

Results from the College Internship Study at Northeastern Illinois University

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EXECUTIVE SUMMARY

This report includes findings from the first round of data collection (Fall 2019) at Northeastern Illinois University (NEIU) for *The College Internship Study*, which is a national mixed-methods longitudinal study of internship programs conducted by the Center for Research on College-Workforce Transitions (CCWT) at the University of Wisconsin-Madison (UW-Madison). The findings are based on three datasets: an interdisciplinary sample of students who took an online survey (n = 330), focus groups with students who have *and* who have not had an internship experience (n = 24), and interviews with career advisors and faculty (n = 6).

Four research questions guide our study: (1) How many students are participating in internship programs, and does participation vary by student demographics, academic status, or life/employment situation? (2) What barriers exist for students to participate in internship programs? (3) What is the structure and format of internship programs? And, (4) How, if at all, is the program structure and format associated with student satisfaction with their internships and their estimation of the value of the internship on their career development?

Some key findings from our analysis include:

- Educators considered internships to be valuable for their students by providing experiential learning that allows students to apply classroom learning to the workplace, and because they provide an opportunity for self- and career exploration.
- Twenty five percent of the respondents had participated in an internship program within the past year (n = 81), which also means that 75% (n = 249) of the respondents had *not* participated an internship.
- Of the students who had taken an internship, 50.9% were in programs that did not require an internship while 31.5% reported that internships were required to graduate, and 17.8% of the respondents were not sure about internship requirement in their respective programs.
- Participation in internships was not associated with many of the demographic variables in our survey, such as gender, race, and first-generation status. However, students with a higher GPA and those in a program with an internship requirement were more likely to have participated in an internship, as well as students with part-time employment or no employment (compared to students with full-time jobs). Internship participation also significantly varied across academic programs.

- Sixty five percent (n = 163) of students who did not take an internship indicated they had wanted to have one. Barriers to participation for these non-interns included: a need to work at current job (79.1%), a heavy course load (71.8%), a lack of internship opportunity (57.1%), insufficient pay offered (50.3%), a lack of transportation (35%), and a lack of childcare (28.2%). These obstacles often intersected with one another such that individual students experienced more than one at a time. Focus group participants also reported several additional barriers to their participation in internships, including financial considerations, family obligations, lack of time because of academic obligations, and challenges associated with social background and identity.
- The features of internship programs that the evidence suggests are critical for positive student outcomes include supervisor support and a close link between the internship and the students' academic programs, both of which are positively associated with student satisfaction. Additionally, supervisor mentoring and task autonomy are associated with students' perception that the internship helped to develop their academic knowledge and career development.
- While outcomes such as employment status and wages will be studied over the next 12 months, data from the focus groups suggest that short-term outcomes of participating in an internship program for this sample of NEIU students include the opportunity to explore one's career interests, to acquire new learning and skill development, explore career goals, and gain real-world experience.

This report concludes with recommendations for specific strategies that students, faculty, and staff at NEIU, and employers who supervise NEIU student-interns, can take to increase participation rates, access, and program quality for internship programs. We provide these recommendations with the recognition that faculty, staff and administrators at NEIU are best positioned to design and implement programs that meet the unique needs of academic programs and students, and in the hopes that our evidence-based insights about students' experiences with internship programs can be used to make these practices more equitable and effective for *all* students.

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I. INTRODUCTION: Why Study College Internships?

Internships are widely perceived as important co-curricular experiences that can enhance student learning and facilitate their transition to the workforce. Advocates argue that through internships, students can develop new skills and abilities by transferring academic knowledge to real-world tasks, explore different career options, develop new professional networks and even obtain full-time employment. At the same time, employers can use internship programs to develop a pipeline of new recruits that can be vetted on the job for future employment, and postsecondary institutions can increase their students' career prospects and real-world experiences. Given these potential outcomes, internships are often described as a “win-win-win” situation for higher education, employers, and students themselves (National Association of Colleges & Employers, 2018). Furthermore, internships and similar forms of work-based learning (WBL) have been designated as a high-impact practice (HIP) that improves student outcomes (Kuh, 2008; Parker, Kilgo, Sheets & Pascarella, 2016), leading many state governments, colleges and universities, and workforce development boards to promote internship programs as a desirable solution to regional education-to-employment problems.

Internships are often described as a “win-win-win” situation for higher education, employers, and students themselves.

However, the literature clearly indicates that internships are neither easy to design and implement, nor are they a panacea for the long-standing problems of cultivating students' skills and easing their entry into the labor market (Hora, Wolfgram, & Thompson, 2017). Access to internships themselves can be difficult, particularly for students from particular groups, including students who are low-income or economically marginalized, first-generation college students, students who are members of underrepresented racial and ethnic groups, and students who may be unable to engage in unpaid labor and/or lack social networks that facilitate participation in internship programs. Furthermore, while internships can provide a rich, experiential learning opportunity for students, long promoted by education theorists and learning scientists (e.g., Dewey, 1938; Resnick, 1987), designing a robust learning experience within an internship is much easier said than done. Not all internship experiences are designed and implemented with attention to best practices in the field, which could be due to a lack of knowledge about internships, adequate human and financial resources, or institutional capacity and supervisory expertise at the college or internship site.

Despite these challenges of access and program quality, policymakers, and educators rightfully view internships as a potentially important and influential component of students' education and career development. Before the potential of internships can be fully realized, it is necessary to document the current state-of-affairs at the institutional level so that future planning can be based on rigorous evidence. For instance, data on student participation and experiences with internships as well as the perspectives of career services staff and employers can be used to: (a) identify strengths and weaknesses in current programming, (b) establish a baseline for long-term analysis of program quality and impacts, and (c) inform decision-making about future program development and resource allocation.

In early 2018, the Center for Research on College-Workforce Transitions (CCWT) at UW-Madison launched the College Internship Study as a translational research program that could provide key stakeholders with

robust, actionable evidence about internship programs. Since in-depth data on internships tend to be difficult to access, our aim with this study is to provide institutional leaders, faculty and instructors, and career services personal at Northeastern Illinois University (NEIU) with rigorous data on issues related to internship program access and quality. In doing so, we place students' experiences and perspectives at the center of the analysis while also attending to the critical issue of institutional capacity—two considerations that should guide decision-making about future policy and practice around internship programs.

II. BACKGROUND: What does the research literature say about internships?

An extensive body of research exists on college internships across a variety of disciplines and countries, leading to a literature that is simultaneously robust and inconsistent (Hora, Wolfgram, & Thompson, 2017). The robustness of the literature is evident in numerous studies from different national and disciplinary perspectives that have documented the positive impact of internships on student outcomes. For instance, in a recent study (Nunley, Pugh, Romero & Seals, 2016), students who listed an internship on their resume received 14% more offers for an interview than those who did not. Evidence is growing that internships also lead to lower rates of unemployment after graduation, higher wages, and even better grades than students who do not have an internship. More specifically, students who had an internship have 15% lower unemployment (Silva et al., 2018) 6% higher wages five years after graduation (Saniter & Siedler, 2014), and final year grades that are 3.4% higher than those who did not have an internship (Binder, Baguley, Crook & Miller, 2015).

However, the literature is also limited in several important ways. One of the biggest challenges facing the field of internship research is the lack of clear and standardized definitions regarding internships in general, and the paucity of empirical research on the structure of internship programs themselves. Given their similarity with other co-curricular experiences like co-ops or practicums, and the variability in internship program design with respect to factors such as duration and task quality, it is highly unlikely that participants across studies are answering questions about their internships with a similar frame of reference in mind. The *National Survey of Student Engagement* (NSSE, 2018), for example, is an important source of information about college internships in the United States, but the survey item encompasses a diverse array of (undefined) experiences that can be interpreted in a myriad of ways by survey respondents. Thus, claims based on NSSE data that internships are a high-impact practice that universally lead to student engagement and success (e.g., Kuh, 2008) should be interpreted with caution.

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Furthermore, before claiming causal relations between particular programs and student outcomes, it is essential to first describe these variables and the mechanisms that may govern their relations (Loeb et al., 2017). Consequently, descriptive research on critical mediating factors such as “the structure and format of internships” is essential in order to avoid treating the internship experience like a “black box” that mysteriously transforms students into work-ready individuals (Silva et al, 2016, p. 704). Similarly, it is untenable to assume that all internships provide a robust experiential learning opportunity in the spirit of the types of hands-on learning envisioned by educational theorists (e.g., Dewey, 1938 and Resnick, 1987). As a result, research

examining the specific structural features of the learning environment that comprise the internship experience is particularly needed to inform internship policy and practice (Cannon & Geddes, 2019).

In our study, we build upon promising lines of inquiry that examine how features of internship program structure – such as compensation, quality of supervision, and task clarity – may impact student outcomes. These programmatic features are important to consider because research on the coordination between employers and academic programs shows that the more internships are clearly coordinated with academic coursework, the more students will gain from the overall experience (Katula & Threnhauser, 1999; Narayanan, Olk, & Fukami, 2010). Another important factor in perceived internship quality and efficacy is the behavior of job-site supervisors. Active and meaningful supervisor support was found to positively impact business students’ satisfaction with the internship experience (D’abate, Youndt, & Wenzel, 2009), and was also positively associated with job pursuit, satisfaction, and career development in a study of 99 students in an undergraduate management program (McHugh, 2016). Other program design features that have been associated with satisfaction and other student outcomes include the duration of internships (Murphy, Merritt, & Gibbons, 2013), the degree of student autonomy to design and perform tasks (Virtanen, Tynjala & Etelapelto, 2014), the clarity and variety of work tasks (Bauer et al., 2007; Beenen & Rousseau, 2010), and the presence of detailed feedback from both educators and employers (Rothman, 2007).

Features of internships examined in this study:
 Coordination between employers and academic programs, Quality of supervision and mentoring, Duration of internship, Degree of student task autonomy, Clarity and variety of work tasks, Presence of detailed feedback.

With respect to outcome measures, some of the most common effects of internship participation examined in the literature are those of students’ employment status, employer demand, or students’ perceived readiness to enter the labor market (e.g., Baert, Neyt, Siedler, Tobback, & Verhaest, 2019; Jung & Lee, 2017; Nunley, Pugh, Romero, & Seals, 2010; Powers, Chen, Prasad, Gilmartin, & Sheppard, 2018; Weible & McClure, 2011). While these long-term outcomes of internships are important, another effect of experiential and work-based learning is the development of students’ psychological resilience and self-concept (Callanan & Benzing, 2004; Paulson & Eugene Baker, 1999; Taylor, 1988). A concept in vocational psychology that is particularly salient for college students in a labor market that increasingly features short-term contract work and frequent job switching is that of career adaptability, or the psychosocial capacity and skills to continuously adapt, persist, and self-manage one’s career tasks, transitions and personal traumas (Savickas, 1997, 2005), which is a psychosocial variable examined in our study.

Outcomes of internships examined in this study:

- Student satisfaction with the experience
- Enhanced sense of career goals
- Enhanced understanding of academic coursework
- Wages (for longitudinal data)
- Employment status (for longitudinal data)

Finally, career advisors and postsecondary educators are increasingly concerned about the problem of access, particularly for low-income, first-generation college students who may be unable to engage in unpaid labor and/or lack transportation, child-care, or social networks that facilitate participation on internship programs (Curiale, 2009; Finley & McNair, 2013; Perlin 2012). Additionally, internship opportunities in rural areas and for students in certain fields (e.g., arts and humanities) may be limited, further exacerbating the access problem that may afflict students in many of our nation's colleges and universities. Consequently, we examine the obstacles that may be preventing some students from pursuing and successfully completing an internship, with the ultimate goal of helping your institution to address these barriers so that all students can participate in a high-quality work-based learning experience.

III. INSTITUTIONAL CONTEXT

Northeastern Illinois University is an urban federally designated Hispanic-Serving Institution located in the North Park neighborhood of Chicago, Illinois. NEIU is a regional public



comprehensive university and has regional accreditation through the Higher Learning Commission of the North Central Association of Schools and Colleges. In addition to its main campus, NEIU offers programs at three other locations; the Jacobs H. Carruthers Center for Inner City Studies, located in the Bronzeville area of Chicago; El Centro located in the Avondale neighborhood; and The University Center of Lake County, housed on the campus of the College of Lake County in north suburban Grayslake, IL. For the fourth year in a row, Northeastern was ranked No. 1 among all Midwest colleges and universities as the most diverse by The Wall Street Journal/Times Higher Education College Ranking (Korn & Belkin, 2019).

History and Mission

NEIU was founded in 1867 as The Normal School, a teacher training college. It went through several iterations and sites before settling in its current location in 1966 as Northeastern Illinois State College. NEIU's Mission, Vision, and Values statement describes its mission centered on providing an exceptional environment for learning, teaching, and scholarship. It prides itself on preparing a diverse community of students for leadership and service. NEIU wishes to remain true to its urban mission and is committed to shared values that "guides our actions and interactions as we work together to prepare graduates for the responsible exercise of civic participation" (NEIU, n.d.).

Institutional staffing and programs

NEIU has 563 faculty, with 218 being tenure/tenure track, 79 full-time non-tenure track, and 266 part-time instructors, and 193 administrative and professional staff. NEIU offers a broad curriculum across four colleges and includes 80 different degree programs at the bachelors and master's level, some of the most popular being computer science, psychology, and social work. In addition, students have the options of numerous minors, certificates, and true to its original mission, specialized teacher endorsements.

Enrollment

As of Fall 2019, when data was collected for this study, NEIU's undergraduate student population was 5,700. Of those students 3,294 identified as female and 2,391 identified as male (the remainder is unknown or elected not to identify). NEIU serves both traditional and non-traditional students; the largest age group of students being in the 18-22 range (2,280); however nearly 1,000 were over the age of 31. The enrollment data show that NEIU is very diverse; the ethnic makeup of the students was comprised of 39.4% Latinx, 26.5% White American, 10.4% African American, 9.3% Asian American, 1.7% two or more races, 2.1% International student, American Indian and Hawaiian Pacific Islander each less than 1%, and the remainder being unknown or elected to not identify. NEIU has a robust relationship with area community colleges and is made up of 3,321 (58%) transfer students versus 1,583 (28%) first-time full-time students (the remainder entering through other means such as re-admit and unclassified).

Snapshot of the regional economy

NEIU is located in Cook County and is part of the Chicago-Naperville-Elgin metropolitan statistical area, which is the third-largest metropolitan area in the country with about 9.5 million people. Thus, students at NEIU reside in a consolidated geographic area with a large economy. According to official statistics, nearly 57% of the population of Cook County is White American and nearly 24% is African American. The Latinx population is estimated at 25%. Almost 66% of residents in Cook County are in the labor force. The educational services and health care and social assistance industries comprise almost 23% of all jobs. Next, the professional, scientific, management, and administrative services industry takes up another 14.4%; and the next tier is distributed evenly among four major areas: manufacturing (9.9%), retail trade (9.9%), entertainment, recreation, accommodation and food services (9.9%), and finance, insurance and real estate (8%). In sum, the workforce profile of the Cook County is very diverse. Official accounts also show that the estimated poverty rate for the county was 15.9% for the period 2013-2017 (American Community Survey, 5-year estimates, 2013-2017).

The unemployment rate in the Chicago-Naperville-Elgin metropolitan area mirrors the national trend. In the past year unemployment came down from 4.8% to 3.2%. At the time our survey was conducted, unemployment hovered around 3.5% (Local Area Unemployment Statistics, 2019). The most recent data (Table 1) show that the local economy is dominated by the private sector, which contributes more than 90% to the local gross domestic product. In the private sector, finance, insurance and real estate is the largest contributor with 22.5%, with professional and business services (15.4%) and manufacturing (11.8%) being the next largest shares of the economy (Bureau of Economic Analysis, 2019).

**Table 1. Gross Domestic Product (GDP) Chicago-Naperville-Elgin Metropolitan Statistical Area 2018
(thousands of current dollars)**

Description	GDP 2018 (current USD)	% of industry total
All industry total	689,464,744	
Private industries	630,153,235	91.40
Agriculture, forestry, fishing and hunting	246,450	0.04
Mining, quarrying, and oil and gas extraction	420,537	0.06
Utilities	6,513,454	0.94
Construction	25,049,344	3.63
Manufacturing	81,388,229	11.80
Durable goods manufacturing	37,736,518	5.47
Nondurable goods manufacturing	43,651,711	6.33
Wholesale trade	59,023,509	8.56
Retail trade	32,482,186	4.71
Transportation and warehousing	29,796,704	4.32
Information	(D)	
Finance, insurance, real estate, rental, and leasing	155,341,510	22.53
Finance and insurance	70,754,793	10.26
Real estate and rental and leasing	84,586,718	12.27
Professional and business services	106,244,266	15.41
Professional, scientific, and technical services	66,344,251	9.62
Management of companies and enterprises	13,556,470	1.97

Description	GDP 2018 (current USD)	% of industry total
Administrative and support and waste management and remediation services	26,343,545	3.82
Educational services, health care, and social assistance	60,603,119	8.79
Educational services	12,172,301	1.77
Health care and social assistance	48,430,818	7.02
Arts, entertainment, recreation, accommodation, and food services	(D)	
Arts, entertainment, and recreation	(D)	
Accommodation and food services	(D)	
Other services (except government and government enterprises)	(D)	
Government and government enterprises	59,311,509	8.60

Source: Bureau of Economic Analysis, December 12, 2019 update

Gross Domestic Product (GDP) is in thousands of current dollars (not adjusted for inflation). Industry detail is based on the 2012 North American Industry Classification System (NAICS).

(D) Not shown to avoid disclosure of confidential information; estimates are included in higher-level totals.

In terms of numbers of jobs, compared to the beginning of the decade, the industries that appear to have the fastest growth are entertainment, recreation, accommodation and food services (11.2% more jobs than in 2010), professional, scientific, management and administrative services (+12.9%), and transportation, warehousing and utilities (+12%) (American Community Survey, 2010, 2017).

This overall picture of the regional economy, including the sectoral distribution and strength of the economy and the rates of participation in the workforce, are an important context for understanding the internship participation and experiences of students at NEIU.

IV. METHODOLOGY

The College Internship Study is a mixed-methods longitudinal study of internship programs that is guided by the following research questions: (1) How many students are participating in internship programs, and does participation vary by student demographics, academic status, or life/employment situation? (2) What barriers exist for students to participate in internship programs? (3) What is the structure and format of internship programs? And, (4) How, if at all, is the program structure and format associated with student satisfaction with their internships and their estimation of the value of the internship on their career development?¹

The data collected for the study include an online survey of students, focus groups with students who have *and* who have not had an internship experience, interviews with individuals (e.g., career advisors, faculty, and area employers) involved in internship program administration and implementation, and documents and online resources about internship programs and services at the institution. A team of trained researchers collected this data at NEIU in Fall 2019. The online survey was administered to 1,500 students in the second half of their program (with the exception of students in education programs), and 330 responded which resulted in a response rate of 22%. The survey included questions about student demographics, characteristics of internship programs, barriers to internship participation, self-efficacy beliefs and outcome expectations, and students' career adaptability (i.e., a psychological construct linked to positive vocational outcomes). At the conclusion of the survey, students were asked to indicate an interest in volunteering for focus groups. Twenty-four students participated in 13 focus groups. Focus groups lasted approximately 45-minutes each, included between 1 and 4 students, and researchers asked questions about experiences with and barriers to internships. In addition, six educators participated in approximately one hour-long interviews regarding their own experiences administering internships (see Table 2).

Table 2: Description of Fall 2019 sample

	Survey	Focus Groups	Interviews
Students	330	13 FG = 24 individuals	N/A
Educators	N/A	N/A	6
Faculty/instructors	N/A	N/A	5
Career advisors	N/A	N/A	1

¹ The data reported here represent the first phase of data collection at NEIU (Time 1). Data will also be collected in the Fall of 2020 (Time 2) and will include a follow-up survey of students who responded to the T1 survey, which will represent a panel of students to track as they enter the workforce. Interviews will also be conducted with a sub-sample of these students, and also educators and employers in order to assess the nature of internship programming and/or effects over time.

Table 3: Description of student sample

	Survey Sample	Institutional Population
Total	330	5,700
Gender	Male = 101 (30.6%) Female = 225 (68.2%)	Male = 2,391 (42%) Female = 3,204 (56.2%)
Race	Asian = 39 (11.8%) Black = 26 (7.9%) Hispanic = 145 (43.9%) White = 85 (25.8%) Multi-racial = 12 (3.6%) Other = 23 (7%)	Asian = 529 (9.3%) Black = 595 (10.4%) Hispanic = 2,243 (39%) White = 1,512 (26.5%) Multi-racial = 97 (1.7%) Other = 28 (0.5%) Non-resident alien = 122 (2.1%) Unknown = 573 (10.1%)
1st Generation Status	Yes = 197 (59.7%) No = 133 (40.3%)	Yes = 2,628 (46.1%) No = 1,293 (22.6%) Unknown = 1,779 (31.2%)

These data were analyzed using a variety of techniques, including qualitative analytic techniques such as inductive theme analysis of interview and focus group transcripts; as well as quantitative analytic techniques such as descriptive analyses of survey responses, chi-square testing, Fisher’s exact tests of independence, linear probability models, and multiple-regression analysis of survey data. In our study, we advance no claims of causality among internship program participation and/or design features and student outcomes, but instead provide the type of descriptive research that must precede such empirical research and explore associations among these variables (Loeb et al., 2017). A more detailed description of our research methodology is included in Appendix A of this report.

V. RESULTS: Institutional capacity and procedures for administering internship programs

One of the goals of our research was to map the institutional practices in place regarding how internship programs are designed, implemented, and monitored on campus. This kind of diagnostic assessment can provide a “road map” of the five Ws—where, who, what, when, and why—of a program or initiative. The last question about why educators support student internships will be addressed in the next section (Section V titled, “Insights from educators about the value of internships for students.”) Without such information at hand, it is difficult to ascertain precisely how programs like internships function within a complex organization, what (if any) kinds of mechanisms may be at work in shaping student outcomes, and where strengths and weaknesses exist that could be addressed in future programming. In the case of internship programs, which are often not administered through a centralized unit (e.g., a single career services office) but are managed by multiple parties across (and even outside of) campus, this type of diagnostic mapping is even more important. At NEIU we collected information on these issues from staff and students, along with an analysis of online and hard-copy documents.

Are internships required to graduate from Northeastern Illinois University?

Although internships are not often required to graduate from NEIU, every program does have the liberty to choose whether an internship will be a core requirement for students to graduate. According to NEIU's Fall 2019 course catalogue the university offers 61 undergraduate courses titled “internship” across 23 programs and three colleges. One complexity is a lack of common language; experiences that are congruent with this study's definition of internship may be titled “field experience,” “field research,” or “practicum” in different programs. Although the scope of work fits into our definition of an internship in terms of the experiential learning and applied skills, they are not labeled as internships by the university. At NEIU all internship courses are for credit and, based on the specific program, can be from one to nine credit hours. Many programs strongly recommend students have an internship experience, but only a few such as Human Resource Development and Justice Studies have an internship requirement for graduation.

Who is in charge of administering internship programs?

Every program has their own way of creating and administering their internships. There is no specific department in the university which regulates the process. Some programs have “internship coordinators” and this title may be official or unofficial. These roles are filled by both tenure track and non-tenure track faculty. Each of these faculty members takes on the internship responsibilities in addition to their normal teaching and service loads. According to the syllabus for the internship course in the Chemistry Department, if a student wishes to take an internship, they are able to register separately and “the faculty sponsor will establish a contract that will be signed by him/her and the manager or director of the company. The contract will lay out what students need to learn during the internship.” In many cases the Career Development office provides resources for students to find and prepare for internships. They support by helping with resumes and selection of majors, but most of the formal internship support falls on the individual programs. The Career Development office also administers a job board. Currently, their office has one Director, one Assistant Director, one Program Advisor, and one Office Support Person to support the needs of the university.

What is involved in the administration of internship programs?

The course syllabi indicate the expectations and responsibilities of the internship and each program sets their own guidelines. Programs (such as Communication, Media and Theatre) often require students to submit their current resume, writing samples, and a statement of purpose to be considered for their internship. It is also contingent on the student's GPA and the internship's relevancy to the program's curriculum. Anthropology has a strong relationship with the Field Museum of Natural History and this internship is highly competitive, including an interview with the department chair and sponsor. In many cases, the internship experience culminates with some deliverable such as a capstone paper. For the Human Resource Development program, there are several deliverables such as the internship project paper, journal, evaluation form, and a formal oral presentation which is attended by students who are yet to take the internship class. The Biology Department requires students to identify a narrative, objectives, methodology and complete an evaluation after the internship. In programs where having an internship is mandatory for graduation, the process and preparation is emphasized throughout the core courses.

NEIU offers several career fairs per year, each organized by specific departments. The College of Business, The Daniel L. Goodwin College of Education, and the Career Development Office hold career and job fairs each academic year, which also feature internships. With an understaffed and underfunded Career Development office, NEIU does not have an employer relations specialist that could potentially support students, but they are building relationships with other organizations such as the Metropolitan Water Reclamation District of Cook County and the Latin American Chamber of Commerce. In addition to the aforementioned Anthropology department's relationship with the Chicago Field Museum, Communication, Media and Theater works with Spanish Public Radio often. Many of these partnerships are developed and maintained by faculty.

When do these activities take place?

Students can take internship courses during each semester but must have junior or senior standing to be eligible. Several programs use the internship as the capstone and final course in the students' program. Some students in the focus groups mentioned completing their internship over the summer for credit and working on their projects and capstones during the following semester.

VI. RESULTS: Insights from educators about the value of internships for students

Interviews with educators revealed that the educators value internships and consider them to be an important experience for their students for several reasons. First, educators commonly discussed how internships provide experiential learning that allows students to apply classroom learning in the context of the workplace, but also an opportunity to explore themselves and the world around them. One faculty explained the value of internships,

to get individuals exposed to organizations that they otherwise would never even consider. They wouldn't walk in the door. They wouldn't know how to approach. They wouldn't even have it on their radar.

The second topic that educators emphasized was that the student population at NEIU is primarily first-generation college students, and a significant number of students come from marginalized backgrounds. They felt they and the university had an obligation to help these students to overcome obstacles and enter the professional workforce. A faculty member described her feeling about this institutional priority:

From an institutional level, we're serving a certain community, and for first-generation students, we ought to be able to take them to a better income, that ought to be part of our identity and part of our core values, is that we are here to help you move to the next level, you know?

Another faculty member commented about how much these students need high-impact practices such as internships:

It's really, it's really a painful thing with our, you know, our, who our students are. You know, they need these experiences even more than, you know, more privileged college students at other, you know, like the other North something University here. And, yet they're the ones who are just you know. So, their opportunities are so constrained by their, you know, their real lives.

Clearly, among the educators with whom we spoke, internships are highly valued as an important educational and career-preparation experience, particularly for students at NEIU who would especially benefit from them. While we only spoke to a small number of educators, these sentiments were shared among our sample and are consistent with the mission of the university.

VII. RESULTS: Which students are taking internships at Northeastern Illinois University?

In this section we present findings from the online survey and student focus groups regarding the number of students at NEIU who have (and have not) participated in internships.

Survey results: How many students are participating in internships?

One of the most fundamental questions facing research, policy, and practice on college internships is how many students are participating in these programs. Among our study sample (n = 330) we found that 24.5% (n = 81) took an internship in the past 12 months, with 54 students (66.7%) having only one internship experience and 20 students (24.7%) having two. The rest of the students (8.6%) had three or more internship experiences.

Figure 1. In the past 12 months, have you participated in an internship? (n = 330)



These results indicate that a large number – about three quarters of the student body – have not participated in an internship. This finding should be carefully interpreted and considered along with other issues, including barriers to participation for students (e.g., scheduling, compensation), availability of employer hosts, and requirements of and relevance for individual students and/or their academic programs to complete an internship. In the following sections of this report, we examine some of the factors associated with internship participation.

Survey results: Are there any demographic, life circumstances, psychological, or program characteristics that are associated with participation and non-participation in internship programs?

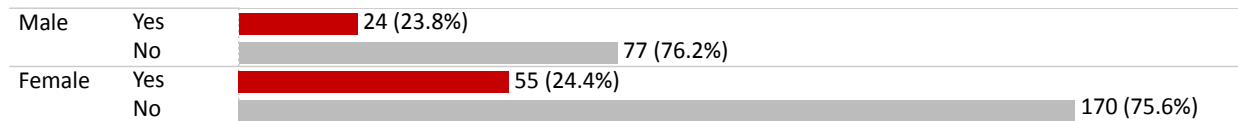
A wide range of factors may explain why a student elects to take an internship (or not), and understanding these factors is essential for institutional stakeholders who aim to improve access to these workplace learning experiences. In this section we report findings regarding differences in internship participation according to four categories: demographic variables (i.e., gender, race/ethnicity, first-generation college status, disability status, and parents’ income), life circumstances (i.e., employment status, food insecurity, paying rent or mortgage), psychological variables (i.e., career adaptability), and features of academic programs (i.e., requirement to take internships, academic enrollment, major, and GPA).

Demographic characteristics and internship participation

Minimal research exists on the relationship between participation in internship programs and demographic characteristics of college students. Given growing concerns about access to internship programs—particularly for students of color, low-income and first-generation students—here we examine the issue of equitable access for all groups among NEIU students who responded to our survey.

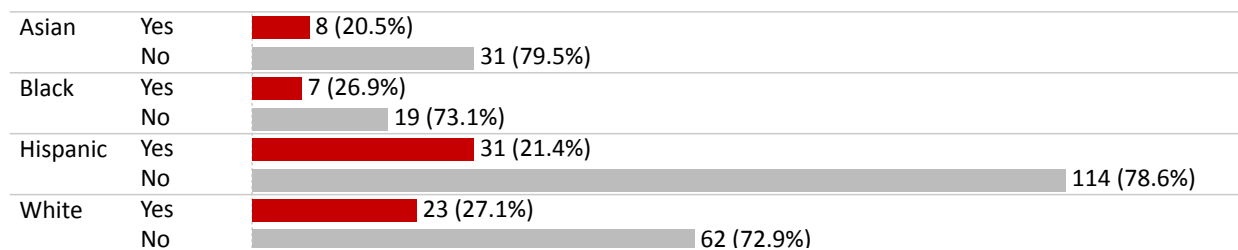
The results show similar participation rates for male and female students (23.8% vs 24.4%, see Figure 2). In terms of race, consistent with the makeup of the NEIU student population, most of the participating students are of Hispanic origin (38.3%, n = 31). Among Hispanics, 21.4% (n = 31) of them had internship experiences and 78.6% (n = 114) didn't. The proportions of White and Black students are relatively smaller in our sample, but their rates of participation appear to be higher: 27.1% (n = 23) White students and 26.9% (n = 7) Black students reported having participated in an internship (see Figure 3).

Figure 2². Internship in the Past 12 Months (Yes/No), by Gender (n = 326)



Note. Transgender, Non-binary, and Other were excluded from this figure due to small sample size.

Figure 3. Internship in the Past 12 Months (Yes/No), by Race / Ethnicity (n = 318)



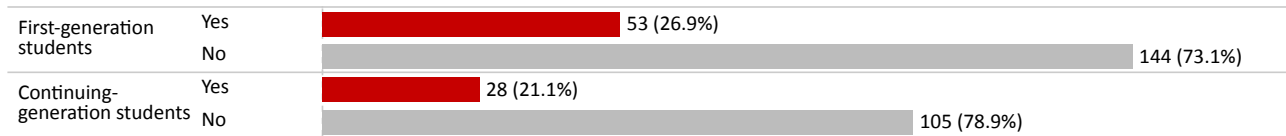
Note. American Indian, Native American, First Nations American, Alaska Native, Native Hawaiian, Pacific Islander and Multi-racial were excluded from this figure due to the small sample size.

Participation in internships was also analyzed for student respondents by first-generation college status (see Figure 4) and parental income (see Figure 5.1). The relationship between internship participation and these variables was not statistically significant³. However, descriptively, the data reveal an interesting pattern: internship participation of first-generation students (26.9%, n = 53) was slightly higher than that of continuing generation students (21.1%, n = 28).

² Figure labels describe frequency and internship participation rate within the group.

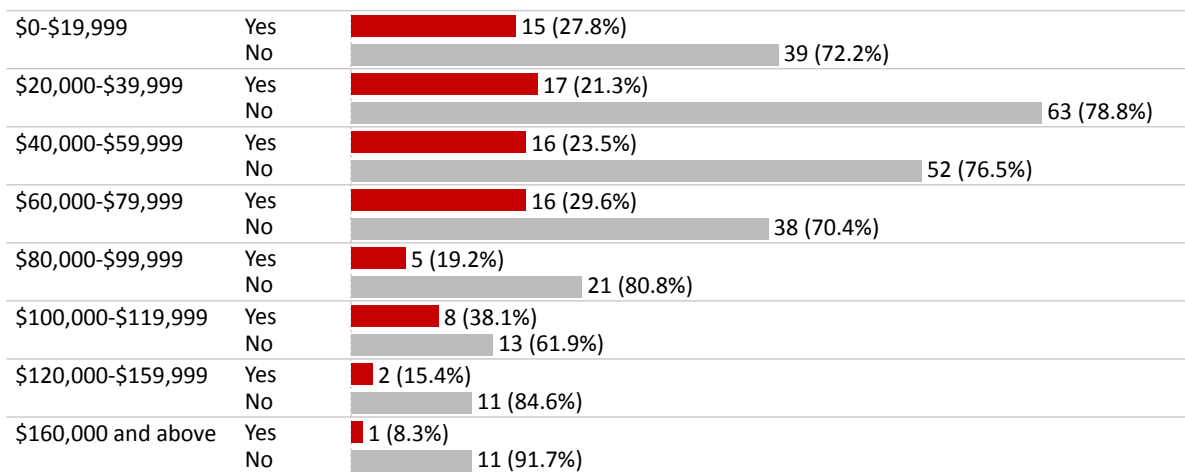
³ Although we are using p values to infer statistical significance in the current study, it is worth noting that p values should not be taken as a definitive validation of the relationships between variables. Many factors may influence p values such as effect size, size of sample and spread of the data (Dahiru, 2008; Ziliak and McCloskey, 2008), so a p value does not necessarily preclude a cautious analysis of results based on survey data. p values should be used as a warning signal on the possibility of how likely it is that any observed difference between groups is due to chance.

Figure 4. Internship in the Past 12 Months (Yes/No), by First Generation College Student Status (FGS) (n = 330)



Lastly, parental income is used here as an indicator of students' socio-economic status. We further explored the relationship between internship participation and parental income based on state and local median annual income. The median annual household income in 2018 was \$65,030⁴ in Illinois and \$57,238⁵ in Chicago. Our parental income brackets did not fit exactly with the median income, so we grouped students' self-reported parental income into below and above \$60,000, the closest cut point below and above median annual household income. The internship participation rate for students from above the state median household income (25.4%, n = 32) was higher than the participation rate of those with below median household income (23.8%, n = 48; see Figure 5.2).

Figure 5.1. Internship in the Past 12 Months (Yes/No), by Parental Income (n = 328)

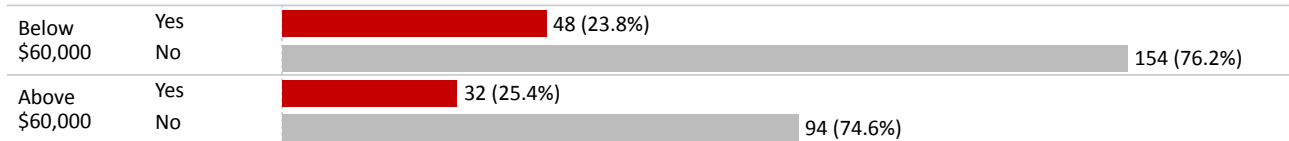


Note. Two participants did not answer this question and were excluded from this figure.

⁴ The median annual income of Illinois comes from Data USA: <https://datausa.io/profile/geo/illinois#economy>.

⁵ The median annual income of Chicago comes from Data USA: <https://datausa.io/profile/geo/chicago-il#economy>.

Figure 5.2. Internship in the Past 12 Months (Yes/No), by Parental Income Below and Above Median Annual Income (n = 328)



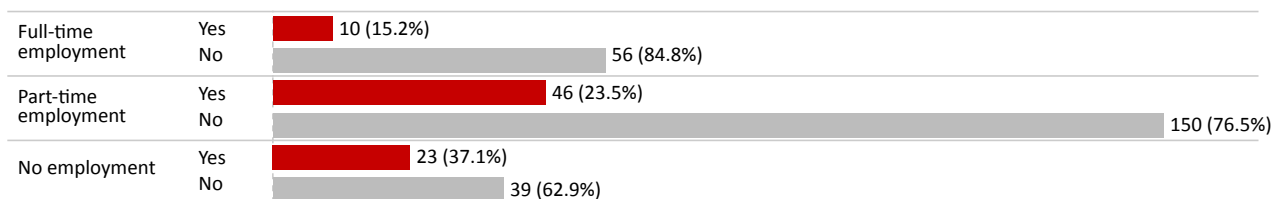
Note. Two participants did not answer this question and were excluded from this figure.

Life circumstances and internship participation

Research on college affordability and students' basic needs has indicated that issues such as food insecurity, rising costs of college tuition, and related issues have a negative impact on student persistence and achievement (e.g., Maroto, Snelling & Linck, 2015). To examine these potential constraints we report employment status, reliance on food assistance, and challenges with the cost of housing. In addition, we examine the relationship between these variables and internship participation. Finally, given that several students reported being employed at least part-time, we examined the extent to which students believe that their current job provides them with skills and knowledge that will allow them to be successful in their desired future careers.

Figure 6 shows internship participation by work status of the students in our sample, distinguishing between students who work full-time, part-time, and those who do not work. For students who worked at a full-time job that is not an internship during the last 12 months, only 15.2% (n = 10) had an internship. For students who worked at part-time job and students who did not work for pay at a job, internship participation rate was significantly higher (23.5% and 37.1%, respectively)⁶ and students without employment had the highest internship participation rate.

Figure 6. Internship in the Past 12 Months (Yes/No) by Employment Status (N = 324)



Note. Six respondents did not provide enough information in order to determine their employment status

⁶ The association between internship participation and employment status is statistically significant based on a chi-square test of independence (2, 324) = 8.575, p = 0.014, V = 0.163. The value of Cramer's V indicated that the relationship between these two variables was small, meaning that interpreting this result should be approached with caution (Cohen, 1988).

Awareness about college students' challenges with securing adequate food, or what is known as food insecurity, is growing in the US (Broton & Goldrick-Rab, 2016). In our survey, we included a question asking if students had received free food or meals using the Supplemental Nutrition Assistance Program or a food bank, and the results show that only 9.4% (n = 31) of students in our sample report having received food assistance. Figure 7 shows that internship participation rate is the same for those who received food assistance and those who didn't (25.8% vs. 24.4%). Additionally, given that housing costs can strain students' financial situation, we also asked about problems with paying rent or mortgages. The results indicate that 10.9% (n = 36) of students have difficulties making these payments. Internship participation is similar between students who reported having trouble and students who reported no trouble of paying rent or mortgage (27.8% vs. 24.1%; see Figure 8).

Figure 7. Internship in the Past 12 Months (Yes/No) by Students Requiring Food Assistance (N = 330)

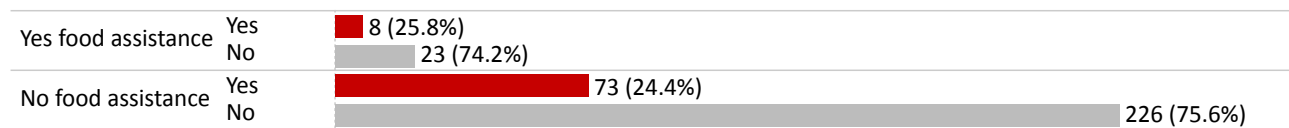
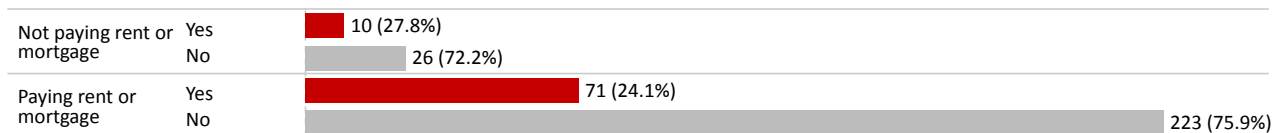
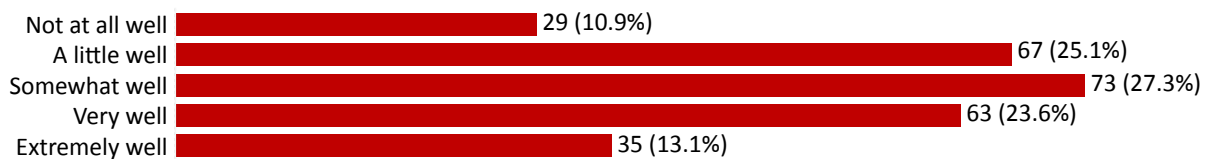


Figure 8. Internship in the Past 12 Months (Yes/No) by Students Having Trouble Paying Rent or Mortgage (N = 330)



Given that many students reported working part- or full-time, we explored the extent to which they perceived their jobs as contributing to their career goals. We see in Figure 9 that only 36.7% (n = 98) of the students with a non-internship job felt that their main job was providing important career-related skills very well or extremely well. In contrast, 36% (n = 96) of the students reported that their main job provided them with important skills a little well or not at all well.

Figure 9. How well do you think that your main job provides you with important work-related skills, knowledge, and abilities that you will need in your desired career? (n = 267)



Psychological factors and internship participation

Research in counseling and vocational psychology indicates that psychological factors are also strongly related to a variety of career-related outcomes. For instance, career adaptability is a psychosocial resource that facilitates a person’s ability to manage career-related tasks and changes (Savickas, 1997), which is significantly associated with one’s adaptive behaviors (e.g., career planning, career exploration, self-efficacy), employability, vocational self-identity, and satisfaction regarding life, career and school experiences (Rudolph, Lavigne, & Zacher, 2017). Scholars argue that career adaptability is especially valuable in the current labor market given frequent job and/or career changes, rising precarity (and lower job security) of work, and unanticipated shocks to regional and national labor markets that may lead to mass layoffs and forced job and/or career changes (e.g., 2008 recession, coronavirus pandemic).

In this study, we examined the relationship between career adaptability and internship programs, using a validated career adaptability survey developed by Savickas and Porfelli (2012). These survey items encompass four sub-scales including concern about the future, control over one’s future, curiosity about different career options, and confidence to achieve one’s goals, each of which are measured by six items that elicit how strongly the respondent rates themselves on these attributes. These items use a five-point Likert style set of response options (1=not strong; 5=strongest).

The results indicate that the survey respondents from Northeastern Illinois University rate themselves relatively high across the career adaptability sub-scales: concern (M=3.76, SD=0.84), control (M=3.77, SD=0.78), curiosity (M=3.57, SD=0.89), and confidence (M=3.74, SD=0.86). The mean scores for all sub-scales were similar between the two groups: Concern (Internship: 3.89; No Internship: 3.72); Control (Internship: 3.77; No Internship: 3.77); Curiosity (Internship: 3.69; No Internship: 3.53); Confidence (Internship: 3.73; No Internship: 3.74). None of these differences were found to be statistically significant.

To illustrate the types of questions that are included in the career adaptability survey, we report one example for each sub-scale from the Northeastern Illinois University dataset (see Figures 10-13).

Figure 10. Please rate how strongly you have developed each of the following abilities: Becoming aware of the educational and vocational choices that I must make (n = 330)

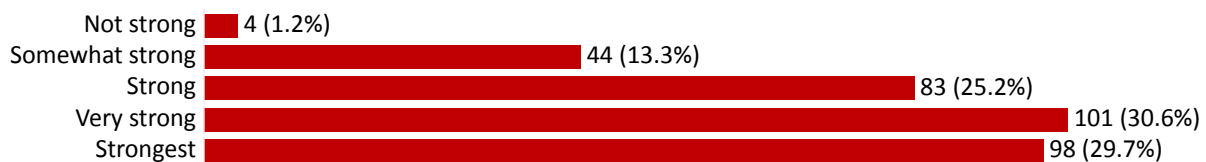
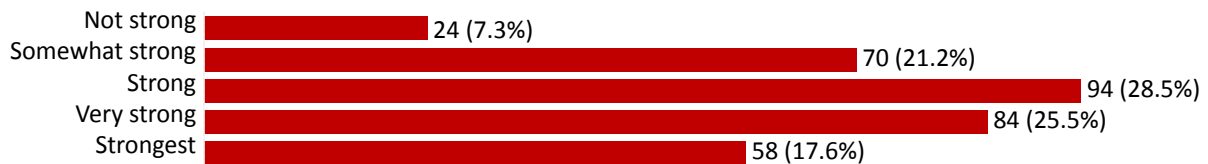


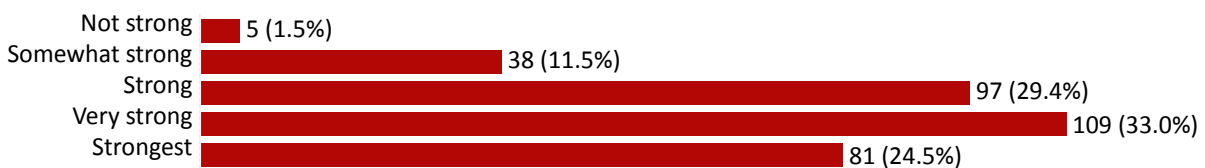
Figure 11. Please rate how strongly you have developed each of the following abilities: Taking responsibility for my actions (n = 330)



**Figure 12. Please rate how strongly you have developed each of the following abilities:
Exploring my surroundings (n = 330)**



**Figure 13. Please rate how strongly you have developed each of the following abilities:
Performing tasks efficiently (n = 330)**



Features of academic programs and internship participation

It is also possible that some features of a students’ academic program and performance (e.g., whether or not an internship is required for graduation, part-time versus full-time enrollment status, disciplinary sector, grade point average) may be related to their participation in internships. Here, we examine the relationship between students’ academic programs and students’ participation in internship programs.

Figure 14. Relationship between Internship Participation and whether or not an internship was required to graduate from your academic program (n = 330)

Required	Yes	No
Required	46 (44.2%)	58 (55.8%)
Not required	31 (18.5%)	137 (81.5%)
Not sure	4 (6.9%)	54 (93.1%)

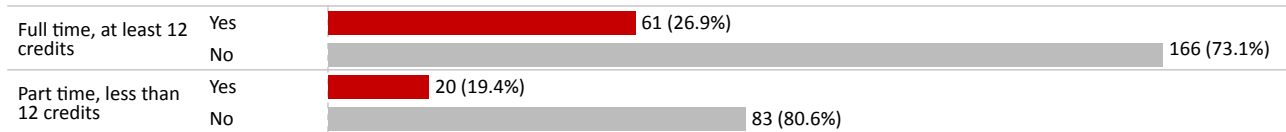
The results indicate that 31.5% (n = 104) of the respondents were in academic programs that required internships. These students were more likely to take internships than students in programs that have no such requirement. Of those who are enrolled in programs with the internship requirement, 44.2% (n = 46) reported having done an internship, compared to only 18.5% (n = 31) of those in programs without the degree requirement⁷. There were also a noticeable proportion (17.6%, n = 58) of students who were unsure if their program required an internship; these students were less likely to participate than students who were sure (6.9% vs. 28.3%).⁸

⁷ The difference of internship participation between internship requirement and no requirement groups was statistically significant, $X^2(1, 272) = 21.03, p < .001$.

⁸ The difference of internship participation between students who were sure about internship requirement and students who were not sure about the requirement was statistically significant, $X^2(1, 330) = 11.83, p < .001$

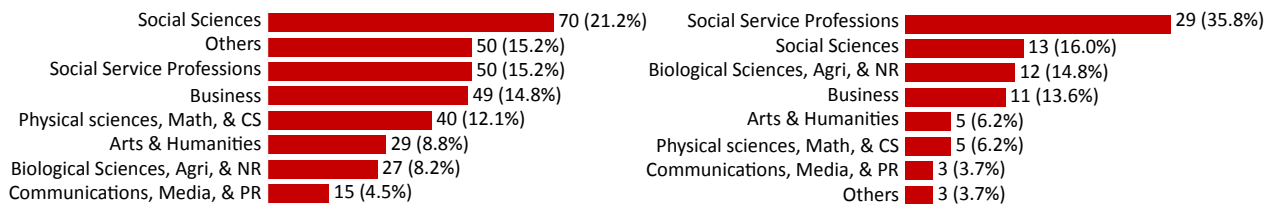
In addition, 68.8% (n = 227) of the 330 survey respondents were full-time students and 31.2% (n = 103) were part-time students. Internship participation rate of full-time students (26.9%) was higher than that of part-time students (19.4%), but the difference between these two groups was not statistically significant.

Figure 15. Internship in the Past 12 Months (Yes/No) by Enrollment Status (n = 330)



We also examined internship participation rates by disciplinary sectors. We adopted the major field categories defined by the National Survey of Student Engagement (NSSE, 2018). Figure 16.1 presents the distribution of seven majors for all NEIU participating students (n = 330, left figure) as well as for those who had participated in an internship (n = 81, right figure). The results indicate that the disciplinary sector with the largest proportion of students was social sciences (21.2%, n = 70) and that the disciplinary sector with largest proportion of students who completed an internship was Social Service Professions (35.8%, n = 29).

Figure 16.1. Internship in the Past 12 Months (Yes/No) by Program Disciplinary Sector
Revise this figure for NEIU



NEIU respondents (n = 330)

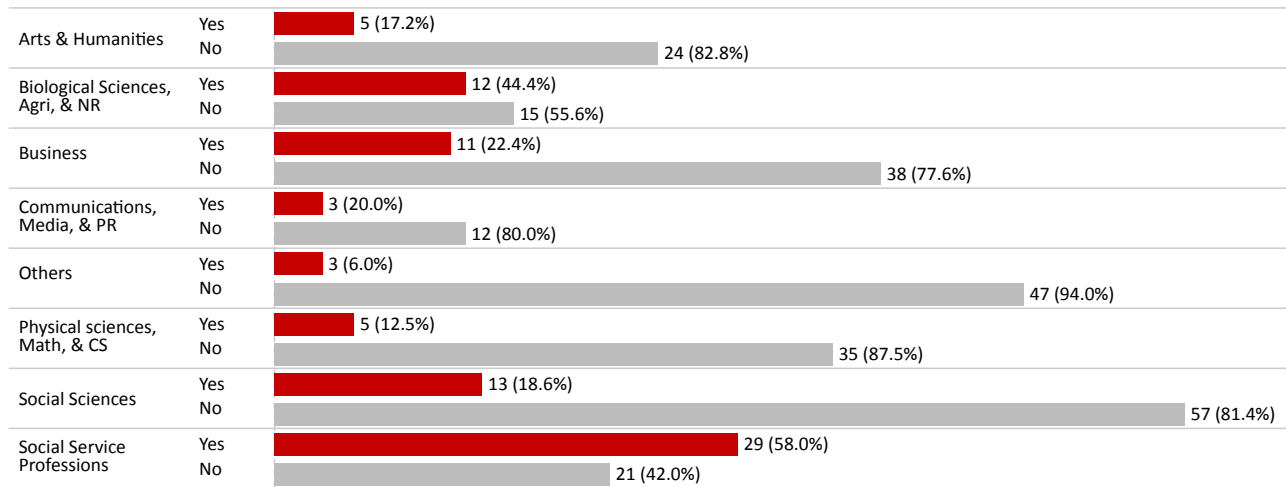
Respondents with an internship (n = 81)

NR = natural resources; CS = computer science; PR = public relations

Figure 16.2 presents internship participation rates across all majors. The results indicate that the Social Service Professions had the greatest internship participation rate (58%, n = 29), followed by Biological Sciences, Agriculture, & Natural Resources (44.4%, n = 12), Business (22.4%, n = 11), Communications, Media, and Public Relationship program (20%, n = 3), Social Sciences (18.6%, n = 13), and Arts and Humanities (17.2%, n = 5). Physical Sciences, Math, & Computer Science has the lowest participation rate (12.5%, n = 5)⁹.

⁹ The internship participation significantly differed across different majors based on a Fisher test of independence to account for smaller cell sizes, $p < .001$.

16.2. Relationship between Internship Participation and Students' Program Sectors (N = 330)



Finally, we examined the relationship between participating students' grade-point average (GPA)¹⁰ and internship participation. Figure 17 describes internship participation frequency and rate for each GPA level. We included GPA in a linear probability model¹¹ and found that higher GPA was associated with larger probability for an individual to participate in an internship¹². Because our outcome of interest is binary (doing and internship versus not), we also fitted a logistic regression to the data which revealed a similar finding¹³. These results suggest that students with lower GPA scores may require additional support, encouragement, or assistance with securing an internship.

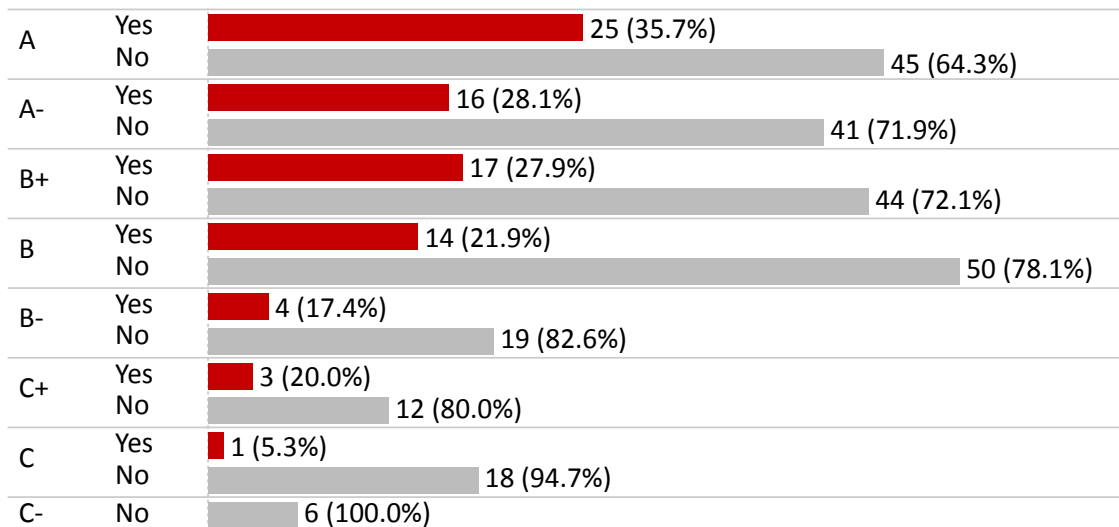
¹⁰ The GPA variable in our dataset is a self-reported measure where we asked the student a single question: "Thinking about the past 2018-19 academic year, which of the following best describes your grade point average (10 choices from A to D)?" We then recoded the responses to match standard GPA reporting (i.e., A+/A = 4.0, A- = 3.7, B+ = 3.3, B = 3.0, B- = 2.7, C+ = 2.3, C = 2.0, C- = 1.7, D+ = 1.3, D = 1.0).

¹¹ A linear probability model (LPM) is a regression model where the outcome variable is a binary variable, and one or more explanatory variables are used to predict the outcome. We chose LPM for its ease of interpretation.

¹² Probability Linear Model result indicates that a one unit increase in GPA is associated with a 10% increase in the probability that a student is taking an internship. This means that an increase from C average (2.0) to B average (3.0) is associated with a nearly 10% increase in the probability of participating in an internship. This result was statistically significant after controlling for a number of demographic variables in the model.

¹³ On average, the odds of doing an internship for students in a higher grade point are 2.44 times the odds of the students in the previous grade point (p = 0.009)

Figure 17. Relationship between Internship Participation and Students' Grade Point Average (n = 315)



Note. 15 participants who reported “no grade or don’t know” were excluded from this figure

VII. RESULTS: Barriers to participation in internships for students

In this section we present findings from the online survey and student focus groups regarding barriers to participation in internships for students at NEIU. Access to internships is a critical issue with respect to the problems of inequality and social mobility facing higher education and society at large. Since internships may provide students with valuable social and cultural capital and enhance their employability in the labor market, these barriers to internship participation are important to consider.

Survey results: How many students wanted to participate in an internship but could not? If not, why not?

For the 249 students who did not participate in an internship, 65.5% (n = 163) of them said they had wanted to do so (see Figure 18).

Figure 18. You indicated that you did not participate in an internship in the past 12 months. In the past 12 months, were you interested in participating in an internship? (N = 249)



Next, we asked students to select and rank the various reasons from most important to least important for not pursuing an internship. Figure 19.1 presents the frequency and percentages of students who cited certain barriers to participation. In general, 79.1% (n = 129) of students reported their need to work at current job as a barrier, 71.8% (n = 117) reported a heavy course load as a barrier, 57.1% (n = 93) reported a lack of internship opportunity as a barrier, 50.3% (n = 82) reported insufficient pay offered as a barrier, 35% (n = 57) reported a lack of transportation as a barrier, and 28.2% (n = 46) reported a lack of childcare as a barrier to internship participation.

Figure 19.1. In the past 12 months, why were you not able to pursue an internship? (n = 163)

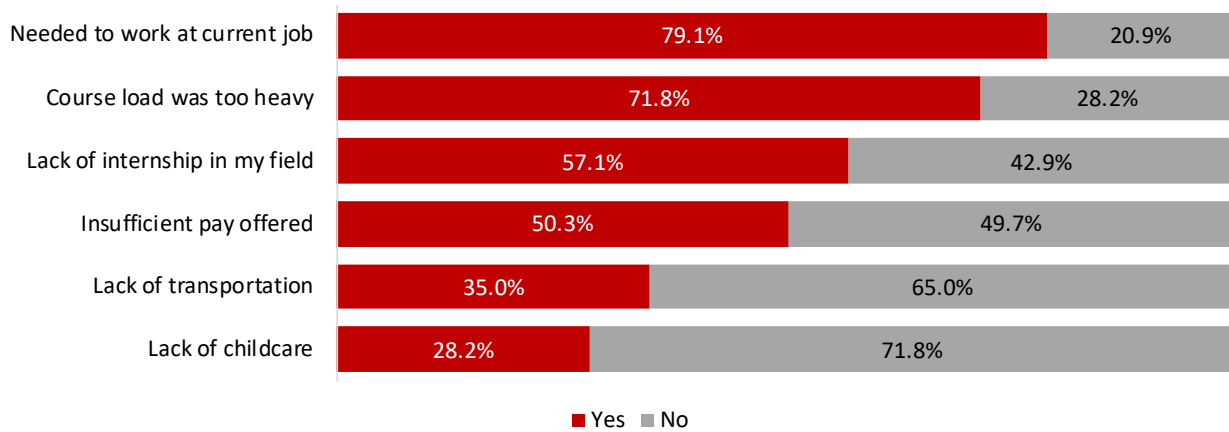
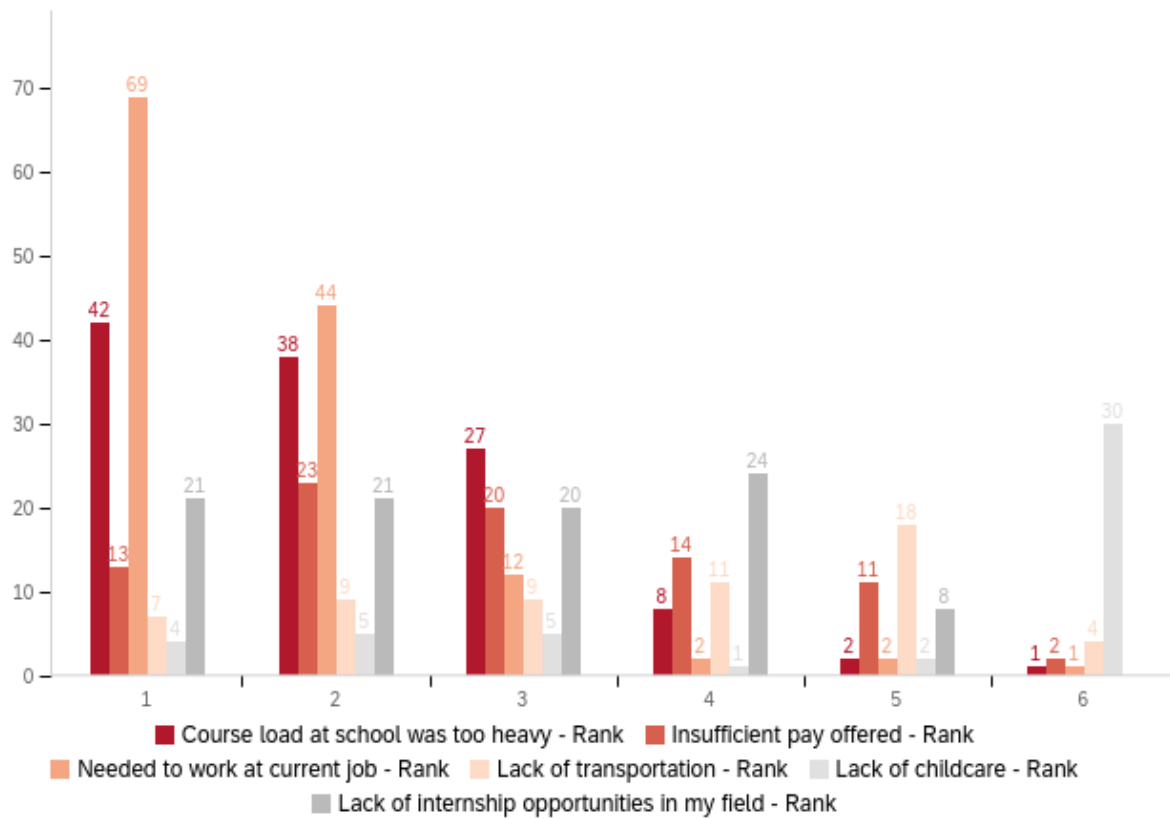


Figure 19.2 shows how students ranked the barriers overall. The reasons that students ranked as the number one important factor influencing their decision not to pursue an internship included: their need to work at current job (n = 69), a heavy course load at school (n = 42), and a lack of internship opportunity (n = 21). The number two ranked reasons included: a need to work at current job (n = 44), a heavy course load (n = 38), insufficient pay (n = 23), and a lack of internship opportunity (n = 21). Figure 19.2 also presents the third to sixth ranked reasons and their corresponding frequencies. In sum, one's need to work at current job, heavy course load, lack of opportunity in one's field, and insufficient pay were the most commonly reasons reported by students for not pursuing an internship.

Figure 19.2. Rank the reasons from most important to least important for not pursuing an internship.



Focus Group Themes: What concerns and difficulties do students describe as impacting their decisions about whether to participate in internships

Data from student focus groups with 24 NEIU students helped to further illuminate some of the concerns and issues that students consider when deciding whether to pursue an internship. Students discussed several barriers to their participation in internships, including financial considerations, family obligations, lack of time, and their social background and identity. These themes are summarized in Table 4 and further elaborated upon in the text that follows.

Table 4. NEIU Student Concerns and Difficulties in Participating in Internships (n = 24)*

Concern/Difficulty	Examples
Unpaid work/financial consideration	<i>Financial considerations that impact access or decision making about internship participation</i>
Family obligations, need for childcare	<i>Family obligations limit access to internship participation, including supporting a spouse or parents. Also includes a lack or a need for childcare during an internship</i>
Lack of time because of work or academic obligations	<i>Time constraint due to scheduling problems or inflexibility caused by various responsibilities</i>
Social background and identity	<i>Barriers due to cultural or language limitations</i>
<p><small>*This sample includes all focus group participants from NEIU; these difficulties include those that were discussed most frequently, in descending order of frequency.</small></p>	

Financial barriers were the most common factor that prevented students from participating in internships. Unpaid work poses a great difficulty for students who are working to pay for tuition and meet other obligations. As one student described the situation:

Financially it's been really hard. Because I pretty much have to pay my whole entire tuition out of pocket because I don't qualify for financial aid. So that was a major struggle.

Another concern that students discussed were family obligations and need for childcare, especially for non-traditional students who are parents with young children. Some students, due to cultural norms, live with their parents as care-takers and felt prevented from moving away from home to pursue opportunities. As one student explained, *"It's just that like I always have to take care of them. Is there this kind of expectation with like my older brother and my younger brother? No. They don't have to do that."*

Students also discussed concerns about a lack of time to participate in an internship because of work or academic obligations. Several students expressed this issue as the primary concern that influenced their decision-making about internships. As one student explained: *"I am working and I'm going to school. So, it would just be hard for me to find time to balance something else in between that."*

Lastly, a few students described social background and identity as an obstacle for internship participation, including language barriers and immigration status. For example, one student described how her immigration status impacted her ability to pursue an internship: *"They send like internships, and one of my problems is that, like, most of them require that you be a U.S. citizen."* For another student, their family background also prevented them from pursuing opportunities as it was difficult to convince their parents about the value of unpaid internships that are important to advance in their career:

Like my parents want me to just be done with school and just graduate already and just go into the workforce, but like they won't understand that-- they're very traditional Latino parents, so they won't understand that, like, oh, sometimes you just get paid in experience, not in money, and they'll think that it's like pointless.

From among the students who had not had an internship but wanted to, all of these barriers—financial considerations, family obligations, lack of time, and their social background and identity—were cited as factors that influenced these students to self-select not to apply for internship.

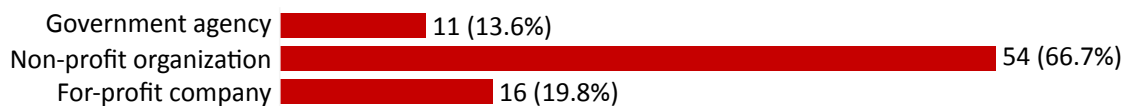
VIII. RESULTS: What types of internships are students at NEIU taking, and what are their experiences in them?

In this section we present findings regarding the types of internship programs that students at NEIU have taken, and their experiences during their internships. After describing key features of students' internship programs from the survey data (e.g., organization type, sector, length, compensation), we then report how students described their internship with respect to characteristics that the literature suggests are associated with positive student outcomes and experiences (e.g., supervisor support, task clarity, etc.). Finally, we discuss students' observations about their internship experiences from focus group discussions.

Survey results: Features of internship programs

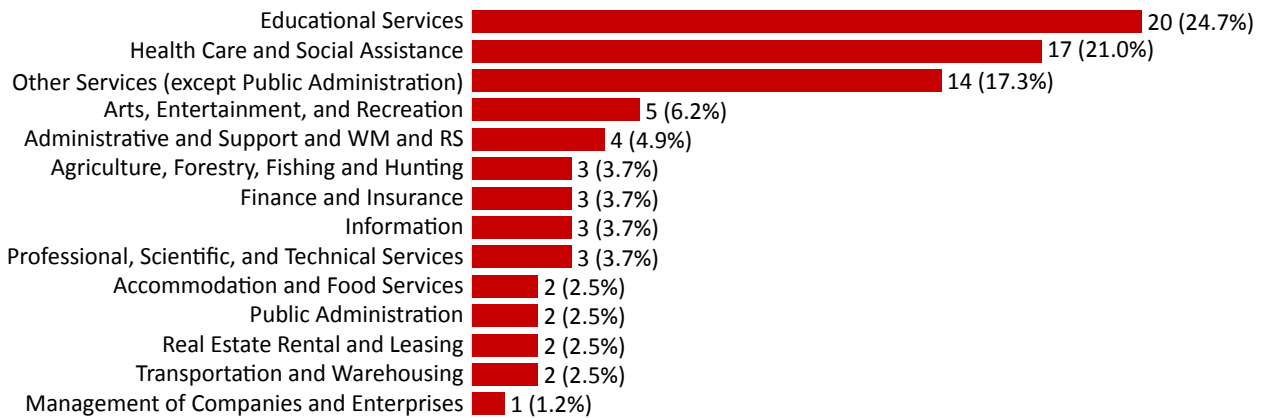
For the 81 students at NEIU in our study sample that had taken an internship in the past year, as shown in Figure 20, two thirds of them did so at a non-profit organization (66.7%, n = 54), nearly a fifth did their internship with a for-profit company (19.7%, n = 16) and the rest (13.6%, n = 11) did their internships at a government agency. Many of these internships were concentrated in two fields: Educational Services (24.7%, n = 20) and Health Care and Social Assistance (21%, n = 17). All other internships were spread across many other sectors in the economy (see Figure 21)¹⁴.

Figure 20. In what type of organization did you participate in this internship? (n = 81)



¹⁴ As defined by the North American Industry Classification System (NAICS), the Information sector “comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data.” More information on this sector is available at <https://www.bls.gov/iag/tgs/iag51.htm>

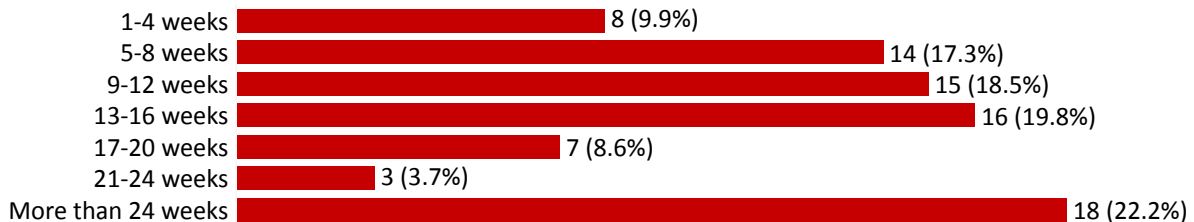
Figure 21. In what industry or field was this internship in? (n = 81)



Note. Admin and Support and WM and RS = Administrative and Support and Waste Management and Remediation Services

With regard to the duration, the survey results indicate that the largest proportion of respondents who had taken an internship did so for more than 24 weeks (22.2%, n = 18), followed by those who did internships that lasted between 13-16 weeks (19.8%, n = 16), 9-12 weeks (18.5%, n = 15) and 5-8 weeks (17.3%, n = 14) as depicted in Figure 22.

Figure 22. For how many weeks did you participate in this internship? (n = 81)

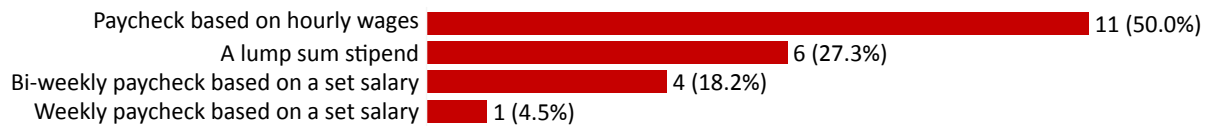


With regards to compensation, only 27.2% (n = 22) of students were compensated for their internship work as compared to 72.8% (n = 59) who were not (see Figure 23). Half of the students who were compensated (n = 11) were paid on an hourly basis. The average hourly payment was \$14.26, which is slightly above the estimated living wage for one adult without children in the Chicago area (\$13.34) (MIT Living Wage Calculator, 2020).

Figure 23. Was the internship paid or unpaid? (n = 81)



Figure 24. Types of compensation for internships (N = 22)



Survey results: presence of internship characteristics associated with positive student outcomes

Next, we turn to one of the primary research questions driving this study: what is the structure and format of internship programs that the NEIU students are taking? Examining this issue, we focus on features of internships that the research literature suggests are associated with positive student outcomes.

Link between academic program and internship

One of the core principles of experiential education is the integration of academic or theoretical concepts with opportunities to apply new knowledge in hands-on situations. Research on internships also indicates that close coordination between academic coursework and internship experiences is also linked to interns’ satisfaction (e.g., Hergert, 2009).

For the NEIU students who participated in an internship, 75.3% (n = 61) felt that their internship was very or extremely related to their academic coursework (Figure 25). In addition, 56.8% (n = 46) of the students reported that their academic program staff and internship supervisors cooperated very well or extremely well to ensure this integration. However, 26 students (32.1%) reported “a little well” or “not at all well” (Figure 26).

Figure 25. How related do you feel your internship was to your academic program? (n = 81)

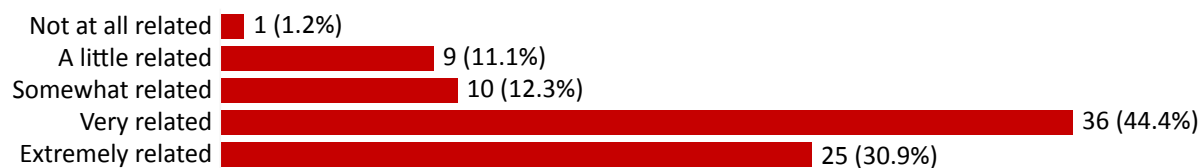
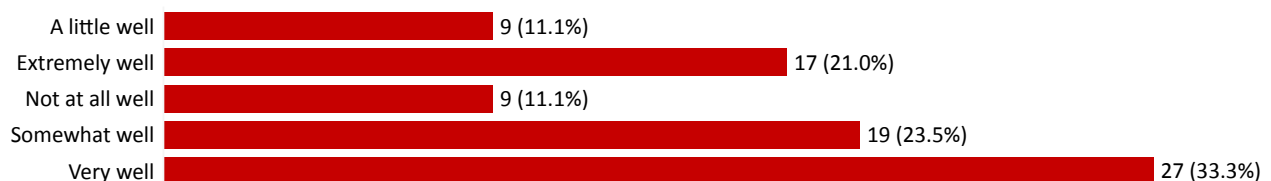


Figure 26. How well did your internship site supervisor and your academic program staff coordinate with one another? (n = 81)



Perceived supervisor support

Next, the literature indicates that supervisors’ active support of interns’ career development and on-the-job satisfaction is strongly associated with positive student outcomes (McHugh, 2017). Students rated four questions regarding how supportive their supervisors were by choosing from 1 = *not at all*, 2 = *a little*, 3 = *some*, 4 = *quite a bit*, to 5 = *a great deal*. The average score for the four questions equals 4.15 with a standard deviation 1.01. The four questions are: 1) In this internship, how much did your supervisor care about your well-being? 2) In this internship, how much did your supervisor care about your satisfaction at work? 3) In this internship, how much did your supervisor appreciate the amount of effort you made? 4) In this internship, how much respect did you feel you received? Below we report results from two of these items as examples.

Of the NEIU students who had recently taken an internship, 74.1% (n = 60) reported that their supervisors cared about their satisfaction at work quite a bit or a great deal (see Figure 27), and 80.2% (n = 65) reported that their supervisors appreciate the amount of effort they made quite a bit or a great deal (see Figure 28). Taken together, these represent important indicators of supervisory support.

Figure 27. In this internship, how much did your supervisor care about your satisfaction at work? (n = 81)

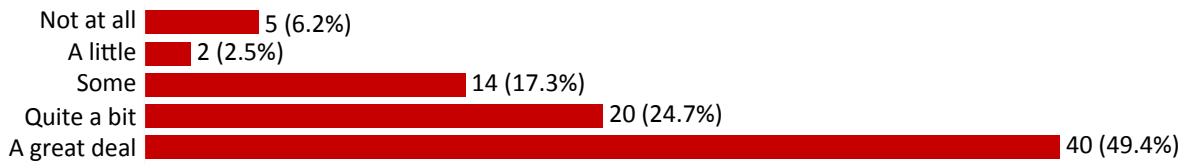
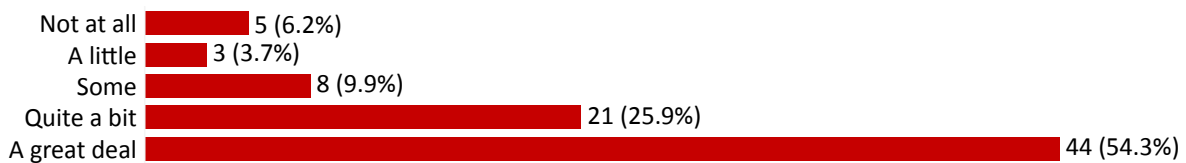


Figure 28. In this internship, how much did your supervisor appreciate the amount of effort you made? (n = 81)



Supervisor mentoring

Another aspect of supervisor behavior found in the literature to be positively associated with intern satisfaction is supervisor mentoring, which pertains to the provision of direction and feedback about task performance and career planning. For the survey, this construct was measured using five questions with a five-point Likert scale from 1=Never, 2=Rarely, 3=Sometimes, 4=Very often, to 5=Extremely often. The average score for the five questions equals 3.67 with a standard deviation 0.99. The five questions are: 1) How often did your supervisor suggest specific strategies for achieving career goals? 2) How often did your supervisor encourage you to try new ways of behaving in the job? 3) How often did your supervisor give you feedback regarding job performance? 4) How often did your supervisor give you assignments that presented opportunities to learn

new skills? 5) How often did your supervisor help you finish tasks or meet deadlines that otherwise would have been difficult to complete? Below we report results from two of these items as examples.

While more than half of NEIU students reported that their supervisors encouraged them to try new ways “very often” or “extremely often” (55.6%), the rest of them reported receiving such encouragement only “sometimes”, “rarely” or “never” (44.4%). In fact, more than a fifth of student reported never or rarely receiving such encouragement (see Figure 29). The survey data suggests better results for supervisor feedback in that more than 60% (n = 60) of students reported receiving feedback from their supervisors either “very often” or “extremely often”. Only about 14.8% (n = 12) of students reported never or rarely receiving feedback regarding job performance from their internship supervisors (see Figure 30).

Figure 29. How often did your supervisor encourage you to try new ways of behaving in the job? (n = 81)

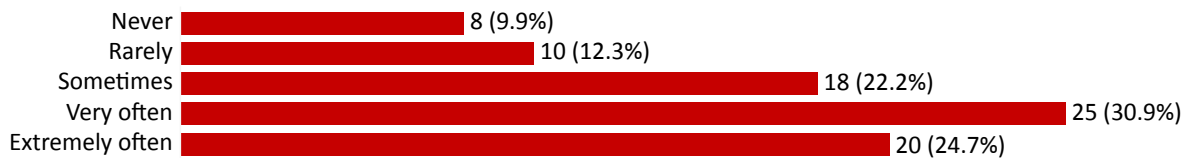
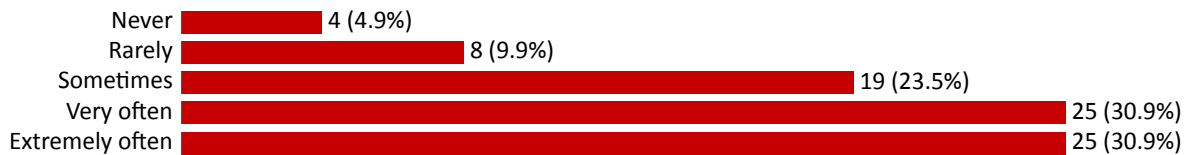


Figure 30. How often did your supervisor give you feedback regarding job performance (n = 81)



Goal clarity

Task goal clarity, or clear expectations regarding work products and their evaluation, is associated with reduced stress and increased satisfaction on the internship site (Beenen & Rousseau, 2010). For example, students who complete internships that are poorly designed and lack meaningful work may end up working on ill-structured and poorly managed tasks (Frenette, 2013). Task goal clarity was measured using two questions with a five-point Likert scale from 1 = *not at all clear*, 2 = *a little clear*, 3 = *somewhat clear*, 4 = *very clear*, to 5 = *extremely clear*. The average score for the two questions equals 3.73 with a standard deviation 0.92. Below we report results from these items (see Figures 31 & 32).

The results indicate that the majority (56.8%, n = 46) of participating NEIU students who participated internships felt that they were given very clear or extremely clear tasks to be completed and 69.1% (n = 56) of students felt the goals to be accomplished were very clear or extremely clear.

Figure 31. In this internship, how clear you felt about the tasks to be completed? (n = 81)

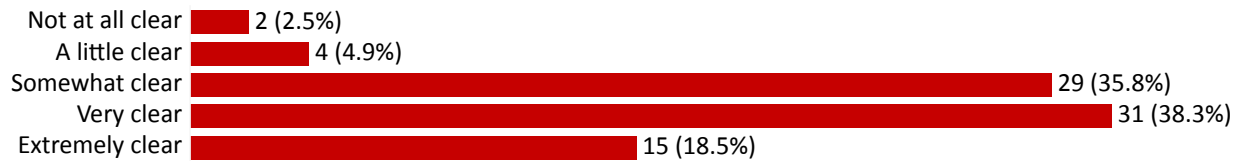
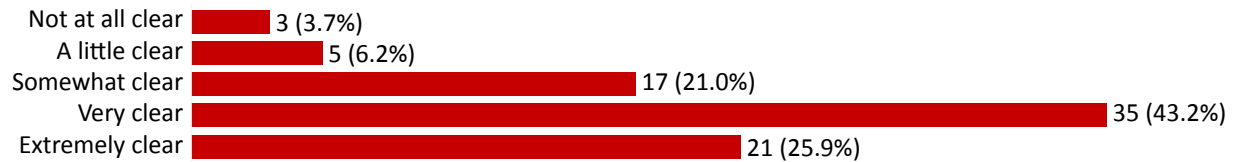


Figure 32. In this internship, how clear you felt about the goals to be accomplished? (n = 81)



Task autonomy

In addition to benefiting from clearly defined tasks, interns also report higher rates of satisfaction when they are given autonomy and discretion to perform the tasks assigned to them (McHugh, 2017). Task autonomy was measured using two questions with a five-point Likert scale 1=None, 2=A little, 3=Some, 4=Quite a bit, to 5=A great deal. The average score for the two questions equals 4.04 with a standard deviation 0.99, and below we report results for these items (see Figures 33 and 34).

For NEIU students who participated in our survey, 85.2% (n = 69) reported having considerable flexibility in how they completed their work and 67.9% (n = 55) reported having a great deal or quite a bit of freedom to decide how to do their work, indicating that for these students the internship is an opportunity to function with autonomy in the workplace.

Figure 33. In this internship, how much flexibility did you have in how you completed your work? (n = 81)

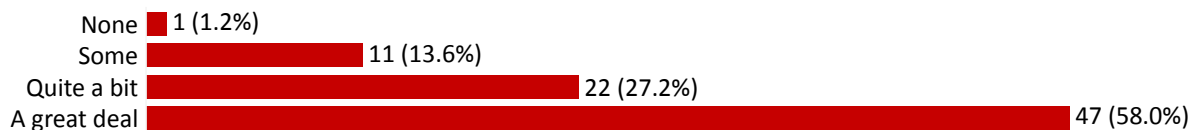
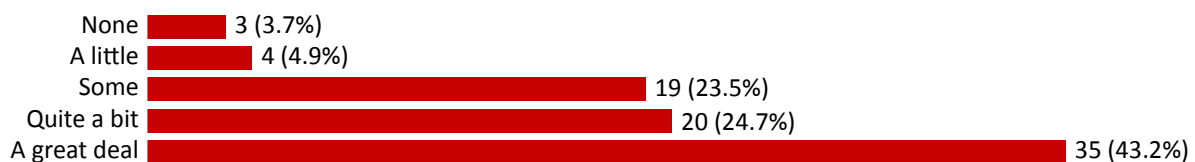


Figure 34. In this internship, how much freedom did you have to decide how to do your work? (n = 81)

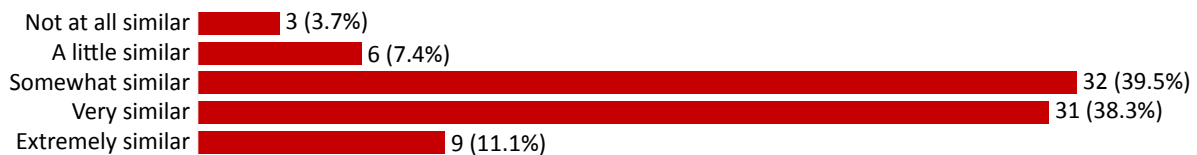


Task similarity to entry-level jobs

Finally, one of the persistent questions in the literature is whether interns are provided with work that is of equal difficulty to entry-level employees (Hora, Wolfgram & Thompson, 2017). This construct was measured using one question with a five-point Likert scale from 1=Not at all similar, 2=A little similar, 3=Somewhat similar, 4=Very similar, to 5=Extremely similar. The average score for the two questions equals 3.46 with a standard deviation 0.92.

The findings indicate 49.4% (n = 40) of the participating NEIU students considered their internship tasks were “very similar” or “extremely similar” to those in entry-level positions. Answers to this question have implications for both compensation and the meaningfulness of the work itself. About 11.1% (n = 9) of participating students considered their internships tasks “not at all similar” or only “a little similar” to an entry-level employee (see Figure 35).

Figure 35. During your internship, how similar in nature were your tasks to those in entry level jobs in the organization? (n = 81)



Focus group results: What were students’ experiences with their internship?

In addition to results from our online survey, we had nine students who participated in focus groups who had also participated in an internship. The students discussed several aspects of their internship experience, including the internship’s relevance or fit to their career goals, their participation in project-based work, and the quality and nature of the supervision. These themes are summarized in Table 5 and further elaborated upon in the text that follows.

Table 5. NEIU Student Experiences in Internships (n = 9)

Focus of Internship	
Relevance or Fit to Career	<i>Relevance between the student's internship and their career goals/interests</i>
Project-Based Work	<i>An experience where the student is responsible for one large coherent task with a specific product or outcome.</i>
Supervision	<i>Quality of supervision, mentorship, feedback from supervisors at the internship site</i>
Notes. *This sample only includes those NEIU focus group participants who had internships	

In terms of the internship's relevance to the student's career goals, some students at NEIU benefited from a fairly close relationship between their internship and their career goals. One student, for example, emphasized how she especially appreciated that her internship was closely related to her own values relating to her activism in the LGBTQ community, and this values-oriented internship provided a setting for her to test-out if a career in that field would be the right fit for her; she explained,

Like I know I want to work with LGBTQ Community but sexual violence is a really difficult category of work to work with people around. And so, I wanted to know like is this right for me or is it too much or something else. And so yeah, I mean that was my -- that's what I hoped to get out of it, like what do agencies like this do, what are they about, and then can I do the work.

A number of students described also participating in project-based work during their internship. One psychology student, for example, did a qualitative research project at a small company during her internship. She felt that her internship related closely to the course content that she found most interesting in her psychology and social science courses, and provided an opportunity to learn how to apply her academic knowledge to a work situation.

The students in the focus groups who participated in internships sometimes discussed positive relationships with their internship supervisors, often benefiting from regular, even daily, check-in meetings to manage the work and provide feedback; one student described the rhythm of her internship supervision and feedback:

And I would have to check in with her every Friday, like, either via e-mail or in person to let her know - pretty much it was an assignment. Like, what did I do? What was my learning outcome? What do I hope to get out of the next week?

In some cases, the student's supervisor provided mentorship as well; providing active encouragement for the student to take on new challenges and work independently. Mentors can become a valuable resource for the student, providing guidance during the internship to help them meet their goals. One student described the dynamic as: "They would give me assignments, like projects to do, and they would tell me, like, we want you to try it on your own, and if something is not going right, you come in immediately and tell me what's going on so that I can interfere [i.e., help support you]."

IX. RESULTS: Outcomes of internships

The impacts that internships have on students is one of the most important questions facing the field of higher education and workforce development, given their growing prominence in educational policy and programming. In empirical research on internships, this question is answered by tracking changes in variables such as employment status, wages, or vocational self-concept over time. In fact, our research team will be following the students who participated in T1 of our study at NEIU for at least two additional years, with these questions being addressed in the Fall of 2020 and 2021.

For this cross-sectional analysis of T1 data, we report outcomes in terms of satisfaction with the internship and student perceptions of how well (or poorly) the experience enhanced their knowledge, skills, and career aspirations.

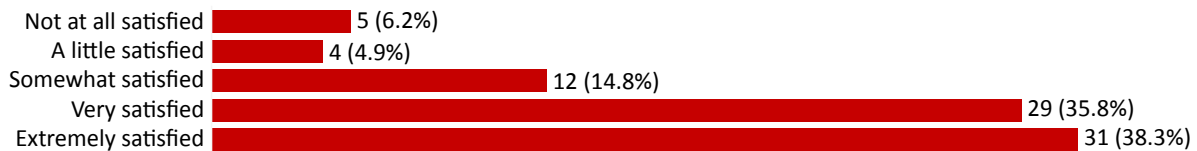
Survey results: Outcomes of internships

Level of satisfaction with internship experience

An important indicator of the usefulness and impact of an internship experience is how students themselves perceive their experience. For this issue we asked a single question about overall satisfaction and asked students to rate from 1 = *not at all satisfied*, 2 = *very satisfied*, 3 = *somewhat satisfied*, 4 = *a little satisfied*, to 5 = *extremely satisfied*. The average score for the two questions was 3.95 with a standard deviation of 1.14.

Of the students who had participated internship in this sample, 74.1% of them reported that they were *very satisfied* or *extremely satisfied* with their experience. The fact that 14.8% were only *somewhat satisfied* and 11.1% were *not at all satisfied* or *a little satisfied* with their internship indicates that work remains to be done to improve internships for all students (see Figure 36).

Figure 36. How satisfied were you with your internship experience? (n = 81)



To investigate the relationship between internship program features and students' internship satisfaction, we conducted correlation and multiple regression analysis. Please see Table 1 in Appendix B for the correlation and multiple regression results. The results indicate that supervisor support, mentoring, goal clarity, relatedness to academic program, autonomy, and similarity to entry level employment positively correlate with students' internship satisfaction with coefficients ranging from .41 to .76. Our multiple linear regression analysis showed that students with greater supervisor support and relatedness to academic program were expected to have greater satisfaction, after controlling for the other variables in the model (see Table 1 in Appendix B).

Developmental value of the internship experience

Next, we examine the impact of program structure on another important outcome of internships – students' perception of how much their internship experiences have influenced their academic learning and career development (i.e., developmental value). This Developmental Value Scale was developed based on the work by McHugh (2017) and Nghia and Duyen (2019), and it consists of 10 items with two subscales using a 5-point Likert scale from 1 = *none*, 2 = *a little*, 3 = *some*, 4 = *quite a bit*, to 5 = *a great deal*: a) five items regarding developmental value of academic learning with average score 3.92 and standard deviation of 0.98, Figure 37 & 38 present results from two sample questions of this subscale; b) five items regarding developmental value on career development with an average score of 3.94 and a standard deviation of 1.03, Figure 39 & 40 present results from two sample questions of this subscale.

Findings indicate that 72.8% (n = 59) of the 81 NEIU who had participated an internship considered their internship as providing quite a bit or a great deal of opportunities for them to apply knowledge from course work to real-world ; and 74.1% (n = 60) reported internships are valuable in terms of providing quite a bit or a

great deal of opportunities for them to identify academic knowledge gaps. In addition, when reflecting on the value of internships to career development, 74.1% (n = 60) of participating NEIU students valued the skills they learned at internships quite a bit or a great deal for their career development, and 72.8% (n = 59) reported that their internships *quite a bit* or *a great deal* helped clarify their career objectives

Figure 37. This internship gave me opportunities to apply what I have learned in my courses to real-world situations (n = 81)

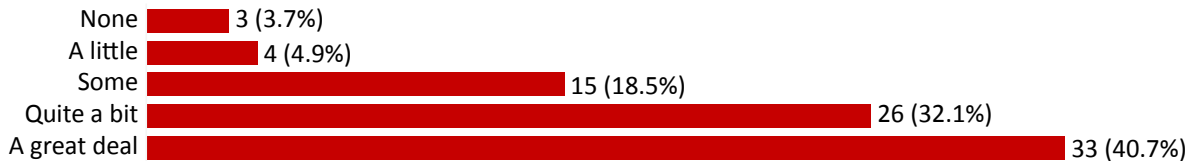


Figure 38. This internship helped me identify my academic knowledge gaps (n = 81)

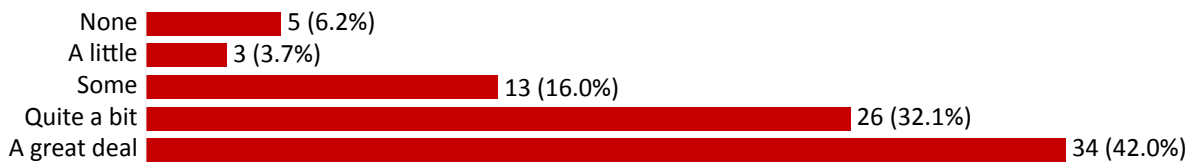


Figure 39. This internship provided me with important skills relevant to my chosen career (n = 81)

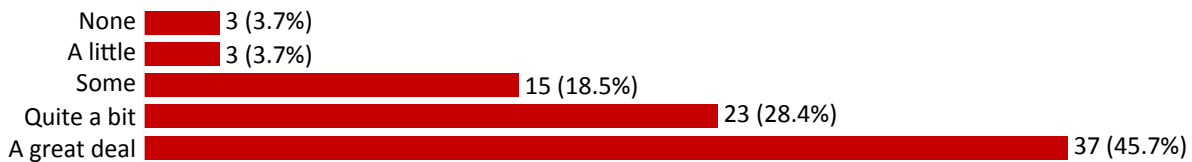
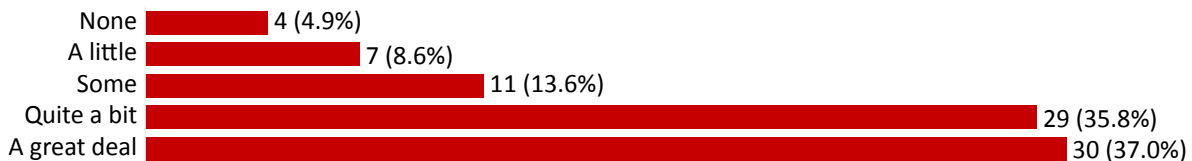


Figure 40. The internship helped me clarify my career goals (n = 81)



To investigate the relationship between internship program features and the developmental value of students' internship experiences, we conducted correlation and multiple regression analyses. Please see Table 2 in Appendix B for the correlation and multiple regression results. The results indicate that supervisor support, supervisor mentoring, goal clarity, autonomy, relatedness to academic program, and similarity to entry-level position positively and significantly correlate with students' perceived internship developmental value with coefficients ranging from .4 to .75. Our multiple regression model result indicates that students with higher scores on supervisor mentoring and autonomy were expected to perceive a higher level of developmental values of their internship experiences, after controlling for the other variables in the model.

We also looked at developmental value to academic learning and career development respectively. We found that students who reported higher levels of perceived supervisor mentoring were more likely to perceive their internship was valuable to their academic learning. Additionally, students with internships of greater supervisor mentoring and autonomy, and of greater coordination with their academic programs, were more likely to perceive their internship experiences as valuable to future career development (see Table 3 in Appendix B).

Finally, multiple regression analyses were conducted using career adaptability sub-scales as predictors of internship outcomes (see Table 4 and Table 5 in Appendix B). Results show that students with less concern about future planning were more likely to report higher internship satisfaction as well as perceived developmental value. One possible explanation is that students who had less sense of looking ahead and planning for the future may set lower expectations toward their internships and experience less stress.

Taken together, results from the correlation and regression analyses should be interpreted with caution due to the relatively small sample size of NEIU students who had completed an internship. These preliminary results suggest that there are a variety of structural factors that may contribute to a students' perception that their internship was a satisfactory and valuable experience. Thus, as institutions and employers work towards improving these co-curricular experiences, these factors should be on the table as areas worthy of further attention, investment, and improvement.

Focus group results: Outcomes of internships

There were 9 students with internships who participated in a focus group. They discussed several outcomes of their internship experience, most often discussing that their experience helped with learning and skill development, to explore their career goals, and to obtain real-world experience. These themes are summarized in Table 6 and further elaborated upon in the text that follows.

Table 6. Perceived Outcomes of Internship Participation NEIU (n = 9)*

Outcome	Examples
Learning and Skill Development	<i>Developing skills and learning concepts related to their field to enrich their professional growth</i>
Exploration of Field (and career goals)	<i>Acquire a better understanding of their field and determine a positive or negative fit through career goal crystallization</i>
Real World Experience	<i>Gaining experience that is different from the classroom or has a more hands-on experience in the field, workplace setting, and with employees</i>

*This sample only includes focus group participants who had internships; outcomes are listed in descending order of frequency

Students discussed developing technical and transferrable skills during their internships, as one student who interned for an office in the NEIU administration explained, “I gained like administrative skills, and some other skills like accounting similar to like a software, Excel, similar to business and administrative assistant.”

Internships also helped students to make decisions regarding career choices by giving them a taste of what a particular occupation might look like. One student who interned at as a teacher’s assistant at a neighborhood community center in Chicago said:

In my future this helps me out with becoming a high school counselor, actually. Because like I said, it does give me hands-on experience on how -- how to help children and mentally prepare for that.

Other students realized from their internship experience that a particular profession or industry would not be a good fit for them, and altered their career goals: for example, a student majoring in accounting who interned with moving company realized, “I don’t think that the moving industry is for me, like I don’t find that so exciting. So, if I were to say look for a new job it would not be in the moving industry.”

Another common theme that students discussed as a benefit of their internship was the “valuable real-world experience” that they obtained. One student described their rewarding internship experience:

I think it’s also a good opportunity to get hands-on experience. And I know, like, when we’re here we’re told do an internship. People that come and talk to students, they always tell us do an internship. So, I also felt kind of pressured to do an internship. And my hope was to get experience, and I ended up pretty much picking what I want to do for the rest of my life. So I think it was, like, a great experience.

Students appreciated the “hands-on experience” that internships provide, opportunities to apply classroom knowledge to a real-world setting, to network, and to learn worksite and professional culture.

X. RECOMMENDATIONS FOR PROVIDING EQUITABLE, HIGH-QUALITY INTERNSHIPS FOR ALL

The literature and the data contained within this report highlight a key issue in the world of internships – that simply making them available does not guarantee that they will be accessible to all students or that the experience is guaranteed to have a strong and positive impact on student outcomes. Instead, much depends on how internships are structured by educators and employers, and experienced by students (Kuh & Kinzie, 2018; O’Neill, 2010). In this final section we provide recommendations for students and educators for increasing the availability of high-quality and equitable internship programs for all students at NEIU.

What can students do?

The literature suggests that students are drivers of their self-exploration, career exploration, and career planning and management. Interested students often are the ones who must take initiative to actively pursue quality internship experiences, which may serve as important work-based learning opportunities. Research suggests that positive internship experiences can help college students better know their interests, boost skills, and become adaptive to future challenges and changes.

As illustrated by Figures 2-17, there is considerable social-economic variation among the students who completed our survey, including demographic characteristics, life circumstances, and features of their academic programs. Some of these factors may impact students' ability to access an internship experience, such as parental income (Figure 5.1 and 5.2) and employment status (Figure 6).

While numerous individual and structural barriers exist that make engaging in these activities more challenging for particular students, we offer the following suggestions in hopes that they may assist students in accessing, completing, and making the most of an internship experience.

- Many students addressed their need to work at current jobs, heavy course load, insufficient pay provided by internships, and lack of opportunities in their field as main barriers to participating in an internship. Students in the focus groups also highlighted numerous barriers, including financial considerations, family obligations, lack of time because of work and academic obligations, and cultural and language limitations (Table 4). Within this context, students are encouraged to actively search for resources, connections, and assistance in their search for and decision-making around the feasibility of internship participation. This includes utilizing campus resources and asking for support.
- Students' experiences during their internship appear to have an impact on outcomes such as internship satisfaction and students' perception of the internships' developmental value. In combination, these may influence post-graduation career development. It is, therefore, important for students to manage their relationships with internship supervisors or mentors and work to actively establish effective communication. Students also are encouraged to seek out and participate in professional development opportunities available to them as an intern. Although students' internship satisfaction and perceived contributions of the internship to their future development could be limited by many contextual factors, students are encouraged to treat internship as an opportunity for personal and professional development, regardless of whether the internship is required or elective.

What can students do?

- Actively search for resources, connections, and assistance in their search for and decision-making around the feasibility of internship participation;
- Work to actively establish effective communication with internship supervisors or mentors;
- Seek out and participate in professional development opportunities available to them as an intern;
- Identify short-term and long-term goals before entering internship.

- Table 5 and Table 6 presents some findings from the focus groups about factors that have the potential to impact students' efforts to work towards their educational and career goals. Students should identify their own short-term and long-term goals before entering an internship, and just as important, these goals need be communicated with their academic program coordinator/faculty and internship supervisor at the sites.

What can faculty and institutions do?

Educators are individuals who guide students to know about the world of work and the career future trajectories. Educators on campus may hold a variety of job titles and duties, but all play a critical role in building the academic foundation for students' future career, connecting students to educational- and career-related opportunities, and cultivating students' professional development. Educators also play a critical role in disseminating information about internships to students, facilitating connections with internship employers, and helping students to apply their course content to practical settings.

We offer the following suggestions to strengthen educators' and campus leaders' impacts on student development and to facilitate high quality internship programs within NEIU's institutional context:

- Institutional leaders at Northeastern Illinois University may benefit from carefully scrutinizing the information presented in the institutional capacity for internship programs section of this report. In doing so, educators are encouraged to consider areas that represent strengths, weaknesses, and opportunities for growth. Regardless of whether a centralized or de-centralized approach is taken with respect to internship programming, educators and campus leaders are encouraged to pay close attention to ensuring that issues related to equitable access and program quality are addressed before expanding or mandating internships for students.
- Given the social and economic needs of students at Northeastern Illinois University, such as maintaining employment and balancing employment and coursework, educators and institutional leaders are encouraged to recognize that these and other unique life circumstances may function as obstacles to participating in an internship for students (see Figures 2-17 and Figure 19). Educators and campus leaders are encouraged to understand and advocate for students' needs. For example, educators may benefit from communicating with students who do not participate in

What can faculty and institutions do?

- Scrutinize institutional capacity and consider areas that represent strengths, weaknesses, and opportunities for growth;
- Understand and advocate for students' needs, especially life circumstances may function as obstacles to participating in an internship;
- Consider ways to maximize opportunities for students to acquire and practice career-relevant skills in their paying jobs;
- Cultivate relationships with employers and maintain connections with former students to build an alumni network;
- Carefully working with students and employers to design, implement, and continuously evaluate students' experiences within the internship program.

internships to understand their reasons, seek resources to resolve obstacles to completing an internship (if desired), and continue to build on students' work or life experiences that may contribute to their professional and personal development.

- Given the number of NEIU students who worked at least part-time while attending college, academic programs and other campus entities such as Career Services are encouraged to consider ways to maximize opportunities for students to acquire and practice career-relevant skills in their paying jobs. Students indicated a lack of internship opportunities and challenges of finding a relevant internship (Figure 19 and Table 4). As such, educators and campus leaders are encouraged to help students with such challenges by continuing to cultivate relationships with employers and by working with students and employers to increase the link between academic learning and workforce practices among paid work experiences. Educators and campus leaders also may realize benefits from maintaining connections with former students and building an alumni network for the purpose of internship referrals.
- Factors such as an internship's relevance to the student's academic program, the quality of supervisor support and mentoring, and task autonomy may influence the degree to which students perceive their internship as satisfactory and valuable. As such, educators and campus leaders can support desirable internship outcomes by carefully working with students and employers to design, implement, and continuously evaluate students' experiences within the internship program. These efforts will help educators and campus leaders to ensure that quality work, adequate supervision and mentorship during students' internships, and relevance to students' academic program are maintained.

What can employers do?

Employers' recruitment, work setting and design, and mentorship and feedback directly impact students' internship experiences and outcomes. Therefore, employers who host internships or who are planning to host internships are encouraged to attend to the following:

- In addition to the labor and recruitment goals that employers may have for their internship program, internships should primarily be considered as an educational and developmental opportunity for the students. The quality of supervisor support and the relevance to academic program are critical to student internship satisfaction. Supervisor mentoring and task autonomy play important roles in students' perceptions regarding the value of their internship experiences. Employers can enhance this opportunity by carefully designing internship programs

What can employers do?

- Carefully designing internship programs to include consistent quality supervision and mentorship;
- Allow for some task autonomy for their interns while providing clear objectives and explanation;
- Highlight interns' progress and accomplishments, while also provide periodic feedback on growth areas and improvement plans;
- Value interns' efforts and time through providing emotional support and financial support;
- Discuss short- and long-term academic and career related goals with interns and adjust the internship program to support those goals.

to include consistent quality supervision and mentorship by the supervisor or by other senior staff in the organization (peer mentorship programs may also be supportive).

- Supervisors are encouraged to allow for some task autonomy for their interns by encouraging their creativity, while providing clear objectives and explanation as well as structured guidance about expectations for interns. Supervisors are encouraged to provide periodic feedback to interns that highlight their progress and accomplishments, while also providing clear feedback on growth areas and proposed action plans for improvement. Feedback also can be regularly solicited from interns to assess and evaluate the internship program to optimize learning goals and outcomes.
- Employers also are encouraged to value interns' efforts and time through providing emotional support and financial support, when possible. As many students named financial barriers as a primary obstacle to internship participation, employers interested in recruiting and attracting more diverse applicant pools may also consider financial compensation as a mechanism to successfully recruit applicants who may not otherwise be able to access and participate in internship experiences (see Table 4).
- The relevance of the internship experience to the academic program plays a critical role in students' internship satisfaction as well as their perceptions of the value of internships to their career development. Internship supervisors are encouraged to discuss short- and long-term academic and career related goals with their interns and adjust the internship program when possible to provide experiences that can support those goals.

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APPENDICES

Appendix A: Research Methodology

The College Internship Study is a mixed-methods longitudinal study (Creswell, 2014; Tashakkori & Teddlie, 2003) of internship programs with three distinct yet inter-related components: (1) an online survey of students while in college and then the workforce, (2) focus groups and interviews with students while in college and then at work (3) interviews with career advisors and other educators involved in internship program administration and with area employers who host interns from the college. Primary data is collected in two phases: Fall of 2019 (T1) and then 12 months later in the Fall of 2020 (T2). The study aims to document the effects of internship participation and program characteristics on a variety of student outcomes, group differences (e.g., socio-economic status, race, gender, discipline, and first-generation status) in internship participation and student outcomes, and institutional experiences with hosting and implementing internship programs.

The survey of students and other data collection activities were conducted in Fall of 2019; the current report is based on this data. The online survey was administered to students in the second half their degree programs. In order to focus on students' experiences in internships and not on other internship-like programs, data collection for the survey excluded students in programs with a required practicum (e.g., education fields). The definition of the term "internship" that we employed for the survey and other data collection activities was as follows:

An internship is a position held within an established company or organization while also completing a college degree, certificate, or diploma program. It involves working in a position clearly designated as an "internship" by the host organization and performing tasks similar in nature and skill-level to tasks done by entry-level employees in the organization.

To participate in the survey, students were contacted with an email recruitment letters, which directed them to a unique password-protected URL. The inclusion of incentives for surveys to raise response rates is based on best practices in survey research (Dykema, et al., 2013). Via the link, the students could review the IRB-approved consent form and signal their consent to participate in the research by entering their full name and birthdate. Students who completed the survey via this link received an additional cash incentive by mail.

This survey contains questions regarding whether or not a student has participated in an internship in the last 12 months while in college, their employment status, and demographic characteristics. Students who answered "no" to having participated in an internship in the last 12 months while in college also answered questions about their career preparation and any factors that may have dissuaded them from pursuing an internship (e.g., finances, child care), as well as questions that measure their level of career adaptability. For students who answered "yes" to already having participated in an internship while in college, questions were asked about the design features of their internship (e.g., compensation, type of mentoring, job-site activities, etc.), along with questions about demographics, career adaptability, and their satisfaction and perceptions of the developmental value of their internship experience.

Descriptive statistics and Cronbach alpha coefficients of the measuring instruments

	Mean	SD	α
Supervisor support	4.15	1.01	0.88
Supervisor mentoring	3.67	0.99	0.91
Goal clarity	3.73	0.92	0.89
Task autonomy	4.20	0.88	0.77
Relatedness to academic program	3.93	1.00	
Similarity	3.46	0.92	
Satisfaction	3.95	1.14	
Development value composite	3.93	0.96	0.95
Develop. val. of academic learning	3.93	0.98	0.92
Develop. val. of career development	3.94	1.03	0.93
Career adaptability composite	3.71	0.73	0.95
Concern	3.76	0.84	0.87
Control	3.77	0.78	0.86
Curiosity	3.57	0.90	0.89
Confidence	3.74	0.86	0.92

The results of the survey were analyzed using methods such as Pearson chi-square test, and ordinal logistic regression to explore the effects of demographic background on internship participation. In addition, correlation, simple regression, multiple regression was utilized to explore influential factors on college students' internship satisfaction and development value.

After completing the survey, the students were asked if they were willing to be contacted to participate in an in-person focus group and to be contacted a year later to participate in the follow-up survey. Students who had and had not participated in internships at the time of the T1 survey were asked to participate in the follow-up survey, thereby constituting distinct groups that can be statistically compared to one another during analysis. Additionally, students who participated in the focus group at T1 will be asked if they can be contacted for a follow-up online or phone interview.

For the focus groups at T1, groups comprised of one to three students were separated into those who have participated in an internship (n = 8 students in 6 groups) and those who have not (n = 15 students in 7 groups). Prior to the start of the focus group, students were given the opportunity to review the IRB-approved consent forms, ask questions, and to voluntarily consent to participate in the research by signing the form. Students received a cash incentive after consenting to participate in the audio-recorded focus group. Focus groups allow for interactions among participants that explore their experiences and thought processes (Kitzinger, 1995). Students who had an internship experience during college answered questions about the nature of their experience, support from both the academic program and their job-site supervisor, their general level of career adaptability, and so on. For those who have not had an internship, questions focused on the reasons why they have not participated in an internship, as well as their level of career adaptability, and so on.

Lastly, we conducted an audio-recorded interview with educators and career advisors and with employers at NEIU who supports student internships. A list of potential recruits from among the NEIU staff and area employers was provided by our colleagues at NEIU. Prior to the start of the interview, participants were given the opportunity to review the IRB-approved consent forms, ask questions, and to voluntarily consent to participate in the research by signing the form. The educator interview focused on the types of resources available for their college and/or company, their views on the sufficiency of these resources, and issues related to designing, managing, and implementing effective programs. Lastly, documents from career services, academic departments, and employers that offer internships themselves, were also collected and analyzed for details about design features of internship opportunities.

Focus groups and interviews were transcribed and analyzed in MaxQDA Software, which is a discourse analysis software for sorting and coding transcript data, and ultimately, to identify themes and patterns in the corpus. First, two researchers created a procedure to segment the interviews based on the interview protocol. Both researchers practiced with the protocol and coded a set of focus groups in parallel; and the few discrepancies that were identified were resolved and the rest of the interviews were coded by the two researchers. Then, the researchers reviewed the corpus of transcripts to identify themes in the data regarding the obstacles to participating internship and the characteristics of internship experience (Ryan & Bernard, 2003; Corbin & Strauss, 2014). The codes developed through this process were checked by the pair of researchers applying them in parallel to a selection of 10% of the transcript data; a few discrepancies were identified and resolved by the researchers, and the codes were then applied by the researchers to the entire corpus.

The limitations of this study are the small sample size of the student focus groups which could not be representative of students from the wide range of academic programs offered at NEIU. This was also a non-random sample, with students self-selecting into the pool of volunteers who we contacted and tried to schedule for focus groups. Finally, in our study we did not examine whether or not study participants had participated in other work-based learning programs (e.g., apprenticeships), and the potential impacts of these experiences on their learning and career goals.

Appendix B: Results of Regression tables

Table 1. Results of correlations and multiple regression analysis of internship program features and students' internship satisfaction

Predictor	Correlation with Satisfaction	Internship Satisfaction	
		β	p
Supervisor support	.76***	.68***	< .001
Supervisor Mentoring	.60***	.03	.753
Goal Clarity	.58***	.06	.571
Relatedness to academic	.41***	.22*	.016
Task autonomy	.65***	.16	.140
Similarity	.27*	-.09	.239

Control variables: gender, race, academic program, GPA, enrollment status, social class

The multiple regression model produces an adjusted $R^2 = .86$, $F(26, 51) = 12.14$, $p < .001$.

The multiple regression model equation is Satisfaction = $-0.18 + 0.68 * \text{supervisor support} + 0.22 * \text{relatedness to academic}$. Only supervisor support and relatedness to academic significantly contribute to explaining variance of internship satisfaction.

β refers to the unstandardized regression coefficient that demonstrated the change in internship satisfaction per unit change in predictors.

Given the small sample size available for running this model, these results can only be interpreted with some caution.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2. Results of correlations and multiple regression analysis of internship program features and students' development value

Predictor	Correlation with Development value	Developmental Value Composite	
		β	<i>p</i>
Supervisor support	.71***	.06	.670
Supervisor Mentoring	.59***	.21	.077
Goal Clarity	.75***	.42***	< .001
Relatedness to academic	.52***	.17	.086
Task autonomy	.65***	.26*	.029
Similarity	.40***	.00	.998

Control variables: gender, race, academic program, GPA, enrollment status, social class

The multiple regression model produces an adjusted $R^2 = .77$, $F(26, 51) = 6.75$, $p < .001$.

The multiple regression model equation is Satisfaction = $-0.13 + 0.42 * \text{supervisor mentoring} + 0.26 * \text{autonomy}$. Only supervisor mentoring and task autonomy significantly contribute to explaining variance of perceived developmental value.

β refers to the unstandardized regression coefficient that demonstrated the change in internship satisfaction per unit change in predictors.

Given the small sample size available for running this model, these results can only be interpreted with some caution.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3. Results of multiple regression analysis of internship program features and students' development value to academic development and career development respectively

Predictor	Developmental Value to Academic Development		Developmental Value to Career Development	
	β	p	β	p
Supervisor support	.06	.728	.07	.661
Goal Clarity	.22	.127	.21	.085
Supervisor Mentoring	.40**	.002	.44***	< .001
Relatedness to academic	.12	.302	.22*	.027
Task autonomy	.26	.059	.25*	.033
Similarity	.01	.905	-.01	.889

Control variables: gender, race, academic program, GPA, and employment status

The multiple regression model of academic development produces an adjusted $R^2 = .69$, $F(26, 51) = 4.39$, $p < .001$. The multiple regression model equation is Academic Development = $0.05 + 0.40 * \text{supervisor mentoring}$, controlling for all other variables in the model. Only supervisor mentoring significantly contribute to explaining variance of developmental value to academic development.

The multiple regression model of career development produces an adjusted $R^2 = .79$, $F(26, 51) = 7.84$, $p < .001$. The multiple regression model equation is Career Development = $-0.31 + 0.44 * \text{Supervisor mentoring} + 0.22 * \text{Relatedness to academic} + 0.25 * \text{autonomy}$, controlling for all other variables in the model. Supervisor mentoring, autonomy, and relatedness to academic significantly contribute to explaining variance of developmental value to career development.

β refers to the standardized regression coefficient that demonstrates the change in internship satisfaction per unit change in predictors.

Given the small sample size available for running this model, these results can only be interpreted with some caution.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4. Results of correlations and multiple regression analysis of career adaptability sub-scales and students' internship satisfaction

Predictor	Correlation with Satisfaction	Internship Satisfaction	
		β	<i>p</i>
Concern	.25*	-.42*	.024
Confidence	.41***	.29	.250
Control	.42***	.33	.170
Curiosity	.39***	.22	.253

Control variables: gender, race, academic program, GPA, enrollment status, self-reported social class

This multiple regression model produces an adjusted $R^2 = .63$, $F(24, 53) = 3.77$, $p < .001$.

The multiple regression model equation is Satisfaction = 2.01 - 0.42 * concern, when holding all other variables in the model constant. Only the Career Adaptability Concern sub-scale was statistically significantly related to internship satisfaction.

β refers to the standardized regression coefficient that demonstrates the change in internship satisfaction per unit change in predictors.

Given the small sample size available for running this model, these results can only be interpreted with some caution.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. Results of correlations and multiple regression analysis of career adaptability sub-scales and students' development value

Predictor	Correlation with Development Value	Developmental Value	
		β	<i>p</i>
Concern	.29**	-.36*	.032
Confidence	.59***	.36	.115
Control	.57***	.30	.156
Curiosity	.56***	.31	.073

Control variables: gender, race, academic program, GPA, enrollment status, self-reported social class

This multiple regression model produces an adjusted $R^2 = .60$, $F(24, 53) = 3.38$, $p < .001$.

The multiple regression equation is $\text{Developmental Value} = 2.08 - 0.36 * \text{Concern}$, while holding all other variables in the model constant. The Career Adaptability Concern sub-scale was once again statistically significant in predicting the outcome.

Given the small sample size available for running this model and the lack of significance for the overall model fit, these results can only be interpreted with some caution.

β refers to the standardized regression coefficient that demonstrates the change in internship satisfaction per unit change in predictors.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$



The **College Internship** Study



**Wisconsin Center for
Education Research**
SCHOOL OF EDUCATION
UNIVERSITY OF WISCONSIN-MADISON

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Note: CCWT staff are available to conduct program evaluations and/or needs assessments of a college or university's internship program such as the one reported here. Our procedures are guided by the rapid ethnographic assessment method and can involve quantitative and qualitative data sources including surveys, document analysis, focus groups and interviews. After analysis, customized technical reports can be provided to institutional partners with actionable recommendations provided regarding how to address challenges and capitalize on program strengths.

The mission of The Center for Research on College-Workforce Transitions (CCWT) is to conduct and support research, critical policy analysis, and public dialogue on student experiences with the transition from college to the workforce in order to inform policies, programs, and practices that promote academic and career success for all learners.

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