

Internships: An Investigation of Attainment and Outcomes

Olivia Cortellini and Zachary Kornhauser

Council for Aid to Education

### Abstract

Given the documented discrepancy between the cognitive skills undergraduates gain in the classroom and those they need for career success, it is important to better understand how college experiences contribute to students' cognitive skills and career preparation. The present study specifically focused on internships, aiming to describe the demographic characteristics of students who obtain internships, examine the effect of internships on career outcomes, and determine differences in cognitive proficiency between interns and their peers. Results indicate that former interns did in fact have more positive career outcomes than their peers as well as score higher on a test of cognitive skills. This study has implications for better understanding student learning and career preparedness in higher education.

## Internships: An Investigation of Attainment and Outcomes

### Objectives

- 1) Determine whether there are demographic differences in undergraduate internship attainment.
- 2) Examine differences in career outcomes between recent college graduates who have and have not held internships.
- 3) Examine differences in cognitive outcomes between recent college graduates who have and have not held internships.

### Perspective

General cognitive skills, such as critical thinking, problem solving, and communication, have long been considered essential for career success. In today's knowledge-based economy, these skills have become even more crucial in the eyes of employers (Bushnell, 2012; Hanneman & Gardner, 2010; Hart Research Associates, 2008; Hart Research Associates, 2013). Consequently, many consider the inculcation of these skills to be a major function of higher education (Bushnell, 2012). Despite this focus on skill development in higher education, employers are questioning the extent to which institutions of higher education provide students with the requisite skills for career success. Research has found that employers consider recent college graduates to be lacking the skills needed for career advancement (Bushnell, 2012; Hart Research Associates, 2008) and have difficulty identifying degree-bearing applicants with crucial cognitive skills (Hart Research Associates, 2008; Hart Research Associates, 2013). There appears to be a discrepancy between employers and higher education faculty regarding students' career preparation seeing as, despite employers' lack of confidence in recent graduates, college

faculty feel that their graduating students are adequately prepared for the workforce (Hart Research Associates, 2009).

Although the exact reason for this discrepancy is unknown, one factor thought to contribute to this mismatch is the rising expectations of employers. Currently, the level of competence employers seek from entry-level candidates would previously have been expected of those who have already worked at least one job in the field (Bushnell, 2012; Hanneman & Gardner, 2006). Another factor explaining this mismatch is grade inflation. Some argue that the documented rise in grade inflation (e.g., Rojstaczer & Healy, 2012) is lowering the standards needed to graduate, thus allowing for students to earn degrees and attain skilled jobs even if their cognitive skills are unsatisfactory (Kamber & Biggs, 2002). If college education alone is not providing students with the requisite skills for career success, then students may need opportunities outside of the classroom to develop their competencies.

Research has provided support for the enrichment that out-of-class experiences provide students with. Astin's (1999) theory of student involvement highlights the role of student engagement in furthering their cognitive development. That is, student development is a process that is mediated by students' level of involvement in enriching experiences. Consistent with this framework, Kuh (1995) found that many students felt that factors such as work experience and outside academic activities helped them to develop a variety of skills. The perceived benefits of such activities may result from the opportunities for engagement they provide. Furthering Kuh's claims (1995), Stuber (2009) as well as Gardner, Gross, and Steglitz (2008) also emphasized the importance of extracurricular participation, claiming that it not only contributes to student learning but also paves the way for career success.

One particular extracurricular experience that may aid students in their career preparation is internships. In fact, Gallup Inc. (2014) found having an internship during college to be one of the six factors most predictive of post-graduation success. From a career standpoint, internships provide students with professional contacts and technical knowledge (Arum & Roksa, 2014; Gault, Redington, & Schlager, 2000). Indeed, college graduates with internship experience have shown to obtain jobs more quickly and earn higher salaries than their peers (Arum & Roksa, 2014; Gault et al., 2000; Gault, Leach, & Duey, 2010; Ward & Yates, 2012). Internships may also help students to develop their cognitive skills, in some cases to a greater extent than classroom learning. Karns (2005) found that students enrolled in marketing courses ranked having an internship as the most effective learning experience. Similarly, Gault et al. (2000) found that student interns felt their internships contributed more to their development of several academic, job acquisition, and interpersonal skills than did their undergraduate coursework.

Despite the advantages internships provide, some argue that internships perpetuate a cycle of inequality in education because more advantaged students have greater opportunities to participate (Burke & Carton, 2013; Stuber, 2009; Ward & Yates, 2012). Students from lower socioeconomic backgrounds may not be able to accept internships because they may need to work in paid jobs (Burke & Carton, 2013; Ward & Yates, 2012). There also may be cultural factors that lead to differences in internship participation among social classes: Students of lower socioeconomic backgrounds, for example, may be less aware of the necessity of completing an internship because, unlike their more affluent peers, they may not have been brought up within the “resume culture” prevalent in the job market today (Stuber, 2009).

Given the lack of career preparedness among college students and the role internships might play in addressing this issue, as well as the system deficiency surrounding equal access to

internships, it is important to better understand how internships fit into the landscape of higher education and workforce preparation. No research to date, however, has systematically examined which students obtain internships and what characteristics they share. Such an examination is important because it may show whether any groups are excluded. It is also important to more generally compare career outcomes for former interns versus non-interns to determine if current findings are consistent with prior research showing more positive outcomes for interns. Furthermore, it is useful to investigate whether former interns versus non-interns differ in their mastery of cognitive skills needed for the workforce. This will help to determine whether internships are, indeed, an essential contributor to post-graduation success.

## **Method**

### **Participants**

The participating sample consisted of 1287 college seniors who graduated in 2014 (67% female). Participants came from 139 4-year colleges and universities across the United States. Institutional information for schools participants attended is summarized in Table 1. Demographic information is summarized in Table 2 and Table 3.

### **Measures**

**Collegiate Learning Assessment Plus (CLA+).** The CLA+ is a test that measures skills implicated as being important in the workplace including problem solving, scientific and quantitative reasoning, critical thinking, and writing effectiveness. The test consists of a 25-item multiple choice section and an essay component requiring students to read a series of documents and make a real-world-based recommendation for a hypothetical course of action.

**Longitudinal survey.** This survey was developed to determine how students' cognitive skills, college experiences, and post-graduation career and/or education outcomes were related to

one another. Students were asked questions about their time at college, the extent to which their education helped them to develop various skills, and their current post-graduation employment and/or education status.

### **Procedure**

In August 2014, 12,750 recent graduates who had taken the CLA+ at the end of their senior year were contacted via email and asked to register for the survey. Of these graduates, 1585 (12 %) registered, 1287 (81%) of which completed the survey.

### **Results**

#### **Characteristics of students who attain internships**

Fifty-six percent of respondents participated in internships during college. No significant differences in internship attainment were found between racial backgrounds or between those who did or did not speak English as a primary language. However, participants whose parents had obtained at least a bachelor's degree were more likely to have had internships than those whose parents had earned less than a bachelor's degree,  $r(1255) = .066, p < .05$ .

#### **Career Outcomes**

Employed graduates who had held internships prior to graduating were more likely to be working in jobs that required bachelor's degrees than their peers,  $\chi^2 = 40.983, df = 3, p < .001$ , Cramer's  $V = .236$ . Logistic regression analysis revealed internship attainment to be a significant predictor of the extent of bachelor's requirement even when controlling for GPA and SAT/ACT score (see Table 4). In addition, there was a significant difference between former interns and non-interns regarding post-graduation employment status,  $\chi^2 = 35.497, df = 8, p < .001$ , Cramer's  $V = .189$ . Former interns were more likely than non-interns to be employed full-time, and they were less likely to be employed part-time or seeking employment. Logistic regression analysis

also showed having an internship to be a significant predictor of positive career outcome alongside GPA and SAT/ACT score (see Table 5).

### **Cognitive Outcomes**

Respondents were asked to indicate which out-of-class experience best helped them to develop their critical thinking skills as well as their career readiness. For both questions, the majority of former interns indicated internships to be the most influential experience, with 57% indicating internships as the factor most contributing to their critical thinking, and 65% saying that internships best helped their career readiness (see Tables 6-7). Consistent with students' perceptions, students who had held internships scored significantly higher on the CLA+ ( $M = 1208$ ,  $SD = 124$ ) than those who had not held internships ( $M = 1190$ ,  $SD = 131$ ;  $t(1284) = 2.420$ ,  $p = .016$ ). However, after controlling for SAT/adjusted ACT score, the effect of internships on cognitive outcomes only approached significance  $F(1217, 1220) = 3.800$ ,  $p = .051$ .

### **Discussion**

The current study found that while there were no differences regarding ethnicity or primary language in internship attainment, there were small differences regarding parental level of education, which was used as a proxy for socioeconomic status. In addition, more positive career outcomes were found for students who had held internships than those who had not. Specifically, former interns were more likely to hold positions matching their qualifications and were less likely to be unemployed. Third, it was found that students had favorable views of their internships in helping them to develop cognitive skills as well as in preparing them for the workforce. Consistent with these perceptions, interns performed higher on the CLA+ than their peers; however, the difference was diminished after controlling for SAT/ACT score.



Despite the significance of the finding regarding parental education and internship attainment, we believe the small correlation contradicts Stuber's (2009) theory that class-based cultural factors influence students' extracurricular participation as well as Burke and Carton's (2013) proposition that internships exclude lower class students. This discrepancy may be in part due to the fact that Stuber (2009) considered a variety of different extracurricular activities in the development of her theory, whereas the present study focused on internships specifically. Concerning Burke and Carton's (2013) theory, the lack of information about household income did not allow for a direct analysis of the impact of socioeconomic status on internship attainment. However, it should be noted that Burke and Carton's (2013) work was more theoretical than empirically derived; thus it may not have accurately reflected typical student experiences.

The career success of former interns in comparison with their peers was consistent with previous findings (Arum & Roksa, 2014; Gault et al., 2000; Gault, et al., 2010; Ward & Yates, 2012). A variety of factors likely contributed to interns' career advantages such as enhanced professional networks, technical knowledge, and job-hunting skills (Arum & Roksa, 2014; Gault, et al., 2000). A new finding regarding career outcomes was that these former interns also were more likely to avoid the problem of underemployment, or working in jobs for which they are overqualified.

Mirroring prior research about students' perceptions of their internships (Gault et al., 2000; Karns 2005), respondents displayed positive views on their internship's role in aiding their development. Former interns also demonstrated higher performance on an assessment of cognitive skills (the CLA+) than non-interns, but this difference diminished after controlling for SAT/ACT score, making it difficult to determine whether internships played a role in students' skill development or if more competent students were simply more likely to obtain internships to

begin with. Future researchers may wish to disentangle this relationship by measuring students' abilities before and after completing internships and comparing these students to others who did not attain internships. Regardless of the reason for interns out-performing non-interns on a cognitive assessment, knowing that students who participate in internships during college perform better across many indicators is useful for employers who may have difficulty using GPA to distinguish applicants from one another.

## References

- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529. Retrieved from <https://www.middlesex.mass.edu/ace/downloads/astininv.pdf>
- Arum, R., & Roksa, J. (2014). *Aspiring adults adrift: Tentative transitions of college graduates*. University of Chicago Press.
- Burke, D., & Carton, R. (2013). The pedagogical, legal, and ethical implications of unpaid internships. *Journal of Legal Studies Education*, 30(1), 99-130. doi:10.1111/j.1744-1722.2013.01115.x
- Bushnell, E. (2012). Looking forward: New challenges and opportunities. *New Directions for Student Services*, 138, 91–103. doi:10.1002/ss.20008
- Gallup, Inc. 2014. Great jobs, great lives: *The 2014 Gallup-Purdue index inaugural national report*. Retrieved from <http://products.gallup.com/168857/gallup-purdue-index-inaugural-national-report.aspx>
- Gardner, P., Gross, L., & Steglitz, I. (2008, March). *Unpacking your study abroad experience: Critical reflection for workplace competencies* (Michigan State University CERI Research Brief 1-2008). Retrieved from <http://ceri.msu.edu/publications/pdf/brief1-2008final.pdf>
- Gault, J., Redington, J., & Schlager, T. (2000). Undergraduate business internships and career success: Are they related?. *Journal of Marketing Education*, 22(1), 45-53. doi:10.1177/0273475300221006
- Gault, J., Leach, E., & Duey, M. (2010). Effects of Business Internships on Job Marketability:

- The Employers' Perspective. *Education & Training*, 52(1), 76-88. Retrieved from [http://digitalcommons.wcupa.edu/mark\\_facpub/2](http://digitalcommons.wcupa.edu/mark_facpub/2)
- Gilbert, B.L., Banks, J., Houser, J. H. W., Rhodes, S. J., & Lees, L. D. (2014). Student development in an experiential learning program. *Journal of College Student Development*, 55(7), 707-713. doi:10.1353/csd.2014.0072
- Hanneman, L., and Gardner, P. (2010, February). *Under the Economic Turmoil a Skills Gap* Simmers (Michigan State University CERI Research Brief 1-2010). Retrieved from <http://www.ceri.msu.edu/wp-content/uploads/2010/01/skillsabrief1-2010.pdf>
- Hart Research Associates. (2008). *How should colleges assess and improve student learning: Employers' views on the accountability challenge*. Washington, DC: American Association of Colleges and Universities. Retrieved from [https://hssn.org/gened/documents/2008\\_business\\_leader\\_poll.pdf](https://hssn.org/gened/documents/2008_business_leader_poll.pdf)
- Hart Research Associates. (2009). *Learning and assessment: Trends in undergraduate education - A survey among members of the association of American colleges and universities*. Washington, DC: American Association of Colleges and Universities. Retrieved from [http://www.aacu.org/sites/default/files/files/LEAP/2009MemberSurvey\\_Part1.pdf](http://www.aacu.org/sites/default/files/files/LEAP/2009MemberSurvey_Part1.pdf)
- Hart Research Associates. (2013). *It takes more than a major: Employer priorities for college learning and student success*. Washington, DC: American Association of Colleges and Universities. Retrieved from [https://www.aacu.org/sites/default/files/files/LEAP/2013\\_EmployerSurvey.pdf](https://www.aacu.org/sites/default/files/files/LEAP/2013_EmployerSurvey.pdf)
- Kamber, R., & Biggs, M. (2002, April 12). Grade conflation: A question of credibility. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Grade-Conflation-a-Question/23027>

- Karns, G. L. (2005). An update of marketing student perceptions of learning activities: Structure, preferences, and effectiveness. *Journal of Marketing Education*, 27(2), 163-171.  
doi:10.1177/0273475305276641
- Kuh, G. (1995). The other curriculum: Out-of-class experiences associated with student learning and personal development. *The Journal of Higher Education*, 66(2), 123-155.  
doi:10.2307/2943909
- Rojstaczer, S., & Healy, C. (2012) Where A is ordinary: The evolution of American college and university grading, 1940–2009. *Teacher's College Record*. 114(1), 1-23
- Shoenfelt, E. L., Stone, N. J., & Kottke, J. L. (2013). Internships: An established mechanism for increasing employability. *Industrial and Organizational Psychology*, 6(1), 24-27.  
doi:10.1111/iops.12004
- Stuber, J.M. (2009). Class, culture, and participation in the college extra-curriculum. *Sociological Forum*, 24(4), 877-900. doi:10.1111/j.1573-7861.2009.01140.x
- Ward, C., & Yates, D. (2012). Assisting students in gaining employable skills: Valuing and encouraging extracurricular activities. *Business Education Innovation Journal*, 4(1), 37-39. Retrieved from <http://www.bejournal.com/v42012abstrtext/v4n1fulltext.html>

Table 1

*University Characteristics of CLA+ Schools*

Characteristic	Nation	CLA+ Schools
Percentage Public	30	60
Percentage Historically Black College or University	4	3
Mean Percentage of Undergraduates Receiving Pell Grants	31	32
Mean Six-Year Graduation Rate	51	49
Mean Barron's Selectivity Rating	3.6	3.1
Mean Estimated Median SAT Score	1058	1030
Mean Number of FTE Undergraduates	3869	7130
Mean Student-Related Expenditures per FTE Student	\$12,330	\$10,469

Table 2

*Race/Ethnicity of Sample*

Race/Ethnicity	Number of Students	Percent
White	748	60%
Hispanic/Latino	174	14%
Asian	143	11%
African American	83	6%
Other	107	9%

Table 3

*Parent Education*

Highest Parent Education Level	Number of Students	Percent
Less than 4-year Degree	565	55%
4-year Degree or Greater	690	45%

Table 4

*Logistic Regression Results for Extent of Bachelor's Degree Requirement*

	Predictor	$\beta$ (SE)	Exp( $\beta$ )
Model 1	SAT/ACT	-.001* (.001)	.999
	GPA	-.155 (.228)	.857
	Internship Status	.587* (.188)	1.798
	Constant	1.063 (.785)	2.895
Model 2	SAT/ACT	-.002* (.001)	.998
	Internship Status	.599* (.187)	1.821
	Constant	.724 (.604)	2.062

*Note.* Extent of bachelor's degree requirement was dichotomized as being "bachelor's degree preferred or required" or "bachelor's degree irrelevant or not preferred"

\*significant at the .05 level

Table 5

*Logistic Regression Results for Employment Outcomes*

	Predictor	$\beta$ (SE)	Exp( $\beta$ )
Model 1	SAT/ACT	.002 (.001)	1.002
	GPA	-.266 (.224)	.767
	Internship Status	-.596* (.191)	.551
	Constant	-2.221 (.781)	.109
Model 2	SAT/ACT	.002 (.001)	1.002
	Internship Status	-.574* (.190)	.563
	Constant	-2.808 (.609)	.060

*Note.* Employment outcomes were dichotomized as being positive (i.e. employed) or negative (i.e. unemployed and not continuing education)

\*significant at the .05 level

Table 6

*Non-academic Top Contributor to Critical Thinking Skills*

	Number of Students	Percent
On-campus internships	18	7
Off-campus internships	136	50
On-campus extra-curricular activities	42	15
Off-campus extra-curricular activities	27	10
Social activities and events at your school	14	5
Academic activities or events at your school	24	9
None of the above	14	5



Table 7

*Non-academic Top Contributor to Career Readiness*

	Number of Students	Percent
On-campus internships	19	7
Off-campus internships	158	58
On-campus extra-curricular activities	34	12
Off-campus extra-curricular activities	21	8
Social activities and events at your school	15	6
Academic activities or events at your school	15	6
None of the above	13	5