# STUDENT ENGAGEMENT AND PERFORMANCE IN PRINCIPLES OF FINANCE

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## Abstract

We study the relation between student engagement activities and performance in a Principles of Finance course. We adapt the National Survey of Student Engagement (NSSE) survey and examine how student coursework performance in Principles of Finance relates to his/her engagement activities in the previous two semesters. While student engagement activities offer various benefits to students, the short-term impact of student engagement activities on coursework performance is not clear. We also study students' perceived benefits of engagement activities in relation to their knowledge, skills, and personal development. The findings suggest that social and global engagement activities help personal growth during their college careers.

## INTRODUCTION

There has been a lot of interest in the quality of undergraduate education, shown not just by university administrators but also by state legislators, accrediting associations, parents, employers, and others. The increased interest results from the fact that the professional work place requires workers with skills and competencies beyond what they acquire in high school. However, what students learn at universities may not adequately prepare them for real-world demands. There has been an increased effort to assess student learning, as well as improve the quality of undergraduate education. One such study is the National Survey of Student Engagement (NSSE) administered by the Indiana University Center for Survey Research. The NSSE was developed in 1999 to assess the quality of higher education at various universities. It is an instrument used to address public concern that educators need to know more about whether or not university students are actually learning.

The purpose of the NSSE is to assess the extent to which four-year university students are participating in educational practices that are strongly associated with high levels of learning and personal development. The quality of student learning and the overall educational experience are directly influenced by factors such as academic challenge, time on task, and participation in educationally purposeful activities. In order to assess the quality of an institution's undergraduate education programs, researchers need to have good information about student engagement. This information includes how much time and energy students devote to educationally-sound activities both inside and outside of the classroom, as well as what policies and practices institutions use to induce students to take part in those activities. The NSSE survey identifies the areas of student engagement that need attention so university administrators can take immediate action. In this regard, the survey provides information that every university needs in order to focus its efforts on improving the undergraduate experience. Additionally, the NSSE helps educators understand what needs to be changed at their institutions in order to improve. As for prospective students,

the survey can help them understand how an institution educates so that they can choose one best suited to their learning styles.

While the NSSE survey is useful in identifying general perspectives of student learning and engagement activities, the survey has not yet focused on the performance of students in a particular academic discipline. The objective of this study is to examine the potential association between student engagement activities and student performance in a specific course, Principles of Finance. We adapt the NSSE questionnaire and administer it to students in our Principles of Finance courses. From information gathered from the student engagement survey and student performance in the course, we are able to study if engagement activities contribute to academic performance in a Finance course.

## LITERATURE REVIEW

Literature on good practices in undergraduate education identifies a number of factors that make a difference in the effectiveness of undergraduate programs. Chickering and Gamson (1987) list seven principles of good practice: encourage contact between students and faculty, develop reciprocity and cooperation among students, encourage active learning, provide prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning. These practices employ activity, expectations, cooperation, interaction, diversity, and responsibility, which are powerful forces in education. Shulman (2002) presents a matrix of good learning that includes the following: engagement and motivation, knowledge and understanding, performance and action, reflection and critique, judgment and design, and commitment and identity. Simply by being engaged, students can develop intellectual and mental habits that help them become life-long continuous learners. Kuh (2003) states that the premise of engagement is simple (p.25): "The more students study a subject, the more they learn about it. Likewise, the more students practice and get feedback on their writing, analyzing, or problem solving, the more adept they become." Being engaged also helps students develop habits that expand their capacity for continuous learning and personal development after college.

Over the years, researchers have found that universities can attain desired outcomes if students are involved in activities that are educationally purposeful. According to the NSSE (2006, p.9), "Students who engage more frequently in educationally effective practices get better grades, are more satisfied, and are more likely to persist." Students learn more when they direct their efforts to a variety of educationally purposeful activities. The NSSE finds that women, full-time students, students living on campus, native students (those who start and graduate from the same school), learning community students (some formal programs where groups of students take two or more classes together), international students, and students with diversity experiences are more engaged than other students. In addition, student engagement differs more within a given school (or institution type) than between schools (or institution types).

## **RESEARCH METHOD**

To examine the impact of student engagement activities on student performance in the Principles of Finance course, we survey the students on their various engagement activities at the beginning of the course. We ask respondents at a Midwest regional accredited comprehensive university in the U.S. about their engagement activities in their last two semesters. Our survey is similar to the NSSE but with minor modifications. The complete survey with a summary of the responses is presented in Tables 1 and 2. Essentially, the questionnaire has three sections. Section 1 asks students for demographic information such as their gender, race, marital status, among others. Section 2 inquires about levels of involvement in various student engagement activities. We classify the engagement activities into three categories: inside classroom academic, outside classroom academic, and community/global engagement activities. We use a Likert-type scale for each statement. For the three categories of student engagement activities, we construct three engagement indexes by summing student scores for all statements in each engagement category.

Section 3 asks students about their involvement in other campus activities (such as sports and social societies), general satisfactory level regarding their college experience, time management skills, and learning styles. We then match each student's engagement scores, campus activities, and college experience with his/her performance in the Principles of Finance course. We conduct the survey and collect the necessary information on 149 students. Twenty-five students drop out during the semester.

To study the impact of engagement activities on student performance and personal development, we use the following multiple regression model:

Grade or Personal =  $\beta_0 + \beta_1$ \*Engagement1 +  $\beta_2$ \*Engagement2 +  $\beta_3$ \*Engagement3 +  $\beta_4$ \*Style1 +  $\beta_5$ \*Style2 +  $\beta_6$ \*Challenge +  $\beta_7$ \*Time\_Management +  $\beta_8$ \*Support +  $\beta_9$ \*Quantitative +  $\beta_{10}$ \*Gender +  $\beta_{11}$ \*Marital +  $\beta_{12}$ \*Race +  $\beta_{13}$ \*GPA +  $\beta_{14}$ \*Enrolled +  $\beta_{15}$ \*Major +  $\beta_{16}$ \*Social +  $\beta_{17}$ \*Athlete +  $\beta_{18}$ \*Advising +  $\epsilon$ , (1)

where Grade = student course total in the Principles of Finance course;

Personal = student's self-reported scores on various statements of student knowledge, skills, and personal development;

Engagement1 = student's self-reported scores on various inside classroom academic engagement activities;

Engagement2 = student's self-reported scores on various outside classroom academic engagement activities;

Engagement3 = student's self-reported scores on various community and global engagement activities;

Style1 = students' self-reported scores on various high-order learning styles;

Style2 = students' self-reported scores on various basic learning styles;

Challenge = student's self-reported attitude toward challenging himself/herself;

Time\_Management = student's self-reported time spent on non-academic activities per week; Support = students' self-reported scores on various academic support levels at school;

Quantitative = a dummy variable from a student's self-reported quantitative skill; excellent or good = 1;

Gender = a gender dummy variable; woman = 1;

Marital = a marital status dummy variable; married = 1;

Race = a race dummy variable; ethnic minority = 1;

GPA = cumulative GPA;

Enrolled = number of enrolled credit hours in current semester;

Acct = number of accounting courses completed;

Graduate = if the student is a graduate student; graduate student = 1;

Major = a dummy variable for a student's major; accounting or finance major =1;

Social = if the student belongs to any social organization; fraternity or sorority member = 1; Athlete = if the student is an athlete; student athlete = 1;

Advising = advising satisfaction; the student perceives advising to be excellent or good = 1; and

 $\varepsilon = a$  random error term.

For the self-reported statements, we assign ordinal numerical values to student responses. We then compute the index value for a student by adding up his/her scores for each specific question in that section. Given the fact that 25 students drop out, we use both ordinary least square and Tobit methods to estimate Equation (1). Chan, Shum, and Lai (1996) show that survival bias may change the results when a sizable number of students withdraw from a study.

# STUDENT PROFILE

Summary statistics of the students suggest that these are typical college students. On average, students earn a cumulative GPA of 3.11, enroll in 15.61 credit hours during the semester, and have completed 2.68 accounting courses. There are slightly more female students (89 out of 149), and the majority of the students are single.

## SURVEY RESPONSES

We present student survey responses regarding various engagement activities and other attributes in Table 1. We transform the Likert-type responses into numeric values and calculate the average (presented in the last column) to gauge the general tendency of student responses.

## Table 1. Survey results of student engagement activities and other characteristics

1. In your experience at this university during the last two academic terms (or for the time at this university if less than two terms), about how often have you done each of the following?

Statement	Very	Often	Sometimes	Never	Average
(on academic engagement activities	often	(2)	(1)	(0)	
inside the classroom)	(3)				
a) asked questions in class or	12	16	<b>Q1</b>	10	1.40
contributed to class discussions	12	40	01	10	1.40
b) made a class presentation	8	34	86	21	1.19
c) prepared two or more drafts of a					
paper or assignment	10	52	60	27	1.30
before turning it in					
d) worked on a paper or project that					
required integrating ideas	14	71	55	0	1.60
or information from various sources	14	/1	55	9	1.00
e) put together ideas or concepts from					
different courses when	0	50	70	11	1 20
completing assignments or during	9	50	19	11	1.50
class discussions					
f) worked with other students on	16	0	62	o	1 50
projects during class	10	05	02	0	1.56
g) put together ideas or concepts from					
different courses when completing	0	50	70	11	1 20
assignments or during class	9	50	19	11	1.58
discussions					
h) received prompt written or oral					
feedback from faculty on your	5	43	82	19	1.23
academic performance					

2. In your experience at this university during the last two academic terms (or for the time at this university if less than two terms), about how often have you done each of the following?

Statement	Very	Often	Sometimes	Never	Average
(on academic engagement activities	often	(2)	(1)	(0)	
outside the classroom)	(3)				

Statement	Very	Often	Sometimes	Never	Average
(on academic engagement activities	often	(2)	(1)	(0)	
outside the classroom)	(3)				
a) included diverse perspectives (different					
races, religions,	8	43	73	25	1 23
genders, political beliefs, etc.) in writing	0	15	15	23	1.25
assignments					
b) discussed ideas from your readings or					
classes with faculty	2	15	76	56	0.75
members outside of class					
c) worked with classmates outside of	9	52	74	14	1.38
class to prepare for class	-		, <b>.</b>		1100
d) tutored or taught other students (paid	0	14	55	80	0.56
or voluntary)	Ű				0.00
e) participated in a community-based	_			0.6	
project (e.g., service	5	12	36	96	0.50
learning) as part of a regular course					
f) used e-mail to communicate with an	58	60	27	4	2.15
instructor				-	
g) talked about career plans with a faculty	8	33	68	40	1.06
member or advisor				-	
h) worked harder than you thought you	_	1.5		10	1.00
could to meet an	1	46	84	12	1.32
instructor's standards or expectations					
1) worked with faculty members on					
activities other than course-work	5	11	49	84	1.32
(committees, orientation, student-life					
activities, etc.)					
j) discussed ideas from your readings or					
classes with others outside of class	8	46	75	20	1.48
(students, family members, co-workers,					
lt) had acricus conversations with					
k) had serious conversations with students of a different race	17	20	70	22	154
students of a different face	1/	29	70	33	1.54
1) had sorious conversations with other	+				
students who are very different from you					
in terms of their religious beliefs	16	40	61	32	1.62
political opinions or personal values					

3. Which of the following have you done or do you plan to do before you graduate from this university?

Statement (on social and global engagement activities)	Done (2)	Plan to do (1)	Do not plan to do (0)	Have not decided (0)	Average
a) practicum, internship, field experience, co-op experience, or clinical assignment	29	82	21	17	0.94
b) community service or volunteer work	47	35	39	28	0.87

Statement (on social and global engagement activities)	Done (2)	Plan to do (1)	Do not plan to do (0)	Have not decided (0)	Average
c) participate in a learning community or some other formal program where groups of students take two or more classes together	15	18	82	34	0.32
d) work on a research project with a faculty member outside of course or program requirements	10	16	84	39	0.24
e) foreign language coursework	31	55	73	23	0.64
f) study abroad	14	14	92	29	0.28
g) independent study or self-designed major	10	20	87	32	0.27
h) culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	7	43	48	51	0.38

4. During the last two academic terms (or for the time at this university if less than two terms), how much has your coursework emphasized the following mental activities?

Statement (on students' higher-order learning style)	Very often (3)	Often (2)	Sometimes (1)	Never (0)	Average
a) memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	23	77	45	4	1.80
b) analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	17	72	55	5	1.68
c) synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	10	57	68	14	1.42
d) making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	11	61	64	13	1.47
e) applying theories or concepts to practical problems or in new situations	21	66	57	5	1.69

Statement (on students' basic learning style)	More than 20 (4)	11 to 20 (3)	5-10 (2)	1-4 (1)	None (0)	Average
a) number of assigned textbooks, books, or book- length packs of course readings	9	25	63	49	3	1.92
b) number of books read on your own (not assigned) for personal enjoyment or academic enrichment	6	8	19	79	37	1.11
c) number of written papers or reports of 20 pages or more	1	2	6	38	102	0.40
<ul><li>d) number of written papers or reports of between</li><li>5 and 19 pages</li></ul>	1	10	42	79	17	1.32
e) number of written papers or reports of fewer than 5 pages	15	45	46	39	4	2.19

5. During the last two academic terms (or for the time at this university if less than two terms), how much has your coursework emphasized the following mental activities?

6. To what extent have your examinations during the last two academic terms challenged you to do your best work (on a scale of 1 to 7)?

Statement (on academic challenge)	Very much (7)	(6)	(5)	(4)	(3)	(2)	Very little (1)	Average
self-reported academic challenge	19	46	54	22	4	1	3	5.26

7. About how many hours do you spend in a typical week on the following non-academic activities?

Statement (on time management)	More than 30 (7)	26- 30 (6)	21- 25 (5)	16- 20 (4)	11- 15 (3)	6- 10 (2)	1-5 (1)	0 (0)	Average
a) working for pay, on campus	2	1	3	4	6	3	2	128	0.52
b) working for pay, off campus	32	14	23	15	4	5	3	53	3.41
c) participating in co- curricular activities (organizations, campus publications, student	4	1	6	5	5	6	46	76	1.05

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government, fraternity or sorority, intercollegiate or intramural sports, etc.)									
d) relaxing and socializing (watching TV, partying, etc.)	8	1	3	12	32	61	32	0	2.52
e) providing care for dependents living with you (parents, children, spouse, etc.)	10	2	5	3	5	6	31	87	1.19
f) commuting to class (driving, walking, etc.)	0	0	1	1	5	20	113	9	1.19

8. To what extent do you think our university emphasizes each of the following?

Statement	Very	Quite a	Some	Very	Average
(on university's support for students in	much	bit	(1)	little	
various aspects)	(3)	(2)		(0)	
a) spending significant amounts of time					
studying and on	16	72	56	5	1.66
academic work					
b) providing the support you need to help					
you succeed	28	72	46	3	1.84
academically					
c) encouraging contact among students					
from different	28	37	50	25	1.46
economic, social, and racial or ethnic	20	57	39	23	1.40
backgrounds					
d) helping you cope with your non-					
academic responsibilities	8	27	63	51	0.95
(work, family, etc.)					
e) providing the support you need to	11	30	74	25	1.24
thrive socially	11	39	/4	23	1.24
f) attending campus events and activities					
(special speakers,	27	56	55	11	1.66
cultural performances, athletic events,	21	30	55	11	1.00
etc.)					
g) using computers in academic work	57	64	26	2	2.18

9. To what extent has your experience at this university contributed to your knowledge, skills, and personal development in the following areas?

Statement	Very	Quite a	Some	Very	Average
(on student outcome)	much	bit	(1)	little	
	(3)	(2)		(0)	

Statement (on student outcome)	Very	Quite a	Some	Very little	Average
(on student outcome)	(3)	(2)	(1)	(0)	
a) acquiring a broad general education	36	74	35	4	1.95
b) acquiring job or work-related knowledge and skills	33	68	42	6	1.86
c) writing clearly and effectively	25	53	57	14	1.60
d) speaking clearly and effectively	21	56	53	19	1.53
e) thinking critically and analytically	33	81	32	3	1.97
f) analyzing quantitative problems	27	74	43	5	1.83
g) using computing and information technology	45	66	30	8	1.99
h) working effectively with others	34	74	36	5	1.92
i) voting in local, state, or national elections	10	20	51	68	1.49
j) learning effectively on your own	18	38	53	10	1.68
k) understanding yourself	22	46	61	20	1.70
1) understanding people of other racial and ethnic backgrounds	15	45	63	26	1.61
m) solving complex real-world problems	16	72	41	20	1.81
n) developing a personal code of values and ethics	21	62	47	19	1.80
o) contributing to the welfare of your community	9	38	64	38	1.50
p) developing a deepened sense of spirituality	11	22	47	69	1.55

The various statements from Questions 1 to 3 are related to academic engagement inside the classroom, academic engagement outside the classroom, and engagement in social and global activities. We use **bold** to highlight the mode of each statement in each question. The averages of all statements in Question 1 are between 1 and 2, meaning respondents have at least "sometimes" engaged in classroom activities such as asking questions in class, making presentations, putting together ideas from different courses, among others. With respect to Ouestion 2, the averages for the statements show some variation, with some statements having values less than 1 (between 'sometimes' and 'never') and one statement having a value more than 2 (between 'often' and 'very often'). Students appear to neither discuss ideas with faculty nor participate in community-based projects as part of a course. For Question 3, we assign a numeric value of zero for "do not plan to do" and "have not decided." The responses suggest that students are quite open-minded in terms of planning to do practicum, internship, and field experience assignments. About half of the students have already done community or volunteer work. The rest of the responses from Question 3, however, do not show student tendency to engage in social and global activities. Overall, even though some students have participated in student engagement activities in the last two semesters, there is certainly room for improvement. Questions 4 and 5 ask students about their learning styles. We hypothesize that student learning style directly or indirectly relates to students' propensity to engage in learning activities, as well as their learning outcomes. The responses from Question 4 suggest that students are likely able to memorize facts, analyze basic elements, and apply theories to practical problems. Students, however, appear to be weak in synthesizing ideas and making judgments. Responses to Question 5 hint that students conduct less of their time in basic reading and writing, as indicated by a number of statements regarding the number of books read and the number of 20-page (or more) reports written. We also ask a general question (Question 6) to examine if students feel academically challenged. The average response is 5.26 (on a scale of 1 to 7, with 7 being most challenged). The high average suggests that students do feel challenged. Question 7 asks students how much time they spend on non-academic activities in a typical week. Many of them work off-campus and socialize. We ask students to rate the university's academic support level in Question 8. Students respond that their universities emphasize the use of academic computers and attendance at campus events and activities. The last question (Question 9) asks students to rate how their overall university experience contributes to their own knowledge, skills, and personal development. The mode of the responses are "quite a bit" on many of the statements such as acquiring a broad general education, acquiring job-related knowledge, thinking critically, among others. Overall, students are satisfied with their college experience.

# MULTIPLE REGRESSION ANALYSIS

The results of how student engagement activities impact performance in the Principles of Finance course are shown in Table 2. The ordinary least square equation has three coefficients that are positive and statistically significant: cumulative GPA, graduate student dummy variable, and student major dummy variable. When a student has a high cumulative GPA, is a graduate student, or is a Finance or Accounting major, he/she tends to score higher on the exams. These three positive and significant coefficients are consistent with results found in student performance research literature (see Chan, Shum, and Chhachhi, 2005). The value of a student's score on outside classroom academic engagement activities is negative and significant at the 10% level. The negative sign suggests that when a student engages in more outside classroom academic activities is more than outweighed by the time spent on the engagement activities. The other two engagement activities (inside classroom academic, community and global) do not show statistically significant results.

We follow Chan, Shum, and Lai (1996) and conduct a Tobit estimate that incorporates an analysis of students who withdraw. The estimation results of the Tobit equation presented in Table 2 are free of survivorship bias. Some of the variables that are statistically significant in the Tobit estimate are different from those in the ordinary least square estimate. The estimated coefficients for outside classroom academic engagement activities and the graduate student dummy variable are not significant in the Tobit analysis. Instead, basic learning style, student attitude toward challenging himself/herself, and advising quality become significant. The results suggest that students with more effective and better attitude toward challenging themselves more successful in the Principles of Finance class. However, students who are academically poor tend to perform poorly in the course. Intuitively, students who are academically poor tend to need more advising, and they are likely to perceive the advisement they receive to be good. Hence, it is natural that, other things being equal, those who perform poorly perceive the advice they receive to be good.

We perform another regression analysis on a set of 16 statements that relate to knowledge, skills, and personal development, with the student's score as the dependent variable. The results are presented in Table 3. Because we conduct the survey at the beginning of the semester, student withdrawal is not an issue. There are four positive and significant coefficients: student social and global engagement activities, high-order learning styles, perceived academic support level, and student major dummy variable. The positive and significant estimated coefficients are consistent with intuition. If a student engages more in social and global management activities, has a high-order learning style, and good academic support from the school, he/she would feel good about his/her experience in terms of knowledge, skills, and personal development.

Table 2.	Multiple	regression	analysis	of the	impact	of	student	engagement	activities	on
student pe	erformanc	e in Princip	oles of Fi	nance						

	<b>Dependent variable = student course total score</b>					
	Ordinary least square Tobit equation					
Variables	Estimated	<i>t</i> -statistics	Estimated	χ2		
	coefficients		coefficients	statistics		
Intercept	21.7007	2.01**	-53.3847	4.23**		
Student's score on engagement activities	0.0125	0.04	-0.5096	0.36		
(inside classroom academic)						
Student's score on engagement activities	-0.5057	-1.93*	-0.5994	0.77		
(outside classroom academic)						
Student's score on engagement activities	-0.1383	-0.33	-1.6718	2.67		
(community and global)						
High-order learning style score	0.5162	1.30	0.4605	0.20		
Basic learning style score	0.0214	0.06	1.7032	3.10*		
Student attitude toward challenging	0.5962	0.72	4.0631	3.98**		
himself/herself						
Time spent on non-academic activities	-0.3830	-1.64	-0.4001	0.46		
Academic support level at school	-0.0709	-0.27	0.7852	1.52		
Self-reported quantitative skill	2.1066	1.01	7.6601	2.13		
(excellent or $good = 1$ )						
Gender (woman $= 1$ )	1.7863	0.90	-5.6617	1.26		
Marital status (married $= 1$ )	-2.7686	-0.87	1.4055	0.03		
Race (minority $= 1$ )	4.8914	1.00	0.1161	0.00		
Cumulative GPA	11.9852	5.51***	26.6239	23.14***		
Number of enrolled credit hours in current	0.3219	1.07	0.6563	0.76		
semester						
Number of accounting courses completed	-0.0598	-0.36	-0.3263	0.62		
Graduate student (graduate student = 1)	8.4329	2.61**	13.2684	2.31		
Major (accounting or finance major =1)	4.2573	1.82*	-9.3597	2.71*		
Social organization	-6.0724	-1.61	14.6265	2.29		
(fraternity or sorority member $= 1$ )						
Student athlete (student athlete $= 1$ )	-1.2201	-0.29	4.0473	0.17		
Advising (good or excellent $= 1$ )	-0.2686	-0.12	-12.1249	4.27**		
$\mathbb{R}^2$	0.4975					
F	5.1000***					
Log likelihood value			-611.50			
N	124		149			
No. of censored observations			25			

\* significant at 0.10 level \*\* significant at 0.05 level \*\*\* significant at 0.01 level

	Ordinary least square (dependent variable = student's score in a set of 16 statements on knowledge, skills, and personal development)		
Variables	Estimated coefficients	<i>t</i> -statistics	
Intercept	-6.9293	-1.06	
Student's score on engagement activities (course related academic)	0.0278	0.13	
Student's score on engagement activities (outside course academic)	-0.0205	-0.12	
Student's score on engagement activities (social and global)	0.6248	2.42**	
High-order learning style score	0.5628	2.18**	
Basic learning style score	0.2835	1.16	
Student attitude toward challenging himself/herself	0.7054	1.37	
Time spent on non-academic activities	0.0811	0.54	
Academic support level at school	1.1505	7.19***	
Self-reported quantitative skill (excellent or good = 1)	-0.8988	-0.68	
Gender (woman = 1)	0.7530	0.59	
Marital status (married = 1)	1.2229	0.61	
Race (minority = 1)	2.7714	0.99	
Cumulative GPA	0.2394	0.17	
Number of enrolled credit hours in current semester	0.0539	0.28	
Number of accounting courses completed	-0.1262	-1.20	
Graduate student (graduate student $= 1$ )	0.3984	0.18	
Major (accounting or finance major =1)	2.8940	2.02**	
Social organization (fraternity or sorority member = 1)	2.6675	1.09	
Student athlete (student athlete $= 1$ )	-2.6475	-1.06	
Advising (good or excellent $= 1$ )	-0.0699	-0.05	
$\mathbb{R}^2$	0.5120		
F	6.7100***		
Ν	149		

Table 3. N	<b>Aultiple regression</b> a	nalysis of the im	pact of student	engagement a	ctivities on
student kn	owledge, skills, and	personal develop	pment		

\*\* significant at the 0.05 level

\*\*\* significant at the 0.01 level

## DISCUSSION

The general survey suggests that while some students are able to engage in a number of meaningful activities, many others could benefit from an increase in their engagement activities. It would be helpful for administrators and faculty to team up to promote the positive attributes of engagement activities.

The impact of student engagement activities on academic performance is intermediateand long-term in nature. Hence, it is natural to find that these engagement activities do not have any immediate impact on student performance in the Principles of Finance course. If we take away the students who withdrew from the course, the extent of the outside classroom engagement activities is actually negatively correlated with student performance. However, in terms of student knowledge, skills, and personal development, social and global engagement activities are definitely helpful in enriching the college experience.

# SUMMARY

We study the relation between student engagement activities and performance in the Principles of Finance course. We adapt the NSSE survey and ask our students to respond to the survey at the beginning of the course. We examine how student coursework performance in Principles of Finance relates to his/her engagement activities in the previous two semesters. We carefully classify three types of engagement activities: academic inside classroom, academic outside classroom, and social and global engagement activities. Contrary to engagement literature, we do not find a positive association between performance and engagement activities. While there is no doubt that student engagement activities offer various benefits to students, the short-term impact of student engagement activities on coursework performance is not clear. When we use ordinary least squares estimation, we even find a weak association between student performance and the extent of his/her academic outside classroom activities. The relation between performance and academic inside classroom activities and social and global engagement activities are not After controlling for possible survivorship bias due to student statistically significant. withdrawal, the results suggest no association between all engagement activities and student performance.

We also study the students' perceived benefits of engagement activities in relation to their knowledge, skills, and personal development. The findings suggest that social and global engagement activities help personal growth during their college careers.

## REFERENCES

- Chan, Kam C., Connie Shum, and Pikki Lai (1996). "An Empirical Study of Cooperative Instructional Environment on Student Achievement in Principles of Finance." *Journal of Financial Education*, Vol. 22 (Fall), 21-28.
- Kuh, George D. (2003). "What We're Learning about Student Engagement from NSSE." *Change*, Vol. 35 (March/April), 24-32.
- NSSE (2006). Engaged Learning: Fostering Success for All Students Annual Report 2006. National Survey of Student Engagement.
- NSSE (2007). Experiences That Matter: Enhancing Student Learning and Success Annual Report 2007. National Survey of Student Engagement.
- Shulman, Lee S. (2002). "Making Differences: A Table of Learning." *Change*, Vol. 34 (November/December), 36-44.