

FRATERNITY AS “ENABLING ENVIRONMENT:” DOES MEMBERSHIP LEAD TO GAMBLING PROBLEMS?

J. Patrick Biddix, Ph.D. and Thomas W. Hardy, Ed.D.

Researchers have suggested that fraternity membership is the most reliable predictor of gambling and gambling problems on campus. The purpose of this study was to determine if problematic gambling could be linked to specific aspects of fraternity membership. Though the null hypothesis (no enabling environment) failed to be rejected, descriptive analysis confirms that moderate rates of problem gambling are exhibited by subsets of fraternity members (officers, younger members, those who live with other members). Further, predictive analysis revealed that gambling online and betting on skill games, such as golf or pool, increased the likelihood of problem gambling among fraternity members. Recommendations included a discussion of initiatives at another campus, as well as action steps for developing education and awareness programs.

Introduction

Gambling has long been regarded a harmless diversion in the continuum of maladaptive fraternity behaviors, largely populated by cases related to hazing, alcohol, and sexual assault. Anecdotes of harmless card playing and sport betting dot the historical accounts of fraternity life. However, a recent wave in the popularity of gambling among college students (Hardy, 2006; McClellan & Winters, 2006), due in part to ESPN’s broadcast of the *World Series of Poker* (Lovell, 2005, July) as well as to the proliferation of online poker sites (Swartz, 2005, February 8) suggests reconsideration of gambling’s potentially harmful effects. Until recently, few empirical studies have targeted aspects of fraternity membership as a predictive variable in problematic gambling. Nonetheless, both *Sports Illustrated* (Layden, 1995, April 3) and *Playboy Magazine* (Zammett, 2000, September) have published exposés of college gambling, implicating fraternity members as the core of the problem.

Studies of fraternity gambling treat membership as a dichotomous variable, rarely accounting for specific organizational characteristics, such as affiliation status, residence, or peer perceptions. The purpose of this study is to consider multiple demographic membership aspects in an attempt to determine if problematic gambling is pervasive among all members, or whether a more precise population can be determined for targeting intervention. A long-term goal of this study, outside of the scope of this article, was to share the results with undergraduate fraternity members to build a shared educational program focused on preventing problematic gambling behavior.

Background

In 1980, the American Psychological Association (DSM-III) recognized pathological gambling as an impulse control psychological disorder. Pathological gambling is the persistent and recurrent maladaptive gambling behavior that disrupts personal, family, or vocational pursuits.

The individual may be preoccupied with gambling (e.g., reliving past gambling experiences, planning the next gambling venture, or thinking of ways to get money with which to gamble). A problem gambler displays some signs of pathological gambling, but not to the severity to be classified with the disorder.

To identify this impulse control behavior, Lesieur and Blume (1987) developed the South Oaks Gambling Screen (SOGS). Lesieur et al. (1991) conducted the first multi-institutional comprehensive study on gambling among college students. Using the SOGS, the researchers found that males gambled more than females (90% to 82%), 15% demonstrated problem gambling, and 5.5% were classified as pathological gamblers. The rates of problem and pathological gamblers among college students were 4 to 8 times higher than in the general population.

Review of Literature

Fraternity Gambling

Among several variables that were significantly associated with the decision to gamble during the previous school year, LaBrie, Shaffer, LaPlante, and Wechsler (2003) reported that fraternity or sorority membership (Odds Ratio or OR = 1.66) (i.e., the ratio of the relative risk of being a gambler versus not a gambler), as well as male residence in fraternity houses (OR = 1.89) were correlated with the decision to gamble during the previous school year. In their predictive model, members of a fraternity or sorority were more likely to gamble in the past year than non-affiliated students (OR = 1.17), while fraternity house residence did not remain a significant predictor.

Using the SOGS, D. Rockey, Beason, Howington, C. Rockey, & Gilbert (2005) examined fraternity and sorority membership as a predictor of prevalence rates of gambling. The researchers found that gender impacts prevalence rates of gambling as well as probable problem and pathological gambling. Further, fraternity members were found to have higher prevalence rates of probable pathologic gambling (12.3%), as well as probable problem gambling (14.8%) versus non-members (5.8% and 5.4%, respectively).

While the Rockey et al. (2005) study suggests an important consideration for gambling prevalence among college students, linking fraternity membership to the highest rates, the results are limited by a small sample ($n = 81$), as well as the lack of important distinctions. For example, the researchers fail to disaggregate those that live in the house from those that visit, live with other fraternity brothers in alternate housing, or live elsewhere (residential life, with parents, other friends). Further, the researchers fail to distinguish between fraternity brothers, friends from other fraternities, or non-affiliated friends, making a peer effect based on community among fraternity and sorority affiliated students an unsubstantiated leap. Empirical evidence suggests that aspects of the fraternity environment contribute to a gambling culture. To further explore this idea, related research on alcohol behaviors is considered.

Common to the discussion from both studies, as well as to the aforementioned media accounts is the perception that fraternities validate, promote, and at times, reward gambling behavior. Rockey et al. (2005) identify this as “an enabling environment.” While little empirical evidence

from gambling studies explores this concept, related research on alcohol behaviors provides a framework.

An “Enabling Environment”

From a policy standpoint, the Association of Fraternity Advisors (AFA), in the reaffirmed (1999) *Position Statement on Risk Management Practices and Education Regarding Alcohol and Drug Use*, addresses peer norms and environmental influences within the fraternity and sorority community.

Fraternities and sororities may serve as powerful learning communities, providing an environment which presents the reality of peer pressure to follow the norm of alcohol use in both formal and causal settings. As peer pressure to drink and/or use illegal drugs is certainly a reality, peer pressure provides strong moderating forces as well. (2 ¶)

Related literature on fraternity member alcohol and other drug abuse suggests three adaptive behavior correlates, 1) self-selection (Baer, 1994; Klein, 1992), 2) inaccurate perceptions (Berkowitz, 2005; Carter & Kahnweiler, 2000; Haines, 1996), and 3) socialization/fraternity culture (Faulkner, Alcorn, & Garvin, 1989; Kuh & Arnold, 1993). While general studies of fraternity alcohol consumption indicate an overall trend toward heavier patterns of drinking and abuse (for comprehensive reviews, see Caudill et al., 2006; Saltz & Elandt, 1986; Wilder & McKeegan, 1999), few studies examine within-group characteristics.

Researchers suggest that three organizational cultures – individual, chapter, and community – affect the prevalence of heavy drinking among fraternity members (Sher, Bartholow, & Nanda, 2001). Specifically, Wilder and McKeegan (1999) found that the fraternity community’s effect on the behavior of individual members may be most detrimental to adverse behavior, echoing Rockey et al.’s (2005) enabling environment hypothesis.

Studies of within-group demographics lean toward membership characteristics as most problematic. In a study focused on new members, Faulkner, Alcorn, and Garvin (1989) found that the more new members perceived alcohol to be important in socializing, the greater the consumption. In a cultural analysis of alcohol use in pledgship, Kuh and Arnold (2006) discovered that consumption of alcohol by fraternity members taught new members how alcohol is to be used as part of the fraternity experience. Members saw themselves as their own norm group, subject to the culture of the group itself rather than that of the institution or of external groups, even the inter/national organization. Perhaps most disturbingly, fraternity and sorority leadership exhibited binge drinking behavior at least as high and in some cases higher, than members (Cashin, Presley, & Meilman, 1998).

Wechsler et al.’s (2002) research was among the first to account for the residential environment as affecting alcohol consumption among fraternity members. In the four survey years (1993, 1997, 1999, 2001), an average of 80% of members living in a fraternity house exhibited patterns of binge drinking, nearly double that of any other residential subpopulation during that same time frame. Similarly, Presley, Meilman, and Leichter (2002) found that those members who live in the chapter house drink more than members who live elsewhere.

Method

Purpose, Hypothesis, and Research Question

The purpose of this study was to determine prevalence rates of problem and pathological gambling among fraternity members, based on an enabling environment hypothesis. As suggested by prior research, an enabling environment is indicated by the following characteristics:

1. Membership status (officers exhibit behavior, often at higher rates)
2. Years of membership (younger members adapt behavior)
3. Place of residence (behavior is praised and encouraged at the chapter house)
4. Others with a gambling problem (group and community peer effects)

To evaluate, the null hypothesis was tested:

H₀: Aspects of an “enabling environment” are not significantly associated with problem gambling among fraternity members.

Questions related to gambling behavior (largest amount of money spent, types of gambling) were also added to the survey. The following research question informed a predictive analysis.

Which aspects of an enabling environment, demographic questions, or questions related to gambling activities predict problem gambling among fraternity members?

Participants

The data for this investigation were obtained from fraternity members at a medium-sized, regional university in the southeast. Of the 9,584 students attending the university under study, 10.72% of men (365/3914) belonged to one of the twelve fraternities represented on campus. Participants in this study were nearly evenly split between members (28) and officers (23), though those who lived with fraternity brothers (34) was double that of those who lived elsewhere (17).

Instrument

The SOGS was used to assess pathological and problem gambling in this study. The SOGS was found to have concurrent validity ($r=.86$, $p < .001$) and reliability (Cronbach's alpha = .97, $p < .001$) by the original researchers (Lesieur & Blume, 1987). Recently, Stinchfield (2003) reported slightly lower, though consistent, results (validity, $r=0.77$, $p < 0.01$; reliability, Cronbach's alpha = 0.81). The SOGS allows additional demographic questions without affecting reliability or validity (Lesieur & Blume, 1993). A score of 5 and above represents the tendency to be in the range of scores for a pathological gambler and a score of 2 to 4 represents the tendency to be in the range of the scores for a problem gambler.

Procedure

The SOGS was administered via Web survey, hyperlinked in an email. Emails were sent to the university addresses of 363 (of 365) fraternity members. The text of the email served as an informed consent, as requested by the institutional review board, detailing the purpose of the study and assuring anonymity and confidentiality. According to basic descriptive data available

through the Web survey, the instrument was viewed 90 times. Fifty one members responded, for an overall reply ratio of 56.66%. The overall survey response rate was 14%, slightly higher than the expected male response rate (12.3%) for web-based surveys (Sax, Gilmartin, & Bryant, 2003).

Data Analysis

SPSS version 15 was used for analysis. Descriptive statistics were calculated to assess the frequency of gambling among the subcategories of participants. Data were screened prior to analysis. No missing cases were evident. The complete data file was checked against the detail summary provided by the Web survey and found to be identical.

Results

Enabling Environment Hypothesis

The null hypothesis was tested using chi-squares analysis for each subcategory. Cramér's *V* was calculated to test significance. Table 1 is a summary of results.

Table 1

Fraternity Characteristics by SOGS Classification (No Problem, Problem, Pathological Gambler)

Fraternity Characteristic	No Problem		Problem		Pathological		χ^2	Cramér's <i>V</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Membership status							10.111	.315*
Member (non-officer)	20	39.2	5	9.8	–	–		
First semester member	1	2.0	2	3.9	–	–		
Officer (non-exec)	5	9.8	3	5.9	1	2.0		
Officer (exec)	7	13.7	7	13.7	–	–		
Years of membership							6.159	.246
1	9	17.6	6	11.8	–	–		
2	5	9.8	5	9.8	1	2.0		
3	10	19.6	3	5.9	–	–		
4	9	17.6	3	5.9	–	–		
Place of residence							6.416	.251
Fraternity house	5	9.8	3	5.9	–	–		
Apartment/house w/members	16	31.4	9	17.6	1	2.0		
Residence hall	–	–	2	3.9	–	–		
Home with parents	5	9.8	1	2.0	–	–		
Other	7	13.7	2	3.9	–	–		
Others with a gambling problem								
Fraternity brother	8	15.7	6	11.8	–	–	1.074	.145
Friend in another fraternity	6	11.8	5	9.8	–	–	1.117	.148
Non-affiliated friend	11	21.6	6	11.8	–	–	.529	.102
Relative (recoded)	3	5.9	5	9.8	–	–	3.693	.269

* *p* = .120

Membership status. Of the 51 respondents, 49 (96%) indicated that they had gambled at least once. Approximately 22% of the officers sampled scored in the problem range, compared to 14%

of the members (Table 2). A slight, but unacceptable ($p = .120$) significant association was identified between membership status and SOGS classification [$\chi^2 (6, n = 51) = 10.11, p = .12$, Cramér's $V = .315$].

Years of membership. Younger members fell into the problem gambler classification more often than older members (1 – 2 years, 22%, 3 – 4 years 11%), and the only case of pathological gambling also came from the younger group. No statistically significant associations were found between years as a members and problem and pathological gambling.

Place of residence. A higher percentage of members who lived with other members (22%) were found to be problem gamblers, and the only case of pathological gambling also came from this group. No statistically significant associations were found between residence and problem and pathological gambling.

Others with a gambling problem. The most common group identified by the members as having a gambling problem were “non-affiliated friend” ($f = 17, 33\%$), followed by “fraternity brother” ($f = 14, 28\%$), then “friend in another fraternity” ($f = 11, 22\%$). The lowest scoring group, “relative,” (consisting of father, mother, sibling, grandparent, or other) made up only 16% ($f = 8$) of the sample. No statistically significant associations were found between others with gambling problems and problem and pathological gambling.

Table 2
Gambling Characteristics by SOGS Classification (No Problem or Problem Gambler)

Gambling Characteristic	No Problem		Problem		χ^2	Cramér's V
	f	%	f	%		
Amount of money spent					15.549	.552**
Never gambled	2	3.9	–	–		
\$1 or less	2	3.9	–	–		
More than \$1 up to \$10	14	27.5	2	3.9		
More than \$10 up to \$100	15	29.4	11	21.6		
More than \$100 up to \$1,000	–	–	5	9.8		
Types of gambling						
Played cards for money	22	43.1	17	33.3	4.995	.313*
Played skill game for money (pool, golf)	15	29.4	17	33.3	11.958	.484**
Played the numbers or lottery	15	29.4	11	21.6	1.142	.150
Bet on sports	9	17.6	13	25.5	9.594	.434***
Gambled in a casino	9	17.6	7	13.7	.730	.120
Played machines (slots, poker)	9	17.6	5	9.8	.001	.005
Bet on sports with a bookie	4	7.8	4	7.8	.899	.133
Bet on animals (horses, dogs)	4	7.8	3	5.9	.203	.063
Played Bingo for money	2	3.9	3	5.9	1.482	.170
Pull tabs or "paper" games	–	–	2	3.9	3.816	.274
Play dice games for money	–	–	–	–	–	–
Gambled online	1	2.0	9	17.6	16.301	.565***

* $p \leq .05$
 ** $p \leq .01$
 *** $p \leq .001$

Research Question

Demographic variables related to amount of money spent while gambling and types of gambling were also included on the survey. The dependent variable, SOGS classification, was dichotomized to meet the requirements for binary logistic regression. To recode this variable, the single case of pathological gambler was recorded as a problem. Table 2 is a summary of descriptive and chi-square analyses.

Amount of money spent. Consistent with Rockey et al. (2005), the majority of participants (90%) responded that they gambled less than \$100 during the day in which they gambled most. A significant association was found between amount of money spent and problem gambling [$\chi^2 (4, n = 51) = 15.549, p = .004, \text{Cramér's } V = .552$].

Types of gambling. According to survey results, fraternity members preferred card games, gaming for money (pool, golf), lotteries, sports, casino gambling, and slot machines/video poker most. Played cards for money [$\chi^2 (1, n = 51) = 4.995, p = .025, \text{Cramér's } V = .313$]; game for money (pool, golf) [$\chi^2 (1, n = 51) = 11.958, p \leq .001, \text{Cramér's } V = .484$]; and bet on sports [$\chi^2 (1, n = 51) = 9.594, p = .002, \text{Cramér's } V = .434$] were significantly associated with problem gambling.

Gambled online. Members were asked whether or not they gambled online. A significant association was found between gambling online and problem gambling [$\chi^2 (1, n = 51) = 16.301, p \leq .001, \text{Cramér's } V = .552$].

Predicting gambling behavior. Forward logistic regression was conducted to determine which independent variables (amount of money spent, played cards for money, played skill game for money, bet on sports and gambled online) were predictors of SOGS classification (no problem/problem gambling behavior). Regression results indicated a fairly good fit for two predictors (played skill game for money and gambled online) (-2 Log Likelihood=43.178) and a statistically reliable result for distinguishing SOGS classification [$\chi^2 (2, n = 51) = 23.045, p \leq .001$]. The model correctly classified 80.4% of the cases. Regression coefficients are presented in Table 3. Odds ratios for played skill game for money (OR = 10.286) and gambled online (OR = 15.750) revealed a significant increase in the likelihood of being a problem gambler when the predictors increase by one.

Table 3
Regression Coefficients

	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio (OR)
Played skill game for money	2.331	4.339	1	.037	10.286
Gambled online	2.757	1.143	1	.016	15.750
Constant	-2.890	7.915	1	.005	

Discussion

Research has shown that gambling is similar to alcohol use (Greene et al., 2000) and sexual promiscuity (Smith & Brown, 1998). While Rockey et al. (2005) suggested an enabling

environment among fraternity members, college, in general, constitutes an atmosphere that is more permissive and encouraging of venturous actions. Just as not all college students who try alcohol become alcoholics or those who experiment sexually become promiscuous, not all fraternity members who gamble will develop a disorder.

Though the research failed to reject the null hypothesis (no enabling environment), descriptive analysis suggests that moderate rates of problem gambling are exhibited by subsets of fraternity members. Most concerning is that fraternity officers scored higher in the problem range. Living with fraternity brothers (in the chapter house or elsewhere) was also telling, as gambling was more prevalent among these cases. Though only a small portion of the sample gambled online, those members exhibited predictive signs of problem gambling. With the easy access to online casinos, especially poker, how are advisors to monitor this behavior?

What constitutes the institutional sponsorship of gambling behaviors on a college campus? Are Texas Hold 'em poker nights between fraternities sanctioned by the student activities office acceptable? If they are, how do student affairs professionals and fraternity advisors deal with the small segment of the population that develops a problem or pathological need to gamble at ever higher stakes?

Action Steps to Consider

The challenge that campus educators face is engaging students in learning opportunities about gambling. Gambling education and intervention programs are in their infancy, but a handful of institutions have launched successful programs, such as one author's experience at the University of Alabama (UA). Co-chaired by Athletics and Residential Life, UA educators developed the Gambling Action Team, a campus-partnership response. Education and awareness programs reached segments of every population including fraternity members. The Team met regularly, held workshops, invited speakers to campus, and developed a comprehensive plan of action including a calendar of events, a Web site devoted to gambling issues for students, debt management and counseling assistance, and an annual assessment report. Such methods have shown some early success, but much more work is needed in this area.

Undergraduate fraternity leaders themselves need to initiate a programmatic response to gambling for any intervention to be successful, though a potentially heavier rate of gambling among leaders is a first priority for campus educators. Afterward, fraternity members could be directed to a self-evaluation (such as the free online version of the SOGS at <http://www.addictionrecov.org/southoak.htm>) to initiate inter-chapter discussion and possible education programs. Perhaps the significance of the issue warrants asking fraternity leaders to note on any given night how many of their members are in the lobby of the chapter house playing poker or making friendly wagers on the pool table, how many are in their rooms in an online casino making wagers, and how many have either just returned or are preparing to go on a road trip to the casinos only a few hours drive from most college campuses? Not only campus educators, but also officers, advisors, and alumni have to be engaged in acknowledging the detrimental short as well as long-term effects of gambling to have any lasting success in affecting the "enabling environment" that supports gambling within the chapter house.

Limitations and Future Research

A sample size of 51 from one institution limits generalization, though results were consistent with similar studies of gambling among fraternity men (Rocky, et. al, 2005). Location and institutional type may also have affected results, though descriptive findings were consistent with national studies conducted by Lesieur et al. (1991). The variables measuring the enabling environment hypothesis, though grounded in empirical findings, may not sufficiently address critical aspects of fraternity and community culture. These aspects would perhaps be more sufficiently treated with qualitative techniques to better understand aspects of peer culture(s) and influences. Social network analyses would significantly add to the research on this subject, and perhaps serve as a better informant of enabling environment, risk-taking behaviors among affiliated students in general, and similar peer effect hypotheses. Finally, education and intervention programs should be assessed and reported to inform best practices and recommendations.

References

- Association of Fraternity Advisors. (1999). Position Statement on Risk Management Practices and Education Regarding Alcohol and Drug Use. Retrieved April 10, 2007, from http://www.fraternityadvisors.org/Resolutions/Alcohol_Drug_Use.aspx
- Baer, J. S. (1994). Effects of college residence on perceived norms for alcohol consumption: An examination of the first year in college. *Psychology of Addictive Behaviors*, 8(1), 43-50.
- Berkowitz, A. D. (2005). An overview of the social norms approach. In L. C. Lederman & L. P. Stewart (Eds.), *Changing the Culture of College Drinking: A Socially Situated Health Community Campaign* (pp. 193-214). Cresskill, NJ:Hampton Press, Inc.
- Carter, C. A., & Kahnweiler, W. M. (2000). The efficacy of the social norms approach to substance abuse prevention applied to fraternity men. *Journal of American College Health*, 49, 66-71.
- Cashin, J. R., Presley, C. A., & Meilman, P. W. (1998). Alcohol use in the Greek system: Follow the leader? *Journal of Studies on Alcohol*, 59(1), 63-70.
- Caudill, B. D., Crosse, S. B., Campbell, B., Howard, J., Luckey, B., & Blane, H. T. (2006). High-risk drinking among college fraternity members: A national perspective. *Journal of American College Health*, 55(3), 141-155.
- Faulkner, K. K., Alcorn, J. D., & Garvin, R. B. (1989). Prediction of alcohol consumption among fraternity pledges. *Journal of Alcohol and Drug Education*, 34(2), 12-20.
- Greene, K., KrcMar, M., Walters, L. H., Rubin, D. L., & Hale, J. L. (2000). Targeting adolescent risk-taking behaviors: The contributions of egocentrism and sensation-seeking. *Journal of Adolescence*, 23, 439-461.

- Haines, M. P. (1996). A social norms approach to preventing binge drinking at colleges and universities. Retrieved April 10, 2007. (ERIC Document Reproduction Service No. ED421390)
- Hardy, T. W. (2006). A minute to learn and a lifetime to master: Implications of the poker craze for college campuses. In T. W. Hardy, G. S. McClellan, & J. Caswell (Ed.), *Gambling On Campus: New Directions for Student Services No. 113* (pp. 33-41). San Francisco: Jossey-Bass.
- Klein, H. (1992). Self-reported reasons for why college students drink. *Journal of Alcohol and Drug Education, 37*(2), 13-28.
- Kuh, G. D., & Arnold, J. C. (1993). Liquid bonding: A cultural analysis of the role of alcohol in fraternity pledgship. *Journal of College Student Development, 34*(5), 327-334.
- LaBrie, R. A., Shaffer, H. J., LaPlante, D. A., & Wechsler, H. (2003). Correlates of college student gambling in the United States. *Journal of American College Health, 52*(2), 53-62.
- Layden, T. (1995, April 3). Bettor education. *Sports Illustrated, 82*, 68-83.
- Lesieur, H. R., & Blume, S. B. (1987). The South Oaks Gambling Screen (SOGS): A new instrument for the identification of pathological gamblers. *American Journal of Psychiatry, 144*, 1184-1188.
- Lesieur, H. R., & Blume, S. B. (1993). Revising the South Oaks Gambling Screen in different settings. *Journal of Gambling Studies, 9*(3), 213-223.
- Lesieur, H. R., Cross, J., Frank, M., Welch, M., White, C. M., Rubenstein, G., et al. (1991). Gambling and pathological gambling among university students. *Addictive Behaviors, 16*, 517-527.
- Lovell, R. (2005, July). Gambling: The new drug of choice. *Essentials*. Retrieved April 12, 2007 from <http://www.fraternityadvisors.org/Essentials/200507/Gambling.aspx>
- McClellan, G. S., & Winters, K. C. (2006). Gambling: An old school new wave challenge for higher education in the twenty-first century. *New Directions for Student Services, 113*, 9-23.
- Pike, G. R., Smart, J. C., Kuh, G. D., & Hayek, J. C. (2006). Educational expenditures and student engagement: When does money matter? *Research in Higher Education, 47*(7), 847-872.
- Presley, C. A., Meilman, P. W., & Leichter, J. S. (2002). College factors that influence drinking. *Journal of Studies on Alcohol, 14*, 82-90.

- Rockey, D. L., Beason, K. R., Howington, E. B., Rockey, C. M., & Gilbert, J. D. (2005). Gambling by Greek-affiliated college students: An association between affiliation and gambling. *Journal of College Student Development, 46*(1), 75-87.
- Saltz, R., & Elandt, D. (1986). College student drinking studies, 1976-1985. *Contemporary Drug Problems, 13*(1), 117-159.
- Sax, L., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in Web and paper surveys. *Research in Higher Education, 44*(4), 409-432.
- Sher, K., Bartholow, B. D., & Nanda, S. (2001). Short- and long-term effects of fraternity and sorority membership on heavy drinking: A social norms perspective. *Psychology of Addictive Behaviors, 15*(1), 42-51.
- Smith, C. D., & Brown, J. M. (1998). Sexual behaviors, extroversion, and alcohol use among college students. *Journal of Alcohol and Drug Education, 44*(1), 70-79.
- Stinchfield, R. (2003). Reliability, validity, and classification accuracy of a measure of DSM-IV Diagnostic Criteria for Pathological Gambling. *The American Journal of Psychiatry, 160*, 180-182.
- Swartz, J. (2005, February 8). Online gambling sites expect big payoffs [Electronic Version]. *USA Today*. Retrieved April 12, 2007 from http://www.usatoday.com/money/industries/technology/2005-02-07-gamble-usat_x.htm?csp=15
- Wechsler, H., Eun Lee, J., Kuo, M., Seibring, M. S., Nelson, T. B., & Lee, H. (2002). Trends in College Binge Drinking during a Period of Increased Prevention Efforts: Findings from 4 Harvard School of Public Health College Alcohol Surveys: 1993–2001. *Journal of American College Health, 50*(5), 203-217.
- Wilder, D. H., & McKeegan, H. F. (1999). Greek-letter social organizations in higher education: A review of research. In J. C. Smart & W. G. Tierney (Eds.), *Higher education: Handbook of theory and research* (Vol. 14, pp. 317-366). New York: Agathon Press.
- Zammett, E. (2000, September). Making book on campus. *Playboy Magazine, 68-79*.

Dr. Thomas W. Hardy is the Director of Housing and Residence Life at Valdosta State University and previously served as the co-chair for the Gambling Action Team at the University of Alabama. Dr. Hardy has worked at several Southeastern schools in his career including Maryville College, the aforementioned institution, and his current one. He received his Bachelor of Arts degree in History from St. Mary's College of MD, his Master of Science degree in Higher Education from The Florida State University, and his Doctor of Education degree in Higher Education from The University of Alabama.

Dr. J. Patrick Biddix is Assistant Professor of Higher Education and Graduate Research Methods at Valdosta State University, where he also serves as coordinator for the Higher Education Program. He previously worked as an Educational Consultant for Beta Theta Pi Fraternity, followed by Coordinator for Greek Housing Programs at Washington University in St. Louis. As a faculty member and researcher, he uses mixed-methods approaches to study the role of information and communication technology in higher education and student affairs. Dr. Biddix received his Doctor of Philosophy in Educational Leadership and Policy Studies from the University of Missouri in St. Louis.