ASSESSING THE RELATIONSHIP BETWEEN
CAMPUS PROGRAMS, STUDENT SELF-EFFICACY,
STRESS, AND SUBSTANCE ABUSE

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Student life educators continue searching for ways to assess
campus programs. This is an exploratory study for an alterna-
tive assessment approach based on a hypothesized relation-
ship between participation in campus activities, student self-efficacy,
and student dispositions toward aspects of mental health and sub-
stance abuse. Focusing on the psyche of our students is
desirable, especially in light of litigation holding colleges liable
for student suicide, and may prove useful as an outcomes mea-
sure for assessment and evaluation in the future. Bandura's
concept of self-efficacy is used as a conceptual framework for
the survey. The authors surveyed nearly 10% of underclassmen
at a public research university. Despite having the hypothesis
contradicted in several analyses, results have implications for
campus health policy and student life programming.

In response to the push toward more
accountability in higher education, student
affairs professionals are being asked to
assess the value of their programs, particu-
larly focusing on student learning as an
outcome measure (AAHE, ACPA, &
NASPA, 1998; Banta & Associates, 2002;
Hamrick, Evans, & Schuh, 2002). How-
ever, unlike academic programs where the
assessment of student learning is largely
content and competency driven, those
tasked with assessing student life programs
mostly rely on the somewhat elusive and
proximal measures of leadership develop-
ment, citizenship, and engagement (Kuh,
Kinzie, Schuh, & Whitt, 2005; Schuh &
Upcraft, 2001). VanDerLinden (2006) cau-
tioned that, "valid instruments to measure

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Campuses, teaching the importance of community through the college experience,
and learning communities in residence life.
leadership development are limited, and most colleges and universities lack a comprehensive method to assess leadership learning and development" (p. 28). While these types of measures, focused on student learning, should not be supplanted in student affairs assessment, clearly there is room for other approaches. How does this idea of assessing programs square within the student affairs profession?

Many student affairs professionals enter the vocation because they enjoy student contact and the opportunity to make a difference (Mitchell, 1999, 2001). Therefore, it is not surprising that some might resist some of the highly quantitative, sometimes painstaking methods used to gather data and assess learning outcomes, simply for the sake of justifying program existence (Blimling & Whitt, 1999). For example, an exasperated residential life coordinator might ask, "How can I possibly measure the learning value of our Sunday evening hall leadership pizza meetings?" While this example is mostly facetious, it is illustrative how challenging assessment and evaluation of campus programs can be.

This study takes a different approach. Rather than focusing on the traditional outcomes measures used in student affairs, such as leadership or citizenship, this research seeks to explore a relationship between student life programs, self-efficacy, and dispositions toward aspects of student mental health, such as stress and substance abuse. An increasing number of college students today are facing psychological challenges, and student affairs professionals are called to address the mental health needs of their constituency (Arehart-Treichel, 2002). The hypothesis investigated here is that students who participate in co-curricular activities feel more in control of their life, and this fact translates into higher scores for self-efficacy, favorable attitudes toward stress, alcohol consumption, and drug abuse. These ideas stem from the work of Albert Bandura (1995, 1997).

A construct within Bandura's theory of social cognition, focusing on self-efficacy, has at its core a principle about people and control. Bandura (1997) defines self-efficacy as a confidence in one's ability to organize and execute a course of action required to attain a goal. If individuals feel their life is out of their own control, they are more likely to be at risk of increased anxiety, feelings of depression, and engage in substance abuse (Bandura, 1995). Building upon Bandura's ideas, the hypothesis of this study similarly suggests that students who live and learn in the high-pressure setting of a large public university may react to their own feelings of helplessness or lack of control by succumbing to feelings of anxiety and depression. Campus programs that have as part of their design to help students feel better about themselves and their abilities should have a positive effect in this arena (DeWitz, 2002).

**Literature Review**

Students choose their reactions to both the academic and social environment found on campus (Ross, Niebling, & Heckert, 1999). The nature of their reactions is determined by several factors including access to resources needed to make positive decisions, knowledge of expected outcomes from decisions, and self-efficacy levels that
enable students to feel they have the power to choose (Schultz & Schulz, 2001). Student affairs professionals support the availability of resources, including educational programs, in order to inform students about the outcomes of negative decisions, such as skipping classes and binge drinking (Cooper & Saunders, 2000). Moreover, there are distinctive challenges facing today’s Millennial generation, the current cohort of students born after 1982 (Howe & Strauss, 2000).

The necessity of having a college degree in the 21st century workplace is a stressor in itself. Many students struggle financially due to both decreased availability of financial aid and increased tuition prices. An alarming number are forced to work extensive hours (Andrews & Wilding, 2004). "Helicopter" parents, a pejorative expression for those over-involved in the lives of their children, place additional pressure and high expectations on their college-age children (Hoover, 2004). Millennials place pressure on themselves to perform well academically and get involved on campus (Lowery, 2004).

Kadison and DiGeronimo (2004) use the metaphor of jugglers in a circus to describe the experience for some students. They stated that, “In one hand, they juggle the balls representing the demands for high academic performance; in the other, they twirl the hoops of social relationships; and in the air, they spin the pins of their extracurricular activities” (p. 40). As this is the context in which Millennial college students operate, it is not surprising that the possibility of increased problems of mental health and substance abuse exists.

A list of student-reported mental health troubles is lengthy: anxiety and depression, drug and alcohol abuse, eating disorders, obsessive-compulsive disorder, grief issues, sexual abuse, and more advanced disorders such as schizophrenia and bipolar personality disorder (Arehart-Treichel, 2002). More students today, when compared with 10 years ago, are receiving screening and diagnoses for these disorders and there is less of a stigma associated with them (Kadison & DiGeronimo, 2004). One explanation for the increase ties back to the notion that students are up against a significant number of stress factors (Riba, 2004; American Psychiatric Association, 2000). Gupchup, Borrego, and Konduri (2004) noted a relationship between student life stressors and health-related issues among Doctor of Pharmacy students. Another study found that stress among students varies by gender and year in school (Misra, Mckean, West, & Russo, 2000). Empirical evidence is pointing to mental health issues becoming more pervasive on college campuses, and student affairs professionals must react by taking appropriate action.

Mentally healthy students perform better academically and contribute more to the school community (American College Health Association, 2005). However, the benefits of a proactive approach to mental health are not only for students, but also for campus administrators who may find themselves liable for student welfare. When dealing with mental health issues and substance abuse, which could lead a student to harm self or others, legal implications must be considered (Ellen, 2005). The majority of case law in this area involves suicide because families are more likely
to press charges if death occurs. There are three cases of particular interest for student life leaders (Pavek & Jofee, 2005).

In the 2000 case of Jane v. State of Iowa, 627 NW2d 293, the ruling held that the suicidal student was responsible for his own actions because the college administrator involved had limited knowledge of the situation. The notion that duty does not necessarily equate to liability was established. Two years later in the case of Schieszler v. Ferrum College, 236 F. Supp. 2d 602, a college administrator’s responsibility for duty of care was expanded for cases when there is specific knowledge that a student will more than likely hurt himself. In Schieszler, a “no-harm” contract was signed by the student, which proved that campus representatives were aware of the potential danger.

These two cases represent endpoints on a continuum of liability, ranging from minimal knowledge to written evidence of a student’s intentions. Between these two examples lies Shin v. M.I.T., a case where it appears that campus administration were given reports about the student’s self-destructive behavior over a period of time and, perhaps, waited too long to respond. As the case was settled out of court, it adds little to precedent about the appropriateness of the university’s response in this matter (Hoover, 2006). While a clear line of negligence may never be firmly established, student affairs professionals must be proactive in their efforts to reach out and step in before a student succumbs to suicidal efforts.

**Purposes of the Study**
The need for assessment approaches in student affairs, in addition to measuring learning outcomes, coupled with institutional and individual liability concerns in unfortunate cases involving student suicide, represent two factors supplying the impetus for this research project. Another impetus stems from a genuine concern for the psyche of our students, with particular emphasis on their self-efficacy, reaction to stress, and substance abuse. Results from this exploratory study are intended to inform campus personnel who work with students, as well as student affairs professionals who influence campus programming and policy.

**Methods**

**Participants and Data Collection**
The population of interest for this study was approximately 9,600 lower-division undergraduate (first and second year) students, at a public research university. This group was representative of the most recent cohort of Millennial students. The institution had a sizeable residential community, with nearly one-third (3,045) of the population living in residence halls. The student body was predominately Caucasian (84%), with only 7.5% African-American, and less than two percent Latino or Asian-Pacific Islander.

Eight hundred eighty-eight (N = 888) surveys were collected using a non-probability convenience sample approach, targeting groups of students in residence halls and orientation classes. The approach was used in order to reach as many students as possible and achieve sample size that could yield substantive results. Survey distribution and data collection was accomplished through hall directors at the
residence halls and by the researchers or course instructors at the orientation classes. The sample represents approximately 9.3% of the total population of lower-division undergraduates at the school.

Instrument

To determine if there was a relationship between participation in campus activities and student attitudes, we focused on three composite, dependent variables: Self-efficacy, Stressful Disposition, and Attitude toward Substance Abuse. A pilot survey was developed from a review of the literature, focusing primarily on the work of Bandura (1995, 1997), as well as drawing from other sources (ACHA, 2005; Maddux, 1995; Schwarzer, 1998). The pilot instrument was distributed to a panel of experts for review of survey statements and to address concerns about the internal validity of the measure (DeVellis, 2003). After incorporating feedback from the panel, the final survey consisted of nine Likert-scale statements: five designated to measure self-efficacy and four focused on attitudinal aspects about stress and substance abuse.

The nine survey statements were:

1. It is important to go out and party to relieve college stress;
2. When I am confronted with a problem, I can usually find several solutions; and
3. Drinking and drugs are part of the college party scene.

4. Thanks to my resourcefulness, I know how to handle unforeseen situations;
5. I am confident that I could deal efficiently with unexpected events;
6. Sometimes it feels like my life is too busy and out of control;
7. If I am in trouble, I can usually think of something to do;
8. When I get overwhelmed, I get depressed;
9. No matter what comes my way, I am usually able to handle it;

The instrument design also included a question asking students to indicate how many of 16 campus activities they participated in. Of the activities that were identified as potentially helping reinforce college students' sense of control over their own affairs, the student services organization administered seven of them, another seven existed under the auspices of academic affairs, and two were managed by the residence life program, which stands alone under the auxiliary function. Many of these activities should be familiar to student affairs professionals and are likely offered on most campuses in some form or another. Greek life and club activities were intentionally omitted in order to focus the study on programs sponsored by the institution. The 16 programs and activities were:

1. Freshman orientation / multi-day summer "camp" [.8]
2. Health, wellness, and risk reduction workshop [.3]
3. Learning/study skills workshop [.3]
4. Personal growth workshop [.3]
5. Student counseling services [.6]
6. Residence hall association [.5]
7. Residence hall council [.5]
8. Intramurals at the student center [.8]
9. One-credit course in university life [.8]
10. One-credit course in academic success strategies [.8]
11. Career development event [.6]
12. Met with academic advisor in addition to required meetings [.3]
13. Peer-tutoring program [.6]
14. Lunchtime tutoring program [.6]
15. Member of a learning community [.8]
16. Traditional tutoring program [.6]

Because these activities were of different durations and intensities, a formula for weighting each activity was created with the assistance of feedback from the expert panel. For example, attending a one-time workshop is not of the same impact as attending an orientation class once per week for an entire semester. An estimate of importance and impact was developed. The weighted formula, based on a 0 to 1 scale, is shown above in brackets after each program/activity. The formula is used to develop a composite "activities score" for each student-participant. A copy of the "Attitudes & Activities" Survey is supplied in Appendix A.

The survey performed well as an instrument and demonstrated statistical constancy in terms of construct validity for the three factors: Self-efficacy, Stressful Disposition, and Attitude toward Substance Abuse. Results in Table 1 show that exploratory factor analysis was successful, with all survey questions loading with the proper factors and demonstrating good discrimination (Thompson, 2004). Exploratory factor analysis technique included principle components extraction methodology with Varimax rotation (Gorsuch, 1983). "Total variance explained" was 62%. The data in Table 2 indicate significant correlations between appropriate survey statements. Chronbach's , a measure of internal consistency, was .68 or greater for each of the three factors.

Results

Ninety percent of students participated in at least one of the campus activities (n = 793) and nearly one third participated in three or more (28%, n = 245). Table 3 lists the rankings of all the programs and activities based on number of students reporting participation. The three composite variables—Self-efficacy, Stressful Disposition, and Attitude toward Substance Abuse—were analyzed using simple t-tests and analysis of variance techniques, looking for differences between groups of students. The power behind the inferential analysis design used was that it enabled conclusions to be drawn about certain characteristics of a total population, in this case groups of students engaging in various campus activities.

Because testing of mean scores between groups of students was performed repeatedly for the same dependent variables, Holm's adaptation of the Bonferroni correction was used to account for the statistical problem of compounding alpha (Holm, 1979). Since this study is primarily exploratory, the "step-down" approach used in Bonferroni-Holm is appropriate for reducing the possibility of making a Type I error.

All three of the dependent variable composites scored significantly different for students when grouped by several of the campus activities. For example, as shown in Table 4, five analyses indicated a statistically significant difference in mean composite score for Attitude toward Substance Abuse for students who participated
Table 1. Results of exploratory factor analysis for the nine statements used in "Activities & Attitudes" survey (Varimax rotation, N=888).

<table>
<thead>
<tr>
<th>Survey Statement</th>
<th>Factor Structure Coefficient</th>
<th>Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thanks to my resourcefulness, I know how to handle unforeseen situations.</td>
<td>Self-Efficacy: .784, Attitude toward Substance Abuse: -.042, Stressful Disposition: .044, Communality Coefficient: .62</td>
<td></td>
</tr>
<tr>
<td>2. I am confident that I could deal efficiently with unexpected events...</td>
<td>Self-Efficacy: .807, Attitude toward Substance Abuse: -.006, Stressful Disposition: -.101, Communality Coefficient: .66</td>
<td></td>
</tr>
<tr>
<td>4. If I am in trouble, I can usually think of something to do.</td>
<td>Self-Efficacy: .690, Attitude toward Substance Abuse: .110, Stressful Disposition: -.090, Communality Coefficient: .50</td>
<td>30.8%</td>
</tr>
<tr>
<td>6. No matter what comes my way, I'm usually able to handle it.</td>
<td>Self-Efficacy: .726, Attitude toward Substance Abuse: -.011, Stressful Disposition: -.189, Communality Coefficient: .56</td>
<td></td>
</tr>
<tr>
<td>8. When I am confronted with a problem, I can usually find several solutions.</td>
<td>Self-Efficacy: .686, Attitude toward Substance Abuse: .032, Stressful Disposition: -.042, Communality Coefficient: .47</td>
<td></td>
</tr>
<tr>
<td>7. It is important to go out and party to relieve college stress.</td>
<td>Self-Efficacy: .013, Attitude toward Substance Abuse: .834, Stressful Disposition: .045, Communality Coefficient: .70</td>
<td></td>
</tr>
<tr>
<td>9. Drinking and drugs are part of the college party scene.</td>
<td>Self-Efficacy: .036, Attitude toward Substance Abuse: .810, Stressful Disposition: .077, Communality Coefficient: .66</td>
<td>15.6%</td>
</tr>
<tr>
<td>3. Sometimes it feels like my life is too busy and out of control.</td>
<td>Self-Efficacy: -.052, Attitude toward Substance Abuse: .180, Stressful Disposition: .800, Communality Coefficient: .68</td>
<td>15.6%</td>
</tr>
<tr>
<td>5. When I get overwhelmed, I get depressed.</td>
<td>Self-Efficacy: -.151, Attitude toward Substance Abuse: -.042, Stressful Disposition: .833, Communality Coefficient: .72</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

Total Variance Explained: 62.0%

Note. Shaded scores show component groupings for Self-Efficacy (1, 2, 4, 6, & 8), Attitude toward Substance Abuse (7 & 9), Stressful Disposition (3 & 5).
Table 2. Correlations between nine statements used in "Activities & Attitudes" survey (N = 888).

<table>
<thead>
<tr>
<th>SurveyQ</th>
<th>1Resource</th>
<th>2Confident</th>
<th>3TooBusy</th>
<th>4Trouble</th>
<th>5Overwhelm</th>
<th>6Handle</th>
<th>7Party</th>
<th>8Solutn</th>
<th>9Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Resource</td>
<td>1.0</td>
<td>.633**</td>
<td>-.066</td>
<td>.397**</td>
<td>-.092**</td>
<td>.424**</td>
<td>.006</td>
<td>.357**</td>
<td>.035</td>
</tr>
<tr>
<td>2Confident</td>
<td>-</td>
<td>1.0</td>
<td>-.126**</td>
<td>.413**</td>
<td>-.185**</td>
<td>.486**</td>
<td>.010</td>
<td>.423**</td>
<td>.038</td>
</tr>
<tr>
<td>3TooBusy</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.078**</td>
<td>.379**</td>
<td>-.121**</td>
<td>.160**</td>
<td>-.065</td>
<td>.133**</td>
</tr>
<tr>
<td>4Trouble</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.131**</td>
<td>.491**</td>
<td>.060</td>
<td>.410**</td>
<td>.062</td>
</tr>
<tr>
<td>5Overwhelm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.232**</td>
<td>.031</td>
<td>-.145**</td>
<td>.072*</td>
</tr>
<tr>
<td>6Handle</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.010</td>
<td>.414**</td>
<td>.001</td>
</tr>
<tr>
<td>7Party</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>.045</td>
<td>.278**</td>
</tr>
<tr>
<td>8Solutn</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>9Drugs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Note: Shaded rows indicate grouped or paired statements for the three composite variables: Self-Efficacy (1, 2, 3, 4, 5), Stressful Disposition (6, 7), and Attitude toward Substance Abuse (8, 9).

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

in a career development event (t = 3.440, p < .001), peer tutoring (t = 2.607, p = .008), traditional tutoring (t = 3.432, p = .001), orientation classes (t = 4.458, p < .001), and intramurals (t = 2.396, p = .017). Interpretations are supplied in the table. For example, in the first analysis depicted in Table 4, students who participated in at least one career development event scored significantly better in their attitude toward substance abuse when compared with those who did not.

Table 4 also provides an estimate of "effect size," a statistical measure of the strength or power of the difference between groups (Jaccard, 1998). For the t-test procedure, "d statistic" values of .2, .5, and .8 signify small, medium, and large effect sizes (Cohen, 1988). For example, in the first analysis in Table 4 shows a medium effect size in the difference on Attitude toward Substance Abuse for students who participated in a career development event (d = .51).

Analyses of the variable Self-Efficacy showed significance when grouped by participation in intramurals (t = 2.659, p = .008) and orientation classes (t = 4.936, p < .001). Students who participated in intramurals scored higher in self-efficacy, while students who took orientation class scored lower. Table 4 also shows a significant difference in mean scores for the variable Stressful Disposition when grouped by participation in orientation classes (t = 2.883, p = .004). There was a statistical difference in mean composite score for both Self-Efficacy and Stressful Disposition when grouped by participation in co-curricular programs and activities in general, F(2,885)
Assessing the Relationship ...

Table 3. Ranking of campus activities by student participation (N = 888).

<table>
<thead>
<tr>
<th>Campus Activity</th>
<th>n</th>
<th>(%) of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Took at least one of the one-credit orientation courses</td>
<td>617</td>
<td>(69.5%)</td>
</tr>
<tr>
<td>2. Met with academic advisor in addition to required meetings</td>
<td>476</td>
<td>(53.6%)</td>
</tr>
<tr>
<td>3. Intramurals at the student center</td>
<td>278</td>
<td>(31.3%)</td>
</tr>
<tr>
<td>4. Traditional tutoring program</td>
<td>162</td>
<td>(18.2%)</td>
</tr>
<tr>
<td>5. Peer-tutoring program</td>
<td>148</td>
<td>(16.7%)</td>
</tr>
<tr>
<td>6. Freshman orientation / multi-day summer “camp”</td>
<td>102</td>
<td>(11.5%)</td>
</tr>
<tr>
<td>7. Residence hall association</td>
<td>55</td>
<td>(6.2%)</td>
</tr>
<tr>
<td>8. Career development event</td>
<td>48</td>
<td>(5.4%)</td>
</tr>
<tr>
<td>9. Student counseling services</td>
<td>43</td>
<td>(4.8%)</td>
</tr>
<tr>
<td>10. Residence hall council</td>
<td>43</td>
<td>(4.8%)</td>
</tr>
<tr>
<td>11. Health, wellness, and risk reduction workshop</td>
<td>28</td>
<td>(3.2%)</td>
</tr>
<tr>
<td>12. Member of a learning community</td>
<td>21</td>
<td>(2.4%)</td>
</tr>
<tr>
<td>13. Learning/study skills workshop</td>
<td>8</td>
<td>(0.9%)</td>
</tr>
<tr>
<td>14. Personal growth workshop</td>
<td>7</td>
<td>(0.8%)</td>
</tr>
<tr>
<td>15. Lunchtime tutoring program</td>
<td>2</td>
<td>(0.2%)</td>
</tr>
</tbody>
</table>

$= 3.543, p = .029$ and $F_{2.885} = 3.872, p = .021$ respectively. Inferential observations associated with these analyses are discussed in greater depth in the next section.

An open-ended question was used at the end of the survey to collect qualitative information from students about their involvement in campus activities and the impact activities have had on their college experience. Three hundred thirty nine students wrote responses. Their answers were coded by the campus activity or theme mentioned by the student (Manning & Culum-Swan, 1994; Miles & Huberman, 1984). The two most frequently cited activities were membership in Greek life ($n = 80$) and participation in intramural sports ($n = 26$).

Other activities that students commented on in the open-ended question included campus religious organizations ($n = 14$), community service ($n = 12$), and marching band ($n = 8$). In addition to campus activities and organizations, the notion of stress in collegiate life was mentioned by 18 students, while 11 students com-
Table 4.
Key results from inferential analysis (t-test or ANOVA) of the "Activities & Attitudes" survey (N = 888).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>t-test or ANOVA significance (Effect size)</th>
<th>Results of mean (M) comparison or Tukey HSD testing. Includes brief comment of interpretation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward Substance Abuse</td>
<td>Participation in career development (CD) event</td>
<td>( t=3.446, \ p&lt;.001 ) (( d=.51 ))</td>
<td>( M_{CD} = 59.42 &gt; M_{CD} = 54.98 ) Students who participated in at least one CD event expressed a favorable attitude toward substance abuse than those who did not.</td>
</tr>
<tr>
<td>Attitude toward Substance Abuse</td>
<td>Participation in peer tutoring</td>
<td>( t=-2.607, \ p=.009 ) (( d=-.23 ))</td>
<td>( M_{peer} = 67.05 &lt; M_{peer} = 72.49 ) Students who participated in peer tutoring expressed a favorable attitude toward substance abuse than those who did not.</td>
</tr>
<tr>
<td>Attitude toward Substance Abuse</td>
<td>Participation in traditional tutoring</td>
<td>( t=3.412, \ p&lt;.001 ) (( d=-.30 ))</td>
<td>( M_{tutoring} = 60.89 &gt; M_{tutoring} = 57.29 ) Students who participated in traditional tutoring expressed a less favorable attitude toward substance abuse than those who did not.</td>
</tr>
<tr>
<td>Attitude toward Substance Abuse</td>
<td>Participation in orientation class(es) (study skills and/or university experience)</td>
<td>( t=4.458, \ p&lt;.001 ) (( d=.22 ))</td>
<td>( M_{orientation} = 70.32 &lt; M_{orientation} = 72.73 ) Students who took at least one orientation class expressed a less favorable attitude toward substance abuse than those who did not take any orientation class.</td>
</tr>
<tr>
<td>Attitude toward Substance Abuse</td>
<td>Participation in intramurals</td>
<td>( t=2.396, \ p&lt;.017 ) (( d=.17 ))</td>
<td>( M_{intramural} = 60.27 &gt; M_{intramural} = 56.17 ) Students who participated in intramurals expressed a less favorable attitude toward substance abuse than those who did not participate in intramurals.</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Participation in intramurals</td>
<td>( t=2.659, \ p&lt;.008 ) (( d=.19 ))</td>
<td>( M_{intramural} = 67.17 &lt; M_{intramural} = 72.11 ) Students who did not participate in intramurals expressed lower self-efficacy than those who did.</td>
</tr>
</tbody>
</table>
Table 4. (cont'd)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>t-test or ANOVA significance (Effect size)</th>
<th>Results of mean (M) inspection or Tukey HSD testing. Includes brief comment of interpretation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy</td>
<td>Participation in orientation class(es) (study skills and/or university experience)</td>
<td>t=4.751, p&lt;.001 (d=.35)</td>
<td>M_{participation} = 577 &lt; M_{no participation} = 271 Students who took at least one orientation class expressed lower self-efficacy than those who did not take any orientation class.</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Participation in activities (in general)</td>
<td>F(_{2,356}=3.543, \ p=.029) (eta square=.06)</td>
<td>M_{low participation} = 351 &lt; M_{high or no participation} = 360 Students who participated moderately in campus programs (~3 to 4 activities) expressed lower self-efficacy than those with low or no participation (0 to ~2 activities).</td>
</tr>
<tr>
<td>Stressful Disposition</td>
<td>Participation in orientation class(es) (study skills and/or university experience)</td>
<td>t=2.883, p=.004 (d=.21)</td>
<td>M_{participation} = 317 &lt; M_{no participation} = 271 Students who took at least one orientation class were more stressed and overwhelmed than those who did not take any orientation class.</td>
</tr>
<tr>
<td>Stressful Disposition</td>
<td>Participation in activities (in general)</td>
<td>F(_{2,356}=3.872, \ p=.021) (eta square=.10)</td>
<td>M_{low participation} = 300 &lt; M_{high or no participation} = 271 Students who reported low or no participation (0 to ~2 activities) were less stressed and overwhelmed than those reporting moderate participation (~3 to 4 activities).</td>
</tr>
</tbody>
</table>
m ented on what they described as "party- ing." A discussion of the implications of some these responses, along with direct quotes from students, is incorporated in the next section.

Discussion

It is unfortunate that the hypothesis did not perform perfectly when tested statistically, but searching for alternate approaches to assessment is not for the faint of heart. The findings suggest that using measures of self-efficacy, stress, or substance abuse are not always dependable for assessing student life programs. While the initial grand purpose of creating an alternate assessment approach fell short, the results do point to several appealing ideas for student affairs policy and programming. In this exploratory study, only three of ten analyses depicted in Table 4 fit the hypothesis. Interestingly, even the counterintuitive findings provided fresh insights into the minds of our students and have implications for campus programming.

Attitude toward Substance Abuse

The first two analyses depicted in Table 4 did fit the hypothesis that a positive relationship exists between co-curricular program participation and student attitudes about substance abuse. For example, while we cannot suggest causation, a positive connection merit ing further study exists between two of the programs, career development and peer tutoring, and students' scores on the composite variable Attitude toward Substance Abuse. This result represents empirical evidence about a type of campus program where student life professionals could look for student volunteers to carry an anti-substance abuse initiative to the general population. The broader policy implication is that students in these types of programs, serious about career and academics, represent a pool of candidates for a variety of peer mentoring opportunities and programs. A student who participated in peer tutoring characterized it this way: "Being involved with programs like (peer tutoring) really helped make my course load seem less stressful and help with the stress from tests and classes" [649].

The next two analyses depicted in Table 4 also showed a statistically significant difference for attitude toward substance abuse when grouped by students participating in either tutoring or orientation classes. These students actually scored less favorably on the so-called "partying" scale than those who did not participate in these two programs. Is this finding confounding or counterintuitive to the hypothesis? Not really, especially for those students seeking tutoring. Studies involving adolescents found that students with a negative sense of their academic abilities were likely to persist in substance abuse (Block, Farnham, Braverman, & Noyes, 1990; Swisher & Hu, 1983). However, answering the broader question of why the group of students taking orientation classes, a large group (n = 617) and seemingly more like the general population, would have a less favorable disposition toward substance abuse merits further research. In either case, this finding reinforces the notion that student life professionals should ensure that both anti-drug and anti-binge drinking themes are included in the design of tutor-
ing and orientation programs. As one student from an orientation class commented: "I'm not very involved in organizations but I'm here to PARTY ON and grow as a person" [329].

Results in Table 4 suggest that students who reported participating in intramurals scored higher in the variable Attitude toward Substance Abuse. This finding is important because it provides empirical substantiation of the intuitive notion that these are the students who "play hard and party hard." The implication for student affairs policy is that the campus intramurals facility has been identified as a place to focus a anti-drug and anti-binge drinking message, perhaps using alumni athletes who possess a high impact and credible message for this group. One student, active in intramural sports, gave clues in his comment about a link between self-efficacy and substance abuse when stating, "No drugs - drinking yes! I love intramurals. I am also involved in many clubs relating to my major and it helps a lot!" [394].

Self-Efficacy and Stressful Disposition

Students taking orientation classes also scored lower and unfavorably on the other two dependent variables, Self-Efficacy and Stressful Disposition. The reason for this remains unclear and more research is warranted studying the attitudes and needs of this group of students in particular. Student affairs professionals know that college orientation classes might appeal to those seeking a more solid footing in their post-secondary education, which might account for differences in efficacy and feeling overwhelmed. Student affairs professionals involved in designing campus orientation programs and classes should take note of these findings. Because this group represents a large proportion within the total population of undergraduates, there are broader implications for a general understanding of the Millennial cohort. In another statistical analysis of the variable Self-Efficacy, students who participated in intramural sports scored significantly higher compared with those who did not involve themselves with intramurals. This finding is in concurrence with the hypothesis.

One of the findings counterintuitive to the hypothesis, that students who participated more in co-curricular activities scored less favorably on the variable Stressful Disposition, while requiring further study, can perhaps be explained using both the common sense and experience that most student affairs professionals can relate to. This group is familiar to student affairs professionals as energetic and enthusiastic students who are seen repeatedly at campus activities and in leadership positions. Upon closer inspection, this active bunch was more likely to feel "stressed" and report that life was "out of control." Three student responses that help to describe this phenomenon include:

"I have become very involved in my campus. Sometimes I feel overwhelmed because the things I am involved in demand much of my time. Overall I get to meet many new people so it's good" [693];

"Being involved is a good way to meet people and stay busy, but lots of times being involved in numerous activities and school can be too much to handle" [764]; and

"The main campus activity I am in
is my sorority. It has helped me meet more people but also added on stress to my life" [170].

These quotes, coupled with the statistical findings, signal an area of interest for student affairs professionals. Many of our active students, despite good intentions, may need a little more consideration in the area of counseling for anxiety and screening for depression. As discussed earlier, according to Bandura, people who feel their life is out of their own control are more likely to succumb to feelings of anxiety and depression. This includes some of our Millennial overachievers, who might find themselves overcommitted with campus activities, social obligations, and academics.

Perhaps the most confounding of all the significant findings is the result that students who participated in more activities also scored lower on the composite variable Self-Efficacy than those with low or no activity. Based on the hypothesis, it was assumed that a positive relationship exists between co-curricular participation and self-efficacy, but survey data indicates that those students who prefer to go it alone and not participate in co-curricular activities actually score higher. Since the variables Self-Efficacy and Stressful Disposition are strongly correlated, it makes sense, post hoc, that the same group of students would score lower on both. However, it is statistical findings such as this that confound the quest for an alternate assessment model for evaluating campus programs based on a benefit to student self-efficacy and positive psychological dispositions.

Several instances of anecdotal evidence were found in the data to support the original hypothesis, such as the student who remarked, "I feel that the more a student participates in outside the classroom activities the better off that student will be when faced with stress and other difficult situations” [529]. Another student supported the idea by stating, "I am involved in intramural sports, sorority, and study sessions. These all help me relieve stress and meet new people” [752]. In the absence of solid empirical evidence, student affairs professionals should resist the temptation to claim that campus programs have a positive impact on the mental health and psyche of students.

Although not statistically significant, eighty students mentioned Greek Life in the context of campus activities and dealing with the stressors of college. Student responses were overwhelmingly positive about Greek organizations and associated membership with good self-efficacy and positive attitudes for dealing with stress and substance abuse. For example, one student commented, "I am involved in a sorority which has really helped me feel “in touch” with (the university). They also have helped me work on keeping my grades up as well as make many new friends” [508]. Another student noted, "I am involved in (Greek organization) and it has helped me make a lot of friends. It has also helped me stay accountable for my grades. Yes, drinking and drugs are at some party scenes, but not all, you can choose not to be around it.” [126]. Dozens of responses similar to these two examples are in direct contrast to the negative
findings about fraternities and sororities by Nuwer (1999, 2004). A lengthy discussion of the efficacy of Greek life is beyond the scope of the paper, but more research is needed.

Limitations

Several limitations to this study are based on characteristics of the sample. For example, the sample is residential, traditional age undergraduates and does not include a broader range of contemporary student populations. Therefore, the generalizability of results is limited, although there are many regional universities, especially in the South and Midwest, with similar demographic characteristics.

Due to the voluntary nature of student surveys, those choosing to participate are, by definition, self-selected; it is not known how the characteristics of the volunteers differ from those who decide not to participate. Moreover, all data is from self-reported and there is no way to check for honesty and accuracy in responses. The sample was comprised primarily of those students who choose to live on campus or take orientation classes; freshmen and sophomores who did neither are excluded from the sample.

Although the instrument performed well statistically, inherent limitations exist. For example, the use of Likert-scale responses to survey statements, based upon the traditional “Agree” and “Disagree” scale, are subject to various interpretations because of their non-numerical nature. Additionally, survey respondents may not share common understandings of the various terms used in the statements. Where confusion exists about the precise meaning of a survey statement, there is a higher likelihood of poor quality data. As with most studies attempting to generalize results, this research should be considered preliminary and suggestive of how students with similar characteristics—undergraduates at a large, public, predominately white institution (with a strong residential component)—might view the efficacy of campus activities. Despite these limitations, this research stands as a useful exploratory study.

Future Agenda

Perhaps it is because the student affairs enterprise joined a little later in the push for assessment and accountability, when compared with the other units on campus, such as academic affairs and central administration. Maybe it is the nature of those in a helping profession to struggle somewhat when asked to provide empirical proof of the value of their programs. In any case, as Malaney (2001) suggests, “The student affairs profession is currently struggling to find answers to its growing need to assess student services and evaluate student affairs programming” (p. 535).

The findings in this research suggest that many students today face feelings of stress and being overwhelmed. While the student affairs profession has embraced student learning as the focus assessing programs, more research on the mental health of Millennial students is warranted. Since the results of this project revealed statistical differences between student groups in terms of self-efficacy, stress, and attitudes toward substance abuse, the logical next step is to conduct in-depth interviews to find out why. For example, interviews with
students who took freshman orientation classes would be helpful to explain this phenomenon.

Multiple sources make assessments stronger (Maki, 2004). That is why the exploratory typology for the active college student presented here—using factors the self-efficacy, stress, and substance abuse—can work to support other approaches to assessment, such as measuring leadership or citizenship outcomes. Student affairs professionals should remain creative and continue to seek alternate paths for assessing the value of their programs.

References


Assessing the Relationship .../


Jane v. State of Iowa, 627 N.W. 2d 293 (Iowa 2000).


### Assessing the Relationship ...

**Appendix A. Survey.**

#### Attitudes & Activities Survey

1. I have participated in the following activities (check all that apply):

<table>
<thead>
<tr>
<th>Activity</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Year Experience and Students in Transition Event</td>
<td></td>
</tr>
<tr>
<td>&quot;For-Real&quot; Workshop</td>
<td></td>
</tr>
<tr>
<td>Learning Skills Workshop</td>
<td></td>
</tr>
<tr>
<td>Personal Growth Workshop</td>
<td></td>
</tr>
<tr>
<td>Student Counseling Services</td>
<td></td>
</tr>
<tr>
<td>Residence Hall Association</td>
<td></td>
</tr>
<tr>
<td>Intramurals at Student Act.</td>
<td></td>
</tr>
<tr>
<td>Meet with academic advisor (in addition to required meetings)</td>
<td></td>
</tr>
<tr>
<td>UNIV 1000 - The University Experience</td>
<td></td>
</tr>
<tr>
<td>UNIV 1050 - Academic Success Strategies</td>
<td></td>
</tr>
<tr>
<td>Hall Council</td>
<td></td>
</tr>
<tr>
<td>Career Development Services Event</td>
<td></td>
</tr>
<tr>
<td>Study Partners</td>
<td></td>
</tr>
<tr>
<td>Lunchtime Tutoring</td>
<td></td>
</tr>
<tr>
<td>Member of Learning Community</td>
<td></td>
</tr>
<tr>
<td>Supplemental Instruction</td>
<td></td>
</tr>
</tbody>
</table>

2. Please respond to the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thanks to my resourcefulness, I know how to handle unexpected situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident that I can deal efficiently with unexpected events.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone else feels like my life is too busy and out of control.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I am in trouble, I can usually think of something to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I get overwhelmed, I get depressed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No matter what comes my way, I'm usually able to handle it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(over)
College Student Journal

Appendix A (cont'd).

2. Continued...

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to go out and party to relieve college stress.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am confronted with a problem, I can usually find several solutions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinking and drugs are part of the college party scene.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Please use the space below to comment on your involvement in campus activities and their impact on your college experience.

________________________________________________________________________
________________________________________________________________________
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