a faculty member; participated in a cultural or racial awareness workshop; or had participated in a debate or lecture on current social or political issues. A number of single-item, continuous variables asked students to indicate the typical number of hours per week they spent preparing for class, the hours they participated in cocurricular (extracurricular) activities; hours devoted to community service or volunteer activities; the number of books read, essay exams completed, term papers or written reports completed during the current academic year; and binge drinking frequency during a typical two-week semester period. Finally, students were asked to detail their interactions with faculty, student affairs professionals, and peers. The interaction scales measured the quality of personal relationships with peers ($\alpha = .85$); frequency of contact with faculty ($\alpha = .80$); quality of nonclassroom relationships with faculty ($\alpha = .86$); frequency of contact with student affairs professionals ($\alpha = .87$); and experiences and interactions with diverse others ($\alpha = .91$). Detailed operational definitions and constituent items for the interaction scales are available by contacting the first author.

Four dependent learning outcomes were as-

sessed. The first outcome was student academic performance, defined as semester grade point average, with data provided by the registrar. Student self-reports of the impact of their undergraduate experience on their development in 36 areas formed the basis for the remaining three outcome measures. A factor analysis indicated three underlying factors: development in general/liberal arts competencies ($\alpha = .92$); development in career/professional preparation ($\alpha = .87$); and personal/interpersonal development ($\alpha = .85$). Constituent items and factor loadings for the scales are available by contacting the first author.

Since students self-selected to affiliate, analyses attempting to estimate the net effect of fraternity/sorority membership on college engagement and outcomes needed to take important confounding influences into account. As many of these potential confounding influences as possible were taken into account; control variables included retrospectively reported parallel measures for each of the dependent variables with high school as the reference point. Additional controls included sex, race, ACT composite score, high school grades, parental education, graduate degree plans, whether the institution was one's first choice for college, amount of on- and off-campus employment, current place of residence during college, and intended or actual academic major. The possible effects of gender on affiliation and outcome variables were analyzed, as well as for those participants who did and did not binge drink in high school.

Data Analyses

Logistic regression analysis was used to estimate the net relationships between affiliation (vs. being unaffiliated) on all dichotomous college engagement variables and ordinary least squares (OLS) regression was used to estimate the same relationships between continuous college engagement and outcome measures.

Results

High school experiences, even when reported retrospectively, tended to have by far the strongest relationships with college engagement, binge drinking behavior, grades, and perceptions of the impact of participants' undergraduate experience. Consequently, without controlling for precollege variables, any comparisons between affiliated students and their unaffiliated peers on any self-reports about college learning would likely be confounded in unknown ways (Pascarella, 2001). Thus, results as reported are conservative estimates of the relationships between fraternity/sorority membership, college engagement, and learning outcomes.

General Relationships

The overall findings suggested affiliated students as a group did not have a discernibly different level of academic engagement than their unaffiliated peers (Table 1, Part A). Accounting for an extensive array of potentially confounding influences, no significant relationship existed between affiliation in both the first and senior years in college and working on a research project with a faculty member, time spent preparing for class, number of books read, number of essay exams completed, and number of term papers/written reports completed. Similarly, fraternity/sorority members in both the first and senior years in college had essentially the same likelihood as their unaffiliated peers of participating in a cultural/social awareness workshop or a debate/lecture on current political or social issues.

A dramatically different picture emerged when the estimated relationships between fraternity/sorority members and binge drinking frequency were considered. Taking into account high school alcohol use (plus other influences), affiliated first-year and senior students were significantly more likely to binge drink in college than their unaffiliated peers. Net of confounding influences, the odds of affiliated, first-year students binge drinking one or more times in a typical two-week period were 1.8 times greater

than for their unaffiliated peers. For fraternity/sorority seniors, the odds of binge drinking one or more times in a typical two-week period increased to 2.4 times greater than those of unaffiliated seniors. There was also a tendency for affiliated students to be more likely to binge drink at higher levels than other students. The net odds of first-year fraternity/sorority members binge drinking between two and five times in a two-week period were about twice as high as the odds for their unaffiliated peers doing the same. Even more dramatically, the net odds of senior fraternity/sorority members binge drinking twice, three to five times, and six or more times in a two-week period were respectively 3.0, 2.6, and 3.5 times greater than the odds of unaffiliated seniors doing so.

Fraternity/sorority members as a group appeared to spend substantially more hours per week participating in co-curricular or extra-curricular activities ($b=2.359$, $p<.01$ for first-years; $b=2.588$, $p<.01$ for seniors) and in community service/volunteer activities ($b=1.570$, $p<.01$ for first years; $b=1.109$, $p<.01$ for seniors) than other students. One might assume increased levels of participation would be related to increased levels of interaction with peers, faculty, and staff. However, the relationship between affiliation and the quality and frequency of interactions with peers, faculty, and professional staff during college was unclear. Neither first-year nor senior, affiliated students reported the quality and impact of their nonclassroom relationships with faculty significantly differently than their unaffiliated peers. Yet, for seniors, affiliation was related positively to both the quality and impact of personal relationships with peers ($b=.254$, $p<.01$) and the frequency of contact with student affairs professionals ($b=.235$, $p<.01$). Affiliation during the first year of college was related to increased frequency of contact with faculty ($b=.142$, $p<.01$) but tended to significantly inhibit experiences and interactions with diverse others ($b=-.151$, $p<.01$).

In general, the relationships between affiliation and the learning outcomes analyzed for the

Table 1
Estimated Net Effects of Fraternal Affiliation on College Engagement and Outcomes
Part A: College Engagement

Dependent Variable	First-Year Students		Senior Students	
	b	Effect Size (Odds Ratio)	b	Effect Size (Odds Ratio)
Worked on a research project with a faculty member outside of class ^a	.069		-.197	
Participated in a cultural/racial awareness workshop ^a	-.079		-.080	
Participated in a debate or lecture on current political or social issues ^a	-.169		-.178	
Time spent preparing for class ^a	-.345		-.238	
Number of books read ^a	-.515		-.083	
Number of essay exams completed ^a	-.260		-.525	
Number of term papers/written reports completed ^a	-.004		.325	
Binge drinking frequency: One or more times vs. Never ^b	.588**	(1.800)	.870**	(2.386)
Binge drinking frequency: Once vs. Never ^b	.393		.548	.93
Binge drinking frequency: Twice vs. Never ^b	.838**	(2.312)	1.098**	(2.997)
Binge drinking frequency: Three to four times vs. Never ^b	.714*	(2.043)	.943**	(2.567)
Binge drinking frequency: Six or more times vs. Never ^b	.472		1.244**	(3.471)
Participation in cocurricular activities ^a	2.359**	.540	2.588**	.482
Participation in community service/volunteer activities ^a	1.570**	.530	1.109**	.295
Quality and impact of personal relationships with peers ^a	.123		.254**	.297
Frequency of contact with faculty ^a	.142**	.185	.044	
Quality and impact of nonclassroom relationships with faculty ^a	.068		-.033	
Frequency of contact with student affairs professionals ^a	.122		.235**	.258
Experiences and interactions with diverse others ^a	-.151**	-.188	-.021	

purposes of this study tended to be either small and nonsignificant or somewhat contradictory (Table 1, Part B). For first-year students, there was essentially parity between affiliated and unaffiliated students on all four outcome measures. Net of other influences, senior, affiliated students tended to report a significantly stronger contribution of their undergraduate experience to personal/interpersonal development than did their unaffiliated peers ($b=1.575$, $p<.01$). At the

same time, however, affiliation in the senior year had a modest, but statistically significant negative relationship with academic achievement ($b=-.078$, $p<.01$).

Conditional Effects

In general, the relationship between affiliation and outcomes did not differ by student characteristics, with one exception. The positive relationship between affiliation and personal/inter-

Table 1
Estimated Net Effects of Fraternal Affiliation on College Engagement and Outcomes
Part B: College Outcomes

Dependent Variable	First-Year Students		Senior Students	
	b	Effect Size (Odds Ratio)	b	Effect Size (Odds Ratio)
Academic achievement ^a	.025		-.078**	-.148
Contribution of the undergraduate experience to growth in general/liberal arts competencies ^a	-.821		.787	
Contribution of the undergraduate experience to growth in career/professional preparation ^a	-.326		.159	
Contribution of the undergraduate experience to personal/interpersonal growth ^a	.587		1.575**	.216

^a Regression equations include additional controls for: ACT composite score; high school grades; sex; race; an 11-item scale of high school involvement; reported impact of one's high school education (parallel measure of outcome undergraduate experience scales); father has a bachelor's degree or higher; mother has a bachelor's degree or higher; plans for a graduate degree; institution was a student's first choice for college; hours per week of on-campus work; hours per week of off-campus work; receiving financial aid; was a transfer student (senior sample only); place of residence during college (on campus; off campus within three miles of campus; or off campus greater than three miles from campus vs. fraternity or sorority house); intended or actual academic major (natural or mathematical sciences, social science, nursing, engineering, education, journalism/communications; multiple major; or other vs. business).

^b Regression equations include controls for high school binge drinking frequency; ACT composite score; high school grades; sex; race; place of residence during college (same as superscript "a"); hours per week of on-campus work; hours per week of off-campus work; and intended or actual academic major (same as superscript "a").

^c The estimated effect size is the regression coefficient (b) divided by the standard deviation of the dependent measure. The odds ratio is the odds of fraternity or sorority members being yes (or 1) on a particular dichotomous variable. Only statistically significant effect sizes or odds-ratios are shown. All others are considered chance.

* $p < .05$.
** $p < .01$

personal development was significantly stronger for men than for women. In the case of binge drinking, the relationship between affiliation and binge drinking frequency was essentially the same for students who did and did not binge drink in high school.

Discussion

Academic and Social Engagement

Although the findings are limited to a single institution sample, they present a complex portrait of the unique relationships between fraternity/sorority membership and students' level of engagement during college. Net of important confounding influences, no evidence suggested first-year or senior fraternity/sorority members were less academically engaged than their unaffiliated peers. These findings provide empirical evidence to counter assertions that fraternities/sororities promote an anti-intellectual culture (Thelin, 2004). Student affairs professionals who work with fraternities/sororities may draw on these findings in working with scholarship chairs to more fully include all areas of academic engagement, like connecting members to faculty research and organizing a post-event discussion after a campus presentation. Given fraternities/sororities' roots in the literary and debating societies of the 19th century (Rudolph, 1990) and the effort to align members' behaviors with historic chapter values (Franklin Square Group, 2003), promoting enhanced academic engagement among fraternity/sorority members is well founded.

If fraternity/sorority members and their unaffiliated counterparts were generally equal in academic engagement during college, this was not the case for measures of out-of-class engagement and interacting with members of the university community. The study findings suggested at least some support for the notion that the culture and organizational features of undergraduate fraternity/sorority life tend to facilitate social integration and enhance the de-

velopment of close and influential relationships. Fraternity/sorority members have a long history of being highly engaged in the out-of-class life of the campus (Horowitz, 1986; Thelin, 2004). Student affairs professionals who work in fraternity/sorority life can use these findings to share the positive attributes of these organizations with campus stakeholders. Since fraternity/sorority members have a history of organizing in service to their community, campus fraternity/sorority administrators may find it advantageous to collaborate with the community service/volunteer coordinator, as fraternity/sorority members may be natural partners for serving in leadership roles in university-wide service programs. Additionally, investigating the social and organizational processes through which fraternities/sororities foster high levels of out-of-class engagement may provide the building blocks from which student affairs professionals can best promote out-of-class engagement for all students – affiliated or not.

The close and influential interpersonal relationships that fraternities/sororities encourage may limit the heterogeneity and diversity of a member's social involvement and relationships, however, at least in the first year of college. The lack of contact with different others underscores a complex and perhaps even contradictory pattern of influences connected to fraternity/sorority life. On the one hand, fraternities/sororities appear to facilitate social engagement during college, while on the other hand they may place normative social and racial parameters around that engagement. The failure to find significant conditional effects by gender further suggests that this contradictory influence of affiliation holds for women as well as men.

Student affairs professionals who work with fraternities/sororities may choose to highlight these findings in their work with chapter officers, particularly new member educators. In an interdependent, global society in which intercultural effectiveness is a key competency for success (AAC&U, 2004; Thomas & Ely, 1996), it is

critical that fraternity/sorority members, especially those in their first year of college, are not hindered in developing meaningful relationships with diverse others. Student affairs professionals can work closely with new member educators to expand the normative social parameters of engagement by providing fraternities/sororities with incentives for collaborating with student organizations with which they do not have a history of collaboration and/or facilitating programs, like intergroup dialogues. These and other efforts are necessary if fraternities/sororities are ever to silence the criticism that they are exclusionary, racist, sexist, and homophobic (e.g., Kuh, Pascarella, & Wechsler, 1996; Maisel, 1990; Rhoads, 1995; Robinson, Gibson-Beverly, & Schwartz, 2004; Syrett, 2009).

A Culture of Drinking

Consistent with Kuh & Arnold (1993) and DeSimone (2007), evidence from this study strongly suggested that the substantial influence of fraternity/sorority membership on excessive alcohol use was a socialization effect rather than merely a recruitment effect. This influence was discernible as early as the second semester of the first year of college, but was even more pronounced in the senior year. Moreover, the failure to detect significant, conditional relationships between fraternity/sorority membership, gender, and level of binge drinking in high school suggested the relationship between fraternity/sorority membership and binge drinking was not confined to fraternities, but rather was essentially the same for sorority women as well as for affiliated students who did and did not binge drink in high school.

These findings call into question the culture that fraternities/sororities create in terms of alcohol use and abuse. Student affairs professionals can use this research with chapter alumni(ae) as well as undergraduate chapter leaders in confronting the convenient myths (i.e., fraternities/sororities simply recruit students who binge drank in high school and that the binge drink-

ing problem is confined to fraternities) that may have previously prevented chapters from making necessary changes for the health of their members. Turning the tide of the alcohol culture in fraternity/sorority life requires a coordinated effort (Turning & Thomas, 2008). Rejecting convenient myths and focusing on evidence can aid campus administrators, inter/national organizations, local chapter alumni(ae), and undergraduate members to promote and foster healthy choices.

College Outcomes

Net of an extensive array of confounding influences, little evidence suggested a relationship between affiliation and three of the four learning outcomes, with one exception; affiliated, senior students reported higher levels of personal/interpersonal development than their unaffiliated peers. These findings were inconsistent with previous research in which fraternity/sorority members reported a greater level of self-reported educational gains during college than their unaffiliated peers (Hayek, et al., 2002). This inconsistency in results may be due to the fact that previous research, using self-reported gains, did not introduce a control for students' response inclination on the dependent measures. In the present research, students' inclination to report an influential high school experience acted as a control, and this is likely to have produced a more stringent estimate of the net relationships between fraternity/sorority membership and learning outcomes in both the first and senior years of college.

Finally, while fraternity/sorority membership had only a chance relationship with semester grades in the first year of college, membership had a modest negative relationship with semester grades in the senior year. Even after accounting for binge drinking frequency, the negative relationship between fraternity/sorority membership and grades remained statistically significant and essentially unchanged in magnitude. These findings highlight the need for a four-year aca-

demic and developmental model for fraternity/sorority life. Student affairs professionals can use evidence from this study to articulate that focusing scholarship efforts on new members alone is not sufficient. These results suggest a four-year, developmental model and chapter-wide, academic achievement goals may best serve fraternity/sorority chapters.

Conclusion

Our analyses of fraternity/sorority membership, student engagement, and learning outcomes on a single campus suggested more complexity among the variables analyzed than most existing studies. As a developmental influence, fraternity/sorority life appeared to cut both ways, suggesting fraternity/sorority life warrants neither unreserved praise nor blanket condemnation. Clearly there were areas within fraternity/sorority life where members' behavior aligned closely with espoused values (influential personal relationships; community/civic engagement; and cocurricular participation), but there are important areas where the Call for Values Congruence (Franklin Square Group, 2003) rings true (addressing alcohol abuse; promoting academic achievement; and, fostering interactions with diverse peers). This present study identified these areas and provided suggestions for student affairs professionals to engage fraternity/sorority members and alumni(ae) to create an experience that supports the host institution's educational mission.

References

- Association of American Colleges and Universities (AAC&U). (2002). *Greater expectations: A new vision for learning as a nation goes to college*. Washington, DC: Author.
- Association of American Colleges and Universities (AAC&U). (2004). *Taking responsibility for the quality of the baccalaureate degree*. Washington, DC: Author.
- Antonio, A. (2001). Diversity and the influence of friendship groups in college. *Review of Higher Education*, 25, 63-89.
- Astin, A. W. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge*. San Francisco: Jossey-Bass.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Baier, J., & Whipple, E. (1990). Greek values and attitudes: A comparison with independents. *NASPA Journal*, 28, 43-53.
- Center for the Study of the College Fraternity (n.d.). *Frequently asked questions*. Retrieved April 23, 2009, from <http://www.indiana.edu/~cscf/faq.htm>
- DeSimone, J. (2007). *Fraternity membership and drinking behavior*. Working paper 13262, National Bureau of Economic Research.
- Eberhardt, D., Rice, N. D., & Smith, L. D. (2003). Effects of Greek membership on academic integrity, alcohol abuse, and risky sexual behavior at a small college. *NASPA Journal*, 41(1), 137-148.
- Franklin Square Group (2003). *A call for values congruence*. Retrieved April 6, 2004, from Association of Fraternity Advisors Web site: <http://www.fraternityadvisors.org/uploads/PublicDocuments/CallforValuesCongruence.pdf>
- Goodman, K., Pascarella, E., Seifert, T., Tagliapietra-Nicoli, G., & Park, S. (2007). College student binge drinking and academic achievement: A longitudinal replication and extension. *Journal of College Student Development*, 48(6), 715-727.
- Hayek, J., Carini, R., O'Day, P., & Kuh, G. (2002). Triumph or tragedy: Comparing student engagement levels of members of Greek-letter organizations and other students. *Journal of College Student Development*, 43, 643-663.
- Horowitz, H. L. (1986). The 1960s and the transformation of campus cultures. *History of Higher Education Quarterly*, 26(1), 1-38.
- Hunt, S., & Rentz, A. (1994). Greek-letter social group members' involvement and psychosocial development. *Journal of College Student Development*, 35, 289-295.
- Kuh, G. D., & Arnold, J. C. (1993). Liquid bonding: A cultural analysis of the role of alcohol in fraternity pledgship. *Journal of College Student Development*, 34(5), 327-334.
- Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- Kuh, G. D., Schuh, J. H., Whitt, E. J., & Associates. (1991). *Involving colleges: Successful approaches to fostering student learning and development outside the classroom*. San Francisco: Jossey-Bass.
- Kuh, G. D., Pascarella, E. T., & Wechsler, H. (1996, April 19). The questionable value of fraternities. *The Chronicle of Higher Education*, A68.
- Maisel, J. M. (1990). Social fraternities and sororities are not conducive to the educational process. *NASPA Journal*, 28, 8-12.

- McCabe, D., & Bowers, W. (1996). The relationship between student cheating and college fraternity or sorority membership. *NASPA Journal*, 33, 280-291.
- Milem, J. (1994). College, students, and racial understanding. *Thought & Action*, 9, 51-92.
- Molasso, W. R. (2005). A content analysis of a decade of fraternity/sorority scholarship in student affairs research journals. *Oracle: The Research Journal of the Association of Fraternity Advisors*, 1(1), 1-9.
- Nelson, S. M., Halperin, S., Wasserman, T. H., Smith, C., & Graham, P. (2006). Effects of fraternity/sorority membership and recruitment semester on gpa and retention. *Oracle: The Research Journal of the Association of Fraternity Advisors*, 2(1), 61-73.
- Pascarella, E. T., (2001). Using student self-reported gains to estimate college impact: A cautionary tale. *Journal of College Student Development*, 42(5), 88-92.
- Pascarella, E. T., Edison, M., Nora, A., Hagedorn, L., & Terenzini, P. (1996). Influences on students' openness to diversity and challenge in the first year of college. *Journal of Higher Education*, 67, 174-195.
- Pascarella, E. T., Edison, M., Whitt, E., Nora, A., Hagedorn, L., & Terenzini, P. (1996). Cognitive effects of Greek affiliation during the first year of college. *NASPA Journal*, 33, 242-259.
- Pascarella, E. T., Flowers, L., & Whitt, E. (1999). Cognitive effects of Greek affiliation in college: Additional evidence. *NASPA Journal*, 38(3), 280-301.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass.
- Pascarella, E., Whitt, E., Goodman, K., Park, S., Seifert, T., & Tagliapietra-Nicoli, G. (2006, September). *Undergraduate experiences and outcomes at The University of Iowa*. (Report of Research on Iowa Student Experiences [RISE]). Iowa City, IA: Center for Research on Undergraduate Education.
- Pike, G. R. (2000). The influence of fraternity or sorority membership on students' college experiences and cognitive development. *Research in Higher Education*, 41, 117-139.
- Pike, G. R. (2003). Membership in a fraternity or sorority, student engagement, and educational outcomes at AAU public research universities. *Journal of College Student Development*, 44(3), 369-382.
- Pike, G., & Askew, J. (1990). The impact of fraternity or sorority membership on academic involvement and learning outcomes. *NASPA Journal*, 28, 13-19.
- Rhoads, R. A. (1995). Whales tales, dog piles, and beer goggles: An ethnographic case study of fraternity life. *Anthropology and Education Quarterly*, 26 (3), 306-323.
- Robinson, D., Gibson-Beverly, G., Schwartz, J. (2004). Sorority and fraternity membership and religious behaviors: Relations to gender attitudes. *Sex Roles*, 50(11-12), 871-877.
- Rudolph, F. (1990). *American college and university: A history*. Athens: University of Georgia Press.
- Storch, E. (2002). Fraternities, sororities, and academic dishonesty. *College Student Journal*, 36, 247-252.
- Tampke, D. (1990). Alcohol behavior, risk perception, and fraternity and sorority membership. *NASPA Journal*, 28, 71-77.
- Thelin, J. R. (2004). *The history of American higher education*. Baltimore: John Hopkins University Press.
- Thomas, D. A., & Ely, R. J. (1996). Making differences matter: A new paradigm for managing diversity. *Harvard Business Review*, 74(5), 79-90.
- Wechsler, H. (1996). Alcohol and the American college campus: A report from the Harvard school of public health. *Change*, 28, 20-25.

- Wechsler, H., Davenport, A., Dowdall, G., Grossman, S., & Zanakos, S. (1997). Binge drinking, tobacco, and illicit drug use and involvement in college athletics. *Journal of American College Health*, 45, 195-200.
- Wechsler, H., Dowdall, G., Maenner, G., Gledhill-Hoyt, J., & Lee, H. (1998). Changes in binge drinking and related problems among American college students between 1993 and 1997: Results of the Harvard school of public health college alcohol study. *Journal of American College Health*, 47, 57-68.
- Wechsler, H., Kuh, G., & Davenport, A. (1996). Fraternities, sororities, and binge drinking: Results from a national study of American colleges. *NASPA Journal*, 33, 260–279.
- Whipple, E. G., & Sullivan, E. G. (1998). Greek letter organizations: Communities of learners? *New Directions for Student Services*, 81, 7-17.
- Winston, R. B., & Saunders, S. A. (1987). The Greek experience: Friend or foe of student development? *New Directions for Student Services*, 40, 5-20.
- Wood, P., & Chesser, M. (1994). Black stereotyping in a university population. *Sociological Focus*, 27, 17-34.

Author Updates

Ashley Asel is the Coordinator for Research on Undergraduate Education at St. Louis University.

Tricia A. Seifert is the Assistant Professor of Adult and Higher Education at Montana State University.

Ernest T. Pascarella is a Professor and Mary Louise Petersen Chair in Higher Education at the University of Iowa.