Forthcoming in the *Journal of Student Affairs Research and Practice*

CO-CURRICULAR LEARNING AT RESEARCH UNIVERSITIES: RESULTS FROM THE SERU SURVEY

Ronald Kwon, Steven Brint, Allison M. Cantwell, and Kevin D. Curwin

Abstract

We consider features of co-curricular activities as important learning environments outside of the classroom. Using survey data from seven large public research universities we investigate 17 specific learning opportunities that occur in student clubs and organizations. We find that co-curricular learning experiences are common and that students place high levels of importance on these opportunities. We also find that women, students with high GPAs, and upper-division students were more likely to report co-curricular learning experiences.

Although research and graduate education are central priorities of research universities, undergraduate teaching and student development remain as additional important concerns. Indicators of the importance of student development, in particular, can be found by examining the size and growth of academic advising and student affairs staffs (Ehrenberg, 2012), as well as by counting the number of co-curricular clubs and organizations located on research university campuses. The latter typically number in the hundreds and in rare cases number over 1,000 (authors’ calculations). In this paper, we investigate in a new way student participation within clubs and organizations as an important, but understudied learning environment outside of the classroom.

Previous studies of co-curricular learning have focused on broad conceptual domains such as humanitarianism, appreciation of diverse others, and the development of interpersonal skills (Engberg & Fox, 2011; Foubert & Grainger, 2006; Kuh, 1993, 1995). Such broad constructs are certainly worthwhile to investigate, but several important questions remain. For example, what is the extent of student involvement in co-curricular activities and what are the specific types of tasks and skills that are fostered through participation in student clubs and organizations. In this study, we examine a broad array of 17 concrete experiences that include chairing meetings, recruiting new members, and facilitating discussions. In doing so, we assess a wider variety of skill development opportunities than previous studies and provide a unique perspective on the specific contributions of co-curricular learning environments. In the conclusion of the paper, we draw lessons from the study for student affairs practice.

The research questions we address are: (1) How often do students report taking advantage of learning experiences relevant to the workforce and civic life through their involvement in student clubs and organizations? (2) How important are these experiences to students? Here, we evaluate student self-reports of personal and professional developmental outcomes due to participation in co-curricular activities, as well as the importance students attach to these experiences. And finally, (3) What are the demographic characteristics of students who take advantage of these learning opportunities? We begin by discussing the previous literature on student clubs and organizations. We then describe our sample, data, methods of analysis, and report findings relevant to the research questions posed above. We conclude by discussing the ways in which student clubs and organizations add value to the campus experience of undergraduates and how their value might be enhanced.

**Previous Literature**

Student clubs and organizations are a prominent feature of the cultural milieu of campus life. They involve hundreds of students on the country’s smaller liberal arts institutions and thousands of students on the country’s larger research campuses. For instance, in the 2012-13 academic year, the average AAU public university campus supported one official student organization for approximately every 39 students (authors’ calculation based on campus student life websites). At many flag ship public universities, the faculty-to-student ratio in co-curricular environments are much lower than in large introductory courses. This ratio is even lower in the average AAU private university campus: one official student organization for every 18 students (authors’ calculation based on campus student life websites).

Previous research on student clubs and organizations provide evidence that co-curricular involvement influences cognitive and affective growth within students (e.g., Huang & Chang, 2004; Moore, Lovell, McGann & Wyrick, 1998; Strauss & Terenzini, 2007; Terenzini, Pascarella, & Blimling, 1996). Most researchers have focused on the relationship between club involvements and broad scalar constructs such as global perspectives autonomy, interpersonal skill, humanitarianism, and critical and analytical thinking (Engberg & Fox, 2011; Foubert & Grainger, 2006; Kuh, 1993, 1995). For example, Kuh (1995), finds that students’ self-reports of growth in interpersonal confidence and humanitarianism were associated with leadership experiences in student clubs and organizations. Other researchers find similar results for members as well as student organization leaders (e.g., Dugan, 2006; Foubert & Grainger, 2006: Holzweiss, Rahn, & Wickline, 2007; Hood, 1984; Pascarella, Edison, Whitt, Nora, Hagedorn, & Terenzini, 1996; Pascarella, Seifert, & Blaich, 2009). Other studies find that engagement with student clubs and organizations is associated with more positive perceptions of fellow students, faculty, and administrators (Abrahamowicz, 1988; Edison, Nora, Hagedorn, & Terenzini, 1996; Terenzini et al., 1996).

A smaller number of studies have investigated the relationships between participation in co-curricular activities and cognitive gains (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001). Bergen-Cico & Viscomi (2012) find that students who attended many university-sponsored co-curricular events had higher grade point averages than students who attended fewer events. Kuh (1995) finds a significant relationship between student self-reported gains during their college years in reflective thought and their capacity to apply knowledge for those who took leadership positions in student clubs and organizations. In case studies of single institutions, Gellin (2003) and Tsui (1998) reported small but significant effects of participation in clubs and organizations on critical thinking by using standard assessment instruments, which included the Watson-Glaser Critical Thinking Appraisal and the Collegiate Assessment of Academic Proficiency, respectively.

The literature also provides evidence of an underside of socialization in student clubs and organizations. Residence halls, Greek life, and inter-collegiate sports participation, in particular, have received, at best, mixed assessments in the research literature (Asel, Seifert, & Pascarella, 2009; Pascarella et al., 1996; Pike, 2000). Armstrong & Hamilton’s (2013) ethnographic study of students entering a dormitory “party floor” at a major Midwestern university indicates that some residence halls and many sororities are platforms for status displays and reinforce gender stereotypes. That is, they provide practice for the development of upper-class feminine interaction styles and appearance norms. Nathan (2005) found that discussion of fellow students and popular culture were the most common topics in women’s residence halls, while Clotfelter (2011) found that where big-time athletics dominate the college scene, the student work week typically ends on Thursdays, binge drinking is common, and student arrests climb during football and basketball seasons.

Our research extends the existing literature in notable ways. We shift the current research focus from the relationship between participation and broad attitudinal constructs to the frequency and import of students’ *specific experiences* in clubs and organizations that may be relevant to the labor market and civic engagement after graduation (Hamrick, 1998). Prior research strongly suggests that voluntary organizations build important workforce and civic skills (Biddix, 2014; Hamrick, 1998; Holman, 2015; Persell & Wenglinsky, 2004). For example, Verba, Scholzman, & Brady (1995) found that participation in community organizations, such as church groups and parent-teacher associations, were key sources for the development of what they call “civic skills.” These were places where adults who had never had the opportunity – or were out of practice – learned to speak up about issues, create persuasive messages, develop mailing lists and spreadsheets, and work collaboratively towards common goals (Anheir & Salamon, 1999; Putnam, 2000). We argue that student clubs and organizations also create similar environments and opportunities for young adults that are important for workforce and civic participation.

In this context, it is important to examine the demographic characteristics of students who are most and least engaged in specific co-curricular experiences. This is an understudied feature of previous research, and it is consequential for several reasons. First, research universities are the environment in which many students are first introduced to service learning and norms of civic engagement (Biddix, 2014; Einfeld & Collins, 2008; Hamrick, 1998; Sax, Astin, & Avalos, 1999). Second, these early experiences are consequential for civic involvement many years after graduation (Sax et al., 1999). Prior studies show that skills that include the ability to present community issues and write policy briefs provide opportunities to develop civic skills (Verba et al., 1995), potentially reduce wage mismatches for workers by developing general labor market skills (Robst, 2007), and remain an under developed area that is inadequately addressed within the academic curriculum, but highly desirable in the labor market (Andrews & Higson, 2008). Whether these co-curricular opportunities are equally available for minorities and first-generation students, who often face unique challenges in university settings, is consequently an important issue (Gardner, 2013).

**Data and Methods**

**Sample**

We draw our sample from the 2014 Student Experience in the Research University (SERU) survey. The SERU Consortium conducts biannual surveys of undergraduate students at 21 AAU public universities and 11 international partner institutions. The survey is conducted as a census of all undergraduates and represents one of the most comprehensive and comparable surveys of student engagement.[[1]](#footnote-1) Response rates vary considerably from campus to campus. The survey has achieved response rates as high as 70 percent, and as low as 20 percent with an average range of 30-35 percent. However, given the census approach to data collection, the size of SERU AAU campuses ensures that even relatively low response rates yield large numbers of respondents, including among those from small subpopulations on campus. Indeed, studies of the forerunner to the SERU Survey, the University of California Undergraduate Experience Survey (UCUES), indicated that although students with higher GPAs were more likely to complete the survey, parameter estimates were unbiased (Chatman, 2006).

**Missing Cases and Imputation**

The co-curricular learning items appeared for the first time on the 2014 SERU Survey in the student development module. This module included two sets of questions on learning experiences in student clubs and organizations (35 questions in all). Seven SERU campuses chose to offer the student development module.[[2]](#footnote-2) One campus used the module for all respondents and consequently yielded a sample much larger than samples from the other campuses. We took a one-third random sample from this university to bring the sample size closer to the mean sample size for the other campuses. This one-third random sample is representative of that campus for all variables included in the statistical models. We utilized multiple imputation and chained equations in the STATA to account for missing data (Enders, 2010). Altogether, we created ten imputed data sets, and results use Rubin’s (1987) rules of pooling imputed results.[[3]](#footnote-3) Rates of missing data are shown in Table 1.

[Insert Table 1 Here]

These responses represent the most comprehensive examination of specific skills and character development traits students associate with their participation in student clubs and organizations. Although the seven research campuses are not a representative sample, they were drawn from all regions of the United States and provide insights into the experiences of students attending large, prominent public research universities. The results of the research are thus only pertinent to large public research universities. However, these institutions are important, both because they educate a disproportionate number of future leaders in the professions and business (Brint & Yoshikawa, 2017) and because they enroll a sizable proportion, approximately one-fifth, of the total undergraduate student population (Brint & Clotfelter, 2016).

**Activity Frequency and Importance Variables**

The first set of co-curricular learning items asked students to identify the number of times they had engaged in specific learning opportunities. These items were designed to correspond to necessary skills in the workforce and civic life more broadly. We will refer to these items as *activity frequency* variables. The survey asked students to identify the number of times during the previous academic year they had engaged in 17 specific activities due to their involvement in student clubs or organizations. Response choices for these variables were “never,” “one to two times,” “three to four times”, and “five or more times.” Our analyses group together the responses “three or four times” and “five or more times.” We grouped these categories to expand the size of the category that was of greatest interest to us and because very few students – in many cases fewer than two percent - reported having these experiences “five or more times.” The activities included the following:

* Chaired a meeting
* Planned an event
* Promoted or marketed an event
* Led or facilitated a discussion
* Made a presentation that required research
* Recruited new members for the organization/club
* Written a report or article for the organization/club
* Collected or analyzed data
* Designed or produced a product for sale
* Invited or hosted a speaker
* Written a constitution, bylaws, piece of legislation or rules
* Mediated a dispute
* Created an artistic work or performance
* Engaged in an in-depth discussion about a local, state, national, or international issue
* Worked with another student as a peer educator or peer mentor
* Created or updated a website or webpage
* Partnered with a community organization or organized a community outreach activity

Engaging in an activity does not ensure that learning will occur as a result of the engagement, but having the opportunity to engage in such activities is very often a precondition to learning and effective subsequent performance. We regard these opportunities as incubators and training grounds for labor market skills, but not necessarily as producers of those skills.

**Perceived Importance***.* The survey asked students to rate how important their involvement in student clubs and organizations had been to 17 personal development outcomes, as well as to one general outcome, their enjoyment of the college experience. Responses were measured on an ordinal scale which included “not important,” “somewhat important,” “important,” “very important,” and “essential.” We group together the responses “very important” and “essential,” to increase the cell size of the category that was of greatest interest to us. The two can seem semantically very close to one another and consistent with most surveys, would include only “very important” as the anchor point on Likert scales. The personal character and skills development outcomes included:

* Learning to meet deadlines
* Becoming more dependable and reliable
* Learning how to resolve disputes
* Maintaining ethical standards when they are challenged
* Developing an ability to work with others to accomplish a goal
* Developing knowledge of how organizations work
* Understanding how to succeed in competitive situations
* Developing listening skills
* Developing emotional self-control
* Applying in-class lessons to solving real world problems
* Developing a willingness to argue a position against others who have different views
* Developing networking skills
* Learning how to use technology more effectively
* Developing oral presentation skills
* Developing written expression skills
* Developing or practicing quantitative/data analysis skills
* Developing an ability to teach others

**Student Characteristics Variables**

 In regression analyses we examine student characteristics that may be associated with greater frequency of participation. We examined the following socio-demographic variables: (1) gender, (2) social class, (3) first-generation status, and (4) racial-ethnic category. Gender is measured as male or female. Social class is a self-reported ordinal variable measuring family social status at the time respondents were growing up. The variable includes the following response categories: poor, working class, middle class, upper middle class, and wealthy. First-generation status is a nominal variable coded “1” if neither parent attended college and “0” if one or both parents attended college. Racial-ethnic identity includes bivariate dummy-coded variables for African American, Asian American, Latino/Hispanic, White/Caucasian, and Other. White was the reference category.

 We measured two academic background variables: (1) cumulative college GPA and (2) combined SAT/ACT scores. These variables were provided by the universities from administrative data. We included the verbal, quantitative reasoning, and writing tests for combined SAT. For students who took the ACT rather than the SAT, we used the standard conversion table published by the College Board (see College Board, 2016). We controlled for first year entrance (as compared to entrance as transfer students) and upper-division student status in these analyses. First year and upper-division students may be more acclimated to the research university curriculum and/or more socially embedded than transfer and lower-division students (see e.g., Brint et al. 2010).[[4]](#footnote-4)

We measured two features of co-curricular engagement as influences on the activity frequency: (1) officer status and (2) weekly hours spent on co-curricular activities. Officer status was a self-reported nominal variable coded “1” for officer and “0” for non-officers. Average hours spent on co-curricular activities were measured as an eight-category scheme encompassing ranges of values from “0” to “more than 30.” We recoded the categories expressed as ranges to the midpoint. In Table 1A in the Appendix, we provide descriptive statistics. These include the mean, the standard deviation, the minimum, and the maximum value of all variables we examined in the study.

**Methods of Analysis**

 To proceed, we first present descriptive frequency distributions for 17 activity frequency and 17 importance variables. These distributions provide essential information about how often students at the seven campuses said they experienced particular co-curricular learning opportunities and the importance they attached to their clubs or organizations in helping them to develop valuable personal characteristics and skills.

 Although the dependent variable is ordinal in nature, the proportional odds assumption for the ordinal logistic regression is violated. Alternatively, we use multinomial logistic regressions to identify the characteristics of students who were more and less likely to report learning opportunities in their clubs and organizations. Here, we use “never” as the reference category, and “at least one time” and “three or more times” as the two-other dependent variable categories. We include institutional dummies to control for average differences in the dependent variables that may be due to a university’s mission, history, geography, and/or campus culture (Wooldridge, 2010). Due to the limited number of level two units (i.e., seven universities), we present a parsimonious model that does not control for time varying institutional characteristics (Bryan & Jenkins, 2015). However, our level two sample focuses on large research universities, which are more likely to share similar characteristics and reduces the degree of institutional heterogeneity on time varying factors. Finally, we account for the nested structure of the data and the likely nonindependence among respondents from the same educational institution by implementing clustered robust standard errors (Cameron & Miller, 2015).

**Results**

**Activity Frequency**

 Before discussing the results of multi-nominal logistic regressions, we examine the types and prevalence of skills that students potentially learn in co-curricular environments. We find that co-curricular activities provide a substantial percentage of students with relatively extensive opportunities (at least three times or more) to develop important labor market and civic skills. Prior research suggests that although these are desirable experiences of workers and managers in the labor market, they are inadequately developed in college and university settings (Andrews & Higson, 2008). Descriptive statistics of activity frequency shows that a substantial percentage, roughly one-fifth of respondents, reported that they had promoted a co-curricular event, recruited new members for their organization, facilitated a discussion, or planned an event three or more times. The findings suggest that co-curricular environments provide students with complementary opportunities to develop interpersonal and communication skills that may not be extensively developed in large classroom settings at research universities. For instance, overall, roughly a third of respondents stated they wrote a report, mentored, or collected data at least once as part of their experience in a student club or organization.

[Insert Table 2 Here]

 Nevertheless, students experienced far less opportunities in other areas. For instance, less than 20 percent of students had experience in creating a website, in inviting a speaker, in designing a product for sale, or in writing by-law legislation even once as part of their experience in a student club or organization.

**Perceived Importance**

 Although participation in concrete experiences vary in frequency among student respondents, students overwhelmingly indicated that they attached very high importance to their co-curricular involvements. Roughly two-thirds or more of respondents said that their clubs were “very important” or “essential” for developing their ability to work with others, for enjoying the college experience, for becoming more dependable, and for networking. In seventeen of the eighteen indicators we examined, over half of respondents attached high importance to their co-curricular involvement. We find that, only in the case of quantitative development, less than half of student respondents attached high importance due to their co-curricular involvement. Descriptive statistics on importance indicators are displayed in Table 3.

 [Insert Table 3 Here]

**Characteristics of Involved Students**

 In Table 4 we provide results on eight of the 17 activities about which we asked students to describe the frequency of their experiences. These activities are: (1) promoting an event, (2) recruiting new members, (3) facilitating discussions, (4) planning an event, (5) making a research presentation, (6) collecting and analyzing data, (7) writing a research report, and (8) mentoring. We chose these activities both because respondents considered them to be the most common and we believe they constitute important workforce skills students experience within co-curricular organizations. Multinomial logit results from the remaining nine activity variables are presented in Table 2A of the Appendix. We briefly refer to some general patterns in text to Table 2A. Recall, the reference category in our multinomial analysis is “never” across all models, and we report results as odds ratios. The two additional reported categories for the dependent variables are “1 or 2 times” and “3 or more times.”

Club engagement variables were the most consistent net predictors of activity frequency. Across each of the eight activities reported in Table 4, officers were more likely to have participated than non-officers. For instance, the odds of promoting an even at least one or two times relative to never were 260% higher for officers than rank and file members. This positive association was consistent in the remaining nine activities in Table 2A. Similarly, students who reported having spent more hours in clubs and organizations were generally more likely to have participated in each of the eight most common activities that are reported in Table 4, as well as the nine less common activities in Table 2A.

 In general, academic variables were another strong predictor of engagement. Students with higher college GPAs showed statistically significant positive associations on six of the eight activities in Table 4. They were more likely to promote events, recruit members, facilitate discussions, plan an event, present research, and mentor other students than students with lower GPAs. Moreover, students were also more likely to say they had experienced these co-curricular learning opportunities as they matriculated through college. Upper-division students showed significant net positive associations relative to first year students within all eight of the most common activities in Table 4.

[Insert Table 4 Here]

 We found significant gender variation in these data. Women were more likely than men to participate at least once or three or more times in most co-curricular learning opportunities (promoting an event, recruiting members, planning an event, research presentations, research reports, and mentorship). However, they were roughly 31% less likely to mediate a dispute and 41% less likely to help write bylaws (Table 2A). These results suggest that, although women are generally more engaged in educationally-relevant activities than men during their college years (see DiPrete & Buchmann, 2013), the types of opportunities and activities in which they participate may be gendered even outside of the classroom.

In general, African Americans and Latino/Hispanic students were more likely than their White peers to engage co-curricular activities at these large research universities. However, there are several notable exceptions. The odds that African American students engaged in community organizing at least once or twice relative to never were 23% lower than Whites. The odds of creating a website at least once or twice were 22% lower for Latino/Hispanic students than Whites, and 37% lower in the odds than White students of mediating a dispute three or more times. Within all models, the likelihood ratio chi squared test was highly significant, suggesting that the model as a whole fits the data better than a null model.

**Discussion**

Student clubs and organizations are important features of college and university environments for undergraduates, and investigations of their impact on student learning experiences are therefore warranted. On large university campuses, most students are members of at least one student club or organization and engaged members spend several hours a week interacting and working with others on organizational activities. Previous research has focused on the generic benefits of co-curricular engagements and has reached diverse conclusions about the relationship between co-curricular involvements and academic outcomes. Compared to this previous research, we have investigated the specific activities students report experiencing through their participation in student clubs and organizations. In doing so, we provide more textured data and analysis over the frequency of concrete experiences and the types of students who do and do not tend to have them.

We find that students engage in a number of different skill sets within co-curricular environments. One-fifth or more of respondents reported having had experiences in planning and promoting events, recruiting new members, facilitating discussions, and making presentations that required research three or more times while in college due to their club memberships. These experiences have direct relevance to success in the workforce and life after graduation. Nevertheless, student technical and analytical development through analyzing data and creating web designs were less common in co-curricular environments. Moving forward, student clubs may offer more opportunities for developing skills that may facilitate entrepreneurship by fostering product development, artistic, and legislative skills. And while co-curricular environments may unevenly develop diverse skill sets, respondents overwhelming hold positive views toward their student organization. The majority of respondents believe their participation in student organizations positively contributes to their personal development and overall experience in college.

Second, we identify the types of students who are more and less likely to take advantage of the learning opportunities associated with student clubs and organizations. We find that club and academic variables were the most consistent predictors of engagement. That is, officers, students with high GPAs, and students who spend a significant portion of their time in student organizations were the most likely to engage in concrete skills such as promoting events and recruiting new members. We find that juniors and seniors were more likely to engage in higher frequencies of co-curricular activities than first year students. Prior research suggests that students are more likely to join organizations in their later college years after acclimating to higher academic standards, finding new social circles to join, and gaining greater awareness of student organizations (Einfeld & Collins, 2008; Sax et al., 1999).

In general, we find that women and students of color were more likely to engage in co-curricular activities. The findings suggest that student clubs and organizations may be numerous enough and/or heterogeneous enough that students from a wide variety of backgrounds can find a place in them and can thereby gain experiences that may be valuable in the workforce and civic life. We also find that although women were more likely to engage in co-curricular activities overall, the types of tasks may be gendered—women were less likely to engage in creating by laws and designing products. Future research may further unpack this relationship and examine whether student organizations perpetuate traditional gender norms by tasking activities along gender lines. Such gender-based inequalities been identified in a number of studies focusing on the service commitments of male and female faculty (Guarino & Borden, 2017; Misra, Lundquist, & Templer, 2012).

Future research should also provide further examination of the potential for tradeoffs between academic and co-curricular engagements. Although most researchers have found that co-curricular engagements do not come at the expense of academic achievements (Pascarella & Terenzini, 2005), some recent studies found that that involvement in co-curricular activities detract from the primary purposes of higher education, subject matter learning and cognitive skill development (e.g., Armstrong & Hamilton, 2013; Clotfelter, 2011; Nathan, 2005) at a time when study time has been declining (Babcock & Marks, 2011) and gains in analytical and critical thinking in college are not impressive (Arum & Roksa, 2011; Pascarella et al., 1996).

**Limitations**

This study provides unique and concrete measures of the type, frequency, and the perceived importance of student experiences in student clubs and organizations in large research universities. We wish to emphasize that the study results are limited to large public research university settings, and we caution readers against extrapolated these findings to the experiences of students attending regional comprehensive public institutions or students attending private colleges or universities. Future research on these and other educational environments will help to identify how different settings shape the co-curricular experiences of students, as well as how different types of student organizations matter in providing opportunities to develop specific skills.

Our reliance on student self-reports is a second limitation of the study. Prior research suggest that students tend to overestimate learning gains in classroom settings and it is certainly possible that students also overestimate gains due to participation in co-curricular activities (Bowman, 2010; Porter, 2013; Trigwell & Prosser, 1991).

**Implications for Student Affairs Practice**

 Because we have presented a largely positive picture of the role student clubs and organizations play in the learning environment of large public research universities, it is worthwhile to consider how their role could be further enhanced.

 Co-curricular learning suffers in relation to classroom learning because feedback is rarely given as a matter of course. Students are given many opportunities, according to our data, to make presentations and plan events, for example, but they may not be very often debriefed about the quality of their presentations or planning. There is something to be said for students puzzling out the quality of their performances from nonverbal cues and their own and others’ observations about the outcomes of their efforts, but it is also possible that student clubs and organizations would be more powerful learning environments if more officers knew how to provide constructive feedback to members about their performance in club activities. Such a change would require university administrators to organize training sessions for club officers or to provide funds for professional development opportunities through attendance at leadership conferences.

Some campuses have begun to implement assessment of learning outcomes in student clubs and organizations. These efforts focus on providing opportunities for clubs and individual students to provide evidence of learning in domains identified by student affairs offices. At UC San Diego, the Student Affairs Office has identified six “learning domains”: (1) thinking critically and solving problems, (2) communicating effectively, (3) advancing personal and career success, (4) leading a diverse, global society, (5) engaging in a healthy lifestyle, and (6) promoting social justice and community responsibility. Clubs are encouraged to submit evidence of student learning by offering opportunities such as those studied in this paper and by scoring performances using rubrics, portfolios and other methods (UCSD, 2015). The potential for growth is clear for initiative like this one, but so too are possibilities for stifling the freedom provided by student clubs.

One of the great virtues of student clubs and organizations is their freedom from the pervasive evaluation of classroom life, so any attempts to improve the learning environment of clubs would need to think through and balance carefully the improved opportunities for growth that may be possible through the training of officers or assessments of learning outcomes against the valuable freedoms from regular evaluation that are currently endemic to club activities. Recreating the evaluative context of academic classrooms would in our view be counter-productive, because it would diminish the informality that is a primary foundation for the strong social relationships that develop in club life and the different experience of learning that occurs when students must navigate subtle interpersonal cues rather than formal feedback.[[5]](#footnote-5)

Beyond this, it is important to keep in mind that student clubs and organizations create communities in ways that classes rarely do, because they explicitly foster cooperative work on common causes. In this respect they provide an important balance to the environment of classrooms where competition for grades can be a dominating influence. This is an influence compatible with success in the labor market where competitive striving typically takes place within the context of cooperative efforts to achieve organizational goals. It consequently behooves student affairs professionals to foster as many high-quality opportunities for skill development through student clubs and organizations as campus resources allow.

**References**

Abrahamowicz, D. (1988). College involvement, perceptions, and satisfaction: A study of

membership in student organizations. *Journal of College Student Development* 29 (3): 233-238.

Allison, P. (2002). *Missing Data*. Thousand Oaks, CA: Sage.

Andrews, J., & Higson, H. (2008). Graduate employability, ‘soft skills’ versus ‘hard’ business knowledge: A European study. *Higher Education in Europe* 33 (4): 411-422.

Anheier, H. K., & Salamon, L.M. (1999). Volunteering in cross-national perspective: Initial

comparisons. *Law and Contemporary Problems* 43 (Autumn): 43–63.

Armstrong, E.A., & Hamilton, L.T. (2013). *Paying for the party: How college maintains*

*inequality.* Cambridge, MA: Harvard University Press.

Arum, R. & Roksa, J. (2011). *Academically adrift: Limited learning on college campuses.*

Chicago: University of Chicago Press.

Asel, A.M., Seifert, T.A., & Pascarella, E.T. (2009). The effects of fraternity/sorority

membership on college experiences and outcomes: A portrait of complexity. *Oracle: The*

*Research Journal of the Association of Fraternity/Sorority Advisors* 4 (2): 1-15.

Bergen-Cico, D., & Viscomi, J. (2012). Exploring the association between campus co-curricular

involvement and academic achievement.” *Journal of College Student Retention:*

*Research, Theory, and Practice* 14 (3): 329-343.

Biddix, J.P. (2014). Developmental dissent: Campus activism’s reconsideration as a form of civil

learning. In C. Broadhurst & G. Martin (Eds.), *‘Radical’ academia? Understanding the*

*climates for campus activists* (pp. 73-85). San Francisco: Jossey-Bass.

Bowman, N.A. (2010). Can 1st year college students accurately report their learning and

 development? *American Educational Research Journal* 47 (2): 466-496.

Brint, S. & Clotfelter, C.T. (2016). U.S. higher education effectiveness. *Russell Sage Foundation*

 *Journal of the Social Sciences* 2 (1): 2-37.

Brint, S., Douglass, J.A, Thomson, G. & Chatman, S. (2010). *Engaged study: UCUES general*

 *report 2008.* Berkeley, CA: Center for Studies in Higher Education.

Brint, S. & Yoshikawa, S.R.K. (2017). The educational backgrounds of U.S. business and government leaders. *Social Forces* 96 (2): 561-590.

Bryan, M.L., & Jenkins, S.P. (2015). Multilevel modelling of country effects: A cautionary tale. *European Sociological Review* 32(1): 3-22.

Cameron, A.C., & Miller, D.L. (2015). A practitioner’s guide to cluster-robust inference. *Journal of Human Resources* 50: 317-73.

Chatman, S. (2006). *Analysis of response bias in UCUES 2006.* Unpublished paper, Center for

 Studies in Higher Education, University of California, Berkeley.

Clotfelter, C.T. (2011). *Big-time sports in American universities.* Cambridge, England:

 Cambridge University Press.

College Board (2016). *SAT-ACT concordance tables.* New York: College Board. Retrieved from <http://research.collegeboard.org/programs/sat/data/concordance/>

Cress, C.M. Astin, H.S., Zimmerman-Oster, K., & Burkhardt, J.C. (2001). Developmental

outcomes of college students’ involvement in leadership activities. *Journal of College*

*Student Development* 42 (1): 15-27.

DiPrete, T.A., & Buchmann C. (2013). *The rise of women: The growing gender gap in education and what it means for American schools.* New York: Russell Sage Foundation.

Dugan, J.P. (2006). Involvement and Leadership: A descriptive analysis of socially responsible

leadership. *The Journal of College Student Development* 47 (3): 335-343.

Edison, M. Nora, A., Hagedorn, L.S., & Terenzini, P.T. (1996). Influences on students’ openness to diversity and challenge in the first year of college. *Journal of Higher Education* 67 (2): 174-195.

Ehrenberg, R.G. (2012). American higher education in transition. *Journal of Economic Perspectives* 26:193-216.

Einfeld, A., & Collins, D. (2008). The relationships between service-learning, social justice, multicultural competence, and civic engagement. *Journal of College Student Development* 49 (2): 95-109.

Enders, C.K. (2010). *Applied missing data analysis.* New York, NY: Guilford Press.

Engberg, M.E., & Fox, K. (2011). Exploring the relationship between undergraduate service-

learning experiences and global perspective-taking. *Journal of Student Affairs Research*

*and Practice* 48 (1): 85-105.

Foubert, J.D., & Grainger, L.U. (2006). Effect of involvement in clubs and organizations on the

psychosocial development of first-year and senior college students. *NASPA Journal* 43 (1): 166-182.

Gardner, S.K. (2013). The challenges of first-generation doctoral students. *New Directions for Higher Education* 163: 43-54.

Gellin, A. (2003). The effect of undergraduate student involvement on critical thinking: A meta-

analysis of the literature, 1991-2000. *Journal of College Student Development* 44 (6): 746-762.

Guarino, C.M. & Borden, V.M.H. (2017). Faculty service loads and gender: Are women taking

 care of the academic family? *Research in Higher Education* 58 (6): 672-694.

Hamrick, F.A. (1998). Democratic citizenship and student activism. *Journal of College Student*

*Development* 39 (5): 449-460.

Holman, W. (2015, November). “Makerspaces: Toward a New Civic Infrastructure.” *Places.*

Retrieved from <https://placesjournal.org/article/makerspace-towards-a-new-civic-infrastructure/>

Holzweiss, P. Rahn, R., & Wickline, J. (2007). Are all student organizations created equal? The

differences and implications of student participation in academic versus non-academic

organizations. *The College Student Affairs Journal* 27 (1): 136-150.

Hood, A.B. (1984). Student development: Does participation affect growth? *Bulletin of the*

*Association of College Unions-International* 54 (1): 16-19.

Huang, Y.S., & Chang, S.M. (2004). Academic and cocurricular involvement: Their relationship

and the best combinations for student growth. *Journal of College Student Development*

45 (4): 391-406.

Kuh, G.D. (1993). In their own words: What students learn outside the classroom. *American*

*Educational Research Journal* 30 (2): 277-304.

Kuh, G.D. (1995). The other curriculum: Out-of-class experiences associated with student

learning and personal development. *Journal of Higher Education* 66 (1): 123-155.

Misra, J., Lundquist, J.H., & Templer, A. (2012). Gender, work time, and care responsibilities among faculty. *Sociological Forum* 27 (2): 300-323.

Moore, J., Lovell, C.D., McGann, T., & Wyrick, J. (1998). Why involvement matters: A review

 of research on student involvement in the collegiate setting. *College Student Affairs Journal* 17 (2): 4-17.

Nathan, R. (2005). *My freshman year: What a professor learned by becoming a student.* Ithaca,

NY: Cornell University Press.

Pascarella, E.T., Blaich, C., Martin, G.L., & Hanson, J.M. (2011). How robust are the findings of

Academically Adrift? *Change* 43 (3): 20-24.

Pascarella, E.T., Edison, M. Nora, A., Hagedorn, L.S., & Terenzini, P.T. (1996). Influences on

students’ openness to diversity and challenge in the first year of college.” *Journal of*

*Higher Education* 67 (2): 174-195.

Pascarella, E.T., Edison, M. Whitt, E.J. Nora, A. Hagedorn, L.S., & Terenzini, P.T. (1996).

Cognitive effects of Greek affiliation during the first year of college.” *NASPA Journal* 33

(3): 242-259.

Pascarella, E.T., Seifert, T.A. & Blaich, C. (2009). *Validation of the NSSE benchmarks and deep*

*approaches to learning against liberal arts outcomes.* Iowa City: University of Iowa

Center for Research on Undergraduate Education.

Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students: A third decade of*

*research.* San Francisco: Jossey-Bass.

Persell, C.H., & Wenglinsky, H. (2004). For-profit post-secondary education and civic

engagement. *Higher Education* 47 (3): 337-359.

Pike, G.R. (2000). The influence of fraternity or sorority membership on students’ college

experiences and cognitive development. *Research in Higher Education* 41 (1): 117-139.

Porter, S.R. (2013). Self-reported learning gains: A theory and test of college student survey

 response. *Research in Higher Education* 54: 201-226.

Putnam, R.D. (2000). *Bowling Alone*. New York: Simon and Schuster.

Robst, J. (2007). Education and job match: The relatedness of college major and work. *Economics of Education Review* 26 (4): 397-407.

Rubin, D.B. (1987). *Multiple imputation for nonresponse in surveys.* New York, NY: Wiley.

Sax, L.J., Astin, A.W., & Avalos, J. (1999). Long-term effects of volunteerism during the undergraduate years. *Review of Higher Education* 22 (2): 187-202.

Strauss, L.C., & Terenzini, P.T. (2007). The effects of students’ in-and out-of-class experiences

on their analytical and group skills: A study of engineering education. *Research in*

*Higher Education* 48 (8): 967-992.

Terenzini, P.T., Pascarella, E.T., & Blimling, G.S. (1996). Students’ out-of-class experiences and

their influence on learning and cognitive development: A literature review. *Journal of*

*College Student Development* 40 (5): 610-623.

Trigwell, K., & Prosser, M. (1991). Improving the quality of student learning: The influence of learning context and student approaches to learning on learning outcomes. *Higher Education* 22: 251-266.

Tsui, L. (1998). *Fostering critical thinking in college students: A mixed methods study of*

*influences inside and outside the classroom.* Ph.D. dissertation, University of California,

Los Angeles.

Verba, S., Schlozman, K.L, & Brady, H.E. (1995). *Voice and equality.* Cambridge, MA: Harvard

University Press.

University of California, San Diego (UCSD). (2015 October). *UCSD student affairs learning domains.* Retrieved from <http://vcsa.ucsd.edu/_files/assessment/SA-Learning-Domains2015-10-20.pdf/>.

von Hippel, P.T. (2007). Regression with missing Ys: An improved strategy for analyzing multiply imputed data. *Sociological Methodology* 37 (1): 83-117.

Wooldridge, J.M. (2010). *Econometric analysis of cross section and panel data 2nd edition.* Cambridge, MA: MIT Press.

1. Institutional Review Board approval was obtained by the host institution, the University of Minnesota – Twin Cities, in collaboration with individual campus partners. [↑](#footnote-ref-1)
2. None of the campuses stood out consistently relative to the reference campus with respect to levels of student engagement in co-curricular learning opportunities. [↑](#footnote-ref-2)
3. Dependent variables were not imputed owning to bias results (Allison, 2002; von Hippel, 2007). [↑](#footnote-ref-3)
4. Socio-demographic and academic background variables were provided by institutional research offices of the consortium member institutions as seed files connected by student identification numbers. [↑](#footnote-ref-4)
5. For officers it can be argued that one meaningful form of evaluation is peer approbation or disapprobation for effectiveness in carrying out organizational duties. [↑](#footnote-ref-5)