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EXPLORING THE RELATION OF SERVICE-LEARNING COURSES AND  
RETENTION RATES AT THE UNIVERSITY OF MAINE

by

Jared Duggan

A Thesis Submitted in Partial Fulfillment  
of the Requirements for a Degree with Honors  
(Business)

The Honors College

University of Maine

May 2015

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## **Abstract**

This thesis examines the relationship between service-learning and retention rates at the University of Maine. The thesis focuses on demographic factors that influence retention rates. These factors include gender, institutional connection, debt, college of study, and academic performance. The sample subjects were undergraduate students enrolled at the University of Maine. Students who were enrolled in known service learning courses were specifically targeted, as well as the general population, so that the two groups could be compared. The study found that there was a strong correlation between service-learning and community service with a student's affective commitment. In other words, most students who had done community service or service-learning would have statistically scored higher on the Meyer school commitment scale.

When tying in commitment to retention rates, results also indicate that a high affective commitment was directly correlated with a high likelihood to graduate from the University of Maine.

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## **Introduction and Literature Review**

### **What is service-learning and what is its relation to retention?**

Retaining college students at their institutions is important. Graduating from college is reported to result in higher lifetime earnings and also higher job satisfaction. When looking at retention rates, the period of most concern and scrutiny by universities is between the first and second year of enrollment. In 2013 the University of Maine as a whole had a first year retention rate of 80%. This data can also be found in appendix item four. The average retention rate for public 4-year institutions is 64.2 % (National Collegiate, 2014) and universities are looking to improve this.

Vice President of Student Life at the University of Maine Dr. Robert Dana attributes this high retention rate to the Blue Sky Project. The Blue Sky Project is a comprehensive plan aimed at increasing retention by 5% by 2017, a goal that had been met in 2013. Along with increasing retention rates, the Blue Sky Project also hopes to help the surrounding area by increasing community engagement and commitment to the community.

From the second to third year, retention rates for students at the University of Maine drop to about 71%, which is slightly below the national average of 72%. But as a whole, the University of Maine has higher four-year retention rates than the national average. The same information can be found for each college at University of Maine. Engineers had higher retention rates across the board than any other college with a first

year retention rate of 84% in 2013. The Maine Business School was the closest with a first year retention rate of 80%. Historically, the Maine Business School has had some of the lower retention rates of any college at The University of Maine, however since 2009 first year retention rates have remained above 80%.

For students in their 4<sup>th</sup> year, the College of Education and Human Development and the College of Engineering had the highest retention rates at 71%. This was in 2010, which was the most recent data that was available.

Colleges have been exploring which unmet needs to address that would aid in retaining their students at higher rates. It is believed that various activities, including service-learning and community service, that are done by students can play a role in keeping students in college and increasing retention rates.

When trying to pin down the definition of service-learning, it almost becomes as hard as interpreting the Bill of Rights in the Constitution. Examples that show the scope in variability of the definition include a comprehensive course, which implements a continuing service like an ongoing community project with weekly meetings. Another course may only include a one-time service activity, which would not be comprehensive at all. A one-time service project could be a brief project that would only take a couple hours until completion.

At the University of Maine, if you were enrolled in POS 487 class you would be working with the town of Orono on special projects that also correspond with what you are learning in class. In addition, students are also required to take POS 488 the next semester, so that the service project is more comprehensive and effective because it is a

yearlong effort. On the other hand, some would consider doing community service on Maine Day, a yearly tradition at the University of Maine where students are encouraged to do community service projects on and around campus, a successful service-learning experience.

Many institutions implement different standards and guidelines for how they would like service-learning courses to be set up. The easiest way to approach defining service-learning is to take each individual circumstance and compare it to the core components of what service-learning is supposed to accomplish. When Eyler and Giles (1995) surveyed over 1000 students enrolled at 20 different universities and colleges across the United States in 1999 they were surprised with the huge variety of forms service learning took at different colleges. This tells us that institutions define service-learning differently than each other and there isn't just one way to implement a service-learning experience. However, there are some key objectives, targeted at both the community and the student, which most institutions think service learning should address.

The core goals of student service-learning are teaching civic knowledge, and fostering personal growth (Lizull, 2015). Civic knowledge is the awareness of the situations of others by a given individual. Personal growth can be influenced by a number of factors. Examples of such would be feelings of self-fulfillment and efficacy, and improved relationships with not only teachers, but fellow students and the community as well. If a student has a high sense of self-efficacy, then they would be considered to have also achieved high personal growth. At the same time, the purpose of the service is to



strengthen and help the community (Hatcher, 2011). An example of how these goals are integrated into service-learning is the University of Maine's official definition of what service-learning is: "A teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities (National Service-Learning Clearinghouse; Approved by Faculty Senate, October, 2011). The University of Maine has adopted this definition from the National Service-Learning Clearinghouse, which is an organization that offers service-learning resources to K-12, higher education, community organizations and tribal organizations.

At the University of Maine there is an organization called CERTS Service-Learning panel on Service-Learning. They have listed what service-learning is, and more importantly, in what cases community engagement would not fall under the category of service-learning. Service-learning is not an episodic volunteer program, an add-on to a course curriculum, logging a set of community service hours to graduate, or one-sided (benefiting only students or only the community).

Another key component for what makes service-learning effective is a reflection period. After the service-learning, it is important to reflect on what was done and what was learned. In 1996 Eyler and Giles coined the phrase "The Five C's of Reflection". The C's include; Continuous Reflection, Connected Reflection, Challenging Reflection, Creative Reflection, and Contextualized Reflection. Simply stated, the reflection piece of service-learning must be ongoing. It must help the student comprehend what is learned in class and bring an acute awareness of the course material, and the effect their service had

on themselves and the community. These guidelines of reflection are an integral part of the service-learning experience for the student. This connects all the dots for the student and provides a way to grow as an individual (Astin, Vogelgesand, Ikeda & Yee 2000; Longstroth 1987; Eyler and Giles 1999; Fenzel and Leary 1997). It is also a way to bring to light all of the learning objectives service-learning hopes to accomplish for the student.

In regards to this thesis, I am looking to examine the impact of service-learning on retention rates here at the University of Maine. In a study done by Galini and Moley (2003) they found that service-learning had a positive influence on a student's decision to re-enroll in the following semester. These findings were consistent with Muthiah, Hatcher, & Bringle (2001), who found that students who participated in service-learning felt that this class had a positive influence on their persistence in college.

Eyler and Giles found that service-learning courses were related to improved student academic outcomes like GPA. Similarly, Astin (2000) found that being involved in community service also had similar effects on GPA as students who did service-learning. Students reported that they learned more and were more motivated to work than when they were in a traditional classroom setting (Astin et al., 2000; Eyler and Giles, 1999). Students also developed stronger relationships with their professors and fellow students (Eyler and Giles, 1999). In addition, students involved in a service-learning course were also found to enhance personal development traits such as feelings of self-efficacy, self-identity, and moral development. My first hypothesis (H1) is that there will be a positive relationship between service-learning and community service with a student's GPA.

## **Institutional Connection**

A student's connection to the educational institution is one of the variables that influence their decision to return and continue their education: "A sense of connectedness, or lack thereof, is a decisive factor in the withdrawal of students" (Lipka, 1999). This connection can be characterized by a number of aspects. For instance Tinto (1993) found that a good relationship with faculty, advisors and fellow students positively effects a student's connection with their university. Pearson expanded on Tinto's findings and labeled faculty advising as having the largest influence on a student's connectedness (Pearson, 2012).

One thing that these studies mentioned was a student's sense of belonging. A student's sense of belonging is a way to predict or estimate the connection with institution. Relationship with professors and fellow students can have an effect on one's sense of belonging. Academic performance also can have an influence on belonging and connectedness. Addressing a student's sense of belonging is a key step in improving student retention (O'Keeffe, 2013). Along with stressing the importance of student-teacher relationships, O'Keeffe (2013) also addressed the student's personal role. Factors like a student's demographic background or poor academic performance can have varying effects on a student's sense of belonging. For instance, a first generation low income student, who feels they already may not be as prepared for college as their peers with higher income, could be more discouraged with a low grade on a test than a student who is attending college because that was a family expectation.

In 2004 Strauss and Volkwein conducted a study to determine the predictors of student commitment at two-year and four-year institutions. They tested different predictors that had already been labeled in previous studies so that they could identify variables that were truly statistically significant in estimating a student's connectedness. They defined institutional commitment as a student's overall impression, satisfaction, match with, attraction to and sense of belonging with a particular institution. Again, we see that "sense of belonging" pops up as a key predictor of a student's connectedness to an institution. Bean and Metzner (1985) expanded on the idea of a student's sense of belonging. They found that for nontraditional undergraduate students, feelings of connectedness have a larger impact on the student than a traditional student.

Strauss and Volkwein (2004) defined attraction to a particular institution as the willingness of a student to remain there. They determined that the more willing a student is to return, the more connected they are to the institution. Therefore by determining the willingness of a student to remain or commitment to the institution, you can also predict the student's connectedness with that institution.

It isn't too farfetched to relate institutional connection with organizational commitment. In broad terms, organization commitment is an employee's attachment to their work place. Meyer and Allen further broke down organizational commitment into the Three-Component Model (1991). The Three-Component Model has become a widely accepted model in showcasing an employee's commitment to their organization. The model shows that there are three different types of commitment an employee will have towards their organization.

- Affective Commitment could also be called an employee's desire to remain at the organization. In other words, it is the emotional attachment to the organization.
- Continuance Commitment is driven by the perceived cost of leaving the institution. This can be thought as an employee commitment that only comes from necessity.
- Normative Commitment is defined as the obligation to stay (Meyer and Allen, 1991). An example of normative commitment would be finishing out a seasonal job until the end of the season because of the knowledge that your departure would cause trouble for fellow coworkers.

Meyer (2002) has since taken the model to rate organizational commitment and tweaked it to gauge a student's commitment to their school. The goal was to relate employee turnover with student retention, which in essence are the same things. Continuance commitment is still attachment only out of necessity. This type of commitment could be brought on because of financial pressures, number of years enrolled, or even family expectations. These factors would influence a student to stay in school only because they feel they have to. Affective commitment would be a student's emotional attachment with their school. Because of the student's connection and attachment with the school, they would decide to stay. Affective commitment would be influenced by student's experiences on campus (Meyer, Stanley, Herscovitch and Topolnytsky, 2002), and is where I hope service learning can play a part. However it is necessary to be aware of continuance commitment so that we can control for it when looking at the data from the

survey. Something that can positively influence a student's affective commitment with their college is active learning.

Braxton, Milem and Sullivan (2000) did a study on the influence of active learning on the college student departure process. Active learning activities include discussion, questions faculty ask students in class, co-operative learning, debates, role playing, and the questions faculty ask on course examinations. In using these strategies, a greater understanding of the content is achieved, and stronger bonds are built between fellow students. What they found was when a student was more engaged in what they were learning, and with whom (fellow students, teachers) they were more likely to return for another year. This is of particular importance, because service learning would fall under the co-operative learning category. A co-operative learning activity is one where students would work together to solve a problem. The end result is a stronger understanding for the individual student, as well as developing concern towards the success and understanding for the other students in the group. Similar to with GPA, I will test a second hypothesis (H2) that there is a positive relationship between service-learning and or community service with a student's affective commitment score. I will also be testing the hypothesis (H3) that as affective commitment increases, student willingness to return will increase.

### **Amount of Time Committed every week**

Similar to with work-study and part time jobs that students take, there is a positive correlation between amount of time committed each week for the project and the strength of the outcomes realized. A student study conducted by Georgia Nigro (2014) and the Students of Action Research looked at the effect of varying frequencies of service-learning on the scales of retention, academic challenge, student engagement and community engagement. They separated frequencies into three groups: Low (0-1 hours per week), medium (2-3 hours per week) and high (4 or more hours per week). They found was that students would score higher in every scale when they were involved with a high frequency service-learning project (Nigro, 2009).

A study performed by Kristina Lambright at Binghamton University measured for different outcomes but had similar results:

“We also find that students who spent more time working on a service-learning project outside of class reported their projects were more helpful in improving their professional skills.” (Lu and Lambright, 2010, Pg 118)

In this study, outcomes like professional and personal skills were being rated. They wanted to see if students developed more professional skills in a service-learning class than in a traditional classroom setting. The more time students spent in their service project the more helpful the service learning was for the students’ development.

One of the Five C’s of service learning as reported by Eyler and Giles (1999) is

Continuity. Again, the Five C's are important components that successful service learning projects and programs will have. Continuity speaks to the time commitment that is required for a service-learning project. The more frequent, and longer a student can commit to the project and the more effective the experience will be for the student.

The next hypothesis (H4) being tested is that as amount of time committed to service-learning and or community service increases so will the affective commitment to the University Maine. Along these lines, my fifth hypothesis (H5) is that as the time committed to service-learning and or community service increases, so will the student's GPA.

### **Balancing out the Retention Equation**

#### **Retention and debt**

Debt is one of the factors with the most impact on a student's decision to complete their degree. Rogers (2005) stated that, "college debt causes some students to become discouraged and drop out despite the benefits of attaining a degree" (p, 3). Students whose families are in a lower tax bracket are statistically more debt averse, thus debt has more of an influence on these students to continue their education and get a degree. A student, or person, who is debt averse, will be hesitant to take out a loan to go to college. These students already come from a poor background, so the idea of compiling more debt on top of that is not a promising proposition and they may decide



not to go to college all together.

Because of the increasing cost of education, over 2/3 of students will apply for loans from private organizations (Tinto, 2007). This coupled with the debt averse nature of low-income students already puts these low-income students at a mental and financial disadvantage before they even start their first class. In 2004 the Pell Grant Institute found that due to the loss of income of attending college, many students would decide to remain or return to the workforce instead of completing their degree requirements. Students are now shouldering the heavy financial cost, which was once eased by government grants and subsidies (Mumper, 1996). This trend keeps more low-income students from attending higher education institutions than students in higher income brackets.

A study conducted by Braunstein, McGrath, and Pescatrice (2001) at Iona College in New York found that students from families in higher income brackets had higher retention rates than those from families in lower income brackets. Similar data replicated by Pruett (2009) when he conducted a comprehensive study of the factors that kept students from graduating in Universities and Colleges in Mississippi, found that the graduation rate rose in correlation with the income of the student's parents. He also found that parental income was a statistically significant factor in determining a college student's success in college.

Gladieux (2004) expanded on the findings of those before her when she indicated that attendance and participation in secondary education was influenced by the student's parents' socioeconomic background.

Those students who are able to attend some sort of higher education will often have to do so with the financial help of a part time job. A study done at Purdue in found that 80% of its students work more than 20 hours each week while in school. But they also found that the retention rate for this group of students was 13% higher than that of students who did not work at least 20 hours a week (Leonard, 2008). But how is this possible? This study, done in Purdue, found that students who had work-study jobs reported that they were enthusiastic about their relationship with their supervisors and coworkers, as well as the belief they were developing skills that could be used in the workforce after they graduate. Both of these outcomes are variables that influence a student's organizational commitment. A higher commitment to an institution will lead to higher retention rates.

Similar to work-study, students enrolled in service learning courses reported that they developed strong relationships with their fellow students and advisors who were also involved (Simonet, 2008). One of the goals of service learning is to help a student develop skills for the workforce that they would not be able to get in the traditional classroom. This would mirror the benefits of a work-study job where the students feel that they gain valuable skills that could be used in a job later on. My sixth hypothesis (H6) is that community service and or service-learning will moderate the negative effect of student debt on affective commitment.

## **Academic performance and Retention**

A lot of research has been done to determine variables that could predict a student's intention to stay at a certain institution as well as a student's academic achievement at the institution. Along with demographic background and family financial status, Tinto identified some of these causes for student attrition as being academic performance and academic motivation (Tinto, 1993). Academic motivation includes academic goals made by a student, and the ability to achieve the goals. Academic motivation is also associated with feelings of self-efficacy. If a student sets goals, and does not reach them, then their feelings of self-efficacy are lower than those of a student who does reach their goals. The effect of low self-efficacy can lead to attrition.

Student's grade point average can measure academic performance. GPA is an indication of how well a student has learned. When looking into causes of student attrition for engineering majors, French, Immekus and Oakes (2005) found that GPA was a leading factor. The effect of a poor GPA on a student's decision to stay is magnified if the student is in their first year of higher education (Wilcoxon, 2010). Willcoxson also found that from semester to semester the factors that influence a student's decision to drop out or transfer could change. In a student's first year, GPA and self-efficacy play a significant role. In the second and third years GPA does not have as much of an influence as in year one, but is still significant. Allen, Robbins, Casillas and Oh (2008) mirrored the results of Willcoxson. Their study was divided into two parts. They looked to compare students who transferred and students who dropped out. This way, they could

label the factors that influenced these two very different decisions made by students.

They also found that first-year academic performance had the strongest effect on whether students transferred or dropped (Allen et al., 2008).

The Enrollment Policy committee at The University of North Carolina at Chapel Hill (2004) published a report that labeled academic achievement as a factor related to retention. The report stated:

“Since students who fail to maintain satisfactory academic progress are at risk for being dismissed, maintaining an acceptable level of academic achievement is one of the strongest predictors of eventual graduation. Academic success in the freshman year is particularly important, as this builds student confidence, indicates preparedness for advanced work, and improves efficiency in accumulating credits needed for timely degree completion.”  
(The Retention Study Group, 2004, Pg. 8)

The University of North Carolina also presented that academic success in the first year of college is particularly important. Murtaugh and Burns (1999) identified GPA in the first quarter as influencing a student’s likelihood to remain. Their results showed a student with a GPA between 3.3 and 4.0 was more than twice as likely to be retained for 4 years than a student with a GPA between 0 and 2.2. My seventh hypothesis (H7) being tested is that service-learning and or community service will moderate the effect lower GPA will have on affective commitment.

## **Retention and College Persistence by Gender**

Gender has been indicated to be a factor in the success of students in higher education. Pruet (2009), who did a comprehensive study of Mississippi's public universities, was examining demographic variables that affected graduation percentages. Along with race, and financial background, Pruet (2009) also found that gender had an effect on a student's likelihood to complete their degree. In four years, females were found to graduate at a rate of 53.3% while males had a graduation rate of 48.2% (Pruet, 2009). Not only did women graduate at a higher rate than men, but their average GPA was also higher than that of their male peers. Christenson found in his study on students at the University of Minnesota that 70% of college "persisters" from one year to the next were female while only 30% were male (Christenson, 1990). A college "persister" is a student who continues to attend the same college in the following year.

Tom Mortenson, a senior scholar at the Pell Institute for the Study of Opportunity in Higher Education also noticed a trend of declining degree completion for men and an increasing rate of degree completion for women, when he used data to look at degrees that had been awarded since 1970 (Postsecondary Education Opportunity, 2000).

King (2000) reported that a federal survey done to gauge student persistence in college shows that "Women who enter post secondary education with a goal of attaining a bachelor's degree are more likely than men with similar ambitions to have earned a BA within five years" (pg. 13). Similar findings were also presented by Lillian Zhu (2004). In

her study of the determinants of Time-To-Degree in Public 4-year colleges she found that almost double the amount of females would graduate in 4 years than males.

There are factors to consider when looking at why women persist in secondary education at greater rates than men. One conclusion can be drawn from the fact that women who do not graduate with a bachelor's degree or above are at a greater financial disadvantage to a man under the same circumstances (Leppel, 2002).

### **Methodology**

The goal of this thesis is to explore the relationship between students whom have either taken a service-learning course or had been involved with community service, and their likelihood to remain at and graduate from the University of Maine (Retention rate). The best way to obtain the necessary information in exploring the above relationship was to administer a survey.

The survey was made available using First Class, which is a campus coordination program that every student has access to. I was able to post the survey on the general announcements page, as well as send the survey out to the Honors College, Maine Business School and the College of Education students on First Class because the student email lists were made available to me. Students in CMJ 102 and POS 488 were also directly targeted because of the service-learning component that is a part of each respective class.

My survey focused on undergraduate students. I targeted both males and females and students from all University of Maine colleges with the aim of getting a large and unbiased representation of the University of Maine, as well as specific set of students in POS 488 and CMJ 102 who are currently enrolled in service learning courses. This very broad group of students was targeted because the goal of the survey was to find if service-learning courses could influence retention rates. Because of this, it is important to compare survey results between students who have taken an SL course with those who have not. All of the students targeted were at least 18 years of age.

The survey was designed to examine the relationships formulated in my eight hypotheses. The letter of introduction, the e-mail sent to students and the survey itself can be found in the appendix.

## **Results**

### **Descriptive Stats**

Two hundred and sixty-nine respondents took the survey, with 230 fully completing the survey. However many of the partial responses could still be used to get information. The students were categorized into three groups. These were students who had taken a service-learning course, students who had participated in community service with an on campus organization, and students who had done neither. All of the comparisons I ran were based on these three groups.

As seen in table one, out of the 258 students who answered the question, “Are you currently enrolled in or have you ever taken a service-learning course at the University of Maine”, 29 or 11.24% of the respondents said that they had, while 229 (88.76%) said that they had not.

Out of the 252 students who answered the question, “Have you ever done community service with an organization on campus, 119 (47.22%) said that they had, while 133 (52.78%) said that they had not.

One hundred and ninety-two females took the survey, as opposed to 68 males.. Out of the 29 students who had ben enrolled in a servive-learning course, 25 (13.09%) were female and 4 (5.97) where male. However, there was no statistical difference in these two percentages.<sup>1</sup>

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<sup>1</sup> P-value = .11



**Description of Students, Male and Female**  
**Table 1**

		I am		
		Male	Female	Total
Are you currently enrolled in or have you ever taken a service-learning course at the University...	Yes	4	25	29
		13.79%	86.21%	100.00%
		5.97%	13.09%	11.24%
	No	63	166	229
27.51%		72.49%	100.00%	
		94.03%	86.91%	88.76%
	Total	67	191	258
		25.97%	74.03%	100.00%
		100.00%	100.00%	100.00%
Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...	Yes	29	90	119
		24.37%	75.63%	100.00%
		43.94%	48.39%	47.22%
	No	37	96	133
27.82%		72.18%	100.00%	
		56.06%	51.61%	52.78%
	Total	66	186	252
		26.19%	73.81%	100.00%
		100.00%	100.00%	100.00%

		I am
Are you currently enrolled in or have you ever taken a service-learning course at the University...	Chi Square	2.52
	Degrees of Freedom	1
	p-value	0.11

		I am
Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...	Chi Square	0.39
	Degrees of Freedom	1
	p-value	0.53

Ninety (48.39%) female respondents said they had done community service with an organization on campus as did 29 (43.94%) males. There is no statistical difference between the percent of females and males participating in community service.<sup>2</sup>

Table two shows that there were 29 (11.2%) respondents from the Maine Business School, 83 (32.05%) from the College of Education and Human Development, 65 (25.10%) from the College of Natural Science, Forestry and Agriculture, 50 (19.31%) from the College of Liberal Arts, 30 (11.58) from the College of Engineering and 2 respondents from Explorations and Foundations who took the survey.

Out of the 29 MBS students, 1(3.45%) respondent had been in a service-learning course, and 13 (46.43%) had done community service. 12 (14.46%) students In the College of Education and Human Development had been in a service-learning course while 35 (56.25%) out of 80 respondents had said they had done community service. In the College of Natural Science, Forestry and Agriculture, 9 (13.85%) students out of 65 had taken a service-learning course and 35 (54.69%) out of 65 students had done community service.

The College of Liberal Arts and Sciences had 4 (8.00%) respondents who had done service-learning out of 46 total respondents to that question. 22 (44.90%) respondents out of 49 had done community service.

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<sup>2</sup> P-value = .53

In the College of Engineering 2 (6.67%) students had done a service-learning course while 28 said they had not. 14 (46.67%) Engineering students had done community service.

There was no correlation between students college and their likelihood of being enrolled in a service learning course<sup>3</sup>, or involved with community service because of their major.<sup>4</sup>

### Description of Students by College

**Table 2**

		Are you currently enrolled in or have you ever taken a service-learning course at the University...			Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...		
		Yes	No	Total	Yes	No	Total
What college are you a part of?	Maine Business School	1 3.45% 3.45%	28 96.55% 12.17%	29 100.00% 11.20%	13 46.43% 10.83%	15 53.57% 11.28%	28 100.00% 11.07%
	College of Education and Human Development	12 14.46% 41.38%	71 85.54% 30.87%	83 100.00% 32.05%	35 43.75% 29.17%	45 56.25% 33.83%	80 100.00% 31.62%
	College of Natural Science, Forestry and Agriculture	9 13.85% 31.03%	56 86.15% 24.35%	65 100.00% 25.10%	35 54.69% 29.17%	29 45.31% 21.80%	64 100.00% 25.30%
	College of Liberal Arts and Sciences	4 8.00% 13.79%	46 92.00% 20.00%	50 100.00% 19.31%	22 44.90% 18.33%	27 55.10% 20.30%	49 100.00% 19.37%
	College of Engineering	2 6.67% 6.90%	28 93.33% 12.17%	30 100.00% 11.58%	14 46.67% 11.67%	16 53.33% 12.03%	30 100.00% 11.86%
	Explorations, Foundations	1 50.00% 3.45%	1 50.00% 0.43%	2 100.00% 0.77%	1 50.00% 0.83%	1 50.00% 0.75%	2 100.00% 0.79%
	Total	29 11.20% 100.00%	230 88.80% 100.00%	259 100.00% 100.00%	120 47.43% 100.00%	133 52.57% 100.00%	253 100.00% 100.00%

<sup>3</sup> P-value = .2

<sup>4</sup> P-value = .86

		Are you currently enrolled in or have you ever taken a service-learning course at the University...	Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...
What college are you a part of?	Chi Square	7.26*	1.94*
	Degrees of Freedom	5	5
	p-value	0.20	0.86

Students were also asked to report their perceived level of debt. This question does not provide actual figures of student debt to use and compare, but instead reveals student's perception of how much money they will owe after graduating. The reason the question was asking students to report their perceived level of debt was because the question was geared to examine the mental stress students can face because of the cost of higher education.

As seen in Table three, there were 50 (19.23%) students who responded, as saying they had a "Very Low" perceived level of debt. There were 47 (18.08%) students whom said that they had a "Low" perceived level of debt. The largest number of respondents, 100 (38.46%), said that their perceived level of debt was "Medium". This means, they neither thought the cost of their education was too high, or cheap. Forty-three (16.54%) students thought that their perceived level of debt was "High", and 20(7.85%) said "Very High".

There was no statistical correlation between the number of students enrolled in service learning courses and the perceived level of debt.<sup>5</sup> There was also no statistical

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<sup>5</sup> P-value = .21

correlation between the number of students who had done community service and their perceived level of debt.<sup>6</sup>

### Description of Students, Percieved Debt Level

**Table 3**

		How would you characterize your perceived level of debt from attending UMaine - Perceived Debt					
		Medium	Very Low	Low	High	Very High	Total
Are you currently enrolled in or have you ever taken a service-learning course at the University...	Yes	12 41.38% 12.00%	3 10.34% 6.00%	8 27.59% 17.02%	6 20.69% 13.95%	0 0.00% 0.00%	29 100.00 11.15%
	No	88 38.10% 88.00%	47 20.35% 94.00%	39 16.88% 82.98%	37 16.02% 86.05%	20 8.66% 100.00%	231 100.00 88.85%
	Total	100 38.46% 100.00%	50 19.23% 100.00%	47 18.08% 100.00%	43 16.54% 100.00%	20 7.69% 100.00%	260 100.00 100.00%
Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...	Yes	52 43.33% 53.06%	22 18.33% 45.83%	18 15.00% 39.13%	20 16.67% 47.62%	8 6.67% 40.00%	120 100.00 47.24%
	No	46 34.33% 46.94%	26 19.40% 54.17%	28 20.90% 60.87%	22 16.42% 52.38%	12 8.96% 60.00%	134 100.00 52.76%
	Total	98 38.58% 100.00%	48 18.90% 100.00%	46 18.11% 100.00%	42 16.54% 100.00%	20 7.87% 100.00%	254 100.00 100.00%

<sup>6</sup> P-value = .56

Are you currently enrolled in or have you ever taken a service-learning course at the University...		How would you characterize your perceived level of debt from attending UMaine - Perceived Debt
	Chi Square	5.90*
	Degrees of Freedom	4
	p-value	0.21

Have you ever done community service with an organization on campus. (examples: Greek Life, clubs...		How would you characterize your perceived level of debt from attending UMaine - Perceived Debt
	Chi Square	3.01
	Degrees of Freedom	4
	p-value	0.56

## Male and Female GPA

As stated earlier, previous studies on the comparison between male and female GPAs have shown that females will have higher GPAs than males. The same was found to be true for respondents in the results of this survey. As shown in table four, females had an average GPA of 3.50 and Males had an average GPA of 3.41. This is where the data becomes interesting. The average GPA for a male who had done neither service-learning nor community service was higher than a female under the same circumstances. Males had an average GPA of 3.49 to the 3.44 average reported for females when they had done neither service-learning nor community service. This difference was not statistically significant.<sup>7</sup>

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<sup>7</sup> P-value = .6041

**Female vs Male Average GPAs Table 4**

	<b>FEMALE CS+SL</b>	<b>FEMALE</b>	<b>MALE CS+SL</b>	<b>MALE</b>
Mean	<b>3.550</b>	<b>3.441</b>	<b>3.321</b>	<b>3.490</b>
St D	0.379	0.484	0.479	0.391
N	96	90	32	32
P	<b>0.0449</b>		<b>0.06425</b>	

For students who had done service-learning or community service a change is reported for the average GPA's for both males and females. Female average GPA increases to 3.55, while males see their average GPA decrease to a 3.321. The difference in male and female GPA's was statistically significant.<sup>8</sup>

The difference between the two GPA averages for females is statistically significant.<sup>9</sup> This means that females who are in a service-learning course, or who had done community service had a higher GPA on average than their female counterpart who had not done community service or a service-learning course. On the other hand, males who had either been in a service-learning course or had done community service had a lower average GPA than their male counterparts who had not done either. This however was not statistically significant.<sup>10</sup>

Even though the difference between male GPA's was not statistically significant, it is still worth noting and looking into. What would cause this decline in GPA? There were no data points that could be eliminated as outliers from using a Thompson tau chart.

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<sup>8</sup> P-value = .0066

<sup>9</sup> P-value = .0449

<sup>10</sup> P-value = .06425

My next theory was that males who had done community service through their fraternities may be the cause for lower GPA's in this data set. I found that the average GPA of a Male who reported that they had done community service through their Fraternity was 3.22. A 3.22 was lower than the GPA of 3.37, which was the average GPA for all males who had done community service or service-learning and who were not in a fraternity. The difference between these two means was not statistically significant.<sup>11</sup>

I believe (it is perceived that) Fraternities require you as a brother to do community service. Therefore, by not necessarily doing community service out of choice, it is possible that these students may not be getting the full benefits of doing the service in the first place, which would be a higher scholastic achievement, and a stronger connection with students and faculty. This is why I believe that we may have seen a dip in GPA between male students who had done community service or service learning and those who had not.

### **GPA by College**

As mentioned before, a student's college of study can also have an effect on a student's retention rate. Historically the College of Engineering has had students with the highest retention rates, but lately the Maine Business School has been closing the gap.

As seen in table 4 I split up students by college and saw if there were any

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<sup>11</sup> P value= .4089



statistical differences in GPA based on whether or not the student had done community service or service learning. For the 15 students in the Maine Business School who had not done community service the average GPA was 3.302. The 16 students who had done community service or service-learning had an average GPA of 3.33. There was not a statistical difference between these two sets of students.<sup>12</sup> A student in the business school will not necessarily have a higher GPA if they were to take a service-learning course or do community service, than if they did neither. There was also no statistical differences of the GPA's for students based on service-learning or community service vs Non service learning or non community service students in the College of Education and Human Development, the College of Liberal Arts and Sciences and the College of Natural Science, Forestry and Agriculture.

**Average GPA's by College                      Table 5**

<b>No SL/CS</b>	<b>MBS</b>	<b>CNSFA</b>	<b>CEDHD</b>	<b>CLAS</b>	<b>CENG</b>
Mean	<b>3.302</b>	<b>3.468</b>	<b>3.472</b>	<b>3.629</b>	<b>3.39</b>
STDEV	<b>0.631</b>	<b>0.475</b>	<b>0.406</b>	<b>0.378</b>	<b>0.32</b>
N	<b>15</b>	<b>25</b>	<b>31</b>	<b>24</b>	<b>14</b>

<b>With</b>	<b>MBS</b>	<b>CNSFA</b>	<b>CEDHD</b>	<b>CLAS</b>	<b>CENG</b>
Mean	<b>3.330</b>	<b>3.596</b>	<b>3.461</b>	<b>3.589</b>	<b>3.10</b>
STDEV	<b>0.447</b>	<b>0.395</b>	<b>0.443</b>	<b>0.295</b>	<b>0.53</b>
N	<b>16</b>	<b>42</b>	<b>34</b>	<b>25</b>	<b>16</b>

<b>Compare</b>					
<b>P Values</b>	0.4435	0.11945	0.45875	0.3404	0.0476

<sup>12</sup> P-value = .4435

Even though in the College of Natural Sciences, Forestry and Agriculture 42 respondents who had either taken a service-learning course or who had done community service had an average GPA of 3.596. This was not a statistically higher GPA than the students in the college of Natural Sciences, Forestry and Agriculture who had done neither community service nor taken a service-learning course who of which had an average GPA of 3.468.<sup>13</sup>

In the College of Education and Human Development, and the College of Liberal Arts and Sciences there were unexpected negative differences between the average GPA's of students. In fact the P values were .458 for the College of Education and Human Development, and .34 in the College of Liberal Arts and Sciences. This means there is no statistical difference in the average GPA's for each respective college when comparing community service and service-learning students with non community service and non service-learning students.

I would attribute the lack in statistical significance in GPA's to the students who had taken the survey whom I believe were in the honors college. In the Honors College, students are required to maintain a very high GPA to be able to stay in the school. Therefore, academic success is stressed very highly in all classes. This means whether a student does community service or not, there are certainly other factors that influence a student's GPA and doing community service may not be the factor with the biggest influence.

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<sup>13</sup> P- Value = .11945

However, this does not explain what happened with the results that were received from students in the College of Engineering. In the College of Engineering students statistically had higher GPAs if they were NOT in a service-learning course or had NOT done community service. The average GPA for students who had not done any community service or had never been enrolled in a service-learning course was 3.390. Students who had done either community service or service-learning had an average GPA of 3.104. Here the difference in GPAs was statistically significant.<sup>14</sup>

Again, I searched for any outliers in the data, and there were none. The Ns were 16 with, (service-learning and community service) and 14 without. So this may have played a factor in the negative difference in GPAs for students in the College of Engineering. There is also the possibility that in the case of an engineering student, doing community service doesn't necessarily have a positive impact on how you perform in school. These students may be highly motivated by more hands on lab type work. The engineering major has a number of lab courses, which take up a larger chunk of the day then traditional classes would, so substituting or adding on to this already large time commitment could be detrimental to these students GPA.

I think it is also important to note that it is also possible students taking the survey may have been in a service learning course and not even known, so a high GPA or connection with the University that could be attributed, in part because of taking a service-learning course, to the wrong set of students. There is a tentative list of all

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<sup>14</sup> P-value = .0476

service-learning courses that are offered, and have been offered at the University of Maine. There are over 70 of these courses, so I expected a higher number of students to have responded to the survey who had been enrolled in a service-learning course.

### **GPA by Perceived Debt Level**

As addressed before, studies have shown that there is a negative relationship between the amount of student's debt and the retention rates. This means, the higher the student's debt is, the less likely the student is to stay in school until graduation. There are a few other factors that also go into determining whether any specific student is going to be retained or not. GPA or academic performance, and a student's commitment/connection with the institution also play a roll. I first looked at the roll perceived debt level had on a students' GPA. See table 6.

Average GPA by Perceived Debt Level			Table 6		
No SL/CS					
	Very Low	Low	Medium	High	Very High
Mean	3.505	3.619	3.400	3.455	3.209
STDEV	0.742	0.441	0.463	0.356	0.612
N	25	22	62	20	4
SL/CS					
Mean	3.568	3.529	3.531	3.361	3.111
STDEV	0.460	0.482	0.357	0.492	0.385
N	24	22	36	19	10
P values	0.2818	0.26085	0.0765	0.24845	0.36035

As could be expected, the higher a student's perceived level of debt was related to lower reported GPAs. The average GPA for a student with a "Very Low" perceived debt level was 3.568. On the other side of the spectrum students with a "Very High" perceived debt level had an average GPA of 3.111. However when we further split the respondents by students with service learning or community service and students without, the results were not so cut and dry.

Students with service-learning or community service and who had a "Low" perceived debt level had an average GPA that was higher than students who responded with a "Very Low" perceived debt level. 3.619 (Low) to a 3.505 (Very Low).

A student who had done community service, or had taken a service learning course did not seem to consistently have higher GPA scores than students who had done neither. At the "Very low" and "Medium" perceived debt levels, students had a higher average GPA if they had not done service learning or community service. However, none of the differences were statistically significant.

## **Hypothesis Testing**

### **The Relationship Between Service-Learning and Community Service with GPA (H1)**

To test Hypothesis 1: "there will be a positive relationship between service-learning and community service with a student's GPA" I organized the data into three

separate categories. There were students who had taken a Service Learning course (n = 29), students who had participated in community service with an organization on campus (n= 100), and students who did neither (n=100).

**Table 7**

	No SL/CS	SL	CS	SL/CS
<b>Mean</b>	<b>3.485</b>	<b>3.453</b>	<b>3.495</b>	<b>3.787</b>
<b>STDEV</b>	<b>0.429069156</b>	<b>0.476654513</b>	<b>0.415992421</b>	<b>0.244724562</b>
<b>N</b>	<b>100</b>	<b>29</b>	<b>100</b>	<b>9</b>

Without any demographic break down, like male or female, college of major, or perceived debt level, I first ran a comparison to see how GPAs as a whole were reported for my sample. The results are displayed in table 7. For the students who had not taken a service-learning course and had never done community service with an on campus organization the average GPA was 3.485. The service-learning students had an average GPA of 3.453, while those who had done only community service had an average GPA of 3.495. The difference between GPA for service-learning and no service learning or community service students was not significant.<sup>15</sup> There was also no statistical significance between the average GPAs for students who had done community service

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<sup>15</sup> P-value = .7308

with those who had not.<sup>16</sup> All of these categories showed considerably high average GPAs considering the national average for a public state school is a 3.1.

There was also no statistical difference in means between service-learning students, community service students, and students who had done neither service-learning nor community service. In other words, a student who had done community service did not necessarily have a higher GPA than a student who had done no community service.

## **Relationship between Service Learning and Community service with Commitment (H2)**

Another indicator of a student's likelihood to be retained is the student's commitment to the school. As discussed earlier there are two types of commitment: Continuance commitment and Affective commitment. Continuance commitment would be commitment out of necessity and Affective Commitment is commitment out of affection. The latter is the type of commitment that affects retention in a positive way.

To test hypothesis 2 "There is a positive relationship between service learning and or community service with a student's affective commitment score" there were 12 questions that were asked in the survey that were used to gauge a student's commitment to the University of Maine. Answers ranged on a scale of 1-7 (from strongly agree to strongly disagree). By totaling up the answers (ex. Do you feel a strong sense of

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<sup>16</sup> P-value = .8673

belonging to the University of Maine? Do you feel that the Universities problems are your own?) I could determine how strong a student's affective commitment was. A students total affective commitment (Sum of all answers) could range anywhere between below average to above average. Table 8 shows the chart used to determine how strong a student's commitment was.

**Table 8** Affective Commitment Scoring Table

Affective Commitment Score	Interpretation
Above 37	High Level
32 to 36	Above Average
28 to 31	Average
20 to 27	Below Average
Below 20	Low Level

As can be seen in table 9, a student who had done no service-learning, or community service scored an average of 27.69. This would mean these students had an "average" level of commitment. However, it is very low in that range. Students who had done community service or service-learning scored 31.89, which is considered an "Above-Average" score. As can be seen in Table 10 there was a statistical significant between the difference in the means for student's affective commitment who had done community service and service-learning with those who did not. This means that there is



a positive relationship between service-learning and community service with a student's affective commitment.

**Table 9**

Relationship between service learning and community service and commitment			
	No SL/CS	SL/CS	SL
Mean	27.69	31.897	32.57
STDV	8.197	8.508	7.846
N	113	117	20

**Table 10**

**Test for Significance**

**P values**

SL vs No CS or SL	0.0074
CS vs No CS or SL	0.0001
SL/CS vs No CS/SL	0.0001

**Commitment by College**

It is clear that there is a positive relationship between service-learning and community service with a student's affective commitment. So I wanted to explore what would happen have if we grouped students by college. As can be seen in table 10 in the Maine Business School, students whom had done community service scored an average of 31.64 on the commitment scale vs. the 28.133 scored by students who had done neither

community service nor service-learning. Although positive, these differences are not statistically significant. This can be seen in table 11.

**Average Affective Commitment Scores by College      Table 10**

	MBS	CEDHD	CNSFA	CLAS	CENG
SL/CS	31.364	31.05	32.6	31.3	32.4
No SL/CS	28.13	28.28	28.21	24.91	29.91

In the College of Education and Human Develop, College of Natural Science, Forestry and Agriculture and the College of Liberal Arts and Sciences there in fact were statistical differences in the affective commitment scores of students. Those who had done community service or service-learning scored higher than their fellow students who had not done either. Students in the College of Education and Human Development scored at an average of 31.05 if they had done community service or service-learning while the average score for students in the same college who had done neither was 28.2.<sup>17</sup>

**Table 11 (Continued) P values**

MBS	CEDHD	CNSFA	CLAS	CENG
0.19555	0.04765	0.0333	0.00995	0.23295

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<sup>17</sup> P-value = .04765

In the College of Natural Science, Forestry and Agriculture the results students had an “above average” affective commitment score of 32.6 if they had done service-learning or community service. A student in the same college who had not done any service-learning or community service scored an average of 28. The difference between these commitment scores was also statistically significant.<sup>18</sup> So a student who had done community service or service-learning would effectively show higher commitment to the University of Maine, than if they had not done service learning or community service.

I wanted to split students up by colleges because it was my thought that some areas of study would not benefit as much from the commitment and connection offered from community service and service learning. For example, Engineers may get a better experience at the University of Maine from working on team projects than an Education major who could draw a lot from their service to a school district. This means commitment cannot be improved by any one method.

In the College of Engineering students who had not done any community service or service-learning scored highest on the affective commitment scale than in any other college with a 29.91. When you did add a service-learning or community service variable to the mix however, the commitment scores still went up to 32.4. However, there was no statistical significance to the difference in these means. So we cannot say with certainty that if a student does community service in the school of Engineering that they would also show a better commitment to the University of Maine.

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<sup>18</sup> P-value = .0333

However, another possibility is that some Engineering students who are completing their senior capstones may not have been aware that what they are doing could be considered service-learning. As an example, students in the Civil Engineering capstone are given projects to do either around campus or for another group in Maine. One team was tasked with developing a new drainage system to better combat weathering to parts of the UMaine campus, while another team set up the plans to put in a track at their former high school. These services were obviously done at no cost to the beneficiaries, and also involved a reflective paper. However, students were un-aware of their capstones connection to service. Because of this, their commitment scores and GPAs were reported as if they had not done service learning, which may have skewed the data.

### **Commitment by Gender**

I decided to continue my exploration and look to see if doing community service or service-learning would have a greater impact on females as opposed to the impact it would have on a male's commitment or vice versa. Table 12 shows a comparison chart of male and female commitment scores.

**Table 12 Affective Commitment by Gender**

	Male	Female
SL/CS	32.25	31.636
No SL/CS	28	27.879

**P values**

Male  
0.0255

Female  
0.0013

For males and females, the students who did community service or service-learning had higher commitment scores than those who did not. Males who had done no service of any kind had an average commitment of 28 to the University of Maine. But for males who had done some type of service, the average score was 32.250, which is an “above average” commitment. This difference in commitment scores was statistically significant.<sup>19</sup>

Female students mirrored the same trend of male commitment scores. 31.636 was the average score for females who had done service-learning or community service, and 27.879 was the average score for females who did neither community service or service-learning. The difference in means was also statistically significant for females.<sup>20</sup>

It is interesting to note that the difference in means for male students was greater than that of females. This could indicate that doing service-learning or community service, had a greater positive effect on a student’s commitment for males than it did for females.

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<sup>19</sup> P-value = .0255

<sup>20</sup> P-value = .0013

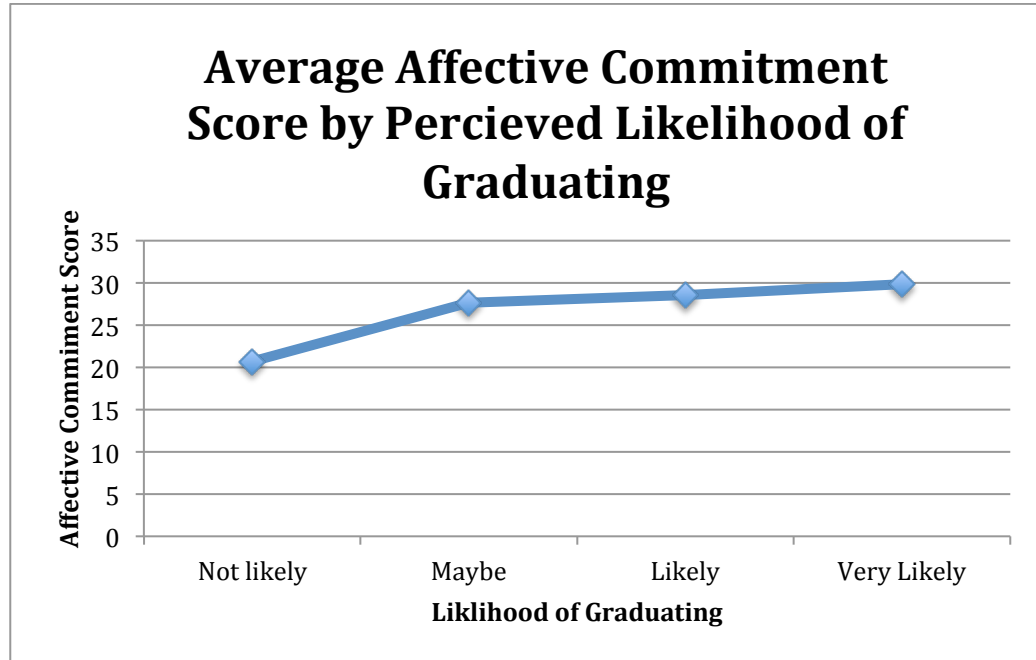
### **Affective Commitments Relationship with Likelihood of Graduating (H3)**

To address my third hypothesis, “As affective commitment increases; student likelihood to return will increase”, I sorted student commitment scores by a students response to the question “How likely are you to graduate from the University of Maine?”

We can say with statistical certainty that doing community service, and service-learning positively influence a student’s affective commitment to the University of Maine. The effect of community service and service learning on a students GPA is a little harder to prove. There was a general pattern of higher GPAs for many of the students who had done community service or service learning against those who did not. However, there was no statistical significance in the difference in means so we cannot say for certain if doing community service or service learning really had an effect on the GPA for students.

As can be seen in Figure 1, students who responded “not likely” when asked “how likely are you to graduate from the University of Maine”, had a lower commitment score then those who answered very likely.

**Figure 1**



Refer to table 13 to see a numerical representation of the figure above. The N's that made up each average are too small to say that the relationship is statistically significant between affective commitment and likelihood of graduating.

The average affective commitment for the 201 students who responded as being "Very Likely" to graduate was a 29.82. The affective commitment score for the 27 students who answered something other then "Very Likely" was 26.44.

Table 13      Average Commitment Scores by Likelihood to Graduate

	Not Likely	Maybe	Likely	Very Likely
Average Commitment	20.71	27.66	28.59	29.83
STDV	11.49	17	9.12	7.6
N	7	3	17	201

#### **Amount of Time Dedicated to the Service Project (H4, H5)**

As noted before, the benefits of time spent on the service project, or duration of the service has been noted as a positive influence on the student outcomes. A continuing service-learning course is important for two reasons. It can both create and keep relationships in the community. The service experience also becomes more meaningful to the student doing the service. I tested Hypothesis 4 and 5 by plotting GPA and commitment scores on their respective scatter charts.

H4: As amount of time committed to service-learning and or community service increases so will the affective commitment to the University Maine.

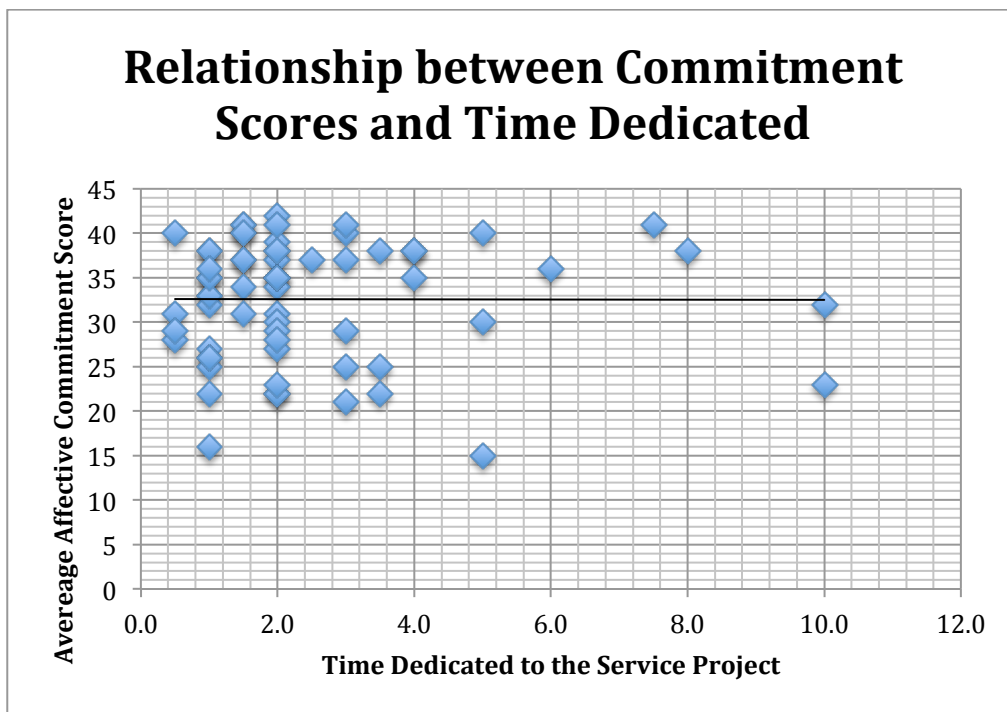
H5: As amount of time committed to service-learning and or community service increases so will the students GPA.



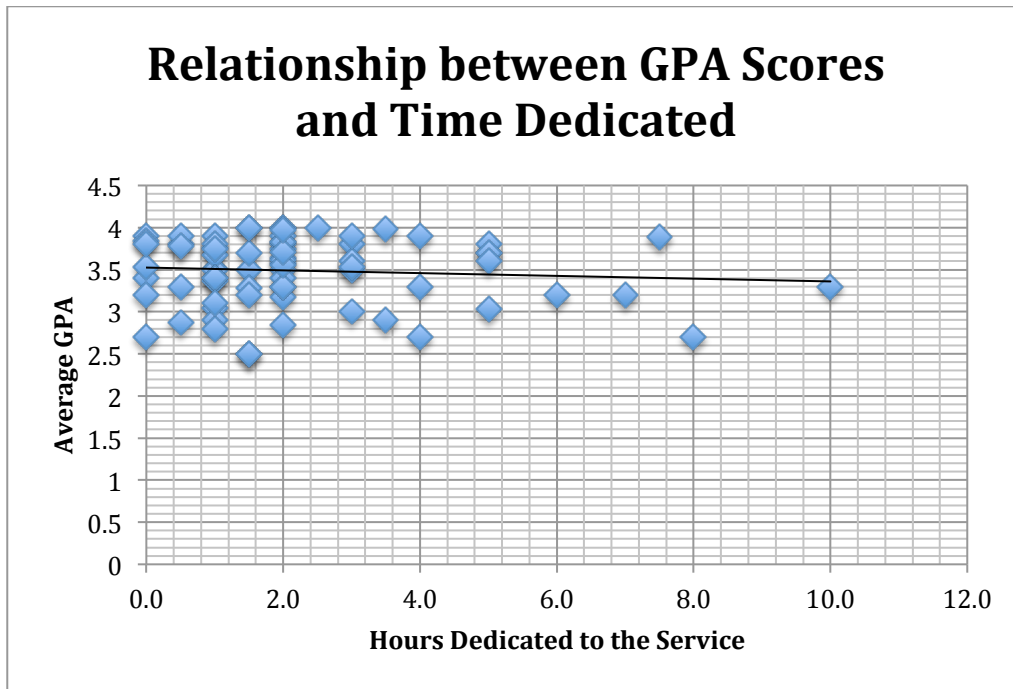
I wanted to see if students who were involved with higher hour service learning projects experiences showed higher commitment and GPA then students who had lower our service learning projects.

Figure 2 shows the correlation of time dedicated to community service and service-learning a week with student’s connection scores and figure 3 shows the same distribution, but for GPA scores by the amount of time dedicated per week. In both cases, there is absolutely no correlation between hours dedicated and higher GPA or commitment.

**Figure 2**



**Figure 3**



### Commitment and Perceived Debt Level (H6)

With perceived debt level I tested my sixth hypothesis, “community service and or service-learning will moderate the negative effect of student debt on affective commitment. As a students perceived level of debt increased, their commitment to the University also increased. Figure 3 shows the distribution of commitment scores by perceived debt level and Table 13 includes the P values associated with the difference in means. This trend was the same for both students who had never done any community service or service learning and students who had.

**Figure 3 SL/CS moderating effect of Debt Level on Affective Commitment**

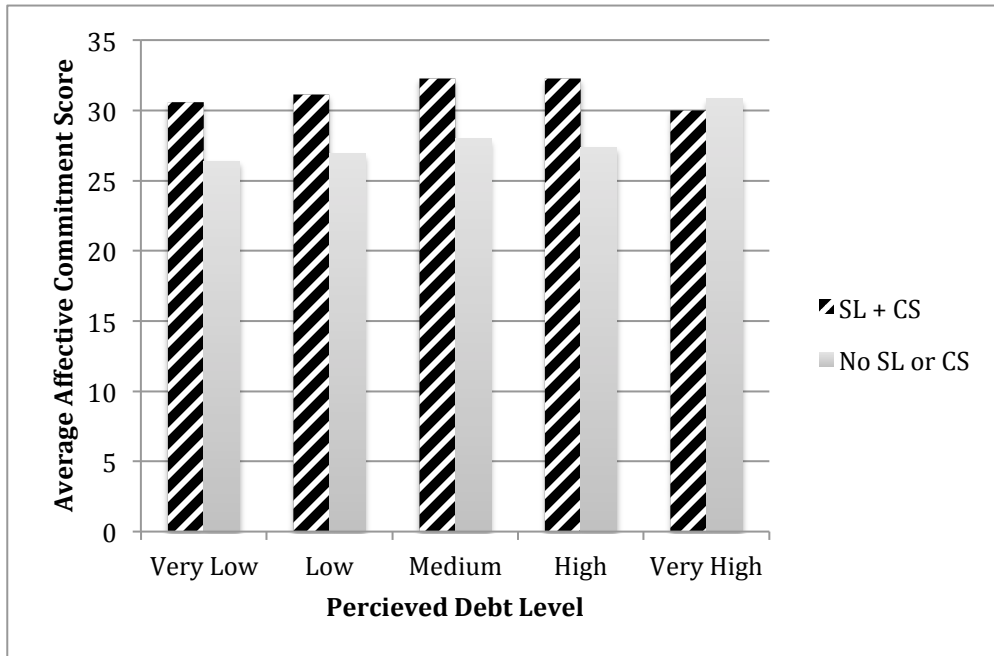


Table 13	Test for Significance				
	Very Low	Low	Medium	High	Very High
P values	0.04645	0.04895	0.00405	0.01745	0.4233

My thoughts to account for this trend is that a student feels more connected to their school when they have a higher perceived debt level. However, once the student's perceived debt becomes "Very High" they no longer feel connected with the institution. Likewise, if a student feels that they have no debt from school, perhaps they feel the school is incapable of fulfilling all of their needs as students.

Students who had never done community service, or service-learning and who responded as having a “very low” and “low” perceived level of debt both scored “Below Average” (26.375, and 26.92 respectively) when it came to their connection to the University of Maine. It wasn’t until students who responded with a “Medium” perceived level of debt did the average commitment to UMaine score in at 27.97, or an “average” connection. And even this is at the low end of the spectrum for “average” scores.

Students who had done community service or service learning had average commitment scores of 30.571, 31.118 and 32.291 at the “very low”, “low” and “medium” perceived debt levels. These were higher than the commitment scores reported by students who had not done community service or service -learning. The difference in means for all debt levels, except a “very high” perceived debt level, was statistically significant.

For the students who said that they had a “very high” perceived level of debt, doing community service or service-learning actually seemed to be a detriment to the student’s commitment with the school. N values for this very specific set of students was very small. Only 6 data points could be used for a student that fit the criteria “very high perceived level of debt” and had done service-learning or community service. In fact there were also only 11 students who had a “very high perceived level of debt” and had done neither community service nor service-learning. So with both populations the N is low.

It’s still worth noting however, that students who had never done community service and service-learning scored a 30.818, and students who had done community

service or service-learning had an average commitment score of 30. There was no statistical difference in the means<sup>21</sup>, however I think it is interesting enough that doing community service or service-learning basically has no effect on commitment for students with a very high perceived level of debt.

### **Moderating Effect of Service-Learning and community service of Low GPA (H7)**

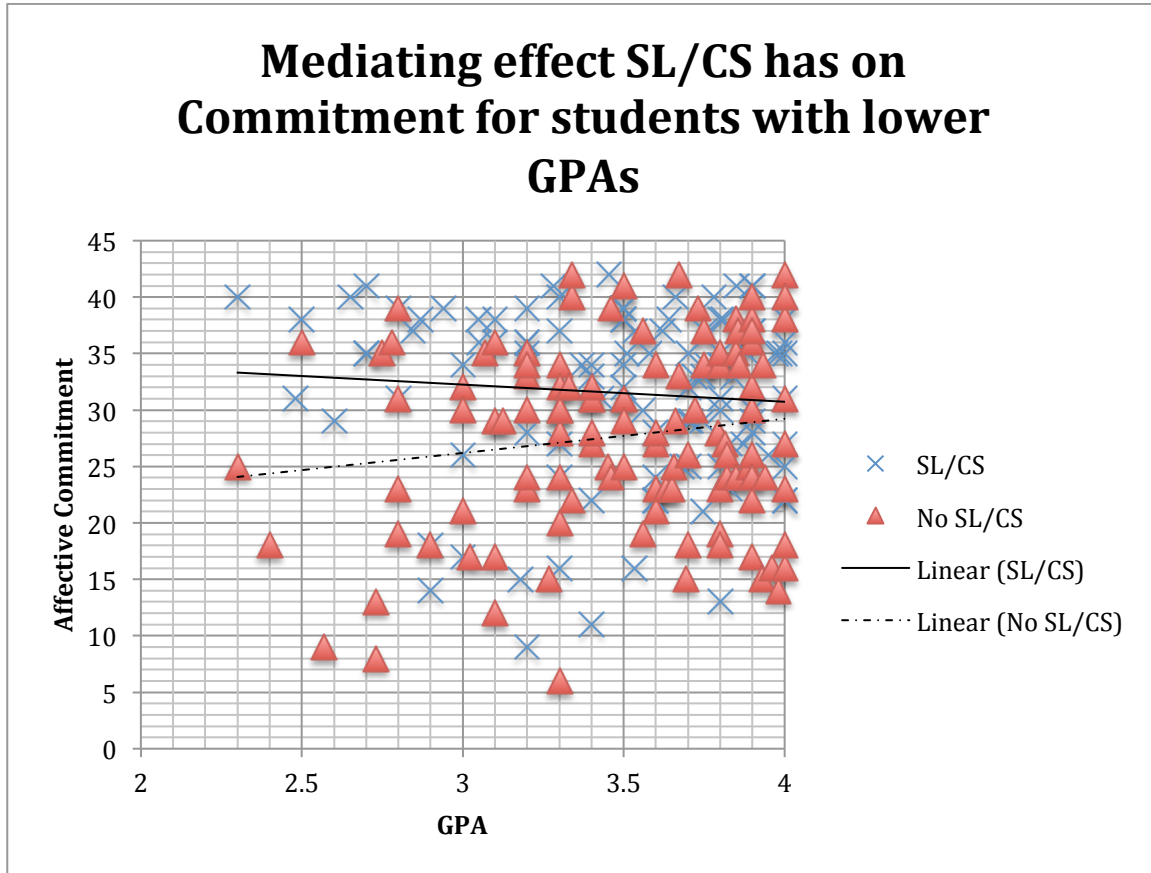
To test my seventh and final hypothesis, “Doing service-learning and or community service will moderate the effects of low GPAs on a student’s affective commitment” I paired affective commitment scores with the student’s GPA. As can be seen in Figure 4, for students with lower GPAs, 2.2 to 3.2, there was a clear distinction of commitment scores between students who had done service learning or community service and those who had not.

Students who had done community service or service-learning were clustered between commitment scores of 35 and 40. While the students who had not done service-learning or community service commitment scores most often fell below 25. As GPAs increased for students with no community service or service-learning, affective commitment also increased.

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<sup>21</sup> P-value = .4233

Figure 4



Doing service-learning or community service does moderate the effects of low GPA on a student's affective commitment. As GPA's increased, students who had done community service or service-learning didn't show to much change with affective commitment. Students with a GPA above 3.2 had pretty close affective commitment scores regardless whether they had done community service, service learning or neither.

## **The Six Who Would Not Return**

There were 42 students who said they would not return next semester, but when you combined that with the question “How likely are you to graduate from the University of Maine” of the 42 students that said they would not return next semester, 36 planned to graduate. This means that they were seniors and were graduating.

However, there were six students who said they would neither return next semester, nor graduate from the University of Maine. Even though the sample size is extremely small, it is still useful to look at the characteristics of these six students to try and estimate the causes for their attrition. The six students were split 50/50 male and female. However, of these students, four of them were only at the University of Maine for two semesters which means they were either freshman or transfer students. In any case, none of these four students had done any community service or a service learning courses in their short stint at the University.

One of the other two students who had done community service, also had a “high” perceived level of debt. So that may have been what caused this student to leave.

The other student who had done community service had an average GPA of 2.7, had been here for 10 semesters, and also had a very high commitment score of 38. So this student certainly doesn’t fit the profile for one you think would not remain through to graduation. It could be the student misinterpreted the question being asked. But more than likely, this just goes to show, in some cases there is just nothing that can be done to retain 100% of the students who come to the University of Maine.

### **Areas Where Further Research is Needed**

The results of this survey are very promising in regards to the argument for including more service-learning courses in the curriculum at the University of Maine. The fact that GPA wasn't affected too much whether a student had done community service, service-learning or neither is possibly related to very high GPAs that were reported. It is my belief that some of these results may have been skewed by a large number of honors students that could have taken the survey.

Service-learning at is a relatively new course option at UMaine. Because of this, there is an unofficial and updating list of service-learning courses. Some courses are only offered in a certain semester, while others had previously been offered and have not been again. Because of this, it is difficult to keep track of current service-learning offerings. I would like to be able to administer the survey to the students enrolled in these courses, as well as students in the same course minus the service-learning component. That way, the difference in learning outcomes for the students between the two classes (which should be teaching the same thing, but in different ways) can be evaluated.

Not only should specific classes and majors be targeted, but also even more specific sets of students. It was very interesting that as a students perceived level of debt increased, their commitment to the University also increased. However, there was a break point at a "Very High" perceived level of debt where a student's affective commitment to the school was reduced below a students commitment with a "Very Low" perceived level of debt.



By targeting perceived debt level more intensely we would have the ability to see if this “break point” was an anomaly.

This is a very interesting and rewarding area of study. It is exciting to see the growth and possibilities of service-learning not only at the University of Maine, but in the Maine community as well.

## **Appendix**

### **A.1 Email for the Survey**

My name is Jared Duggan. I am a senior in the Honors College here at UMaine. I am conducting research so that I can do a study to examine the relationship between service learning and retention rates. I am reaching out to you, to ask if you would please take 3-5 minutes to take my anonymous survey. You must be at least 18 years of age to do so.

If you would like to take the survey, or get more information on it, please click on the link below. If you do not know what service learning is, or have never been in a service learning class, do not let that deter you from proceeding as the survey is meant for all students to take it.

Thank you for your help!

### **A.2 Informed Consent Form**

An Investigation of the Relationship between Service Learning and Retention

Informed Consent Form

You are invited to participate in a research project being conducted by Jared Duggan, an undergraduate Honors student at the University of Maine. My faculty advisors are Dr. Welcomer, and Professor Erhardt. The purpose of this research is to examine whether there is a relationship between higher retention rates and service learning courses. You must be at least 18 years of age to participate.

What you will be asked to do:

If you decide to participate, you will complete a survey, which will take 3- 5 minutes to complete. The survey includes questions about your experience in service learning classes (if any), your likelihood to return to, and your likelihood of graduating from the University of Maine. We also will ask for some demographic information (e.g., gender, GPA, number of years at the University of Maine, and college of study)

Risks or discomforts:

Except for your time and inconvenience there are no risks to you from participating in this study.

Benefits:

While this study has no direct benefits to you, it may help us learn more about the relationship between service learning and retention rates at UMaine.

Confidentiality:

This study is anonymous, your responses will be kept anonymous. I will choose to NOT receive your IP address when you respond to the Internet survey. You will be assigned a participant number, and only the participant number will appear with your survey responses. Only I will see your individual survey responses. The data from the study will be kept no later than June 30th. After that, all responses will also be deleted.

Voluntary:

Your participation is voluntary; you are free to withdraw from this study at any time. If you do not want to continue, you can simply leave this website. If you do not click on the "submit" button at the end of the survey, your answers and participation will not be recorded. You also may choose to skip any questions that you do not wish to answer.

How the findings will be used: The results of the study will be used for scholarly purposes only. The results from the study will be presented in a Thesis defense, and the results will be published in a finished thesis.

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time.

Contact information:

If you have concerns or questions about this study, please contact Jared Duggan at [jared.duggan@maine.edu](mailto:jared.duggan@maine.edu)

### A.3 Survey

1. I am
  - A) Male
  - B) Female
  - C) Other
2. What college are you a part of?
  - A) Maine Business School
  - B) College of Education and Human Development
  - C) College of Natural Science, Forestry and Agriculture
  - D) College of Liberal Arts and Sciences
  - E) College of Engineering
  - F) Explorations
  - G) Foundations
3. How many semesters have you been at the University of Maine?  
(range from 0-10)  
Select box- More then ten
4. How would you characterize your perceived level of debt from attending Umaine? (make it a range)
  - A) very high
  - B) high
  - C) medium
  - D) low
  - E) very Low
5. What is your current GPA?  
Open Response

Service Learning definition( National Service Learning Clearing House, Approved by the faculty senate, October, 2011)- A teaching and learning strategy that integrates meaningful community service with instruction and reflection

6. Are you currently enrolled in or have ever taken a service-learning course at the University of Maine?
  - If yes- what was the course # (open response)
  - If yes- What was the type of service done in the class? (open response)
  - If yes- How many hours a week is the service? (open response)

7. Complete the sentence.  
Have you done or are currently doing community service through an organization at UMaine (examples: Greek Life, Honors societies, Athletics, Clubs)  
If yes- What was the organization? (Open response)  
If yes- What was the type of service? (Open response)  
If yes- How many hours a week is the service? (Open response)
8. How likely are you to return to the University of Maine next semester?  
A) Very Likely  
B) Likely  
C) Maybe  
D) Not Likely  
E) I don't know
9. How likely are you to graduate from the University of Maine?  
A) Very Likely  
B) Likely  
C) Maybe  
D) Not Likely  
E) I don't know

(The following questions 11- 22 will be asked with 7 possible responses, ranging from Strongly agree to Strongly disagree)

10. I would be very happy to complete the rest of my education at Umaine  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.
11. One of the difficulties of leaving Umaine is that there are few alternatives.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.
12. I really feel as if Umaine's problems are my own  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.
13. Right now, staying enrolled at Umaine is a matter of necessity as much as desire.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.
14. I feel a strong sense of belonging to Umaine.

Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

15. It would be very hard for me to leave Umaine right now even if I wanted to.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

16. I feel emotionally attached to Umaine  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

17. Too much of my life would be disrupted if I decided to move to a different school now.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

18. I like part of the “family” at Umaine.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

19. I feel that I have too few options to consider leaving Umaine  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

20. Umaine has a great deal of personal meaning to me  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

21. If I had not already put so much of myself into Umaine I might consider completing my education elsewhere.  
Strongly Agree, Moderately Agree, Slightly Agree, Neutral, Slightly Disagree, Moderately disagree, Strongly Disagree.

22. Do you feel community service or service learning should be required as part of a college degree?  
A) No degrees  
B) Some degrees directly related to community work  
C) All degrees

**A.4 University Of Maine Retention Rates**

	2009	2010	2011	2012	2013
<b>After 1 year</b>					
Institution Wide	0.79	0.78	0.76	0.81	0.77
College of Ed/Human Dev.	0.86	0.82	0.7	0.78	0.77
College of Engineering	0.86	0.82	0.84	0.87	0.84
College of Lib Arts/Sciences	0.77	0.79	0.76	0.8	0.78
College NSFA	0.78	0.84	0.77	0.83	0.78
MBS	0.82	0.81	0.86	0.83	0.8
<b>Year 2</b>					
Institution Wide	0.66	0.68	0.67	0.71	
College of Ed/Human Dev.	0.79	0.75	0.57	0.68	
College of Engineering	0.76	0.77	0.78	0.81	
College of Lib Arts/Sciences	0.65	0.65	0.67	0.68	
College of NSFA	0.68	0.76	0.69	0.78	
MBS	0.69	0.69	0.8	0.73	
<b>Year 3</b>					
Institution Wide	0.63	0.66	0.64		
College of Ed/Human Dev.	0.73	0.72	0.58		
College of Engineering	0.77	0.75	0.74		
College of Lib Arts/Sciences	0.62	0.62	0.63		
College of NSFA	0.63	0.72	0.67		
MBS	0.66	0.69	0.78		
<b>Year 4</b>					
Institution Wide	0.6	0.62			
College of Ed/Human Dev.	0.69	0.72			
College of Engineering	0.73	0.72			
College of Lib Arts/Sciences	0.6	0.57			
College of NSFA	0.58	0.69			
MBS	0.64	0.63			

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