

The Impact of Extracurricular Activity on Student Academic Performance

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Abstract

It has been generally assumed that participation in extracurricular activities has a positive impact on the retention of students beyond the first year. However, many also believe that these activities may actually affect student performance in a negative manner due to conflicting time requirements and competing schedules, even if they do in fact enhance student persistence. Interestingly, relatively few studies have been performed in either of these areas due to a lack of applicable data.

This paper addresses these issues by presenting a study which revealed that students achieved much higher rates of retention and graduation, maintained better GPAs, and had higher good standing rates when they engaged in any of the activities within the scope of this study, which included serving as a Board Member of ASI, becoming an Orientation Leader, taking a job as Residence Hall Associate, or holding a leadership position in an on-campus club.

For the purposes of this study, freshman and undergraduate transfer cohorts from 2002 through 2007 were selected for use as samples. All students were then divided into two groups: Participants and Non-participants. Furthermore, in relation to the freshmen cohorts, three sub-categories were adapted to perform further comparative analyses to ensure that the participant and non-participant groups were comparable in relation to their academic backgrounds, these included; students with high school GPAs below 3.0, students in need of remediation, and commuters. Additionally, two sub-categories were employed in relation to the undergraduate transfer cohorts, those being; males, and students under the age of 25.

Introduction

Based upon a literature review and an analysis of best practices, it seems almost self-evident that student engagement, including extracurricular activities, has a positive impact on student academic performance. NSSE reports, for example, have been widely used to study the relationship between student engagement and academic performance (National Survey of Student Engagement [NSSE] 2007 & 2008). One recent study on second-year retention showed that “stayers” most likely participated in more extracurricular activities and spent more time on activities such as involvement in student clubs, athletic teams, or other social activities than did “leavers”(Williford & Wadley, 2008). However, another study seemed to suggest that participation in sports, fraternities, and sororities could either enhance or decrease student academic motivation (Van Etten, Pressley, McInerney & Darmanegara, 2008)

Several ground-breaking studies on this topic (Astin, 1985; Tinto, 1993; Pascarella & Terenzini, 2005) suggest that there is a positive correlation between student engagement and student learning and persistence. Astin theorized that student learning is a function of a student's level of academic and social involvement with the institutional environment, whereas Tinto posited that extent to which students share the values and norms of other individuals in the institution impacts their persistence in college.

The research question of this study is whether students who participated in extracurricular activities during their college career achieved higher academic performance than their peers who were not involved in such activities. In other words, universities invest a great deal of money and manpower in support of extracurricular activities in an effort to foster student engagement; therefore, it is also necessary to assess if such intervention actually enhances student academic performance. Furthermore, it is necessary to examine the impact of extracurricular activities on student retention and graduation more directly with quantitative measurements, beyond the interpreted results of surveys or self reporting. This study also tries to address the concern that these activities may actually affect student grades and GPAs in a negative manner due to competing schedules.

With assistance from the Division of Student Affairs, data was recently collected with regard to the extracurricular activities of Sacramento State's students. Subsequently, the Office of Institutional Research (OIR) conducted a research project derived from this data as relevant to the extracurricular activities and academic performance of these students.

The Methodology

The following extracurricular activities were used for this study based upon the availability of pertinent data:

- Board Members of Associated Students, Inc. (ASI)
- Residence Hall Associates
- Orientation Leaders
- Student Club Leaders/Board Members

Freshman cohorts (N=14,932) and Undergraduate transfer cohorts (N=19,115) from 2002 through 2007 were selected for use as samples in this study to insure that sufficient data was available as necessary for retention and graduation analyses. All students were subsequently divided into two groups: Participants and Non-participants. Students who participated in at least one of the measured activities during any time in their college career were defined as participants. To insure that the participant and non-participant groups were comparable, several subgroups were adapted to address any significant differences found between the two groups in relation to their academic backgrounds or demographic characteristics.

In relation to freshmen, three sub-categories were adapted to conduct further comparison analyses: The first category was comprised of those students who had a high school GPA below 3.0 (30.8% of 2002-2007 cohorts). GPAs of 3.0 were used as a base measurement in this study as this is the

current admission standard for entry as a “qualified” student (all high school graduates with GPAs of 3.0 or higher automatically meet Sacramento State’s admissions criteria). The second category was made up of students who were in need of remediation (68.9% of the cohorts). These two factors are often indicators of a disadvantaged academic background. SAT scores were not included as an indicator of academic background due to incomplete data (Sacramento State does not require the submission of SAT scores if a student has a high school GPA equal to or higher than 3.0). Additionally, a third category was established to identify commuters, who make up a large portion of the freshman cohorts (71.1% of the cohorts) and were assumed to be unlikely participants of any extracurricular activities on campus.

**Table 1: The Characteristics of Participants and Non-Participants
Freshman Cohorts 2002-2007**

	Participants			Non- Participants			Significant <i>Difference</i>
	Count	%	Mean	Count	%	Mean	
Gender							
Female	530	57.5%		8,395	59.9%		No
Male	392	42.5%		5,614	40.1%		No
Ethnicity							
Minority	459	49.8%		7,130	50.9%		No
White/Other	463	50.2%		6,879	49.1%		No
Age (Entering year)			18			18	No
Commuter (first term)	525	56.9%		10,094	72.1%		Yes
Full-timer (first term)	909	98.6%		13,452	96.0%		Yes
Need Remediation	578	62.7%		9,713	69.3%		Yes
HS GPA			3.3			3.2	Yes
SAT Score			995			962	Yes

Note: Data in yellow highlight are higher value based on χ^2 or T-Test ($P < .001$).

In relation to undergraduate transfers, two sub-categories were adapted to conduct comparison analyses. The first category was comprised of those students who were male (42.1% of the 2002-2007 cohorts). The second category was made up of those who were under the age of 25, commonly referred to as traditional students (78% of the combined cohorts). It is worth mentioning, however, that SAT scores and high school GPAs were not included as indicators of academic performance or background since Sacramento State does not require the submission of SAT scores or high school GPAs from its undergraduate transfer students.

**Table 2: The Characteristics of Participants and Non-Participants
Transfer Cohorts 2002-2007**

	Participants			Non- Participants			Significant <i>Difference</i>
	Count	%	Mean	Count	%	Mean	
Gender							
Female	309	49.8%		10,757	58.2%		No
Male	312	50.2%		7,737	41.8%		Yes
Ethnicity							
Minority	220	35.4%		6,467	35.0%		No
White/Other	401	64.6%		12,027	65.0%		No
Age (Entering year)			23			24	Yes
Regular Admitted	605	97.4%		18,051	97.6%		No
Transfer GPA			3.3			3.2	No

Note: Data in yellow highlight are higher value based on χ^2 or T-Test ($P < .001$).

The academic performances of both the selected freshmen and transfer cohorts were examined based on four criteria: Retention Rate after one to three years; Six-year and four-year Graduation Rate (2002 freshmen cohort and 2004 transfer cohort), GPA, and Good Standing rate (which refers to a cumulative GPA ≥ 2.0) from first term to fourth term. Chi-Square Tests and Independent Sample T-Tests were then used to ensure that any differences, in terms of the four indicators, between the participants and non-participants did not occur by chance.

It is important to note that it was necessary to track the academic performance of students beyond their first year since the majority of the students began participating in extra-curricular activities during their second year in college or later. However, data relevant to the precise starting year of extra-curricular activity is to this point incomplete due to limitations with regard to the tracking period (starting year data only began to be compiled in 2005). Therefore, this study will take this factor into consideration when drawing conclusions on the first year academic performance of the participants.

The Results

1. The characteristics of the freshmen participants were as follows: a total of 922 freshmen students (which correlates to a participation rate of 6.2%) from within the 2002-2007 cohorts participated in at least one of the specified extra-curricular activities during their college career. While the demographic characteristics were basically the same for participants and non-participants, the academic backgrounds and enrollment status of the two groups were quite different.

Based on the table of analyses on the previous page (Table 1), freshmen participants had higher high school GPAs and SAT composition scores than non-participants. They were also more likely to be full-time students, live on campus for at least their first semester, and were generally more prepared for college study with a smaller percentage needing remediation. Subsequently, it was necessary to control for some of these academic background indicators when conducting a comparison study between participants and non-participants.

- The first comparison highlights the performance and retention of freshmen with high school GPAs below 3.0. A GPA of 3.0 or above is the admission standard for entry as a “qualified” student. However, 30.7% of the freshmen from the 2002-2007 cohorts had high school GPAs which were below 3.0.

The following table illustrates the comparison of participants and non- participants with high school GPAs below 3.0. Based upon these results it is evident that the participants performed much better than non-participants in terms of retention, six-year graduation rate, good standing rate, and cumulative GPA.

Table 3: Comparison of Academic Performance (Freshmen - High School GPA < 3.0)

	Participants			Non- Participants			Significant Difference
	Count	%/Mean	Trend	Count	%/Mean	Trend	
Retention							
1 Year Later	228	97.9%		3,027	69.7%		Yes
2 Years later	205	94.0%	-3.8%	1,862	52.1%	-17.5%	Yes
3 Years Later	167	88.4%	-5.7%	1,240	45.3%	-6.8%	Yes
Graduation (2002 cohort only)							
Within 6 years	36	72.0%		186	25.0%		Yes
Good Standing Rate							
First Term	201	86.3%		2,811	64.7%		Yes
Second Term	192	82.8%	-3.5%	2,234	56.2%	-8.5%	Yes
Third Term	187	87.4%	4.6%	1,792	71.8%	15.6%	Yes
Fourth Term	178	85.2%	-2.2%	1,523	69.4%	-2.3%	Yes
Cumulative GPA							
First Term	233	2.7		4,346	2.2		Yes
Second Term	232	2.6	-0.1	3,975	2.0	-0.1	Yes
Third Term	214	2.6	0.0	2,497	2.3	0.3	Yes
Fourth Term	209	2.5	-0.1	2,194	2.2	-0.1	Yes

Note: Data in yellow highlight are higher value based on X^2 or T-Test ($P < .001$).

- The second comparison highlights the performance and retention of students in need of remediation. The need for remediation is generally characterized as college-level students lacking the skills necessary to perform college-level work in reading, writing, or mathematics. 68.9% of the selected freshmen had to take at least one remedial course in English, Math, or both. Based upon previous research performed by the OIR, remedial students at Sacramento State tend to have high attrition rates and low graduation rates.

This study revealed that remedial students that participated in extra-curricular activities performed better than non-participants based on the four academic performance criteria selected. The following table (Table 4) illustrates the comparison of the participants and non-participants that were in need of remediation:

Table 4: Comparison of Academic Performance (Freshmen - Need Remediation)

	Participants			Non- Participants			Significant Difference
	Count	%/Mean	Trend	Count	%/Mean	Trend	
Retention							
1 Year Later	567	98.1%		7,273	74.9%		Yes
2 Years later	528	95.7%	-2.4%	4,837	60.1%	-14.8%	Yes
3 Years Later	452	91.3%	-4.3%	3,391	54.0%	-6.0%	Yes
Graduation (2002 cohort only)							
Within 6 years	70	70.7%		568	35.4%		Yes
Good standing rate							
First Term	522	90.3%		7,190	74.0%		Yes
Second Term	505	88.4%	-1.9%	5,980	66.5%	-7.5%	Yes
Third Term	496	91.3%	2.9%	4,893	81.2%	14.7%	Yes
Fourth Term	484	90.3%	-1.0%	4,237	77.9%	-3.3%	Yes
Cumulative GPA							
First Term	578	2.9		9,714	2.4		Yes
Second Term	571	2.7	-0.1	8,995	2.3	-0.2	Yes
Third Term	543	2.7	0.0	6,028	2.5	0.3	Yes
Fourth Term	536	2.7	0.0	5,441	2.4	-0.1	Yes

Note: Data in yellow highlight are higher value based on X^2 or T-Test ($P < .001$).

- The third comparison is in relation to commuters. Based upon a previous OIR study, commuters at Sacramento State generally have lower retention rates. However, the results of this study clearly show that commuters who participated in extracurricular activities performed significantly better than non-participants based on the four criteria employed. The following table (Table 5) illustrates the comparison of the participants and non- participants that were commuters:

Table 5: Comparison of Academic Performance (Freshmen - Commuter)

	Participants			Non- Participants			Significant Difference
	Count	%/Mean	Trend	Count	%/Mean	Trend	
Retention							
1 Year Later	516	98.3%		7,640	75.7%		Yes
2 Years later	485	96.0%	-2.2%	5,120	61.7%	-14.0%	Yes
3 Years Later	412	92.2%	-3.9%	3,594	55.7%	-6.0%	Yes
Graduation (2002 cohort only)							
Within 6 years	80	73.4%		633	36.0%		Yes
Good standing rate							
First Term	487	92.8%		7,729	76.6%		Yes
Second Term	474	91.0%	-1.8%	6,576	70.9%	-5.6%	Yes
Third Term	461	92.6%	1.6%	5,261	83.9%	13.0%	Yes
Fourth Term	449	91.3%	-1.3%	4,647	81.7%	-2.3%	Yes
Cumulative GPA							
First Term	525	3.0		10,095	2.5		Yes
Second Term	521	2.9	-0.1	9,273	2.4	-0.1	Yes
Third Term	498	2.8	0.0	6,268	2.6	0.2	Yes
Fourth Term	492	2.8	-0.1	5,691	2.6	-0.1	Yes

Note: Data in yellow highlight are higher value based on X^2 or T-Test ($P < .001$).

- The characteristics of the undergraduate transfer participants were as follows: a total of 621 undergraduate transfer students (which correlates to a participation rate of 3.2%) from within the 2002-2007 cohorts participated in at least one of the specified extra-curricular activities during their college career.

Based on the table of analyses on page 4, Table 2; undergraduate transfer students that participated in extra-curricular activities were not that different from their non-participant peers. There were no significant differences in terms of the racial/ethnic make-up, admission status, or transfer GPAs. There were, however, two differences that were deemed to be statistically significant. The age at the time of transfer was lower (23) for participants that it was for non-participants (24), and there were a higher percentage of males in the participant category (50.2%) than in the non-participant category (41.8%). Subsequently, it was necessary to control for these attributes when conducting a comparison study between participants and non-participants.

- The first comparison highlights the performance and retention of undergraduate transfer students that were male. The following table (Table 6) illustrates the comparison of participants and non-participants within this category. Based upon these findings it is evident that male undergraduate transfer students that participated in extra-curricular activities performed much better than non-participants in terms of retention and overall GPA. However, there was no significant difference between male participants and non-participants in terms of their good standing or six-year graduation rates.

Table 6: Comparison of Academic Performance (Transfer - Males)

	Participants			Non- Participants			Significant Difference
	Count	%/Mean	Trend	Count	%/Mean	Trend	
Retention							
1 Year Later	298	95.5%		6,218	80.4%		Yes
2 Years later	270	92.8%	-9.4%	4,448	70.8%	-28.5%	Yes
3 Years Later	178	75.4%	-34.1%	2,477	50.9%	-44.3%	Yes
Graduation (2002 cohort only)							
Within 4 years	92	62.6%		2,079	55.9%		No
Pass Rate							
First Term	286	91.7%		6,746	88.1%		No
Second Term	299	97.4%	5.7%	6,597	95.3%	7.3%	No
Third Term	293	98.7%	1.3%	6,012	97.4%	2.1%	No
Fourth Term	281	97.1%	-1.6%	5,539	97.9%	0.5%	No
Cumulative GPA							
First Term	312	3.0		7,661	2.7		Yes
Second Term	307	3.0	0.0	6,921	2.8	0.1	Yes
Third Term	297	3.0	0.0	6,174	2.9	0.0	Yes
Fourth Term	287	3.0	0.0	5,707	2.9	0.0	Yes

Note: X^2 or T-Test, $P < .001$ (in yellow highlight); $P < .01$ or $P < .05$ (in green highlight)

- The second comparison highlights the performance and retention of undergraduate transfers who were under the age of 25. Students within this age category are generally referred to as being more “traditional” that consists of over 75% of undergraduate student body of Sac State. The following table (Table 7) illustrates the comparison of participants and non- participants in relation to those students who were under the age of 25. Based upon these outcomes it is evident that participants of extra-curricular activities performed much better than non-participants in terms of retention, and overall GPA. To a slightly lesser degree, participants also performed better in terms of good standing rate and six-year graduation rate.

Table 7: Comparison of Academic Performance (Transfer – Under the Age of 25)

	Participants			Non- Participants			Significant Difference
	Count	%/Mean	Trend	Count	%/Mean	Trend	
Retention							
1 Year Later	488	95.9%		11,748	81.6%		Yes
2 Years later	435	92.0%	-10.9%	8,623	73.2%	-26.6%	Yes
3 Years Later	280	75.5%	-35.6%	4,680	51.1%	-45.7%	Yes
Graduation (2002 cohort only)							
Within 4 years	165	72.1%		4,324	61.8%		Yes
Pass Rate							
First Term	470	92.5%		12,760	89.3%		Yes
Second Term	489	98.0%	5.5%	12,465	96.1%	6.8%	Yes
Third Term	485	99.6%	1.6%	11,416	97.9%	1.8%	Yes
Fourth Term	465	98.3%	-1.3%	10,520	97.0%	-0.9%	No
Cumulative GPA							
First Term	508	3.0		14,284	2.8		Yes
Second Term	499	3.1	0.1	12,972	2.9	0.1	Yes
Third Term	487	3.1	0.0	11,665	2.9	0.0	Yes
Fourth Term	473	3.0	0.0	10,848	2.9	0.0	Yes

Note: X^2 or T-Test, $P < .001$ (in yellow highlight); $P < .01$ or $< .05$ (in green highlight)

Analyses and Discussion

Based upon the findings of this study it is quite apparent that extracurricular activities have a very positive impact on the academic performance of students at Sacramento State. Students achieved much higher rates of retention and graduation, better GPAs, and higher good standing rates when they engaged in any of the activities included in this study, such as; serving as a Board Member of ASI, becoming an Orientation Leader, taking a job as Residence Hall Associate, or serving in a leadership position in an on-campus student club.

Among the 922 freshmen participants, 64.0% were involved in one activity, 24.8% in two activities, and 11.2% in 3 to 8 activities. In relation to the 621 undergraduate transfer participants, 72.1% were involved in one activity, 21.1% in two activities, and 6.8% in 3 to 8 activities. In view of this study's findings, it's obvious that participation in extracurricular activities did not lower the academic performance of the participants, but instead helped them to persist in college and bolstered their progress toward graduation. It is worth mentioning, however, that the type of student that gravitates toward positions of leadership within student clubs and/or organizations might also tend to be more motivated and engaged in general. Even so, since we are unable to control for motivational factors, we utilized statistical sub-categories in order to control for differences in student performance.

When controlling for high school GPA as an academic background indicator of freshmen performance, participants at both the higher end (GPA ≥ 3.0) and lower end (GPA < 3.0) of the spectrum

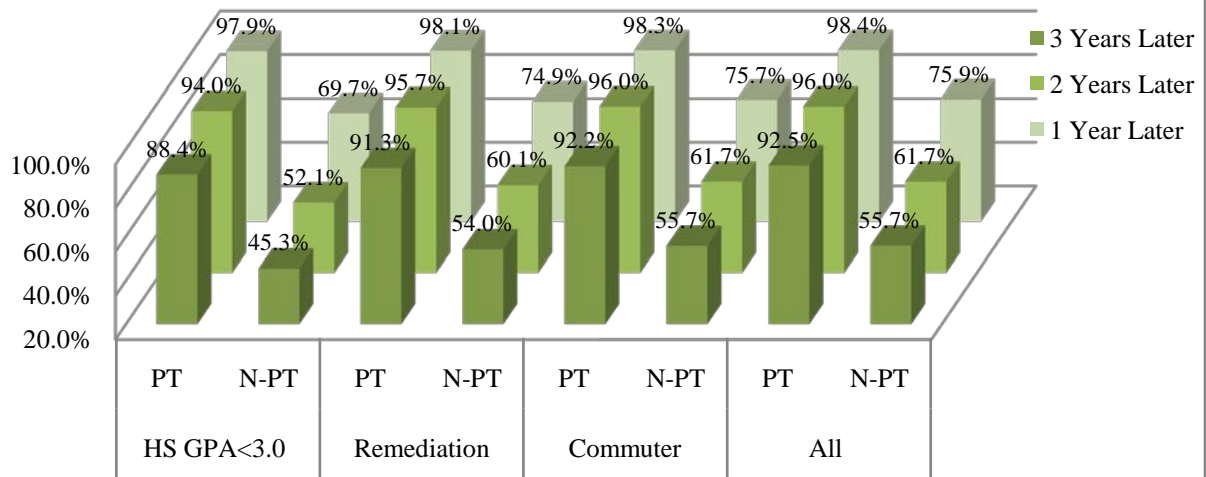
achieved higher academic performance than non-participants. Since evidence has shown that students who enter college with low high school GPAs are more likely to leave before completing college, and that there is also a high correlation between high school GPA and first college year GPA (Camara & Echternacht, 2000), it is readily apparent that these extra-curricular activities made an incredible contribution toward the success of these students.

Remarkably, participants who were in need of remediation benefited from extra curriculum activities as well. Based upon local and national database results, remedial students tend to have lower levels of persistence/success than traditional “qualified” students. Additional research on remediation has shown that students who need developmental work, and are therefore required to spend more time in developmental courses, often have lower retention and graduation rates due to the increased requirements the students must meet (Adelman, 1998). Calcagno & Long (2008) even suggest that although remediation might promote early persistence in college, the early effects of remediation do not necessarily translate into completion of college-level credits or increased progress toward degree completion. However, the results of this study clearly demonstrated that remedial students gained higher persistence rates when they engaged in extra-curricular activities.

When examining students who could be classified as being “commuters”, participants once again out-performed non-participants in terms of retention rate, cumulative GPA and good standing rate. The results show that commuters not only can be engaged in extracurricular activities (57% of the participants were commuters), but also achieved better grades and had increased rates of persistence in college when engaged.

According to a trend analysis with regard to retention in the freshmen cohorts, the rates for participants in extracurricular activities were very stable, with only a slight decline, compared to those for non-participants across all three categories, as well as in relation to “all” students. The retention rates of non-participants were not only much lower but also decreased sharply: within the first comparison group (high school GPA < 3.0) the retention rate of non-participants dropped 17.6% between 1 year later and 2 years later compared to a 3.9% decline for participants during the same time period. With respect to the second comparison group (those needing remediation), the retention rate of non-participants dropped 14.8% between 1 year later and 2 years later compared to a 2.4% decline for participants. For the third comparison group (commuters), the retention rate of non-participants dropped 14% between 1 year later and 2 years later compared with only 2.3% decline for participants. (Please refer to Figure 1)

Figure 1: Freshmen Cohorts - Retention Rates of Participants and Non-participants in Extracurricular Activities

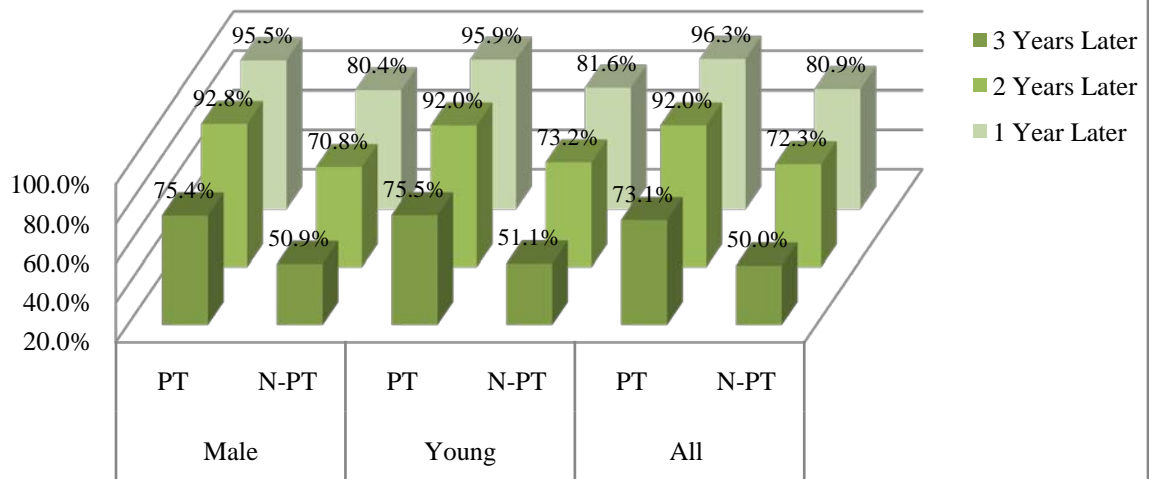


The study's findings in relation to the retention rates of undergraduate transfers were remarkably similar to those of freshmen. It is very encouraging that male participants not only outperformed male non-participants, but also had higher retention rates than all students at Sacramento State since many studies, including one performed previously by the OIR at Sacramento State, have demonstrated that male students generally have lower retention rates.

When controlling for the subgroup of transfer students that were under the age of 25, the results are the same: the retention rates are much higher for participants than non-participants. The positive influences of extra-curricular activities seem to be very strong no matter the dimension of the group examined and compared.

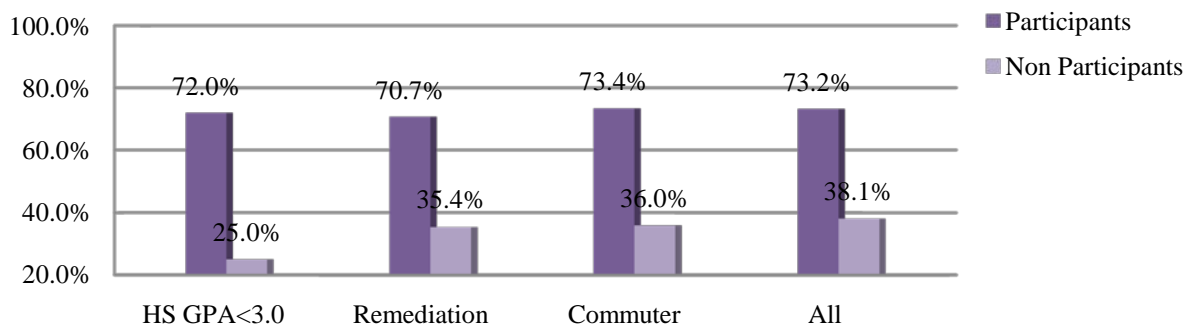
The retention rate of non-participants was not only much lower than those of participants, but also decreased sharply with time. For the first comparison group (males) the retention rate of non-participants dropped 9.6% between 1 year later and 2 years later compared to a 2.7% decline for participants during the same time period. For the second comparison group (under the age of 25), the retention rate of non-participants dropped 8.4% between 1 year later and 2 years later compared to a 3.9% decline for participants. (Please refer to Figure 2)

Figure 2: Undergraduate Transfer Cohorts - Retention Rates of Participants and Non-participants in Extracurricular Activities



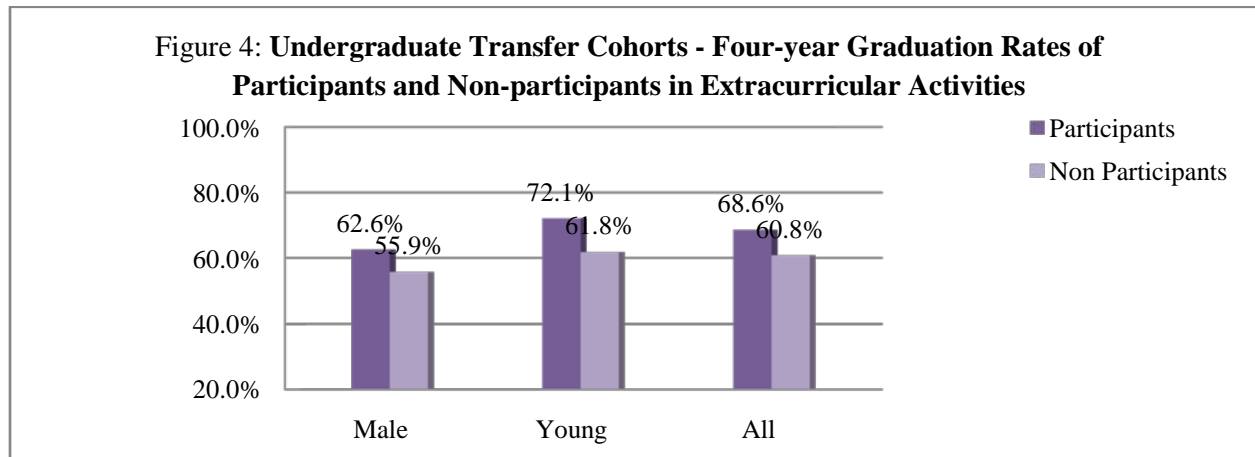
The six-year graduation rate was based solely on the 2002 freshmen cohort (N= 2,506) due to the fact that that was the most recent graduation rate data available. Clearly, there is a large discrepancy between the six-year graduation rates of participants and non-participants across all three of the sub-categories utilized, as well as in relation to “all” students. The graduation rate for participants was almost triple to that of non-participants within the group of high school GPA below 3.0, and it was double to that of non-participants in relation to students in need of remediation, as well as those who were classified as being commuters. (Please refer to Figure 3)

Figure 3: Freshmen Cohorts - Six-year Graduation Rates of Participants and Non-participants in Extracurricular Activities



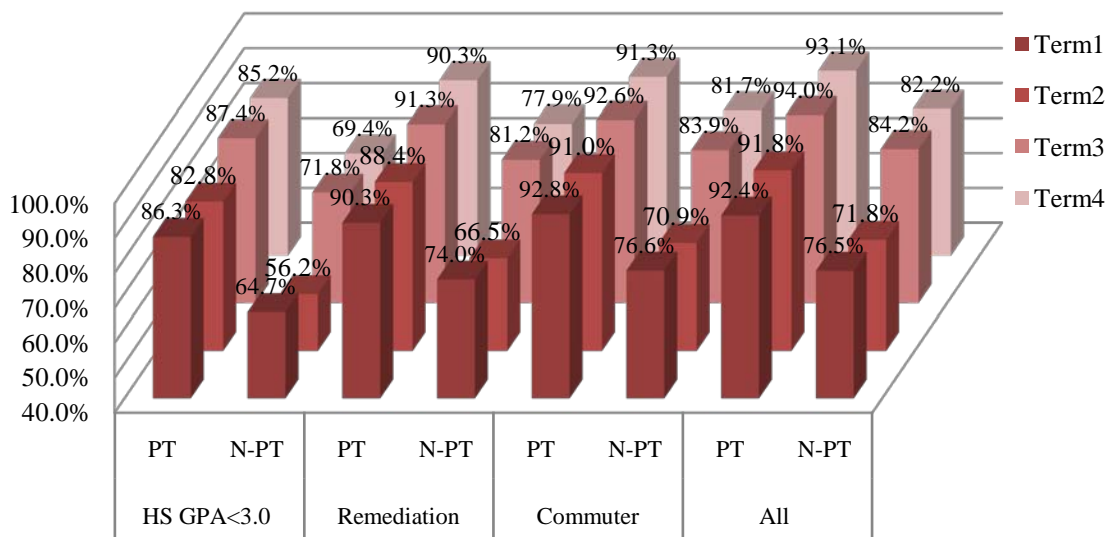
The differences between the four-year graduation rates of undergraduate transfers were not quite as dramatic as those found for freshmen. However, participants still fared significantly better than non-participants in terms of four-year graduation rates for the “traditional age” sub-group, as well as in

relation to “all” students. For the first comparison group (males), the four-year graduation rate of participants was only slightly higher than that of non-participants. A quick review of the last five years worth of undergraduate degrees awarded at Sacramento State shows a clear pattern of females graduating at higher rates than males. Most recently, 64.4% of the female undergraduate transfers from the 2004 cohort graduated within four years, as opposed to only 56.1% of the males within the same cohort. Considering that, from a historical perspective, males have graduated at lower rates; it seems evident that participation in extra-curricular activities can serve as an effective intervention toward improving the 4-year graduation rates of male transfers. (Please refer to the graph below)



According to a trend analysis of the good standing rates of the freshmen cohorts, the rates for participants within all three categories, as well as for “all” students, were not only higher than those for non-participants, but were more consistent as well. Additionally, even though the good standing rates for non-participants showed large increases between the second and third terms, the good standing rates for participants were still held much higher, and continued to remain stable from the first term through the fourth (Please refer to Figure 5).

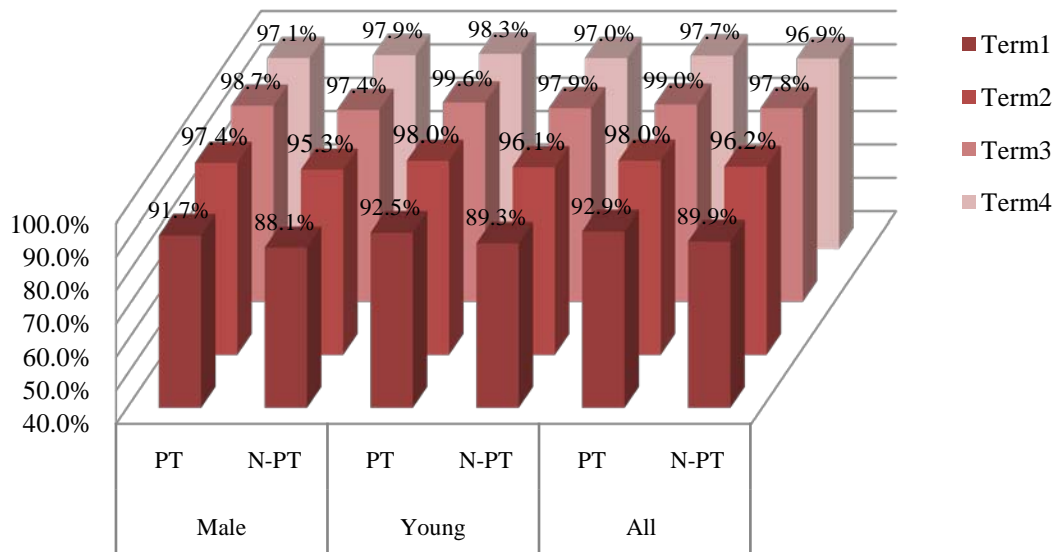
Figure 5: Freshmen Cohorts – Good Standing rates of Participants and Non-participants in Extracurricular Activities



Note: Good standing rate refers to the percentage of cumulative GPA ≥ 2.0 .

The trend analysis of good standing rates for the undergraduate transfer cohorts showed substantially fewer differences between participants and non-participants in relation to the subgroup of those under the age of 25, as well as for the “all” students category. Subsequently, in terms of good standing rates achieved, it appears as though participation in extra-curricular activities makes the most impact on transfer students during their first to third term, with that affect gradually decreasing at the fourth term. In the case of male students, there were no significant differences between participants and non-participants in terms of the good standing rate. However, male participants still achieved higher average cumulative GPAs than non-participants (Figure 6). In general, transfer students typically start at the upper division level after transferring to Sacramento State. Therefore, in comparison to freshmen, it is often more difficult for transfer participants to maintain high rates of good standing than non-participants. (Please refer to Figure 6)

Figure 6: Undergraduate Transfer Cohorts - Good Standing rates of Participants and Non-participants in Extracurricular Activities



According to the analysis of participation, a majority of the participants became involved in extracurricular activities during their second year or later. About 21% of the freshmen participants from within the 2005-2007 cohorts were involved in extracurricular activities during their first year at college. Therefore, participation in extracurricular activities cannot take sole credit for the better academic performance of those students. Based on previous studies on retention performed by the OIR, other first-year programs, such as Learning Communities, Freshman Seminars, and Equity Programs, have made important contributions toward increasing the academic performance of freshmen cohorts. In conclusion, it is quite evident that any improvements with regard to the retention and GPA of students during their first year are the result of the joint efforts of first-year programs and extracurricular activities.

Another factor that should be taken into consideration is the fact that data relevant to the starting year of student extracurricular activities has only been available since 2005, thus the starting years for Cohort 2002-2004 are unknown. Therefore, the percentages relevant to the starting year of those cohorts might be slightly different than if more data had been available.

Based on the data available, roughly 21.3% of the freshmen participants from the 2005-2007 cohorts started their activities in their first year, 41.7% of the participants from the 2004-2007 cohorts started their activities in their second year and 34.9% of the participants from the 2003-2006 cohorts started their activities in their third year. (Please refer to Table 14)

Table 8: Starting Year of Extracurricular Activity by Freshmen Cohort

	Cohort							% of Participants
Start Year	2002	2003	2004	2005	2006	2007	Total	
2004-2005	1	0	0	0	0	0	1	
2005-2006	91	97	64	20	1	0	273	
2006-2007	56	63	71	68	28	1	287	
2007-2008	20	57	71	91	76	22	337	
2008-2009	0	0	3	1	4	16	24	
Total	168	217	209	180	109	39	922	
Start in First Year	NA	NA	NA	20	28	22	70	21.3%
Start in Second Year	NA	NA	64	68	76	16	224	41.7%
Start in Third Year	NA	97	71	91	4	NA	263	34.9%

Note: Yellow highlight designates the participants first year of extracurricular activity, blue the second year of participation, and pink the 3rd year of participation.

In relation to transfer students, roughly 26.7% of the participants from the 2005-2007 cohorts started their activities in their first year, 54.1% of the participants from the 2002-2007 cohorts started in their second year, and 27.9% of the participants from the 2002-2007 cohorts in their third year. (Please refer to the table below)

Table 9: Start Year of Extracurricular Activity by Transfer Cohort

	Cohort							% of Participants
Start Year	2002	2003	2004	2005	2006	2007	Total	
2003-2004	1	0					1	
2004-2005	0	1	0				1	
2005-2006	32	60	67	27			186	
2006-2007	7	26	44	91	30	2	200	
2007-2008	3	10	29	55	92	34	223	
2008-2009	0	0	0	0	2	8	10	
Total	43	97	140	173	124	44	621	
Start in First Year	NA	NA	NA	27	30	34	91	26.7%
Start in Second Year	1	1	67	91	92	8	260	54.1%
Start in Third Year	0	60	44	55	2	0	161	27.9%

Note: Yellow highlight designates the participants first year of extracurricular activity, blue the second year of participation, and pink the 3rd year of participation.

A primary concern, based upon the findings of this study, is that participation rates at Sacramento State have been very low (6.2% of the freshman cohorts and 3.2% of the undergraduate cohorts). Additional effort needs to be focused on attracting and recruiting students to participate in these various extracurricular activities to enhance their engagement as students. It is therefore recommended that the University invest more resources in support of student extracurricular activities in order to increase the reach and impact of these programs as they appear to be quite effective at improving the academic performance of its students.

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