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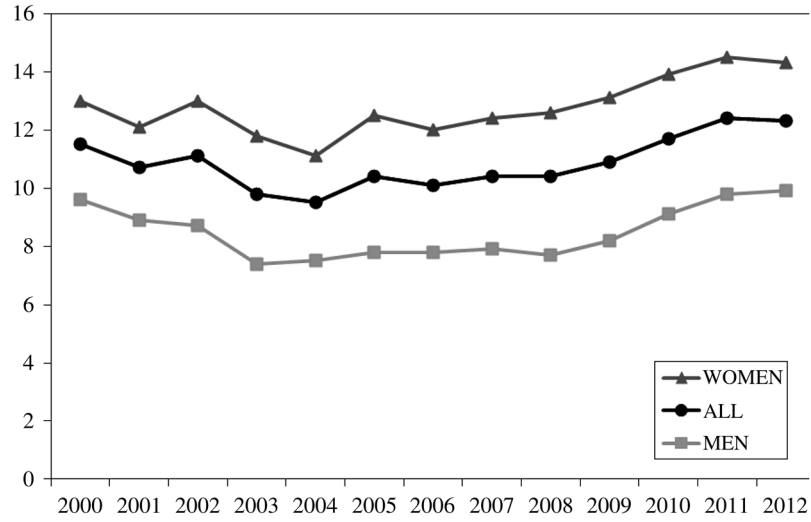
Introduction

CRITICS OF THE VALUE OF FRATERNITIES and sororities have considerable evidence to support detrimental aspects of membership. Advocates counter that findings represent isolated cases comparable to the same rate of incidents by nonmember students or students in other campus organizations. The continued recurrence of the argument highlights a persistent difficulty confronting those interested in research and practice related to fraternal involvement. North-American Interfraternity Conference (NIC) President and CEO Pete Smithhisler recently stated, "often, arguments both for and against the fraternity experience focus on personal experience and anecdotal information" (Pendry, 2010, para. 2). The persistence of these arguments was most recently affirmed in a *New York Times* column (2011) asking experts to comment on the question, "Should Colleges Ban Fraternities?" Further, research about the legal risks associated with fraternities on campus has done little to convince the public of the value of such organizations (e.g., Elkins, Helms, & Pierson, 2003; Hennessy & Huson, 1998), neither have popular books (e.g., DeSantis, 2007; Nuwer, 2001; Robbins, 2005), nor highly trafficked websites (e.g., http://totalfratmove.com/) that showcase the detrimental aspects of membership. Yet, students continue to join.

Since national data collection began in 2000 (HERI, 2013), 10.9% (sd = 0.91) of incoming first-time, full-time college freshmen said they planned to join a fraternity or a sorority (Figure 1).

FIGURE 1
Percentage of Incoming Freshmen Intending to Join a Fraternity or a Sorority (2000–2012)



Note: Illustration of longitudinal responses from entering first-time full-time college freshmen to the statement: Chances are very good that you will join a social fraternity or sorority. Since 2000, an average of 270,000 students from over 400 institutions per year participated in the survey (HERI, 2013), which is weighted to represent national norms for American college freshmen attending baccalaureate-granting institutions. Although these data have been collected since 1967, the question was not disaggregated until more recently. Specifically, in 2000, the "future activity" item "join a social fraternity, sorority or club" was changed to "participate in student government" and "join a social fraternity or sorority," respectively, with similar results.

Consistent with this trend, 11.7% of freshmen became members according to national aggregates from 2009 (Ruiz, Sharkness, Kelly, DeAngelo, & Prior, 2010). As of 2012, the NIC, an association representing international and national men's fraternities, listed 75 member organizations with approximately 5,500 chapters located on more than 800 campuses with about 350,000 undergraduate members in the United States and Canada. In 2011, the National Panhellenic Conference (NPC, 2012), which represents international and national women's groups, listed 26 member organizations with approximately 3,078 chapters located on 655 campuses with more

than 300,000 undergraduate members. Other prominent organizing councils, such as the National Pan-Hellenic Council, Incorporated (NPHC) and the National Multicultural Greek Council, Incorporated (NMGC), have not published membership statistics. This does not even account for noncouncil member groups, local chapters, and other campus organizations that use Greek-letter designations. As will be demonstrated in this volume, the loose organizational coupling of these organizations makes precision difficult. Despite this imprecision, it is reasonable to say that fraternities and sororities remain a prominent extracurricular outlet for college students.

Terminology

The terminology used in this monograph will be familiar to fraternity/sorority professionals but may seem new to those not affiliated with the Association of Fraternity/Sorority Advisors (AFA) or *Oracle*. The word "Greek" will not be used in this volume to describe fraternity or sorority members; Greek is considered a nationality rather than an organizational distinction. It might be argued that fraternities and sororities could be considered "Greek-letter organizations," and although this label is not incorrect, it is still somewhat imprecise. A parallel is the use of the word "Hispanic," as noted in a recent *Oracle* editorial (Biddix, 2010). Throughout this monograph, members will be referred to as affiliates, fraternity/sorority members, or members of fraternal organizations. Fraternal organization is an inclusive term encompassing both men's and women's groups, as several women's groups (e.g., Chi Omega *Fraternity*) have retained their original description as a women's fraternity. Regardless of group designation, members of men's groups will be listed as "fraternity members" and members of women's groups will be described as "sorority members." There are instances, such as direct quotations or other reproductions of research, when "Greek" is retained; however, the authors wish to note that every effort to be more precise with terminology has been taken. Other outmoded terms and their modern counterparts used throughout this volume are listed in Table 1.

The authors also acknowledge not all fraternities and sororities are single-sex, social-oriented, organizations belonging to a major organization body,

TABLE 1
Updated Fraternity/Sorority Terminology and Substitutions

Instead of	*We use*
Active	Member; active member
Culture-based fraternity	Use the council or organizational affiliation (e.g., National Multicultural Greek Council [NMGC])
Greek or Greek community	Fraternity/sorority or fraternity/sorority community
Greek advisor	Fraternity/sorority professional; campus-based professional
Greek system	Fraternity/sorority community
Headquarters staff	Fraternity/sorority professional; organization staff member
Pledge; pledging	New member; associate member; the new member educational period
Rush; rushee	Recruitment or intake; potential new member (PNM)

such as the National Panhellenic Conference (NPC), National Pan-Hellenic Council (NPHC), or North American Interfraternity Conference (IFC); however, most research identified for this volume deals with these three organizations. Upon completion of the research review chapters, the authors noted it was impossible to differentiate groups in the majority of cases. Simply put, researchers have treated fraternity/sorority involvement as a discrete classification, which in most cases prevents distinguishing membership even by gender. This problem is acknowledged as a major limitation in the published research.

Problem Statement

To assess and question the value of fraternities and sororities, it is important to consider the effects of involvement on multifaceted outcomes. Recently, researchers have incorporated membership as a central focus (or demographic characteristic) on a variety of topics, yet little can be said comprehensively across the wealth of isolated studies. Misconceptions concerning the research about this subculture include that studies are limited or inadequate (Molasso,

2005) or that biases confine empirical studies to detrimental aspects of involvement (Pendry, 2010). Researchers performing keyword, title, or abstract searches are likely to confirm these opinions. Although not pervasive, research about fraternities and sororities is broader and more common than generally perceived (Perkins, Zimmerman, & Janosik, 2011). Unfortunately, research linking affiliation and outcomes can be complex to interpret (Asel, Seifert, & Pascarella, 2009) given the structures and cultures affecting fraternal organizations. This monograph sought to correct the deficiency by providing a comprehensive resource through research-based analysis of published work. A more inclusive understanding of fraternity/sorority membership may broaden our understanding of how extracurricular involvement affects students, bearing implications for practitioner preparation, student involvement research, and institutional policies.

Purpose of the Monograph

The purpose of this monograph was to explore the value of fraternities and sororities for students and institutions, as assessed in previous research. Empirical studies published in contemporary peer-reviewed academic journals served as the primary source to evaluate this question; however, books, dissertations, and other reports were also included. The authors sought to accomplish the following with this study:

- Identify behavioral, psychosocial, and educational outcomes of involvement.
- Differentiate outcomes between and among organizations, when possible.
- Recommend implications for policy and practice based on findings.

Research Questions

The primary research questions guiding this study were modeled after Pascarella and Terenzini's (1991, 2005) work. Pascarella and Terenzini's questions had to be adapted to account for the lack of substantial evidence to differentiate aspects of fraternity/sorority involvement due to a lack of demographic depth of the research. This issue will be discussed in greater detail later in this

volume. As a result, three integrated questions were asked of available evidence as means of meaningfully consolidating and interpreting the research:

1. What evidence is there that fraternity or sorority involvement influences student outcomes?
2. To what extent does the influence of fraternity or sorority involvement depend on the type of student involved?
3. To what extent does the influence of fraternity or sorority involvement extend throughout and beyond the college years?

The first question related to member and nonmember comparisons, between-group comparisons, and within-group comparisons. The second question was a consideration of how involvement affected different types of students or conditional effects. The third question sought evidence of involvement effects a time span consideration. The foremost problem with the second question is acknowledged as a fundamental limitation of this volume. As appropriately stated by Pascarella and Terenzini (2005), "the intersection and interaction of a number of influences . . . cannot be clearly disaggregated" (p. 8). When possible, aspects of the research design or methodology attempting to isolate the unique influence of involvement, such as statistical controls or robust phenomenology, were highlighted.

Importance of the Topic

Researchers have consistently and positively linked student involvement with engagement and psychosocial development (e.g., Astin, 1993a) as well as factors contributing to academic achievement outcomes, such as higher GPA, persistence, and graduation rates. Astin specifically highlighted fraternity/sorority involvement as a positive contributor to these educational outcomes. Students who "get involved" experience institutional attachment and supportive peer groups (Nathan, 2005), while institutions benefit from higher retention, persistence, and graduation and giving rates. Few researchers have disaggregated extracurricular involvement to understand differences related to organization type, student role within the organization, or involvement

frequency. A more inclusive understanding of fraternity/sorority membership may broaden our understanding of how extracurricular involvement affects students, bearing implications for practitioner preparation, student involvement research, and institutional policies. More specifically, this monograph addressed the lack of a comprehensive, contemporary, and singular evaluation of the multiple outcomes and considerations, both positive and negative, associated with fraternity/sorority involvement. Although there have been several full-length volumes dedicated to the history of fraternities and sororities and member experiences (e.g., Ross, 2001), as well as narrowly tailored efforts to capture trends in the research (Molasso, 2005; Perkins et al., 2011), no single volume exists to identify, organize, and provide a critical analysis of empirical research incorporating multiple outcomes and organizational perspectives. Recent examples highlight deficiencies.

The NIC, one of the largest umbrella groups representing fraternities, recently launched "The Case For Fraternity Rights," a teaching initiative based on data from University Learning Outcomes Assessment (UniLoa). The "Facts" include research-based statements aimed at challenging misconceptions about fraternities. Smithhisler noted the work "places compelling, objective data into the conversation" (Pendry, 2010, para. 2). This public relations statement underscores a perspective that credible data do not exist regarding fraternity involvement. In addition, for the past seven years, the AFA has worked to promote research focusing on all aspects of fraternity/sorority membership, with various research-based efforts, including the 2005 launch of *Oracle*, a peer-reviewed journal. To date, 12 issues of the journal have been published, adding more than 40 empirical studies focused on fraternity/sorority issues. Unfortunately, the infancy of the journal coupled with a restricted access policy and lack of database indexing, both only recently amended, has limited its visibility and impact.

Further, the Center for the Study of the College Fraternity (CSCF) sponsors annotated research bibliographies about fraternity/sorority involvement, including compilations from 1950 to 2010. Though valuable as a starting point for research about the population, the documents are not cross-listed in research databases and do not present comprehensive interpretations. Finally, the National Association of Student Personnel Administrators (NASPA)

supports a Fraternity and Sorority Knowledge Community (FSKC) to support and advocate for involvement and ethical advising practices, yet little research has been undertaken to date. The organization (NASPA FSKC, 2013) articulated a strategic goal to centralize existing fraternity/sorority research in a central location, though the work was not set to begin until spring 2013 and the description of the repository suggests it will be restricted to NASPA members.

Research Approach

This monograph was informed by results from empirical studies published from spring 1996 until spring 2013. The scope of the study was chosen intentionally to include research published after Kuh et al.'s (1996) editorial, contextualized in the second chapter. A preliminary review of literature guided by the content knowledge of the authors initially was used to identify primary topics for consideration. One important consideration was an observation the authors made based on previous experience conducting research, reviewing manuscripts, and teaching academic writing: researchers often fail to examine statistical tables or participant descriptions when evaluating research. This oversight can cause a researcher to neglect countless studies that may include the population or phenomenon of interest. Therefore, the approach of this study, modeled after Pascarella and Terenzini's (2005) methodology, was to review fraternity/sorority-*focused* research as well as to identify, report, and analyze fraternity/sorority-*included* research.

Sources of data were initially identified through a keyword search (i.e., fraternity and/or sorority) of higher education and student-affairs-focused journals. Studies were incorporated in which membership was included as a control, independent variable, or participant demographic variable. This resulted in much fewer articles than anticipated. A secondary search of major research databases in education, communication, psychology, and sociology exponentially increased the number of articles and reports on fraternity/sorority involvement. Other reference materials also included in this study were books, reports from national surveys incorporating fraternity/sorority involvement, and dissertations and theses.

Theoretical Consideration

Membership in organizations influence individuals; fraternities and sororities are no exception. Astin's (1973) Input-Environment-Output (IEO) model is particularly appropriate when examining fraternity and sorority impacts and how they may affect membership behavior, attitudes, and experiences. "Input" refers to the experiences and characteristics students have prior to attending college. "Environment" refers to the interaction of the student with all of the component parts of the college experience, including classes, other faculty interaction, selection of academic concentration/major, formal cocurricular activities, informal gathering with peers, work, athletics, among many experiences. "Output" refers to the end results, including whether a degree is attained, on what timeline, in what fields, and what the now former student does next, among many possibilities. The IEO model, and resulting research, provides a foundation for better understanding findings regarding fraternity and sorority membership and its influences as well as many of the confounding factors.

While this monograph sought to isolate the particular effect of fraternity/sorority experiences as the environment component, the literature demonstrated compounded effects. To study fraternity and sorority membership without acknowledging the input characteristics that come before is short sighted on many levels (Astin, 1993a, 1993b). First, membership within these organizations is based primarily on input variables. Structural input variables, those that either rules or history guide, include gender and race. Other input variables that affect both the likelihood of desiring membership in a fraternity or a sorority and the likelihood of being selected for membership include previous academic achievement and family socioeconomic status. Throughout the examination of fraternities and sororities' impact on individual members, input variables persist. They simply are reinforced throughout the course of membership.

Input

Although much of the literature about fraternities and sororities focuses on alcohol, research about student characteristics before joining indicates that many already are more experienced drinkers than their nonaffiliating peers

(Elias et al., 1996; Larimer, Anderson, Baer, & Marlatt, 2000). They may also be more experienced in sexual activity than their nonaffiliating peers (Scott-Sheldon, Carey, & Carey, 2008). Other input characteristics of fraternity and sorority members can be classified as related to privilege (Biernat, Vescio, & Green, 1996; Yeung & Stombler, 2000). These can include salient input characteristics, such as greater affluence, more conservative political and social attitudes, and higher grades (on entry) than their nonaffiliated peers. Given the homogeneity of many fraternity and sorority chapters, particularly in race and religion, the similarity of social characteristics among group memberships contravenes many campus efforts to educate about civic engagement through having a diverse student body (Derryberry & Thoma, 2000).

Environment

Some researchers studying student attitudes, notably Hinrichs and Rosenberg (2008), highlighted that, at times, institutional type may be the element researchers are measuring rather than specifically the impact of fraternities and sororities. Although there are interactions between organizations and institutions, Hinrichs and Rosenberg noted that institutions without fraternities and sororities are almost all smaller private institutions. These institutions have obvious other differences separating them from larger private institutions and public institutions of any size. Also, particularly compelling is that residence is almost a nonissue in the research to date. Living in a fraternity/sorority facility rarely surfaced in the literature outside of demographic characteristics in alcohol studies.

Output

Much of the focus on "output" in the research about fraternity and sorority membership is at the end of the first year of college. Some literature looks into the more distant future of fraternity/sorority members, particularly leaders (Abowitz & Knox, 2003), but a notably missing area of examination in the current literature is the intervening early years after college. For example, how do fraternity/sorority college graduates make the transition to the professional world? How, if at all, do the skills members purportedly develop though involvement translate to future work?

Clearly, even the most established models have some challenges when applied to fraternity and sorority studies. With a large degree of variability in chapter, governing council, institutional control, and (inter)national composition, unilateral statements of findings need to be met with a critical eye. Therefore, examination in future chapters will need to moderate the confounding factors that may skew findings.

Organization of This Monograph

This chapter related the introduction, problem statement and purpose, research approach, and significance of the study. A background section closes the chapter to contextualize the rationale and scope of the study. The second, third, fourth, and fifth chapters are the research review and synthesis chapters, including the following topics: behavioral effects related to alcohol, other behavior effects, psychosocial effects, and educational effects. The final (sixth) chapter relates implications for policy and practice based on findings and proposes considerations for continued research.

Alcohol-Related Behavioral Effects

THIS CHAPTER CONCERNS THE BEHAVIORAL EFFECTS of fraternity/sorority membership related to alcohol use and consequences. Representative of the amount of research devoted to the topic relative to all others in the past two decades, this is the longest chapter in the monograph. The chapter begins with four introductory subsections meant to serve as a contextual overview to the research. The first subsection is a review of the results from the initial study on which Kuh et al. (1996) based their statements linking fraternity membership and problematic alcohol consumption. This is followed by an overview of the terminology and most commonly used research instruments. A review of criticisms follows as a third subsection. The last segment of the introductory section is a summary of rates and statistics related to consumption, problem drinking, and fraternity/sorority membership.

The remaining majority of the chapter includes subheadings for problematic consumption such as binging and special occasion/high-risk drinking. Several review sections follow on characteristics of joiners related to alcohol consumption. Next are sections devoted to research on the new member education period, socialization, and organizational effects. This is followed by research on environmental effects at fraternity parties and fraternity and sorority houses. Next are sections comparing fraternity/sorority-related alcohol use to athletes and other campus-based organization members. The final review section is a consideration of during- and after-college alcohol use patterns. A summary of research ends the chapter.

Context

A few months after "The Questionable Value of Fraternities" appeared, Wechsler, Kuh, and Davenport (1996) published results from a subset of The Harvard School of Public Health College Alcohol Study, focusing on fraternity/sorority membership, in the *NASPA Journal*. Following a review of literature, the researchers noted that nearly all identified studies showed the majority of traditional-aged college students used alcohol on a regular basis, but fraternity and sorority members tended to drink more heavily and frequently, and have more problems. The researchers used two sets of chi-squares to compare drinking behavior, alcohol-related problems, secondary binge effects, and institutional responses to drinking among men and women. These sets were comprised of three groups (resident fraternity or sorority members, nonresident fraternity or sorority members, and students who did not belong to a fraternity or a sorority). Analysis included responses from 14,756 students at 115 institutions with fraternities or sororities or both. Approximately 18% (2,648) of the sample included fraternity or sorority members.

Wechsler et al. (1996) found results were consistent with previous studies about alcohol use. Findings were particularly strong for fraternity residents and students who drank frequently in high school. Specifically, they reported that while nonresident fraternity members binge drank (71%) at a higher rate than nonmembers (45%), the rate was even higher (86%) among fraternity house residents. Of those members, 57% would be classified as frequent binge drinkers, defined as drinking three or more times in the two weeks prior to the study. Sorority rates were comparable, with nonresident members binging at a substantially higher rate (58%) than nonmembers (35%). Sorority resident members reported binging at a much higher rate (80%), with 43% also meeting frequent binge drinker classification.

Confirming previous research, Wechsler et al. (1996) found that more than one third (34%) of future nonfraternity member college students binge drank in high school. The rate climbed to 44% for future nonresident fraternity members and 60% for resident members. Among future nonfraternity members who did not binge in high school, about a third (32%) binged in college, as compared to two thirds (60%) of future nonresident fraternity

members and most (78%) future resident fraternity members. Among sorority women, the rate of future nonmembers who binge drank in high school was similar to the men (28%), but much lower for future sorority members (35%) and future sorority resident members (35%). The rates were consistent for future nonmembers who binged in high school but did not in college (25%), slightly higher for nonresident sorority members (48%) and very high for future resident members (76%).

Based on these and other findings, Wechsler et al. (1996) drew three conclusions. First, the fraternity and sorority housing environment appeared tolerant of hazardous alcohol use and associated behaviors. Second, efforts to reduce hazardous alcohol use on campus, such as campus regulations and educational programs, do not seem to affect fraternity and sorority members. This was particularly problematic since fraternity/sorority members engaged in binge drinking at a much greater extent than nonmembers. The researchers were most concerned about sorority members, who reported the least experience with consuming alcohol in high school but began binge drinking at high rates in college. Third, the researchers found little evidence to suggest campus officials held fraternity members specifically accountable for their behaviors, though there was no empirical basis for this conclusion. The most prominent recommendation the researchers made was to defer recruitment until the sophomore year.

Research Design and Terminology

Most researchers focused on alcohol either used existing data from The Harvard School of Public Health College Alcohol Study (hereafter CAS), administered the Core Alcohol and Drug Survey (CORE), used the Daily Drinking Questionnaire (DDQ), drew data from the National College Health Risk Behavior Survey (NCHRBS) or the older Student Alcohol Questionnaire (SAQ), or developed their own instruments but used the common definition as a baseline metric for classifying binge drinking (e.g., Caron, Moskey, & Hovey, 2004). For a detailed review of instrumentation and associated measures related to college student alcohol use, see Martens, Arterberry, Cadigan,

and Smith (2012). With very few exceptions (e.g., Ashmore, Del Boca, & Beebe, 2002), research about binge drinking has involved quantitative analysis of survey data with some analytical variation based on research questions or variables. Unless otherwise noted, results did not vary drastically by sample size or institutional characteristics, involved self-reported data, and utilized random samples. Many studies were grant-funded, frequently by the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

Subsequent authors of many of the alcohol-related studies identified in the literature and cited in this chapter drew on existing data from CAS; the most recent was in 2012 (Chauvin, 2012). CAS researchers, led by Dr. Henry Wechsler, conducted four national surveys involving more than 14,000 students at 120 four-year colleges across 40 states in 1993, 1997, 1999, and 2001. Participating institutions were carefully selected to ensure representativeness; oversampling for women's only and predominantly Black institutions was instituted to correct for sample bias. Every nth student was selected from the student registry depending on enrollment size. The instrument was a 20-page questionnaire, including questions about alcohol use, associated behaviors, and demographic information such as group membership. Data informing the alcohol-related findings in "The Questionable Value of Fraternities" were based on CAS data.

Two terms—binge drinking and heavy episodic drinking—are important to understand when reviewing research about college student use of alcohol, particular fraternity/sorority research. Binge drinking is used interchangeably with "binging" or "binged," verb forms that will appear frequently in this chapter. Most researchers operationalized binge drinking by using the NIAAA standard: binge drinking is defined as consumption of five or more drinks in a row for men and four or more drinks for women in a single sitting during the two weeks prior to the survey. Heavy episodic drinking, often abbreviated as HED, is most often defined as consumption of alcohol five or more times in a row in a two-week period. Adherence to these common definitions resulted in a valuable continuity among studies conducted during the past 16 years; and in most cases, the terms did not vary despite the use of instruments other than CAS.

Criticisms of the Terminology

A criticism of the standard definition of binge drinking is that the measure is too low to delineate properly hazardous aspects of member drinking in much of the extant research (Park, Sher, Wood, & Krull, 2009). Dorsey, Scherer, and Real (1999) found numerous articles and books written dating back to the early 1980s considering the validity and reliability of self-report measures of alcohol consumption. For example, Harrington, Brigham, and Clayton (1997) in a study of only fraternity and sorority members with pre/post, fall/spring data collected across five public institutions from 1993 to 1994 reported that the majority of fraternity members (69.1%) consumed 13 or more drinks in one sitting in the past month, as compared to 15.8% of sorority members. Patrick and Lee (2010) examined three types of self-reporting mechanisms and found fraternity/sorority members tended to overestimate the number of drinks consumed, which may lead to a basis that they should drink that same amount in the future. In a two-institution study limited to Asian or White students, Larimer et al. (2011) found inconsistent reporting for fraternity/sorority members who reported higher estimates of other fraternity/sorority members drinking behaviors. Chauvin (2012) called for a revised version of the CAS to include a clearer definition of "a sitting"—noting that it may mean a few hours to some or an entire day to others. This does not permit an accurate differentiation between varying degrees of alcohol use and binge drinking. As an example, Page and O'Hegarty (2006) found fraternity members defined binge drinking as consuming an average of 12 drinks while "partying."

Rates and Statistics

This monograph was delimited to research published after the 1996 CAS results (Wechsler et al., 1996). An overview of rates and statistics from CAS, CORE, DDQ, and related surveys underscores a consistent trend for problematic drinking among fraternity/sorority members. As shown in nearly 100 empirical studies published since 1996, fraternity members drank in greater quantities and more frequently than all other students or student groups. The

TABLE 2
Drinking Classifications From Published Research (1984–2012)

Average drinks/day	Alcohol abuse	Likelihood of binge drinking
Average drinks/week	Alcohol dependence (DSM-IV)	Binging occasions
Average drinking days/week	Probability of intoxication	Binging last month
Average drinking days/month	Intoxication occasions	Percent binge drinkers
Drinking 5+ drinks/month	Drinking to get drunk	Heavy Episodic Drinking (HED)
Drinking 8+ drinks/month	"Drunkenness"	Percent HED Episodes
Drinking 10+ drinks/month	Being drunk in the last 7 days	HED occasions past month
Drinking 13+ drinks/month	Being drunk 3+ times/month	

results were more varied for sorority members, though largely exhibit the same general pattern. This finding has been consistent since at least 1984, according to Barry (2007), who confirmed in a review of published research that fraternity/sorority members outdrank nonmembers on nearly every measure. Danielson, Taylor, and Hartford (2001) corroborated this finding in a more focused review of research published from 1988 to 2001.

In general, fraternity members exhibit the highest alcohol consumption rates, followed by sorority members, nonfraternity men, and nonsorority women. Rates of binge drinking have been higher for members and membership also correlated with future heavy drinking. Overall, regardless of the category, after controlling for pre-existing factors and in comparison with the next highest predictor, athletic participation, fraternity membership increased likelihood (odds) of alcohol use, abuse, and consequences. Table 2 shows various classifications used by researchers.

Binge Drinking

Researchers have reported varying rates for fraternity/sorority binge drinking. In most cases, diverging rates reflected whether or not the survey included variables for resident/nonresident or differentiated fraternity/sorority

members. Using the 1993 CAS dataset, Wechsler et al. (1996) differentiated between nonresident fraternity members who binge drank (71%) and resident members (86%). Sorority nonresidents also binged at a lower rate (58%) than resident members (80%). Comparing the 1993 and 1997 CAS cohorts, Wechsler, Dowdal, Maenner, Gledhill-Hoyt, and Lee (1998) found higher percentages of fraternity/sorority bingers: 67% in 1993 and 65% in 1997. Using CORE data, Alva (1998) found a much lower rate for fraternity/sorority members (54%), though it is unclear whether the four-campus study included groups with houses. Taylor, Johnson, Voas, and Turrisi (2006) found a similar rate (58.5%) among fraternity/sorority members surveyed at two universities categorized as "dry campuses" from 2000 to 2004. Conversely, in a national sample that only included members of a single fraternity distributed across 98 chapters in 32 states ($n = 3{,}406$), Caudill et al. (2007) found 86% of members would be classified as binge drinkers.

Aside from CAS research, one of the most prominently cited studies is Alva's (1998) work with CORE data comparing alcohol use patterns and personal beliefs about alcohol use expectancies between a sample of fraternity and sorority members ($n = 385$) and nonmembers ($n = 1{,}518$). The scope of the study involved four campuses of a large comprehensive university system in California. Statistically significant *t*-tests showed fraternity and sorority members averaged more drinks per week (e.g., 3.91 vs. 1.75) and per month as well as showed greater likelihood of using alcohol at parties or at fraternity/sorority houses than nonmembers. When disaggregated, fraternity members self-reported having 5.78 drinks per week versus 2.25 reported by sorority members. By comparison, nonmember males reported consuming 2.77 drinks per week versus 1.11 for nonmember females. In terms of monthly use, 19.3% of fraternity/sorority members reported no alcohol use versus 43.6% of nonmembers who did not use in the past 30 days. No differences were determined by sex between nonmembers in the past 30 days. Sorority members (21.9%) were more likely to abstain from alcohol use as compared to fraternity members (16.1%). At all levels of monthly alcohol use, fraternity members reported higher levels. Examining only freshmen respondents at a single institution in 1999 ($n = 642$), Luhtanen and Crocker

(2005) found membership led to significantly higher odds of binging (*OR* = 3.12) than the next highest factor, extroversion (*OR* = 1.76; *OR* = 1.72).

Using two different nationally representative datasets, first the 1995 NCHRBS and then all four cohorts of CAS (1993, 1997, 1999, and 2001), DeSimone (2007, 2009) identified similarities between rate and probability of binge drinking among fraternity men. Specifically modeling the 2009 CAS data using a set of regression controls, including demographic information, previous drinking experience, attitudes toward drinking, indicators for satisfaction with education, and the importance of parties, the researcher came to the conservative finding that fraternity membership raised binge likelihood by 11% and occasions by 7%. Considered alongside previous research, DeSimone (2009) concluded fraternity membership adversely affected drinking intensity, frequency, and recency, as well as alcohol-related incidents affecting self and others. Specific statistics included that membership raised the probability of intoxication by 6.7%, of intoxication occasions by 5.4%, of average drinks by 5.1%, and of drinking occasions by 5.6% versus nonmembership.

Attempting to verify an at-risk demographic by accounting for differences in individual campus environments, Weitzman and Chen (2005) examined data from the 1993 and 1997 CAS administrations using multilevel multivariate analysis. The researchers found fraternity/sorority membership was associated with higher odds of drinking problems, alcohol-related harms, or secondhand effects. Conversely, women, non-White students, those 23 and older, or students from lower socioeconomic status backgrounds were less likely to use/abuse alcohol, report drinking-related harms, or experience secondhand effects. This supported Grenier, Borskey, and Folse's (1998) findings from a survey of students on a Black university campus. The researchers identified high profile alcohol users as: freshmen, males, members of fraternities or sororities, single, off-campus residents, and children of parents with higher education.

Heavy Episodic Drinking (HED)

Nelson, Xuan, Lee, Weitzman, and Wechsler (2009) surveyed students attending 18 colleges with high levels of episodic drinking (50% or more

students identified from the 1993 Harvard CAS Study) in 2005 ($n = 4,518$). The researchers compared findings to responses from same institutions in 1993, 1993, 1999, and 2001 ($n = 13,254$). Among groups with highest episodic drinking, fraternity/sorority members had consistently high levels of heavy episodic drinking over time, with 75% of members (both) versus 51% nonmembers and 85% fraternity/sorority house residents versus 72% nonresidents classified as heavy episodic drinkers across the surveys. The researchers found no significant changes in the groups over time. The same year, Theall et al. (2009) found fraternity/sorority participation increased likelihood of heavy episodic drinking ($OR = 1.99$); the next closest category was participation in varsity athletics, which also increased likelihood ($OR = 1.31$). McCabe, Schulenberg, et al. (2005), drawing on a nationally representative sample of high school seniors (wave one; modal age 18 years), followed longitudinally across two additional waves during college (modal ages 19/20 and 21/22), found fraternity and sorority members experienced higher levels of heavy episodic drinking than nonmembers at all three waves. Heavy episodic drinking also increased significantly with age among members of fraternities or sororities relative to nonmembers. In a single-institution study, Fairlie, DeJong, Stevenson, Lavigne, and Wood (2010) found fraternity members engaged in heavy episodic drinking an average of 5.46 days ($sd = 5.11$) in the past month and an average of 6.50 days ($sd = 5.87$) in 2007 ($n = 726$). In 2006, women did so an average of 4.27 days ($sd = 4.57$) and an average of 4.08 days ($sd = 4.39$) in 2007 ($n = 757$). Notably, the high standard deviations make interpreting the statistic problematic.

Problem Drinking, Alcoholism, and Alcohol Dependence

A few researchers examined problem drinking behavior, alcoholism, and alcohol dependence using DSM-IV criteria. Among fraternity and sorority members, Arria et al. (2011), using a sample of fourth-year students from a single institution ($n = 975$), found membership remained a significant predictor of alcohol dependence ($OR = 1.69$) after holding other significant

predictors constant. Only parental history with alcohol produced comparable odds (*OR* = 1.68), followed by a typical number of drinks in a drinking day (*OR* = 1.30). The only others slightly above 1.0 were depression, SES, and conduct problems. Theall et al. (2009), using longitudinal data from randomly sampled students (*n* = 15,875) at 32 institutions, found fraternity/sorority participation also increased likelihood of dependence, but at a slightly higher rate (*OR* = 1.90); the next closest category was participation in varsity athletics (*OR* = 1.17). Examining only sorority members, Matthews (2004) found a significant relationship between sorority status and problem drinking status, with a greater percentage of sorority members scoring positively on the AUDIT (8.48%) compared to nonmembers (3.57%). Using CAS 1999 data, Knight et al. (2002) found membership in fraternity/sorority significantly increased the odds of alcohol abuse (*OR* = 1.9) or dependence (*OR* = 1.8) diagnoses.

Weekly and Monthly Consumption

Two of the most consistently measured and reported rates of undergraduate drinking were average drinks per week and drinks per month. This metric is one of the few in which fraternity and sorority membership is disaggregated. As evidence of the longevity of the measure, weekly consumption differences persisted even among the oldest studies in search. Engs, Diebold, and Hanson (1996), using data derived from the SAQ (1993–1994) among a sample of 12,081 students from 168 colleges and universities, found fraternity/sorority members consumed almost twice as many drinks per week than nonmembers. More recently, Hummer, LaBrie, Lac, Sessoms, and Cail (2012) using the DDQ in a single-institution study, found fraternity members self-reported having an average of 20.92 (*sd* = 14.18) drinks per week versus 11.74 (*sd* = 9.03) for nonmembers. Sorority members reported an average of 11.11 (*sd* = 7.29) drinks per week versus 7.53 (*sd* = 5.95) among nonaffiliates. These results were consistent with Larimer et al.'s (2000) findings, in another single-institution study, that fraternity members consumed more drinks per week (*m* = 22.4, *sd* = 11.7) than sorority members (*m* = 9.97, *sd* = 8.99). Also,

fraternity members averaged more drinking occasions per week ($m = 4.22$, $sd = 1.65$) than sorority members ($m = 2.93$, $sd = 1.39$). In a more focused study involving only freshmen respondents at a single institution in 1999 ($n = 642$), Luhtanen and Crocker (2005) found membership was the only positive significant predictor for drinks consumed per week ($B = 0.18$). Martin et al. (2009) conducted a web-based survey among a random sample of 3,634 undergraduate students from two large universities ($n = 3,022$), finding the odds of being drunk in the last seven days, a self-reported question, were slightly higher for active members ($OR = 2.32$) versus new members ($OR = 1.80$).

As previously noted, Harrington et al. (1997), in a multi-institution pre/postsurvey, found the majority of fraternity members (69.1%) consumed 13 or more drinks in one sitting in the past month, as compared to 15.8% of sorority women. Alva (1998) observed that fraternity members drank more than all other students in all levels of monthly alcohol use. Theall et al. (2009), using longitudinal data from randomly sampled students at multiple institutions, found fraternity/sorority participation led to higher odds of drinking 10+ times past month ($OR = 1.88$) as well as being drunk 3+ times in past month ($OR = 1.60$). Crosse, Ginexi, and Caudill (2006), in a longitudinal study of members from a single national fraternity ($n = 3,406$; 98 of 99 chapters), found members with a house engaged in binging more frequently (both 5+ times and 8+ times) than members with no house. Pursing different research questions with the same dataset, Caudill et al. (2007) found members drank on an average of 10.5 days in a month and consumed an average of 81 drinks in a month.

Special Occasion/High-Risk Drinking

Several researchers have examined drinking behavior in specific contexts, seeking to identify trends and differences in consumption. Dorsey et al. (1999), in a single-institution study ($n = 239$ undergraduate students), found 80% of the respondents with fraternity/sorority affiliations reported drinking in excess at a spring semester concert event, as compared with 43% of nonaffiliates.

However, this finding might be interpreted with some caution, as the researchers found only a slight difference (54%–46%), as compared to a much larger disparity in CAS/CORE studies, between students who said they drank in excess in the past two weeks. Instead of a standard definition, the researchers relied on student perceptions of excessive drinking rather than providing arbitrary cutoffs; specifically, students were asked to indicate the frequency in which they drank in excess during the prior two weeks, according to a 5-point scale with values of 1 (never) to 5 (almost daily*).* In the case of the spring concert series, students were simply asked, "If you attended Springfest, did you drink in excess? (yes or no)."

Glassman, Dodd, Sheu, Rienzo, and Wagenaar (2010) found nearly a quarter (24.5%) of fraternity/sorority members engaged in Extreme Ritualistic Alcohol Consumption (ERAC), or consumption of 10 or more drinks for men or eight for women in a single day or event, on home college football game day compared to 13.6% of nonmembers. Statistically, members were approximately twice as likely to engage in ERAC on game day than nonmembers ($OR = 2.06$, $\alpha = 0.05$). Of those, two fifths of members (46.9%) engaged in heavy episodic drinking, as compared to approximately one third (33.7%) of nonmembers on game day.

Smeaton, Josiam, and Dietrich (1998) randomly surveyed students in Panama City during spring break, finding expected high rates of consumption for men and women. The mean number of drinks consumed the previous day was 18 for men and 10 for women; 91.7% of the men and 78.1% of the women had participated in a binge-drinking episode during the previous day, but no difference between fraternity membership and other men. The researchers suggested the destination moderated the difference. In a study of first-year students ($n = 176$), Lee, Maggs, and Rankin (2006) found spring break was not a situational risk factor for riskier and more extreme drinking. In addition, men, fraternity/sorority members, and students with higher fun expectancies did not increase their alcohol use differentially during the break from classes. In other words, first-year students who went on spring break already drank higher amounts during the academic semester and escalated use when on vacation.

Predisposition to Join, Previous Alcohol Experience, and Other Controls

Some researchers have proposed entering student characteristics as predictive or control variables in alcohol studies. Specifically, heavy drinkers in high school preselect into college environments, like fraternities and sororities, which research has shown supports continued risky consumption. Most of the studies within the scope of this review involved moderate sample (<400), single-institution, cross-sectional surveys of entering college freshmen collected in the summer prior to college entry. Results have been fairly consistent despite geographic variety among institutions. For example, Read, Wood, Davidoff, McLacken, and Campbell (2002) found intention to affiliate with a fraternity or a sorority was not a strong predictor of either typical quantity (frequency or heavy drinking); however, among men only, intention to affiliate was associated with greater levels of alcohol involvement, even at the outset of the college career. Rhoades and Maggs (2006) similarly found that those who planned to join fraternities and sororities reported plans to drink at greater frequency; students involved in the honors program planned to drink less. A few years later, Walls, Fairlie, and Wood (2009) discovered that the more likely students were to join a fraternity or a sorority, the more likely they were to participate in heavy episodic drinking and to begin weekly drinking. They were also likely to drink more often per week, but not report significantly more heavy episodes of drinking than students who do not intend to join. Park, Sher, and Krull (2009) confirmed this finding among future fraternity residents, who consumed both 5+ and 12+ drinks more often per occasion than future residence hall residents.

Drawing on a larger sample (n = 2,024), Oswalt, Shutt, and Cooper (2006) used CORE-derived questions to identify a significant relationship between the current alcohol use of incoming college students and intent to join a fraternal organization. The researchers found individuals planning to join intended to drink more alcohol and more frequently than those not planning to join or those undecided about joining. Park, Sher, and Krull (2009), using multilevel models with a sample of incoming college students (n = 2,392), demonstrated precollege drinking influenced student choices of living

environments, including residence halls and fraternity houses. The researchers suggested the strong observed effect of precollege drinking on residence selection might mean students were not passive victims of the drinking culture; instead they sought environments that enabled and escalated existing drinking behaviors. More recently, Maggs, Williams, and Lee (2011), drawing on a somewhat smaller single-institution sample ($n = 943$), found students who never planned to join fraternities or sororities drank 1/4 drinks fewer per weekday and 9/10 per weekend day in the summer prior to college than students who planned to join.

Two studies with different samples are notable. In one of the few longitudinal studies on this topic, Sher, Bartholow, and Nanda (2001) found fraternity/sorority membership significantly predicted heavy drinking even after controlling for precollege levels of alcohol use. Using a nationally representative subsample of data from the 1995 NCHRBS, DeSimone (2007) introduced controls as an attempt to account for high alcohol consumers being predisposition to join. Results suggested, even with these controls, that fraternity membership increased binge drinking. Specifically, the most conservative estimates imply fraternity membership raises the prevalence and frequency of binge drinking by 15%–20%. Notably, Anderson and Delgado (2010) were able to replicate these findings with the same dataset.

In the most comprehensive study in terms of sample and scope on the topic, McCabe, Schulenberg, et al. (2005) followed nationally representative probability samples of high school seniors (modal age 18 years) longitudinally across two follow-up waves during college (modal ages 19/20 and 21/22). The sample consisted of 10 cohorts (senior years of 1988–1997) made up of 5,883 full-time undergraduate students; 17% were active members of fraternities or sororities. Results from mailed questionnaires with questions similar to CAS and CORE self-reported measure suggested higher rates of alcohol use among college students who join fraternities and sororities predated college attendance, and membership in a fraternity or a sorority was associated with considerably greater than average increases in heavy episodic drinking during college. This led the researchers to conclude that, "although it is known that members of fraternities and sororities report elevated levels of alcohol use during college, the present study shows that these elevated rates were present

before college, while these individuals were still seniors in high school" (p. 519).

The New Member Education Period

The pledging, or new member education period, when students first join has been the subject of some studies. Although much of the published research has a longitudinal component, research sites were single institutions with small samples, limiting generalizability. Notably, regardless of these limitations, the researchers reached the same conclusion that drinking patterns are established either before joining or during the first semester of membership.

Elias et al. (1996), in a study of 170 sorority women ($n = 58$ new members) at a single institution, found alcohol use was slightly higher for the new member group (84.4%) versus members (78.6%). New members consumed significantly more drinks per sitting in the 3–5 drink-per-day range. Because rates of freshmen drinking mirrored upperclass rates in other studies, the researchers suggested drinking patterns among women may be established early in college or before. In a similar single-institution study, including only men, Larimer et al. (2001) examined fraternity new member ($n = 120$) consumption patterns among 12 fraternities at a large West Coast institution, using the DDQ to evaluate drinking behaviors in a pre/postdesign. The researchers found new members consumed an average of 4.93 ($sd = 2.73$) drinks per occasion on an average 3.03 ($sd = 1.51$) occasions per week. One year, the men averaged 4.87 ($sd = 3.93$) drinks per occasion on an average 2.98 ($sd = 1.91$) occasions per week. The negligible rate of increase from the new member period to one year later suggests men may also establish drinking patterns early in college. In another single-institution study, Larimer, Turner, Mallett, and Geisner (2004) again administrated the DDQ to new members of 28 fraternities ($n = 279$) and 17 sororities ($n = 303$). The researchers found men averaged a higher number of drinks per week at baseline ($m = 16.42$, $sd = 12.72$) than women ($m = 8.25$; $sd = 7.84$), and neither patterns dramatically increased after a one-year follow-up: men ($m = 16.05$, $sd = 14.18$) and women ($m = 7.52$, $sd = 9.45$). Park, Sher, Wood, & Kroll (2009)

confirmed these findings in longitudinal follow-ups of members. Risky drinking patterns were established when first joining and persisted through the end of the junior year before diminishing; in fact, the rates of risky drinking as a function of joining in the first semester were almost doubled for having five or more drinks and tripled for having 12 or more drinks by the end of junior year.

Socialization and Organizational Effects

Researchers have also examined socialization effects and peer pressure related to alcohol use once students join fraternities and sororities. Borsari and Carey (1999) reviewed literature from 1980 to 1998 on the topic, concluding members were particularly susceptible to the risk of problematic alcohol consumption because of the role of socialization in the environment. This condition, noted the researchers, is often prevalent as a result of self-selection: students choose groups based on a match between personal values and beliefs that can involve the alcohol "personality" of each group. After joining, students continue to be exposed to situations and pressures encouraging heavy consumption. Durkin, Wolfe, and Clark (2005) evidenced this conclusion in their examination of binge drinking as moderated by social learning behaviors. Drawing on a sample of 1,459 students enrolled at four institutions of higher education, the researchers found when variables such as peer association were taken into account, the significant effects of gender and fraternity/sorority affiliation disappeared with regard to heavy consumption. Nichter, Nichter, Carkoglu, and Lloyd-Richardson (2010) found similar results using focus group methodology. The researchers found fraternity houses were common party locations for freshmen males and females during their first several months on campus, despite the fact that freshmen are not yet members. The researchers referred to fraternity houses as "socialization sites," where incoming freshmen observe the behavior of upperclassmen and learn what is normative on campus. A quotation from one participant fraternity member evidenced this sentiment, "Every social event revolves around drinking. If you're a guy and you stop drinking after like five drinks or something, it's like 'why are you stopping, we're all drinking!'" (p. 19).

Other researchers considered similar organization-level effects. For example, Knee and Neighbors (2002) drew a convenience sample from fraternity members ($n = 53$) and nonmembers ($n = 74$) at a large urban university to examine reasons for extreme consumption. The researchers found extrinsic reasons (e.g., "because people like me more when I have had a few drinks") were associated with higher consumption, both directly and as a function of increased perception of peer pressure. Fraternity members gave more extrinsic reasons for drinking, perceived more peer pressure, and reported more drinking, as compared to nonmembers. This led the researchers to suppose drinking in fraternities was more expected, normative, and pressured. Unfortunately, the sample size and composition is a significant limitation: of the 74 nonmembers, 51 were women and 23 were men. Reporting similar findings with a broader sample, Park, Sher, and Krull (2006), in a study of 3,156 first-time college freshmen at a large Midwestern university, found sorority members increased drinking as private self-consciousness increased, whereas fraternity members increased drinking as private and public self-consciousness decreased. Nonmember drinking was not influenced by self-consciousness. This led the researchers to suppose the fraternity/sorority social environment interacted with individual characteristics to affect drinking. Iwamoto, Cheng, Lee, Takamatsu, and Gordon (2011) arrived at related findings when measures for specific masculine norms were added to predictive equations. In their single-institution study of men ($n = 776$), the researchers showed fraternity membership was correlated with drinking to intoxication ($r = .25$), a relationship identical to the masculine norm of being a playboy ($r = .25$). In the full model, while fraternity membership predicted drinking to intoxication, three masculine norms were also strongly related: playboy, risk taking, and winning norms.

In a grounded study proposed to develop an understanding of recurring high-risk alcohol use and related negative consequences among women, Smith and Berger (2010) interviewed five sorority members, three residence hall students, and two athletes who participated in high-risk drinking and experiencing negative outcomes at a single institution. Results included three major themes: (a) personal motivations for alcohol use (i.e., merriment, meeting others, mating and men, mood management, and me), (b) a relational group

ritual (i.e., "pregaming," "going out," and "storytelling"), and (c) individually experienced consequences (i.e., academic [skipping and slipping]; social [drunk dialing and "friendship fights," getting in trouble]; mood ["getting emotional"]; physical [blackouts, hangovers; pain, puking, and purging]; and sexual [hook-ups]). The researchers depicted the themes as the relational ritual reinforcement (R3) conceptual model, suggesting that women's alcohol consumption should be addressed in the context of their relationships and connections.

Phua's (2011) network analysis also supported these findings. Studying 34 fraternity members at joining and four years later, Phua found members who socialized together also tended to average the same number of drinks per day. Members adjusted their consumption (more or less) based on the small groups they formed; in other words, consumption rate diffused across the network over time. The largest group had three to four drinks per day, followed by five to six drinks, one to two drinks, and seven to eight drinks. This led Phua to conclude alcohol use was shaped more by peer groups than an overall organization. Weitzman and Chen's (2005) multilevel multivariate analysis of data from the 1993 and 1997 CAS administrations lends additional support to the effect of social structures on consumption. The researchers found risk associated with fraternity/sorority membership can be offset by exposure to high levels of social capital, defined as "patterns of engagement, trust, and mutual obligation among persons within social structures" (p. 303). The researchers operationalized this construct as a continuous variable assessing average daily time committed to volunteering in the past 30 days, aggregated to the campus level. The finding emphasized the potential of other environmental effects when considering individual and environmental interactions.

Consumption at Fraternity Parties

A few researchers examined fraternity/sorority parties as a high-risk location for excessive consumption. In general, both members and nonmembers consume more alcohol at fraternity/sorority events, though off-campus nonfraternity/sorority parties produce comparable results. This section relates research

considering the most prevalent locations, drinks per occasion, and levels of intoxication at events.

Wechsler, Kuo, Lee, and Dowdall (2000), using data from the 1997 CAS, found 47% of underage and 39% of of-age students engaged in binge drinking at fraternity parties. A comparable location comparison was off-campus parties (45% underage, 36% of-age). By contrast, other locations included off-campus bars (33% underage, 34% of-age), residence hall parties (30% underage, 26% of-age), then off-campus bars (18% underage, 22% of-age) and on-campus dances (13% underage, 15% of-age). Paschall and Saltz (2007), using a random sample of undergraduate students (n = 10,152) attending 14 California public universities, confirmed students consumed more alcohol at fraternity/sorority parties than all other contexts, with the comparable exception of off-campus parties. The researchers also found attendees of fraternity/sorority parties consumed the highest number of drinks consumed before the event in comparison with attendees of house parties, campus events, off-campus parties, bars/restaurants, and outdoor events. Conversely, Juhnke, Schroat, Cashwell, and Gmutza (2003) found private parties the most popular (64%), followed by campus residences (54%), and then fraternity or sorority events (22%), among a sample of students (n = 1,246) at two moderately sized institutions. While the smaller percentage of consumption at fraternity/sorority events seemed encouraging, researchers found 22% a problematic figure relative to the overall very small number of campus fraternity/sorority members.

In one of the few qualitative studies related to alcohol use, Fabian, Toomey, Lenk, and Erickson (2008) conducted focus groups with college students (n = 19) to assess sources of alcohol and related alcohol issues. The four participants who were members of fraternal organizations perceived that being in a fraternity or a sorority did not make alcohol easier to obtain, since alcohol was already prevalent at college parties. One participant elaborated, saying, "You can just show up at a party and take some [alcohol], like, they don't know who buys it, but it's there" (p. 20). One nonmember participant offered a counter perspective, noting, "I have a few friends who are in sororities, and they don't have parties, but they said they don't have to worry about it 'cause all their other friends are frat [*sic*] guys and they just go over there

to drink" (p. 20). Further data analysis led the researchers to conclude college students had easy access to alcohol from both social and commercial sources. In addition, although fraternity and sorority members often report higher rates of alcohol use, alcohol was readily available at parties located at other sites as well, including in private homes and residence halls.

In terms of average drinks consumed per location, using longitudinal data from multiple administrations of CAS, Harford, Wechsler, and Seibring (2002) found heavy drinking (i.e., consumption of 5+ drinks in a sitting) was most prevalent for men at fraternity parties, regardless of age or gender. This exceeded off-campus parties, off-campus bars, and dormitory parties. More specifically, Miley and Frank (2006) collected single-institution data using CORE to reveal students average the most drinks per occasion at fraternity socials (5.91), off-campus parties (5.86), and sorority socials (5.23). The average number of drinks fell by at least one more drink per sitting at bars, athletic events, campus parties, and mixers.

Finally, Glindermann and Geller (2003) examined levels of intoxication among students at 19 fraternity versus nonfraternity parties ($n = 1{,}525$; 1,023 men) using handheld breathalyzers to determine BAC levels. The researchers found students were significantly more intoxicated at fraternity parties than private parties. There was no difference between membership and nonmembership on BAC at fraternity parties, suggesting that fraternity party environment is a critical determinant of excessive alcohol consumption.

Fraternity and Sorority Houses

> *For harried administrators, the Greek [*sic*] houses are an ever-present danger to the university's prestige, a time bomb waiting to explode. (De Los Reyes & Rich, 2003, p. 122)*

A significant observation Wechsler et al. (1996) drew from their review of research and empirical data was that fraternity and sorority houses were problematic environments for alcohol abuse. Researchers examining environmental correlates of alcohol abuse on campus, among both fraternity/sorority members and nonmembers who attend their events, have shown consistent links between risky consumption and fraternity/sorority residence. Borsari

and Carey (1999), citing literature from 1980 to 1998, identified the fraternity house as one of the most consistent sites for the heaviest drinking on campus. In the review, they noted two considerable problems embedded in the culture of fraternity living: problematic drinkers tend to self-select into residences that enable abusive drinking (see also Park, Sher, & Krull, 2009) and fraternity residences tend to have a greater tolerance of intoxicated behaviors. In addition, physical assistance given to sick or impaired drinkers protects drinkers from negative consequences and provides an "enabling environment" for continued problematic alcohol use and behaviors. In summary, Borsari and Carey (1999) noted, "the fraternity house allows ready access to alcohol to a group of people who tend to be tolerant of excessive drinking. Negative consequences to drinkers are minimized, and house members can buffer each other against the harmful effects of overdrinking" (p. 34). Barry (2007), in a somewhat overlapping review of research (1984–2003), confirmed these findings. Subsequent researchers using empirical data have extended this line of research.

Caudill et al. (2007), in a large-scale study of a single fraternity in 2000, found the percentage of binge drinkers was 88% for off-campus, 84% for residence halls, 89% for fraternity house, and 58% for living with parents. In an earlier publication of the data, Crosse et al. (2006) reported group findings based on having a house, alcohol-free house, and sanctioned for probation in the past 12 months. Results showed the average number of drinking days in a month was fairly consistent for members in chapters with a fraternity house at all four data collection points (range = 11.06–11.30; *sd* = 5.35–6.65) and higher than chapters without a fraternity house (range = 8.28–9.95; *sd* = 6.33–8.32). Wechsler et al. (2000) found living in a fraternity or a sorority house resulted in a 6.2 higher odds of binging than living in coed residence hall (*OR* = 1.7), a single-sex residence hall (*OR* = 1.0), off-campus residence (*OR* = 0.08), or other housing (*OR* = 1.1). Underage fraternity or sorority membership resulted in three times more likelihood of binge drinking than students who were not members.

Page and O'Hegarty (2006), using items for alcohol frequency from CORE in a single-institution study, surveyed participants (*n* = 479) from six living environments: females living in residence halls, males living in

residence halls, females living in apartment complexes, males living in apartment complexes, females living in sororities, and males living in fraternities. The researchers found the average number of drinks ($m = 15.27$) consumed in the past week by fraternity house residents was more than double the number of drinks reported by males living in residence halls ($m = 6.49$) and substantially higher than the rate reported by males living in apartment complexes ($m = 9.96$). Students residing in sororities ($m = 7.93$) reported consuming substantially more drinks of alcohol in the past week than females living in residence halls ($m = 4.65$) and apartment complexes ($m = 3.29$). Almost two thirds of those living in fraternities (62.89%) and half of those living in sororities (49.30%) responded that they consumed five or more alcoholic drinks on a single occasion during the average week. This level was much higher than that reported by both males and females living in residence halls and apartment complexes; however, it was much lower than rates reported in previous national studies (e.g., Caudill et al., 2007; Wechsler et al., 1996). Other measures showing higher rates for fraternity and sorority house residents included: percent of students drinking alcohol in the past 30 days, the mean number of drinks on average when consuming alcohol, the mean number of times got drunk in the past year, and the mean number of drinks when "partying."

As previously noted, Nelson et al. (2009) found 85% of fraternity/sorority house residents versus 72% nonresidents were classified as heavy episodic drinkers among students attending 18 colleges with high levels of episodic drinking (50% or more students identified from the 1993 Harvard CAS Study) in 2005 ($n = 4{,}518$). The researchers found no significant changes in the groups over time when comparing findings to responses ($n = 13{,}254$) from same institutions in 1993, 1993, 1999, and 2001. Similarly, Park, Sher, and Krull (2009) found future fraternity residents had significantly higher frequencies of risky drinking prior to college than did future residence hall residents for both 5+ drinks and 12+ drinks. Among future sorority residents, the same result held for precollege consumption of 5+ drinks, though not for 12+. These effects persisted even after the researchers controlled for fraternity selection, evidencing the hypothesis that students self-select into environments based on alcohol culture. Zakletskaia, Wilson, and Fleming (2010) reported an analogous rate more recently in

their examination of excessive alcohol use, defined as five or more drinks in a row on five or more occasions in the past 30 days. Using data from a health screening survey over three years at a single institution, (n = 10,127), researchers found drinking at a fraternity or a sorority house was the highest correlate among all locations (OR = 1.58), followed by bar (OR = 1.40), off-campus residence (OR = 0.99), or parents' house/other (OR = 0.42).

Overall, research on fraternity and sorority residence validates concerns over a problematic living environment for alcohol culture, though the research remains somewhat limited by the holistic treatment of membership. The next section reviewed results from studies where membership was further disaggregated.

Other Comparisons Within Groups

In much of the fraternity/sorority research, membership is treated as an aggregate variable (i.e., member of a fraternity or a sorority) or at best differentiated by sex. Binge drinking statistics demonstrate problems within this approach, as fraternity/sorority rates average 65%, with fraternity upward of 80%, and sorority about 45%. Within-group effects appearing in the research included involvement status, time and level of involvement, leadership, and chapter size.

Researchers who have considered involvement status and time have reported notable significant differences in alcohol use and problematic behavior. Capone, Wood, Borsari, and Laird (2007) reported similar results when classifying students based on specific involvement: (a) members, (b) nonmembers who regularly or occasionally attend fraternity/sorority social events, and (c) nonmembers who do not attend fraternity/sorority events. The researchers found greater involvement in a fraternity or a sorority, as compared with lesser or no involvement, was associated with significant increases in drinking and related problems over the first two years of college. For alcohol problems, a significant gender interaction effect suggested male students who joined fraternities had significantly greater alcohol increases over the freshmen and sophomore years, in comparison to women.

Park et al. (2008) reported similar results when examining involvement as a function of time to consider self-selection and socialization. The researchers

classified four discrete groups of status: constant members (30%), constant nonmembers (64%), late joiners (2%), and droppers (4%). They found heavy drinking and alcohol consequences decrease as individuals disaffiliate fraternities and sororities, whereas heavy drinking and alcohol consequences increase as individuals affiliate. Their results also confirmed a previous study by one of the authors (Sher et al., 2001), in which participants were classified during several waves of a longitudinal study by involvement status using the following groups: active member, little sister or houseboy, nonmember who frequently associated with members (e.g., regular attendance at parties), nonmember who occasionally associated with members, or not at all affiliated. The researchers showed less involvement generally meant less consumption.

Other researchers reported differentiation based on membership status. Cashin, Presley, and Meilman (1998), using large-scale CORE data from 61 institutions (n = 25,411 students), examined membership by involvement status and found few differences until men and women were disaggregated. Post hoc tests showed that for men, increased involvement led to increased use of alcohol, with leaders drinking at a slightly higher rate than active members. There was no difference among women at active involvement versus leadership. While there were differences for heavy drinking rates among most male groups, there was none between actively involved members and leaders. The same was true for women. This suggested to the researchers that leaders participated in setting norms for excessive drinking rather than modeling responsible behaviors. Other studies focusing on leadership involvement have shown mixed results.

Plucker and Teed (2004) used CORE items to examine binge drinking as related to leadership involvement in sororities (n = 327 women in five sororities). Leadership involvement was classified as: current executive officer, former executive officer, nonexecutive officer, and officer in a non-Greek [*sic*] organization. The researchers found no relationship, even after accounting for leadership styles. In another study focused on student leaders at a single institution, Fairlie et al. (2010) found significant effects of leadership status for only perceptions of policy enforcement. In both years, the survey was administered, leaders perceived alcohol control policies as stricter than did members

(Cohen's $d = 0.41$ and 0.44 in 2006 and 2007, respectively). The researchers found no differences in leader or member alcohol behaviors or consequences.

Researchers in one unique study of a single national fraternity considered chapter size as a within-group comparison variable. Caudill et al. (2007) found on every drinking measure that the 26 smallest chapters had the lowest average drinking scores and the 20 largest chapters had the highest scores. In the middle range, however, there was generally an inverse relationship between chapter size and the drinking scores. Fraternity and sorority members also have been compared to other groups, such as athletes and members of other campus organizations.

Comparisons to Athletes

Researchers have found varied results when examining consumption patterns between fraternity/sorority members and college athletes; however, members who are involved in athletics in some way tend to be riskier drinkers. Much of the comparison likely originates from CAS results Wechsler, Davenport, Dowdall, and Grossman (1997) published a year after the Wechsler et al. (1996) fraternity-focused study. In the 1997 publication, Wechsler et al. reported the majority of men involved in athletics (61%) engaged in binge drinking. Historical comparison of the 1993 and 1997 CAS cohorts (Wechsler et al., 1998) revealed only slightly higher percentages of fraternity/sorority bingers: 67% in 1993 and 65% in 1997. Finally, Wechsler et al. (1997) reported NCAA Division I athletes had fewer average monthly drinking days than fraternity/sorority members (6.71–4.95); and although rates for drinks per month and maximum drinks in a sitting were similar, larger standard deviations for athletes on both measures produced a significant difference.

Other researchers found mixed results when differentiating samples by gender and/or adding interaction terms. For example, Meilman, Leichliter, and Presley (1999), using CORE data, differentiated students based on athletic participation: member athletes, member nonathletes, nonmember athletes, and nonmember nonathletes. The researchers found fraternity member-athletes consumed the most alcohol per week and binged at a higher rate,

followed by fraternity member nonathletes, male nonmember athletes, then sorority-member athletes, and sorority member nonathletes. In summary, they noted, "Another way of looking at this is to say that Greek [*sic*] athletes consumed three to four times the amount of alcohol than their non-Greek [*sic*], nonathletic counterparts" (p. 189). Ward and Gryczynski (2007), in a single-institution study using a stratified random sample ($n = 494$), broadened the definition of athletics to include organized recreational sports participants (ORSPs). This group included individuals who played for university intramural or club teams or any other types of organized activity not affiliated with the university. NCAA athletes were excluded from analysis. Approximately 13.9% of respondents were ORSPs and 7.5% of respondents were fraternity/sorority members. Overall, the researchers noted the gap between fraternity membership and ORSP drinking patterns were smaller than expected, given previous research. Results showed ORSPs were comparable to fraternity/sorority members on average number of drinks consumed in a day and average number consumed in a week; however, fraternity/sorority members were higher on average drinks per month, problematic alcohol abuse (ORSPs were not significant), and classification as a heavy drinker. In general, the researchers found White men involved in fraternities and/or organized sports were more likely to consume alcohol with greater frequency and intensity than the general student population.

Although participation in both fraternity/sorority groups and campus athletics generally increased alcohol consumption, frequencies were lower for athletes with regard to weekly and monthly drinking days. Likely, this resulted from practice and game days, suggesting the need for studies differentiating in- versus out-of-season consumption patterns among athletes. For example, Theall et al. (2009) found fraternity/sorority membership increased likelihood of drinking 10+ times in the past month ($OR = 1.88$) while participation in varsity athletics decreased likelihood ($OR = 0.83$). Other results from the study were more typical. Theall et al. found participating in varsity athletics increased the odds of alcohol dependence ($OR = 1.17$), heavy episodic drinking ($OR = 1.31$), being drunk three or more times in the past month ($OR = 1.14$), drinking to get drunk ($OR = 1.03$), and experiencing five or more alcohol-related harms ($OR = 1.26$) as compared to participation

in all other campus activities with the exception of fraternities and sororities. The same odds ratios for fraternity/sorority participation were higher in every category. Martin et al. (2009), in a survey of undergraduate students from two large universities ($n = 3{,}022$), revealed a lower odds for being drunk in the last seven days for varsity athlete ($OR = 1.46$) as compared to fraternity new members ($OR = 2.32$). These findings lend credibility to Spratt and Turrentine's (2001) previous research, drawn from a random sample of CORE survey data of students involved in minority and religious groups ($n = 2{,}000$), showing fraternities drank more, followed by athletes, then sororities, then all other groups.

Comparisons to Other Campus-Based Organizations

A few researchers have compared fraternity/sorority member alcohol use to other campus organizations. Overall, results from the studies reviewed suggest fraternity/sorority membership alters consumption patterns in other organizations, though it is unclear whether the increase may be attributed only to fraternity/sorority involvement or involvement in multiple campus organizations. Researchers have found students involved in multiple organizations or who take leadership positions either consumed more (Bartholow, Sher, & Krull, 2003) or did change existing consumption patterns (Cashin et al., 1998). The following studies demonstrate consistency with these findings for students involved with campus-based organizations.

Spratt and Turrentine (2001), drawing from a random sample of CORE survey data of students involved in minority and religious groups ($n = 2{,}000$), found students with two leadership positions (as compared with no or one position) reported drinking three times as much as other students and twice the national average. Specifically, average number of drinks per week for students with dual leadership roles in minority and religious groups (considered low-use organizations) was higher than the rate of drinking for leaders of athletic teams and sororities. By comparison to data from a previous study (Meilman et al., 1999) only fraternity members and leaders drank more in an average week than students who are leaders of both religious and minority

organizations. This finding suggests a moderator variable (i.e., additional leadership involvement in other organizations) that may affect the hypothesis linking leadership involvement to increased consumption (Bartholow et al., 2003; Cashin et al., 1998; Plucker & Teed, 2004).

Pace and McGrath (2002) compared 321 students at a single institution in 1999 who were members of fraternities and sororities ($n = 200$, not disaggregated) to students who were members of volunteer organizations ($n = 121$) using the CORE survey. Analysis was based on four group arrangements: individuals in both a fraternity/sorority and a volunteer organization, individuals only in volunteer organizations, individuals only in a fraternity/sorority, and individuals in neither group. The researchers found partial support for the basic hypothesis of the study: fraternity/sorority members drink more than students involved in volunteer organizations; however, findings showed no significant differences among groups in a number of problematic behaviors related to alcohol consumption. Students involved in both a fraternity/sorority and a volunteer organization had higher occurrences of alcohol use during the last 30 days and the last year, as well as higher incidence of binge drinking than the nonfraternity/sorority, nonvolunteer group as well as the nonfraternity/sorority, nonvolunteer group. As expected, post hoc tests revealed the two groups with fraternity/sorority members drank more than students who were not involved. Nonfraternity/sorority members who were in volunteer organizations had higher rates of alcohol use during the last 30 days and the last year than students not involved in either organization. These findings led the researchers to hypothesize that there may not be as many differences between fraternity/sorority members and other involved students as assumed; instead they noted:

> *Alcohol consumption appears to be a normative experience among students who are active on campus . . . heavier drinking may be associated with students who get involved in organizations, even if the organizations are service- or volunteer-based. Abuse of alcohol may be somehow entrenched in social activities, and students who want to find ways to fit in socially at college are drawn to activities regardless of the organization's purpose. (p. 228)*

Using a larger sample, LaBrie, Hummer, Neighbors, and Pedersen (2008) confirmed previous findings that fraternity/sorority members outdrank members of volunteer organizations. The researchers recruited students (n = 1,162) from 20 campus organizations (six fraternities, seven sororities, and seven service organizations) to participate in an alcohol intervention study assessing changes in drinking patterns. Organizations were divided approximately evenly into control and intervention groups by random assignment and assessed drinking behavior at baseline, at month one, and at month two follow-up. The researchers found members of fraternities and sororities drank more than service organization members at both follow-ups; there were no significant differences by gender after controlling for baseline differences. Specifically, results revealed nonsignificant with-group variance; however, examination of intracluster correlation coefficients (ICCs) in the hierarchical model revealed 16% of the variance in individual drinking at the month one follow-up was accounted for by organization type, and an additional 5% was accounted for by the specific group. Similarly, 11% and 8% of the variance in individual drinking at the month two follow-up were explained by organization type and specific group. In contrast to Pace and McGrath (2002), LaBrie et al. did not model multiple group membership (e.g., fraternity and volunteer organization member).

In a study including members of multiple campus organizations from 32 colleges and universities (n = 4,798), Huang, DeJong, Towvim, and Schneider (2009) examined characteristics of alcohol abstainers. The researchers found the more time students spent involved in either fraternity/sororities or other social clubs, the less likely they were to abstain. Specifically, students who did not participate in fraternity/sorority or social club activities were almost six times as likely to abstain as those who spent 6+ hours per week in such activities (OR = 5.77); students who spent one to five hours per week were 5.5 times as likely to abstain than those who spent 6+ hours per week (OR = 5.50). This corroborated previous research on campus leaders (Cashin et al., 1998; Sher et al., 2001) suggesting that the more involved students became, the more likely they were to drink. Similarly, some researchers have also examined drinking patterns throughout and beyond college related to fraternity/sorority membership.

Consumption Patterns During and After College

Bartholow et al. (2003) tracked a small sample of undergraduate fraternity/sorority members over eleven years (from entry to age 30) at a single institution. They found heavy fraternity/sorority involvement was significantly correlated with risky drinking throughout the college years, indicating that men and women who were more involved also drank more heavily. The correlation between heavy drinking and involvement was substantially reduced during the postcollege years (year seven and year eleven), although a significant relationship was still evident. Examining the same data in a different way, Sher et al. (2001) found among men, heavy drinking and fraternity membership were largely unrelated in both the first year of college and three years after college; however, during years two to four, heavy drinking was greater among fraternity members than among nonmembers. The pattern was different for the women in the sample. As opposed to men, sorority members reported heavier drinking than nonmember women in year one. At year two, the patterns were similar for fraternity and sorority members. Also in contrast to the men, no significant relation was evident between membership and heavy drinking among women at year three and year four. Notably, at year seven, women who had been in a sorority engaged in more alcohol use than women who had never affiliated. In Park et al.'s (2008) examination of involvement as a function of time (e.g., constant members, constant nonmembers, late joiners, and droppers), the researchers found the detrimental effects of affiliation related to heavy drinking or alcohol abuse did not appear to persist beyond the immediate exposure to the fraternity/sorority environment.

Summary of Findings

A review of more than 100 empirical studies, dating to 1984 (Barry, 2007), as well as a more contemporary review of research published in journal articles from 1988 to 2001 (Danielson et al., 2001), substantiated the following research observations. Regardless of the measure, fraternity members drank

in greater quantities and more frequently than all other students or student groups. Some researchers have shown similar rates among collegiate athletes, but not at a consistent enough rate to significantly question findings. This includes average consumption rates per day, week, and month; average drinks in a sitting or while partying; likelihood of alcohol abuse or dependence; binging and likelihood of binging; and HED and likelihood of HED. Much of the differentiation between actual rates and measures involved whether members resided in fraternity/sorority houses, validating Kuh et al.'s (1996) claim that fraternity/sorority residences are the most problematic areas on campus for risky alcohol behavior.

College students, including fraternity/sorority members and nonmembers, drank and binged more often in fraternity/sorority houses and at fraternity/sorority parties than other locations in or around campus, including bars, athletic events, and nonfraternity/sorority campus parties. It is important to note that this may be more than simply a function of availability. Fabian et al. (2008) found that access to sources of alcohol was ubiquitous across campus from both social and commercial outlets. Although this result seems counterintuitive, a more holistic look at the research (e.g., Borsari & Carey, 1999) suggested the fraternity/sorority environment yielded higher consumption rates, rather than simply availability. As noted, living in a fraternity or a sorority house has been consistently the highest risk factor for problem drinking. A particularly enlightening study was Nelson et al.'s (2009) resurvey of institutions with high levels of HED. Comparing results among all iterations of CAS with their new sample, researchers found an average of 85% of fraternity/sorority house residents versus 72% nonresidents were classified as heavy episodic drinkers across the surveys.

Researchers have shown students self-select into environments and peer groups consistent with their previous experience. In other words, students who drink in high school are more likely to seek organizations and residences to continue the behavior (Park, Sher, & Krull, 2009). Among most methodologically sound of the related studies, in terms of research design and scope, was McCabe, Schulenberg, et al.'s (2005) validating work with 10 cohorts of nationally representative probability samples of high school seniors.

Even controlling for predisposition to drinking prior to college, others (e.g., DeSimone, 2007) have shown fraternity membership nevertheless raises the prevalence of risky drinking behavior. This may be an effect of fraternity socialization, as suggested by Kuh and Arnold (1993) then later by researchers examining situations where students are exposed to heavy consumption pressures (e.g., Durkin et al., 2005), or other peer socialization effects (Phua, 2011). Interestingly, researchers who introduced controls for peer groups or social capital found comparable (Iwamoto et al., 2011) or diminished (Weitzman & Chen, 2005) effects when relating fraternity membership to consumption patterns.

In general, researchers showed increases among male and female college student consumption for those who join fraternities and sororities versus those who do not. Notably, patterns established during the new member period seem to persist to graduation. For example, Park et al. (2008), in longitudinal follow-ups of members, found students established risky drinking patterns when they first joined; these patterns persisted through the end of their junior year before diminishing. Among sorority members, Elias et al. (1996) found new sorority members drank at higher or similar rates than members, further evidencing this trend.

Researchers who have considered within-group characteristics related to alcohol use have found behavior variation among members. Capone et al. (2007) found a positive relationship between increased involvement and alcohol consumption and related problems in the first two years—particularly among males transitioning from freshmen to sophomore year. Park et al. (2008) found that these behaviors decreased as members transitioned out of a fraternity/sorority (e.g., drop out, transfer, and graduate), though findings from Capone et al. (2007), Park et al. (2008), and others suggested this decrease may be more related to a leveling effect following the initial joining phase. Overall, this suggests fraternity/sorority members establish alcohol-related behavioral patterns when they first join; the observed decline could be due to that phenomenon. Others have considered leadership for within-group comparison, though findings varied. Using a large, representative sample, Cashin et al. (1998) found fraternity leaders drank more than members;

however, the effect was relatively small. The difference was not significant for sorority members. Conversely, later researchers (Fairlie et al. 2010; Plucker & Teed, 2004) found no differences between leaders and members with regard to consumption.

Among the more consistent between-groups comparisons researchers have drawn to fraternity consumption was athletic participation. CAS researchers (e.g., Wechsler et al., 1997, 1998) found comparable consumption rates between fraternity/sorority members and athletes, though later researchers showed the effect was more pronounced for men. Athletic participation generally only affected the number of days drinking but not consumption in one sitting; also, type of participation (e.g., varsity, club, or intramural) yielded the same effect. When participation in both a fraternity and a sport was considered, men consumed significantly and considerably more than all other groups (see Meilman et al., 1999).

Researchers comparing between-group effects with campus organizations generally reported higher consumption among students who were members of fraternal organizations. Researchers found membership in multiple organizations increased consumption, but whether the effect was a function of multiple memberships or the inclusion of fraternity/sorority membership is unclear. For example, LaBrie et al. (2008) showed members drank more than students in volunteer organizations, but the researchers did not account for multiple memberships. When dual membership was considered, consumption rates and associated problems became comparable for fraternity/sorority-only students (Pace & McGrath, 2002). Analogous with previous studies about membership status, Huang et al. (2009) showed the more involved students were in any type of social organization, the less likely they were to abstain from alcohol use.

A major deficiency in the research is knowledge of the potential long-term effects of alcohol use and fraternity/sorority membership. As demonstrated throughout this summary, researchers have suggested fraternity/sorority members establish consumption patterns early in their membership; however distressing, these patterns do not appear to increase significantly with continued membership status in college. Researchers tracking long-term effects have

confirmed a decrease in consumption over time—down to relatively moderated patterns after graduation and beyond (e.g., Bartholow et al., 2003). This finding suggests early intervention seems ideal, though a review and evaluation of intervention strategies was beyond the scope of this monograph. The next chapter examines broader behavioral effects that have been linked to membership.

Other Behavioral Effects

THIS CHAPTER CONCERNS OTHER BEHAVIORAL CORRELATES of fraternity/sorority membership, primarily focusing on hazing, sexual aggression, and drug use. The chapter begins with a review of research on hazing, though published findings from the last two decades on the topic were unexpectedly sparse. The range of publication types on hazing necessitated several subsections to delineate the research by reports, journal articles, and other empirical sources. In comparison to the infrequent research efforts prior to 1996, sex-related issues emerged as a prominent research topic, particularly in the mid-2000s to present. The quantity of published work on this topic created the need for several subsections for rape myth acceptance, bystander intervention, sexual aggression and coercion, sorority as an at-risk group, comparison to athletics, and other related research.

Research on other drug use was a broad category but also encompassed a number of studies on specific drugs. These included smoking, other tobacco, and *Salvia divinorum*, as well as illegal drug use such as ecstasy, marijuana, and opioid analgesics. The section closes with a review of illegal use of stimulants and transitions into issues of academic dishonesty. The chapter closes with several sections receiving less attention in the research. The most prominent of these were fake ID use and gambling. Other single topic studies are collected in a closing review section.

Hazing

> *Despite its prevalence, hazing remains somewhat mysterious. It's been the subject of relatively little research, and relevant studies are*

longer on the "what" than the "why." Nonetheless, recent data suggest that hazing affects more students—and starts much earlier—than college officials may have previously thought. (Hoover, 2012, para. 9)

The lack of research about hazing, relative to the risk evidenced by decades of documented problems (see, e.g., Nuwer's chronology of deaths, http://www.hanknuwer.com/hazingdeaths.html) make it among the most problematic of fraternity/sorority-related practices because it is among the least understood. Few researchers in the past 17 years have published empirical examinations in peer-reviewed articles; other types of scholarly writing have been more prevalent.

The most prominently cited publication has been Allan and Madden's (2008) *Hazing in View: College Students at Risk*, a comprehensive hazing study supported by the North American Interfraternal Foundation and the NASPA Foundation. The research was based on analysis of 11,482 survey responses from undergraduate students in a random stratified sample (by region and Carnegie Classification) of 53 colleges and university. For the purposes of the study, Allan and Madden (2008) defined hazing as "any activity expected of someone joining or participating in a group that humiliates, degrades, abuses, or endangers them regardless of a person's willingness to participate" (p. 2). The researcher-developed instrument included 100 items related to hazing, comprising student experiences with behaviors, perceptions, and awareness. The study was piloted with four institutions and then revised with the consultation of an advisory group. Findings lent empirical support to the hypothesis that hazing was not limited to fraternal organizations. Descriptive results demonstrated the pervasiveness of hazing, which was found to be most prominent in varsity athletics (74%) and fraternity/sororities (73%), followed by club sports (64%), performing arts organizations (56%), and service fraternity/sorority (50%). The most frequently reported hazing behaviors, consistent across all groups, related to alcohol consumption, humiliation, isolation, sleep-deprivation, and sex acts. These were consistent across student groups.

Allan and Madden (2008) found more students in the study articulated positive rather than negative aspects of related behaviors. To probe this

further, they also interviewed more than 300 students and campus personnel at 18 of the institutions. Survey and interview results justifying practices conflicted. During interviews, students justified practices based on the perception of group unity; survey results showed the majority of respondents (two-thirds) did not cite this as an outcome of experience. Interestingly, nearly all (nine out of 10) students who are hazed in college do not consider themselves to have been hazed. The researchers also published an abbreviated version of these findings in 2012.

Allan and Madden's (2008) results paralleled Hoover and Pollard's (2000) earlier findings from the Alfred University high school hazing study. Hoover and Pollard discovered that 48% of high school students reported being subjected to hazing activities, with 25% saying they were subjected to such activities before the age of 13. Less than a third of the students who were subjected to hazing activities identified themselves as having been hazed. More students reported participating in potentially illegal or dangerous activities than being hazed. For most of the students, these activities were considered "fun and exciting." Interestingly, students knowing an adult who had been hazed increased the likelihood of their own participation in hazing activities. High school students (and even younger students) start patterns of hazing participation that predispose them for later recruitment into other hazing activities, including more severe activities and additional violations of law or campus policies. This suggests a normalization of hazing to students as an appropriate developmental path to adulthood, similar to the Allan and Madden's (2008) findings that students frequently do not report hazing because they believe group advisors or coaches already knew about it and implicitly supported it.

Hazing Research in Journal Articles

Journal articles related to hazing within fraternities and sororities have few common themes that might be organized, partially due to the limited number identifiable since 1996. Sweet (1999) acknowledged the methodological difficultly of studying fraternity hazing in his qualitative look at understanding hazing practices. A few problems Sweet considered included the secretive nature of fraternal organizations, unreliable self-reports in surveys, ethical issues

with interviewing, and the inability to observe behaviors. The researcher used previous research alongside data from informal interviews with 20 current and former members of fraternities to reframe the problem from a symbolic interactionist perspective. This led to a consideration of hazing behavior as resulting from a convergence of symbols, identities, and contextual situations nested in fraternity initiation rites. Specifically, moving from pledge to member (i.e., a recomposition of self) leads new members to submit to practices as part of the process. Helping pledges envision alternatives to accepting hazing practices may help decrease the likelihood of submission. Further, Sweet recommended a redefinition process for helping groups understand hazing and recasting advisors as "redefiners" rather than as policing agents.

Cokley et al. (2001) developed and utilized an instrument to assess student attitudes ($n = 258$) about the new member process and hazing in fraternal organizations. The Survey of Attitudes about Fraternities and Sororities (SAAFS) consisted of 47 items validated through factor analysis. The six factors identified were purpose of pledging [*sic*], impact of pledging, conforming to pledging rules, perceptions of Greek [*sic*] organizations, moral concerns about pledging, and beliefs about pledging difficulty. Results showed women were more likely to believe the new member process should be a positive experience. Fraternity/sorority members were more positive about the purpose of the new member process and were more likely to believe the process should be positive than nonmembers. Jones (2000) found justification for new member practices more emphatic among Black fraternity new members. The researcher contended that "the pledge ritual is perceived by many BGF [Black Greek Fraternity] members as an overwhelmingly important factor in the preservation of Black fraternal orders. To many Black Greeks [*sic*], physical hardships speak much more thunderously than intellectual challenge, for these hardships are thought to instill fraternal love and also serve as mechanisms which supposedly afford the pledge opportunities to show his worth" (p. 121).

Campo, Poulos, and Sipple (2005) examined student attitudes, behaviors, and beliefs related to hazing and team-building activities using a random sample of students ($n = 736$) at a single institution. Proportions of self-identified hazers included fraternity/sorority members (23.3%), followed by varsity

athletes (15.6%), then leaders (14.4%). Proportions of self-identified students who were hazed included fraternity/sorority members (38.3%), followed by varsity athletes (29.7%), then leaders (22.6%). Proportions of researcher-identified students who hazed (a "yes" response to at least one hazing activity) included fraternity/sorority members (81.6% versus 25.1% nonmembers), followed by varsity athletes (49.1%), then leaders (47.4%). The researchers posited this incongruence was produced by students' more narrow (i.e., egregious) definition of hazing as compared with university policy, a finding also consistent with work previously reviewed in this section.

Campo et al. (2005) found being a leader and believing that hazing builds group cohesion increased the likelihood of self-identifying as a hazer; being in a fraternity/sorority, participating in varsity athletics, and believing hazing builds cohesion increased the likelihood of identifying as a student who was hazed. In terms of researcher-identified hazing participation, being male, a fraternity/sorority member, and believing friends approve of hazing significantly increase likelihood of participation. Interestingly, the researchers also found students who participated in hazing were more likely to engage in team-building activities. A potential significant limitation in the research was discrete classification; it was not clear whether students were classified by one status or if there was intersection (e.g., fraternity and athlete).

Owen, Burke, and Vichesky (2008) developed a factor-analysis-informed typology of hazing behaviors through survey methods. Participants ($n = 342$) were asked to rate behaviors from 0 (definitely not hazing) to 10 (definitely hazing); the behaviors were selected from a review of previous research, news items, and anecdotal reports. Two derived factors, organizational harassment and harm to self and others, were used in further analysis. Participants were also asked to note whether (a) "Someone did this to me"; (b) "I did this to someone else"; (c) "I saw this happen, but did not participate in it"; or (d) "I've heard about this happening, but haven't seen it or experienced it." Finally, students were asked about their attitudes toward hazing, evaluated with statements regarding their attitudes they rated on a five-point Likert scale. In terms of victimization, intragroup analysis showed fraternity members, on average, experienced the greatest number of hazing incidents. Sorority members followed, but experienced significantly less. An unexpected finding, based on

previous research, was the low value for athletes. Notably, standard deviations were very high for all groups. For example, the mean for social fraternities governed by IFC was 10.4, with a standard deviation of 5.6, indicating a very high variance between respondents. This trend was similar for all groups.

Hazing Research in Other Publications

The most conspicuous fraternity/sorority hazing publications have been books (Nuwer, 2001) and essay collections (Nuwer, 2004) in which authors have considered hazing behavior, accounts, and related incidents as an attempt to understand correlates and to offer perspectives on transforming the culture of hazing; some related specifically to Black Greek Fraternities (Jones, 2004; Kimbrough, 2003). Other authors have considered initiation practices among traditionally White groups, such as Syrett's (2009) historical account of involvement linking ideals of masculinity with fraternity behavior. Robbins (2005) offered an exposé of sorority membership practices that shed light on hazing practices. DeSantis (2007) also touched on hazing in his look at gender and sexuality construction in fraternities and sororities.

Unpublished dissertations and theses also have been frequently cited sources about fraternity/sorority hazing. A brief review of the five most prevalent reveals varying perspectives on the topic. Holmes (1999) considered hazing in sororities, interviewing alumnae ($n = 16$) from four institutions who were active members of inter/national and local sororities from 1987 to 1997. The most commonly identified hazing practices identified by the women were signature lists, scavenger hunts, singing, blindfolding, interrogation, sleep deprivation, and yelling. The most common response given by the women who acknowledged being hazed as new members was that it "wasn't so bad at the time" (p. 69). One member was quoted as saying, "pledge [*sic*] classes before us had gone through it and survived, and so would we" (p. 69).

In another study focused on sorority experiences, Lee-Olukoya (2010) wrote about hazing and other membership experiences of women in historically Black sororities. The researcher sought to understand the value of hazing in the organization using a phenomenological approach to allow participants ($n = 17$) describe their membership experiences (ranging from 1960 to 2005)

using a semi-structured interview protocol. One of the themes derived from analysis was the comprehensive nature of hazing. Discussion led to the development of five key components: characteristics of hazing, psychology of hazing, outcomes of hazing practices, members' commitment to maintaining hazing practices, and the evolution of sorority hazing. Considered alongside stories of positive group bonding, the researcher summarized her findings as contradictory. She reflected:

> *It is curious that Black women in this study articulated that they found value and meaning in the relationships with other Black women; however, many of them engaged in and submitted to hazing rituals that were not supportive and valuable to the process of building relationships. (pp. 135–136)*

The ambiguity stemmed from participant definitions of hazing being not congruent with "official" definitions of harmful practices. Specifically, the women viewed physical violence as a form of hazing but not psychological hazing, such as buffoonery, gaming, or mental stress. This was articulated by one participant who noted, "It wasn't too bad; they just had us with those mind games that are expected. It was not like they beat us daily . . ." (p. 145).

In a related phenomenological study intended to understand participant knowledge of hazing practices, Smith (2009) identified four current students and four recent alumni representing various affiliations: National Panhellenic Conference (NPC), National Pan-Hellenic Council (NPHC), North American Interfraternity Conference (IFC), and independent (I) organizations. A common theme among participants was that while most realized certain experiences could be defined as hazing, they did not view some behaviors as problematic at the time and still do not consider some hazing when compared to other experiences. In general and in support of other studies (e.g., Allan & Madden, 2008, 2012), students considered hazing to be a relative term; some students defined activities as hazing, others considered the same experiences as appropriate initiation experiences. One interesting finding was that several students found it difficult to distinguish between the terms "pledging" and "hazing." As noted by Smith (2009), "Most participants described their initiation experience as a 'process,' 'pledgeship,' or 'pledge period,' and

while in some cases those experiences may have included hazing, that was not always the case" (p. 113).

As articulated by participants in both Lee-Olukoya's (2010) and Smith's (2009) studies, understanding how students define hazing, which is often incongruent with legal definitions, has made understanding prevalence rates and developing interventions difficult. Recently evidencing this issue, Allan and Madden (2012) noted "a gap exists between student experiences of hazing and their willingness to label it as such" (p. 88). In an attempt to understanding hazing definitions from a student perspective, Ellsworth (2004) targeted a stratified sample of students in various groups including fraternities (16), sororities (36), ROTC (17), NCAA athletic teams (37), and marching bands (8). The researcher-developed web survey included 42 Likert-scale items that allowed participants ($n = 114$) to rate whether or not they believed an activity was considered hazing. Results showed 10 activities commonly understood to be hazing across all groups: forced to consume excessive amounts of alcoholic beverages; struck by an object, such as a ball, baton, fist, or paddle; handcuffed or tied to a building or structure; received a brand or tattoo; drank or ate substances not intended for normal consumption; deprived of beverages or food by others; performed sexual acts; participated in streaking or other activities while naked; deprived of sleep by others; and stole an item. Statistical analysis revealed slight differences between organizations for physical and psychological activities as well as differences between men and women for physical, psychological, and other hazing activities. Small group sizes call into question statistical significance of these differences, which is also acknowledged as a limitation by the researcher. Ellsworth also published an abbreviated version of his findings in 2006. Although hazing incidents seem to have received more media attention in the past two decades, sex-related issues have been a more prevailing research topic.

Sex-Related Research: Instruments, Terminology, and Criticism

Similar to the research about alcohol consumption, the majority of researchers considering sex-related issues used comparable measures or developed

instruments from questions on widely used surveys. The most commonly used instruments were the Sexual Experiences Survey (SES; Koss & Oros, 1982), Burt's (1980) Rape Myths Acceptance Scale or Gilmartin-Zena's (1987) Acceptance of Rape Myths Scale (ARM), the Hostility Toward Women Scale (Check, Malamuth, Elias, & Barton, 1985), and Illinois Rape Myth Acceptance Scale (IRMA; Payne, Lonsway, & Fitzgerald, 1999). Other common questions included demographics about group membership and alcohol consumption. When alcohol was also included, either the full DDQ or relevant questions from the instrument were also included. The presence of alcohol consistently has been among the most common correlates to sexual misconduct (e.g., Larimer, Lydun, Anderson, & Turner, 1999; Nurius, Norris, Dimeff, & Graham, 1996; Schwartz & Nogrady, 1996). In contrast to the alcohol research, however, nearly all studies about sexual misconduct involved a single-institution convenience sample. Exceptions were noted in this review. Likely, this is due in part to the more sensitive nature of the topic. These measures have not been without criticism, particularly the SES and Rape Myths Acceptance Scale.

Larimer et al. (1999) found when a commonly utilized measure of unwanted sexual contact was made gender neutral, men were as likely as women to report being recipients of several types of sexual coercion. In particular, both men and women reported experiences of feeling it was useless to stop an aroused partner, feeling pressured to have sex by their partner's continual arguments, and having sexual intercourse after having been given drugs or alcohol. More recently, researchers have given the instruments to men and women, as opposed to only men, to serve as controls or for comparison. Further, Murnen and Kohlman (2007) cautioned that conditions under which instruments evaluating rape myth acceptance, hypermasculinity, and self-report of sexually aggressive behavior are given can cause significant variability. They recommended the most valid conditions for administrating the measures are situations in which the researcher is male and near in age to the participants and/or where the purpose of the study is masked. Also, although many of the researchers used common instruments for rape myth acceptance and to collect data on sexual experiences, several used shorter or longer

versions. Overall, the researchers suggest variability within and among studies was problematic, in that in addition to the measures, inconsistencies in sample and sampling strategies could result in further unpredictability.

Rape Myths, Beliefs, and Bystander Intervention

Burt (1980) defined rape myths as "prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists" (p. 217). Such beliefs lead men to engage in and rationalize behavior after the event. The most prominent rape myth that fraternity men are said to learn is that forced sex with a drunken women is acceptable (Sanday, 1990). Rape myths and bystander intervention, or intent to aid someone in a sexual assault situation, are frequently assessed together. For example, in one of the larger-scale studies exploring rape myth acceptance and bystander intervention, McMahon (2010) surveyed incoming students ($n = 2{,}338$; 23% intended to join a fraternity or a sorority) at a single, large institution immediately prior to attending a rape prevention program at orientation. Participants completed revised versions of the Illinois Rape Myth Acceptance Scale and the Bystander Attitude Scale, Revised (BAS-R), a modified version of Banyard's Bystander Scale. Results showed male athletes and men intending to join a fraternity had higher rape myth acceptance and held less positive bystander attitudes than their female counterparts.

Researchers examining structural correlates of rape myths have found factors that increase acceptance of false beliefs. For instance, Bleecker and Murnen (2005) found men who displayed degrading images of women in their rooms had significantly higher myth acceptance scores. Specifically, fraternity men displayed more images of women in their rooms than nonfraternity men, the fraternity men's images were more degrading, and the degree of degradation in the images was correlated with the rape myths held by the men. Other researchers have considered degrading images portrayed in films as a correlate to rape myth acceptance and bystander intervention. Foubert, Brosi, and Bannon (2011) surveyed 489 fraternity men at a single institution about their pornography viewing habits. The researchers found most (83%) fraternity members viewed mainstream pornography in the last

12 months. Significance tests showed men who viewed scored higher on self-reported likelihood of committing sexual assault than men who did not view in the past 12 months. Further, more deleterious effects increased as the level of violence depicted increased.

In a study considering beliefs about marital rape, Auster and Leone (2001) surveyed a systematic random sample of students enrolled in private, liberal arts colleges. A total of 108 women and 101 men participated with even distribution by class standing. Approximately 29% of the women and 35% of the men belonged to a fraternity or a sorority. Results showed nonfraternity members (43.1%) were more likely than fraternity members (32.4%) to approve of marital rape legislation that husbands who commit marital rape should be persecuted. There were no differences between sorority members and female nonmembers. This led researchers to question what it is about membership that causes this difference. Previous research led them to posit that beliefs concerning women and objectification in male social organizations influence these opinions.

Focusing on sorority members, Brosi, Foubert, Bannon, and Yandell (2011) asked members ($n = 307$) whether they had viewed three different kinds of pornography during the past 12 months. Results showed women who viewed sadomasochistic pornography (21%) reported a slightly higher level of rape myth acceptance than women who did not. Also, women who viewed sadomasochistic pornography perceived that they were less able to intervene in a sexual assault situation and were less willing to intervene than women who chose not to view it. Likewise if women viewed hardcore pornography (46%) within the last year, they reported slightly greater rape myth acceptance than women who did not. Further, women who viewed hardcore pornography indicated a greater belief in rape myths and were significantly more likely to believe false or stereotyped beliefs about rape, rape victims, or rapists than those who did not. Complementary research linking myths and intervention to prevention and awareness has also been prevalent about fraternity/sorority members (e.g., John Foubert's research), though intervention studies (e.g., Moynihan, Banyard, Arnold, Eckstein, & Stapleton, 2011) were beyond the scope of this volume.

Sexual Aggression and Coercion

Sexual misconduct, unwanted sexual advances, coercion, or other forms of aggressive sexual actions or attitudes have been prevalent research topics. The topic gained particular notoriety with the publication of *Fraternity Gang Rape* (Sanday, 1990), a description of the discourse, rituals, sexual ideology, and practices that make some fraternity environments rape-prone. Much of the subsequent research links sexual aggression and coercive behavior to fraternities, and researchers performing cursory searches for literature will likely find evidence to support this hypothesis; however, a deeper review of the literature has called this link into question. Reviewing nearly 50 years of published empirical research about college women's experiences, Adams-Curtis and Forbes (2004) found incidence of sexual coercion has not changed in the past 50 years, risk factors are consistent, perpetrators or victims inaccurately label some types of coercive behavior, and rigid gender roles and traditional sexual scripts are major contributors to sexual coercion.

Since the late 1950s, researchers have linked fraternity membership with sexual aggression, though Adams-Curtis and Forbes (2004) found conflicting evidence dating back to rigorous studies in the 1990s. Most often, the effect of fraternity membership on aggression was moderated by a culture emphasizing masculinity. Further, they posited a contributor to this ambiguity is differences among fraternities, which they noted existed within and between campuses and was seldom considered in research. Simply put, some fraternities are high risk, while many are not—those men not in high-risk fraternities did not differ from nonmembers. Humphrey and Kahn (2000) validated this finding by differentiating high- and low-risk fraternity environments as peer rated by students. Consistent with their hypothesis, members of perceived high-risk groups reported committing significantly more sexual aggression than the low-risk and nonmember participants combined. There were no significant differences between low-risk and nonmembers on sexual aggression, high-risk fraternity and high-risk athletic teams, and low-risk fraternities and low-risk athletic teams. Similar results were found for hostility toward women and male support for sexual assault. Logistic regression analysis with two predictors, hostility toward women and male support for sexual

aggression, reliably distinguished between high-risk and low-risk groups. Schwartz and Nogrady (1996) found similar results using discriminate function analysis in a single-institution study considering sexual aggression, victimization, and rape myths. The researchers reported peer culture and alcohol use were the strongest differentiates between becoming a sexual aggressor. These findings have led researchers to conclude that the link between fraternity membership in general and increased sexual aggression cannot be resolved without more appropriate data. Other supportive evidence for this ambiguity noted by Adams-Curtis and Forbes (2004) is the likelihood that sorority women would experience more sexual coercion, given their close relationship with fraternities; however, overall support for this hypothesis has been weak.

Sorority as At-Risk Group for Sexual Assault

In much of the published literature, researchers frequently categorized sorority members as an at-risk group for sexual assault as compared to nonmembers. This link often was based on the association between sorority members and fraternity members. Research examining this categorization has been inconclusive; however, the one multi-institutional, multiyear study established this link, though notably, the strongest predictors were related to alcohol consumption. Mohler-Kuo et al. (2004) used a randomly selected national sample of college women (n = 8,567 in 1997; 8,435 in 1999; 6,988 in 2001) from three CAS surveys to determine correlates of rape while intoxicated. Results showed about one in 20 women reported being raped; nearly three quarters (72%) indicated they were intoxicated. Increased odds for highest rate risk factors included residing in a sorority house (3.14, on-campus was the next highest at 1.41) being a sorority member (1.74 vs. nonmember), HED in high school (3.87 vs. not), current frequent HED (7.83, occasional HED was the next highest at 4.2), and using any drug in the past year (7.5 vs. 1.7 no drug use). Individual characteristics predicting rape while intoxicated were being underage (OR = 1.31), White (OR = 1.05), residing in a sorority house (OR = 1.95), high school HED (OR = 2.46), and using any drug (OR = 3.19).

Single-institution studies examining this phenomenon have been more the norm. For example, Sawyer, Schulken, and Pinciaro (1997) compared prevalence rates of sexual victimization between sorority members and nonmembers ($n = 627$) at a single institution. The rate of sexually active women (82%) as well as the number of lifetime sexual partners ($m = 4.23, 4.11$) was similar to nonmembers. Also, 50% of the women reported some type of victimization. In comparison to general college women, sorority women scored lower on eight of 10 individual items and slightly higher on the other two. The highest proportion of victimization occurred in the "sexual coercion" category. The findings suggest that sorority women are no more likely to have experienced victimization than the general female population. In contrast, focus group data from 35 women in 17 sororities across councils led Anderson and Danis (2007) to conclude "acts of omission," or a culture of silence, created moderate reporting rates for this population. The researchers cited dated research (pp. 88–89) suggesting sorority members, and especially resident members, are at a higher risk for dating violence than general population of college women.

In another single-institution survey including a random sample of women ($n = 779$; 438 sorority members and 341 nonmembers), Minow and Einolf (2009) tested the relationships between sexual assault victimization and participation in sorority activities. Results showed 29% of the sorority members had experienced sexual assault while in college, as compared with only 7% of nonmembers. Rates were more comparable for unwanted sexual contact, with 35% of sorority women versus 33% of nonmembers; the rates for attempted rape were 13.8% (member) and 6.4% (nonmember). Logistic regression results using only the sorority women showed general sorority activities (i.e., attending sisterhood events and nonalcoholic socials) were negatively correlated with victimization. Regression analysis of the full sample showed the risk associated with sorority membership, though still significant, was reduced when alcohol consumption is controlled. The researchers posited that some aspects of sorority membership beside alcohol consumption and attending fraternity parties explained high rates of victimization, but the data were not clear on those factors.

Wuthrich's (2009) qualitative research suggested one explanation for this risk had to do with organizational and individual attributes that increased risk for interpersonal violence. The researcher examined 180 reflection papers assigned to the members of both sororities as a result of chapter level alcohol policy violations using content analysis to determine how the women applied harm reduction education and participated in social activities while consuming alcohol. Analysis showed members were cognizant of educational interventions and related expectations but had difficulty applying them within the sorority environment. Further, their behavior suggested members deferred to peers, were concerned about image, and honored interpersonal relationships as a means of achieving psychological balance. Evidencing previous research about group norms, the researcher noted, "relational emphasis on behavior results in more complications than positive factors, suggesting the passivity of the respondents and deference to group norms increases risks" (p. 249). In a related ethnographic study of at-risk environments, Armstrong, Hamilton, and Sweeney (2006) found evidence to suggest campuses with strict alcohol policies lead women to turn to fraternities for party environments, where men control the conditions, including party themes (e.g., Pimps and Hos and Playboy Mansion), who gets in, and who gets alcohol. The high correlation of alcohol to unwanted sexual conduct creates dangerous peer cultures in fraternities. The authors noted, "This expectation is intensified by men's position as hosts and women's as grateful guests" (p. 495).

In another related study, Menning (2009) conducted research about attendee perceptions of personal safety at fraternity and nonfraternity parties. The single-institution convenience sample included 312 respondents who completed data about a fraternity party they attended, 307 about a nonfraternity party and 228 about both, though fraternity/sorority membership was not disaggregated on most measures. Notably, there was no significant difference in perception of alcohol consumption between fraternity and nonfraternity parties. Results showed students felt less at ease at fraternity parties, but the difference in effect between parties was not strong and there was no difference in variation by gender. Also, men and women draw on different cues in making assessments of personal safety, but women feel no more threatened than men. The researcher noted, "Men are more concerned about the

possibility of violence and a lack of gender parity (which may indicate increased competition for mates), whereas women are concerned with contexts that threaten communication in public spaces or behavior that is sexually aggressive or demeaning toward women" (p. 1727). Aside from fraternity versus nonfraternity parties, another comparison category in the sex-related research, similar to alcohol and hazing studies, was relating behavior of athletes to members.

Comparing Fraternity Members to Athletes

As demonstrated in Humphrey and Khan's (2000) study, researchers have also found mixed results on studies including athletes. Boeringer (1996) considered fraternity membership, intercollegiate athletic participation, and living arrangement as possible correlates of sexual coercion in a single-institution convenience sample study of male undergraduates ($n = 477$). Results showed fraternity members reported more use of intoxicants in obtaining sex, as well as use of nonphysical verbal coercion, but no greater use of physical force than nonmembers. Athletes displayed greater rape tendency but no greater coercive/aggressive behavior. Living arrangement had no effect on proclivity or victimization. Lackie and de Man (1997) previously reported similar findings in a small-scale survey of men ($n = 86$) at a Canadian university; the researchers found no significant relationship between sport participation and sexual aggression.

In an attempt to replicate Lackie and de Man's (1997) methodology, Brown, Sumner, and Nocera (2002) found differences in sport type (contact vs. noncontact) and viewing levels on aggression toward women. Participating in either type of sport was negatively related to a measure of sexual coercion. Viewing contact sports increased sexual aggression scores as well as negative attitudes toward women. At every step in the model, belonging to a fraternity was the strongest predictor of sexual aggression toward women in all stages of the model. Similarly, Gage (2008) found type of sport played has an impact on these outcome variables; athletic participation of any sort was associated with male conformity to traditional masculinity norms and rates of sexual aggression, increased sexual behavior, or more negative attitudes toward women;

however, participation in some sports (e.g., football) produced higher results than others (e.g., tennis). Calzada, Brown, and Doyle (2011) discovered men who were involved in sports were more likely to report sexual aggression than the men who were not; however, researchers also found lower rates of comparison by sport, for example, 35% of those involved in informal sports, 52% in club sports, 39% in varsity sports as compared to 27% of those not involved.

Following a meta-analysis of 29 studies relating to either athletic participation or fraternity members on attitudes and behaviors associated with sexual aggression, Murnen and Kohlman (2007) similarly found that although fraternity membership or athletic participation were moderately linked to rape-supportive attitudes and to a smaller extent with self-report of sexually aggressive behaviors, the largest effects (as evaluated by Cohen's *d*) were found in the relationship between both types of involvement and measures of hypermasculinity. Gidycz, Warkentin, and Orchowski (2007) were surprised to find no correlate between athletic participation and/or fraternity membership and sexual aggression. Results of regression analysis showed only previous perpetration of verbal, physical, or sexual aggression predicted aggression over the follow-up. Next, the chapter transitions to a multiple section review of research on other drug use.

Other Drug Use

Research about other drug use, like alcohol abuse, has been among the most rigorous in terms of sample (i.e., large, multi-institutional, and longitudinal) and instrumentation (i.e., standard measures). This is due in part by the national studies examining smoking, marijuana, nonprescription drugs, and other illicit drugs that are either grant-funded or sponsored by federal agencies. Researchers have used or adapted parts of the CAS, DDQ, and NCHRBS, as well as datasets such as the National Household Survey on Drug Abuse. As an antecedent to the review, it is noteworthy to reference a potential limitation unaccounted in much of the research about prevalence rates and correlates of other drug use. Lanier and Farley (2011) cautioned researchers to account for comparative influence of alcohol and other drugs when examining demographic factors, suggesting this omission potentially

yields an incorrect set of predictors in nonmedical prescription drug use. The researchers showed initial self-reported results that 46% of fraternity/sorority members used nonmedical prescription drugs in the last year as compared to 32% nonmembers; however, membership in a fraternity or a sorority was not found to influence the use of nonmedical prescription drugs after controlling for other variables (e.g., sex, race, GPA, and class) in the model. Further, when the excessive use of alcohol and other drugs were added to the second predictive model, no demographic and college-specific risk factors were significant. Unfortunately, the research is limited by the use of a convenience sample of students ($n = 599$) at a single institution.

Smoking, Other Tobacco, and *Salvia divinorum*

McCabe, Schulenberg, et al. (2005), drawing from nationally representative probability samples of U.S. high school seniors (modal age 18 years) across two follow-up waves during college (modal ages 19/20 and 21/22), found members of fraternities and sororities had higher levels of current cigarette smoking than nonmembers at all waves. There were no differential changes for current cigarette use. This suggested that members establish patterns on entry, similar to findings about alcohol use. Conversely, in a two-institution, quasi-experimental cohort study in which students ($n = 2,770$) were surveyed about smoking and drinking habits, Hahn et al. (2010) found that belonging to a fraternity or a sorority was a risk factor for increased likelihood of alcohol use but did not increase the odds of being a current smoker. Despite this incongruence, membership in a fraternal organization leads to greater exposure to secondhand smoke, as noted by Wolfson, McCoy, and Sutfin (2009). The researchers surveyed a random sample of undergraduate students ($n = 4,223$) at 10 universities; 12% of the sample was fraternity/sorority members. The researchers found 83% of students reported any exposure in the seven days preceding the survey. Characteristics and contexts associated with exposure in one or more contexts (e.g., a restaurant or bar, at home or in the same room as a smoker, or in a car) included being a daily or nondaily smoker, binge drinking, being a fraternity or a sorority member or pledge, female gender, White race, and higher parental education levels.

In terms of predicting smoking, Morrell, Cohen, Bacchi, and West (2005) used multiple logistic regression to compare predictors of smoking and smokeless tobacco (SLT) use among college students (n = 21,410) from 13 Texas universities using a web-based survey. Results showed membership in a fraternal organization and participation in intercollegiate sports predicted tobacco use. In particular, students were more likely to be current smokers or lifetime SLT users if they belonged to a fraternity or a sorority. Using a different population, Powe, Ross, and Cooper (2007) found that not being a fraternity/sorority member decreased the odds of becoming a lifetime smoker (OR = 6.5) among Black students at Historically Black Colleges and Universities (HBCUs). Participants included 438 students randomly selected from eight institutions; the majority (74%) were female, single (90%), and averaged 22 years old.

Two single-institution studies revealed interesting characteristics of smoking behaviors. Scott-Sheldon et al. (2008) surveyed undergraduate students (n = 1,595; 17% fraternity/sorority members) in introductory psychology classes about health behaviors and choices including use of cigarettes. Chi-square tests showed that members were more likely than nonmembers to be frequent cigarette smokers (i.e., 23% vs. 14% smoked at least weekly in the last month) than infrequent/nonsmokers. Members did not smoke significantly more cigarettes per day than nonmembers. Nichter et al. (2010) held focus groups with fraternity and sorority members to understanding smoking behaviors and rationale. Focus groups among upperclass fraternity members showed a perceptual distinction between being a smoker and smoking at parties. Participants differentiated between actual smokers, which they estimated at 10%, and smoking at parties, which they estimated to be at 60%–70%. They described chastising a friend who smoked during the day but accepting the behavior at a party because smoking at parties is commonplace. One member noted, "Smoking when you're drinking has become almost a social aspect of drinking. If you're pounding away cigarettes in the middle of the day, like having five or six in an hour, people are going to be like 'what are you doing?'. . . But when it comes to drinking, seeing someone smoke six cigarettes in a 2 hour time span, they're like, whatever" (p. 18).

Lange, Reed, Ketchie Croff, and Clapp (2008) examined the prevalence of *Salvia divinorum*, a legal hallucinogen in some U.S. jurisdictions, among a random sample of college students ($n = 1,516$) at a single institution. The researchers found 4.4% of students reporting using *Salvia* at least once within the past 12 months. Results showed men, Whites, fraternity/sorority members, past two-week participation in heavy episodic drinking, and past-year drug use were all associated with the increased odds of past-year *Salvia* use.

Ecstasy, Marijuana, and Opioid Analgesics

Two studies linked membership to increased ecstasy use. Yacoubian (2003) examined the drug using behaviors of 14,520 students participating in CAS studies through the 1997 cohort. Compared to nonusers, 12-month ecstasy users were significantly more likely to be members of a fraternity/sorority; however, the comparison percentages were relatively small (18% members vs. 14% nonmembers). Scott-Sheldon et al. (2008), in a survey of undergraduate students ($n = 1,595$) in introductory psychology classes, also found members reported more lifetime and past 30-day ecstasy use than nonmembers. In terms of marijuana use, McCabe, Schulenberg, et al. (2005), in their study of high school seniors followed longitudinally across two follow-up waves during college, found active members of fraternities and sororities had higher levels of annual marijuana use than nonmembers at all waves. Annual marijuana use increased significantly with age among members of fraternities or sororities relative to nonmembers.

McCabe, Teter, Boyd, Knight, and Wechsler (2005) also examined prevalence rates and correlates of nonmedical use of prescription opioid analgesics (i.e., potent pain relievers) among college students. Results showed more students who lived in fraternity/sorority houses (10.3%) illicitly used nonprescription opioids than all other living conditions. The next highest categories were off-campus housing (7.8%), and then coed residence halls (6.7%). There was no significant difference in the percentage of fraternity/sorority members and nonmembers in terms of nonprescription opioid usage. Odds ratios showed living in a fraternity/sorority house increased the odds of using by 2.00 among past-year users as compared to single-sex residence halls. Odds

ratios for off-campus housing and coed residence halls were 1.69 and 1.33, respectively, by comparison.

Illegal Use of Stimulant Drugs

McCabe, Teter, et al. (2005) used 2001 CAS data (n = 10,904 students) in 119 four-year colleges and universities in 39 states to examine prevalence rates and correlates of nonmedical use of prescription stimulants (Ritalin, Dexedrine, or Adderall) among U.S. college students. Results showed more students who lived in fraternity/sorority houses (13.3%) illicitly used nonprescription stimulants than all other living conditions. Rates among university housing and off-campus housing averaged 4% by comparison. Further, more members (8.6%) illicitly used than nonmembers (3.5%). Odds ratios showed membership increased the odds of using by 2.07 among past-year users and 2.04 for past-month users, as compared to nonmembers. In a later study of illicit use of stimulants, McCabe, Teter, and Boyd (2006) examined the prevalence and factors associated with illicit use among a large random sample of undergraduate students (n = 9,161) at a single institution. Results showed living in a fraternity/sorority house, versus living in a residence hall, increased the odds of illicitly using prescribed stimulant medication during a lifetime (OR = 1.75) and the past year (OR = 1.68); however, living in a house or apartment produced higher odds for both measures (OR = 2.63, 2.48). Further, membership in a fraternity/sorority, versus nonmembership, increased the odds of illicitly using prescribed stimulant medication during a lifetime (OR = 2.29) and the past year (OR = 2.80).

Weyandt et al. (2009) also investigated use and potential misuse of prescription stimulants, drawing on a single-institution convenience sample of students (n = 390). Results showed fraternity and sorority members reported significantly higher ratings on self-reported prescription stimulant use, perception of prevalence of prescription use among peers, knowledge of atypical stimulant use among peers, and perception of safety of stimulant; however, the percentage of fraternity members (4.1%) and sorority members (10.8%) who participated was small. DeSantis, Noar, and Webb (2010) focused on use of nonmedical stimulant use by fraternity members (n = 307)

using convenience samples collected at a single institution. More than half (55%) of members reported nonmedical use, which was higher among upperclass students, those living off campus, and regular marijuana smokers. Most students reported using the drugs for academic purposes (e.g., 74% "to stay awake to study"; 59% "to concentrate on your work"; 30% "to help memorize"), with only a small percentage indicating use for social purposes.

As a follow-up to their survey study, DeSantis et al. (2010) interviewed 79 fraternity members to determine student levels of understanding and motivation for use. Themes included the ease of obtaining stimulants, a general lack of health information related to their use, and justification based on academic stress. The authors noted a general perception that such medications enhance cognitive ability—particularly by reducing fatigue, increasing reading comprehension, and enhancing memory. Two quotations from participants illustrate this justification: "I'm telling you, really, I can remember more. It just stays in and it's easier," confessed one student. Another student elaborated further, observing, when he takes Adderall, his "mind soaks up the material better. . . . I am reading the same thing, but it gets soaked in on one time so I got it a lot better; Does that make sense? It's easier to memorize anything" (p. 163). Much of the first time use took place during periods of high academic stress, such as finals week.

Academic Dishonesty

Whitley (1998) reviewed prevalence and correlates of college student cheating published between 1970 and 1996. Findings revealed a small positive relationship between cheating and fraternity/sorority membership ($d = 0.319$) calculated from four published studies. By comparison, participation in other forms of extracurricular activity yielded a similar effect size ($d = 0.387$) calculated from four other published studies. The two measures could not be compared statistically, though the similarity between them led the researcher to suggest fraternity/sorority membership is no more strongly related to cheating than participation in other extracurricular activities. In a related study not included in the review, McCabe and Trevino (1997) found level of involvement to differentiate association and cheating correlates. The researchers

used random sampling techniques to survey students (n = 1,793) at nine state institutions and found students more active in extracurricular activities reported more academic dishonesty and the behavior was higher among fraternity/sorority members than nonmembers or students active in other groups. Vandehey, Diekhoff, and LaBeff (2007), in a multiyear, single-institution study, identified fraternity/sorority membership as one of the four group categories consistently related to cheating in all administrations. Significance tests led the researchers to conclude cheaters are more likely to be members of fraternities and sororities; however, both depending on parents for financial support and involvement in intramural sports were higher predictors than membership.

Other researchers have found additional variables that diminish or eliminate correlations between membership and cheating. Storch and Storch (2002) concluded degree of involvement was associated with increased rates of dishonesty in one of the few studies in which fraternity/sorority membership was differentiated by gender and membership status. Main effects from ANOVA showed males cheated more than females and members cheated more than nonmembers. Regression results showed gender was associated with academic dishonesty and the addition of fraternal status accounted for significant variance beyond gender. The interaction between status and gender did not account for variation, suggesting that the relationship between status and academic dishonesty does not differ between fraternities and sororities. In another single-institution study consisting of a convenience sample (n = 659) of sophomores, juniors, and seniors enrolled in several sections of a single class, Pino and Smith (2003) found the predictive effect of fraternity/sorority membership on academic dishonesty disappeared after increased television watching, participation in other student clubs or groups, and having an academic ethic were added to the model. In other words, having an academic ethic reduced the likelihood of engaging in academic dishonesty and seemed to act as a moderator for the predictive effect of fraternity/sorority membership.

Researchers considering cheating behavior by major found small positive effects linking cheating to fraternity/sorority membership, though notably, none disaggregated the groups. Premeaux (2005) surveyed students at

business schools across the United States, differentiating the sample by Tier 1 and Tier 2 AACSB accreditation. The final sample included 1,116 students from 93 Tier 1 AACSB accredited schools in 43 states and 1,251 student respondents from 167 Tier 2 AACSB accredited schools in 45 states. The researchers found membership did not increase the likelihood of cheating, but being a resident member did. The researcher posited that the social environment created more distractions and perhaps created a greater need to cheat. In another study of business majors, Burrus, McGoldrick, and Schuhmann (2007) also reported a small link between cheating and fraternity/sorority membership (29% of the sample) using a convenience sample of students (n = 300) enrolled in economics classes at two institutions. Although members cheated more than nonmembers, the effect was not as large as for athletes or for students who have witnessed others cheating. Finally, Passow, Mayhew, Finelli, Harding, and Carpenter (2006) found fraternity/sorority membership (18.9% of the sample) predicted exam cheating among engineering students (n = 643 undergraduates at 11 institutions) but not homework cheating. By comparison, other activity involvement (64.1% of the sample) did not load as a predictor. Two other behaviors that have been linked to the social environment of fraternities and sororities are reviewed in the next section.

Fake ID Use and Gambling

A few researchers examined prevalence of fake identification (ID) use among college students, seeking correlates for group membership. Durkin, Wolfe, and Phillips (1996) found 46% of students reported they had used a fake ID; 70% belonged to a fraternity or a sorority as opposed to 39% who did not. Also, fraternity/sorority members were much more likely than any other group to report using a fake ID to obtain alcohol. The convenience sample (n = 272; 63 belonged to a fraternity or a sorority) was drawn from sociology classes at a single institution. Martinez and Sher (2010) considered how fake IDs were most commonly obtained and used and how often individuals using them were caught. The researchers used a cross-sectional design to obtain a convenience sample of 1,098 students at a single institution. Results showed 21% of students possessed a fake ID. Within the sample, 55%

of fraternity members had a fake ID as opposed to 42% of men who were not members. Among women, 78% of sorority members had a fake ID as opposed to 55% who were not members. Most students purchased fake IDs or were given them by nonrelatives; fewer obtained them through fraternal organization, though the likelihood of obtaining was quite high (*OR* = 8.02) among members. Getting caught was comparable among men (37.0% fraternity and 38.1% nonmember) and identical for women (23.1% sorority or nonmember). Nguyen, Walters, Rinker, Wyatt, and DeJong (2011) added a question about fake ID use to a national survey of first-year students and selected a subset of students ($n = 7{,}233$ from 194 colleges in 37 states) to complete the supplemental questions. Just under 8% of students in the sample reporting owning a fake ID. The odds of owning a fake ID significantly increased with intent to join a fraternity or a sorority (*OR* = 2.00). The only other variable higher was two or more HED episodes in the past two weeks (*OR* = 2.78).

Gambling studies have been more prevalent. LaBrie, Shaffer, LaPlante, and Wechsler (2003) established baseline gambling statistics for the college student population using nationally representative data from CAS. The researchers found 42% of students gambled in the last school year and 2.6% gambled weekly or more frequently. Fraternity/sorority members were more likely to gamble (*OR* = 1.26) than nonmembers; fraternity house residents were more likely to be gamblers (*OR* = 1.89). The risk of becoming a gambler versus not was greater for fraternity/sorority members (*OR* = 1.41) versus nonmembers. This was higher for fraternity men (*OR* = 1.66) than members of sororities (*OR* = 1.25). In the predictive model, members of a fraternity or a sorority were more likely to gamble in the past year than nonaffiliated students (*OR* = 1.17), as were students who did not live in a coed residence hall (*OR* = 1.15). Fraternity house residence did not remain a significant predictor.

Rockey, Beason, Howington, Rockey, and Gilbert (2005) compared prevalence rates of pathologic and problematic gamblers (as classified by the frequently used South Oaks Gambling Screen [SOGS]). A total of 954 students (28% fraternity/sorority members; 9% fraternity; 19% sorority) representing nine universities volunteered to participate in the study. More than 80% of participants indicated they had gambled. Fraternity members (12.3%) were found to have a higher probable pathologic gambling rate

than nonmembers (5.8%). Fraternity members (14.8%) also had a higher prevalence rate of probable problem gambling than nonmembers (5.4%). Sorority members had similar prevalence rates of probable pathological versus nonaffiliates (1.2% and 1.1%) and probable problem (1.7% and 1.1%) gambling. Notably, the only statistically significant association was for fraternity membership and probable problem gambling, which limited the conclusions researchers might draw from the data. Biddix and Hardy (2008) also used the SOGS, in a single-institution study focused on fraternity members ($n = 51$). Statistical associations between SOGS classification and membership status (officers, younger members, those who live with other members), years of membership, or place of residence were not significant. Predictive analysis revealed that gambling online ($OR = 15.75$) and betting on skill games such as golf or pool ($OR = 10.29$) increased the likelihood of problem gambling among fraternity members. Like Rockey et al.'s findings, these findings are limited due to the very small sample.

Stuhldreher, Stuhldreher, and Forrest (2007) analyzed single-institution, cross-sectional data collected from students ($n = 1,079$) in an ongoing survey of college student health. The locally developed instrument examined the prevalence of gambling and correlates to health among undergraduates. Results indicated prevalence rates for all types of gambling (lottery, games of chance, cards, and sports betting) were significantly higher for men than women. Fraternity members had a significantly greater prevalence of playing the lottery, of playing cards/games of chance, and of gambling on sports than did other men. There were no significant differences between sorority members and nonmembers, though this may be attributed to sample size. It is important to note the disparity in sample size overall between members ($n = 37$) and nonmembers ($n = 407$). Also, the researchers did not distinguish online gambling as a distinct venue, which Biddix and Hardy (2008) as well as Shead, Derevensky, Fong, and Gupta (2012) have shown to be prevalent among college students and especially males and fraternity members. In their single-institution study, Shead et al. reported members of fraternities or sororities were significantly more likely to engage in Internet gambling than nonmembers.

Other Research

Four studies focused on fraternity/sorority members did not fit elsewhere. Topics involved guns on campus, classroom civility, cybercrimes, and stereotyping. In addition to questions regarding drinking behavior, related consequences, and other health issues, Miller, Hemenway, and Wechsler (1999) added a single question to determine firearm possession at college. Results from 15,685 respondents at 130 schools (CAS data) showed about 3.5% of the college student respondents (6% of the men and 1.5% of the women; $OR = 4.0$) reported they had a working firearm at college. Students who had guns were significantly more likely to be members of fraternities or sororities (5.1%; $OR = 1.6$) though other characteristics produced similar or higher odds ratios, such as living off campus ($OR = 2.7$), living with a spouse or significant other ($OR = 1.8$), living in the southern regions of the United States ($OR = 3.1$), or identifying as Native American ($OR = 2.4$).

In a study focused on classroom civility, Caboni, Hirschy, and Best (2004) drew on a random selection of students ($n = 214$) residing in residence halls at a single institution. The researchers found fraternity members believed disrespectful disruption and insolent inattention were less problematic than sorority members or nonmembers. This was beyond the effect for gender in which males were comparable to females on both measures. It should be noted that the percentage of males and fraternity members was not consistent with the institutional percentage for these demographics.

With regard to cybercrime, Khey, Lanza-Kaduce, Spillane, and Frazier (2010), using longitudinal data from citation and arrest records as well as university judicial files involving students at a single institution, sought to identify characteristics distinguishing computer criminals. The two categories of offense included generalists (e.g., computer-related offense *and* another, noncomputer-related offense such as underage drinking, open beverage container violation, theft, and vandalism) and specialists (e.g., computer-related offense only). Computer-related offenses included cyberstalking, utilizing a computer to access unauthorized files, and any offense labeled as a violation of the university's Acceptable Use Policy. Results of the logit model indicated

that being affiliated with fraternity or sorority significantly decreased an individual's likelihood for being identified as a specialist.

Finally, Ryan and Bogart (2001) compared in- and out-group stereotypes among a sample of 84 new members to 136 current members in four sororities at a single institution. The researchers collected data from participants in four waves over a year, each judging individual in-group and three out-groups as a means of understanding new member socialization. Stereotype measures were developed from graduating members, who were asked to characterize both their own groups as well as the three others. Results indicated new members were more accurate in their judgments of the in-group than the out-group at every wave and increasingly accurate as the socialization phase proceeded.

Summary of Findings

This chapter on other behavior effects was inclusive of a multitude of published studies relating fraternity/sorority membership to various detrimental behavior aspects of involvement. Aside from a few comprehensive, though dated and nonpeer-reviewed efforts (e.g., Allan & Madden, 2008; Hoover & Pollard, 2000), the lack of a substantial empirical research about hazing remains problematic. Much of the research focused on attitudes about and reasons for the behavior. In general, there was a disconnect between formal definitions of hazing activities and what students viewed as hazing versus harmless initiation rites or team-building activities (e.g., Campo et al., 2005). Most students perceived physical violence and forced alcohol consumption as forms of hazing, but few recognized many of the psychological forms. This finding was consistent among nearly all groups examined in the research, including varsity athletes and student leaders, alongside fraternity/sorority members. In general, men—particularly Black men—viewed initiation activities as more positive than women. Other published works, such as dissertations and books, corroborated journal articles by adding detail though phenomenological accounts (Lee-Olukoya, 2010), providing critical historical perspectives (e.g., Kimbrough, 2003; Nuwer 2001, 2004) or member experiences (Robbins, 2005), or worked to comprehend behaviors through various lenses (DeSantis, 2007).

Sex-related issues have been prevalent in the research, particularly in the last 10 years. Rape myth research generally has shown fraternity men to be more supportive of false beliefs. Research about depiction or portrayal of women has been linked to greater myth acceptance among men and women (Brosi et al., 2011). Rate of sexual aggression as well as unwanted advances and coercion, has been inconsistently linked to fraternity membership. When variables such as masculine culture and peer norms (Adams-Curtis & Forbes, 2004) as well as high- and low-risk perceived environments (Humphrey & Kahn, 2000) were controlled, members often were not differentiated from nonmembers on sexual aggression measures. Rates of aggression, unwanted advances, coercion, and peer norms change considerably when alcohol is included as a factor, suggesting its critical importance as an included measure for understanding attitudes and behaviors.

Empirical research since 1996 has not supported conclusively the theory of sorority as a higher at-risk group for sexual assault, as compared to nonmembers. Mohler-Kuo et al. (2004), using multiple years of CAS data, evidenced a statistical connection between membership and assault, though the strongest predictor by far was alcohol consumption. When both variables were added to a regression model, Minow and Einolf (2009) found a significantly diminished effect for victimization. Single-institution studies, more the norm for this research, have shown inconclusive results linking membership to victimization, though a common explanation has been that some aspects of membership such as attending fraternity parties may explain the variance in general rates (Armstrong et al., 2006; Menning, 2009) and organizational and individual attributes (Wuthrich, 2009) that moderate women's behavior in at-risk situations.

Researchers have found even more divergent results when seeking comparisons between fraternity members and athletes. In some cases, members have been shown to be more verbally coercive or to hold greater rape supportive attitudes. While both groups have been linked to higher rape-supportive attitudes (Murnen & Kohlman, 2007), neither group consistently has been linked to increased physical aggression over nonmembers or nonparticipants. One interesting differentiation within the athletic literature was with regard to sport type. While participating in sports was not related to greater coercion

or aggression, viewing (Brown et al., 2002) or participating in contact sports, such as football (Gage, 2008), was associated with higher aggression scores and conformity to masculine norms than other sports, such as tennis.

Research about usage trends for most drugs showed fraternity/sorority members, particularly men, used in greater rates than nonmembers, yet when intervening variables were introduced, many of the effects diminished. For example, Lanier and Farley (2011) found the inclusion of demographic characteristics reduced prevalence rates for nonmedical prescription drugs among fraternity/sorority members to statistical nonsignificance.

Research about smoking and use of other tobacco products revealed conflicting comparison rates between fraternity/sorority members and nonmembers. Researchers reported mixed results for fraternity-only smoking rates, but a longer-term examination of trends suggested use was established prior to membership (McCabe, Schulenberg, et al., 2005). For tobacco use in general, being in a fraternity or participating in athletics increased the likelihood of use. As to why they smoked, fraternity members told Nichter et al. (2010) smoking was socially acceptable at parties or while drinking but not outside of that context.

Both large- and small-scale research about prescription stimulants has shown higher prevalence rates for fraternity/sorority members as compared to nonmembers, especially among resident members (McCabe, Teter, et al., 2005; McCabe et al., 2006). Fraternity members justified nonmedical use of the drugs based on perceived academic benefits, such as increased focus, concentration, and memory (e.g., DeSantis et al., 2010). More fraternity/sorority residents used painkillers for nonmedical reasons, and nonresident members also used more than nonmembers. Researchers examining other drugs such as *Salvia divinorum*, ecstasy, and marijuana use by membership status found members used more often than nonmembers, though rates were similar.

With regard to academic dishonesty, researchers consistently have found relationships between cheating and fraternity/sorority membership since 1970 (Whitley, 1998), though they have also shown similar effects for participation in other forms of extracurricular activity (McCabe & Trevino, 1997). More recent research has shown fraternity/sorority members cheated more

often than nonmembers (Vandehey et al., 2007), though the effect may only be significant for fraternity members (Storch & Storch, 2002). Interestingly, when other variables such as television watching and involvement in other organizations (Pino & Smith, 2003) were added, this effect disappeared. Finally, researchers considering cheating behavior by major have found membership either did not or only marginally increased cheating in business courses, while membership did lead to more exam cheating among engineering students.

Research on fake ID use and gambling has been linked mostly to fraternity members. More fraternity members owned and used fake IDs than other students though variance in prevalence rates left the actual proportions in question (e.g., Durkin et al., 1996; Martinez & Sher, 2010). Nonetheless, being a member or intending to become a member increased the odds of obtaining false identification. Gambling studies have been more prevalent, and although fraternity membership, and especially fraternity house residency, increased the likelihood of gambling, the effects have not been profound when compared to nonmembers (LaBrie et al., 2003). Research has shown members had significantly higher probable problem gambling likelihood than nonmembers (Rockey et al., 2005), and that gambling online was more prevalent (Shead et al., 2012) and increased the odds of potential future problems (Biddix & Hardy, 2008).

A few researchers published solitary studies or included variables in larger studies examining specific behaviors and fraternity/sorority membership. Miller et al. (1999) found firearm possession at college was more prevalent among members than nonmembers, though other characteristics such as living off campus or with a spouse or significant other, living in the southern regions of the United States, or identifying as Native American produced similar likelihood results. In a different study, Caboni et al. (2004) examined beliefs about disrespectful disruption and insolent inattention in the classroom and found that fraternity members found the behaviors less problematic than sorority members or nonmembers. In terms of cybercrime, Khey et al. (2010) found that membership significantly decreased an individual's likelihood for cyberstalking, accessing unauthorized files online, and violations of the university's Acceptable Use Policy. Lastly, in study of stereotyping, Ryan

and Bogart (2001) showed that new members become more accurate with beliefs about their own groups, versus others, as they become socialized. The next chapter considers educational and psychosocial effects that have been linked to membership.

Psychosocial Effects

THIS CHAPTER DEALS WITH PSYCHOSOCIAL EFFECTS of membership. This includes attitudes and values, identity development, moral development, and understanding others and diverse experiences. For the purposes of this work, attitudes and values describe behaviors and beliefs of individuals, particularly as the group shapes them. Identity development comprises the ways that individuals envision themselves, particularly as the environment around them shapes them. Moral development will describe the sense of justice that individuals create for themselves in reaction to the environment around them. Understanding others and diverse experiences considers organizational characteristics that enhance or limit individual relational development.

Related to identity formation are psychological studies on body image, disordered eating, depression, self-esteem, and sense of belonging—nearly all of which is focused on sorority members. These topics, while appearing occasionally in student affairs and higher education research publications, were much more prevalent in counseling and other clinical-focused journals.

Attitudes and Values Toward Self

Emerging from Astin's (1977, 1991) typology, attitudes and values refer to the behaviors and beliefs espoused by individuals, particularly as groups influence them. This element of Astin's work is in part influenced by Chickering's (1969) third vector—moving through autonomy to interdependence—a particularly salient concept given its location of the individual within his or

her peer group. This concept takes different forms for both men and women, where alcohol is the strongest theme throughout the literature. Alcohol so overwhelms the research on fraternities and sororities that a separate chapter of this volume was needed to focus on the research; however, studies of alcohol are hardly separable from the rest of the research. Other attitude and values elements that come to the fore include leadership, sexual aggression, and perfectionism.

A particular area of research about alcohol use of fraternity and sorority members focuses on leaders, particularly on their role as peer leaders and models. Some initial findings suggested fraternity and sorority leaders binge drank at a higher rate than other fraternity or sorority students (Cashin et al., 1998). The strongest effects linking involvement and leadership were found among fraternity members. Interestingly, researchers studying sorority leaders and alcohol use did not find significant connections (Plucker & Teed, 2004). Specifically, Plucker and Teed (2004) concluded that, "Peer modeling may not be ineffective due to poor models, but the results suggest that, collectively, the leaders are at best mediocre models" (p. 387). This observation, in the midst of a finding of no significant differences, suggested displeasure that data did not validate former research. This surprise at an unexpected and nonconfirming finding occurred elsewhere in the literature (Gidycz et al., 2007; Hussey & Bisconti, 2010).

Many fraternities and sororities advance leadership experience as a substantial benefit of membership and add value to a college education (Leonard, 1998). Other research about fraternity and sorority leaders suggests high scores, particularly among women, on broad domains of leadership as evidenced by the Student Leadership Inventory (SLI; Adams & Keim, 2000). SLI measures—such as Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, Challenging the Process, and Modeling the Way—parallel mission and vision statements of inter/national fraternities and sororities (Roberts & Huffman, 2005). Interestingly, fraternity chapter presidents have been more likely to rate themselves highly on these domains than their members, while female chapter presidents were less likely to rate themselves more highly than their constituents (Adams & Keim, 2000). Although men and women were not directly rating each other, this element of confidence is

notable in leadership as much as it is in other forms of student self-authorship (Leonard, 1998). These aspects of the SLI also appear to map to the more community-oriented elements of NPHC fraternities and sororities as well as other culturally based fraternal organizations (Kimbrough & Hutcheson, 1998).

A summation of the attitudes and values for women is that of perfectionism (Landa & Bybee, 2007), while for men, the focus was on conforming to a particular college male archetype (Ashmore et al., 2002). Pressures on women to create a personal style that conforms to organizational expectations, maintain a body shape that is toned and yet capable of handling higher level alcohol use, and balance a social life with the academic standards of the organization create perfectionistic pressures. These perfectionistic pressures lead to internal conflicts between a real and an idealized self-image, which may lead to either shortcuts such as disordered eating or personal outcomes that fall short of health goals for sorority members in comparison to nonsorority members (Allison & Park, 2004; Landa & Bybee, 2007).

Young, Morales, McCabe, Boyd, and D'arcy (2005) describe competition for women with men for esteem, particularly regarding alcohol use, that has reinforcement in other literature toward perfectionism, attire and other forms of demonstrating effort, a lack of acknowledgement of themselves as sexual assault victims, and self-objectification (Adams-Curtis & Forbes, 2004; Moynihan & Banyard, 2008). Although some researchers have placed blame on sorority involvement as the source of differences in behavior, others have suggested that the behavior of institutions may have unintended impacts on sorority member reactions. Sorority members, particularly in predominately White sororities, receive many institutional interventions regarding eating disorders and alcohol use, possibly suggesting to them that topics regarding violence in dating relationships do not have as much institutional urgency (Anderson & Danis, 2007).

Fraternity Involvement and Identity Formation

Much of the focus of identity research related to fraternity/sorority involvement has centered on gendered identity and body image issues. Chickering

(1969) defined formation of identity as including becoming comfortable with one's self-definition in terms of gender, sexual identity, other social identities, social role, and the ways one interacts in society. Men and women grapple with these elements differently. Membership in a fraternity or a sorority provides its own group imprint on the individual as he or she navigates this important "vector" of life task. Each of these was salient in the literature about men in fraternities, particularly privilege (i.e., a social role), masculinity (i.e., a mix of gender, sexual expression, race, and class), and sexual identity. Men within fraternities perform this navigation of the vector in the presence of other men who are likewise navigating these elements (Hall & La France, 2007).

Within any organization, elements of privilege arise, whether that privilege is conferred by social identities, parental income, or other factors. In particular, members may examine their own position relative to others and seek to protect their privilege or to gain more privilege (Koenig, 1999; McClure, 2006; Syrett, 2009; Yeung & Stombler, 2000). For White men in particular, fraternities can create arenas in which fear of giving away privilege can provide a foundation for racist or sexist activities (Nuwer, 2001). In particular, the focus on types of activities and on the ways in which fraternity members view other cultures as available for their appropriation underscores an assertion of privilege.

For men, one key act of identity development is defining masculinity. The act of "becoming a man" is one that Cohan (2009) described as a performance that must be repeated; men will continue to need to prove to others they have what it takes to be a man. McClure (2006) described this in a Black fraternity context as an ongoing task that additionally included the resolution of race, class, and gender; defining "manhood" must incorporate how manhood crosses all of these identities. In men's relations with other men, this proving continues while at the same time being balanced by a desire for nonsexual connections with other men, elements only escalated by membership in a fraternity (Kiesling, 2005). Kiesling made an interesting distinction between fraternity men wanting other men to desire them as brothers through pursuit of membership, but for the most part not as sexual partners; the language lines distinguishing these types of courtship can be blurry. Specifically, according to Kiesling, fraternity men want other men to see them as attractive

in their role as connectors on campus and as holding friendships desired by others. This is a challenging concept for men to express when most language they know at their age about desire depicts a romantic or sexual connection, rather than an emotionally vulnerable relationship.

Although most fraternity members are attracted to the opposite sex, how gay and bisexual men develop within fraternities, and how other fraternity members respond to them, is an area of interest. Development of self-concept for men who identify themselves as gay or bisexual, navigating the intersection of race and masculinity, and the navigation within hierarchy for perception as a stronger man can be problematic. This development of gay or bisexual identity within an organization of men trying to define their masculinity can create a difficult tightrope for all involved, with some organizations having distinctly negative attitudes toward the possibility of gay or bisexual members (Hall & La France, 2007). Hall and La France determined negative attitudes toward gay and bisexual men rose as concerns with creating a masculine organizational identity, particularly for recruiting other, presumably heterosexual, men or attracting positive attention from sororities. Hinrichs and Rosenberg (2008) documented fraternity men's lower levels of tolerance or acceptance of those they perceived as different (including bisexual or gay men) more prominently than fraternity men reacted to women who were lesbian or bisexual. In general, researchers have shown fraternity men are often more conservative across the spectrum of identities when viewing other men, indicating that they may be challenged in their view of themselves when they see other men expressing their identities in differing ways.

Men also confront the issue of behavior that leads to shortcuts past the more challenging elements of college in favor of an organizationally created ideal (Raynor & Levine, 2009; Scott-Sheldon et al., 2008). Examining fraternity members' behavior toward women, some researchers determined men in fraternities were surrounded with different attitudes toward women, whether depicted in visual or story form, than nonfraternity men (Bleeker & Murnen, 2005; Cohan, 2009). Men use alcohol as a way to anesthetize themselves from critical thinking about this kind of self-segregation (West, 2001). This use of alcohol as a way to block critical thoughts about self-segregation may be one factor contributing to alcohol abuse. While sorority women and members of

predominately non-White fraternities recognize some elements of privilege in society, much about the college environment challenges White men about the exertion of their own privilege. Alcohol use may, in part, be heightened in predominately White fraternities as a way to block thoughts about this internal conflict. This in no way explains all, or even most, alcohol use; however, it is important to acknowledge others components that may encourage or discourage alcohol use.

As a final note on men's development, some of the literature about men's identify has been regionalized. Some researchers focused on Southern fraternities, looking at elements of Blackface or parties with themes based on racial stereotypes (Patton, 2008). For fraternities in the North, socioeconomic issues may form the foundation of in-group and out-group behavior (Syrett, 2009). The regionalization of the literature may not speak to the regionalization of issues, but rather to either focus areas of the institutions in those regions or research questions that students and others will answer.

Sorority Involvement and Identity Formation

Women and men are focused on different elements of identity formation. Identity often comes through struggles as students "try on" different future versions of themselves. Men engage in competition with each other in overt ways, both positive and negative, including the athletic field, the consumption of alcohol, the acquisition of leadership roles within and beyond the organization, and the number of women with whom they have sexual relationships (Nurius et al., 1996). Although women historically have not been encouraged to engage in overt competition (Stombler & Padavic, 1997), women engage in competition in less obvious ways. Key fields of competition for women include organizational affiliation, physical attributes, service performance, and acquisition of longer standing romantic relationships with men (Hamilton & Armstrong, 2009).

Much of the literature about women describes their interaction with men in terms of alcohol use and particularly a shift toward competing with each other in number of alcoholic drinks consumed (Elias et al., 1996; Huchting, Lac, & LaBrie, 2008), objectification of themselves or of other women

(Rolnik, Engeln-Maddox, & Miller, 2010), construction of appearance to be attractive individually and as a group to men (Arthur, 1999; Boyd, 1999), rewards and events within the sorority (Berkowitz & Padavic, 1999), or organization of activities to cede control to men (Hamilton & Armstrong, 2009). This definition of self in relation to men would seem antithetical to mission statements that highlight the value, independence, and cultivation of a female voice (Alpern, 2005). However, this focus may speak to the formation of fraternities and sororities as both modeled on a standard for organizations developed by and for men (Patterson, 2007).

Like men, much of the relationship formation for women is along a homosocial line (Boyd, 1999). That homosocial modeling relies on a certain level of courtship to attract women to organizations or to make oneself attractive to organizations. While this carries many elements of romantic courtship, the approach is not meant to form the foundation of romantic relationships. Unlike men's organizations, sororities pay attention to the ways in which they believe women can attract positive male attention to their members and their organizations at large (Stombler & Padavic, 1997). This focus on both "homosocial" courting, described by Kiesling (2005) as a nonsexual courting to share emotional intimacies (p. 699), and the possibility for male gaze highlights an inherent contradiction that might exist in these organizations: how women protect each other and establish meaningful friendships while at the same time seeing each other as possible future competition for male attention. One way in which the contradiction of friend or competition may be resolved within sororities is through the incorporation of service into organizational activities (Algoe, Haidt, & Gable, 2008). Interestingly, Harris (1998) suggested women gain self-esteem through service to others, ironically echoing a dependency on service for self-esteem in future relationships. It seems even in service, relationship competition cannot be avoided.

This focus on women as recipients of the culture, rather than active agents, translates particularly into the arena of sexual and romantic relationships. Researchers describe a "hooking up" culture characterized as mostly confusing for women because they see men as defining the terms of engagement for sexual and romantic relationships (Hamilton & Armstrong, 2009). While this phenomenon is not unique to sororities, Hamilton and Armstrong

described sororities' unique perspective as organizations setting the stage for hook ups, unlike the prevailing culture among women in other settings to perceive hook ups as individual decisions to pursue sex without relationships, in this case a behavior not affected by a specific organization. While hooking up is seen as a source of shame among sorority women, they persist to attain men. Interestingly, hook ups are also seen as a mark of independence, allowing women to form distance from more permanent relationships with men. In these ways, sorority women may place a higher premium on "hook up culture" as a way to assert independence explicitly for a temporary period (Hamilton & Armstrong, 2009). Even in the context of relationships, women defer to men in dictating terms (Danis & Anderson, 2008). They feel that they must make excuses to not have a relationship if a man is pursuing them, rather than simply choosing not to have a relationship (Hamilton & Armstrong, 2009). Interestingly, this differs between historically White and historically Black sororities. When replicating Holland and Eisenhart's (1990) classic "Get a Man or Get Ahead" study, Berkowitz and Padavic (1999) discovered that more White women focused on "getting a man" for both companionship and economic security in college, while Black women separated relationships from economic security, and considered college the moment to focus on economic security.

Women's interactions with men are mediated through many lenses: alcohol use, perception of social class, and future desires for career and independence. While alcohol anesthetizes issues of privilege for men, it provides a medium for women not to think critically about their interactions with men, including moments of victimization (Mohler-Kuo et al., 2004). Many of the patterns sorority women demonstrate in their interaction with men may be class based. While less privileged women do not understand the desire to delay "growing up" and assuming adult responsibilities, college women of greater privilege do not want to assume more adult responsibilities during college (Hamilton & Armstrong, 2009). Interestingly, most adult responsibilities depicted by women of greater privilege involve their responsibilities to husbands, to children, and to career; in short, deferring "adult" responsibilities was about preserving independent control of their lives. This is an interesting

contrast of how women of different privilege view adulthood, independence, and responsibility.

Similar to men, sororities place particular focus on higher socioeconomic status and attractiveness in selection of prospective members (Krendl, Magoon, Hull, & Heatherton, 2011). The literature about attractiveness as a center of focus for sororities is confounded; in some research, sorority members do not appear to place a premium on attractiveness as a reason to confer higher or lower status on members (Anderson, John, Keltner, & Kring, 2001). These writers suggested sorority members among themselves may not confer status distinctions, but rather that status distinctions emerge when men are asserting their influence. Among the most prominent areas of research related to women's identity are body image issues.

Sorority Body Image and Disordered Eating

Women's efforts in grappling with body image issues are multifaceted, with elements focusing on weight, a racialized standard, and a particular expression of heightened and youthful femininity. Body image inclines toward a White ideal, no matter the type of organization: lower weight in predominately White sororities, and lighter skin and relaxed hair in predominately Black sororities (Arthur, 1999; Simmons, 2011). A considerable area of the literature focused on eating disorders, with a particular emphasis on social pressure to be thin. Interestingly, some of this literature challenged cause and effect, rather than asserting that sororities might be environments that encourage eating disorders. Basow, Foran, and Bookwala (2007) suggested women who may be predisposed to body objectification and more susceptible to social pressures may be attracted to sororities. This is one arena of research in which stereotypes govern not just research questions but also language within surveys. A focus on sorority women as preoccupied with looks and not concerned with academics dominated the published research (Alpern, 2005; Bogart, Ryan, & Stefanov, 1999; Boyd, 1999).

Most studies on body image issues with a disordered eating focus were survey-based quantitative studies, published in clinical or surgical journals, and utilizing standardized instruments. Nearly all studies involve

single-institution survey samples in which participants take the Eating Disorder Inventory (EDI) to assess psychological stress as related to eating disorders, the Eating Attitudes Test (EAT) or its abbreviated form (EAT-26) to assess behavioral and attitudinal components of bulimia, as well as the Bulimia Test-Revised (BULIT-R) to assess bulimia in accordance with DSM-II-R diagnostic criteria. Other common scales include the Body Mass Index (BMI) to examine healthy weight and/or obesity and the Objectified Body Consciousness Scale (OBCS) to measure body shame, body surveillance, and appearance control beliefs. Most researchers have administered the scales to specific groups for comparison (e.g., sorority members and female athletes). Deviations from these general patterns are noted.

Considering only sorority versus control (nonmember), however, the researchers found sorority women did not report significantly more eating disorders or eating disordered behaviors than control participants. Focused on prevalence rates, Prouty, Protinsky, and Canady (2002) surveyed a random sample of undergraduate women ($n = 578$, 20% sorority members) at a single institution to determine eating disorders using the EAT-26. Results showed that women who were identified as having an eating disorder were more likely to be White, in a sorority, and Christian. More recently, Veazey Morris, Parra, and Stender (2011) assessed the influences of several risk factors on eating- and weight-related attitudes using a convenience sample of female students ($n = 306$) from a large institution. The researchers found sorority membership was weakly correlated with restricting attitudes and behaviors and was not included in further analysis; in other words, membership had no significant influence on attitudes about eating and weight restriction.

Researchers factoring time into the research design have found different results. Allison and Park (2004) examined perspectives on disordered eating among sorority members and nonmembers. Undergraduate women ($n = 102$) were surveyed during their first, second, and third years; measures included disordered eating, depression, self-esteem, BMI, and ideal weight. Results indicated that disordered eating did not differ among groups before women joined sororities, but by year three, sorority women scored higher on a measure of desired thinness from the EDI than nonmembers. Similar to previously cited research, other measures (i.e., bulimia, body dissatisfaction,

BMI, ideal weights, depression, and self-esteem) did not significantly differ. Conversely, an examination of 127 first-year women (68 participating in formal recruitment) in a multiphase study at a single institution found different results (Rolnik et al., 2010). Participants were given the OBCS, EAT-26, and demographic questions five days before sorority recruitment, four days into the weeklong process, seven days into the process (the day women received invitations to join), and the following month. The most consistent finding was women who participated in recruitment scored higher on self-objectification and eating disordered behavior and attitudes (especially regarding bulimia) compared to nonparticipants. Although sorority women differed from nonaspiring members throughout the process, there was no evidence that participation led to increases in self-objectification or body image disturbance.

In a study including sorority recruitment, Basow et al. (2007) evaluated body objectification, social pressure, and disordered eating behavior. Participants ($n = 99$ sorority members; $n = 80$ nonmembers) were given the EDI and the OBCS and were divided into four groups for comparison: sorority (99), nonsorority (80), intent to rush (49), and no intent to rush (37). Results showed that sorority women had more risk factors for developing eating disorders, such as higher levels of objectified body consciousness, disordered eating attitudes, and perceived social pressure, as compared to nonmembers. Nonmembers who intended to join also had high levels of these risk factors, which the researcher noted was a major finding of the study. Further, the longer women lived in a sorority house, the higher her scores on the Bulimia and Body Dissatisfaction subscales, after controlling for year in school. A major limitation was the sample size in this study, which was particularly limiting after groups were subdivided. In this sample, it is important to note that students were not allowed to join sororities until sophomore year, so many behaviors or attitudes may have been established prior to membership in a sorority. Despite this finding, the interest and focus on sorority women's body image construction remains at a high level, in sharp contrast to such interest in men's body image construction.

The one identified study with significant findings for men (Piquero, Fox, Piquero, Capowich, & Mazerolle, 2010), using a random sample of

undergraduates ($n = 338$) at a single institution stratified by class level, examined how strain and negative emotions related to disordered eating by sex. Although not of central importance to the main purpose of the article (examining strain), the researchers found fraternity/sorority affiliation was associated with significantly higher disordered eating, but only among males ($b = .208$, $p < .01$). The authors posited a two-fold explanation. First, constant reminders to become and stay attractive and thin in general surround the fraternity/sorority community. Second, females report higher disordered eating measures already, which restricts the potential for movement within the scale. This single study with men's results again highlights the interest in women's body image. The research landscape mirrors the cultural landscape in this regard, with heightened focus on women's physical image by both researchers and participants.

Similarities in Identity Formation and Body Image

Both men and women encounter challenges navigating the elements of the identity formation even as social and sexual identities took on more precise definitions. Body image is a concern for both men and women. For men, some researchers found a greater relationship between status within a group and physical attractiveness of those surrounding them within their groups than among women (Anderson et al., 2001). While for men body image takes the form of constructing a muscular body with little fat, for women this takes the form of constraining the body to the smallest size possible (Giles, Champion, Sutfin, McCoy, & Wagoner, 2009; Martz, Graves, & Sturgis, 1997). In both cases, fraternity/sorority members are at risk of developing destructive eating, exercise, or pharmaceutical habits to achieve their desired bodies, such as diet pills or smoking to constrain weight (Scott-Sheldon et al., 2008).

For both men and women, research themes point to an ideal of strength being represented by a male body and endurance, and the image of weakness being represented by a female body and frailty. Interestingly, both genders' body image concerns direct toward those opposing extremes, and both in a general tone of competition. While identity is personal, its development within the context of a fraternity or a sorority is by definition public and

performative. It is the creation of the public personification of these ideals. Although researchers have not investigated the lasting effects of such behaviors, there is a need to understand how fraternities and sororities advance or hinder the development of more permanent elements of identity. In total, these issues can contribute to, or be influenced by, other factors related to identity formation, as demonstrated in the next section.

Depression, Self-Esteem, and Sense of Belonging

Abela and Seligman (2000) examined fraternity/sorority recruitment as a contributor to depression among a small single-institution sample ($n = 77$) participating in recruitment. This study included measures of mood and three cognitive vulnerability factors (cognitive diatheses about self, consequences, and causes). Students were surveyed before recruitment, shortly after receiving the outcome, and three days after receiving the outcome. Eight men and 11 women in the sample were rejected from all fraternities/sororities of choice, while the 58 others (24 men and 34 women) were admitted. Immediate reactions, particularly to rejection, were as predicted, but long-term effects (such as more enduring mood reactions) departed from hopelessness theory. The researcher anticipated that getting rejected by all fraternities/sororities of choice was powerful enough to produce enduring change. Similarly, Chapman, Hirt, and Spruill (2008) examined sorority recruitment effects on self-esteem using a pre/postdesign. The researchers administered the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1979) at the beginning and end of recruitment to two groups of women ($n = 336$): a group that persisted ($n = 317$) and a group that withdrew ($n = 19$). Results showed persistent new members experienced a significant increase in self-esteem; as expected, women who withdrew experienced a significant drop in self-esteem. There was no significant difference found between mean scores at the end of recruitment, although all of these studies have a low number of students who are rejected by all fraternities or sororities.

Several previous studies described body image related to self-esteem, but only one identified study focused on this concept directly. Saville and

Johnson (2007) examined connections between year in college, sorority membership, and self-esteem in a single-institution convenience sample (n = 160, of whom 80 were sorority members). Freshmen had the lowest scores on self-esteem measures and seniors the highest; there were no significant effects for sophomores or juniors. There were no differences in scores by year between members and nonmembers, nor any interaction effects. There was a significant difference in self-esteem scores depending on year in college, as evaluated by posttests: freshmen had lower mean scores than sophomores.

Lane and Daugherty (1999) considered the effect of belonging to a fraternity or a sorority on social alienation, or a feeling of being isolated. Using a single-institution sample (n = 87, 40% fraternity/sorority members), the researchers found no interaction between gender and membership social alienation. Two main effects emerged: Women obtained lower scores than men, and, as expected, social alienation was lower for sorority members than for nonmembers. Social alienation may be influenced by member attachment, a concept Paxton and Moody (2003) described considering emotional attachment among members of a single sorority. The researchers focused on two primary concepts: "sense of belonging" and "feeling of morale." As hours spent on sorority activities increased, morale increased but belonging did not. As members attended more functions, their sense of belonging grew, but with no change in morale. The more an individual went out socially with other members, the greater her feelings of both morale and belonging. Finally, as opposed to all other forms of involvement, participation in recruitment (attracting and selecting new members) decreased both sense of belonging and morale, consistent with other reviewed research. The researchers posited this was due to a variety of factors, including high stress and tension associated with selecting members and participation in time-intensive activities. While time on task increases morale and the number of tasks increases belonging, the actual social relationships create a combination of belonging and morale, while debating future relationships decreases belonging and morale. The next section shifts attention to moral and ethical issues in the research related to fraternity/sorority involvement.

Moral Development and Ethical Issues

The moral development research gives voice to the ways social justice takes root in the interactions students and alumni have with the world around them. This is a much more nuanced form of understanding how students decide what is right and wrong, knowing they must navigate many interpretations of these concepts along the way. Within the moral development literature, themes of why students make the decisions they make to create friendships, act in awful or virtuous ways, and build meaningful relationships with each other emerge, intersecting with Chickering's (1969) and Chickering and Reisser's (1993) reaffirmed vector of "developing mature interpersonal relationships." Throughout this area, patterns of communication and relationships have been the focus of the research. In particular in this section, decisions to report hazing activity, the concepts of in-group and out-group and their impact on sense of belonging, and diversity across group types are considered.

Hazing behavior has been examined from numerous angles, including why students haze and why they allow themselves to be hazed. An interesting connection is inferred, and sometimes labeled directly, between those who report acts of hazing, whether to themselves or to others, and the concept of "whistle blowing" (Richardson, Wang, & Hall, 2012). The idea of whistle blowing balances the subjective norms of the act (i.e., how the individual perceives how others feel about the act) and personal attitudes toward a particular behavior in the decision of whether or not to report that an act such as hazing is occurring. Within these models, for both the most and least severe hazing acts, what others feel about the acts rises in influence of whether an individual will decide to report hazing. Simultaneously, moderately severe acts create a greater reliance on an individual's feeling about the act in a decision to report it. Fraternity and sorority members are more likely to see hazing behaviors as reasonable than nonmembers, and may actually desire an element of hazing while joining these organizations as a means of demonstrating "authenticity" as members (Cokley et al., 2001; Jones, 2000; Syrett, 2006). While hazing itself can take on different dimensions in different organizational types, elements of physical abuse, coerced use of alcohol, or mental abuse are consistent between fraternities and sororities,

and among different organizations of different racial origins (Drout & Corsoro, 2003). Authors approaching each of these organizational types may use different explanations but come to a consistent use of a "rite of passage" needed between nonmembership and membership (Kimbrough, 1997).

Interestingly, fraternity and sorority mission statements infer a desire to elevate an ethical community (Earley, 1998). In Earley's words, "Terms such as *moral advancement, integrity, truth, goodness, social responsibility, sacred trust,* and *honor* permeate fraternity and sorority creeds, mottoes, and purpose statements" (p. 39). Unfortunately, this list appears to be a road map for the problems cited both in research and in anecdote throughout this literature. Health is threatened by alcohol use and unhealthy sexual practices, integrity is threatened by cheating, trust is threatened by lack of support for honesty with others, and moral advancement is threatened by a lack of desire or skill to hold peers accountable (Earley, 1998; Eberhardt, Rice, & Smith, 2003; Patrick, Morgan, Maggs, & Lefkowitz, 2011; among many). Related to these issues are attitudes and beliefs toward others, reviewed in the next section, which ties to understanding and diverse experiences.

Attitudes Toward Others

Williams and Johnson (2011) found fraternity/sorority members showed significantly lower levels of open-mindedness (in other words, "Gets involved in other cultures" and "Finds other religions interesting") than nonmembers. The research design included a small sample ($n = 80$), convenience study, in which the researchers administered the Multicultural Personality Questionnaire (MPQ) to assess intercultural interaction and likelihood of adjustment to other cultures. The researchers cited Sidanius, Van Laar, Levin, and Sinclair's (2004) research as influencing their inclusion of fraternity/sorority members. A subsequent review of the study showed that Sidanius et al. considered whether membership in ethnic organizations among minorities and fraternal organizations among Whites contributed to increased in-group attitudes toward ethnic identification and negative attitudes toward other groups. The researchers surveyed the incoming class of 1996 and followed them in four subsequent waves until 2000. At the last phase of data collection, 2,132

students participated; of those, 324 were fraternity/sorority members. Findings showed evidence of exclusion in both fraternal and ethnic student groups, though White members of fraternities and sororities showed a greater new association with biased attitudes toward "others." Membership also increased White students' opposition to ethnic diversity on campus, the belief that ethnic student groups promote separatism, opposition to interracial marriage, symbolic racism, and sense of ethnic victimization. More profound similar effects were found among minority members of ethnic student organizations. In another study considering between-group attitudes toward others, Hussey and Bisconti (2010) examined an intervention targeting sexual minority stigma in two sororities at a single institution. Sexual minority stigma included affect, attitudes, and cognitions toward gay men and lesbians. Members scored around or below the mean range for all stigma measures, suggesting their attitudes were comparable to average mean scores for others who have taken the instrument. This was somewhat surprising to the researchers, who selected sororities based on the heterosexism of the group.

Understanding Others and Diverse Experiences

Fraternities and sororities can be locations of substantial social reproduction, particularly regarding issues of privilege (Stuber, Klugman, & Daniel, 2011). External construction of social reproduction by nonmembers depicts women as more concerned about elitism than men, while some studies demonstrate men within fraternities to be more concerned with preservation of privilege (Stuber et al., 2011). A troubling element in much of the research is the extent to which stereotypes, rather than models or theories, are used as the foundation for creating research instruments or analysis. In small but cumulative ways, this situation shapes the discourse within the broader research literature. Authors describe stereotypes being held or believed more by target groups (groups lacking comparative privilege) more than agent groups; women are depicted as being more concerned about elitism or social reputation than men, non-White students more than White students (Ryan & Bogart, 2001). Extending this concept in terms of functional privilege, new

members or potential members feel less belonging in a fraternity or a sorority than do longer standing members (Ryan & Bogart, 2001).

Understanding of diversity beyond superficial definitions remains a challenge to many fraternity and sorority members (Whipple & Sullivan, 1998). Much of this may trace back to structural foundations of most fraternities and sororities as welcoming only one gender, in some cases welcoming only one race, and welcoming only one type of religious expression. While these elements have actually been described in fraternity or sorority constitutions, practical exclusions, such as parental income, also exist. Such narrow focus limits the availability of diversity. One can understand how a group that is predominantly one gender, one race, and one type of faith expression would struggle to describe their own diversity, being reduced to labeling diversity in major or in hometown. A final challenge is that many fraternities and sororities retain the developmental level of first year and sophomore students, while individual students who are older understand greater nuance in identity formation and moral thought (Derryberry & Thoma, 2000). As much of student moral development is connected to peer effects rather than academic effects, lowering "friendship density" and promoting relationship diversity is critical for prompting students to challenge their superficial understandings of the world around them, particularly in the first two years of college. Said another way, students make greater moral gains when they are not in isolated friendship bubbles (as fraternities and sororities can become), but rather are connected with many circles on campus.

In examining literature about nontraditional members within fraternities or sororities (e.g., White students in NPHC organizations), important issues emerged. For example, Hughey (2010) found that while White students joining NPHC fraternities and sororities had to demonstrate "authenticity," Black students joining NIC or NPC organizations at predominantly White campuses were thought to be experts on service. Interestingly, when this expands to establishing chapters of predominantly White fraternities at an HBCU, at that point greater examination of racial consciousness theories takes place (Hughey, 2006). In fact, the role of fraternities and sororities at campuses serving underrepresented minorities, such as HBCUs and Hispanic Serving Institutions (HSIs), is seen as components of racial identity integration rather

than moral development (Guardia & Evans, 2008; Hughey, 2006; Sidanius et al., 2004). In the case of gay- and lesbian-focused fraternities and sororities, elements of queer identity formation are interwoven into the student development of these members, in ways parallel to those of the culturally based organizations (Yeung & Stombler, 2000). While the numbers of nontraditional members studied frustrate generalizable analysis, they permit documentation of questions about race stereotypes that inform behavior, a process Laszloffy (2006) terms as "othering."

Interestingly, some researchers have suggested participation in organizations focusing on racially underrepresented students may create greater interest in reaching to form relationships with students of other races (Sidanius et al., 2004; Stearns, Buchmann, & Bonneau, 2009). However, these studies also suggest that majority race students involved in fraternities and sororities have less interest in cross-racial interaction, as well as substantially less interest in social justice issues or other types of inclusion. While this thread of the research is decades old, it also follows along the social reproduction history of higher education. It is hard to distinguish the groups from the institutions in that context. This challenge of diversity and authenticity extends to the inter/national level construction of these organizations. While in many cases NIC and NPC organizations were formed specifically to bring together like-minded individuals, NPHC and National Association of Latino Fraternal Organizations (NALFO) organizations, targeting, but not exclusively for, Black and Hispanic individuals, were formed out of moments of university exclusion or national social movements (Heidenreich, 2006). Each of these origin stories informs the level of social reproduction or deconstruction embedded in mission or other foundational documents of the organization.

Summary of Findings

The psychosocial effects of fraternity or sorority membership are difficult to isolate. Students neither start their university careers as blank slates nor experience their collegiate involvements in the absence of other intervening variables, such as family, social identity, or work (Hugenberg & Bodenhausen, 2004). One well-documented aspect is the self-selection bias of membership.

Researchers have shown that students choosing to associate with fraternities and sororities tend to express more conservative political opinions and greater previous experience with alcohol use than other students (Astin, 1984; Pascarella & Terenzini, 2005; Webb & Mueller, 2009). These students are frequently from more affluent families and report higher GPAs on entry. This selection bias, documented consistently during the past 30 years, illustrates a difference in worldview that shapes how students experience and perceive these activities (Biernat et al., 1996).

Once students become members, the fraternity and sorority experiences begin to differentiate from each other in terms of psychosocial impact. While both men and women navigate self-concept and body image, they do so in different ways. For men, development of masculinity and exploration of sexual orientation is highly salient (Hesp & Brooks, 2009). Much of this takes place within an athletic context; in fact, a considerable amount of research compared fraternity men to athletes (Murnen & Kohlman, 2007). The role of sexual aggressors also rose to the fore in this literature (Lackie & de Man, 1997). For women, identity development takes the form of competition with men for esteem, navigating perfectionism, and self-objectification. A considerable strand of research about women takes place in the context of sexual assault and their view of themselves as victims or complicit participants (Martell & Avitabile, 1998).

Researchers examining depression and self-esteem issues have focused on sorority recruitment. Women who participate in formal recruitment processes experienced a drop in self-esteem, though this appears to be temporary (Abela & Seligman, 2000; Chapman et al., 2008). Interestingly, current members selecting affiliates during recruitment have reported lower sense of belonging and group morale, which Paxton and Moody (2003) posited might relate to the selection process. Disordered eating and body image issue research has also been focused solely on sorority members and researchers largely have used standard instruments to evaluate member attitudes and behaviors. The only consistent difference between members and nonmember women has been on measures related to drive for thinness and body dissatisfaction (Allison & Park, 2004; Basow et al., 2007; Schulken, Pinciaro, Sawyer, Jensen, & Hoban, 1997), though Cashel, Cunningham, Landeros, Cokley, and

Muhammad (2003) found no differences in these measures when BMI was taken into account. Researchers adding sorority recruitment as a time factor found no evidence that participation led to increases in self-objectification or body image disturbance, even though nonmembers who intended to join had higher risk factors for disordered eating or negative body perceptions (Basow et al., 2007).

Moral development research associated fraternity and sorority member participation with violent or virtuous acts (Earley, 1998). Hazing was examined from numerous angles, both from the perspective of the hazer and the hazed. The hazing literature was largely unconnected and emerged from several disciplines. An underexamined area of emerging research was the role of fraternities and sororities outside of the NIC or NPC realm, much less a comparison of these members' experiences to those of NIC or NPC members (Ray & Rosow, 2012). The discussion of the social identity shaping role of NHPC organizations and the rising number of multicultural organizations provides a rich opportunity for continued future research. As well, Hughey and Hernandez (2013), among many, highlight the special pressure of representing a race that many of these organizations feel, perhaps made more acute by the lack of housing or other private spaces in which to conduct activities and be away from the media or other limelight. Interestingly, the existing related research focused on nontraditional students in these organizations, notably White students in historically Black organizations or non-Jewish students in Jewish organizations (Hughey, 2010; Sanua, 2003; Sidanius et al., 2004). Examining these at further depth, and connecting this research to other research on target and dominant identity groups, will provide a foundation for ways to examine self-concept across the entire university curriculum and cocurriculum. Ray (2013) asserts further that this examination will help us understand the broader normative institutional landscape for predominately White institutions as a whole, such as the role of friendship density in moral development or the role of housing and property ownership in asserting privilege for predominately White groups. Certainly these research threads highlight issues of self-segregation that merit further examination.

Finally, the long-term effects of fraternity or sorority membership tended to be examined at the one-year mark, notably after a new member

education period and in incident-based contexts. A systematic assessment practice at graduation or at particular intervals postgraduation did not appear in the research related to developmental outcomes. This suggests both an interesting opportunity and a limitation concerning knowledge about actual psychosocial effects (Ryan & Bogart, 2001).

Educational Effects

THIS CHAPTER CONTAINS A REVIEW of research on the educational effects of fraternity and sorority membership, including its impact on academic performance, college persistence, critical thinking, curiosity or motivation toward learning, and theoretically grounded good practices in undergraduate education. As evidenced by the brevity of this chapter, research related to educational effects of the fraternity/sorority experience continues to be an understudied area. Of the research published since April 1996 on the educational effects of membership, studies on academic performance have received the most attention in the literature.

Fraternity and sorority communities consistently have been criticized for their perceived anti-intellectual culture and detrimental educational effects on college students (Kuh et al., 1996). This prevailing indictment of fraternal organizations is incongruent with the value of high ideals toward scholarship most fraternities and sororities purport to hold. Despite this contradiction between the values of fraternities and sororities and their perceived impact on educational outcomes, limited research has been conducted to explore the educational benefits or detriments of these organizations. As noted in the previous two chapters, the overwhelming body of research to date has explored the detrimental behaviors and consequences associated with membership, while little attention has been paid to developmental aspects (Molasso, 2005). However, with increased demands for assessment in higher education and student affairs and a renewed focus on student learning, more recently researchers have explored educational effects associated with forms of student involvement. Overall, the research about educational outcomes of fraternity/sorority

membership is nuanced with some researchers identifying negative associations with membership, few researchers identifying positive associations, and others finding no significant effects of fraternal membership on educational outcomes or achievement.

Research Methods and Terminology

Researchers have employed a variety of design techniques and instruments to assess the educational impact of fraternity/sorority involvement. It is important to note that the majority of the research discussed in this section is cross-sectional in design, limiting exploration of causal relationships. According to Pascarella (2006), the preeminent method for determining college effects in educational research is through a pretest/posttest longitudinal design with appropriate statistical controls. Only a few of the studies were longitudinal in design, following the same group of students over multiple data collection periods. Many of the studies reviewed in this section were conducted across multiple institutions; three were conducted within the structure of two separate national studies on how college affects students: the National Study of Student Learning (NSSL) and the Wabash National Study of Liberal Arts Education (WNS). The NSSL, a three-year federally funded longitudinal study, collected data from students across 18 four-year and 5 two-year higher education institutions (Pascarella, Whitt, et al., 1996). The focus of the NSSL was on the impact of student academic and nonacademic experiences on their learning, cognitive development, and persistence in college. Similarly, the WNS, which began in 2006, is an ongoing multi-institutional study on the effects of college experiences on liberal arts educational outcomes, namely critical thinking, moral reasoning, psychological well-being, intercultural effectiveness, inclination to inquire and lifelong learning, and socially responsible leadership (King, Brown, Lindsay, & VanHecke, 2007; Pascarella, 2007). Although not longitudinal in design, a few other studies also were drawn from multi-institutional efforts. For example, Pike (2003) utilized a sample from 15 public research universities participating in the National Survey of Student Engagement (NSSE). Similarly, Hayek, Carini, O'Day, and Kuh (2002) also relied on data from multiple institutions participating in the

NSSE. What each of these large, national data sources offered was the ability to explore overall relationships and effects of fraternity/sorority membership across a wide variety of institutions, college experiences, and educational outcomes.

A variety of constructs have been used to measure educational effects. Some researchers explored developmental outcomes by focusing on traditional academic skills, such as reading comprehension, mathematical/analytical ability, and critical thinking (e.g., Pascarella, Edison, Whitt, Nora, Hagedorn, & Terenzini, 1996; Pascarella et al., 2001). In these studies, the Collegiate Assessment of Academic Proficiency (CAAP), administered by the American College Testing Program (ACT), was used to assess the educational effects of fraternity and sorority membership. Studies employing data from both the NSSL and the WNS used modules from the CAAP to assess student learning. In particular, the mathematics, reading comprehension, and critical thinking modules of the CAAP were used in the NSSL. However, the WNS only utilized the CAAP critical thinking module. Other developmental variables explored include student engagement in a variety of academic practices, such as level of academic challenge, involvement in active and collaborative learning, interaction with faculty, and general educational gains (Hayek et al., 2002; Pike, 2003). Need for cognition or curiosity and attitudes toward literacy were explored in the literature using the Need for Cognition Scale (NCS; Cacioppo, Petty, Feinstein, & Jarvis, 1996) and the Positive Attitude toward Literacy Scale (PALS; Bray, Pascarella, & Pierson, 2004), respectively.

Not all of the scholarship about the educational effects of fraternity/sorority membership has explored outcomes that are developmental in nature. Many researchers have studied the educational effects of discrete outcomes such as GPA and persistence to graduation. In terms of measurement, researchers tend to gather GPA from the institutions surveyed rather than from self-reported data from student participants. Further, the research during the last 17 years examining persistence rates of fraternity and sorority members compared to nonmembers specifically measured student persistence to graduation.

Critical Thinking and Reasoning Skills

Very few researchers have addressed critical thinking, problem solving, and reasoning skills. In a study published in the mid-1990s, Pascarella, Edison, et al. (1996) found fraternity men scored significantly lower in assessments of reading comprehension, mathematics, critical thinking, and overall achievement than nonaffiliated men during the first year of college. Although sorority-affiliated women had lower cognitive development overall than nonaffiliated women, the only statistically significant differences between affiliated women and nonaffiliated women were on reading comprehension and composite achievement during the first year. Interestingly, Pascarella, Edison, et al. (1996) also reported a positive effect of fraternity membership on reading comprehension, mathematics, critical thinking, and overall achievement for Black men, suggesting these students may "form a subculture within fraternities that is more supportive of the intellectual mission of the institution than the dominant peer culture" (p. 255). In a follow-up study on the same students, Pascarella et al. (2001) found the negative effect of fraternity membership on critical thinking was reduced to nonsignificance during the third year of college, but the significantly lower reading comprehension levels associated with fraternity men persisted in the third-year follow-up. Sorority affiliation was positively associated with self-reported cognitive growth and understanding of science compared to nonaffiliated women. Further, the positive effect of fraternity membership found for Black men during the first year of college did not persist in the third-year findings. Overall, Pascarella, Edison, et al. (1996) concluded the net effect of membership during college was negative for fraternity men but positive for sorority women.

In contrast, other researchers have found fraternity/sorority members to be equally and often more engaged in a variety of educational activities than their nonaffiliated counterparts. Hayek et al. (2002) found both fraternity and sorority members reported significantly higher levels of engagement in active and collaborative learning, general education gains, and practical competence gains. The only engagement measure where the fraternal experience had a detrimental effect on students' educational experiences was in the time students spent preparing for class. Fraternity members appeared to spend

significantly less time preparing for class than nonaffiliated men. In a single-institution quantitative study on the effects of fraternity/sorority membership on college experiences, Asel et al. (2009) did not find any differences between fraternity/sorority members and nonmembers in student engagement in academic activities. Recently, using data from the Wabash National Study on Liberal Arts Education, Martin, Hevel, Asel, and Pascarella (2011) found no significant differences between fraternity/sorority members and their nonaffiliated peers on critical thinking during the first year of college. This finding contradicted prior research by Pascarella, Edison, et al. (1996) where fraternity men in the first year of college scored significantly lower than nonaffiliated men on the same critical thinking measure used in the Martin et al. (2011) study.

Academic Performance, Persistence, and Graduation

Findings specifically related to academic performance have been inconsistent in the research. For example, although the primary focus of the study was not fraternities and sororities, Pritchard and Wilson (2003) found no unique impact of the fraternal experience, positive or negative, on student academic performance. However, three years later, Grubb's (2006) findings revealed fraternity/sorority members averaged a 1%–2% lower GPA than their nonaffiliated counterparts by their senior year in college. For men, the smaller the fraternity, the larger the negative effect on GPA; for women, however, no significant differences were found between sorority women and nonaffiliated women. In another study, students who joined fraternities/sororities in their first semester of college achieved lower GPAs than predicted (DeBard, Lake, & Binder, 2006). In contrast, however, students who joined during their second semester earned higher GPAs compared with their predicted GPA.

Consistently, membership in a fraternity or a sorority has been found to be positively associated with college persistence (Astin, 1977; DeBard & Sacks, 2011; Nelson, Halperin, Wasserman, Smith, & Graham, 2006). For example, Severtis and Christie-Mizell (2007) found fraternity/sorority membership

increased the odds of college graduation by 370% compared to nonaffiliated students. This positive effect was 55% larger for White students compared with Black students, although Black students still significantly benefited from the effect of fraternal membership on persistence to graduation. In addition to persistence, research suggests fraternity/sorority membership is positively associated with engagement. In a multi-institutional study, Pike (2003) found senior fraternity/sorority members scored significantly higher than nonaffiliated seniors on four measures of student engagement.

Other Educational Effects

Several researchers have explored other educational effects of fraternity/sorority membership. For example, in a single-institution study of students' experiences in college and their cognitive development, Pike (2000) found no significant differences between affiliated members and nonaffiliated students on measures of academic involvement as measured in terms of students' self-reported use of the library, writing experiences, and interaction with faculty, or gains in math and science reasoning. The instrument used in this study was modeled after the College Student Experiences Questionnaire (CSEQ; Pace, 1990). Further, Pike (2000) also reported an indirect relationship between fraternity/sorority membership and a general gains measure of cognitive development. Put another way, members of fraternities and sororities scored higher on a measure of general gains, but this effect appears to have occurred because of member involvement in a variety of social and campus activities. These findings suggested the effects of fraternity and sorority membership are more nuanced than previously thought. In other words, it may be unreasonable to conclude that fraternity/sorority membership has an overall positive or negative effect on educational outcomes. Rather, the significance and direction of the effects of fraternity/sorority membership may depend on a variety of factors such as students' involvement in other campus activities and engagement inside the classroom.

In another study, Pike (2003) researched differences between fraternity/sorority members and nonaffiliated students on self-reported measures of gains in academic and personal development at several public research

universities. Senior fraternity/sorority members reported greater gains in academic development than their nonaffiliated peers. Similarly, both first-year and senior members reported greater growth in personal development than nonaffiliated students. In the same study, Pike (2003) also investigated student experiences with theoretically evaluated good practices in education (Astin, 1993b; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991, 2005) such as level of academic challenge, active and collaborative learning, and interaction with faculty. Overall, Pike (2003) observed that the educational benefits of fraternity/sorority membership were greater for seniors than first-year students. While first-year members did not differ significantly from their nonaffiliated peers on the good practices explored in this study, senior members scored higher than their nonaffiliated peers on active and collaborative learning and interaction with faculty.

In a longitudinal, national study on college outcomes, Martin et al. (2011) explored the impact of fraternity/sorority membership on a variety of educational outcomes including student need for cognition, or curiosity toward academic pursuits, and positive attitude toward literacy (i.e., enjoyment of academically and intellectually challenging activities). The researchers found no significant differences between fraternity or sorority members and their nonaffiliated peers on need for cognition or positive attitude toward literacy during the first year of college. However, the researchers cautioned professionals not to equate a nonnegative finding with a positive one; the values of fraternal organizations, if enacted, might lead professionals to expect more from fraternity/sorority members academically than nonaffiliated students.

Within-Group Comparison

Using GPA as a measure of academic performance, DeBard et al. (2006) compared predicted GPAs of first-year students with their actual GPA at the end of the first and second semesters of college. Students who joined fraternal organizations during their first semester in college achieved lower GPAs than predicted, whereas students who joined in their second semester earned higher GPAs compared with their predicted GPA. This finding is one of very few to provide empirical evidence for delaying membership eligibility beyond the

first semester of college enrollment. DeBard et al. (2006) suggested professionals consider GPA when determining first-semester student eligibility to engage in the fraternity/sorority recruitment process.

Although the majority of the research about the educational effects of fraternity/sorority membership employed quantitative methods, researchers in two studies utilized a qualitative research design. Using a case study approach, Hebert (2006) explored the experiences of high-achieving collegiate men within one fraternity. Selecting a fraternal organization believed to support a culture of achievement, the researcher investigated the perceived influence of the fraternity on member academic achievement. Overall, findings pointed to the important role older members in the organization played as academic mentors and models of well-rounded students. All of the men interviewed in Hebert's study were aware of the organization's reputation as a well-rounded and achievement-oriented fraternity. To the participants in this study, this reputation represented the organization's values and was present from the beginning of their membership with the organization. The researcher emphasized the importance of communicating the values of the organization and identifying potential members who espoused such values during the recruitment process. The other study, although not explicitly studying fraternity/sorority membership, offered a glimpse of how students connect their fraternal experience with their academic motivation in college. Van Etten, Pressley, McInerney, and Liem (2008) found seniors described their association with student organizations such as fraternities/sororities as "[stimulating] important academic-related learning by providing forums for academic discussions and social networks" (p. 819). Overall, although researchers did not offer much depth about the relationship between membership and academic motivation, this nexus suggests a potential area for further study.

Summary of Findings

Overall, research during the last 17 years does not offer conclusive evidence about the educational effects of fraternity/sorority membership. Although one group of researchers found negative effects of fraternity membership on measures of critical thinking, reading comprehension, mathematics, and overall

achievement and negative effects of sorority membership on reading comprehension and overall achievement during the first year of college, all of these detrimental effects diminished to nonsignificance by the end of the fourth year of college (Pascarella et al., 2001). In one study, by the fourth year of college, fraternity/sorority members even scored significantly higher than their nonaffiliated peers on measures of academic and personal development (Pike, 2003). To that end, one common thread that seems to cut across much of the research on the educational effects of fraternity and sorority membership is that when a negative impact of membership does exist, for the most part it appears during the first year of college. The extent to which these findings can be wholly attributed to membership in a fraternity/sorority or simply the process of maturation is unclear.

It is important to recognize that several studies exploring the educational impact of fraternity/sorority affiliation found no significant differences between members and nonmembers across a variety of outcomes, including GPA (Pritchard & Wilson, 2003), critical thinking, need for cognition, attitude toward literacy (Martin et al., 2011), and engagement in academic activities (Asel et al., 2009; Pike, 2000). Further, the positive impact of fraternity/sorority membership on college persistence does not appear to have decreased in the research findings during the last 17 years (e.g., DeBard & Sacks, 2011; Nelson et al., 2006; Severtis & Christie-Mizell, 2007). These findings overwhelmingly suggest that the opportunity for students to belong and connect with their peers through these organizations serves as a powerful method for retaining students.

At best, it may be concluded that the extent to which fraternity/sorority involvement will have a value-added or detrimental effect on college students depends on a variety of contextual factors such as gender and year in college as well as the size and culture of the organization and the campuses on which they reside. Further, the extent to which race and ethnicity and governing council membership influence the effect of fraternity/sorority membership is yet to be realized and needs exploration.

Recommendations for Practice and Research

THIS CHAPTER BEGINS WITH RECOMMENDATIONS for how campus professionals and policy makers, alumni and volunteers, and inter/national professionals charged with support and oversight might become more effective in working with fraternities and sororities. Recommendations for how future researchers might more precisely study fraternity and sorority involvement close the chapter.

Recommendations for Campus Professionals and Policy Makers

Campus professionals and policy makers could have a much more expansive influence on fraternity and sorority members. The literature suggests that campus professionals are engaged in addressing some fraternity and sorority risk behaviors, most notably alcohol use, eating disorders, and sexual violence. However, this approach treats symptoms and does not address the underlying problems these symptoms reveal. While risk behaviors must be addressed, they reveal a lack of support from fraternity and sorority leaders to create a broader and healthier vision for their organizations. Visionary leadership is a difficult task at any age and with any level of coaching; it is particularly difficult when done by 19- to 20-year-olds without multiple support systems and with divergent influences. Practices such as the North American Interfraternity Conference's IMPACT sessions, bringing together chapter presidents

across all types of fraternities and sororities on a campus to discuss the current climate and together create unified goals for changing the community, shift both the responsibility and the focus of climate change efforts by saturating the environment with consistent messages. An approach that incorporates these goals and concerns from the student level, with student-reinforcing networks and buy-in, makes great strides toward student ownership in the outcomes. Other campus and national leadership programs, such as LeaderShape, provide ways for a campus community of student leaders to connect and demystify the various elements of fraternity and sorority culture. No solution is perfect, but a solution that does not involve student coauthorship is likely to fail (Baxter Magolda, 2001).

There is little within the literature to suggest a meaningful connection between fraternities and sororities and the broader leadership and academic mission of the institution and higher education in general. Connecting fraternities and sororities to the philosophical and practical mission of higher education would empower students to make broader educational gains within these organizations while potentially reducing high-risk behaviors and adverse media gathering events. Appropriately coaching students within these organizations can yield greater learning in these locations and across the campus. Mandatory study halls are insufficient to meet this need. Breaking the physical barrier is important, including bringing faculty into chapter meetings or house events to provide lectures or guide discussions of difficult topics in the news or inviting faculty to join in meals with students at their houses. These practices, common in university housing, can easily extend to fraternity and sorority settings in a way faculty find familiar. While institutions vary in proportion of students engaged in fraternities and sororities, many students are highly involved in these organizations, particularly during sophomore year. This suggests that a university-wide approach to the sophomore year experience, an area that is gaining attention nationally, should include the fraternity and sorority community. As an example, many campuses find retention efforts are difficult before students declare a final major, typically in junior year. At the same time, fraternities and sororities often find membership retention difficult beyond sophomore year. These retention issues share many elements of belonging and self-concept in common; collaborative work can retain

members and students, while allowing faculty and administrators another vantage point to examine the fraternity and sorority experience on campus. If campus professionals do not actively connect organizations to this work, others will make policies in that absence. Campus professionals must be part of the campus conversation.

Campus policy makers can help to address equity issues regarding the diversity of fraternities and sororities. In particular, funding models and other structural models that focus on interventions and support for historically White fraternities and sororities fail university diversity efforts in multiple ways. It is not enough to simply criticize fraternities and sororities as having a diversity problem. Instead, by supporting all fraternity and sorority types—while challenging each in its diversity issues—campus policy makers can make progress on structural cultural issues extending far beyond fraternities and sororities to other areas of exclusion on campus. For example, examining the funding models of campus staffing for fraternity and sorority affairs is critical. Funding models that rely on student dues privilege the majority culture and prevent diverse students from being supported in their development of members and organizations. Examining such structural inequities and comparing them to other types of student support (such as student organization support) will go far to creating models that demonstrate institutional commitments to diversity in this area among many.

Campus professionals and policy makers should actively engage alumni, as well as inter/national organization volunteers and professionals, to create a network that can support fraternities and sororities. While one of the greatest attractions of these organizations is networking with a multigenerational group of alumni and administrators, all stakeholders often fail to capitalize or maintain their networks. Students alone cannot create their support networks; they will drift from people who give them news they do not want if others do not support the whole network. Campus leaders and policy makers, particularly, should facilitate and develop networks of high performing alumni and inter/national leaders (professional or volunteer) into teams that not only empower student groups but also aid in other institutional initiatives in terms of leadership, guidance, influence, and financial and time contributions. However, as demonstrated by hazing research (e.g., Holmes, 1999), not

all alumni may be a uniformly positive influence based on their experiences and perspective, so it is a good practice for campus professionals to take an active role in working with chapter alumni and volunteers to ensure consistent messages.

Recommendations for Alumni and Volunteers

Much of the literature suggests a general lack of engagement of experienced alumni and volunteer leaders with the realities that students confront in their day-to-day environments. Students are navigating complex leadership skills, such as confronting inappropriate behaviors, encouraging a shared broader vision that elevates behavior, and learning to work together as cohesive teams. The absence of coaching or role models inhibits the development of these skills, although students will argue against coaching at the outset. Being part of an intentional network, surrounding fraternities and sororities will energize this learning and build multigenerational relationships; some of the very reasons students join these organizations.

Alumni and volunteers should engage with the institutions where chapters exist to learn about the realities of the campus environment; conflicts arise when alumni and volunteers ignore them. The result is the destruction of a potential network and an erosion of influence on campus. By understanding the other learning and financial dilemmas campus officials confront, alumni and volunteers can become indispensable parts of the solution and gain influence with students as well as the future of the institution. Some inter/national organizations have begun incorporating educational materials about today's students in their conferences and ongoing volunteer education. Helping volunteers understand current student's attitudes, beliefs, outlook, and behaviors from those who were their peers can help them not only in support of students but also as creators of policy within these organizations or within higher educational institutions. Centers for campus involvement on many campuses are offering more intensive education for advisors and other volunteers, understanding that not all of these volunteers are staff. Policy makers want to see solutions, and alumni and volunteers can be influential contributors if appropriately included and educated. Moving forward, university alumni

associations can engage much of this work specific to their institutions, knowing it matters not just for fraternities and sororities but also for all student organizations.

Finally, an effort is needed to study fraternity and sorority advisors and volunteers to better understand their experiences, concerns, observations, and motivations. It is critical to learn how to better tap into their expertise and help allay fears. It would also be helpful to assess why individuals choose to stay involved compared with those who distance themselves or become absent.

Recommendations for Inter/National Professionals

Inter/national organizations were strikingly absent from the research conversation. There has been a history, particularly among NPC-affiliated groups, to discourage participation in research studies on their organizations. This discouragement has not stopped research, but it has excluded the inter/national organizations from having meaningful input into the questions asked and the implications. By actively encouraging and engaging in research, these organizations can demonstrate their commitment to learning and assessment in ways their students find familiar. They can also then have an ability to shape their messages, practices, and programs, and offer counter perspectives. This may also allow inter/national professionals to make space for their alumni to contribute their talents toward the strategic advancement of these organizations. Both the conduct of research and the regular reading of research about student learning and risk behavior will help these organizations in their ongoing professional development. In many respects, inter/national professionals are progressing in their incorporation of educational materials for their volunteers; however, incorporating more intentionally studies of their students and other populations, both from internal studies and from researchers external to these organizations, could be beneficial.

More engagement between different organizations and governing/coordinating councils will also advance the learning of fraternity and sorority members. These students are often legitimately confused about the standards for behavior, and will seek support from peers before they connect with inter/national professionals. In the absence of collaboration

with and between organizations, campus policy makers will dictate these terms and will make decisions without organizations' additional perspectives and voice. A key example of policy that is of interest to inter/national professionals is delayed recruitment, which was among the most divisive of Kuh et al.'s (1996) recommendations. Delayed, or deferred, recruitment entails institutional policies restricting fraternity/sorority membership until at least the second semester of college. No empirical examinations of this policy were found. Even without substantial research, campus policy leaders make observations about the potential effect of such policies. What might be suggested based on the available research is that students establish risky alcohol behaviors that persist throughout college at the point in which they affiliate, regardless of when that occurs. It also might be suggested that students are most vulnerable during their first semester of their first year, and delaying recruitment may be beneficial. Until substantial empirical research can be added to the field, such interpretations are at best speculative.

Many inter/national organizations have their own leadership initiatives, some requiring vast resources. By considering what elements will connect with university leadership curriculum, as well as creating incentives for active campus involvement among juniors and seniors, inter/national organizations can further increase relevancy and integration on campuses. However, one organization cannot move a campus culture alone. Even as inter/national organizations create greater leadership opportunities, they must connect with other organizations to encourage such additional programs and understanding. In the absence of these efforts, organizing bodies such as the NIC and the NPC have made efforts to create this cross-organizational leadership development. Further distance from interfraternal efforts could allow greater input from other bodies on student chapters, making the inter/national connection far less relevant.

Recommendations for Fraternity and Sorority Collegiate Members

Collegiate members of fraternities and sororities are important stakeholders to consider when exploring the implications of these findings. As individuals

invested in their organizations, fraternity/sorority members can play an integral role in shaping the culture of their organization and the culture of the fraternity/sorority community on their campus. Both the behavioral and the educational effects of membership discussed in this monograph point to a need for collegiate members to recognize their own agency in improving the fraternity/sorority experience. Student leaders of fraternities and sororities may consider refining the current mentor-like structures in place in their organizations. Although most fraternal organizations assign upper level active members as mentors to new members (e.g., big brothers and big sisters), these relationships typically lack a formal structure. It is generally understood that it is the mentor's role to introduce the new member to the organization, its practices, and expectations. Rarely, if at all, are these relationships used to introduce new members to academic resources, to engage new members in the values and purpose of the organization, to educate new members on ethical decision making, or to cultivate leadership skills. The existing composition of these types of relationships among collegiate members seems to be a missed opportunity for learning and personal development.

The findings overwhelmingly point to a relationship between fraternity/sorority involvement and alcohol consumption including high-risk drinking behaviors. Although college student misuse and abuse of alcohol has plagued college administrators for decades, more recent techniques such as motivational interviewing have met some success in reducing high-risk drinking and other harmful behaviors among college student populations. While not all postsecondary institutions utilize motivational interviewing techniques to address high-risk drinking, many do. Fraternal organizations have an inherent screening structure in place through each organization's personnel or standards boards. Collegiate leaders should become aware of the resources available on campus and in the community to combat high-risk behaviors such as alcohol misuse and abuse. It is imperative that members take the challenge of brotherhood and sisterhood seriously by holding members (and leaders) accountable for high-risk behaviors and funneling them to appropriate channels for self-improvement.

Recommendations for Future Research

Overall, more research is needed about the effects of fraternity/sorority membership, especially on educational outcomes through graduation and beyond. One particularly overlooked area in the research has been between-group examinations. Aside from comparing members to nonaffiliated students, very few researchers made comparisons to other student groups, such as cocurricular organizations aside from athletes. In addition, it would be helpful to know what impact multiorganizational involvement has on the undergraduate experience. Because students choose to join organizations and the cultures of each are likely unique, comparisons among groups could provide a more substantial appraisal of student engagement. Further, it may be beneficial to explore the behaviors and expectations of members from chapters that are more engaged with the institution, inter/national office, alumni, or surrounding community as opposed to those that are insulated or have an internal focus.

With the exception of Pascarella, Edison, et al. (1996), Pascarella et al. (2001), Martin et al. (2011), Pike (2003), and DeBard and Sacks (2011), most researchers exploring the educational effects of fraternal membership did so in single-institution contexts and/or employed a cross-sectional approach. Additional research exploring the educational benefits, or detriments, of membership of four years of college and using a nationally representative sample will add to our collective understanding of these organizations. However, at present large, national datasets do not allow researchers to disaggregate members by organizational council (e.g., NPC, NPHC, NALFO, and NIC), size of chapter, or member engagement, thus limiting our ability to truly grasp the nuanced effects of fraternity and sorority membership on a variety of educational effects. Further, national studies discussed in this chapter are not designed with the purpose of delving into the many facets of fraternity/sorority membership.

Institutional characteristics and regional influences may provide additional opportunities for studying differences. Some areas noticeably absent from sampling could provide a different perspective regarding the fraternal experience, such as geographical influences. Characteristics in research are often geographically influenced, which may impact results. For example, there

is a greater saturation of higher educational institutions on the East Coast. How does that impact national studies that combine all institutions?

There needs to be an increased measure of inputs and student expectations prior to affiliation to determine how they are developed as a result of involvement. Research seems to indicate that students experience a self-fulfilling prophecy as they seek out desirable opportunities. Also, historical context and culture for each organization may induce behaviors in each chapter and community. Case studies could be conducted to examine chapters or communities that developed over the course of time and to identify the antecedents that caused the change. With any critical event, there are steps taken by the institution and organization to mitigate/ameliorate any further occurrences/incidents. If changes are made, what were the sustained successes and which were pulled back to the historical behavioral patterns?

The research reviewed in this monograph was overwhelmingly quantitative in design. This may be understandable given that a majority of published studies appeared in clinical- or psychological-based journals. Nonetheless, quantitative studies often only can evidence a positivist perspective on knowledge, leaving many "how and why" questions underexplored. Future research on this population should incorporate qualitative and mixed-methods designs to broaden our perspectives of understanding.

Finally, the current body of research about the educational effects of membership overwhelmingly explores the impact of fraternal membership from the perspective of White majority members since most samples employed in the research are comprised mainly of White college students. As college and university campuses have become more diverse, so too have the types of fraternities and sororities offered to students. In general, more research about the impact of fraternity/sorority membership is needed across the various types of organizations and governing councils. For example, no research identified for this monograph explored the educational effects of membership or investigated the diversity of fraternal experiences. In general, structures and funding models have allowed researchers to ignore more difficult connections between varied fraternity and sorority populations.

Recommendations for Refining Research

Core elements characterizing collegiate fraternal organizations traditionally center on social, cultural, professional, service, and academic pursuits. In addition, organizations may vary in a variety of other means. For example, honor societies, cocurricular-based Greek-lettered organizations, secret societies, social organizations, and community service groups have emerged throughout higher educational history. While the majority of the research in this volume likely intended to focus on traditional social groups, researchers rarely distinguished between them, creating a considerable lack of precision. For example, in their research on fraternity sexual misconduct, Adams-Curtis and Forbes (2004) remarked on differences even among traditional social-based groups in their research on sexual misconduct, noting, "there are very large differences between fraternities within and between campuses. All fraternities are not cesspools of misogyny and gang rape. Differences between fraternities are rarely discussed in the literature" (p. 106).

Anson and Marchesani (1991) noted, "the characteristics that differentiate the types of fraternities relate to their purposes, membership requirements, or field of interest" (p. I-9). Attempting to account for group differences would be worthwhile in promoting a more accurate understanding of the nuances of fraternal organizations. Unfortunately, the currently accepted and historically pervasive mode of collecting demographic data on fraternal organizations is severally limited. In most cases, a single survey item asks a student if he or she is a member of a fraternity or a sorority. This approach does not provide the detail and depth needed to understand the diverse organizational perspectives represented in the responses. Such a lack of precision restricts the ability to yield accurate research findings influencing practice and policy on college campuses or at the inter/national organizational level.

By examining the similarities and differences within the fraternal community, it might be argued that there are so many unique aspects that vary for each campus and chapter that any type of classification system would be suspect at best. Context clearly matters at the institutional and organizational levels. While for research purposes, it may be helpful to categorize, too much differentiation may prove problematic for comparisons. Recommending a typology

inclusive of only a fraternity or a sorority variable would be shortsighted. It may be advantageous to be inclusive of all groups that have a substantial measure of social programming, particularly for gaining a clearer understanding of broad student involvement. Historically, there were few organized social outlets in U.S. higher education institutions until the emergence of fraternities and sororities in the mid-to-late nineteenth century.

Debate remains about the classification of organizations into their respective governing councils. Although this particular schema is imperfect for categorization, as they are currently constructed, each of these councils exhibits a unique culture. As such, researchers should consider the importance of distinguishing between the various councils as the policies, practices, and culture of each council will likely be reflected in its organizational members. The ability to illuminate both strengths and weaknesses of the organizations within a given council provides focus and depth to research on the fraternity/sorority experience.

Differentiating by gender has been one of the few common ways of disaggregating fraternities and sororities, and this should be used at minimum for comparison to previous work. With today's campus communities hosting a variety of student organizations, a level of involvement scale specifically linked to fraternity/sorority membership could be a more precise indicator of organizational engagement. This does not permit differentiation by group characteristic, but would allow researchers and interested stakeholders a means of understanding how embedded students are in organizations. This would, in turn, facilitate clearer and more meaningful links to outcomes, promoting a clearer understanding of how stakeholders can support, enhance, and promote a positive learning environment for fraternity and sorority involvement.

Conclusion

It is difficult to evaluate adequately the value of fraternities and sororities with the lack of accurateness and comprehensiveness in the present research. The most conclusive finding this volume uncovered was the need for a more exact and contextual understanding of student involvement. Much research about multiple aspects of involvement is connected by a common limitation,

aggregating the experience. It is reasonable for researchers to have dichotomized fraternity/sorority membership for expediency; a simple yes/no question takes up far less space than a more detailed approach. This custom may be due to political concerns for more clearly identifying specific populations questioning established practices, behaviors, and beliefs. The practice has not been methodologically confined to survey instrumentation; qualitative researchers also often aggregate members when selecting samples and/or reporting results. This convention bears a larger implication for the study of most forms of student involvement, perhaps calling to question our accurate understanding of student experiences within groups and outcomes associated with group affiliation. The larger challenge this monograph proposes is a reconsideration of how we conduct student involvement research. Precision, over expediency, can inform better practices to enhance student experiences and promote more accurate knowledge of associated outcomes and policy considerations.

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Name Index

A

Abela, J. R. Z., 91, 98
Abowitz, D., 10
Adams, T. C., 80
Adams-Curtis, L. E., 58, 59, 75, 81, 120
Algoe, S. B., 85
Allan, E. J., 48, 49, 53, 74
Allison, K. C., 81, 88, 98
Alpern, S., 85, 87
Alva, S., 19, 23
Anderson, B. K., 10, 22, 27, 55
Anderson, C., 87, 90
Anderson, K. M., 60, 86, 90
Anderson, L. B., 26
Anson, J. L., 120
Armstrong, E. A., 61, 75, 84, 85, 85, 86
Arnold, J. C., 44
Arnold, J. S., 57
Arria, A. M., 21
Arterberry, B. J., 15
Arthur, L. B., 85, 87
Asel, A. M., 5, 105, 107, 109, 118
Ashmore, R. D., 16, 81
Astin, A. W., 6, 9, 79, 98, 105, 107
Atkins, D. C., 17
Auster, C. J., 57
Avitabile, N. E., 98
Awad, G., 50, 93

B

Bacchi, D., 65
Bachman, J., 21, 26, 43, 76
Baer, J. S., 10, 22
Bannon, R. S., 56, 57, 74
Banyard, V. L., 57, 81
Barry, A., 18, 33, 42
Bartholow, B. D., 26, 36, 39, 41, 42, 46
Barton, S., 55
Basow, S. A., 87, 89, 98, 99
Baxter Magolda, M. B., 112
Beason, K. R., 71
Beebe, M., 16, 81
Bell, R. W., 10, 27, 44
Berger, J. B., 29
Berkowitz, A., 85, 86
Best, J. R., 73
Biddix, J. P., 1, 122, 3, 72, 77
Biernat, M., 10, 98
Binder, R. S., 105, 107
Bisconti, T. L., 80, 95
Blane, H., 19, 23, 33, 34, 37
Bleecker, E., 56, 83
Bodenhausen, G. V., 97
Boeringer, S. B., 62
Bogart, L. M., 73, 77, 87, 95, 100
Bonneau, K., 97
Bookwala, J., 87, 89

Borsari, B., 35, 43, 44
Borsari, B. E., 28, 32, 33, 35
Borskey, E. J., 20
Boyd, C. J., 66, 67, 76, 81, 85, 87
Bray, G. B., 103
Brigham, N. L., 17, 23
Brosi, M. W., 57, 56, 74
Brooks, J. S., 98
Brown, E., 63
Brown, M. K., 102
Brown, T. J., 62, 75
Buchmann, C., 97
Burke, T. W., 51
Burrus, R. T., 70
Burt, M. A., 55, 56
Butler, K. M., 64
Bybee, J., 81

C

Caboni, T. C., 73, 77
Cacioppo, J. T., 103
Cadigan, J. M., 16
Cail, J., 22
Caldeira, K. M., 21
Calzada, E., 63
Campbell, B., 19, 23, 33, 34, 37
Campbell, J. F., 25
Campo, S., 50, 74
Canady, D., 88
Capone, C., 35, 44
Capowich, G., 89
Carey, K., 10, 32, 65, 66
Carey, K. B., 28, 33, 43, 83
Carey, M., 10, 65, 66, 83
Carini, R. M., 102, 103, 104
Carkoglu, A., 28, 65, 76
Caron, S., 15
Carpenter, D. D., 70
Cashel, M. L., 98
Cashin, J. R., 36, 39, 41, 45, 80
Cashwell, C. S., 31
Caudill, B. D., 19, 23, 33, 34, 37
Champion, H., 23, 39, 90
Chapman, L., 91, 98
Chauvin, C. D., 16, 17
Check, J., 55
Chen, Y., 20, 30, 44
Cheng, A., 29, 44
Chickering, A. W., 79, 81, 93
Christie-Mizell, C., 105, 109
Clapp, J. D., 65
Clark, G. A., 28, 44
Clayton, R. R., 17, 23
Cohan, M., 82, 83
Cohen, L. M., 65
Cokley, K., 50, 93
Cokley, K. O., 98
Cooper, D. L., 25, 65
Corsoro, C. L., 94
Crocker, J., 20, 23
Cronce, J. M., 27
Crosse, S. B., 19, 23, 33, 34, 37

D

Daniel, C., 95
Danielson, C., 18, 42
Danis, F. S., 60, 84, 86
D'arcy, H., 81
Daugherty, T. K., 92
Davenport, A. E., 14, 15, 17, 19, 32, 34, 37
Davidoff, O. J., 25
DeAngelo, L., 2
DeBard, R., 105, 107, 109, 118
DeJong, W., 21, 22, 23, 36, 38, 41, 45, 71
Del Boca, F. K., 16, 81
Delgado, M. S., 26
De Los Reyes, G., 32
de Man, A., 62, 98
Derevensky, J. L., 72
Derryberry, W. P., 10, 96
DeSantis, A. D., 1, 52, 67, 68, 74, 76
DeSimone, J., 20, 26, 44
Diebold, B. A., 22
Diekhoff, G., 69, 76
Dietrich, U. C., 24
Dimeff, L. A., 55, 84
Dodd, V. J., 24
Dorsey, A. M., 17, 23
Dowdall, G. W., 19, 31, 33, 37, 59, 75
Doyle, M., 63

Drout, C. E., 94
DuRant, R. H., 23, 39
Durkin, K. F., 28, 44, 70, 77
Dussault, C., 67

E

Eade, R., 10, 27, 44
Earley, C.,
Eberhardt, D., 94
Eckstein, R. P., 57
Edison, M., 102, 103, 104, 118
Einolf, C. J., 60, 75
Eisenhart, M., 86
Elias, B., 55
Elias, J. W., 10, 27, 44, 84
Elkins, B., 1
Ellsworth, C. W., 54
Engeln-Maddox, R., 85, 89
Engs, R. C., 22
Erickson, D., 31, 43
Evans, N. J., 96

F

Fabian, L., 31, 43
Fader, J. S., 27
Fairlie, A. M., 21, 25, 36, 45
Farley, E. J., 63, 76
Feinstein, J. A., 103
Fiel, R., 10, 27, 44
Finelli, C. J., 70
Fitzgerald, L. F., 55
Fleming, M. F., 34
Flowers, L., 103, 104, 109, 118
Folse, D. W., 20
Fong, T. W., 72
Foran, K. A., 87, 89
Forbes, G. B., 58, 59, 75, 81, 120
Forrest, K., 72
Foubert, J. D., 56, 57, 74
Fox, K., 89
Frank, M., 32
Frazier, C. E., 73

G

Gable, S. L., 85
Gage, E. A., 62, 75
Geisner, I. M., 27
Geller, E. S., 32
Gidycz, C., 63, 80
Gilbert, J. D., 71
Giles, S. M., 90
Gilmartin-Zena, P., 55
Ginexi, E., 19, 23, 33, 34, 37
Ginexi, E. M., 23, 33
Glassman, T. J., 24
Gledhill-Hoyt, J., 19, 37
Glindermann, K. E., 32
Gmutza, B. M., 31
Gordon, D., 29, 44
Graham, P., 105
Graham, P., 109
Graham, T. L., 55, 84
Graves, K. D., 90
Green, M. L., 10, 98
Grenier, C. E., 20
Griffiths, R. R., 21
Grossman, S. J., 37
Grubb, F., 105
Gryczynski, J., 38
Guardia, J. R., 96
Gupta, R., 72

H

Hagedorn, L. S., 103, 118
Hahn, E. J., 64
Haidt, J., 85
Hall, C. A., 93
Hall, J., 83
Halperin, S., 105, 109
Hamilton, L., 61, 75, 84, 85, 86
Hanson, D. J., 22
Harding, T. S., 70
Hardy, T. W., 72, 77
Harford, M., 18, 42
Harford, T. C., 32
Harrington, N. G., 17, 23
Harris, F. C., 85
Hayek, J. C., 102–104
Heatherton, T. F., 87
Hebert, T. P., 108
Heidenreich, L., 97
Helms, L. B., 1

Hemenway, D., 73, 77
Hennessy, N. J., 1
Hesp, G. A., 98
Hevel, M. S., 105, 107, 109, 118
Hinrichs, D. W., 10, 83
Hirschy, A. S., 73
Hirt, J. B., 91
Hoban, M. T., 98
Holland, D., 86
Holmes, H. W., 52, 113
Hoover, E., 48
Hoover, N. C., 49, 74
Hovey, C., 15
Howington, E. B., 71
Huang, J.-H., 41, 45
Huchting, K., 84
Huffman, E., 80
Hugenberg, K., 97
Hughey, M. W., 96, 99
Hull, J. G., 87
Hummer, J. F., 22, 41, 45
Humphrey, S. E., 58, 62, 75
Huson, L. M., 1
Hussey, H. D., 80, 95
Hutcheson, P., 81

I

Iwamoto, D. K., 29, 44

J

Janosik, S. M., 5, 7
Janusis, G., 67
Jarvis, W. B. G., 103
Jensen, J. G., 98
John, O. P., 87, 90
Johnson, K. B., 91
Johnson, L. R., 94
Johnson, M. B., 19
Johnston, L., 21, 26, 43, 76
Jones, R. L., 50, 52, 93
Josiam, B. M., 24
Juhnke, G. A., 31

K

Kahn, A. S., 58, 62, 75
Kasperski, S. J., 21
Keim, M. C., 80
Kelly, K., 2
Keltner, D., 87, 90
Ketchie Croff, J. M., 65
Khey, D. N., 73, 77
Kiesling, S. F., 82, 85
Kilmer, J. R., 27
Kimbrough, W. M., 52, 74, 81, 94
King, A., 50, 93
King, P. M., 102
Kloska, D., 21, 26, 43, 76
Klugman, J., 95
Knee, C. R., 29
Knight, J. R., 22, 66
Knox, D., 10
Koenig, F., 82
Kohlman, M. H., 55, 63, 75, 98
Koss, M. P., 55, 59, 75
Krendl, A. C., 87
Kring, A. M., 87, 90
Krull, J., 17, 25, 27, 29, 33, 34, 35, 39, 42, 43, 44
Krull, J. L., 42, 46
Kuh, G. D., 8, 13, 14, 15, 17, 19, 32, 34, 37, 43, 44, 101, 102, 103, 104, 107, 116
Kuo, M., 22, 31, 33

L

LaBeff, E., 69, 76
LaBrie, J. W., 17, 41, 22, 45, 84
LaBrie, R. A., 71, 77
Lac, A., 22, 84
Lackie, L., 62, 98
La France, B., 83
Laird, R., 35, 44
Lake, T., 105, 107
Landa, C., 81
Landeros, C., 98
Lane, E. J., 92
Lange, J. E., 65
Lanier, C., 63, 76
Lanza-Kaduce, L., 73
LaPlante, D. A., 71
Larimer, M. E., 10, 17, 22, 27, 55
Laszloffy, T. A., 97

Lavigne, A. M., 21, 36, 45
Lee, C. M., 24, 17, 26
Lee, C. S., 29, 44
Lee, H., 19, 20, 31, 33, 34, 37, 43
Lee-Olukoya, E., 52, 54, 74
Lefkowitz, E. S., 94
Leichliter, J. S., 37, 39, 45
Lenk, K., 31, 43
Leonard, E. F., 80
Leone, J. M., 57
Levin, S., 94, 96
Levine, H., 83
Lewis, M. A., 17
Liem, A. D., 108
Lindsay, N. K., 102
Lloyd-Richardson, E., 28, 65, 76
Lonsway, K. A., 55
Lopes, J., 67
Luckey, B., 19, 23, 33, 34, 37
Luhtanen, R., 20, 23
Lydun, A. R., 55

M

Madden, M., 48, 49, 53, 74
Maenner, G., 19, 37
Maggs, J., 24
Maggs, J. L., 25, 26, 94
Magoon, N. S., 87
Malamuth, N., 55
Mallett, K. A., 27
Marchesani, R. F., Jr., 120
Marlatt, G., 10, 22
Martell, D., 98
Martens, M. P., 15
Martin, B. A., 23, 39
Martin, G. L., 1, 182, 105, 107, 109, 118
Martinez, J. A., 70, 77
Martz, D. M., 90
Mason, K., 21, 22, 23, 38
Matney, M. M., 1, 122
Matthews, C. R., 22
Mayhew, M. J., 70
Mazerolle, P., 89
McCabe, D., 68, 76
McCabe, S. E., 21, 26, 43, 64, 66, 67, 76, 81
McClure, S. M., 82
McCoy, T. P., 23, 39, 64, 90
McGoldrick, K. M., 70
McGrath, P. B., 40, 41, 45
McInerney, D. M., 108
McLacken, J., 25
Meilman, P. L., 37, 39, 45
Meilman, P. W., 36, 37, 39, 41, 45
Menning, C. L., 61, 75
Miley, W. M., 32
Miller, K., 50, 93
Miller, M., 73, 77
Miller, S. A., 85, 89
Minow, J. C., 60, 75
Mitra, A., 23, 39
Mohler-Kuo, M., 59, 75, 86
Molasso, W. R., 4, 7, 101
Moody, J., 92, 98
Morales, M., 81
Morgan, N., 94
Morrell, H. E., 65
Moskey, E., 15
Motoike, J., 50, 93
Moynihan, M. M., 57, 81
Mueller, J. A., 98
Muhammad, G., 98
Murnen, S. K., 83, 55, 56, 63, 75, 98

N

Nanda, S., 26, 36, 41, 42
Neighbors, C., 17, 29, 41, 45
Nelson, S. M., 105, 109
Nelson, T. F., 20, 34, 43
Nguyen, N., 71
Nichter, M., 28, 65, 76
Noar, S. M., 67, 68, 76
Nocera, R., 62, 75
Nogrady, C. A., 55, 59
Nora, A., 102, 103, 104, 118
Norman, E. M., 1, 122
Norris, J., 55, 84
Nurius, P. S., 55, 84
Nuwer, H., 1, 52, 74, 82

O

O'Day, P. T., 102, 103, 104
O'Grady, K. E., 21
O'Hegarty, M., 17, 33
O'Malley, P., 21, 26, 43, 76
Orchowski, L., 63, 80
Oros, C. J., 55
Oswalt, S. B., 25
Owen, S. S., 51

P

Pace, D., 40, 41, 45, 106
Padavic, I., 85, 86
Page, R. M., 17, 33
Palmer, R. S., 27
Paquin, G., 67
Park, A., 17, 25, 27, 29, 33, 34, 35, 42, 43, 44
Park, C. L., 81, 88, 98
Parra, G. R., 88
Parries, M. T., 23, 39
Pascarella, E. T., 5, 6, 8, 13, 43, 98, 101, 102, 103, 104, 105, 107, 109, 116, 118
Paschall, M. J., 31
Passow, H. J., 70
Patrick, M. E., 17, 94
Patterson, T., 85
Patton, T. O., 84
Paxton, P., 92, 98
Payne, D. L., 55
Pedersen, E. R., 41, 45
Pendry, B., 1, 5, 7
Perkins, A. B., 5, 7
Petty, R. E., 103
Phillips, D. W., 70
Phua, J., 30, 44
Pierson, C. T., 1, 103
Pike, G. R., 102, 103, 106, 109, 118
Pinciaro, P. J., 60, 98
Pino, N. W., 69
Piquero, A. R., 89
Piquero, N. L., 89
Plucker, J. A., 36, 40, 45, 80
Pollard, N. J., 49, 74
Poulos, G., 50, 74
Powe, B. D., 65
Premeaux, S. R., 69
Presley, C. A., 36, 37, 39, 41, 45
Pressley, M., 108
Prior, J., 2
Pritchard, M. E., 105, 109
Protinsky, H. O., 88
Prouty, A. M., 88

R

Rankin, L., 24
Ray, R., 99
Rayens, M. K., 64
Raynor, D. A., 83
Read, J. P., 25
Real, K., 17, 23
Reed, M. E., 65
Reisser, L., 93
Rhoades, B. L., 25
Rhodes, S. D., 23, 39
Rice, N. D., 94
Rich, P., 32
Richardson, B. K., 93
Ridner, S. L., 64
Rienzo, B. A., 24
Rinker D.V., 71
Robbins, A., 1, 52, 74
Roberts, D., 80
Rockey, C. M., 71
Rockey, D. L., 71, 77
Rolnik, A. M., 84, 89
Rosenberg, P. J., 10, 83, 91
Rosow, J. A., 99
Ross, L. C., 7, 65
Ruiz, S., 2
Ryan, C. S., 73, 77, 87, 95, 100

S

Sacks, C., 105, 109, 118
Saltz, R. F., 31
Sanday, P. R., 56, 58
Sanua, M. R., 99
Saville, B. K., 91
Sawyer, R. G., 60, 98
Scherer, C. W., 16, 23
Schneider, S. K., 21, 22, 23, 38, 41, 45

Schroat, D. A., 31
Schuckit, M. A., 22
Schuh, J., 107
Schuhmann, P. W., 70
Schulenberg, J., 21, 26, 43, 64, 66, 76
Schulken, E. D., 60, 98
Schutt, M. D., 25
Schwartz, M. D., 55, 59
Scott-Sheldon, L., 10, 65, 66, 83, 90
Scribner, R., 21, 22, 23, 38
Seibring, M., 22, 32
Seifert, T. A., 5, 105, 109
Seligman, M. E. P., 91
Sessoms, A., 22
Severtis, R., 105, 109
Shaffer, H. J., 71
Sharkness, J., 2
Shead, N. W., 72, 77
Sher, K. J., 26, 29, 36, 41, 42, 46, 70, 77
Sheu, J., 24
Shonrock, M. D., 10, 27, 44
Sidanius, J., 94
Simmons, L. M., 87
Simonsen, N., 21, 22, 23, 38
Sinclair, S., 94
Sipple, J. W., 50, 74
Smeaton, G. L., 24
Smith, A. E., 16
Smith, C., 105, 109
Smith, K., 53
Smith, L. D., 94
Smith, M. A., 29
Smith, W. L., 69
Smithhisler, P., 1, 7
Spillane, J. F., 73
Spratt, J. T., 39
Spruill, N., 91
Stapleton, J. G., 57
Staten R., 64
Stearns, E., 97
Stefanov, M., 87
Stender, S. R. S., 88
Stevenson, J. F., 21, 36, 45
Stombler, M., 10, 82, 85, 97
Storch, E. A., 69, 76
Storch, J. B., 69, 76
Stuber, J. M., 95
Stuhldreher, T., 72
Stuhldreher, W., 72
Sturgis, E. T., 90
Sullivan, E. G., 96
Sumner, K. E., 62, 75
Sutfin, E. L., 64, 90
Sweeney, B., 61, 75
Sweet, S., 49
Syrett, N. L., 52, 82, 84, 93

T

Takamatsu, S., 29, 44
Taylor, D. M., 19
Taylor, S. H., 18, 42
Teed, C. M., 36, 40, 45, 80
Terenzini, P. T., 5, 6, 8, 98, 103, 104, 107, 118
Teter, C. J., 66, 67, 76
Theall, K., 21, 22, 23, 38
Thoma, S. J., 10, 96
Toomey, T., 31
Towvim, L. G., 41, 45
Trevino, L. K., 68, 76
Turner, A. P., 27, 55
Turrentine, C. G., 39
Turrisi, R., 19

U

Underwood, T., 10, 27, 44

V

Vandehey, M. A., 69, 76
Van Etten, S., 108
VanHecke, J. R., 102
Van Laar, C., 94
Veazey Morris, K. D., 88
Verdi, G., 67
Vescio, T. K., 10, 98
Vichesky, D., 51
Vincent, K. B., 21
Voas, R. B., 19

W

Wagenaar, A. C., 24
Wagoner, K., 90
Walls, T., 25
Walter, T., 17
Walters, S. T., 71
Wang, Z., 93
Ward, B., 38
Warkentin, J., 63, 80
Wasserman, T. H., 105, 109
Webb, B. M., 98
Webb, E. M., 67, 68, 76
Wechsler, H., 8, 13, 14, 15, 14, 15, 16, 17, 19, 20, 31, 32, 33, 34, 37, 43, 45, 59, 66, 71, 75, 77, 101, 116
Weitzman, E. R., 20, 34, 43, 44
West, J., 65
West, L. A., 83
Weyandt, L. L., 67
Whipple, E. G., 96
Whitley, B. E., 68, 76
Whitt, E. J., 103, 104, 107, 109, 118
Williams, C. T., 94
Williams, L. R., 26
Wilson, E., 34
Wilson, G. S., 105, 109
Wilson, K. G., 67, 109
Winsky, K., 10, 27, 44
Wolfe, T. W., 28, 44, 70
Wolfson, M., 64
Wood, M., 25, 44
Wood, M. D., 21, 25, 36, 45
Wood, P., 17, 27
Wuthrich, C. K., 61, 75
Wyatt, T. M., 71

X

Xuan, Z., 20, 34, 43

Y

Yacoubian, G. S., 66
Yandell, G., 57, 74
Yeung, K., 10, 82, 97
Young, A. M., 81

Z

Zakletskaia, L., 34
Zhang, M., 64
Zimmerman, J. D., 5, 7

Subject Index

A

AACSB. *See* Association to Advance Collegiate Schools of Business (AACSB)
Academic dishonesty, 68–70, 76
Academic performance, 105–106. *See also* Educational effects
Acceptance of Rape Myths Scale (ARM), 55
AFA. *See* Association of Fraternity/Sorority Advisors (AFA)
Alcoholism, 21–22
Alcohol-related behavioral effects, 13–46; alcohol dependence, 21–22; alcoholism, 21–22; binge drinking, 18–20; criticisms of terminology, 17; heavy episodic drinking, 20–21; new member education period and, 27–28; overview, 14–15; previous experience, 25–27; problem drinking, 21–22; rates and statistics on, 17–18; research design for, 15–16; special occasion/high-risk drinking, 23–24; terminology in, 15–16; weekly and monthly consumption, 22–23
Alcohol use; at fraternity parties, 30–32; within fraternity/sorority group, 35–37; fraternity/sorority membership and, 20–30; fraternity/sorority group *vs.* athletes, 37–39; fraternity/sorority group *vs.* other campus-based organizations, 39–41; in fraternity and sorority houses, 32–35; intracluster correlation coefficients, 41; new member education period and, 27–28; patterns during and after college, 42; socialization and organizational effects of, 28–30
American College Testing Program (ACT), 103
ARM. *See* Acceptance of Rape Myths Scale (ARM)
Association of Fraternity/Sorority Advisors (AFA), 3, 7
Association to Advance Collegiate Schools of Business (AACSB), 69–70

B

BAS-R. *See* Bystander Attitude Scale, Revised (BAS-R)
BGF. *See* Black Greek Fraternity (BGF)
Binge drinking, 18–20; criticism of standard definition, 17; definition of, 16; fraternity/sorority members and, 15
Black Greek Fraternity (BGF), 50, 52
Body image, 87–91; and disordered eating, 87–90; identity formation and, 90–91
Body Mass Index (BMI), 88, 99

Bulimia, 88
Bulimia Test-Revised (BULIT-R), 88
Bystander Attitude Scale, Revised (BAS-R), 56

C

Center for the Study of the College Fraternity (CSCF), 7
Chi Omega Fraternity, 3
Chi-square tests, 65
Classroom civility, 73
Coercion, sexual, 58–59; participation in sports and, 75; victimization in, 60
College Student Experiences Questionnaire (CSEQ), 106
Collegiate Assessment of Academic Proficiency (CAAP), 103
CORE. *See* Core Alcohol and Drug Survey (CORE)
Core Alcohol and Drug Survey (CORE), 15, 17, 24, 32; alcohol frequency from, 33–34; alcohol use patterns *vs.* personal beliefs, 18–19
CSCF. *See* Center for the Study of the College Fraternity (CSCF)
Cybercrime, 73, 77

D

Daily Drinking Questionnaire (DDQ), 15, 17, 22, 27, 55, 63
DDQ. *See* Daily Drinking Questionnaire (DDQ)
Depression, 91–92, 98
Disordered eating, 87–90
Drug use, 47, 63–64; ecstasy, 66; illegal use of stimulant drugs, 67–68; marijuana, 66; opioid analgesics, 66; *Salvia divinorum*, 64–66; smokeless tobacco, 65; smoking, 64–66; "dry campuses," 19

E

Eating Attitudes Test (EAT), 88
Eating Disorder Inventory (EDI), 88, 89
Ecstasy use, 66
Educational effects, of fraternity/sorority membership, 101–109; academic performance, 105–106; college persistence, 105–106; comparison within-group, 107–108; critical thinking and, 104–105; graduation and, 105–106; other educational effects, 106–107; overview, 101–102; reasoning skills and, 104–105; research methods in, 102–103; terminology in, 102–103
ERAC. *See* Extreme Ritualistic Alcohol Consumption (ERAC)
Extreme Ritualistic Alcohol Consumption (ERAC), 24

F

Fake ID use, 70–72
Fraternity and sorority group, 1–11; criticisms of terminology, 17; fake ID use, 70–72; freshmen membership to, 1–11; gambling and, 70–72; hazing and, 47–54; research questions on, 5–6; sex-related research in, 54–56; terminology in, 3–4
Fraternity and Sorority Knowledge Community (FSKC), 8
Fraternity and sorority membership, 1–11; academic dishonesty and, 68–70, 76; alcohol-related behavioral effects, 13–46; educational effects of, 101–109; for alcohol use, 20–30; freshmen intending, 1–11; IEO model for, 9–11; psychosocial effects of, 79–100
Fraternity and sorority research, 8–11; approach to, 8; importance of topic in, 6–8; theoretical consideration in, 9–11
Fraternity Gang Rape, 58
"Fraternity members," 3
Fraternity parties, alcohol use in, 30–32
Fraternity/sorority affiliation, disordered eating and, 90; educational impact of, 109; excess drinking and, 23, 28; self-reported cognitive growth and, 104

Freshman membership, 1–11
"Friendship density," 96
FSKC. *See* Fraternity and Sorority Knowledge Community (FSKC)

G

Gambling, 70–72
Graduation, 105–106. *See also* Educational effects

H

Harvard School of Public Health College Alcohol Study, 14, 15
Hazing, 47–54; research in journal articles, 49–52; research in other publications, 52–54
Hazing in View: College Students at Risk, 48
HBCU. *See* Historically Black Colleges and Universities
Heavy episodic drinking (HED), 16, 20–21, 43, 59, 71
HERI. *See* Higher Education Research Institute (HERI)
Higher Education Research Institute (HERI), 2
High-risk drinking, 13, 23–24
Hispanic Serving Institutions (HSI), 96
Historically Black Colleges and Universities (HBCU), 65, 96
"Hooking up" culture, 85–86
Hostility Toward Women Scale, 55

I

Identity formation, 81–87; and body image, 90–91; fraternity involvement and, 81–84; sorority involvement and, 84–87
IEO model. *See* Input-Environment-Output (IEO) model
Illinois Rape Myth Acceptance Scale (IRMA), 55, 56
Input-Environment-Output (IEO) model, 9–11
Inter/national professionals, recommendations for, 115–116
IRMA. *See* Illinois Rape Myth Acceptance Scale (IRMA)

J

Journal of College Student Development, 14

M

Marijuana use, 66
Marital rape, beliefs of, 57
Moral development, 79; and ethical issues, 93–94; virtuous acts and, 99
Multicultural Personality Questionnaire (MPQ), 94

N

NALFO. *See* National Association of Latino Fraternal Organizations
NASPA. *See* National Association of Student Personnel Administrators (NASPA)
National Association of Latino Fraternal Organizations (NALFO), 97, 118
National Association of Student Personnel Administrators (NASPA), 7–8, 48
National College Health Risk Behavior Survey (NCHRBS), 15, 20, 26, 63
National Household Survey on Drug Abuse, 63
National Institute on Alcohol Abuse and Alcoholism (NIAAA), 16
National Multicultural Greek Council (NMGC), 3
National Panhellenic Conference (NPC), 3, 4, 53, 96, 97, 115, 116, 118
National Pan-Hellenic Council (NPHC), 3, 4, 53, 81, 96, 97, 118
National Study of Student Learning (NSSL), 102–103
National Survey of Student Engagement (NSSE), 102–103
NCHRBS. *See* National College Health Risk Behavior Survey (NCHRBS)
Need for Cognition Scale (NCS), 103
New York Times, 1
NHPC, 99

NIAAA. *See* National Institute on Alcohol Abuse and Alcoholism (NIAAA)
NIC. *See* North-American Interfraternity Conference (NIC)
NMGC. *See* National Multicultural Greek Council (NMGC)
Nonmember drinking, 29
North American Interfraternal Foundation, 48
North-American Interfraternity Conference (NIC), 1, 2, 7, 96, 97, 99, 116, 118
NPC. *See* National Panhellenic Conference (NPC)
NPHC. *See* National Pan-Hellenic Council (NPHC)
NSSE. *See* National Survey of Student Engagement (NSSE)
NSSL. *See* National Study of Student Learning (NSSL)

O

Objectified Body Consciousness Scale (OBCS), 88, 89
Opioid analgesics use, 66
Oracle, 3, 7
Organized recreational sports participants (ORSP), 38
ORSP. *See* Organized recreational sports participants (ORSP)
"Othering," 97

P

Positive Attitude toward Literacy Scale (PALS), 103
Problem drinking, 21–22
Problem statement, of fraternity and sorority, 4–5; organization of, 11; purpose of, 5
Psychosocial effects, of fraternity/sorority membership, 79–100; attitudes and values toward self, 79–81; attitudes toward others, 94–95; body image, 87–91; depression, 91–92; disordered eating, 87–90; ethical issues and, 93–94; identity formation, 81–87, 90–91; moral development, 93–94, 99; overview, 79; self-esteem, 91–92; sense of belonging, 91–92; understanding of diversity and others, 95–97

R

Rape myths, 56–57
Rape Myths Acceptance Scale, 55
Recommendations, for practice and research, 111–122; for alumni and volunteers, 114–115; for campus professionals, 111–114; for fraternity/sorority collegiate members, 116–117; for future research, 118–119; for inter/national professionals, 115–116; overview, 111; for policy makers, 111–114; for refining research, 120–121
Rosenberg Self-Esteem Scale (RSES), 91
RSES. *See* Rosenberg Self-Esteem Scale (RSES)

S

SAAFS. *See* Survey of Attitudes about Fraternities and Sororities (SAAFS)
Salvia divinorum, 64–66
SAQ. *See* Student Alcohol Questionnaire (SAQ)
Sense of belonging, 91–92
SES. *See* Sexual Experiences Survey (SES)
Self-esteem, 79, 85, 88–89, 91–92, 98
Sex-related research, 54–63; beliefs about rape, 56–57; bystander intervention, 56–57; coercion, 58–59, 60, 75; fraternity members *vs.* athletes, 62–63; instruments, terminology, and criticism, 54–56; rape myths, 56–57; sexual aggression, 58–59, 62–63, 74–75; sorority as at-risk group for sexual assault, 59–62
Sexual aggression, 58–59, 62–63, 74–75
Sexual assault, 59–62
Sexual Experiences Survey (SES), 55
SLT. *See* Smokeless tobacco (SLT)
Smokeless tobacco (SLT), 65

SOGS. *See* South Oaks Gambling Screen (SOGS)
"Sorority members," 3
South Oaks Gambling Screen (SOGS), 71
Special occasion drinking, 23–24
Stereotyping, 73–74
Stimulant drugs, illegal use of, 67–68
Student Alcohol Questionnaire (SAQ), 15
Student Leadership Inventory (SLI), 80
Survey of Attitudes about Fraternities and Sororities (SAAFS), 50

U

UniLoa. *See* University Learning Outcomes Assessment (UniLoa)
University Learning Outcomes Assessment (UniLoa), 7

W

Wabash National Study of Liberal Arts Education (WNS), 102, 103
"Whistle blowing" concept, 93

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