

SERU Consortium Research Paper*

**THE EFFECT OF PRE-COLLEGE EXTRACURRICULAR PARTICIPATION
ON FIRST-YEAR COLLEGE ENGAGEMENT AND COMPLETION**

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ABSTRACT

This study examines how student pre-college participation in extracurricular activities and volunteer and community services varies by demographic and academic variables, and how their experience participating in these activities affects first-year college engagement and learning outcomes. The analysis focuses on students at the University of California's (UC) nine undergraduate campuses and is based on the self-reported data that compares their high school experience with their first year experience at UC. Students differ significantly in their participation in precollege activities by gender, ethnicity, family income, and college admissions status. URM's and socioeconomically disadvantaged students are less likely to participate in these activities. Those who are admitted to UC are likely to participate in more precollege activities. The study also shows that there is a positive correlation between student precollege participation in these activities and their college experience, academic and civic engagement although the relationship is rather weak. The results also reveal that the participation in extracurricular activities and volunteer and community services is a significant predictor on first-year GPA and persistence. The more activities students participate in, the higher their first-year GPA is and the more likely they persist with their current college programs. These findings will be useful for effective development of admissions policy and enrollment management. It also may help high schools and universities to expand or re-organize their out-of-class activities to encourage greater student engagement for targeted populations.

Keywords: Extracurricular Activities, Learning Engagement, Completion

Previous research indicates that student academic engagement is important to their intellectual development and college success (Carini, Kuh, & Klein, 2004; Hughes & Pace, 2003; Shulman, 2002). Research also demonstrates the value of non-cognitive variables such as ability to understand racism, social support, community involvement, positive self-concept, and realistic self-appraisal are related to academic success (Ancis & Sedlacek, 1997; Fuentes & Sedlacek, 1995; Sedlacek, 1989). One important implication: colleges and universities should provide opportunities for students to participate in academic activities and out-of-class events as well.

Unfortunately, the extent to which students engage in these activities is not always the same (Kuh, 2003). Student precollege characteristics, including demographics (gender, ethnicity, family income, and parental educational level) and academic success measured by high school GPA and standardized tests, have a significant correlation to college academic engagement and learning outcomes (Agronow, Freelon, & Levitan, 2005; Agronow, 2008; Bauer & Liang, 2003). High school GPA is the most significant factor in predicting college GPA, followed by standardized test scores (Geiser & Studley, 2004; Ting & Robinson, 1998). None of these studies, however, is able to fully explain the variation of student college academic engagement and GPA.

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Apparently, some other factors, probably both precollege and college, contribute to the difference of student academic engagement and learning outcomes in college.

Other researchers have also examined nontraditional factors on learning outcomes (Ancis & Sedlacek, 1997; Pascarella, 1994; Zaff, 2003). They found that precollege characteristics were related to college course-taking activities, formal classroom experience, and out-of-class activities. Zaff et al. (Zaff, 2003) examined the implications of extracurricular activity participation from the eighth grade through high school on positive outcomes. Their results suggest that consistent participation in extracurricular activities during this school period predicts academic achievement and social behaviors in young adulthood. However, their study only examined whether or not extracurricular activity participation has any effect on college attending, voting behavior of the 1992 national election, and performing community or religious activity. The relationship between precollege participation in extracurricular activities and community services and college engagement remains unexplained.

In addition, most of research universities, e.g. the University of California (UC), the University of Michigan, require applicants to provide information about their participation in out-of-class activities so that admissions evaluators can make a comprehensive review of student academic achievements in high school as well as their precollege experience such as leadership, communication, community services, and so on. To date, very limited research has been done to explore the effect of student precollege participation in various activities on their college engagement and learning outcomes using information from applications.

ENGAGEMENT AND FRESHMAN OUTCOMES

Within the circumstance and environment of a highly selective public university, the University of California's nine undergraduate campuses, this study analyzes how students are similar or different in precollege participation in various extracurricular activities and community service and how important the participation in these activities is in terms of their subsequent university experience. The analysis uses self-reported data that compares their high school experience with their first year experience at UC. Two questions are explored:

- 1) To what extent does student precollege activity participation in extracurricular activities and volunteer and community services vary by selected academic and demographic variables (gender, ethnicity, first language, first college generation, family income, their Academic Index that includes GPA in required courses and test scores, and admissions status)?
- 2) Is student precollege activity participation correlated to first-year college academic and civic engagement and learning outcomes measured by first-year GPA and persistence status?

Data Description and Definitions

Precollege Activities.

UC online application includes several items asking students to provide information about activities they participated in from Grade 9. The activities in the application are categorized as extracurricular activities, volunteer and community services, educational preparation programs, and employment. According to the application instruction, extracurricular activities can include, but are not limited to, team captain for varsity soccer team, student body president, school yearbook editor, first chair of high school symphony orchestra, lead actor of high school play, and JROTC Leadership Education Training. The volunteer and community service is defined as the volunteer work and unpaid community service work a student has performed since ninth grade such as math tutor for elementary school students, youth leader at church, hospital volunteer, and so on. This study will only examine student participation in extracurricular activities and volunteer and community service reported by UC applicants.

The information collected for each activity includes activity or program name, organization, grade level when applicants attended the event, hours per week and weeks per year they spent participating in each activity. In fact, hours students spent on these precollege activities are supposed to be very useful information for this analysis. Unfortunately, the data collected through the online application are not accurate for many students who responded to these questions. For example, some students' response to the amount of hours per week these students spent on one activity is more than 40 and the amount of weeks per year they spent on one activity is above 52.

The analysis includes two independent variables for extracurricular activity and volunteer and community service, separately. Each of them is simply coded based on the number of activities or services applicants reported that they participated in from Grade 9. For example, if a student did not report that he or she participated in any extracurricular activity, this variable is coded as 0, while if a student reported that he or she participated in five different extracurricular activities, this variable is coded as 5 no matter what activities they attended and how long they spent. Since only a very small portion of students reported that they participated in more than five different activities, this variable for these students were all coded as 5 or above.

College Experience.

The first-year college experience measures include academic and civic engagement. The corresponding information was collected in the spring term, 2008 with the University of California Undergraduate Experience Survey (UCUES). UCUES is the UC version of the Student Experience in the Research University (SERU) Survey administered by some forty US and international top tier research universities. UCUES is a comprehensive survey covering most aspects of students' academic and co-curricular experience in college. This study only selected survey items regarding leadership skills, social abilities, and academic and civic engagement.

Learning Outcomes.

Learning outcomes in this study are measured by the first-year college grade point average (GPA) and persistence status. The data were extracted from UC Corporate Student System Undergraduate Longitudinal Database (ULONG). ULONG has student progress data for all students enrolling on UC undergraduate campuses, including major, GPA, persistence status, and student demographic information.

Student Demographic and Precollege Academic Information.

The student demographic and precollege academic information was extracted from UC Corporate Student System Undergraduate Admissions Database (UADM), which includes information on the demographics, socioeconomic origins, and academic achievement of all UC applicants, admits, and enrollees. The student participation in precollege activities is analyzed by males versus females, underrepresented minority (URM) students versus others, first college generation versus others, students speaking English as the first language versus others, low-income students versus others, students in the bottom third of UC's Academic Index versus others, and admitted students versus denied students.

URM students include Native Americans, African Americans, and Chicanos or Latinos. Low-income students are determined based on the self-report of their parents' annual income in the fiscal year of 2006. The cut point for the low income is 43,000 dollars, which was a 30th percentile of California family income in terms of the data from 2006 Current Population Survey March Supplement. Those who did not provide family income are excluded from this analysis by family income. Those whose parents did not have a bachelor's degree were defined as a first-generation college student. The Academic Index was calculated by multiplying student high school weighted, capped GPA¹ by 1000 plus highest score of SAT Reasoning Test (Reading, Math, and Writing) or ACT (composite and English with Writing) and scores of two highest SAT Subject Tests. Two SAT Subject Tests are in two different subject areas, choosing from history, literature, mathematics (Level 2 only), science or language other than English. The bottom third Academic Index cohort includes those with a score below 6420, which is calculated based on the indices of all UC applicants. Again, the analysis by Academic Index does not include those students with missing GPA or any of standardized test scores, or both. UC determines applicant eligibility through multiple methods such as Eligibility in Local Contest (ELC), Admission by Exception, and so on, so some applicants who do not have a standardized test score may be admitted.

Population.

The population in this study includes those high school graduates who applied to any of nine undergraduate campuses of the University of California (Berkeley, Davis, Irvine, Los Angeles, Merced, San Diego, Santa Barbara, Santa Cruz, and Riverside) in the fall term, 2007. There were 87,618 applicants in this year, of whom about 81%, or 71,271, were admitted and 40% or 35,251 enrolled (Table 1). Males and females account for about 55% and 45%, respectively. URM applicants, admits, and enrollees accounted for slightly above 20%. About a quarter of UC applicants, admits, and enrollees were from low income families. The first language of nearly 57% of UC applicants, 58% of UC admits, and 52% of UC enrollees is English only, while the first language for other students is either English and another language or another language only. Approximately one-third of UC applicants and admits are the first-generation students, while the proportion of UC first-generation enrollees is slightly higher, about 37%.

RESULTS

Precollege Activity Participation.

Student demographics have a significant influence on their participation in extracurricular activity and perform volunteer and community services between Grade 9 and 12 (Tables 2 and 3). Female applicants are more likely to participate in extracurricular activities and perform volunteer and community services than males. About 44% and 18% of females reported that they participated in five different extracurricular activities and community services between Grades 9 and 12, respectively, compared to about 37% and 12% reported by males. On average, females participated in 3.5 extracurricular activities and 2.6 services from Grade 9 while males reported that they participated in 3.3 extracurricular activities and 2.2 services from Grade 9.

URM high school students are less likely to participate in precollege activities. About 13% and 19% of URM applicants reported that they did not participate in any extracurricular activities and provided any volunteer and community services, respectively, between Grades 9 and 12 compared to about 7% and 12% reported by other students. Nearly 44% and 16% of non-URM students reported that they attended five different extracurricular activities and provided five different community services from the 9th grade while among URM students, only 31% reported they participated in five different extracurricular activities and 11% reported they performed five different community services. On average, non-URM students participated in about half more activity and service than did their URM counterparts.

Parental income also affects student participation in precollege activities. Nearly 14% of low-income students reported that they did not participate in any extracurricular activities and approximately 18% reported that they did not perform any volunteer and community service between Grades 9 and 12 compared to only about 7% and 13% for other students according to their self-report. Also, about 33% of low-income students reported that they participated in five different extracurricular activities and 12% reported to participate in volunteer and community services, while for middle- and high-income students, the percentages are about ten- and four-percentage points higher, respectively. Low-income students averaged 3 extracurricular activities and slightly above 2 services they participated in between Grades 9 and 12 while other students averaged about 3.5 and 2.5, respectively.

The analysis also shows the extent to which first-generation students and their non-first-generation counterparts participated in extracurricular activity is different. About 46% of non-first-generation students reported that they participated in five different extracurricular activities, while only about 32% of first-generation students reported that they participated in five activities. The proportion of first-generation students who reported that they did not participate in any extracurricular activities between Grades 9 and 12 doubled that of their non-first-generation counterparts who did not participate in any extracurricular activities. First-generation students are less likely to participate in volunteer and community services although the gap between them is narrower than that in extracurricular activity participation. Approximately 11% of non-first-generation students reported they did not perform any community service in contrast to nearly 18% reported by first-generation students. Overall, non-first-generation students participated in about 20% more activities between Grades 9 and 10 than did their first-generation students.

Academic variables are also associated with activity participation of high school students. Those who speak English as the first language are more likely to participate in extracurricular activity as well as volunteer and community service (Tables 3 and 4). For example, nearly 11% of UC applicants whose first language was English and another language or another language only reported that they did not participate in any extracurricular activities from Grade 9, while only about 7% of those whose first language was English only reported that they did not participate in any extracurricular activities. The analysis also shows that the lower the academic performance of a student is, the less likely he or she is to participate in extracurricular activity and perform community service. As showed in Table 3, on average, students in bottom third academic index participated in one less extracurricular activity between Grade 9 and 12 than their counterparts did. Table 4 also indicates that about 17% of those in bottom third academic index reported that they did not provide any volunteer and community service from Grade 9 compared to about 8% reported by other students.

The analysis also shows that UC admitted applicants reported that they participated in more extracurricular activities and performed more volunteer and community services between Grade 9 and 12 than denied applicants (Tables 3 and 5). On average, UC admitted applicants participated in 3.5 different activities and 2.5 volunteer and community services from Grade 9 compared to 2.5 activities and 1.9 services UC denied applicants participated in. Also, 17% of denied applicants reported that they did not participate in any extracurricular activities and about 25% did not provide any volunteer and community services compared to approximately 7% and 11% reported by admits, respectively. The difference of participation in these activities and services on two UC flagship campuses, Berkeley and UCLA, is even more significant. About 62% and 23% of students who were admitted to one of these two campuses or both reported that they participated in five or more extracurricular activities and community service, respectively, as compared to 40% and 15% reported by those applicants denied by these two campuses.

Precollege Activity Participation and First-Year College Experience.

Student precollege participation in extracurricular activity and volunteer and community service is significantly correlated to various skills and abilities in college (Table 6) at the time they started college and at the time they responded to the survey (about a year later). The more activities and services they reported they participated in, the higher leadership and interpersonal skills they have. Also, the more activities and services they participated in, the more capable they are to appreciate diversity and understand themselves.

Student precollege activity participation is also significantly associated with their college academic and civic engagement. Although the association is statistically weak, it is positive. Table 7 shows that the more extracurricular activities and volunteer and community services students participated in before they entered a university, the more engaged they are in academic

activities such as extensive paper revision, group study, class discussion, class presentation, and so on. Student precollege activity participation is also correlated to academic expectations. Students with more experience participating in extracurricular activity and community service are also likely to raise their learning standard, ask an insightful question in class, and choose more challenging courses.

Pearson correlation analysis also shows that student precollege activity participation is significantly correlated to their civic engagement in college (Table 8). The more precollege activities and services a student participated in, the more important he or she thinks that opportunities for community service and leadership skill development while on the campus are. Also, students who participated in more precollege activities and services are more likely to spend more time performing community service or volunteer activities and participating in student clubs or organization than their counterparts who had less experience in participating precollege activities and services.

Precollege Activity Participation and First-Year Learning Outcomes.

Student precollege activity participation has a significant influence on learning outcomes as measured by the first-year GPA and persistence status (Tables 10 and 11). The more activities and/or more volunteer and community services they participate in, the higher their first year GPA is and the less likely they drop out. Even controlling for high school GPA, standardized test scores, and demographical variables such as parental income, ethnicity, first-generation, and first language, participation in extracurricular activity and community service is still a significant predictor for student first year college GPA and persistence status.

DISCUSSION AND IMPLICATIONS

The results of this study indicate that demographic and academic variables are significant factors that affect patterns of high school student participation in extracurricular events and community services. The finding is consistent with other studies about gender differences associated with patterns of participation in extracurricular activities at the high school level (Fullarton, 2002; Mitzel, 1982; NCES, 1997). On average, girls have a somewhat higher participation rate than boys in extracurricular activities. This study did not examine what activities and services females and males are more likely to participate in, respectively. Previous studies, however, reported female participation exceeded that of males within broader categories, predominantly in drama, honors, service, cheerleading, publications, speech, and social related areas (Buser, 1980), while boys only participated significantly more frequently in sports than girls (Nover, 1981).

Lower socioeconomic status (SES) high school students are less likely to participate in extracurricular activity and perform volunteer and community service than higher-SES students. There may be many reasons why lower-SES students are less likely to do so. Obviously, lack of support from family is one major obstacle. Low-income families do not have enough money to support their children to participate in extracurricular activities. Also, the jobs of lower-SES people usually have lower rankings such as food preparation workers, counter attendants, bartenders, dishwashers, housekeepers, and so on. These jobs are often less valued and paid significantly less, and provide less autonomy (APA, 2006; Scott & Leonhardt, 2005), so parents do not have flexible time to accompany their children to after-school activities and community services. Lower-SES families move from one house to another much more frequently than higher-SES families (Nisbett, 2009). This may also prevent parents from supporting their children for after-school activities.

Cognitive culture may be another reason. First-generation students are likely to perceive less support from their families for attending college (Striplin, 1999; Thayer, 2000). This can lead to alienation from family support for their children's participation in extracurricular activities and volunteer services. Environmental factors may also be related to low rate of lower-SES student participation in extracurricular activities and services. Community and school characteristics all affect student participation in non-school activities (Fullarton, 2002; NCES, 1997). For example, a lower-SES community may not have enough resources available for children, and may not be able to provide as many opportunities of services as a middle- or higher-SES community. The findings suggest that schools and communities should put more efforts to provide more opportunities of out-of-class events and encourage students to attend.

The study also confirms the previous findings that students' high school academic performance is significantly and positively associated to their participation in extracurricular events and community services (Fullarton, 2002; NCES, 1997). High achieving students participate more often in extracurricular activities and also services. This study did not investigate whether or not academic performance affects students' engagement or vice versa or even each other. The positive relationship, however, implies that student participation is helpful with their academic development. This finding suggests that parents should support their children to participate in out-of-school services, particularly if their children's academic performance is low. It also suggests that teachers and counselors should pay more attention to these low-performance students and encourage them to attend various activities and services. This may help them with a better performance at school.

It is not surprising that the finding indicates applicants who are eligible to UC admissions participated in more extracurricular activities and perform more volunteer and community services. This is because UC has a comprehensive review in admission process. Although participating in these activities is not a requirement for eligibility determination, UC values student experiences that demonstrate unusual promise for leadership such as community service and participation in student government besides high school GPA and standardized test scores.

Students with higher expectations of themselves going to UC, particularly more selective campuses, may try their best to obtain more experiences in this aspect. Precollege activity participation is positively related to academic and civic engagement in college and also a positive predictor of college student success and retention. Therefore, appropriate application of this knowledge to admissions process could increase the validity of admissions decision.

The results also reveal that student participation in academic and civic engagement extends from the high school into college. Students who participated in above average levels of these activities have greater ability to appreciate, tolerate, and understand racial and ethnic diversity, and place greater value on the importance of personal social responsibility, and knowledge and judgment about themselves. Students who are more involved in extracurricular activities and services in high school are developing habits of the mind and heart that enlarge their capacity for continuous engagement in learning and civic services in college. Obviously, these characteristics potentially motivate students who value their development, both academically and socially, to participate in the similar activities and services when they enter college.

It is also important to note that the Pearson correlations are statistically significant, but the r values are relatively weak. This seems to indicate that there is a very large variability of student academic and civic engagement between individual students from high school to college. Some students may try to attend more precollege volunteer and community events for admissions purpose. After they enter college, they discontinue this effort because they have to spend more time on their coursework. Undoubtedly, campus climate is also a factor to influence students' academic and civic engagement. If the environment they have in college is different from the one they had during the high school period, they may change their habit of engaging in community services and out-of-class activities.

In addition to the positive relationship between student precollege participation in extracurricular activities and community services and out-of-class experiences in college, it is also significantly and positively related to learning outcomes as measured by first-year GPA and persistence status. This finding is not surprising because many studies also find that via academic and civic engagement, students have gains in academic or cognitive development (Kuh, 1995; Terenzini, et al., 1995).

Precollege experiences participating in multiple types of activities and services may enhance their ability to think more about their coursework and academic engagement, and, thus, perform better on their learning outcomes. The findings have implications for college student affairs staff and faculty to develop various activities to meet different students' needs. Knowing that students with lower-SES have less experience of out-of-class activities and services, universities should provide more support for them to engage in academic and civic events. This is one of many ways to help students improve their academic performance in college.

LIMITATIONS

The findings of this study have some limitations. First, because the participants of this study are UC applicants, admits, or enrollees, a majority of them were from California public and private schools and among top 12.5% of high school graduating cohort in the spring term, 2007. Therefore, the sample of this study may or may not represent other students. Thus, the results of student participation in extracurricular activities and community services by demographic and academic variables may not be applied to other students.

Second, the information of precollege activities and services between Grade 9 and the first term of the 12th grade was reported by students for admissions applications. This information may be biased for several reasons. It had been about four years before they completed applications. Those who participated in any activities in the early years may not remember what they had done. Some students may not be quite aware of the definition of extracurricular activities and volunteer and community services. Therefore, they may over-report or under-report the activities they had participated in. It is also possible that some students may over-report their participation purposefully to make their applications look stronger.

Third, the precollege participation was measured by the number of extracurricular activities and volunteer and community services students participated in from the 9th grade. This measure may not accurately reflect the extent to which students participated in out-of-class activities. Some students may attend fewer extracurricular events, but spend some time consistently for several years. In contrast, some students may just spend a very short time attending some more events. Time students spend on these activities may matter a lot on this relational study. Also, some activities and services may have more important

influence on student development and skills than other activities, so it would provide more insights into the relationship between out-of-class or out-of-school activities and college engagement if further study could examine the relationship between participation in some specific activities and services and college experience.

Fourth, the college engagement information was collected in the second term after the participants entered UC. Learning outcomes were measured by first-year GPA and persistence status. Thus, it is unknown if the significant relationship between precollege activity participation and college engagement and learning outcomes will continue throughout the baccalaureate experience. Therefore, further research examining the relationship between precollege activity and service participation and senior year GPA and graduation status may be more meaningful.

CONCLUSIONS

The results of this study further confirm the difference of high school student participation in extracurricular activities and volunteer and community services. Students' demographics have a significant effect on their activity participation. In particular, lower-SES and lower academic performance students are less likely to attend extracurricular events and community services. Those who are admitted to more selective universities are also likely to participate in more activities and perform more volunteer and community services during the high school period.

Another main conclusion of this work is to reveal a previously unknown positive relationship between student precollege participation in extracurricular activities and community services and first-year experience and learning outcomes, though the correlation is weak. The more activities and services students participate in high school, the more leadership and social skills they report they have in college, the more likely they are engaged in academic and civic events in college, the higher first-year GPA they has, and the more likely they persist with their current college programs. These findings will be useful for effective development of admissions policy and enrollment management. It also may help higher schools and universities to expand or re-organize their out-of-class activities to encourage greater student engagement for targeted populations.

The logical next step is to examine the extracurricular and community service engagement of students by their senior year. SERU based research has shown that students within the AAU institutions that are members of the SERU Consortium significantly increase their engagement outside of the classroom as they matriculate into their senior year, leveraging their knowledge and interests as they mature.

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APPENDICES

Table 1 - Selected Characteristics of UC Freshman Applicants, Admits, and Enrollees in the Fall Term, 2007

Selected Variables	Applicants		Admits		Enrollees	
	#	%	#	%	#	%
Total	87,618		71,271		35,251	
Gender						
Male	39,043	44.6	31,207	43.8	15,593	44.2
Female	48,522	55.4	40,046	56.2	19,657	55.8
Ethnicity						
URM	20,296	23.2	15,609	21.9	7,357	20.9
Other	67,322	76.8	55,662	78.1	27,894	79.1
Parental Low Income						
Yes	21,989	25.1	17,554	24.6	10,030	28.5
No	44,916	51.3	36,847	51.7	18,078	51.3
Unknown	20,713	23.6	16,870	23.7	7,143	20.3
First Language						
English	49,817	56.9	41,009	57.5	18,386	52.2
Other	37,740	43.1	30,232	42.4	16,849	47.8
Unknown	61	0.1	30	0.0	16	0.0
First-Generation						
Yes	29,647	33.8	23,946	33.6	13,061	37.1
No	52,027	59.4	42,522	59.7	19,939	56.6
Unknown	5,944	6.8	4,803	6.7	2,251	6.4
Bottom Third Academic Index						
Yes	25,571	29.2	20,694	29.0	9,300	26.4
No	51,467	58.7	47,236	66.3	25,050	71.1
Unknown	10,580	12.1	3,341	4.7	901	2.6

Table 2 - Distribution of Precollege Activity Participation of UC Systemwide Applicants from Grade 9 by Demographic Variables

# of Activities/Services	Extracurricular Activity		Volunteer and Community Service	
	Male	Female	Male	Female
Males versus Females				
0	9.76	7.58	16.71	11.18
1	9.87	7.96	22.64	18.02
2	13.54	11.53	22.29	21.02
3	14.97	13.80	16.51	18.58
4	15.08	15.32	10.14	13.39
5	36.78	43.82	11.71	17.80
URM Students versus Other Students				
	URM	Other	URM	Other
0	12.43	7.40	19.34	11.95
1	11.46	8.01	22.95	19.21
2	15.06	11.63	21.08	21.74
3	15.31	14.02	15.93	18.18
4	14.42	15.44	9.72	12.61
5	31.31	43.51	10.98	16.31
Low-Income Students versus Other Students				
	Low Income	Other	Low Income	Other
0	13.43	7.19	17.73	12.36
1	11.60	8.32	22.56	19.22
2	13.79	12.42	20.95	21.63
3	14.66	14.42	16.14	18.06
4	13.80	15.56	10.37	12.58
5	32.73	42.10	12.26	16.15
First-Generation Students versus Non-First-Generation Students				
	First-Generation	Other	First-Generation	Other
0	12.62	6.18	17.68	11.22
1	11.92	7.03	22.58	18.54
2	14.48	11.19	21.22	21.75
3	15.27	13.84	16.22	18.55
4	14.22	15.69	10.21	13.02
5	31.48	46.06	12.08	16.90

Table 3 - Mean Differences on Precollege Activity Participation by Selected Variables

Activity/Service	Mean	SD	Mean	SD	Cohen's d Effect Size
Gender	Female		Male		
Extracurricular Activity	3.53	1.66	3.26	1.72	0.16***
Volunteer and Community Service	2.58	1.62	2.16	1.58	0.27***
Ethnicity	URM		Other		
Extracurricular Activity	3.02	1.77	3.53	1.65	-0.30***
Volunteer and Community Service	2.07	1.59	2.49	1.61	-0.27***
Parental Income	Low Income		Other		
Extracurricular Activity	3.02	1.81	3.49	1.65	-0.28***
Volunteer and Community Service	2.16	1.61	2.48	1.61	-0.20***
First-Generation	First Generation		Other		
Extracurricular Activity	3.01	1.78	3.64	1.60	-0.39***
Volunteer and Community Service	2.15	1.60	2.54	1.60	-0.25***
First Language	English Only		Other		
Extracurricular Activity	3.50	1.64	3.30	1.76	0.11***
Volunteer and Community Service	2.42	1.62	2.37	1.61	0.03***
Academic Index	Bottom Third		Other		
Extracurricular Activity	2.94	1.75	3.81	1.49	-0.55***
Volunteer and Community Service	2.11	1.57	2.69	1.57	-0.37***
UC Systemwide Admission Status	Admitted		Denied		
Extracurricular Activity	3.52	1.63	2.93	1.89	0.35***
Volunteer and Community Service	2.51	1.59	1.90	1.61	0.38***
Berkeley/Los Angeles Admissions Status	Admitted		Denied		
Extracurricular Activity	4.20	1.27	3.41	1.68	0.49***
Volunteer and Community Service	2.96	1.54	2.39	1.60	0.36***

*** $p < .001$.

Table 4 - Distribution of Precollege Activity Participation of UC Systemwide Applicants from Grade 9 by Academic Variables

# of Activities/Services	Extracurricular Activity		Volunteer and Community Service	
	English Only	Other	English Other	Other
Students with English as First Language versus Other Students				
0	6.98	10.50	13.62	13.58
1	8.10	9.77	19.61	20.73
2	12.58	12.24	21.44	21.82
3	14.76	13.76	17.76	17.55
4	15.82	14.42	12.13	11.71
5	41.76	39.32	15.45	14.62
Students in Bottom Third Academic Index versus Other Students				
	Bottom Third	Other	Bottom Third	Other
0	12.02	4.05	17.01	8.46
1	12.85	6.12	24.01	17.53
2	15.97	10.27	22.07	22.06
3	16.13	13.68	16.00	19.46
4	14.51	16.17	9.93	13.93
5	28.52	49.70	10.97	18.56

Table 5 - Distribution of Precollege Activity Participation of UC Applicants from Grade 9 by Admissions Status

# of Activities/Services	Extracurricular Activity		Volunteer and Community Service	
	Admitted	Denied	Admitted	Denied
<i>UC Systemwide Eligible Applicants versus Ineligible Applicants</i>				
0	6.62	17.05	11.14	24.66
1	8.38	10.69	19.51	22.54
2	12.20	13.41	22.00	19.80
3	14.56	13.27	18.38	14.49
4	15.69	13.06	12.79	8.25
5	42.55	32.52	16.19	10.25
<i>UC Berkeley/Los Angeles Admitted Applicants versus Denied Applicants</i>				
	Admitted	Denied	Admitted	Denied
0	2.46	8.04	5.69	13.16
1	3.07	8.93	14.27	20.69
2	6.38	12.59	20.41	21.72
3	10.73	14.65	20.56	17.82
4	15.07	15.69	15.70	11.80
5	62.30	40.10	23.37	14.81

Table 6 - Pearson Correlation between Student Precollege Participations in Activities and Their Various Skills and Abilities

Skill/Ability	Extracurricular Activity		Volunteer and Community Service	
	Started	Current	Started	Current
Leadership Skills	0.1685***	0.1152***	0.1208***	0.0727***
Interpersonal (Social) Skills	0.1095***	0.0853***	0.0876***	0.0623***
Ability to Appreciate, Tolerate, and Understand Racial and Ethnic Diversity	0.0180*	0.0249**	0.0043	0.0103
Ability to Appreciate Culture and Global Diversity	0.0467***	0.0515***	0.0227**	0.0264**
Understanding the Importance of Personal Social Responsibility	0.0435***	0.0483***	0.0364***	0.0506***
Self Awareness and Understanding	0.0291***	0.0304***	0.0279***	0.0236**

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 7 - Pearson Correlations between Student Precollege Activity Participations and Their Academic Engagement in College

Academic Engagement in College	Extra- Curricular Activities	Volunteer and Community Services
Raised Your Standard for Acceptable Effort due to the High Standards of a Faculty Member	0.0158	.0383***
Extensively Revised a Paper at Least Once before Submitting It to Be Graded	.0335***	.0763***
Sought Academic Help from Instructor or Tutor When Needed	.0458***	.0966***
Worked on Class Projects or Studied as a Group with Other Classmates Outside of Class	.0559***	.0688***
Helped a Classmate Better Understand the Course Material When Studying Together	.0389***	.0421***
Contributed to a Class Discussion	.0975***	.0439***
Brought up Ideas or Concepts from Different Courses during Class Discussions	.0822***	.0526***
Asked an Insightful Question in Class	.0766***	.0398***
Found a Course so Interesting That You Did More Work Than Was Required	.0316***	.0543***
Chosen Challenging Courses, When Possible, Even Though You Might Lower Your GPA by Doing So	.0563***	.0325***
Made a Class Presentation	.0427***	.0443***

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 8 - Pearson Correlations between Student Precollege Activity Participations and Their Civic Engagement in College

Civic Engagement in College	Extra- Curricular Activities	Volunteer and Community Services
Opportunities for community service while on this campus are important to me	0.1204***	0.1744***
Opportunities to develop my leadership skills while on this campus are important to me	0.1500***	0.1259***
Hours spent in a typical week performing community service or volunteer activities	0.0800***	0.0914***
Hours spent in a typical week participating in student clubs or organization	0.1355***	0.0967***

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 9 - Linear Regressions of First Year College GPA and Student Participation in Precollege Activities and Selected Demographic and Academic Variables

Factors	Model I	Model II
Extracurricular Activity	.0608***	.0139***
Volunteer and Community Service	.0364***	.0134***
Weighted, Capped High School GPA		.4870***
Highest of SAT or ACT		.0007***
URM		-.0526***
Low Parental Income		-.0218***
First-Generation		-.0646**
First Language English Only		.0469***
	$N = 27,261$	$N = 27,261$
	$R^2 = 5.5\%$	$R^2 = 28.2\%$

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 10 - Logistic Regressions of First Year Persistence and Student Participation in Precollege Activities and Selected Demographic and Academic Variables

Factors	Model I (N = 27,381)	Model II (N = 27,381)
Extracurricular Activities	.1114***	.0358*
Volunteer and Community Services	.1301***	.0799***
Weighted, Capped High School GPA		.8895***
Highest of SAT or ACT		.0013***
URM		-.2038***
Low Parental Income		.0167
First College Generation		-.1055
First Language: English Only		-.2856***

* $p < .05$; ** $p < .01$; *** $p < .001$