

Gaining Formal Job and Career Experience

Anna Carlson Schattauer, Alexia Gurtcheff, Matt Wojick, Charles Madsen, Kyla Riley,
and Sarah Melcher

Table of Contents

Questions addressed in our research	3
Insights from Scholarly Literature	3
Methods and Sample	4
Analysis	4
Career resources	5
Internships	7
On-Campus Jobs	8
Off-Campus Jobs	9
Sources Cited	11
Appendix 1	12
Table 1: Student Confidence in CEL	12
Table 2: Cross-tabulation use of CEL for Post Graduate Goals	13
Table 3: Cross-tabulation of CEL's advertisement	14
Table 4: Ever had an Internship and Skill and Asset Gain	15
Table 5, 6, 7, and 8: Student Perceived Skill and Asset Gain from Internships	16
Table 9: Work with Faculty was valuable	17
Table 10 and 11: Ever had a Campus Job and Skills and Assets Gained	18
Table 12 and 13: Perceived Skill and Asset Gain from On-campus Jobs	19
Table 14 and 15: Perceived Skill and Asset Gained from Off-Campus Jobs	20
Appendix 2 (see survey)	

Questions Addressed in Our Research

From memo to Steve McKelvey:

1. What career resources are students aware of and currently using on campus, and what future career resources do students suggest?
 - a. Student awareness of current career resources
 - b. Factors motivating participation in job- and career-related experiences, including internships (including but not limited to office work, research, non-profit and technical work)
 - c. Level of student confidence in the effectiveness of current career resources
 - d. Student suggestions for future career resources on campus
2. What skills and assets do students gain through career and job experiences (internships, on-campus jobs, and off-campus jobs)?
 - a. Perceived skill and asset acquisition through internship experiences (including but not limited to office work, research, non-profit and technical work)
 - b. Comparison of skills gained through academic and non-academic internships
 - c. Perceived skill and asset acquisition through on-campus jobs
 - d. Perceived skill and asset acquisition through off-campus jobs

Insights from Scholarly Literature

The transition from college to work is a significant and difficult progression for most undergraduate students (Wendlant and Rochlen 2008: 151). This transition is increasingly difficult for students for a variety of reasons, including the following: a change from the familiarity of a school setting to the unfamiliarity of a workplace environment, students' lack of experience and skills, and students' inflated expectations regarding the workplace (Wendlant and Rochlen 2008). Entering the working world while in college may counteract some of students' unrealistic expectations. Regardless of working on or off campus, students with employment experience perceive that they have an advantage over their peers who do not work, suggesting that working gives students' access to real-world experiences, information for future academic and career planning, and opportunities for networking with professionals (Cheng and Alcantara 2004, 2007). Employed students also perceived gains in self-confidence and felt more comfortable in the work setting (Cheng and Alcantara 2007).

Haddara and Skanes (2007) reviewed and discussed research on cooperative education in North America, and found student benefits similar to those gained from jobs and internships. Cooperative education, as defined by The National Commission for Cooperative Education, is "a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student's academic or career goals" (Haddara and Skanes 2007). Studies indicate that students who have participated in cooperative education programs typically earn higher salaries out of college and have been offered higher status positions (Haddara and Skanes 2007). Other benefits gained by students who participate in cooperative education programs are increased commitment to and discipline in study habits, higher GPA, and better problem-solving and analytical thinking skills (Haddara and Skanes 2007). Students' perceptions of cooperative education programs have been very positive, in regards to feeling involved with and challenged by assignments while receiving important job and career guidance (Haddara and Skanes 2007).

Students' internships are also related to their future job and career experiences. Students who participate in internships while in college are more likely to have a secure job

upon graduation than are those who do not have an internship during college (Knouse, Tanner, and Harris 1999).

Research highlights the importance of the educator's role in equipping students with transferable skills through curriculum requirements (Solbrekke and Karseth 2006). For example, an institution may require students to complete an experiential learning component as part of their coursework. A sociology class at a university required students to complete a pre-internship observation in which they observed a professional setting for 6 to 8 hours and reflected on their experience (Darling 1998). The goal was to familiarize the students with the workplace culture and introduce them to possible career options. Similar to a job-shadowing experience, pre-internship observation can aid students in the career search process by allowing them to explore possible careers within their interests (Darling 1998).

Even when universities do offer department- and curriculum-based resources, students' utilization of those services may be low due to under-advertising or lack of accessibility. The use of career resources can be enhanced by adding technological services such as Internet-based guidance, web resources, and user-friendly websites to improve the accessibility to students (Venable 2010; Soltis 2006). By integrating technological services with department and curriculum involvement, career resources can be more effective for students.

Method and Sample

For this study, we administered an online survey questionnaire to a selection of St. Olaf students. Questions for our survey were constructed based on the charges of our inquiry by the Main Street Steering Committee and the information we gained from students who participated in a focus group regarding our subtopic. We used a simple random sample of 777 full-time St. Olaf students who were over the age of 18, taking 3 or more credits, not currently enrolled in our research course or assisting our group with statistical analysis, non-participants in focus groups conducted as a part of this study, and not currently studying abroad. Out of the students who received this survey, 344 responded – a response rate of 44.3%. 27.7% of respondents are first-years (93), 23.5% are sophomores (79), 26.5% are juniors (89), and 22.0% are seniors (74). About 66% of respondents are female and 34% are male. About 90% are Non-Hispanic White, 1% are American Indian or Alaskan Native, 6.5% are Asian American, 1% are African American, 0.5% are Native Hawaiian or other Pacific Islander, and 1% are Hispanic.

Analysis

1. What career resources are students aware of and currently using on campus, and what future career resources do students suggest?

a. Student awareness of current career resources

NOTE: Addressed by team studying "Job and Career Seeking"—see their supplementary document

b. Factors motivating participation in job- and career-related experiences, including internships (including but not limited to office work, research, non-profit and technical work)

NOTE: Addressed by team studying "Job and Career Seeking"—see their supplementary document

c. Level of student confidence in the effectiveness of current career resources

- Our survey asked a series of questions about student perceptions of current CEL resources on campus. These questions reflect the attitudes of students who have and have not used the CEL.
- We created an index of student confidence in current CEL resources (based on a scale of 0-20) with the following statements:
 - *The CEL offers effective guidance for my specific academic discipline or future career field*
 - *I am confident in the CEL's ability to help me find an internship*
 - *I think the CEL advertises their resources well*
 - *I plan to use or have already used the CEL to help me attain my post-graduation goals (i.e., service work, graduate school, career, etc.)*
 - *I think the CEL is helpful for finding employment after graduation*
- A mean score of 11.1 indicates that students are slightly more likely to agree than to disagree that they are confident about the effectiveness of these CEL services (See table 1).
- Not surprisingly, more upperclassmen than underclassmen use CEL services to pursue employment (56.9% of juniors and seniors; 46.3% of sophomores and first years), but many underclassmen are considering using these services in the future (See table 2). This difference could reflect awareness of resources, addressed below in regards to CEL advertising.
- Approximately only 16% of underclassmen agree the statement “the CEL advertises its resources well” versus about 47% of upperclassmen (See table 3). *Based on this data, we recommend that the CEL more effectively target underclassmen in its advertising. This could be done by bringing first-year writing classes into the CEL to learn about vocation or by having CEL representatives go to classes early in the first year to inform students about available services.*

d. Student suggestions for future career resources on campus

- The survey presented respondents with 10 statements about possible career resources on campus. Table A on the following page lists these statements and the distribution of responses. The four statements with the greatest positive response are bolded. *They indicate that students agree that academic departments advertise career and internship opportunities adequately, students seek further connections with alumni and parents, and students are interested in exploring an externship program.*

Table A: Suggestions for Future Resources	Agree	Neutral	Disagree
I believe an internship should be a general education requirement.	42%	20%	38%
My academic department adequately informs its students of career and internship opportunities in relevant fields.	63%	23%	14%
The CEL should provide more online career and internship resources linked through their webpage.	46%	51%	3%
It would help my career or internship search if St. Olaf connected me with an alumni-mentor in my field(s) of interest.	74%	24%	2%
It would be easier to use the alumni directory for career exploration if it included alums' job titles and short job descriptions.	77%	22%	1%
Students would benefit from taking a required course focused on career exploration.	51%	15%	34%
Students would benefit from taking a course focusing on developing their passions in life.	49%	19%	32%
Students would benefit from being required to attend 1-4 CEL events per year that focus on career exploration.	49%	19%	32%
I would be interested in participating in an externship.	76%	12%	12%
Students would benefit from having a directory of St. Olaf parents who are willing to assist students with career exploration.	73%	20%	7%

- The survey presented an open-ended question allowing students to share suggestions for future job and career resources. These suggestions were among the most frequent and noteworthy suggestions provided by our respondents. Suggested items included:
 - Regarding the CEL
 - Create more effective advertising of available services (7 students reported)
 - Require a career exploration for first-years, e.g. a class, a mandatory visit to the CEL, incorporate it into academic advising (5)
 - Provide a program to teach students how to network in their first year (1)
 - Require meetings with a CEL representative for juniors and seniors (1)
 - Develop online programs for those students who cannot visit the CEL (1)
 - Provide a service to assist international students in the job and internship search (1)
 - Focus on smaller businesses, not just corporate businesses, for job and internship connections (1)
 - Develop more civic-engagement programs as part of the curricula, summer programs, and study abroad programs (1)
 - Regarding Alumni and Parents
 - Create major-specific alumni panels (3)
 - Develop programming to increase alumni connections (4)

- Create a way for alumni and parents to contact St. Olaf or post on a forum whenever their organizations are hiring (1)
- *We recommend that the Main Street Steering Committee consider pursuing several of these suggestions in future program development.*

2. What skills and assets do students gain through career and job experiences (internships, on-campus jobs, and off-campus jobs)?

a. Perceived skills and assets gained through internship experiences (including but not limited to office work, research, non-profit and technical work)

Only 25% of respondents reported having had at least one internship. We created an index of perceived skills and assets students gained from their internship(s) that provides evidence that internships give students valuable skills and assets.

- 75% of respondents have not had an internship, but 25% of respondents have had at least one internship (See table 4).
- We asked students about each of the following skills and assets and created an index of student perceptions of skills and assets gained from their most recent/current internship based on the following skills and assets (The response categories included Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, and Strongly Disagree):
 - Better Prospects for Employment after Graduation
 - Written Communication Skills
 - Oral Communication Skills
 - Time-Management Skills
 - Leadership Skills
 - Technical Skills (e.g., computer skills)
 - The ability to work as part of a team
 - The ability to work more independently
 - Decision Making Skills
 - Expansion of my Professional Network
- Our index had a scale from 0-40 with a mean of 32.5 (median 34.81), indicating that students are reporting some valuable gains in at least one of the areas we asked about (See table 11).
- Index scores above 20 indicate entirely positive or more positive perceptions of skill and asset acquisition from internships. Conversely, scores below 20 indicate entirely negative or more negative perceptions.
- The mean score for respondents who had done internships was 32.5, which is well above the index mid-point, indicating more agreement than disagreement that students gained these skills and assets from their internships.

- *The data indicates that internships are very valuable for building important job-related skills and assets. We believe the data support a recommendation for promoting internships, for example by considering GE credit for internships.*

b. Comparison of skills gained in academic and non-academic internships

Of the 25% of students that reported having an internship, 19.1% of those reported receiving academic credit for that internship. A statistical test of significance of student perceived skill and asset acquisition from both academic and non-academic internships found no significant difference in the level of skills and assets gained between the two categories.

- About one-fifth (19.1%) of respondents reporting having had an internship (25%) received academic credit for their most recent internship (See table 8).
- Students with academic internships reported slightly higher gains in skills and assets than did students with non-academic internships, but an independent samples t-test found that this difference was not statistically significant ($t(2)=1.443$, $p=0.077$ or $p>.05$). This suggests that non-academic internships may be as valuable as academic internships in terms of students' reported gains in these job-related skills and assets (See table 6-7).
- However, of those that had an academic internship, 75% said that working with their faculty supervisor was valuable to their learning experience (See table 9).
- These findings indicate the importance of internships, and they support the recommendation that students seek out connections with faculty advisors when considering and searching for internships, and that faculty advisors encourage students to have internships.

c. Perceived skill and asset acquisition through on-campus jobs.

A significant portion of respondents reported having an on-campus job. We created an index of perceived skills and assets students gained from their on-campus job(s) and then ran a test of significance (T-test) to assess levels of students' perceived gains.

- 73.3 % reported having had at least one on-campus job (See table 10).
- We asked students about each of the following skills and assets and created an index of student perceptions of skills and assets gained from their on-campus jobs based on the following skills and assets (The response categories included Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, and Strongly Disagree):
 - Better Prospects for Employment after Graduation
 - Written Communication Skills
 - Oral Communication Skills
 - Time-Management Skills
 - Leadership Skills
 - Technical Skills (e.g., computer skills)
 - The ability to work as part of a team

- The ability to work more independently
- Decision Making Skills
- Expansion of my Professional Network.
- Our index had a scale from 0-40 with a mean of 23.12 (median 25.0), indicating that students are reporting some valuable gains in at least one of the areas we asked about (See table 11).
- Index scores above 20 indicate entirely positive or more positive perceptions of skill and asset acquisition from on-campus jobs. Conversely, scores below 20 indicate entirely negative or more negative perceptions.
- *Perceived skill acquisition is not as high as it is for internships, indicating that a greater emphasis should be put on gaining internship experience rather than an on-campus job in regards to gaining valuable skills for employment.*
- Using a statistical test of significance (T-test), we compared the mean index values of respondents who felt positively about their prospects for employment versus respondents who felt negatively about their prospects for employment and found a statistically significant difference ($t(2)=-11.041, p<.05$). This indicates that students who perceive to gain skills in their on-campus jobs also have confidence in their prospects for employment (See tables 12-13).

d. Perceived skill and asset acquisition through off-campus jobs.

A small amount of respondents reported having off-campus jobs. We created an index of perceived skills and assets students gained from their off-campus job(s) and found that the level of perceived skills gained is relatively high.

- 14% of respondents have had off-campus jobs (excluding summer employment). This small sample size makes it impossible to generalize our findings to a larger St. Olaf population (See table 14).
- We asked students about each of the following skills and assets and created an index of student perceptions of skills and assets gained from their off-campus jobs based on the following skills and assets (The response categories included Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, and Strongly Disagree):
 - Better Prospects for Employment after Graduation
 - Written Communication Skills
 - Oral Communication Skills
 - Time-Management Skills
 - Leadership Skills
 - Technical Skills (e.g., computer skills)
 - The ability to work as part of a team
 - The ability to work more independently
 - Decision Making Skills
 - Expansion of my Professional Network

- Our index was based on a scale from 0-40 with a mean of 28.47 (median 28.0), indicating that students report somewhat valuable gains in a number of the areas we asked about (See table 14).
- Index scores above 20 indicate entirely positive or more positive perceptions of skill and asset acquisition from on-campus jobs. Conversely, scores below 20 indicate entirely negative or more negative perceptions.
- *Perceived skill acquisition from off-campus jobs is higher than from on-campus jobs, but is not as high as from internships, again indicating that a greater emphasis should be put on gaining internship experience rather than off-campus job experience in order to gain skills for employment.*

Sources Cited

- Cheng, David X. and Lucia Alcantara. 2007. "Assessing Working Students' College Experiences: A Grounded Theory Approach." *Assessment and Evaluation in Higher Education* 32 (3):301-311. Retrieved September 24, 2010 (<http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=3&hid=7&sid=ca09ce8e6d80-47a0-92f1-5b3173e6e7a3%40sessionmgr12>)
- Darling, Rosalyn B. 1998. "The Value of a Pre-Internship Observation Experience." *Teaching Sociology* 26:341-346. Retrieved September 24, 2010 (<http://www.jstor.org/pss/29735006>)
- Haddara, Mahmoud and Heather Skanes. 2007. "A Reflection on Cooperative Education: From Experience to Experiential Learning." *Asia-Pacific Journal of Cooperative Education* 8(1): 67-76. Retrieved September 26, 2010 (<http://www.apice.org/>)
- Knouse, Stephen B., Tanner, John T., and Harris, Elizabeth W. 1999. "The Relation of College Internships, College Performance and Subsequent Job Opportunity." *Journal of Employment Counseling* 36(1): 1-9. Retrieved September 22, 2010 (http://web.ebscohost.com/ehost/detail?vid=6&hid=7&sid=ca09ce8e-6d80-47a0-92f15b3173e6e7a3%40sessionmgr12&bdata=JnNpdGU9ZWZWhvc3QtbGI2ZQ%3d%3d#b=aph_AN=19_53499)
- Solbrekke, Tone D. and Berit Karseth. 2006. "Professional Responsibility – An Issue for Higher Education?" *Higher Education* 52:95-119. Retrieved September 24, 2010 (<http://web.ebscohost.com/ehost/detail?vid=16&hid=8&sid=40157f53-9955-4e32-a6331d2d3a784ab8%40sessionmgr11&bdata=JnNpdGU9ZWZWhvc3QtbGI2ZQ%3d%3d#db=ah&AN=20457300>)
- Soltis, Cheryl. 2006. "Underused College Tool: Career Services; Seminars, Personal Coaching and Web Resources Can Help in Landing That First Job." *The Wall Street Journal*. January 3, p. A.20. Retrieved September 26, 2010 (<http://proquest.umi.com/pqdweb?index=0&did=953752041&SrchMode=2&sid=3&Fmt&Vlst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1287088653&clientId=1007>)
- Venable, Melissa A. 2010. "Using Technology to Deliver Career Development Services: Supporting Today's Students in Higher Education." *The Career Development Quarterly* 59(1):87-96. Retrieved September 24, 2010 (http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=2&hid=15&sid=efae7a459df6-4b93_8d79-0a6079acd1a9%40sessionmgr11)
- Wendlant, Nancy M. and Arron B. Rochlen. 2008. "Addressing the College-to-Work Transition: Implications for University Career Counselors." *Journal of Career Development* 35(151). Retrieved September 11, 2010 (<http://jcd.sagepub.com/content/35/2/151>)

Appendix 1

1)

c.

Table 1

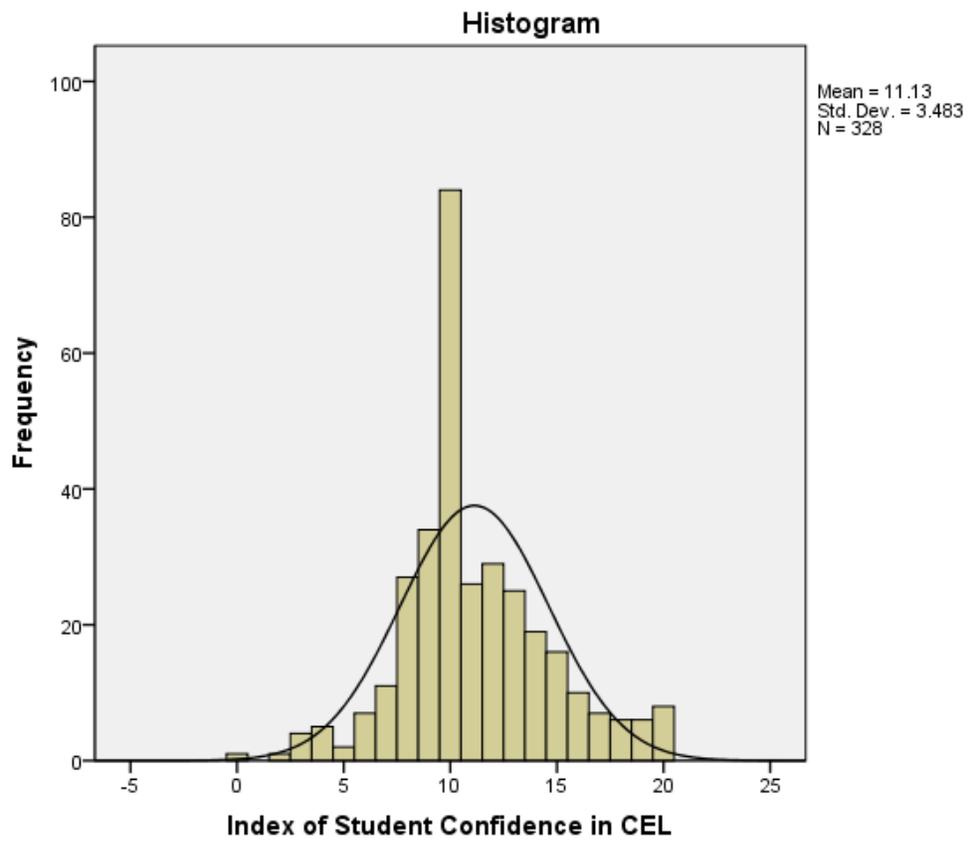


Table 2

Did/will use CEL for post-graduate goals * Current Year by Underclass and Upperclass Crosstabulation

			Current Year by Underclass and Upperclass		Total
			Underclass Person	Upperclass Person	
Did/will use CEL for post-graduate goals	Strongly Disagree	Count	5	19	24
		% within Current Year by Underclass and Upperclass	3.0%	11.9%	7.4%
	Somewhat Disagree	Count	7	18	25
		% within Current Year by Underclass and Upperclass	4.3%	11.3%	7.7%
	Neither Agree nor Disagree	Count	76	32	108
		% within Current Year by Underclass and Upperclass	46.3%	20.0%	33.3%
	Somewhat Agree	Count	56	62	118
		% within Current Year by Underclass and Upperclass	34.1%	38.8%	36.4%
	Strongly Agree	Count	20	29	49
		% within Current Year by Underclass and Upperclass	12.2%	18.1%	15.1%
	Total	Count	164	160	324
		% within Current Year by Underclass and Upperclass	100.0%	100.0%	100.0%

Table 3

CEL advertises its services well * Current Year by Underclass and Upperclass Crosstabulation

			Current Year by Underclass and Upperclass		Total
			Underclass Person	Upperclass Person	
CEL advertises its services well	Strongly Disagree	Count % within Current Year by Underclass and Upperclass	19 11.6%	13 8.1%	32 9.8%
	Somewhat Disagree	Count % within Current Year by Underclass and Upperclass	49 29.9%	39 24.2%	88 27.1%
	Neither Agree nor Disagree	Count % within Current Year by Underclass and Upperclass	69 42.1%	33 20.5%	102 31.4%
	Somewhat Agree	Count % within Current Year by Underclass and Upperclass	23 14.0%	57 35.4%	80 24.6%
	Strongly Agree	Count % within Current Year by Underclass and Upperclass	4 2.4%	19 11.8%	23 7.1%
Total	Count % within Current Year by Underclass and Upperclass	164 100.0%	161 100.0%	325 100.0%	

2)

a.

Table 4

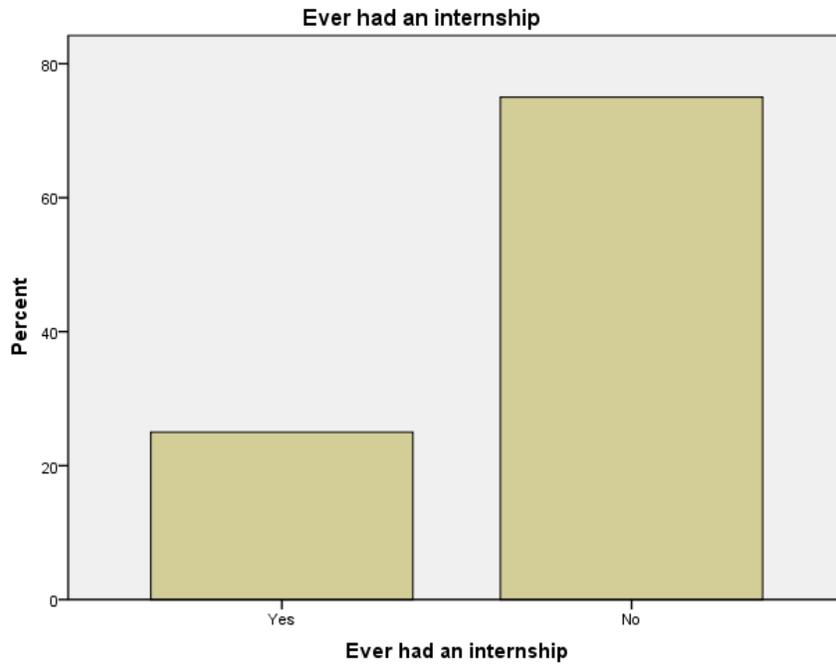
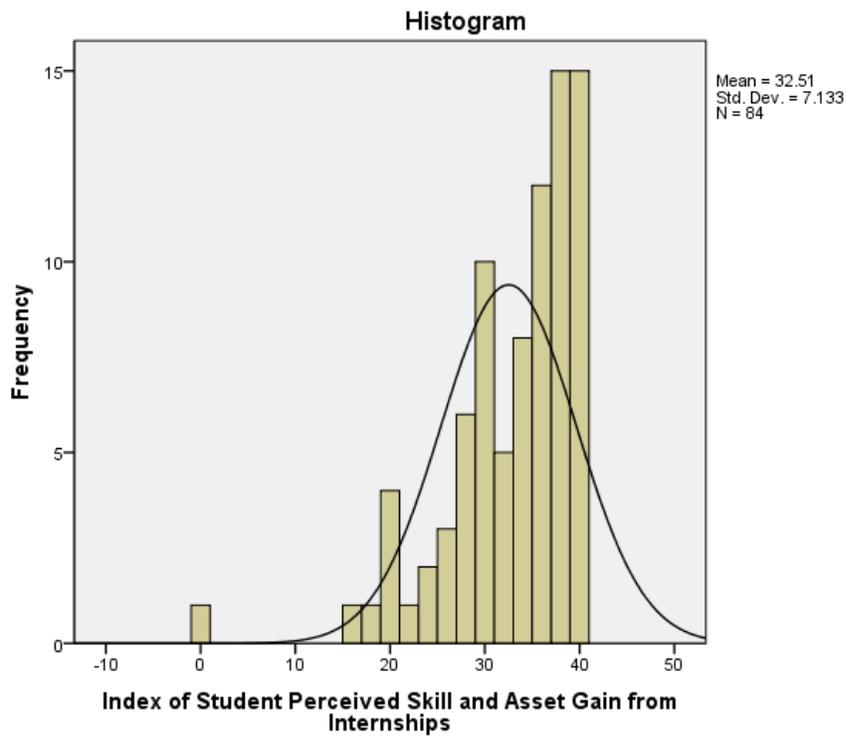


Table 5



b.

Table 6

Group Statistics					
Internship for academic credit		N	Mean	Std. Deviation	Std. Error Mean
Index of Student	Yes	16	34.81	4.385	1.096
Perceived Skill and Asset Gain from Internships	dimension1 No	68	31.97	7.561	.917

Table 7

Independent Samples T-test			
	Levene's Test for Equality of Variances	Significance	T score
Index of Student Perceived Skill and Asset Gain from Internships	Equal variances assumed	0.077	1.443

Table 8

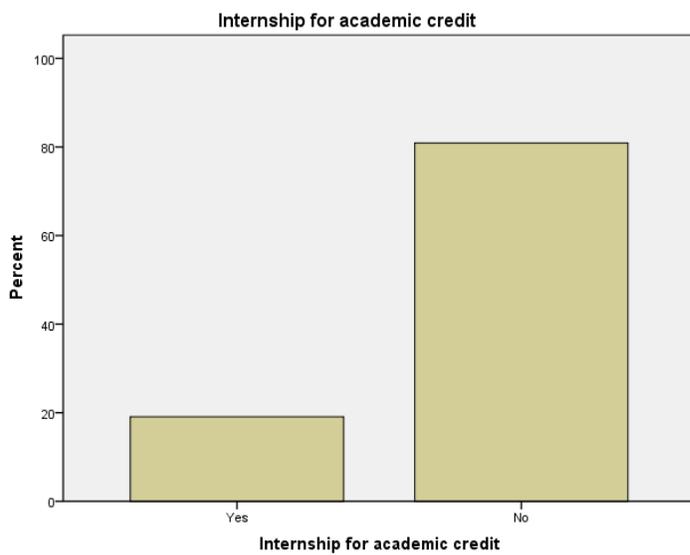
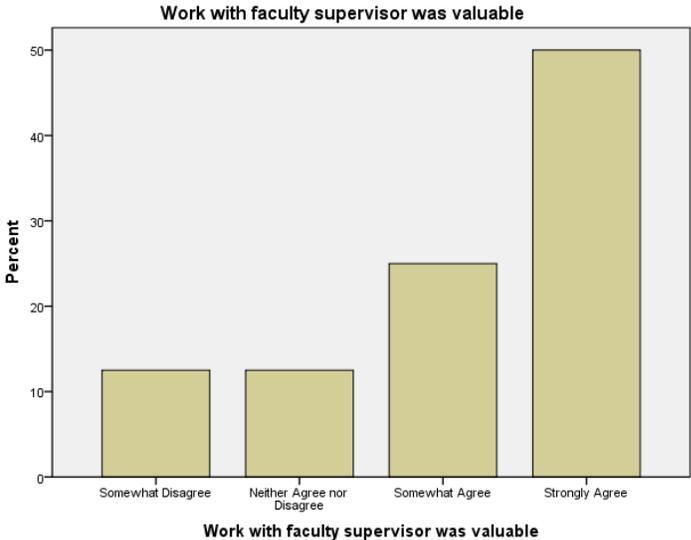


Table 9



c.

Table 10

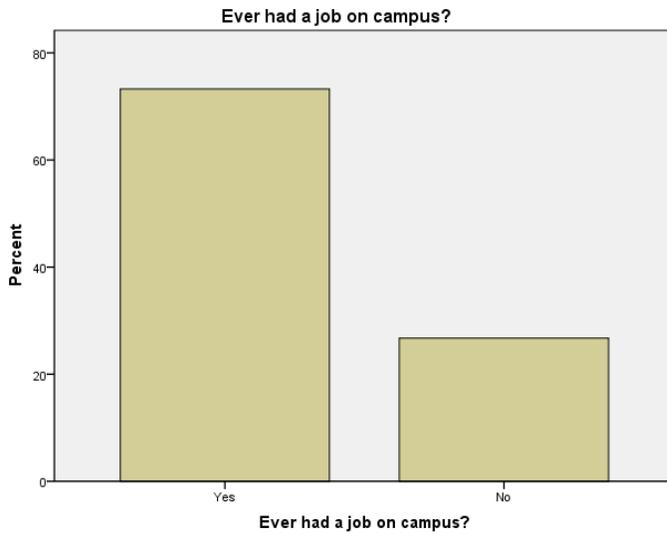


Table 11

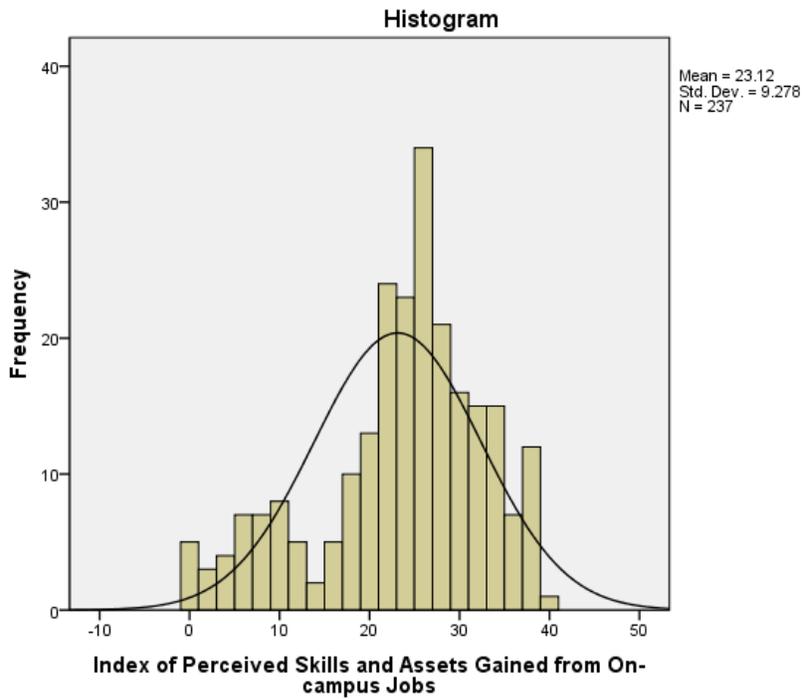


Table 12

Independent Samples T-test			
	Levene's Test for Equality of Variances	Significance	t-score
Index of Perceived Skill Gain from On-Campus Jobs	Equal variances assumed	0.000	-11.041

Table 13

Group Statistics					
Perception of Better Prospects for Employment		N	Mean	Std. Deviation	Std. Error Mean
Index of Perceived Skill Gain from On-campus Jobs	dimension 0	69	12.51	7.811	.940
	1 1	106	23.25	5.061	.492

d.

Table 14

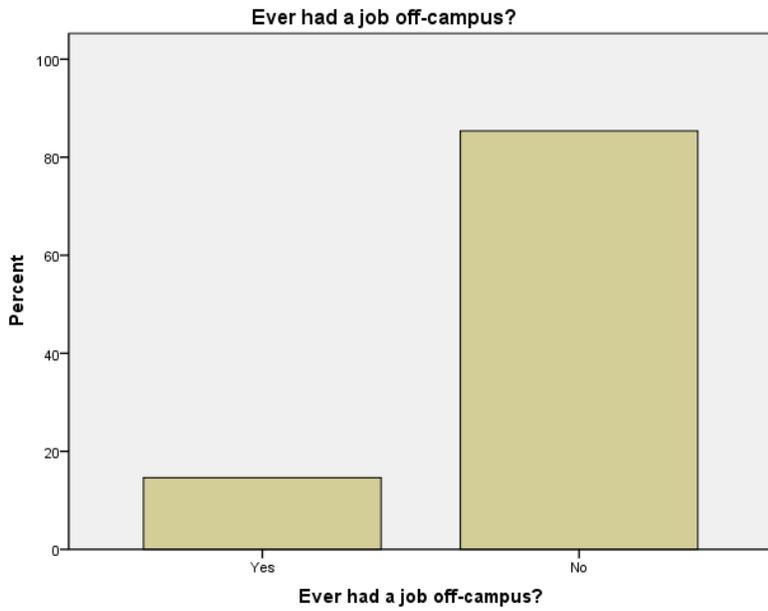


Table 15

