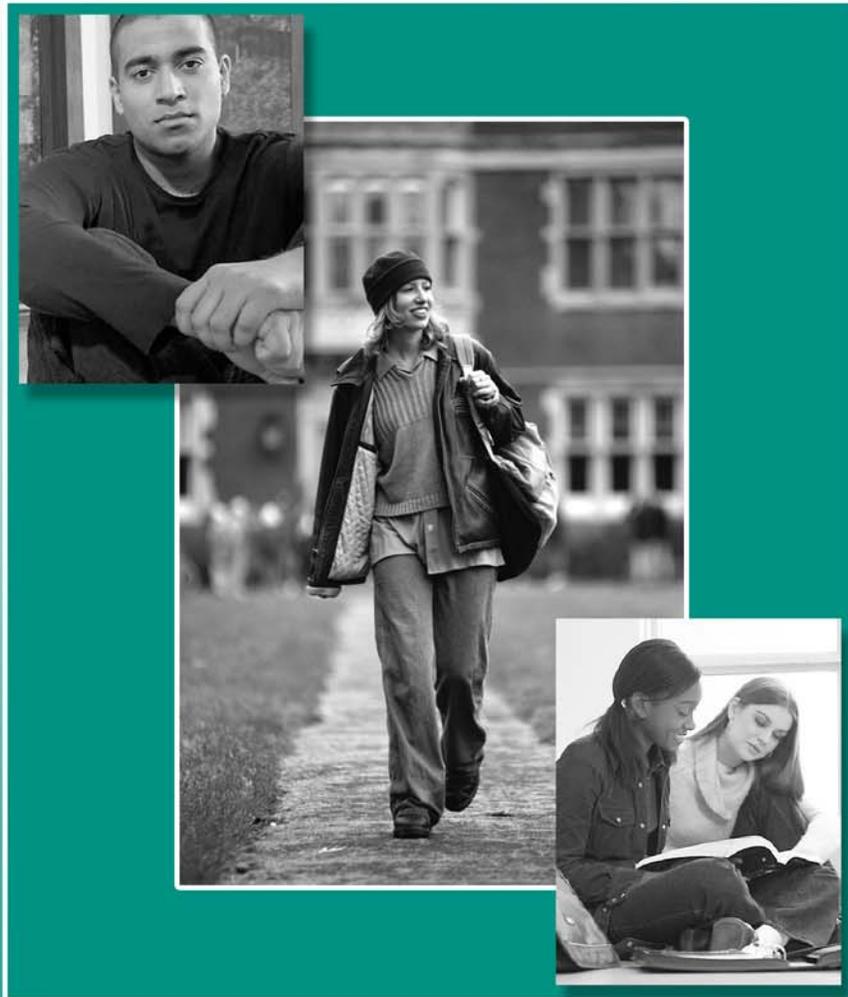


ORACLE

*The Research Journal of the
Association of Fraternity Advisors*



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Started in 2002, the Fraternal Futures initiative offers students, staff, faculty, and general community members a new way to think about change in fraternities and sororities. The project models the National Issues Forum (NIF) deliberations, a process where participants are encouraged to engage in a different way of framing complex issues. Fraternal Futures deliberations offer participants a chance to discuss change strategies from various lenses, recognizing that a typical debate style of conversation often leaves many participants unhappy and does not address the intricacies that go along with tough decisions. With over 1,100 student participants at ten different colleges/universities, results from Fraternal Futures indicate that if serious change is to occur in fraternal life, it must begin by engaging students in authentic, meaningful conversations. Further results denote that students are not only willing to have these conversations, but many students become more informed, committed, and reflective in their actions as a outcome of their participation in the program.
- 81 [PERCEPTIONS OF LEADERSHIP IN UNDERGRADUATE FRATERNAL ORGANIZATIONS](#)
P.D. Harms, Dustin Woods, Brent Roberts, Ph.D., Dan Bureau, and A. Michelle Green
An essential component of the culture and stated purpose of fraternities and sororities is their commitment to leadership. This is highly espoused as a prerequisite to joining and an outcome of membership. With this in mind, it is important to evaluate what leadership means in the context of a fraternity or sorority. This article concludes that leadership can be perceived as exercising power, holding formal positions, and serving as a positive role model for other members. Through understanding the multiple approaches to leadership, the culture and effectiveness of undergraduate fraternal organizations can be evaluated to verify the authenticity of claims of leadership development.

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117 **RESEARCH REVISITED: COGNITIVE EFFECTS OF GREEK AFFILIATION IN COLLEGE: ADDITIONAL EVIDENCE**

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Previous research found broad based negative effects of fraternity/sorority affiliation on standardized measures of cognitive development after one year of college. Following the same sample, and employing essentially the same research design and analytic model, the present study found that the negative effects of fraternity/sorority affiliation were much less pronounced during the second or third years of college.

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Oracle: The Research Journal of the Association of Fraternity Advisors advances the study of college fraternities and sororities through a peer reviewed academic journal promoting scholarly discourse among partners invested in the college fraternal movement. The vision of *Oracle: The Research Journal of the Association of Fraternity Advisors* is to serve as the premier forum for academic discourse and scholarly inquiry regarding the college fraternity and sorority movement.

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Submissions:

Oracle: The Research Journal of the Association of Fraternity Advisors accepts submissions focused on articulating research involving fraternity and sorority members at the collegiate, alumni, inter/national organization, and volunteer advisory levels. Manuscripts should be written for the student affairs generalist who has broad responsibility for educational leadership, policy, staff development, and management. Articles on specialized topics should provide the generalist with an understanding of the importance of the program to student affairs overall and fraternity/sorority advising specifically.

Research articles for *Oracle: The Research Journal of the Association of Fraternity Advisors* should stress the underlying issues or problems that stimulated the research; treat the methodology concisely; and, most importantly, offer a full discussion of results, implications, and conclusions. In the belief that AFA readers have much to learn from one another, we also encourage the submission of thoughtful, documented essays or historical perspectives.

Visit <http://www.fraternityadvisors.org/Oracle.aspx> for more detailed submission guidelines.

**GUEST EDITORIAL:
FROM ASSESSMENT AND EVALUATION TO ACTION**

Rosalind V. Alderman

Assessment and evaluation are essential for the credibility of higher education programs including fraternity and sorority affairs. Both of these practices serve as foundations for research to help promulgate a body of knowledge on a specific topic. In *Assessment in Student Affairs: A Guide for Practitioners*, Schuh and Upcraft (1996) detailed several reasons why assessment is of particular importance in student affairs today, including legitimizing student affairs' existence, strategic planning, and determining the quality of our programs and services.

Schuh and Upcraft differentiate assessment and evaluation in the following way; "assessment is any effort to gather, analyze, and interpret evidence which describes institutional, departmental, divisional, or agency effectiveness" (1996, p. 18). Evaluation is described as "any effort to use assessment evidence to improve institutional, department, divisional, or agency effectiveness" (1996, p. 19). Assessment should be viewed as a three-step process: assessment, evaluation, and action. Although the above definitions would imply evaluation inherently involves action, the power of assessment is in using the information that is gained.

So why do we conduct assessment and/or evaluation and fail to act? Why do we study the research and not apply what we have learned to practice? Many factors influence how we work as practitioners, but in my over 15 years of serving as a student affairs practitioner, I've identified themes as to why we choose to not use or forget to apply what we learn through assessment and evaluation.

It Is So Familiar To Us, We Forget!

I served as the assessment coordinator for our division for several years. One of my biggest challenges was to help the division understand that we were already using assessment and making decisions based on evaluation. An opportunity came as we completed a five-year update for our accreditation agency. Our institutional research expert helped us reframe our task by asking one simple question: In the past two years, what is something you have changed in your services/programs/organization and why? This question got us to look at the assessment, evaluation, and action process in a different way.

I distinctly remember a division leadership meeting where one director answered the above question. It became perfectly clear that she had assessed the program, had used that data to evaluate it, and, as a result, had made changes to improve our student services. It seemed as obvious as she outlined it. Looking at the process of assessment with the end in mind really does help us remember that action/practice is the main reason we assess. For example, the establishment of substance-free housing served as a response to data that fraternity and sorority members drink more than non-affiliated students. In addition, senior retention was a growing concern in fraternities and sororities, so the decision to move to substance free housing was

examined through a series of possible actions and based on the data, several organizations felt it essential to adopt this practice.

Data Are Our Friends!

Too often, we assess and then stop. We spend a good amount of money on an instrument; get the shiny binder with all the information, and then we let it sit on a shelf until we have “enough time” to make sense of it all. Alternatively, we hold a focus group, take great notes, have someone transcribe the tapes, and the transcripts sit in our reading box waiting for the day when we will have the time to review them. In order to make the best of assessment and move into evaluation or, better yet, practice, we need to get to know our data. If you have used an instrument from Educational Benchmarking (EBI), for example, you will immediately recognize the shiny, big binder comment. You should also recognize, however, that there are some excellent reports already pre-formatted to help us make sense of the data. Sometimes we are so overwhelmed by the sheer amount of data we become paralyzed and make no use of it. One strategy I use to prevent data from entering the perennial black hole is to look at it immediately, involving a few others to quickly determine what we want to know more about and what the data tells us that we can begin to act on immediately. Make a commitment to tackle at least one question highlighted in your assessment results. The first step is usually the most difficult.

You Are a Professional

Finally, you need to remember that one of your jobs as a professional is to improve continually programs and services for the betterment of your students. You may collect data in a variety of ways: formally or informally; quantitative or qualitative; locally or nationally. In the end, you are the person making or helping to make the decisions for the area you oversee. You know your students best. You know your campus and you know whether you are giving in to the status quo because your data “looks pretty good” or if you are judging your area too harshly based on some simple information collected on paper. You need to accept ownership for the assessment of your area and realize that great responsibility comes with being a professional. Professionals are able to analyze information and make decisions as needed. They are also able to ask for help when necessary. Most importantly, professionals will use sound assessment efforts in making decisions affecting their areas and ultimately their students.

Therefore, the future begins now. Let the articles in this issue of *Oracle: The Research Journal of the Association of Fraternity Advisors* serve as a catalyst for your assessment efforts. First, Wall, Reis, and Bureau reveal some important work in the area of alcohol assessment in relation to pacing behaviors. For years, campuses have created programs to address alcohol abuse among students. These programs have been created because of knowledge of the issues related to alcohol abuse by college students. What are the real issues related to alcohol abuse on your campus? How could this article help inform your programs?

Next, Roberts and Johnson provide an overview of the Fraternal Futures program. Their theoretical background in how students learn is very insightful and reminds me of how important it is to engage students in our day-to-day as well as strategic planning work. How have you

approached making students a part of re-shaping the future of fraternity and sorority life on your campus?

In the article *Assessing Student Learning and Development in Fraternity and Sorority Affairs*, Strayhorn and Colvin provide some helpful information on creating assessment agendas. Professionals, such as these authors, work on each of our campuses. How can they help us shape an assessment and action agenda for our fraternity and sorority community?

In *Perceptions of Leadership* by Harms, Woods, Roberts, Bureau, and Green, the authors address assumptions through the understanding of multiple approaches to leadership. Each of our fraternity and sorority communities espouses the virtue of leadership. Maybe it is time we use data, such as that presented, to better prepare our members for leadership roles and what that really entails. Does your fraternity and sorority community use multiple perspectives to train leaders? How can you use this information as you develop your programs?

Finally, we have reprinted important work about the outcomes of fraternity/sorority members in comparison to non-members published previously in the NASPA Journal. Through their research, Pascarella, Flowers, and Whitt challenge us to examine the important question of cognitive development in fraternity and sorority members.

As you read this issue of *Oracle: The Research Journal of the Association of Fraternity Advisors* make it a goal to put at least one component of this research or your own assessment and evaluation, into action. Your task: take this knowledge and use it to guide your programs. How can, and will you, use this information? What does it mean for your campus? If we fail to apply information gleaned from assessment and evaluation, can we be more successful at influencing the fraternal movement? My response is “no.”

Reference

Schuh, J. H., & Upcraft, M. L. (1996). *Assessment in Student Affairs: A Guide for Practitioners*. San Francisco: Jossey-Bass.

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INVOLVING STUDENTS IN SECURING A FUTURE FOR FRATERNAL ORGANIZATIONS

Dennis C. Roberts, Ph.D. and Matthew Johnson

Started in 2002, the Fraternal Futures initiative offers students, staff, faculty, and general community members a new way to think about change in fraternities and sororities. The project models the National Issues Forum (NIF) deliberations, a process where participants are encouraged to engage in a different way of framing complex issues. Fraternal Futures deliberations offer participants a chance to discuss change strategies from various lenses, recognizing that a typical debate style of conversation often leaves many participants unhappy and does not address the intricacies that go along with tough decisions. With over 1,100 student participants at ten different colleges/universities, results from Fraternal Futures indicate that if serious change is to occur in fraternal life, it must begin by engaging students in authentic, meaningful conversations. Further results denote that students are not only willing to have these conversations, but many students become more informed, committed, and reflective in their actions as a outcome of their participation in the program.

As fraternity membership has declined 30 percent in the last decade (Reisberg, 2000), the importance of understanding the contributing issues behind the drop has dramatically increased. Some believe the decline stems from a soured public image due to hazing incidents. Others purport that fraternal organizations boast an increased social agenda over service and academic pursuits, which limits their appeal. A number of workshops, speakers, and initiatives have sought to address the issues behind declining membership, only to incur marginal success. Whatever the true reasons are, it is clear that declining interest in fraternal organizations is a complex problem with no easy solution. Nonetheless, this decline remains an issue worth exploring with students in a deep, meaningful way.

The Fraternal Futures initiative is a campus-based program sponsored by the Kettering Foundation that offers students, staff, faculty, and general community members a new way to discuss fraternity and sorority issues at a deeper level, and to think about approaches to solving them. This article documents the Fraternal Futures initiative over the last four years, examining theoretical frameworks that informed the project, chronicling partnerships with other campuses, exploring outcomes from the deliberation processes, and discussing implications based on this work.

Taking Responsibility

Fraternal Futures is based on the juxtaposition of students' interests and local issues, within an atmosphere that empowers students to create solutions. We believe that fraternity and sorority members co-create their future, with assistance from fraternity and sorority administrators and fraternity and sorority regional and/or inter/national organization leadership. Through the

deliberation process, students are empowered and challenged to implement critical thinking skills in solving complex issues.

The theoretical foundation of Fraternal Futures is based largely on Marcia Baxter Magolda's (2004) Learning Partnership Model, which explains how we, as educators, can engage with students in the learning process. Specific to the fraternity and sorority movement, this model demonstrates the ways in which we can work with students to address concerns in their fraternity and sorority chapters and communities, while stimulating a commitment to civic responsibility within fraternity and sorority communities.

Three additional models helped inform the developmental perspective of the Fraternal Futures program. One such model stems from the Wingspread Summit on Civic Engagement, where, in March 2001, 33 undergraduate students met to explore their views of civic engagement. Sarah Long (2002), a student participant, documented these views in *The New Student Politics*. For the Wingspread students, involvement in civic affairs meant transcending the conventional view that political involvement meant only voting and petitioning. The three key tenets of involvement for Wingspread are 1) having access to collective decision making, 2) possessing a personal interest, and 3) pursuing one's involvement through small, local efforts. These conditions are directly aligned with the basic notions of deliberative democracy and are consistent with Baxter Magolda's Learning Partnerships Model (2004). Both the Wingspread Summit statement and the Learning Partnerships Model include the following propositions (Roberts & Huffman, 2005): civic participation must stem from students' own experience (situating learning in students' experience and validating students as knowers); students must see the direct impact of their involvement in small groups at the local level (portraying knowledge as complex and socially constructed); and students must see civic participation as available to all (defining learning as co-constructing meaning through the sharing of authority and expertise).

The two remaining perspectives that helped illuminate the conditions that discourage or support serious student involvement in campus issues came from Richard Keeling (1998) and Alan Berkowitz (1998). Keeling proposed new ways of addressing HIV/AIDS on campus. His primary concept was that homophobia is partially responsible for perpetuating risky sexual practices by making it uncomfortable for gay, lesbian, and bisexual students to be open about their sexual orientation. This veil of secrecy resulted in poor information about and reluctance to adopt healthy sexual practices.

Berkowitz (1998) studied the accuracy of students' perceptions about the drinking behaviors of others, concluding that students' belief that there was a high use of alcohol on campus encouraged individual personal abuse, while the belief that there was low use reduced personal abuse. For both Keeling and Berkowitz, prevention depended on honesty, accuracy, involvement of broad numbers of students, and attention to the campus environmental conditions that have perpetuated risky sexual and alcohol use practices. Baxter Magolda (2004), Wingspread (Long, 2002), Keeling (1998), and Berkowitz (1998) have four themes in common: 1) they encourage honest and realistic analyses of shared problems, 2) they foster a personal commitment to change, 3) they encourage a more complex understanding of the issues, and 4) they empower citizens to be involved in civic issues (Roberts & Huffman, 2005).

These models challenge traditional forms of civic engagement by focusing on collective decision-making that affects local efforts (e.g., deliberative democracy). The blending of the Learning Partnership Model and the additional models emphasize that civic participation must stem from students' own experiences, where they see the direct impact of their involvement at local levels, and making civic participation available to all (Roberts & Huffman, 2005). The deliberation process provides opportunities for students to engage in solving local issues by encouraging honest reflection and realistic analyses of shared problems; fostering personal commitments to change; and encouraging complex understanding of issues.

How the Process Works

Trained student moderators lead approximately 10-20 students through the two-hour Fraternal Futures deliberations. These deliberations include the use of a student-created discussion guide that frames the issues of fraternity and sorority life by presenting a summary of the problems within the fraternity and sorority community and three approaches to solving them. The three approaches are opening recruitment, focusing on accountability and values, and collaborating to address campus health and safety problems. Participants work through the issues by considering each approach and exploring potential tradeoffs, or outcomes to their decisions. Moderators ask participants to reflect on their experiences and discuss potential next steps (e.g., continue the discussion, schedule additional meetings). Finally, students take pre- and post-forum surveys comprised of both quantitative and qualitative instruments. These assessments ask students to choose which approach they favored most and the tradeoffs they are willing to accept by implementing this choice. The pre- and post-assessments assess their perspectives on fraternity and sorority life and their views on civic involvement. Results of the deliberation are tabulated and distributed to the fraternity and sorority administrators, fraternity and sorority governing bodies (e.g., IFC, NPHC) and student participants. Logistical preparations (e.g., time, space) for Fraternal Futures deliberations are arranged with various campuses, chapters, or individual students before the actual deliberation.

Where and How has Fraternal Futures Been Used?

As of summer 2006, Fraternal Futures has been utilized at ten institutions: Miami University, Kutztown University, Jacksonville State University, Westminster College, Florida State University, Ohio Wesleyan, Drake University, Franklin & Marshall University, Eastern Michigan University, Northwestern, and Simpson College. These institutions range from large, public institutions with large populations of fraternity and sorority affiliated students, to small, private colleges with less-affiliated populations. At these various institutions, Fraternal Futures served as either a culmination of new member programs, was incorporated into "Greek Week" activities, or had been a separate program. Each program resulted in different outcomes with varying degrees of success.

Fraternal Futures Outcomes

The first method used to discern outcomes was a quantitative questionnaire administered by the student moderators before and after the deliberation. Four statements were used to gauge students' attitudes:

I am concerned about the future of fraternity/sorority life.

I feel that I have a role in securing the future of fraternity/sorority life.

I feel I have the ability to further the future of fraternity/sorority life.

I am committed enough to take action.

The instrument utilized a Likert scale ranging from "strongly disagree" to "strongly agree." The results indicate a modest positive shift across all four attitudes, with an average of one in three students claiming a positive increase in their attitude toward fraternity and sorority life. The greatest positive shift relates to the question, "I feel I have the ability to further the future of Greek life." Thirty-two percent of students indicated an increase. A moderate positive shift was exhibited in the remaining three attitudes as well, with one in three students indicating a positive change. These data provide supporting evidence that we are meeting our goal of fostering change in fraternity and sorority communities.

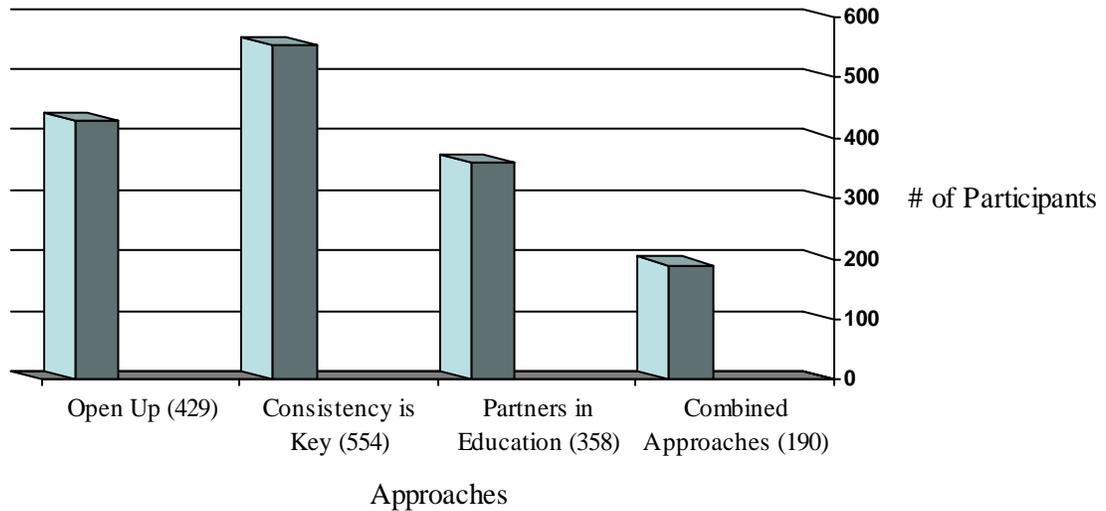
In addition to ascertaining students' attitudinal shifts, moderators ask students to decide upon the approach(es) that they favored most. Students consider if they favor the first approach, which relates to changing recruitment procedures, strengthening diversity, and targeting a wider array of individuals for membership. They also consider the second approach that looks at holding members more accountable, developing and enforcing membership standards, and implementing more values-based programming. Finally, students reflect on the third approach, which includes addressing health and safety concerns by collaborating with other organizations and administrators. As the chart indicates, the most popular approach is the second, a focus on values and accountability. This suggests that students are concerned about acting on their values and holding those members who are not in alignment with those values accountable for their actions.

As students select their approaches, moderators ask them to determine which tradeoffs they are most willing to accept within each approach. Of all the tradeoffs within the three approaches, students were least willing to accept a potential decrease in the bonds of brotherhood or sisterhood, which could occur if approaches one or two were adopted. In addition, we found that students were willing to accept one tradeoff considerably more than the others presented. For example, twenty percent of respondents were willing to accept the potential tradeoff that values-based recruitment (approach one) would force recruitment to become more exclusive and time-consuming.

In addition to our quantitative assessment, students were asked two open-ended questions at the end of the survey. The first question was, "How have your perspectives on the future of fraternity and sorority life changed?" Responses to this question were grouped into eight themes, listed here in order of most frequent to least frequent: community focus, the realization that others face similar problems, a better understanding of issues and broadening of perspectives, a realization of the problems, increased optimism, feelings of empowerment, increased pessimism, greater concern and commitment. Results were analyzed by two raters, the lead researcher and an

assistant. The two most frequent themes account for nearly half of the total responses (48 percent), indicating a very clear perceptual shift among students toward either a more community-focused effort or a realization that others have similar problems.

Table 1. Fraternal Futures Barometer



A junior from Westminster College remarked, “I’m glad to know how much we really all have in common. I’ve never realized that before.” Another Miami student asked, “If we’re all fighting the same battle, how come we don’t work together?” A Drake University student echoed their sentiments, “We have a lot of work to do, and it’s going to take everyone firing on the same cylinders to make it work.” Students believe that their individual chapters are doing well prior to participating in this initiative, but the forums help to shed light on the multitude of issues associated with fraternities and sororities, sparking curiosity and a willingness to get more involved.

In regards to the second most prevalent theme, having a better understanding of issues and broadening perspectives, one Miami woman stated, “I’ve seen that there are a lot of different perspectives and that there is so much that could be done to help better the future of Greeks. We just need to take action now.” One fraternity member commented that he is now “better in tune with the larger scope of Greek life.” These responses, and the others categorized in this theme, indicate that participants gain a deeper understanding of issues through the deliberation process. Participants have the opportunity to visualize issues on a larger, community scale, and consider how individual actions affect the greater fraternity and sorority community.

The second open-ended question asked students to reflect on how their views regarding civic participation changed because of the program. Responses were also grouped into eight themes: community effort, individual action, dispelling stereotypes, a need for continuing dialogue, an appreciation of diverse viewpoints, empowerment/excitement, increased accountability, and no change. Participants identified community effort as their favored form of civic participation and viewed issues not as individual in nature, but as collective problems. One Drake student remarked, “I’ve realized that [civic participation] is really the only way that we are going to

change; without it, we're simply going to maintain." The second most common theme was "no change." Students in this category indicated that their views remained the same or that they saw little value in the deliberation process.

Another component assessed among the Fraternal Futures' outcomes was how student moderators viewed the deliberation process. Student moderators were actively recruited and trained to lead the deliberations, which resulted in students having the opportunity to travel to other different institutions. The student moderators noted that they were apprehensive prior to their visits, mostly because they felt as though they must possess "all the answers" or they were simply nervous that the participants would not engage. With a little coaching and encouragement by the program directors, the moderators set out on their travels. Despite these challenges, student moderators report meaningful learning experiences, as exemplified by one junior moderator from Miami University:

"I had so much fun and learned a great amount about myself as an individual, the campus/Greek system of [this college], and also the Greek Community as a whole. Anyone who participates in this program will definitely come back to [this university] with a better understanding of Greek issues, and themselves. It was so interesting to note the differences in the systems of our two schools, but the sharing of these differences caused all of us to benefit from the experience. It was rewarding to see (and listen to) all that they had gained from the forum that I had led for them! It was so much fun and the amount that I learned from the experience was immeasurable!"

Nearly all of the moderators expressed similar sentiments upon their return. Some even indicated that they planned to apply their experiences as moderators to their respective fraternity and sorority chapters.

Conclusion

Moss Kanter (2004) states that a main reason why organizations find themselves in a "losing streak" is decreased communication because of an unwillingness to have "tough" conversations and address fundamental issues. Fraternal Futures moves in the opposite direction. It attempts to provide a forum for candid conversations where students know their voices are heard and the tendency to blame is avoided. Another characteristic of a losing streak noted by Moss Kanter (2004) is increased isolation, which she contends contributes to continued decline by creating barriers to fresh ideas. Deliberations can expose such isolation. One sorority woman said, "It's like we live in a bubble here. I barely even know other Greek members outside of my chapter." Such comments indicate that fraternal organizations are headed for a "losing streak" unless they increase communication among organizations, and begin to take responsibility for resolving their problems.

Fraternal organizations will not survive unless they adopt deep and sustained conversations that renew them as not only part of, but as essential to, their campuses. The initial efforts of Fraternal Futures created momentum for the campuses where the model has been used. Students have spoken and continue to dialogue due to their participation. The students who have been involved have told us that they appreciate being heard and that they want to be part of positive change. Their responses to post-participation questionnaires indicated that students have also learned

that, at least in this example, they see the potential, the benefit, and the importance of becoming civically engaged in matters that are important to them.

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PERCEPTIONS OF LEADERSHIP IN UNDERGRADUATE FRATERNAL ORGANIZATIONS

P.D. Harms, Dustin Woods, Brent Roberts, Ph.D., Dan Bureau, and A. Michelle Green

An essential component of the culture and stated purpose of fraternities and sororities is their commitment to leadership. This is highly espoused as a prerequisite to joining and an outcome of membership. With this in mind, it is important to evaluate what leadership means in the context of a fraternity or sorority. This article concludes that leadership can be perceived as exercising power, holding formal positions, and serving as a positive role model for other members. Through understanding the multiple approaches to leadership, the culture and effectiveness of undergraduate fraternal organizations can be evaluated to verify the authenticity of claims of leadership development.

Many contend that leadership is important to the health and functioning of college and university student organizations (Komives, Casper, Longerbeam, Mainella & Osteen, 2004; Komives, Lucas & McMahon, 1998). It is therefore meaningful to not only ask the question “Who shall rule?” but also consider the issue of “Who should rule?” (Hogan & Kaiser, 2005). To this end, when considered in the context of college and university fraternities and sororities (hereafter referred to as “undergraduate fraternal organizations”), two questions arise: who are the individuals who attain power and status in these organizations and are these persons the same individuals engaged in formalized positions of leadership?

Review of Literature

Examining models of leadership

Much of the literature in leadership studies explores the trend of viewing leadership as something accomplished when people act with attention to a moral or ethical foundation: leaders are individuals behaving in good and positive ways as determined by the norms of not only the organization but of society (Block, 1993; Covey, 1991; Komives, Lucas & McMahon, 1998; Kouzes & Posner, 1996). Another theoretical paradigm, transformational leadership, has been described as essential to creating positive culture in dynamic organizations. Bass (1990) described transformational leaders as inspirational individuals who elevate and empower their followers. Finally, leadership identity development is a growing field of study asking, “how does leadership shape the identity of people, both their own identity and how others view them” (Chan & Drasgow, 2001; Dugan, 2004; Komives et al., 2004)?

The literature on leadership provides an important framework for students to create intentional learning experiences to expand their leadership knowledge. Literature indicates that leadership in student organizations can be defined in a number of ways. Three notable paradigms are called the objective, the subjective, and the positive approaches to leadership. The objective approach defines leaders in organizations as individuals who hold formal positions in the hierarchy of power. Oftentimes, persons move into positions of leadership due to their credentials and

previous job performance (Dugan, 2004; Komives et al., 2004). This notion can be applied to undergraduate fraternal organizations, as it is common for persons who accept leadership positions to have established their credentials through a previous organizational position prior to serving as an executive officer.

Another way of conceptualizing leadership in an organization is as raw influence. This is the subjective approach to leadership. Power, influence, and the capacity to impact decisions in undergraduate fraternal organizations do not lie solely with members of the executive board or those holding chair positions. They can be held by influential members, regardless of formal position. This type of leadership has to do with an individual's reputation more than their leadership abilities in an official role. In fact, in some organizations the influence of dynamic voices may outweigh the authority of those in official positional power (Neill, 2006). An example of how this may manifest itself in fraternal organizations relates to how decisions, such as to whom membership is offered, can be determined by a majority vote of current members. This makes it possible for outspoken or domineering members to possess a great deal of influence in the organization and exert such influence without holding formal positions of power.

Finally, the positive approach to leadership involves determining the characteristics that make someone a good and effective leader. These characteristics include the ability to initiate structure and show consideration for others, possession of personal charisma, articulation of a compelling vision for the organization, and actions that make others proud to be associated with the individual (Bass & Avolio, 1993; Komives et al., 1998; Kouzes & Posner, 1995; Stogill & Coons, 1957). This approach embodies characteristics of both the objective and subjective paradigms for leadership achievement.

Psychological examination of personality in relation to leadership

A wide variety of sources, from both the popular press and the scientific literature, indicate that the link between personality and leadership is salient. The positive personal qualities of leaders have been described at length in any number of popular books on the topic of leadership (Buckingham, 2001; Covey, 1991; Kouzes & Posner, 1995). Furthermore, the academic literature on the topic of relating leadership to personality is substantial (Bono & Judge, 2004; Judge, Bono, Ilies, & Gerhardt, 2002).

A review of the links between personality and leadership revealed that each of the major aspects of personality, as defined by the Five Factor Model (Digman, 1990), were related to leadership effectiveness and leadership emergence (Judge, Bono, Ilies, & Gerhardt, 2002). Aspects of Extraversion, Sociability and Dominance, have been linked with self and peer ratings of leadership (Gough, 1990). Emotional Stability, which is linked with confidence, is also often linked with leadership qualities (Bass, 1990). Conscientiousness, which reflects persistence and hard work, has been linked with both job performance and leadership outcomes (Judge et al., 2002). Agreeableness, which is linked with both modesty and cooperativeness, has an ambiguous relationship with leadership depending on the aspects of the trait that are considered (Judge et al., 2002). Finally, Openness, which is closely linked with originality, has been shown to be predictive of leadership performance (Bass, 1990).

Beyond the role of personality in determining leadership achievement and success in the corporate world, longitudinal research on status attainment demonstrates that personality serves as a major contributor to achieving positions of prominence over time in other life domains (Caspi, Elder, & Bem, 1987; Helson & Roberts, 1992). However, while it may be true that a variety of traits have been shown to be responsible for coming to positions of power and being respected as a leadership, very little is known about what characteristics predict social influence.

In a recent study of social status, it was demonstrated that both Extraversion and Emotional Stability have been linked with achieving prominence in fraternities (Anderson, John, Keltner, & Kring, 2001). Similarly, it has been demonstrated that Extraversion predicts wielding influence in sororities (Anderson et al., 2001). However, these student organization studies were not directly comparable in terms of leadership and status outcomes and reflected the results of single organizations. Consequently, the general relationship between personality, positional power, social influence, and leadership in student organizations has not yet been explored.

Fraternities and sororities as a forum for leadership development

Many fraternities and sororities currently state the development of leadership skills as a primary outcome of membership (Beta Theta Pi, 2006; National Pan-Hellenic Council, 2006; Pi Beta Phi, 2006). A review of fraternity and sorority mission and purpose statements allows for insight into how values oftentimes associated with leadership are integrated into the functions of these organizations. For example, Pi Kappa Phi includes immediately in its mission statement “We will lead” (Pi Kappa Phi, 2006b). This type of rhetoric is prevalent in much of the materials fraternal organizations provide to potential members and other interested parties.

Historical accounts of the fraternal movement also highlight efforts to advance leadership development through membership. Anson and Marchesani (1991) write, “...fraternities and sororities offer students opportunities for personal development unmatched in most campus organizations (p. ix).” Leadership development has been long touted as a primary impetus for the fraternal movement as well as a reason for maintaining these organizations at institutions of higher education.

The Research Examined

Purpose of the study

This study approaches the issue of the relationship between personality and leadership from the neo-socioanalytic framework (Roberts & Wood, in press). This theoretical framework states that the core aspects of personality consist of traits, motives, and cognitions about the self. Traits, or stylistic patterns of behavior, are best understood using the Five Factor Model framework (Dingman, 1990; Wiggins, 1996). In this model, a catalog of five dimensions is used to describe the range of behavioral styles seen in individuals. These dimensions are Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect. Together, these traits are referred to collectively as the “Big Five.” Trait Dominance, a sub facet of Extraversion, was included in the model as it had previously been demonstrated to be the single highest trait predictor of leadership outcomes (Judge et al., 2002). Trait dimensions are separate from motives, which represent the underlying, and often unexplored, desires of the individual.

The motives most relevant for the analysis of leadership are Hope for Power and Fear of Power (Winter, 1973). These can be thought of as representing the approach and avoidance systems most related to hierarchy striving in social systems (Keltner, Gruenfeld, & Anderson, 2003). In previous research, they have been linked to the attainment of status in student organizations (Winter, 1973). Hope for Power can be considered one's own emotional drive for positions of leadership, while Fear of Power is linked to the anxiety that is experienced when considering the possibility of failing when in a leadership role. It is possible to be high or low on both of these motives simultaneously.

Finally, cognitions about the self-represent the conscious identity an individual believes best describes his or her values and behavior. These beliefs develop over time as new experiences and achievements are integrated into the sense of the self (Roberts & Wood, in press). While initially forming from the motives and traits an individual possesses, these identity beliefs become crystallized over time and individuals begin to act in ways that protect and project this image of them. Each of these aspects of the self, traits, motive, and self-cognitions are believed to be important and unique contributors to life outcomes such as attaining positions of prominence.

The aim of this research has been to show the relationship between personality and leadership in undergraduate fraternal organizations. We demonstrate how utilizing alternative approaches to understanding leadership offers unique insights into the individuals commonly thought of as being leaders. In order to explore the consequences of using these different definitions in the study of leadership in undergraduate fraternal organizations, we investigated the personality characteristics that facilitate the recognition and attainment of these types of leadership. Furthermore, we illustrate the importance of various aspects of personality in the process of leadership development in undergraduate fraternal organizations. We believe these analyses will illustrate the importance of choosing an appropriate model for the study of leadership development in undergraduate fraternal organizations.

Research Methods

Participants

366 participants (203 women) were recruited from four fraternities and three sororities at a large, state university in the Midwest with approximately 20 percent of the student population listed as members in undergraduate fraternal organizations. Participants were compensated for completing the two-hour survey. The coordinating student organizations were organizations also compensated for their assistance with the study. The average age of the participants was 19.6 years old (SD = 1.1). Over 90 percent of members identified as Caucasian.

Materials and Method

Big Five Personality Traits. A 53-adjective measure of the Big Five personality traits (Goldberg, 1992), first used by Walton and Roberts (2004), was employed in the assessment of general personality traits. This measure was chosen for ease of use by participants and the ability to measure several personality traits in a short period. Participants rated how much they agreed the adjective described them using a five-point scale (1 = Strongly disagree, 5 = Strongly agree). Alpha reliability coefficients ranged from .77-.83.

Dominance. A measure of trait dominance (Harms & Roberts, 2005) making use of seven dominance-related adjectives (e.g. dominant, powerful, forceful) was embedded in the Big Five inventory and was rated using the same scale. The alpha reliability coefficient was .78.

Power Motive. Two six-item self-report measures of power motivation were used to assess independently Hope for Power and Fear of Power (Harms & Roberts, 2005). Participants rated items on a five-point scale according to how much they agreed with the description of their thoughts about power and status. An example item for Hope for Power is “I want to have power in every aspect of my life.” An example item for Fear of Power is “The thought of being put in a position of authority scares me.” The alpha reliability coefficient for the Hope for Power scale was .80 and for the Fear of Power scale was .79.

Leadership Identity. A 6-item measure of leadership identity (Chan & Drasgow, 2001) was used to assess self-reported leadership identity. Examples of items include “I usually want to be a leader in the groups that I work in” and “I am definitely not a leader by nature” (reverse-scored). Participants rated the items using the same rating scale as they did for the power motives. Leadership identity had an alpha reliability of .86.

Social Influence. Social influence was assessed by gathering peer ratings of each member in relation to how much influence was demonstrated by that individual. Participants rated the extent to which each member “has influence among other people in the organization,” with values ranging from 1 (weak) to 7 (strong). Given the large size of three of the organizations (membership listed as over 120 total members), the list of organization members was split into two, with participants having to rate only one half of the organization members or the other (randomly selected). For each person, ratings were averaged across all participants who had rated the person. The inter-rater correlations for the influence measure were high in all organizations (all were greater than or equal to .28). Consequently, across organizations there was good reliability for ratings of influence (.90 to .98). Because this variable was substantially linked to seniority, the effect of length of membership was removed by using the non-standardized residual of influence regressed on the number of years spent in the organization.

Transformational Leadership. As in prior research (Judge & Bono, 2000; Lim & Ployhart, 2004) five scales from the Multifactor Leadership Questionnaire (Avolio, Bass, & Jung, 1999) were combined to form a single transformational leadership dimension. These scales were: charisma-idealized influence (attributed), charisma-idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. Participants rated an average of three peers on how much they agreed that the statement described them on a 5 point scale (1 = Strongly disagree, 5 = Strongly agree). Together, these scales had an alpha reliability coefficient of .93.

Organization Offices. Members were asked to name the offices they held in the organization. Responses were categorized into executive offices (0 = held no executive office, 1 = held an executive office), which was limited to executive board positions (e.g., president, vice-president, treasurer). Because only established members could hold offices, analyses were limited to members who had been in the organization one year or more. Within this sub-sample, 10% of participating members held executive positions.

Results

Table 1 presents the descriptive data from our sample as well as correlations between our predictor variables and the leadership indices. Table 2 presents the correlations between the leadership indices. These correlations range from a low of .17 to a high of .39. These relationships are all in the positive direction, indicating that there is a common component to each of these conceptualizations that could be described as an “overall” leadership component that none of them fully explains. While these relationships are significant and positive, they do demonstrate that there are substantial differences between these methods of assessing leadership in undergraduate fraternal organizations.

Table 1
 Descriptive Statistics and Correlations of Predictors and Criteria

	Mean	SD	Social Influence a	Transformational Leadership a	Executive Offices b
1. Extraversion	3.58	.67	.25*	.05	.12
2. Emotional Stability	2.91	.52	.06	-.05	-.03
3. Agreeableness	4.18	.45	.05	.12*	.10
4. Conscientiousness	3.71	.61	.15*	.17*	.06
5. Intellect	3.93	.50	.10	.05	.12
6. Dominance	3.41	.57	.18*	.00	.16*
7. Hope for Power	2.30	.67	.05	-.13*	.23*
8. Fear of Power	1.93	.58	-.22*	-.08	-.19*
9. Leadership Identity	3.77	.70	.26*	.09	.24*

a n = 319-352

b n = 206

* p < .05

Table 2
 Correlations Between Leadership Indices

	Social Influence	Transformational Leadership
1. Executive Offices (a)	.39*	.17*
2. Social Influence (b)		.39*

a n = 187-206

b n = 317

* p < .05

Relationships Between Personality and Leadership Indices

Objective Leadership: Executive Offices. None of the Big Five personality traits was a significant correlate of holding executive offices. However, high trait Dominance ($r = .16, p < .05$), high Hope for Power ($r = .23, p < .05$), low Fear of Power ($r = -.19, p < .05$), and high Leadership Identity ($r = .24, p < .05$) all showed significant relationships with the attainment of executive office. It therefore appears as though individuals from the study who exhibit trait and

motive profiles associated with hierarchy-striving and status attainment are indeed successful at achieving status, in the form of executive offices, in their undergraduate fraternal organizations.

Perceived Leadership: Social Influence. High Extraversion ($r = .25, p < .05$), high Conscientiousness ($r = .15, p < .05$), high Dominance ($r = .18, p < .05$), low Fear of Power ($r = -.22, p < .05$), and high Leadership Identity ($r = .26, p < .05$) were correlated significantly with our index social influence. Together, these findings seem to indicate that in order to wield unofficial influence in an undergraduate fraternal organization, it is not sufficient to be ambitious and domineering. One must also possess a disposition that promotes sociability and persistence. This was often the case when examining members with seniority in the organization and was not directly correlated to positions of leadership.

Positive Leadership: Transformational. High Agreeableness ($r = .25, p < .05$), high Conscientiousness ($r = .17, p < .05$), and low Hope for Power ($r = -.13, p < .05$) were correlated significantly with our index social influence. Interestingly, these results seem to indicate that it is not the ambitious individual that is being described by their peers as a good leader, but simply an influential person. Instead, these individuals tend to be likeable, hard working, and do not desire to put themselves over their fellow members and may be described as possessing a service-oriented leadership orientation. Their dispositions make them well suited to serve others and the organization as whole and their peers recognize this and praise it.

Discussion and Implications for Fraternity and Sorority Practitioners

Undergraduate fraternal organizations promote their ability to advance members' existing skills through involvement in organizational leadership roles. There is not a well-established body of knowledge about outcomes of serving in leadership positions or the organization's ability to aid in the development of leadership skills. Research on leadership development as an outcome of membership in undergraduate fraternal organizations should be prioritized by those who are proponents of these organizations.

This study reflects the attention needed to nurture the personality traits of leaders and identify ways to assist in the development of skills by other members. While none of the Big Five personality traits was a significant correlate of holding executive offices, many showed significant relationships with the attainment of executive office. This may reflect the needed skills to acquire positions but does not indicate a correlation with maintaining positions. Training efforts for persons aspiring to leadership roles may focus on developing these traits through team building or other group focused activities.

It is also evident that if such positions are admired or preferred by persons entering positions, then they should be nurtured and maintained through the duration of serving in such positions. Educational training from campus professionals and others invested in the fraternal movement may be necessary to assist leaders in understanding the need to develop further already strong skills.

From the perspective of exercising power, undergraduate fraternal organizations are an unusual case since influence can be associated with length of membership, regardless of actual acts of

effective leadership or duration of time in formal leadership positions. Individuals with formal positions of power are not the only members with influence, and sometimes they are superseded by members who never served in formal leadership roles, particularly if such individuals have longer membership tenure. It becomes necessary to distinguish between the different types of leadership that can be present in such organizations.

Individuals who attained formal positions of power tended to exhibit characteristics of ambition. They desired power and influence and viewed themselves as leaders. They also acted in a dominant manner and did not seem concerned with how others perceived their actions. It is possible this is the reason why the relationship between holding executive office and being rated as a positive leader was relatively small. Unpopular decisions sometimes warrant low ratings for leaders.

Individuals who were rated as being influential, though not necessarily in a positive way, tended to exhibit characteristics that get individuals noticed in the experience-rich environment of undergraduate fraternal organizations. These individuals described themselves as sociable, hard-working, and as natural leaders. There was a positive correlation between being described as wielding influence and being described as wielding it in a positive manner. This seems to indicate that in undergraduate fraternal organizations, individuals who serve their organization in positive ways are recognized as deserving of deference by other members, even if they do not necessarily hold formal positions.

Individuals who were described by their peers as positive role models were typically characterized by their strong work ethic and attempts to get along with others. Further, these members did not see themselves as ambitious. It is likely that these individuals were most attracted to the aspects of the organization that promoted brotherhood and sisterhood rather than opportunities for advancement. This conclusion is formed due to their desire to maintain neutrality and not disrupt the equilibrium of the organization while getting their work done. Perhaps their commitment to these ideals is what made their peers recognize them as positive agents within the organization.

Together, these results seem to indicate a number of interesting possibilities about the nature of undergraduate fraternal organizations. It seems as though these organizations do facilitate the opportunity to advance and attain positions of prestige should an individual desire it. However, when it comes to who is recognized as a positive example of a leader in the organization, it is not the ambitious members who are nominated, but rather the individuals with the strongest commitment to the organization and their fellow members. Practitioners working with leadership training for undergraduate fraternal organizations should not only focus on members in officer positions. The impact of “official” leadership positions such as president, community service chair, or new member educator, may be hindered by more “popular” voices in the organization.

Advancing change can be difficult in traditional organizations. Conveying messages to “average” members, not just formal chapter leaders, could aid in advancing organizational capacity for success in completing goals and bringing about change. In addition, those working with undergraduate fraternal organizations should provide leadership workshops and develop

curriculum that would empower officers to mobilize members toward common goals and to counteract negative influences in the organization.

Practitioners should also focus on intentional leadership development experiences during the new member orientation process. As members join the organizations, can fraternity and sorority practitioners collaborate with other important constituents to create a new member leadership class or training program? This may be a practical way to ensure that persons who aspire to serve their organization and the fraternal community are given the skills to do so. Foci should include team building, group dynamics, managing change, and influencing others. Our results indicate new members seeking leadership positions may have less influence than current leaders and members not holding formalized positions. As members mature in the organization and seek to achieve formalized positions, they will need to be able to counteract some negative forces in the organization. Those invested in working with these organizations should provide ample leadership training as early as the new member education period or even prior to gaining membership into the organization. In addition, training for senior members to assist in channeling influence toward positive growth of fellow members may be important. This can aid in creating mentoring roles between senior members and new members of the organizations.

In this study, we investigated the consequences of interpreting leadership in undergraduate fraternal organizations from a variety of perspectives. Leadership can be thought of alternatively as objective or subjective. In the objective sense, either one is in a formal or recognized position where one is a leader or not. In the subjective sense, one can be ascribed leadership by one's peers through social reputation. In a social group, such as an undergraduate fraternal organization, this can mean that an individual simply wields power and influence or it can mean that they act as a role model for others. Thus, what it means to be a leader in these organizations can have diverse meanings when considered by different people. Leadership does not necessarily mean committing positive actions and having a positive role in these organizations. Because of this, it is necessary for future research on undergraduate fraternal organizations to de-mythologize the word "leadership" and clarify what aspect of leadership is under investigation.

Future research into the antecedent personality characteristics of leaders in undergraduate fraternal organizations should take into account the different approaches to understanding personality. Each of the approaches used in the current study demonstrated unique relationships with the leadership outcomes and each offered insight into the meaning of leadership in the context of undergraduate fraternal organizations.

Although we found in this study that formal and informal leadership positions and levels of influence were significantly related to one another, it was clear that individuals exemplifying these types of leadership differed in terms of their character. Future studies may focus on the power and influence that former officers or appointed leaders have once they have completed their office and no longer serve the organization in an official role. Do they have similar or more influence than outspoken members with the same membership tenure who do not have previous "leadership credentials?"

As leadership in undergraduate fraternal organizations is further researched, one should consider the variety of ways to conceptualize leadership. In this study, we attempted to distinguish these

different approaches to leadership and outline the implications for describing which members exhibited the characteristics of leadership in the context of the organization.

It also seems prudent for studies of leadership development in undergraduate fraternal organizations to clarify what sort of leadership is expected to develop in such organizations. Many members will at some point be placed in a position of responsibility. However, not all of these positions carry the same level of prestige or relevance in the organization. Rather, the non-executive positions are expected to facilitate development of personality characteristics that are prototypical of effective and positive leadership. Training to empower such leaders to advance into other leadership roles is an important priority for practitioners working with undergraduate fraternal organizations.

Other opportunities exist to replicate this study on less homogeneous organizations. Less than 10 percent of those participating indicated ethnicity other than Caucasian. In addition, each organization considered for the study identified as a social fraternity and sorority, so application to professional organizations may also allow for different findings. The study was done at one institution with organizations selected by campus professionals. This may have influenced the results due to the selection of organizations. If applied across many organizations with a less biased sample, the results could vary or stay consistent.

Finally, longitudinal studies will be necessary to demonstrate that positive leadership values and the aspects of personality most closely linked with positive leadership do, in fact develop, in the context of an undergraduate fraternal organization. Research such as this will be essential in displaying the positive role of these organizations for leadership development during the critical developmental years of college.

Conclusion

There are a number of different ways to look at leadership. Individuals can attain positions of power, they can wield influence unofficially, and they can exhibit positive behaviors that make them good role models. We believe that in order to understand the development and selection of leaders in undergraduate fraternal organizations, one should be aware of the differences between these approaches. By understanding the antecedent aspects of personality that facilitate the development and attainment of these types of leadership, we can better understand the process by which leadership develops in undergraduate fraternal organizations. This approach can provide rich data to document further the powerful opportunities for leadership development in undergraduate fraternal organizations.

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ASSESSING STUDENT LEARNING AND DEVELOPMENT IN FRATERNITY AND SORORITY AFFAIRS

Terrell L. Strayhorn, Ph.D. and Amy J. Colvin

Assessment in higher education has increased over the past several decades. Pressure from constituencies for colleges to demonstrate their effectiveness in measurable terms and loss of public trust in higher education drive the movement toward assessment. Presently, assessment is part of the accreditation process. Student affairs practitioners, including those working with fraternities and sororities, are not immune to these pressures. Yet, many student affairs professionals report feeling inadequately skilled in conducting assessment projects and need guidance in this area of their work. The purpose of this manuscript is to discuss the importance of assessment and how it relates to fraternity/sorority advising. In addition, the article highlights the ways in which assessment can be used to demonstrate student learning and development resulting from fraternity and sorority involvement.

Assessment as practice for fraternity and sorority professionals is often perceived as an amorphous and daunting task; but it does not have to be such. Not only can assessment be easy but also one can assess the impact of fraternity and sorority involvement on student learning and development in college. The purpose of this article is to discuss the importance of assessment and how it relates to fraternity/sorority advising work. In addition, the article highlights the ways in which assessment can be used to demonstrate student learning and development resulting from fraternity and sorority involvement. Interviews with constituents of a large fraternity and sorority community provide insight into the experiences of members. How one can use practical methods and assessment tools that are available are discussed through an examination of sample case studies.

Problem Statement

Today's educators operate in an assessment driven environment. Diminishing resources from state and federal governments and calls for greater accountability are driving the assessment movement in higher education. In addition, state legislatures and local community members champion the call for assessment to justify state allocations to colleges and universities and to demonstrate institutional efforts in terms of outreach and economic development. Furthermore, parents and students, albeit unknowingly, support the need for assessment as a way of giving reason for the costs of college and recent dramatic increases in tuition (Angelo, 1997).

The erosion of public trust and confidence in higher education are two of many factors driving a "culture of evidence" (Giegerich, 2006) in higher education. Far too many examples exist of recent college graduates who can barely demonstrate the basic requirements for literacy and math (Bloom, 1987; Hersh & Merrow, 2005; Read, 2004). This results in citizens and employers feeling as if higher education fails to do what it purports - to educate individuals who are prepared for work and participation in a democratic society. In addition, as mentioned above,

parents and students often point to the rising costs of college and falling rates of returns (e.g., enrollment, graduation, employment, etc.) as a source of their dissatisfaction with higher education.

Finally, assessment is an integral part of institutional accreditation. For many national and regional accrediting organizations, outcomes assessment is an integral part of the accreditation process (Upcraft & Schuh, 1996). For example, the Southern Association of Colleges and Schools requires all institutions applying for accreditation to develop a quality enhancement plan (QEP). Then, the Commission on Colleges sends a team on campus to assess the quality of educational programs at the institution. Thus, assessment is part of accreditation processes.

In light of these factors, not only is the need for assessment made clear but it seems even clearer that assessment is here to stay. The demand for assessment is recognized by many internal constituencies of a college or university including faculty members, upper level management, and campus administrators. For example, academic administrators are called upon to evaluate faculty performance in teaching, research, and service (Centra, 1979; Kasten, 1984). Still, another group is influenced by the media for a culture of evidence, namely student affairs administrators (Upcraft & Schuh, 1996). However, many student affairs professionals report feeling inadequately skilled in conducting learning outcomes assessments and need more guidance in this area of their work (Bauer & Hanson, 2001). This is particularly true for those who work in functional areas that seem tangentially related to the academic mission of the university such as fraternity and sorority advisors.

Review of Literature

In recent years, assessment has been used in various campus settings. For example, Angelo and Cross (1993) described classroom assessment techniques that can be used by college teachers to measure the impact of various teaching strategies. The authors suggested that assessment should be learning-centered and thus our practices should encourage students' development of skills, abilities, and knowledge across a range of domains.

Assessment can also be used in student affairs as a way of measuring program effectiveness and college impact. In the past, student affairs professionals made evaluations of their performance, student satisfaction, and even institutional effectiveness based on incomplete data, hunches, and intuitive feelings. Given the variety of techniques and methods available today, making such judgments based on "gut feelings" is no longer necessary or sufficient (Erwin, 1991).

In response, Upcraft and Schuh (1996, 2000) called for the use of assessment in student affairs as a way of measuring the impact of college on students and quality of student services. In their terms, assessment is "any effort to gather, analyze, and interpret evidence which describes institutional, departmental, divisional, and agency effectiveness" (1996, p.18). Assessment has also been used as a way of promoting strategic planning and facilitating institutional research. In fact, Erwin (1996) points out that assessment is the "systematic basis for making inferences about the learning and development of students."

Even as an important and essential component of student affairs, many practitioners report feeling inadequate or incapable of conducting high quality professional assessment studies (Bauer & Hanson, 2001; Erwin, 1991; Strayhorn, 2006; Upcraft & Schuh, 2000). Many indicate feeling intimidated by the demand for scientific rigor and inferential statistical techniques. In fact, the need for high-quality assessment was presented at several national meetings by the lead author on this article, and findings were the same (Strayhorn, Creamer, & Miller, 2005). Academic and student affairs administrators, stressing concerns about using t-tests, stratified sampling methods, and randomized experiments, seemed to cover most ears and block out the take home message - assessment can be easy.

Before one can understand how to assess educational programs, it is necessary to distinguish assessment from research and evaluation. Research refers to empirical scientific studies designed to uncover new information and new knowledge about a particular topic. Research emphasizes the ability to test hypotheses (Neuman, 1994). Evaluation, on the other hand, is a way of measuring the success of a program or activity. It implies a “looking-back” orientation that takes place after a program or activity has ended. Assessment, however, refers to a “check in time” or a way of measuring the status of a program and/or the current outcome of education. Assessment is often used for program improvement and quality assurance (Bogdan & Biklen, 1992; Strayhorn, 2006; Upcraft & Schuh, 1996).

Assessment can be used in other ways, including the assessment of student learning and development (Erwin, 1991). Assessment is a process and requires a significant investment of time, energy, and resources. Assessment yields a wealth of information for educators who are concerned about the impact of college on students, improve processes in terms of efficiency, and evaluate programs in terms of effectiveness.

Assessment projects require detailed plans. Assessment plans refer to the formative aspects of an assessment project. Objectives are formed and outcomes are identified during the planning process. This step is often referred to as the strategic planning cycle and is often the most time-consuming step of the assessment process (Erwin, 1991; Strayhorn, 2006).

Part of this process includes identifying a sample, selecting an appropriate method for collecting data, and choosing an analytical technique (Creswell, 2003; Neumann, 1994). There are many ways to collect data once an appropriate sample has been identified. First, professionals are encouraged to determine an appropriate methodology (e.g., quantitative, qualitative, or mixed method). Rather than viewing these methods as separate worlds, they should be considered as different paradigms or ways of knowing (Strayhorn, 2006; Upcraft & Schuh, 1996). In a quantitative sense, one might consider using instruments available in the public domain or locally developed surveys to gather information. In a qualitative approach, one might use interviews, focus groups, or historical methods to obtain data. Regardless, the approach should be warranted by the research or assessment questions. Good sampling techniques lead to good methods, and both allow for good analysis.

Analytical techniques that might be considered for use in assessment range from simple descriptive statistics to multivariate statistical tests and multi-level modeling. Again, the technique is warranted by the assessment question and influenced by the sampling and data

collection methods. Choosing an appropriate technique for data analysis can be a complex process and may require the advice of trained social scientists or institutional researchers (Bauer & Hanson, 2001; Upcraft & Schuh, 1996).

Educators are strongly encouraged to use collaborative approaches to measuring the impact of various programs on students' learning. For example, those who work in fraternity and sorority affairs might collaborate with graduate students and/or faculty members in college student personnel programs to investigate the nature of fraternity and sorority involvement and its influence on learning in college. Practitioners might also collaborate with individuals who are in fields other than education including, but not limited to, faculty members in sociology, anthropology, women, and gender studies. Each lens brings much needed information and insight on fraternity and sorority affiliation. In addition, graduate students and faculty members may bring a much-needed level of expertise to the project.

In sum, all educators should be concerned with measuring the effects of educational programs, activities, and other experiences on students' learning and development in college. Those who work in academic affairs tend to pay attention to the influence of teaching techniques and student evaluations (e.g., tests, exams) on how much students learn and change over the college years. Likewise, persons in student affairs tend to be involved in measuring the effect of student services on what a student gains from college (Miller, 2003; Strayhorn, 2006). Considering their shared focus on student learning and development, collaborations between academic and student affairs are possible.

To accomplish their mission, offices of fraternity and sorority affairs adopt a variety of goals and objectives. Goals and objectives are often closely related to educational outputs and tend to identify specific student learning outcomes including promoting the intellectual, social, recreational, moral, and career development of students, providing training in leadership and other personal and social skills, promoting student involvement in co-curricular activities recognize the sponsorship of and participation in community service projects, creating positive educational outcomes, fostering an appreciation for different lifestyles and cultural heritages while recognizing their common values and creating powerful relationships to forge community on campus (AFA, 2002).

The statements and goals above suggest that student affairs administrators who work with fraternities and sororities strive to foster environments and sponsor programs and services to, among other things, develop leaders, maintain strong relations, and promote appreciation for diversity. Yet, much of the literature on fraternity and sorority life has focused on the negative effects of fraternity and sorority involvement. For example, one line of inquiry highlights the relationship between alcohol abuse (Shonrock, 1998; Tampke, 1990; Wechsler, Kuh, & Davenport, 1996), hazing (Hennessy, 1998; Kuh, Pascarella, & Wechsler, 1996), poor academic achievement (Pascarella, Flowers, & Whitt, 2001), and being involved in a fraternity or sorority. Another line of inquiry investigates the rate of occurrence of gambling among fraternity and sorority affiliated students (LaBrie, Shaffer, LaPlante, & Wechsler, 2003; Rockey, Beason, Howington, Rockey, & Gilbert, 2005). From this body of literature, several conclusions have been drawn. For example, fraternity and sorority students were more likely to be involved in gambling activities than their counterparts. Rockey, Beason, Howington, Rockey, and Gilbert

(2005) suggest that there exists a significant relationship between “pathological gambling” and being involved in a fraternity (p. 80).

Conversely, there is research that supports the positive effects that fraternity and sorority involvement can have on students. Fraternity and sorority affiliation has been associated with increased levels of satisfaction with college (Pennington, Zvonkovic, & Wilson, 1989; Pike & Askew, 1990) and intellectual development (Pascarella, Flowers, & Whitt, 2001). Astin (1975) found support for the relationship between persistence in college and higher degree attainment for fraternity and sorority affiliated students. Still others demonstrate that fraternity and sorority involvement is related to outcomes such as teamwork and group functioning (Pike & Askew, 1990).

Despite the handful of studies mentioned above, there is still a paucity of research on the positive outcomes of fraternity and sorority involvement on other college-related outcomes. More research needs to be conducted to provide evidence of the effect of fraternity and sorority involvement on college students in terms of interpersonal skills, leadership abilities, and effective communication. These same studies could be used to defend the existence of fraternities and sororities. This is important and timely given recent trends that result in the removal of entire fraternity and sorority communities or individual chapters from campus (Denizet-Lewis, 2005; Hoover, 2005).

In fact, it is increasingly necessary for student affairs professionals who work with fraternities and sororities to demonstrate the worth of their work and the impact of their services on students’ learning and development in college. A review of the literature reveals that there is scarce research on the effect of fraternity and sorority involvement on students’ learning and intellectual development in college. A handful of studies discuss positive outcomes of involvement in fraternities and sororities. However, other studies underscore the relationship between involvement in fraternities and sororities organizations and alcohol abuse, hazing, academic dishonesty, and gambling. Most extant research is of the second order.

Little research has been conducted on the use of assessment in specific functional areas of student affairs, such as fraternity and sorority life. This is troubling given the fact that student affairs professionals who work with fraternities and sororities are expected to promote learning and development in the students with which they work. Many offices of fraternity and sorority affairs emphatically state that they enhance the learning and development of students with little data to support such a claim. Thus, student affairs professionals who work with fraternities and sororities need additional guidance about how to conduct learning assessment within their specific domain and how to report their findings in a logical and useful way.

Methodology

To collect information about educators’ perceptions of the assessment process as it relates to fraternity and sorority affairs, we interviewed six individuals connected with the fraternity and sorority community at a large research institution in the southeast. We used purposeful sampling to ensure that our participants were affiliated with or worked with fraternities and sororities. As

Patton (1990) remarked, we wanted “information rich” participants who had experience and knowledge that would inform our research (p.169).

As with many qualitative research investigations, this study had a limited number of interview questions. First, participants were asked: What, if anything, do students gain from their involvement in fraternities and sororities? As a follow up, participants were asked to describe how such gains could be measured or ascertained. Additional probes were used when necessary to clarify meanings and experiences.

Next, we examined fraternity and sorority mission statements from 25 randomly selected universities in the northeast and southeast regions of the United States. Using a form of document analysis (Whitt, 1992), we scanned mission statements for language about skills or educational outcomes that students should gain from their involvement in fraternities and sororities. For sake of reporting, we have labeled institutions as Institution A through Institution Y using a unique letter between A-Y for each of the 25 institutions.

Finally, we selected an instrument to use in our assessment examples. Numerous instruments exist for assessing student learning and development. In an effort to provide specific examples for this case study, we reviewed numerous instruments and found the Sentence Completion Test (SCT) (Loevinger, 1996) was the best to use due to its applicability to learning outcomes assessment and the fact that it is available to researchers in the public domain.

The SCT consists of 36 items designed to measure one’s frame of reference and can be used to assess student learning and development, measuring ego development and social responsibility, operationally defined for this study as moral development, interpersonal relations, and conceptual complexity (Loevinger, 1998). The SCT correlates answers to open-ended responses such as “My conscience bothers me if...” and “Being with other people...” with seven stages of ego development. Data were analyzed using multiple analysis of variance (MANOVA) tests on each subscale of interest, such as “self-awareness” and “conscientiousness,” to test for significant differences between the control and study groups.

Examining Assessment in the Fraternity and Sorority Communities

Consider the following mission statements of two fraternity and sorority affairs offices:

The mission of the Fraternity/Sorority Community at [Institution A] is to foster a richer undergraduate experience while developing leaders in the arenas of academics, service, social interaction, and athletics. Furthermore, the Fraternity/Sorority Community will maintain strong inter-fraternal and campus relations within the diverse [Institution A] community while promoting the ideals of Brotherhood and Sisterhood. [University in the Northeast]

The mission of the Office of Fraternity/Sorority Life at [Institution B] is to enhance student development through involvement in fraternal organizations. We strive to foster positive relations with the administration, faculty, and between the various organizations to encourage a unified campus community. Students are encouraged to place equal emphasis on the philanthropic, educational, personal development, and social aspects of membership in a fraternal organization. The overall Fraternity/Sorority Life mission is to complement the mission of [the university]. [Private 4-year institution]

Many believe that fraternity and sorority involvement is associated with positive outcomes in college as well. While less empirical evidence is available to support this hypothesis, anecdotal evidence implies such a relationship. For example, we interviewed several individuals who work with or are members of fraternities and sororities who talked about such positive effects. A director of fraternity and sorority affairs at a research institution said, "I know that being involved in Greek Life results in positive enhancements in terms of students' skills and abilities. I am less clear on how to document that effect." A student who is a member of a sorority said, "Involvement in a Greek lettered organization in fact does have a positive effect on college students. Students involved in fraternities and sororities develop leadership and strong interpersonal skills." These statements also demonstrate that there is little or no wisdom about how to measure the effect of involvement in fraternities and sororities.

Still, additional anecdotal accounts abound. A graduate assistant for student learning noted that, "Involvement in Greek organizations [sic] exposes students to various social and leadership skills like community service, planning, assertiveness, and ability to complete a task. Such involvement fosters a strong sense of volunteerism." All of these are clear examples of desired educational outcomes, but guidance about how to measure the influence of fraternity and sorority involvement on students is in short supply. In fact, a faculty member said this: Unfortunately, while I intuitively 'know' that Greek affairs makes a difference in student outcomes, I am not aware of specific research that details that difference by focusing on just the contribution of Greek involvement separately from other influences on student outcomes. It seems that lots of information exists on the negative aspects of Greek involvement, but I am lost when it comes to collecting evidence of the positive aspects.

Fraternity and sorority advising is a functional area with many programs and services. For example, typical fraternity and sorority life offices sponsor a large number of activities to achieve the goals outlined in their mission statements (AFA, 2002). These activities range from leadership retreats, service projects, leadership classes, and new member retreats. A more specific example is "Greek Week," which is a week of many activities that are designed to promote unity between and within fraternal organizations and to support the four pillars of leadership, service, scholarship, and brother- or sisterhood (Whipple, 1998). Fraternity and sorority councils, under the supervision of their advisors, bring speakers to campus to address current topics that relate to student life and host philanthropic events to raise funds for community needs, to name a few.

Each program is associated with specific learning outcomes. While this may not be obvious to all readers, the goals and objectives of fraternity and sorority life programs are directly related to measurable skills and abilities, defined as outcomes. For example, awareness of community needs and commitment to outreach are goals of activities such as hosting philanthropic events and completing service for the community. Additionally, the ability to work on teams and developing interpersonal relationships are associated with attendance at retreats, service on a council, and participation in a fraternity and sorority leadership class.

Student outcomes are an integral part of the assessment of learning and development. In fact, when planning assessment projects, one should first think about the outcomes associated with a particular activity. Then, consider the ways in which data can be collected to determine if the

outcomes were met. To this end, one might develop a survey or create an interview protocol. On the other hand, consideration might be given to using an instrument available in the public domain such as the College Student Experiences Questionnaire (Pace, 1984) or the Student Leadership Practices Inventory (Kouzes & Posner, 1998).

When determining a method of collecting data, in general there are two approaches to conducting research - quantitative and qualitative methods. Quantitative studies employ numbers and symbols to represent the relationship between independent and dependent factors. In short, quantitative or empirical studies place a premium on objectivity, generalizability, and validity (Neumann, 1994; Pedhazur, 1990). Consider the following example:

Dr. Alpha Life is Director of Fraternity and Sorority Affairs at Town University (TU). TU is a large, public state institution with a total enrollment of over 20,000 students. Dr. Life is responsible for all fraternities and sororities on campus and supervises a staff of four.

Dr. Life's supervisor, the Vice Chancellor for Student Affairs, recently initiated a division-wide assessment to explore the contribution of student affairs programs and services to the central mission of TU. The Vice Chancellor asked all directors to conduct self-assessments and to provide him with summary reports of their findings. To satisfy this request, Dr. Life reads the university mission and notes the goal of "social responsibility." With this goal in mind, he conducts a study to measure the influence of fraternity and sorority involvement on students' level of social responsibility.

To do this, the assistant administered the SCT (Loevinger & Wessler, 1970; Loevinger, 1996) to fraternity and sorority students (n=50) during their weekly council meeting. In addition, the assistant sent electronic communication to a random sample of non-affiliated students (n=50) with similar characteristics (age, year in school, etc.). After collecting the data, the assistant worked with a graduate assistant to input all scores in SPSS (version 11.0) using the scoring manual (Loevinger & Wessler, 1970) for the SCT and coding all fraternity and sorority students as "1" and all non-affiliated students as "0" on the involvement variable "status." They ran multiple analysis of variance (MANOVA) tests on each of the outcome variables of interest using "status" as the category of the independents.

Final results were summarized in an executive summary for the Vice President for Student Affairs. Significant differences were found between affiliated and non-affiliated students in terms of self-awareness and conscientiousness of others. Mean score comparisons revealed that affiliated students reported significantly higher levels of social responsibility than their non-affiliated peers.

This example outlines a quantitative approach to student learning outcomes assessment. Qualitative research is another approach to scientific inquiry. Qualitative research, also referred to as the naturalistic method, admits subjectivity and gives significant attention to the situation of the "studied" and the researcher (Lincoln & Denzin, 2000). Focus groups, one-on-one interviews, and case study (Yin, 1994) are a few examples of qualitative methods. Fraternity and sorority affairs administrators might use these techniques to gather information from their

students to measure the effect of fraternity and sorority involvement on specific outcomes. Consider the following example:

Sharon Taggether is Coordinator for Fraternity and Sorority Affairs at Wrigley College, a small liberal arts college that has a strong commitment to service learning and community outreach. She is responsible for the university fraternity and sorority system and several programs including outreach mentoring and retreats. She has a staff of two assistants and a graduate intern.

After reading an article by Zlotkowski (1996) in *Change* magazine, Sharon became interested in the relationship between fraternity and sorority involvement and service/community learning. She decided to use her own program to investigate this issue. To assess the impact of fraternity and sorority involvement on students' commitment to service and understanding of community needs, she conducted an assessment project to investigate this relationship. The following variables were selected: connection between self and others (self-awareness), awareness of the needs of others (conscientiousness), and working with others.

Sharon asked each fraternity and sorority to select a representative to attend a meeting held in the student center. The electronic invitation outlined that she and her staff members would be collecting information about the influence of student involvement on learning. At the meeting, Sharon and her research team conducted a focus group interview with 10 student representatives. Specifically, they asked the following questions: (a) what service activities do you participate in? (b) Are these activities sponsored by your fraternity/sorority or another campus organization? (c) In your own words, what have you gained from participating in such experiences? (d) What motivates you to participate in such experiences? (e) How does your involvement in such activities relate to your awareness of others' needs? (f) How does your involvement in a fraternity or sorority influence your understanding of service and community needs? Additional probes were outlined on the semi-structured interview protocol and were used as necessary.

All interviews were audiotape recorded and transcribed verbatim. Following recommendations by Denzin and Lincoln (2000), the team sought to collect rich, thick data to understand the meaning of community service from the perspective of the actual participant. For this reason, the team also gathered information (e.g., brochures, websites, and handbooks) about each fraternity and sorority organization. Data were analyzed using the constant comparative method described by Strauss and Corbin (1994). Initially, open coding was used to identify general themes and broad constructs. Next, these themes were clarified as necessary and eliminated in instances where they did not prove significant across cases. Finally, axial coding was used to identify relationships between categories and to form general conclusions. Member checking, triangulation, and peer debriefing (Bogdan & Biklen, 1992) were used to ensure accuracy of data and results.

In the end, the team used the themes to describe the positive effects of fraternity and sorority involvement on students' learning and development in terms of service learning and community outreach. Selected excerpts or quotes were used to tell a "story" about the relationship between fraternity and sorority affiliation and awareness of others' needs. Likewise, vignettes and reflections were used as sound bytes to answer the research questions posed at the start of the assessment project.

Regardless of whether quantitative, qualitative, or a mixture of the methods (Tashakkori & Teddlie, 2002) are used, it is important to select an approach that will yield the kind of data needed. When implementing a quantitative approach, one should consider using institutional information previously collected and currently available. In this way, time-consuming collection of new data is not required if relevant data are already available. When using a qualitative method, open-ended discussions and self-reports can be useful in yielding valuable data. There are many ways to analyze qualitative data; open coding, document analysis, and storytelling used in the hypothetical example are only a few approaches and require a great deal of time and attention. While tools are available, much qualitative data tends to go unanalyzed due to assessors being overwhelmed by the sheer volume of text involved (Strayhorn, 2006).

Conclusion

In summary, much of the literature on fraternity and sorority students focuses on the negative effects of fraternity and sorority involvement in college, such as poor academic achievement and higher instances of alcohol consumption. Yet, many believe that participation in fraternities and sororities is associated with positive outcomes including intellectual growth and development and the attainment of leadership skills. This highlights the need for additional evidence to support these claims.

Assessment is one way to generate valuable data or information about what students gain from college experiences. However, the use of assessment in fraternity and sorority affairs is sparsely documented. Anecdotal evidence suggests that practitioners tend to steer away from assessment due to feelings of inadequacy, fear of statistics and research, and to avoid the sheer burden of such an undertaking. While the work of assessing student learning outcomes requires a significant amount of planning and time, this is no reason for retreat.

The influence of fraternity and sorority involvement on student learning and development in college can be measured. While the examples described above provide an initial, exploratory foray into this relationship, additional techniques can be used to isolate the unique effect of fraternity and sorority involvement on change during the college years. These techniques include imposing statistical or behavioral controls on confounding variables, designing quasi-experimental projects, and conducting longitudinal studies. These techniques go beyond the scope of this article but are discussed elsewhere (Stage & Associates, 1992; Stage & Manning, 2003).

In closing, a bit of caution should be exercised when reading this article. It is the authors' intention to render the complex simple; realizing that a degree of accuracy is lost in the process. It must be remembered that these examples are meant to be descriptive rather than prescriptive about the various facets of assessment, representing only one way to assess learning and development and definitely are not the only way. More examples from a broader cross-section of institutions are needed to assess learning and development in fraternity and sorority affairs specifically.

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FRATERNITY AND SORORITY NEW MEMBERS' SELF-REGULATION OF ALCOHOL USE

Andrew Wall, Ph.D., Janet Reis, Ph.D., and Dan Bureau

One hundred seventy three first year fraternity and sorority members completed an on-line survey on alcohol expectations, perceived capacity for regulating their alcohol intake (self-pacing), weekly consumption of alcohol, and perceived peer consumption. The 146 students who reported knowing how to self-pace planned to do so, were less susceptible to expectations to drink, drank less in a week and drank fewer days when compared to the 27 students reporting uncertainties in being able to self-pace. Opportunities for enhancing student's capacity for self-regulation are discussed.

Alcohol education has historically been a primary focal point for undergraduate fraternal organizations. Efforts to address alcohol behavior by fraternity and sorority members have had a wide range of impact. Some efforts have been focused on addressing irresponsible use in the organization's facility, while others have focused on the individual's decisions as the foundation for alcohol intervention strategies. This article focuses on efforts to engage fraternity and sorority new members in a process to examine individual alcohol use and evaluate possible ways to aid in the decision-making process regarding self-pacing and overall alcohol consumption.

Review of Literature

New member orientation is often perceived as an essential component of indoctrination into social fraternity and sorority membership. New members are expected to participate in a number of activities, ceremonies, and rituals that introduce expectations for membership (Pascarella et al., 1996; Pascarella, Flowers, & Whitt, 2001). In recent years, undergraduate fraternal organizations have dedicated considerable time and effort orienting new members to issues related to alcohol misuse and abuse (Anderson, date unknown; Miami University, 2003; Wall, 2006). Research reflects that students belonging to undergraduate fraternal organizations drink more on average than non-affiliated counterparts drink and experience more negative consequences (Alva, 1998; Cashin, Presley & Meilman, 1998). While longitudinal data offer some indication of favorable changes in chapter culture, the amounts of alcohol consumed, especially by some new members, raises concerns for the health and safety of these students and the future of fraternal organizations (Caron, Moskey & Hovey, 2004).

Preventive interventions such as educational programs, campaigns addressing alcohol misuse and abuse, and other community wide efforts to focus on activities not involving alcohol, have not been as successful as hoped in reducing excessive drinking (Wechsler, Seibring, Lui, & Ahl, 2004). The effectiveness of these interventions may be increased if they focused on decreasing risk factors for excessive consumption. Longitudinal patterns of drinking suggest that self-regulation of alcohol intake is one such risk factor.

Over the course of a college career, most young adults develop a capacity for regulating their drinking, consuming less in each session and in the total amount per week (Bachman, O'Malley, Schulenberg, Johnston, Bryant, & Merline, 2002; Steinman, 2003; Weingardt, Baer, Kivlahan, Roberts, Miller, & Marlatt, 1998). Monitoring the total number of drinks consumed is reported as the most prevalent method of self-regulation (Delva, Smith, Howell, Harrison, Wilke, & Jackson, 2004). From the perspective of orienting new college students, the question becomes whether it is possible to accelerate this process of goal setting, planning, and self-monitoring of alcohol use (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003; Hull & Slone, 2004).

The purpose of this analysis is to examine psychosocial and consumption variables related to a new fraternity or sorority member's confidence in their ability to pace drinks (referred to as self-pacing). Knowing what student characteristics are associated with a low sense of self regulation could help identify students in need of additional assistance, and the type of education, counseling and intervention necessary (Baer, 2002; Schulenberg & Maggs, 2002). The question remains particularly salient for new members, as some will lead the organization in the immediate future, some may live in a chapter facility if available and may be charged with monitoring chapter social activities, and all will have an impact on the organization's alcohol culture. These future leaders are faced with an additional challenge because they are expected to enforce the legal drinking age and risk management/alcohol policies of their inter/national organization.

Methods

First-year members were recruited from a total of four fraternities and four sororities affiliated with a large public university hosting over 50 registered social fraternities and sororities. Recruitment of participants was organized through the University Office of Greek Affairs in conjunction with the local chapter officers and inter/national organization Chapters were selected based on having varied levels of chapter emphasis on alcohol use as perceived by Greek Affairs staff. Efforts were made to include chapters with high level of consumption and chapters with lower levels of consumption in an attempt to get a representative sample of the collective fraternity and sorority community. First-year students who completed the recruitment and new member education process were contacted by their chapter president during spring 2004 regarding an opportunity to participate in an on-line survey regarding alcohol use and preventive alcohol education. 184 first year students participated (75 males and 109 females) representing about 65% of the total new member class for the 8 chapters (n=284). Of this initial group, 11 reported not consuming alcohol and were eliminated from the remainder of the analyses reported here. One-hundred and seventy-three students were eligible for participation.

The online questionnaire was developed using previous surveys as well as incorporating new questions to meet the objectives of assessing fraternity and sorority first-year members' alcohol norms. The online questionnaire contained 32 questions used in previous analyses of undergraduate drinking (Reis, Trockel, & Wall, 2003). Self-efficacy regarding safe and responsible use of alcohol was assessed with six questions (Cronbach's alpha .80). Sample questions included "I can turn down a drink I don't want" and "I plan to be safe with my own consumption." Expectations concerning positive and negative behavioral, physiological, and social effects of alcohol were assessed with nine questions (Cronbach's alpha .88). Sample

questions include “Alcohol is necessary for having a good time” and “Alcohol makes it easier to deal with stress.”

Students were also asked about perceived norms for weekly alcohol consumption for first year college men and women and for members of the student’s own fraternity or sorority, the number of drinks personally consumed daily across a typical week, and the likelihood of personal change towards greater responsibility with alcohol in the next month. This last question followed the stages of change paradigm as presented in the Transtheoretical Model of Behavioral Change (Prochaska, DiClemente, & Norcross, 1992). Students responded to a six-point scale ranging from “won’t change higher risk behavior” to “already maintain safety and control.” The online survey protocol and survey questions were reviewed and approved by the University Institutional Review Board at the university where the study took place.

Students were categorized according to self-assessment of personal ability to pace themselves so they do not get drunk. In this sample, 27 students described themselves as uncertain or very uncertain of their ability to pace themselves with their drinking. A discriminant analysis with stepwise entry of the independent variables was used to test for differences between the two groups on alcohol expectations and self-efficacy for responsible use of alcohol. Potential differences between the two groups were also analyzed according to self-reported daily consumption, perceived consumption norms, and personal assessment of readiness for change regarding the safe use of alcohol.

Results

Of the 27 students categorized as not exercising self-pacing, 16 were female and 11 were male. Within the pacing group, 87 of the 146 students were female and 57 were male. There was no association between gender and group membership. Table 1 presents a summary of the patterns of daily self reported drinking for the two groups.

Table 1
 Summary of Daily Self Reported Drinking for Students Exercising Self-Pacing and Students Not Exercising Pacing.

Number of Daily Drinks	Minimum-Maximum		Mean		Standard Deviation		Percent of students drinking >5 drinks	
	Pace	No Pace	Pace	No Pace	Pace	No Pace	Pace	No Pace
Sunday	0-9	0-7	.21	.68*	.97	1.63	1	4*
Monday	0-10	0-14	.96	2.08*	1.93	3.89	3	16*
Tuesday	0-8	0-5	.36	.76	1.15	1.59	1	20
Wednesday	0-10	0-9	.78	2.08**	1.77	2.93	3	20**
Thursday	0-12	0-13	2.58	4.22**	2.57	3.95	10	41**
Friday	0-20	0-20	4.70	6.31*	3.44	5.23	32	50**
Saturday	0-20	0-14	4.32	5.74*	3.33	4.43	32	52**

* p < .05

** p < .001

The daily minimum and maximum drinks were approximately equal between the two groups. However, the differences in daily averages were significant at the .05 level or less for every day

but Tuesday, with the students not exercising pacing consistently drinking more each of the remaining six days. A similar pattern is seen in the percent of students per day reporting drinking five or more drinks. With the exception of Tuesday, the number of students not exercising pacing and drinking five or more drinks was significantly greater than their pacing counterparts. Men in the non-pacing group reported significantly more drinking ($p < .05$ or less) for Sunday, Monday, and Tuesday than did men in the pacing group.

Three variables were found to discriminate between the two groups of students (Wilks' Lambda = .85; Chi-Square 26.08, $p < .01$). "Planning to be safe with one's own alcohol consumption" (standardized discriminant function coefficient = .44) was positively associated with the self-pacing group. Conversely, "my friends expect me to drink" (standardized discriminant function coefficient = -.45) and "alcohol is an important part of first year social life" (standardized discriminant function coefficient = -.40) were negatively associated with the self-pacing group. Using an adjustment for the original number of students in each group, 85% of the students were correctly classified as self-pacing or not self-pacing.

With regards to perceptions of the amount of alcohol consumed weekly by peers, the two groups of students did not significantly differ in their estimates for first year men (overall mean = 14.07 drinks per week, $SD = 5.84$), for first year women (overall mean = 9.64 drinks per week, $SD = 5.02$), or for members of one's chapter (overall mean = 10.55 drinks per week, $SD = 5.50$). There were also no significant differences on these estimates between the two groups according to gender.

Seventy percent of students exercising self-pacing described themselves as maintaining personal safety as compared to 33% of the students not exercising self-pacing. Thirteen percent of the pacing group indicated that they were contemplating moderation of their drinking in the next month as compared to 22% in the non-pacing group. Seven percent of the pacing group described themselves as unwilling to change risky consumption as compared to 26% of the non-pacing group.

Discussion and Implications for Practitioners

The group of students reporting confidence in their ability to self regulate consumption was the clear majority of this sample. Compared to non-pacers, students who felt they knew how to pace themselves planned to do so, drank less in a week, drank fewer days per week, and were less susceptible to peer's expectations about alcohol use. Men reported drinking more than women, but no proportional difference existed between men and women in the number reporting lack of confidence in ability to pace, underscoring the importance of including women in analyses of problematic drinking (Nolen-Hoeksema & Corte, 2004).

The response rate to the on-line survey was substantially higher than the response rate of recently published surveys of undergraduate samples (e.g. Delva, Smith, Howell, Harrison, Wilke & Jackson, 2004). Therefore, the feedback from this group of new fraternity and sorority members is likely representative of this particular subgroup of students for the point of time they responded to the survey questions. However, generalization of these results is limited by the small sample size, selection of a subset of chapters on campus, lack of comparison with non-

Greek students, selection of chapters through the Greek Affairs office based on perception of alcohol use and misuse, and use of a cross-sectional analysis. How students from other chapters perceive their self-regulatory skills is unknown, as is the perspective of non-Greek students.

Another limitation of this project is the size and scope of the sample. While statistically significant with a response rate of almost two-thirds of possible participants, less than 200 students participated in the project and the selection of organizations could reflect a bias in the information. A more randomized sample across different organizations could influence outcomes. In addition, the research was conducted at a single large public Research I institution. The institutional demographics would also need to be taken into account. Environmental factors on other campuses may affect results.

Finally, the need to assess alcohol use within a more diverse population is also important, as the majority of respondents were Caucasian. Future research could assess how ethnicity and fraternity/sorority membership impacts self-pacing. Evidence regarding culturally based fraternal organizations may provide insight into members' use.

Although the cross-sectional nature of the survey limits projections of future behavior, the results offer some guidance as to the scope and focus of preventive alcohol educational interventions that fraternities and sororities might pursue. These organizations are in a unique position to test different preventive intervention models by virtue of their peer networks and longstanding histories of chapter citizenship (Bandura, 1997; Jung, 2003). Fraternities and sororities can be seen as microcosms of the growing push in higher education to use scarce resources to address the issue of alcohol use and abuse in a meaningful manner. Addressing self-regulation as an identified risk factor within a peer network could serve as an example of targeted prevention for broader higher education efforts in the area of addressing alcohol use and misuse.

Peer expectations for drinking are one possible focus for an intervention, given the non-pacers in this sample were more likely than the pacers to ascribe to the belief that their peers expected them to drink and to view alcohol as important to social life. The existing connections between and among students preparing to live in their chapter's house may be a starting point for recalibration of expectations for when, where, how much and type of alcohol is consumed (Borsari & Carey, 2001; Borsari & Carey, 2003). In addition, social norming approaches should be tailored to fraternities and sororities when possible to aid in helping this population reshape alcohol expectations.

Students in undergraduate fraternal organizations, practitioners and volunteers working with this population, or other fraternity and sorority community constituents trying to moderate consumption, may wish to assess new member's views of peer expectations for drinking. If a number of students in a given chapter report believing that their chapter members expect heavy consumption, a chapter might consider sponsoring small group, chapter based discussions on the range of consumption within a chapter, the negative consequences for individual health and safety that occur with excessive drinking, and/or the impact on the quality of community life when problems such as vandalism and noise increase as a result of excessive drinking (Trochel, Wall, & Reis, 2003).

A second factor related to self-regulation of alcohol consumption identified in the analysis is the time span during the week when students plan to consume and total amount drunk in a sitting. Starting to drink on Wednesday suggests non-pacing students place a high priority on alcohol and related social activities. Chapter sponsored conversations around drinking schedules could include a focus on how excessive drinking can affect issues such as academic performance and personal health. Depending on the tenor of the chapter's camaraderie, members may also consider an explicit commitment to forgo one night of drinking and/or to drink less on a given day."

Lastly, a question of intent and willingness exists in alcohol use. Alcohol consumption is a rational behavior for most young adults (Kuther, 2002). In this sample of first year fraternity and sorority members, 26 % of the 27 non-pacing students fell into the "don't plan to be safe" category as opposed to 33 % from the same group of non-pacers who asserted that they maintained personal safety and control with alcohol. Both groups would appear to benefit from counseling on the discrepancies between their behavior, self-perceptions, risk taking, and consequences. This provides significant implications for practitioners who wish to aid in the safety of students participating in social fraternities and sororities. Policies and practices may be established, preferably in tandem with students and other constituents, to promote increased responsibility for each other when consuming alcohol. This could result in better monitoring among peers and greater accountability by all involved in alcohol-related activities.

Conclusion

Brief interventions reviewing patterns of consumption and personal skills regarding drinking have been found to be effective in tempering the amount of alcohol consumed (Baer, Kivlahan Blume, McKnight & Marlatt, 2001). Group discussions of the negative consequences of consumption have been related to increased support for regulation and monitoring (Reis, Trockel & Wall, 2003). Elements of such interventions could be integrated into fraternity and sorority new member orientation programs capitalizing on the power of group self-efficacy (Bandura, 1997; Keeling, 1999). Most chapters would have the capacity to inquire as to members' expectations regarding alcohol and preparedness to handle alcohol safely. Chapters may require some assistance in designing and implementing certain activities and brief interventions, but with support from fraternity and sorority practitioners and other invested individuals in the success of fraternal organizations, they could successfully sponsor such events. Declaration of peer expectations for fewer days of drinking and fewer drinks per session could present the non-pacing group – and all members, for that matter - with different expectations for alcohol consumption and might encourage and accelerate development of self regulatory behaviors.

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**RESEARCH REVISITED:
COGNITIVE EFFECTS OF GREEK AFFILIATION IN COLLEGE:
ADDITIONAL EVIDENCE^{1,2}**

Ernest T. Pascarella, Ph.D., Lamont Flowers, Ph.D., and Elizabeth J. Whitt, Ph.D.

Previous research found broad based negative effects of fraternity/sorority affiliation on standardized measures of cognitive development after one year of college. Following the same sample, and employing essentially the same research design and analytic model, the present study found that the negative effects of fraternity/sorority affiliation were much less pronounced during the second or third years of college.

Social fraternities and sororities (commonly referred to as Greek organizations) are a very visible, if often controversial, aspect of undergraduate student life. Recently, they have become the focus of a growing body of research that has attempted to estimate their impact on various outcomes of college. (See Pascarella, Edison, Whitt, Nora, Hagedorn, & Terenzini [1996] for a review of this literature.) Greek affiliation has been linked with increased levels of satisfaction with college (Pennington, Zvonkovic, & Wilson, 1989; Pike & Askew, 1990), continued persistence in college and a higher probability of subsequent degree completion (Astin, 1975), and an increased ability to function in groups (Pike and Askew, 1990). Conversely, it has been linked with increased levels of alcohol consumption (Tampke, 1990; Wechsler, Kuh, & Davenport, 1996), higher levels of academic cheating behavior (Kirkvliet, 1994; McCabe & Bowers, 1996), and lower levels of principled moral reasoning (Sanders, 1990; Kilgannon, & Erwin, 1992).

A modest body of research has also addressed the impact of Greek affiliation on the academic or cognitive outcomes of college. Studies by Baird (1969), Kaludis and Zatzkin (1966), Pike and Askew (1990), Prusok and Walsh (1964), and Willingham (1962) have examined the relationship between Greek affiliation and academic performance as reflected in grades; but the results of this research are inconclusive.

Note, too, as pointed out by Pascarella et al. (1996), that there are serious questions about the generalizability of grades as measures of cognitive growth during college. (See Pascarella & Terenzini [1991] for a review of the literature on the reliability, validity, and generalizability of grades.)

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There have been two longitudinal studies of the cognitive impacts of Greek affiliation that employ standardized measures. Both studies appeared in [the NASPA] journal. A well-designed, single institution study by Pike and Askew (1990) used the College Outcomes Measures Project (COMP) Objective Test developed by the American College Testing Program (Forrest & Steele, 1982). The COMP measures student competence along such dimensions as: intellectual and analytical skills, communication, reasoning, and problem solving. With statistical controls in effect for secondary school grades, entering ACT scores, and parents' education and income, students in Greek organizations had significantly lower COMP total scores than did their non-Greek counterparts.

Limitations of the Pike and Askew (1990) study (e.g., the single-institution sample, use of global cognitive growth score, the inability to introduce controls for such factors as ethnicity, place of residence, full or part-time enrollment, or types of coursework taken), led to the second longitudinal investigation by Pascarella et al. (1996). Employing a sample from 18 4-year institutions, Pascarella et al. estimated the net impact of fraternity and sorority membership on standardized measures of reading comprehension, mathematics, and critical thinking after 1 year of college. In the presence of an extensive set of controls for such factors as precollege standardized ability, academic motivation, ethnicity, place of residence during college, full or part-time enrollment, and types of coursework taken, fraternity membership was found to have a significant negative effect on each of the three end-of-first-year cognitive measures, as well as on a composite score consisting of all three measures. The negative effect of sorority impact was not as pronounced. Compared to their counterparts who remained independent, women who joined sororities had significantly lower levels of end-of-first-year reading comprehension and composite achievement. Differences between Greek-affiliated and independent women on end-of-first-year mathematics and critical thinking were small and nonsignificant.

A major limitation of the Pascarella et al. (1996) study is that it only traces the cognitive impacts of Greek-affiliation through the first year of college. Thus, it is impossible to determine from their results if the potentially negative cognitive impacts of fraternity or sorority membership are limited to the first year of college, or if they extend into subsequent years. If fraternities or sororities tend to create a peer culture, whose norms enhance the nonacademic or nonintellectual, one might expect nontrivial negative cognitive consequences that persist beyond the first year. Conversely, the findings of the Pascarella et al. study may simply reflect the fact that joining a fraternity or sorority in the first year of college requires so much time and emotional commitment from students that it seriously dilutes the impact of their academic experience.

It is in the first year that students face tasks of adjustment to the academic demands of postsecondary education, cultivate effective study habits and time management. Involvement in fraternities (and to a lesser extent, in sororities) during this period may seriously detract from time required to become successfully integrated into academic life (Pascarella et al., 1996). If the latter view is the more correct, then we might expect Greek affiliation to exert less of an influence on cognitive growth as students progress beyond the first year of college. The major purpose of the present study was to estimate the cognitive impacts of Greek affiliation beyond the first year of college. The study had three specific purposes. First, it sought to assess the unique (or net) effects of Greek affiliation on objective, standardized measures of writing skills and science reasoning at the end of the second year of college, and on objective, standardized

measures of reading comprehension and critical thinking at the end of the third year of college. Second, it sought to assess the impact of Greek affiliation on student self-reported gains at the end of the second and third years of college in understanding the arts and humanities, understanding science, and in writing and thinking skills. Finally, it attempted to determine if the cognitive impacts of Greek affiliation differed for students in different institutional contexts and/or students with different characteristics.

Method

Samples

Institutional Sample. The institutional sample in this study was 18 4-year colleges and universities located in 15 states. Institutions were chosen from the National Center on Education Statistics Integrated Postsecondary Education Data System data to represent differences in colleges and universities nationwide on a variety of characteristics, including institutional type and control (e.g., private and public research universities, private liberal arts colleges, public and private comprehensive universities, historically black colleges), size, location, patterns of student residence, and the ethnic distribution of the undergraduate student body. Our sampling technique produced a sample of institutions with a wide range of selectivity. For example, we included some of the most selective institutions in the country and some that were essentially open admission.

Student Sample. The individuals in the overall student sample were students participating in the first, second, and third follow-ups of the National Study of Student Learning (NSSL), a large, longitudinal investigation of the factors that influence learning and cognitive development in college. The initial sample was selected at random from the incoming first-year class at each of the 18 colleges and universities in the institutional sample; each was given a target sample size relative to the size of its first-year class. The students received a cash stipend for their participation in each data collection, and they were told that any information they provided would be kept confidential and would never become part of their institutional records.

Data Collection

Initial Data Collection. The initial data collection was conducted in the fall of 1992 with 3,331 students from the 18 institutions participating. Data collected included an NSSL precollege survey of student demographic characteristics and background, students' aspirations and expectations of college, and students' orientations toward learning. Participants also completed Form 88A of the Collegiate Assessment of Academic Proficiency (CAAP). The CAAP was developed by the American College Testing Program (ACT) to assess general intellectual skills typically acquired by students during the first 2 years of college (ACT, 1989, 1991). The CAAP consists of 40-minute, multiple-choice test modules, three of which—critical thinking, mathematics, and reading comprehension—were administered in the initial data collection.

The critical thinking test is a 32-item instrument that measures a student's ability to clarify, analyze, evaluate, and extend arguments. A passage typically contains a series of sub-arguments that support a more general conclusion. Each passage contains one or more arguments and involves a variety of formats, including case studies, debates, dialogues, overlapping positions, statistical arguments, experimental results, or editorials. Each passage is accompanied by a set of multiple-choice items. The KR-20 reliability coefficients for the critical thinking test ranged

from .81 to .82 (ACT, 1990). In pilot testing of various instruments for use in the NSSL on a sample of 30 college students, the critical thinking test of the CAAP was found to correlated .75 with the total score on the Watson-Glaser Critical Thinking Appraisal (Pascarella, Bohr, Nora, & Terenzini, 1995). The mathematics test consists of 35 items designed to measure a student's ability to solve mathematical problems typical of many postsecondary curricula. The emphasis is on quantitative reasoning rather than formula memorization. The content areas tested include pre-, elementary, intermediate, and advanced algebra; coordinate geometry; trigonometry; and introductory calculus. The KR-20 reliability coefficients for the mathematics test ranged between .79 and .81. The CAAP reading comprehension test comprised 36 items that assess reading comprehension as a product of skill in inferring, reasoning, and generalizing.

The test consists of four prose passages, of about 900 words each, which are designed to be representative of the level and kinds of writing students commonly encounter in college curricula. The passages were drawn from topics in fiction, the humanities, the social sciences, and the natural sciences. The KR-20, internal consistency reliabilities for the reading comprehension test ranged between .84 and .86.

First Follow-Up Data Collection. The first follow-up data collection was conducted in the spring of 1993. This data collection included Form 88B of the CAAP reading comprehension, mathematics, and critical thinking modules; the College Student Experiences Questionnaire (CSEQ) (Pace, 1984); and a follow-up instrument developed for the NSSL. The CSEQ and the NSSL follow-up instrument were used to measure a wide range of students' curricular and out-of-class experiences in the first year of college.

The CSEQ also asks respondents to report the gains they think they have made during college across a wide range of dimensions. Of the original sample of 3,331 students involved in the fall 1992 data collection, 2,416 students participated in the first follow-up (72.53%).

Data from the first NSSL follow-up formed the basis for the Pascarella et al. (1996) study of the cognitive impacts of Greek affiliation.

Second Follow-Up Data Collection. The second follow-up of the NSSL sample was conducted in the spring of 1994. Similar to the first follow-up, extensive measures of students' second-year experiences were taken from their responses on the CSEQ and the NSSL follow-up survey. Students also completed Form 88A of the CAAP science reasoning and writing skills modules.

The CAAP science-reasoning test is a 45-item, 40-minute test designed to measure students' skills in scientific reasoning. The contents of the test are drawn from biology, chemistry, physics, and the physical sciences.

The test emphasizes scientific reasoning skills rather than recall of scientific content or a high level of skill in mathematics or reading. The reliability estimates for the science reasoning test ranged between .76 and .87 (ACT, 1991). The writing skills test is a 72-item, 40-minute test measuring students' understanding of the conventions of standard written English in usage, mechanics, and rhetorical skills.

The test consists of six prose passages, each of which is accompanied by a set of 12 multiple-choice test items. A range of passage types is used to provide a variety of rhetorical situations. The writing skills test has reliability estimates ranging between .93 and .95 (ACT, 1991).

The three self-report measures were the gains in understanding the arts and humanities scales (e.g., “broadening your acquaintance and enjoyment of literature”), the gains in understanding science scale (e.g., “understanding the nature of science and experimentation”), and the gains in writing and thinking skills scale (e.g., “ability to think analytically and logically”) taken from the end-of-second-year responses on the CSEQ. Each scale was derived through factor analysis and has been used in previous analyses of the NSSL sample (e.g., Whitt, Edison, Pascarella, Nora, and Terenzini, 1999a and 1999b).

The alpha (internal consistency) reliabilities for the three self-report gain scales were: .76 for understanding the arts and humanities, .83 for understanding science, and .77 for writing and thinking skills.

Of the 2,416 students who participated in the first follow-up (spring 1993), 1,613 participated in the second follow-up (spring 1994) for a response rate of 66.8%. To provide at least some adjustment for potential bias by sex, race/ethnicity, and institution in the sample of students persisting in the study, a weighting algorithm was developed. Within each of the 18 institutions, participants in the second follow-up data collection were weighted up to the institution’s end-of-second-year population by sex (male or female) and race/ethnicity (White, African American, Hispanic, other). Thus, for example if an institution had 100 African American men in its second-year class and 25 African American men in the sample, each African American man in the sample at that institution was given a weight of 4.00. An analogous weight was computed for participants in each sex and race/ethnicity cell in each institution. Applying sample weights in this manner allowed us to adjust not only for sample bias by sex and race/ethnicity, but also for sample bias (i.e., differential rates of sample persistence in the study) by institution.

Third Follow-Up Data Collection. The third follow-up of the NSSL sample took place in the spring of 1995. Measures of students’ third-year experiences were taken from their responses on the CSEQ and the NSSL Follow-Up Survey.

Participants also completed Form 88B of the CAAP reading comprehension and critical thinking modules. Of the 1,613 4-year college students who participated in the spring 1994 data collection, 1,054 participated in spring 1995, for a third-year response rate of 65.3%. A third weighting algorithm, analogous to the one employed in the second follow-up, was developed to adjust for potential end-of-third-year sample bias by sex, race/ethnicity, and institution.

Research Design

The study design was a pretest-posttest quasi-experimental design in which statistical controls were made for salient precollege (fall 1992) and other variables. For consistency with the Pascarella et al. (1996) investigation, the primary comparison groups (independent variable) for the study were men and women who reported that they had joined a social fraternity or sorority during the first year of the study and their counterparts who indicated that they had not affiliated

with a Greek organization during the 3 years of the study. Students who indicated joining a Greek organization in the second or third year of the study were excluded, although they are incorporated in a supplementary analysis.

Dependent variables for the second year of the study were end-of-second-year scores on the CAAP writing skills and science reasoning tests; and end-of-second-year self-reported gains on the understanding arts and humanities, the understanding science, and the writing and thinking skills scales from the CSEQ. For the third year of the study, the dependent variables were end-of-third-year scores on the CAAP reading comprehension and critical thinking tests, and end-of-third-year self-reported gains on the same three CSEQ scales employed in the second year of the study.

Evidence about the factors that independently influence learning and cognitive growth during college (e.g., Astin, 1977, 1993; Kuh, 1993; Pascarella & Terenzini, 1991) informed the selection of control variables:

1. Individual precollege (fall 1992) CAAP reading comprehension and critical thinking scores in the prediction of end-of third-year reading comprehension and critical thinking; individual level scores on a composite of precollege reading comprehension, mathematics, and critical thinking in the prediction of all other dependent variables. (Though not a strictly parallel precollege measure of writing skills or science reasoning, the precollege ability composite nevertheless correlated quite highly with those two dependent variables—.75 and .77 respectively.)
2. Precollege (fall 1992) academic motivation as measured by an eight-item, Likert-type scale (5 = strongly agree to 1 = strongly disagree) developed for the NSSL and based on research on academic motivation (e.g., Ball, 1977). Examples of items included: "I am willing to work hard in a course to learn the material, even if it won't lead to a higher grade," "When I do well on a test it is usually because I was well prepared, not because the test was easy," "In high school I frequently did more reading in a class than was required simply because it interested me," and "In high school I frequently talked to my teachers outside of class about ideas presented during class." Internal consistency reliability of the scale was .65.
3. Ethnicity (i.e., Caucasian, person of color).
4. Socioeconomic status (average of parents' education and income).
5. Age.
6. Cumulative number of credit hours taken through the second or third years of college (taken from the second or third NSSL follow-up questionnaire).
7. Average number of hours spent studying per week during the second or third years of college (taken from the second or third NSSL follow-up questionnaire).
8. Participation in intercollegiate athletics during the second or third year of college (taken from the second or third NSSL follow-up questionnaire).
9. On- or off-campus residence during the second or third year of college (taken from the second or third NSSL follow-up questionnaire).
- 10-14. Number of courses taken through the second or third year of college in (a) natural sciences and engineering (e.g., biology, chemistry, engineering, geology, physics); (b) arts and humanities (e.g., art history, composition, English literature, foreign languages, philosophy, classics); (c) social sciences (e.g., economics, psychology, history, sociology,

political science, social work); (d) mathematics (e.g., algebra, calculus, statistics, computer science, geometry, matrix algebra); and (e) technical/preprofessional (e.g., business, education, physical education, nursing, physical therapy, drafting). Respondents were to indicate, from 61 different courses across the five areas, how many of the courses they had taken during the second or third year of college. This information was taken from the second or third NSSL follow-up questionnaire.

Because the existing body of evidence suggests that institutional context can play a role in shaping the impact of college in indirect, if not direct, ways, we also included one institutional-level variable in the analytic model:

15. The average level of academic preparation of each institution's first-year class, estimated by the average precollege (fall 1992) composite score on the CAAP reading comprehension, mathematics, and critical thinking tests for the sample of first-year students at each of the eighteen institutions. Each student in the sample was assigned the mean score of his or her institution on the composite measure, and the institutional mean estimate was employed in the analyses of all individual-level dependent variables in both years of the study. Inclusion of this variable in the analytic model served as a control for the potential confounding effect of differential levels of Greek affiliation at colleges with different levels of student body selectivity.

Data Analysis

The data analyses were carried out in three stages. In the first stage, we estimated the total cognitive effects of Greek affiliation, employing reduced-form equations (Alwin & Hauser, 1975). Each dependent variable was regressed on a dummy variable representing Greek affiliation (coded 1) or independent (coded 0), plus all other variables considered causally prior or concurrent (i.e., individual precollege ability, precollege academic motivation, age, ethnicity, socioeconomic status, and the average composite ability of the first-year students at each institution). In the second stage of the analyses we estimated the direct cognitive effects of Greek affiliation by regressing each dependent variable on the total effects model specified above plus each of the college experience variables (i.e., cumulative credit hours taken, on-campus residence, hours spent studying, participation in athletics, and the cumulative number of courses taken in arts and humanities, social sciences, mathematics, natural sciences and engineering, and technical/preprofessional areas).

In the third stage of the analyses we tested for the presence of conditional effects (Pedhazur, 1982), that is, the possibility that the magnitude of the impact of Greek affiliation was different for students with different characteristics, or in different institutional contexts. A series of cross-product terms was computed between the Greek/independent variable and each of the other fifteen variables in the direct effects model. These were then added to the direct effects regression model employed in the second stage of the analyses. A statistically significant increase in explained variance (R²) attributable to the set of cross products indicates that the net effects of Greek affiliation are conditional; that is, they differ in magnitude for students at different levels on other variables in the prediction model. The nature of statistically significant individual conditional effects can then be examined.

All analyses reported in the next section are weighted sample estimates, adjusted to the actual sample size to obtain correct standard errors. Separate analyses were conducted for men and women.

Results

Year 2

Table 1 summarizes the estimated total (column “T”) and direct (column “D”) causal effects of Greek affiliation on end-of-second-year cognitive outcomes for men (Part A) and women (Part B). As the table indicates, in the presence of statistical controls for the confounding variables, being a member of a fraternity tended to have negative total and direct effects on all five cognitive outcomes for men. The magnitude of the impacts, however, were quite small; and the null hypotheses that they were due to chance could not be rejected (i.e., they were all nonsignificant). For women sorority membership had very small and nonsignificant negative effects on writing skills and science reasoning, and a small nonsignificant, positive effect on self-reported gains in understanding the arts and humanities. However, sorority membership had a modest, but statistically significant, positive total effect on self-reported gains in understanding science and significant, positive total and direct effects on self-reported gains in writing and thinking skills.

Tests for the presence of conditional effects in the second year of the study yielded little new information. For all dependent variables (five for men and five for women) the addition of the sets of cross products between Greek affiliation and all other predictors was associated with small and statistically nonsignificant increases in explained variance. Thus, we found little evidence to suggest that the net, second-year impacts of Greek affiliation summarized in Table 1 differed in magnitude for different kinds of students.

Year 3

Table 2 summarizes the estimated total and direct causal effects of Greek affiliation on end-of-third-year cognitive outcomes for men (Part A) and women (Part B). As the table indicates, in the presence of Table 1 being a member of a fraternity tended to have negative total and direct effects on all five cognitive measures. Two of these—CAAP reading comprehension and CSEQ self-reported gains in understanding the arts and humanities—reached statistical significance. Thus, compared to their counterparts who remained independent during the 3 years of the study, men who joined fraternities in their first year of college tended to have significantly lower third-year reading comprehension scores and reported significantly lower growth after 3 years of college in understanding the arts and humanities.

For women the effects of Greek affiliation on end-of-third-year cognitive outcomes tended to be mixed. Being a member of a sorority had negative, but small and nonsignificant, total and direct effects on third-year objective measures of reading comprehension and critical thinking. Conversely, sorority membership tended to influence positively the three CSEQ self-reported gains, one of which reached statistical significance. Compared to their counterparts who remained independent for the 3 years of the study, women who joined a sorority in the first year of college tended to report significantly greater growth in understanding science after 3 years of college.

Table 1

Estimated Total (T)^a and Direct (D)^b Effects of Greek Affiliation on End-of-Second-Year Cognitive Outcomes

Group	Writing Skills		Science Reasoning		Gains in Understanding the Arts and Humanities		Gains in Understanding Science		Gains in Writing and Thinking Skills	
	T	D	T	D	T	D	T	D	T	D
	PART A: MEN									
Regression Coefficient for Fraternity Membership ^c	-2.522 (-.045)	-2.119 (-.038)	-.509 (-.015)	-.690 (-.020)	-.162 (-.060)	-.145 (-.059)	-.112 (-.036)	-.166 (-.054)	-.072 (-.029)	-.072 (-.028)
R ² for Total Model	.650**	.667**	.648**	.688**	.102*	.262**	.153**	.352**	.105*	.192**
PART B: WOMEN										
Regression Coefficient for Sorority Membership ^c	-1.617 (-.030)	-1.476 (-.028)	-.192 (-.006)	-.247 (-.008)	.069 (.027)	.085 (.033)	.163* (.054)	.091 (.030)	.264** (.109)	.221** (.091)
R ² for Total Model	.643**	.655**	.590**	.621**	.090**	.185**	.105**	.281**	.054*	.133**

^aControlling for individual precollege composite ability; the average composite ability of the first-year students at each institution; precollege academic motivation; age; ethnicity; and socioeconomic status.

^bControlling for all variables in superscript “a”, plus cumulative credit hours taken; on-campus residence; participation in athletics; hours spent studying; and the cumulative number of courses taken in five areas: arts and humanities, social sciences, mathematics, natural sciences and engineering, and technical/preprofessional areas.

^cTop number is the unstandardized (metric) regression coefficient; number in parentheses is the standardized regression coefficient.

* p < .05

** p < .01

Table 2
Estimated Total (T)^a and Direct (D)^b Effects of Greek Affiliation on End-of-Third-Year Cognitive Outcomes

Group	Reading Comprehension		Critical Thinking		Gains in Understanding the Arts and Humanities		Gains in Understanding Science		Gains in Writing and Thinking Skills	
	T	D	T	D	T	D	T	D	T	D
	<u>PART A: MEN</u>									
Regression Coefficient for Fraternity Membership ^c	-1.679*	-1.709*	-.802	-.740	-.250**	-.203*	-.046	-.034	.004	-.022
	(-.071)	(-.072)	(-.041)	(-.041)	(-.115)	(-.093)	(-.017)	(-.013)	(-.002)	(-.010)
R ² for Total Model	.534**	.573**	.620**	.654**	.073*	.276**	.182**	.469**	.086*	.235**
<u>PART B: WOMEN</u>										
Regression Coefficient for Sorority Membership ^c	-1.042	-.799	-.928	-.844	.043	.046	.231*	.193*	.096	.107
	(-.042)	(-.032)	(-.046)	(-.042)	(.018)	(.019)	(.073)	(.061)	(.041)	(.046)
R ² for Total Model	.651**	.668**	.651**	.664**	.085**	.260**	.203**	.394**	.097**	.186**

^aControlling for individual precollege reading comprehension, critical thinking, or composite ability (in the prediction of the gains scores); the average composite ability of the first-year students at each institution; precollege academic motivation; age; ethnicity; and socioeconomic status.

^bControlling for all variables in superscript “a”, plus cumulative credit hours taken; on-campus residence; participation in athletics; hours spent studying; and the cumulative number of courses taken in five areas: arts and humanities, social sciences, mathematics, natural sciences and engineering, and technical/preprofessional areas.

^cTop number is the unstandardized (metric) regression coefficient; number in parentheses is the standardized regression coefficient.

* p < .05

** p < .01

Tests for the presence of conditional effects in the third year of the study were quite consistent with those conducted in the second year. For all dependent measures, the addition of the sets of cross products between Greek affiliation and all other predictors was associated with small and statistically nonsignificant increases in explained variance. Thus, we found little evidence to suggest that the net third-year impacts of Greek affiliation summarized in Table 2 differed in magnitude for different kinds of students.

Magnitude of Effects

Because it can be strongly influenced by such factors as sample size and the ratio of explained to unexplained variance, statistical significance can be misleading as an indication of the importance of an effect. Consequently, to help determine if the cognitive effects of Greek affiliation were less pronounced in the second and third years of the study than they were in the first, we computed a series of effect sizes and compared them with those reported for the first year estimates of Pascarella et al. (1996). We employed the same effect size metric as Pascarella et al., which was the statistically adjusted mean difference between Greek-affiliated and independent groups (i.e., the unstandardized or metric regression coefficient for the direct effect of Greek affiliation in Tables 1 and 2) divided by the standard deviation of the independent group (Glass, 1977; Light & Pillemer, 1982). The resultant number is the fraction of a standard deviation which one group is advantaged (or disadvantaged) relative to the other. Pascarella et al. (1996) only analyzed data for the objective CAAP scores in their study of the first-year effects of Greek affiliation. They report average disadvantages across the end-of-first-year reading comprehension, mathematics, and critical thinking tests of .20 of a standard deviation for Greek-affiliated men, and .13 of a standard deviation for Greek-affiliated women. In the present study the average disadvantage across the end-of-second and third-year objective CAAP scores (i.e., writing skills, science reasoning, reading comprehension, and critical thinking) was .135 of a standard deviation for Greek-affiliated men and .092 of a standard deviation for Greek-affiliated women. In both cases, this represents a reduction in the size of the average CAAP score disadvantage from that reported in the first year of the study of about a third. Thus, not only did we find fewer statistically significant CAAP score disadvantages accruing to Greek-affiliated students in the second and third years of college (the only disadvantage reaching statistical significance was on reading comprehension for fraternity men), but also the absolute magnitude of the cognitive deficits were about a third smaller in the second and third years of college than they were in the first.

As shown in Tables 1 and 2, the net effects of Greek-affiliation on CSEQ measures of students' self-reported cognitive growth during the second and third years of college differed dramatically for men and women. For men, fraternity membership had a negative impact, while for women sorority membership had a positive impact. Across both years, the average disadvantage in self-reported cognitive growth accruing to Greek-affiliated men was .144 of a standard deviation. For women the corresponding advantage in growth accruing to sorority members was .177 of a standard deviation.

Supplementary Analyses

The main analyses in this study compared students who joined a fraternity or sorority during the first year of college with those who remained independent throughout the 3 years of the study. It was the case, however, that a small number of students joined fraternities or sororities in the

second and even the third year of college. To estimate how that might influence the overall impact of Greek affiliation on cognitive outcomes, we conducted an additional set of analyses that changed the independent variable to incorporate those who joined Greek organizations in the second and third year of the study. For the second and third year of the study, the comparison groups were men and women who joined Greek organizations either during the first or second year of college, versus those who remained independent through the second year of college. Similarly, in the third year of the study the comparison groups were students who joined Greek organizations during the first, second, or third years of college; versus their counterparts who remained independent through the third year of college. With these changes in the independent variable, we sought to derive the same estimates of Greek affiliation as those summarized in Tables 1 and 2.

The results of these analyses (available in detail from the first author) generally reduced the previous cognitive impacts of Greek affiliation in both magnitude and statistical significance. For example, the significant negative impacts of fraternity membership on third-year reading comprehension summarized in Table 2 were reduced in magnitude by about 70% and became nonsignificant. Similarly, the significant positive effects of sorority membership on growth in understanding science in both the second and third years of the study (see Tables 1 and 2) were reduced in magnitude by about 65% and became nonsignificant. Such evidence suggests that after the first year of college joining a fraternity or sorority may have only a trivial positive or negative impact on one's cognitive development during college.

Conclusions

The findings of this study need to be considered along with those from earlier analysis of the NSSL data (Pascarella et al., 1996), which found rather broad-based negative effects of Greek affiliation on standardized measures of cognitive development during the first year of college.

Following the same sample further through their college careers, and using essentially the same research design and analytic model, the present study found that the negative effects of fraternity or sorority membership were much less pronounced during the second or third years of college. On objective, standardized measures of cognitive skills, the effects of Greek affiliation continued to be negative for both men and women; but they were substantially smaller in magnitude and only one could be considered non-chance—a negative effect for fraternity membership on end-of-third-year reading comprehension.

To understand further the effects of Greek affiliation, the present study also included self-reported measures of students' cognitive growth. For men, fraternity membership continued to exert small negative effects in the second and third years of college, but only one was statistically significant. Greek-affiliated men reported significantly smaller gains in understanding the arts and humanities after 3 years of college than did men who remained independent. For women the impacts of sorority membership on self-reported gains were just the opposite. In both the second and third years of college, sorority membership exerted small positive effects on all self-reported gains measures. Several of these reached statistical significance. During both the second and third years of college, Greek-affiliated women reported significantly greater gains in understanding science than their counterparts who remained

independent. Similarly, compared to women who remained independent, Greek-affiliated women reported significantly greater gains in writing and thinking skills after 2 years of college. Taken together the findings of this investigation, along with those of Pascarella et al. (1996), tend to support the hypothesis that any major negative learning consequences of Greek affiliation occur primarily when students pledge a fraternity or sorority in the first year of college.

It may simply be that the pledging process itself interferes with a student's ability to adjust to the rather rigorous intellectual demands of the first year of college. After the initial year of college, however, any negative consequences of fraternity or sorority membership may tend to diminish, if not totally disappear. (To be sure, we found some isolated evidence of small, but persistent cognitive disadvantages for men after the first year of college; but we also found some evidence to suggest that sorority membership may have modest beneficial consequences for women during the second and third years of college.)

Consistent with the above conclusion are the findings of our supplementary analyses. When we included in the sample men and women who joined fraternities or sororities after the first year of college, the negative effects of Greek affiliation in the second and third years of college diminished even further.

Another hypothesis we tested in this study was whether the cognitive effects of Greek affiliation were general (i.e., the same magnitude for all students) or conditional (i.e., differing in magnitude for students with different characteristics). The Pascarella et al. (1996) study found that the effects of fraternity membership on first-year cognitive outcomes differed significantly in magnitude by ethnicity. There were pronounced negative effects for White men but slightly positive effects for men of color. This conditional effect did not persist into the second or third years of college. Indeed, we found little evidence for the presence of any conditional effects of fraternity or sorority membership in the present study. Thus, we conclude that the cognitive effects of Greek affiliation in the second and third years of college appear to be similar in magnitude for men or women with different background characteristics (e.g., ability, socioeconomic status, academic motivation, ethnicity), with different college experiences (e.g., study time, full- or part-time enrollment, course-taking patterns, athletic participation), and in different institutional contexts (e.g., the average academic ability of the student body).

Policy Implications

Evidence presented in this paper, along with previous analyses of the NSSL data, suggest that any broad-based negative cognitive effects of Greek affiliation occur largely during the first year of college. Thereafter these effects diminish substantially. Thus, the major implication of this research would be to consider institutional policies that delay the pledging of fraternities and sororities until after the first year of college. Once students make successful adjustment to the academic demands of postsecondary education, it would appear that Greek affiliated activities have only very small impacts on their intellectual growth.

Limitations

The NSSL data have several limitations that should be kept in mind when interpreting the results. First, although the overall sample is multi-institutional and consists of a broad range of 4-year institutions from 15 states, the fact that the analyses were limited to 18 4-year colleges means

that one cannot necessarily generalize the results to all 4-year institutions. Similarly, although we attempted in the initial sampling design and subsequent sample weighting to make the sample as representative as possible at each institution, the time commitments and work required of each student participant led to some self-selection.

The responses of the students who were willing to participate in the study might have differed from those of the students who were invited, but declined, to participate.

Several additional analyses reported elsewhere (e.g., Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1998) have looked at differences in the characteristics of those students who participated in all 3 years of the NSSL and those who dropped out of the study. The dropouts consist of two groups: (1) those who dropped out of the institution during the study and (2) those who persisted at the institution but dropped out of the study. Initial participants who dropped out of their institutions had somewhat lower levels of precollege academic preparation (as measured by the CAAP), socioeconomic background, and academic motivation than their counterparts who persisted in the study. Yet, students who remained in the study, and those who dropped out of the study but persisted at the institution, did not differ significantly (e.g., with regard to precollege academic preparation, age, race or ethnicity, or socioeconomic background).

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