UNIVERSITY OF WISCONSIN PARKSIDE

Results from the 1-year longitudinal follow-up analysis for the College Internship Study at the University of Wisconsin-Parkside

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CCWT CENTER FOR RESEARCH ON College-Workforce Transitions

The College Internship Study

University of Wisconsin-Parkside 1-year follow-up: Executive Summary

This report includes findings from the second round of data collection (Spring 2019 or T2) at the University of Wisconsin-Parkside for The College Internship Study. The data collected at T2 include follow-up interviews with nine students and a follow-up online survey of 198 students who participated in the first round of data collection (Spring 2018 or T1). These data are analyzed to provide faculty, staff, and leadership at UW-Parkside with evidence-based insights about the impacts of internship participation on students' lives and careers. This second round of the College Internship Study at UW-Parkside is guided by the following research question: What are the changes concerning students' internship experiences and outcomes comparing longitudinal data at two points in time?

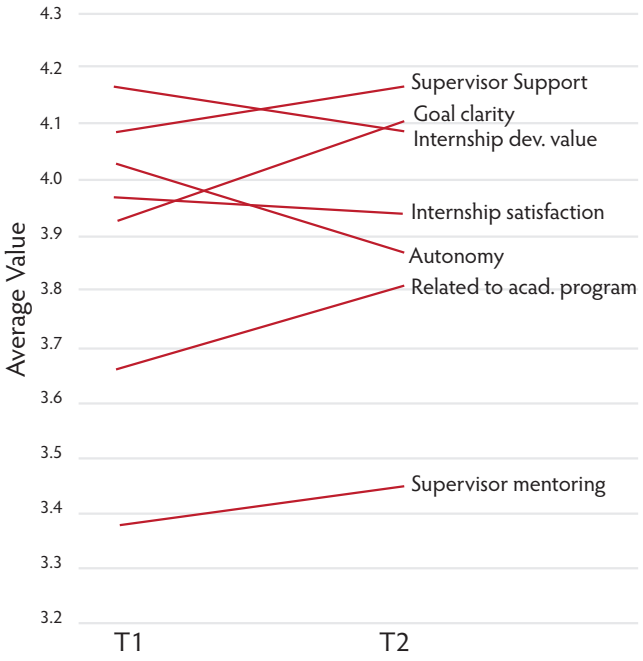
KEY FINDING 1

More than half of the students did not participate in an internship at either time. This table shows that roughly 44% participated in an internship at either T1 or T2.

Internship Group	Total (%)
Neither T1 nor T2	111 (56.1%)
T1 but not T2	14 (7.1%)
T2 but not T1	38 (19.2%)
Both T1 & T2	35 (17.7%)

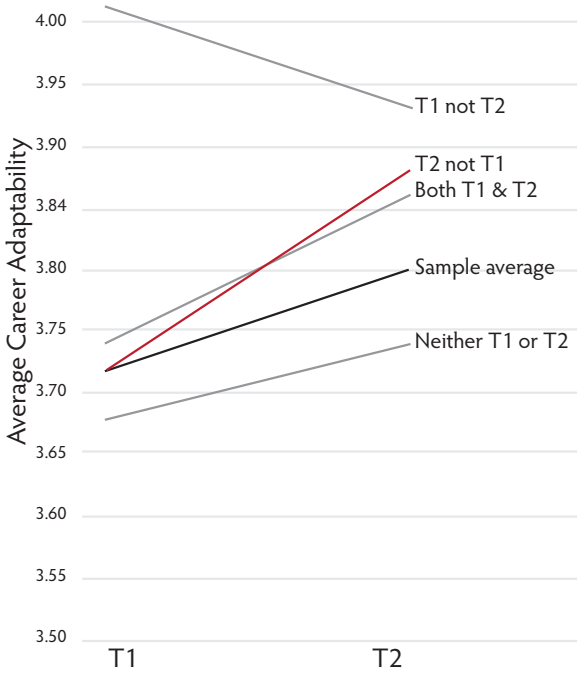
KEY FINDING 2

Students who participated in separate internships at Time 1 and Time 2 reported an increased relatedness between their internship and academic program and an increased goal clarity in Time 2. This figure shows the changes in average scores for each measure of internship experience between T1 and T2. Most changes were slight, and none were statistically significant.



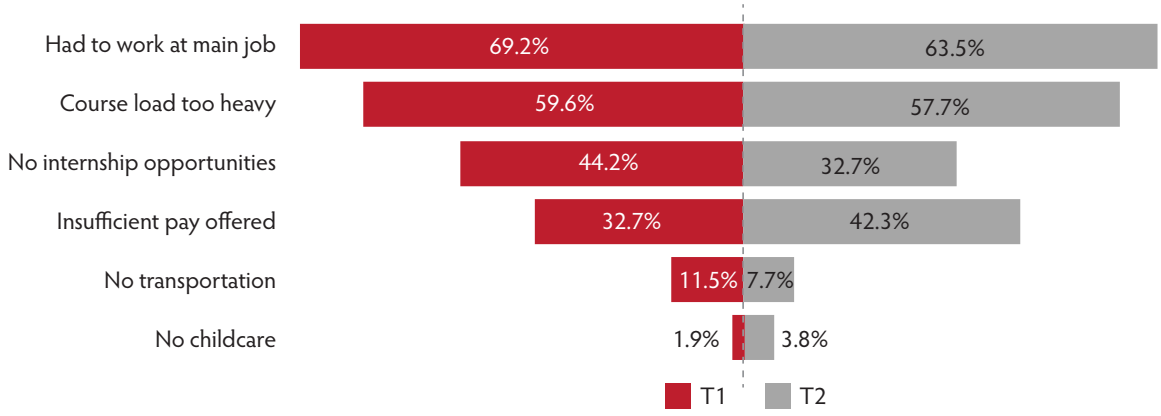
KEY FINDING 3

Students' reported ability to adapt to career changes increased between T1 and T2 on average. This figure shows the change between T1 and T2 broken down by when students participated in internships. **The average increase is largely driven by students who took an internship in T2 but not T1.** This change is statistically significant, shown with a red line.



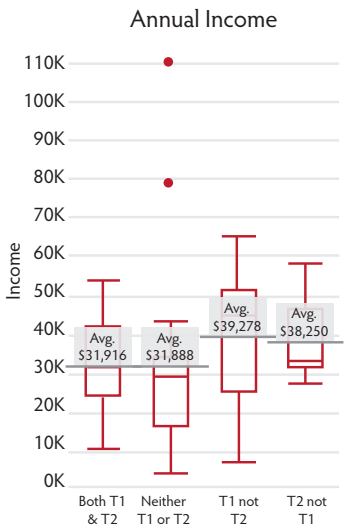
KEY FINDING 4

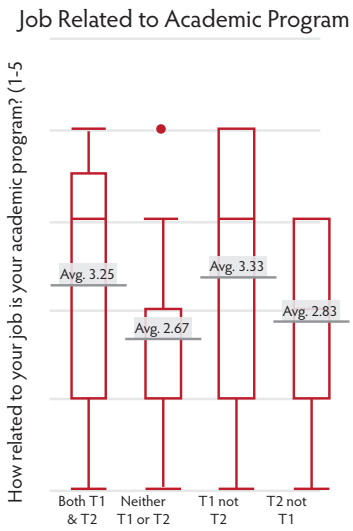
Fifty-two students did not participate in an internship at either time despite wanting to do so. **This figure shows their primary reported barriers to participation for both T1 and T2. Having to work at a current job and a heavy course load are consistently the highest reported barriers across both times.**

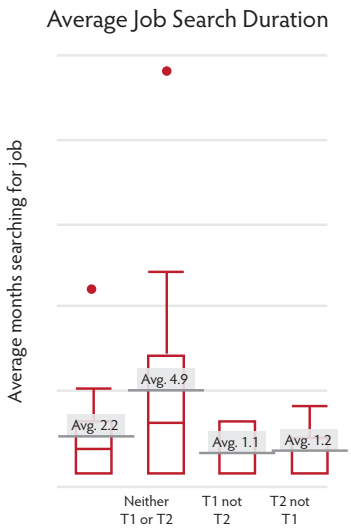


KEY FINDING 5

Graduates with some internship experience reported better job market outcomes than their graduated peers in three important areas: higher annual incomes, more likely to find a job related to their academic field, and a shorter job search duration. These three figures show the distribution based on internship participation, with the box plot showing the range of values and the averages highlighted.







KEY FINDING 6

In interviews with students who had an internship experience, several key outcomes emerged. Internships helped students to:

- Socialize into their desired profession
- Gain real-world experience
- Increase self-exploration
- Boost their resume
- Increase confidence or motivation
- Explore professional fields and career goals
- Improve learning/skill development

Contents

See the Appendix of this report, where we combined multiple public and proprietary data sources to provide a localized intern labor market analysis. These findings presented in the Appendix are intended to help contextualize the internship experiences at the University of Wisconsin-Parkside with respect to the availability, competitiveness, and quality of internships in regional economy.

I. INTRODUCTION

In higher education, internships are widely considered beneficial co-curricular opportunities that help undergraduate students acquire real-world professional experience and become better prepared for their transition to the workforce. Increasingly, however, the promise of internships is subjected to empirical scrutiny as some evidence suggests that internship programs are not available to all students on account of socioeconomic and other barriers (Hora, et al., 2019), and that participating in an internship does not always yield the expected positive results (Klein & Weiss, 2011; Silva et al, 2018).

The literature on internship outcomes has largely focused on students' ability to secure a job and avoid unemployment (Baert et al., 2019; Nunley et al., 2016; Rigsby et al., 2013). Thus far, the evidence regarding labor market outcomes of internship participation continues to be mixed. Individuals' background and internship specific contexts seem to matter substantially in terms of the extent to which internships can benefit students in their job search (Klein & Weiss, 2011). Some argue that internships benefit students by affording them necessary connections rather than contributing to their practical learning (Weiss et al., 2014). Such arguments challenge the notion that internships are always a rich, experiential learning opportunity. Additionally, a myriad of studies has focused on other outcomes of internship participation, including influencing students' career decisions (Powers et al., 2018), students' work ethic and preconceptions about the professional world (Taylor, 1988), students' perceptions of employment traits (Green et al., 2011), among other studies that document positive outcomes for students (Hora et al., 2017; Gillespie et al., 2020).

Generally, most studies on employment or psychosocial impacts of internship participation are cross-sectional, with few studies that document the longitudinal impact of internships for students (Negru-Subtirica et al., 2015; Ocampo et al., 2020; Silva et al, 2018). One interesting exception is Ocampo and colleagues' recent study (2020) on the longitudinal impact of internship participation on students' level of career adaptability. Career adaptability is an important psychosocial competency, which refers to "the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions" (Savickas, 1997, p. 254). It is measured in relation to four psychological traits that interns display at work: levels of concern, control, curiosity, and confidence (Porfeli & Savickas, 2012). Ocampo et al. (2020) conducted a survey of 173 undergraduate hotel and restaurant management students in China, measuring the career adaptability of interns and non-interns at five points in time before, during, and up to five months after the completion of their internships. They found that for the students who interned, all measures of career adaptability increased linearly overtime; whereas for the students who did not intern, there was no growth in the career adaptability except for the dimension of career concern. The findings indicate that internship participation may provide students the opportunity to acquire increased psychological skills and resources to manage career planning and adjustment, and that such a benefit may persist over time. In the spring of 2019, CCWT conducted a second round of data collection at UW-Parkside as part of the College Internship Study. The College Internship Study is a mixed-methods, longitudinal research project that aims to document the characteristics of undergraduate students' internship experiences, investigate how internship participation is related to certain student characteristics, and analyze how participating in an internship affects the career trajectories of students. The first round of research conducted at UW-Parkside resulted in a report with information regarding the internship participation rates, characteristics, and outcomes for students, as well as findings about barriers that students face when

attempting to access internships. The T1 results indicated that internship participation was associated with positive outcome measures of students' career adaptability, internship satisfaction, and perceived developmental value (Hora et al., 2018).

The survey results from this second round of research for the College Internship Study allow us to study if there are any systematic patterns over time in internship experiences and outcomes for students with or without internship experience before graduation. Specifically, we were able to compare internship experiences between Time 1 and Time 2 (e.g., supervisor support, supervisor mentoring, goal clarity, etc.), and describe changes in attitudes and perceived benefits for students who reported internship experiences at both times. Furthermore, this second round of data allows us to compare how different students fared in the labor market post-graduation. The current report provides descriptive results regarding the job search process for students who did and did not participate in internships as undergraduates, including the graduates' job search strategies, the duration of time spent finding a job, and the pay they receive upon being hired. Additionally, we analyzed students' career adaptability across T1 and T2. Table 1 summarizes the different samples and the outcomes that are presented in this report.

Table 1. Description of longitudinal sample and outcome measures

Description of sample	Sample size	Outcomes measured	Reported
Students who did not participate in an internship at either T1 or T2	n = 111	Barriers to internship participation	Results section III
Students who participated in separate internships at T1 and at T2	n = 87	Internship program features	Results section IV
Graduates with employment outcomes measured at T2	n = 58	Job market performance	Results section V
All participating students with longitudinal psychosocial outcomes measured at T2	n = 198	Career adaptability	Results section V

One-on-one phone interviews with students provided detailed narratives of students' experiences during their internships, and their perceptions of the outcomes and consequences of their internships. We place students' experiences at the heart of our analyses, and hope to inform the work of educators, employers, and career service professionals in order to aid in designing better, more meaningful and effective internship programs for students.

II. SAMPLE AND INTERNSHIP PARTICIPATION

The second round of data collection took place in May 2019 (time 2 or T2), a year after the first survey was administered to students in the spring of 2018 (time 1 or T1). These T2 data include an online survey of students who participated in the survey at T1 and one-on-one phone interviews with students who participated in focus groups at T1 (see Table 2). The T2 online survey was administered to 526 students and 198 of them completed the questionnaire, resulting in a response rate of 37.6%. The survey included questions about students' demographic characteristics, career adaptability, the characteristics of their internships, and post-graduation and employment questions for those who had graduated or stopped attending college. This report only showcases the results relevant for the comparison between T1 and T2 internship experiences, as well as to the longitudinal outcomes for students who were employed after graduation.

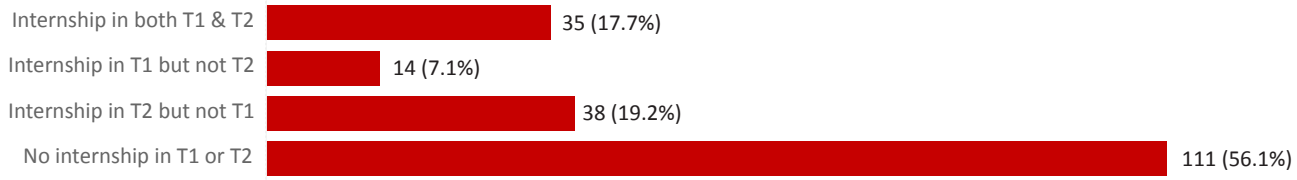
Nine students who participated in a focus group at T1 of the study responded to a recruitment email to participated in a one-on-one follow-up phone interview. Given this small and self-selected sample, our interview data cannot be taken as representative of UW-Parkside students in general, or those who participated in the survey. Five of those students had participated in at least one internship by the time of the second round of data collection.

Table 2. Description of the Spring 2019 T2 sample

	Institutional Population	Survey Sample	Interview Sample
Total	4,420	198	9
Gender	Male = 2,036 (46.1%) Female = 2,384 (53.9%)	Male = 71 (35.9%) Female = 124 (62.6%)	Male = 4 (44.4%) Female = 5 (55.6%)
Race	Asian = 161 (3.6%) Black = 354 (8.0%) Hispanic = 764 (17.3%) White = 2,843 (64.3%) Other = 298 (6.7%)	Asian = 16 (8.1%) Black = 10 (5.1%) Hispanic = 26 (13.1%) White = 140 (70.7%) Other = 6 (3.0%)	Asian = 0 (0%) Black = 0 (0%) Hispanic = 0 (0%) White = 8 (88.9%) Other = 1 (11.1%)
First-generation college student	Not reported Not reported	Yes = 93 (47.0%) No = 105 (53.0%)	Not reported Not reported

Eighty-seven of the 198 survey respondents (43.9%) reported having participated in an internship program, which included both for-credit and non-credit internships. We found that 38 students (19.2%) reported having an internship experience at T2 but not at T1, while 14 students (7.1%) reported having participated in internship(s) at T1 but not T2. In addition, a total of 35 students (17.7%) reported having done separate internships at both instances of data collection. In contrast, 111 students (56.1%) reported not having done an internship at either time (see Figure 1). Their barriers to internship participation will be explored and discussed in the next section.

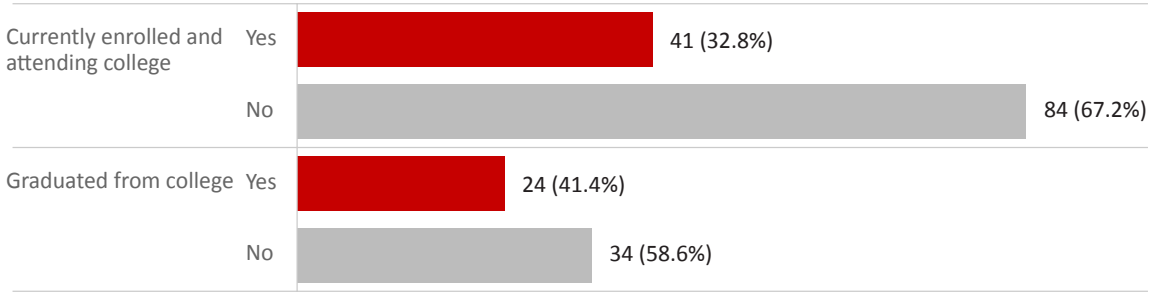
Figure 1. Internship participation across T1 and T2 (n=198)



Fifty-eight students (29.3%) had graduated by the second round of data collection, and 125 students (63.1%) were still enrolled in college. An additional 11 students (5.6%) reported that they had graduated as well, but indicated that their graduation date was in year 2019, after the survey data was collected. Moreover, the official status of these students in the school administrative records did not appear as "graduated" at the time we obtained students' records for the analysis. For these reasons, we do not include these 11 students in the group of individuals who had graduated from college and we do not consider them in the post-graduation analyses in section V. However, we do consider their responses in all other analyses, unless otherwise noted.

The data collected shows that 41.4% (n = 24) of students who already graduated took part in internship programs, while only 32.8% (n = 41) of those still enrolled had taken part of an internship in the 12 months before the survey was conducted (see figure 2).

Figure 2. Internship in the Past 12 Months (Yes/No), by Graduation Status (n = 198)

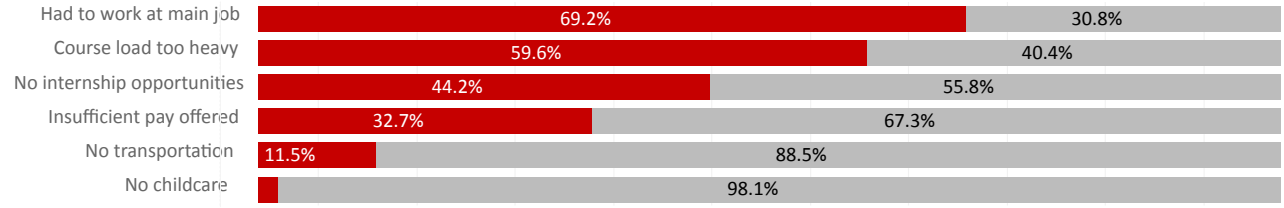


Note: Three students who reported taking a break from college with plans to re-enroll within the next two years, one student who stopped attending college with no plans to return, and the 11 students mentioned above were not included in the Figure 2.

III. RESULTS: BARRIERS TO INTERNSHIP PARTICIPATION ACROSS T1 AND T2

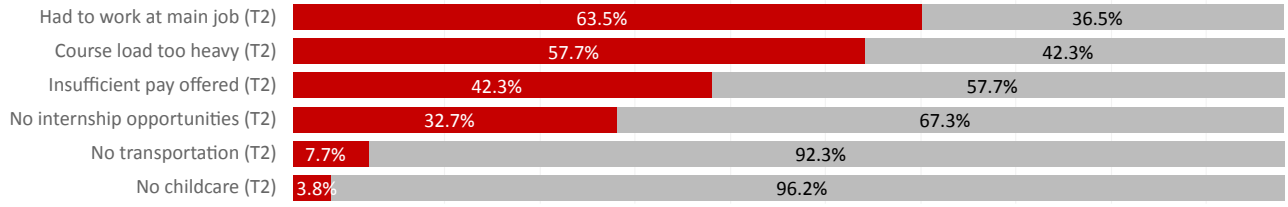
In this section, we present findings regarding the respondents who reported not having participated in an internship at T1 or T2. Of the 149 students who did not participate in an internship in T1, 100 of them (67.1%) reported that they were interested but unable to do so. At T2, of the 125 students who did not complete an internship, 71 students (56.8%) reported being interested in doing one. Moreover, 52 of the 100 students who were interested in doing an internship at T1 (52%) reported still not being able to do an internship in T2, despite being interested in doing so. This suggests that some barriers to internship participation may persist over time. Figures 3 & 4 show the breakdown of reported barriers to internship participation at T1 and T2 for these respondents.

Figure 3. Barriers to internships at T1 for students who did not participate at either time. (n = 52)



Note: Students can choose multiple barriers.

Figure 4. Barriers to internships at T2 for students who did not participate at either time. (n = 52)



Note: Students can choose multiple barriers.

For the most part, the same barriers persisted across T1 and T2, with needing to work at their current job and a heavy course load being the primary factors contributing to students' lack of participation. Lack of transportation and lack of childcare remained consistently low in frequency across both time points.

IV. RESULTS: STUDENTS' INTERNSHIP EXPERIENCE ACROSS T1 AND T2

This section focuses on students who reported separate internships at T1 and T2. We compared the survey measurement scores that characterize multiple internships and students' experiences. We furthermore analyzed the interview data to better understand the reasons why students took multiple internships.

Four of the students that we interviewed in this second round of the study completed two or more internships during and after college. They saw this as an essential part of their resume building. One finance student, for example, took five internships in total, at times while working, taking classes, and taking two internships simultaneously. For others, taking a second internship was a way to improve their internship outcomes and find a "better fit" after a first unsatisfactory experience. Career exploration was another often-cited motivation for several internships. An English major, for example, enjoyed her first internship supporting an archeology professor at a digging site so much, that she pivoted her career goals and changed her major to anthropology. She also moved on to a more responsible apprenticeship under the same professor. Gaining access to more responsible positions within their field through multiple internships emerged as a common strategy for several students. A math and environmental studies student, for example, was able to apply the skills he gained in his first internship to become project lead for a similar subsequent research project.

Table 3 presents a summary of each dimension of internship program features that reflect students' internship experiences. All questions were measured using a five-point Likert scale. Consistent with T1 data, the internship supervisor support score at T2 was higher than the internship mentorship score,[1] suggesting the need for further study to differentiate between supervisors supporting individuals but not mentoring them in a way that is meaningful.

Additionally, taking advantage of these longitudinal measures for various program features, we compared scores of each of the measures across the T1 and T2 surveys (see Table 3). Students who took an internship at T2 reported that they received the same amount of support from their internship supervisor as during their internship at T1. Similarly, students reported having experienced about the same level of supervisor mentorship during their internships at both times.

On average, the reported supervisor support, mentoring, and clarity of supervisor communication about the goals and tasks of the internship were higher in T2 compared to T1, but not statistically significant. All other scores reported in the table—the internship's relatedness to students' academic program, the autonomy students experienced, their satisfaction, and the perceived value of their internship—were also not significantly different between the students' most recent and previous internship experiences.

Table 3. Internship experience measurements[2] (n = 35)

Internship Program Features	T1		T2	
	Mean	SD	Mean	SD
Supervisor Support (1=not at all, 5=a great deal)	4.09	0.77	4.17	0.87
Supervisor Mentoring (1=never, 5=extremely often)	3.38	0.65	3.45	0.88
Goal Clarity (1=not at all clear, 5=extremely clear)	3.93	0.84	4.11	0.87
Relatedness to academic program (1=not at all well, 5= extremely well)	3.66	0.87	3.81	0.99
Autonomy (1=not at all, 5=a great deal)	4.03	0.86	3.87	1.02
Internship satisfaction	3.97	1.01	3.94	0.94
Internship developmental value	4.17	0.86	4.09	0.76

1 Using the present sample, the result is statistically significant, t = 7.3, df = 72, $p < .001$.

2 The perceived **supervisor support** scale consists of four items assessing the way the internship participants evaluated their relationship with their supervisor. The **supervisor mentoring** scale assesses the provision of direction and feedback about task performance and career planning using five items. The **goal clarity** scale consists of two questions and aims to capture how clear the job duties were for the intern. The **relatedness to academic program** question measures how related a student feels the internship was to their academic program. The **autonomy scales** measure how much flexibility and freedom the participant had in his or her job. Lastly, the **similarity** question captures how similar the participant's tasks were at his or her internship to those of an employee at an entry-level position at the organization. The internship **satisfaction** question measures how satisfied students were with their internship experience. Finally, **internship developmental value** questions assess students' perception of how well the internship experience contributed to their own career development. Please refer to Time 1 technical report for detailed information of the questions for each measurement (Hora et al., 2018).

V. RESULTS: STUDENT OUTCOMES A YEAR LATER: JOB MARKET PERFORMANCE AND PSYCHOSOCIAL OUTCOMES

By the second wave of data collection, 58 of the 198 respondents had graduated from UW Parkside. Among these 58 students, 53 (91.4%) had found jobs. The remaining five students attributed their unemployment to a general lack of opportunities (because there were no jobs available, because their credentials made them overqualified, etc.)

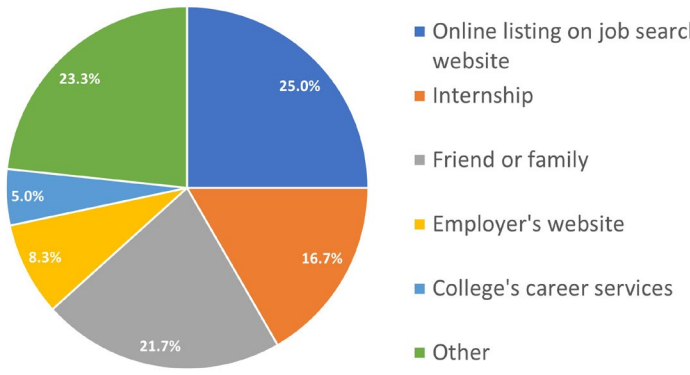
Survey results: Employment, job search, and earnings at T2

The 53 employed graduates, on average, found a job within 3.1 months. As shown in Figure 5, nearly 40% of them (n = 21) found their jobs "very" or "extremely" related to their majors in college. However, about the same proportion of students, 41.5% (n = 22), reported that their current jobs were "not at all" or "a little" related to their majors.

Figure 5. How much is your current position related to the field you studied in college? (n = 53)

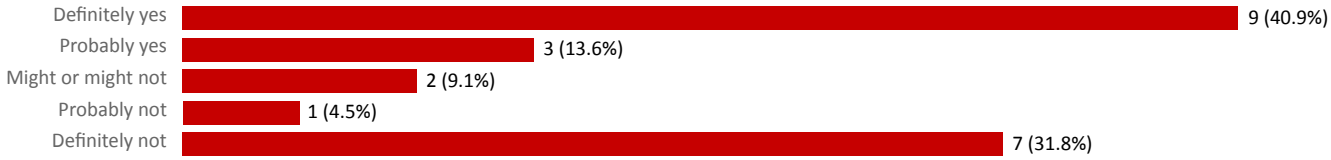
Figure 6 shows the students' job search methods. It illustrates that online job search websites and networks of family and friends were the two major approaches to finding jobs. Internships also led to jobs quite frequently. Lastly, a substantial number of students reported that they found their jobs through methods other than those provided as options to this question.

Figure 6. How did you find out about your current job? (n = 53)



Among the 53 employed graduates, 31 had internships before graduation (either at T1, T2 or both). Over half of the 22 students who responded to a question about whether internships lead to their current job, 54.5% (n = 12) indicated that their internships "probably" or "definitely" led them to their current jobs (see figure 7).

Figure 7. You indicated that you previously had an internship(s), did your internship lead to your current employment? (n = 22)



Fifty-two students who had graduated and found jobs reported their annual income. The average income of these students was $33,873 with a standard deviation of $18,843; the median[3] was $31,000. Figure 8 shows the distribution of their annual income.

Figure 8. What is your estimated annual income (before taxes or other deductions)? (n = 52)

Survey results: Job market performance by groups

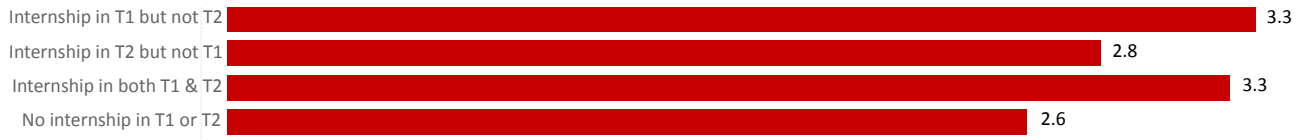
Twenty-two of the 53 employed students did not take any internship during college, nine reported internship participation in T1 but not T2, 6 reported internship participation in T2 but not T1, and 16 reported participation in an internship at both T1 and T2. The job market performance of these 4 groups of students is compared below.

We compared the average job search time in months among those 53 who were employed at the time of the survey between internship groups. Employed graduates with no internship experience reported that it took them, on average, 4 months to find a job. Graduates with internship experience (either at T1, T2 or both), on the other hand, reported that it took them, on average, 1.7 months to find a job. This apparent difference in favor of those with internship experience passes the test of statistical significance according to commonly used thresholds ($t = 2.6$, $df = 49$, $p = 0.006$).

Students who had internship experiences (either at T1, T2 or both) reported that their jobs were more related to their fields of study, compared to graduates who did not take any internships in college (see figure 9).[4] The difference between these groups, however, is not statistically significant.

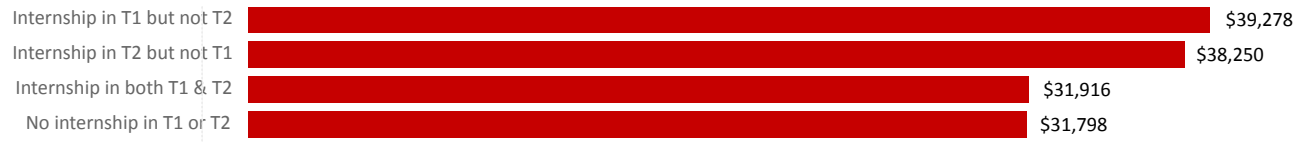
3 Median is a value that separates the higher half from the lower half of a data sample.
4 The relatedness between current job and college major was measured by one single question asking "how much is your current position related to the filed you studied in college?" using a five-point Likert scale from 1=Not at all related; 2=A little related; 3=Somewhat related; 4=Very related; 5=Extremely related

Figure 9. How much is your current position related to the field you studied in college, on scale 1-5, by internship participation? (n = 53)



Among the 52 students who reported their income, those who took internships at only T1 or T2 reported the highest average annual income: $39,278 and $38,250, respectively. Those without any internship experience reported the lowest annual income at $31,798. On average, students who did internships in college reported higher annual incomes than students with no internship experience, however, this difference was not statistically significant.

Figure 10. What is your estimated annual income (before taxes or other deductions), by internship participation? (n = 52)



We also investigated the relationship between internship participation and post-graduation employment status for all 58 students who had graduated from UW-Parkside. No obvious relationship emerges between students' internship participation and post-graduation employment since nearly all student graduates reported to be employed at the time of the survey (53 out of 58).

In sum, most of the graduated students were employed and about 40% indicated that their current jobs were very or extremely related to their college majors. Of the students who answered the question about whether their internship led to their current employment, 41% found that it did, but 32% indicated that it did not. Notably, job search through online search engines and taking advantage of networking through family and friends were the two main approaches for graduates to find a job. Lastly, graduates who had taken internships appeared to have jobs that were more related to their college majors and also reported relatively higher annual incomes, but the differences between them and those with no internship experience were not statistically significant. Future research will investigate if such patterns in conducting job searchers are associated with social class indicators such as first-generation college status and social economic status.

Though these findings need to be further examined with a larger sample size, they imply the significance of internships in students' post-graduation labor market performance, especially regarding job search, job earnings, and their employments' relatedness with their field of study. However, the underlying mechanisms of the role of internships in individuals' job search processes need to be further investigated. We plan to continue exploring the longitudinal effects of internship participation on students' employment outcomes based on the above-mentioned findings, using data that aggregates the survey results from all sites participating in

the *College Internship Study*. The results of the follow-up interviews highlight some of the specific ways that students perceive their internships to benefit their academic and career development.

Survey results: Career adaptability development

This analysis uses career adaptability as an important psychosocial competency. It was measured using the 24-item Career Adapt-Abilities Scale (CAAS, Savickas & Porfelli, 2012), consisting of 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 these subscales are measured by six questions that elicit how strongly the respondent rates themselves on these attributes on a five-point Likert scale (1 = not strong, 2 = somewhat strong, 3 = strong, 4 = very strong, 5 = strongest).

Table 4 shows the T1 and T2 mean scores and standard deviations for each sub-scale and the composite score for all the students in the sample. In general, the scores of all the four dimensions—control, curiosity, and confidence—increase in T2 compared to T1. We found that the difference in average career adaptability scores across T1 and T2 is statistically significant,[5] largely driven by the Confidence sub-scale. Differences of all other sub-scales did not quite pass the test of statistical significance according to commonly used thresholds.

We then assessed individuals' career adaptability development over time for different internship participation groups. It is important to note that the sample sizes of all groups are relatively small, requiring qualifications to the results. Despite these restrictions, we found that the statistically significant difference between T1 and T2 career adaptability scores is driven largely by the 38 students who had participated in an internship at T2 but not at T1. The other internship participation groups did not have statistically significant differences and their average composite scores changed relatively little.

Table 4. Career Adaptability Results across T1 and T2. (n=198)

Career Adaptability Composite and Sub-Scales	T1		T2	
	Mean	SD	Mean	SD
Career Adaptability Composite	3.72	0.61	3.80	0.57
Sub-Scale: Concern	3.74	0.73	3.80	0.74
Sub-Scale: Control	3.74	0.74	3.81	0.67
Sub-Scale: Curiosity	3.56	0.75	3.66	0.76
Sub-Scale: Confidence	3.85	0.74	3.93	0.71

5 t =2.06, df = 196, p = 0.02)

Career Adaptability Composite and Sub-Scales	T1		T2	
	Mean	SD	Mean	SD
Career Adaptability Composite Score by Internship Participation	**T1**		**T2**	
	Mean	**SD**	**Mean**	**SD**
Internship at both T1 & T2 (n=35)	3.74	0.55	3.86	0.54
Internship at T2, not at T1 (n=38)	3.72	0.54	3.88	0.53
Internship at T1, not at T2 (n=14)	4.01	0.61	3.93	0.57
No Internship at T1 or T2 (n=111)	3.68	0.65	3.74	0.59

Interview Results: Student Internship Outcomes

Five of the nine students who we conducted follow-up interviews with had participated in an internship by Time 2. They reflected on a wide range of gains, values, and benefits of their internship experience. Below we describe the most frequently discussed outcomes, including the exploration of field and career goals, exploration of self and increased confidence or motivation, learning and skill development, real-world experience, socialization into the profession, promotion or employment at the internship site, and resume boosting (Table 5).

Table 5. Outcome of interest and examples of experiences examined during interviews.

Outcomes	Examples
Exploration of field and career goals	Career goal refinement, changing or narrowing the focus for a specific career trajectory, determining a positive or negative career fit.
Exploration of self, increased confidence or motivation	Becoming aware of personal strengths or weaknesses, developing a feeling of personal independence and efficacy, increased motivation directed towards personal growth, entering a specific field, or finishing the academic program.
Learning and skill development	Learning and practicing skills specific to the field or job
Real-world experience	Applying skills learned in the classroom to the work environment or gaining hands-on experience that is different from a classroom setting.

Outcomes	Examples
Socialization into profession, understanding of company culture	Familiarization with behaviors, attitudes, communication styles within a work setting or field. Determining whether a professional culture is a bad or a good fit. Developing personal workplace ideals or values.
Resume boosting	Including internship on a resume to improving employability.

*This sample includes the 5 follow-up interviews with students who had participated in an internship from the University of Wisconsin-Parkside; the characteristics of internship experience include those that were discussed most frequently, in descending order of frequency.

Most frequently, internship participants described they benefited from the opportunity to explore their field and career goals, both through positive experiences and by identifying negative career fits. Some students found specific areas or skills within their field on which they now wanted to focus. In other cases, internship experiences propelled students to change their planned trajectories.

We spoke to one student who discovered her love for archeological fieldwork through her internship at an archeological digging site (discussed in an earlier section). This motivated her to take on a second paid apprenticeship in the same project and switch majors from English to anthropology. After graduating she now plans to pursue a dual master's degree in library sciences and anthropology, in order to work in a museum archive:

> *" (…) that [internship experience] changed a lot of my perspective about which path I wanted to go down (…). I always wanted to continue on for library sciences anyway but it turns out I've really enjoyed the nature of being out in the field (…). But, because I enjoyed that so much and because I did go back to continue doing some independent study with that same professor that following year, that just was sort of a natural, I guess, transition when he had mentioned that there were apprenticeships coming up."*

Furthermore, students showed increased confidence of their skills and interests, and expressed how internships impacted their motivations and self-perceptions. For example, one student describes feeling more confident in a job setting, better understanding how new employees are trained, and feeling assured about her professional interests and encouraged to try new things:

> *All the people that work there full-time are very intelligent, they know a lot, and it was very intimidating just walking into training for those two Saturdays with all the information. One thing I definitely gained was confidence as well as experience, learning that I did enjoy taxes and that, you know, it could be scary to start somewhere new or go into something not knowing as much as you think you should, but most companies are willing to train you. They have good training programs, they will be willing to work with you. So I think just not being too intimidated to try something new.*

Students reflected on a wide range of learning experiences, including gaining highly specialized knowledge. While some spoke about gaining "hard" technical or methodological skills—such as statistical methods, navigating with a GPS, or using Excel or accounting software—most students highlighted developing new "soft skills" during their internships, such as professional communication or negotiation skills. One student, for

example, summarized his learning experience in terms of both technical skills (insect identification) and more abstract conceptual know-how (developing a research sample design):

> *Well, the most, like, just patent skill would be insect identification. I can identify about, I don't know, 150 different families now of insects among beetles and flies and true bugs. So that's a really good skill to have, actually. And then a little bit more abstract or academic would be the sample design procedures. So how to go about creating a plan from the get-go, and then, how to be adaptable when you get out to the field and you realize that your plan maybe it was a little too toxic, a little idealistic.*

Students often emphasized the importance of transferring theoretical course knowledge to an applied "real world" setting, considering their internships unique opportunities to acquire "hands-on" knowledge that couldn't be taught in a classroom. As one student states:

> *But honestly I believe that you learn the most from getting that hands-on experience. You can only teach so much out of a book … but I feel like I learned so much more [in my internship] than what could have been taught out of two courses in college, you know, through this internship.*

Frequently, students pointed out having gained insights into navigating the culture of a business or professional field. One student for, example, stated now knowing how to access higher positions and promotions more easily, and how to build her professional network. Through both positive and negative experiences, students seemed to develop ideas of what their ideal working environment should look like. This student, for example, expressed his ideals on "good management style," through a negative experience at one of his internship sites:

> *I've dealt with management that just doesn't, you know, that micromanages, that doesn't do their job well, that doesn't treat their employees well. You know, I know that's everywhere. And you know, when I get into management I want to see my employees grow. I want to see them develop. I don't want to stop them from obtaining a new job or getting a new career or doing whatever, you know? Because I have felt that personally.*

Many students see internships as an important—or even necessary—credential on their resume that can set them apart from other applicants in the eyes of employers. Another student described how internships were a useful talking point to highlight his experiences during job interviews:

> *So I would say they were very interested in learning about the things that I had to say about each company, what I liked or what I maybe would've changed about the company or the way the internship is ran. So yeah, I pretty much talked about all my internship experiences at each company while I was going through the interview process.*

These examples illustrate how, over time, students were able to leverage internship experiences in their favor for various positive outcomes, including career exploration, increased confidence and motivation or skill development.

VI. CONCLUSIONS AND RECOMMENDATIONS

The first round of data collection for the *College Internship Study* at UW-Parkside indicated that there were social and economic barriers to internship participation that some students faced. It also suggested that

students with internship experience display relatively high career adaptability, as well as positive outcomes of internship participation, including internship satisfaction and perceived developmental value. Furthermore, these internship outcomes were associated with high quality supervisor support, the presence of supervisor mentoring, the clarity of work tasks, task similarity to entry-level jobs, the link between academic programs and internships, and the amount of the interns' autonomy in performing their work (Hora et al., 2018).

The findings of this one-year follow-up study indicate that barriers to internship participation persist for many students. They also highlight several noteworthy longitudinal outcomes of internship participation. Students who graduated from UW-Parkside with internship experience had relatively higher annual income than graduates with no internship. Notably, students reported similar levels of mentorship during their second internship compared to their first. At both times students also perceived similar levels of support from their supervisors, and at both times indicated that they received more support than mentorship. Also, students who had some internship experience were more likely to find jobs related to their fields of study than students who had not participated in an internship.

Participating UW-Parkside students reported higher levels of career adaptability the second time they were surveyed, across all four dimensions of the career adaptability construct. It is our intention to conduct further longitudinal analysis of students' career adaptability scores using aggregated datasets.

The first report from the *College Internship Study* at UW-Parkside contained recommendations for students, educators, and employers to ensure quality internship experiences for UW-Parkside students. The results of the T2 follow-up highlight the importance of the following recommendations:

- There remain students who want to participate in internships but who face financial and other obstacles, such as the need for stable paid employment. Educators and employers are encouraged to remove this barrier by finding ways to compensate interns whenever possible.
- There is evidence that doing an internship may be associated with a variety of positive outcomes, including higher annual income after graduation, closer connections between employment and fields of study in college, and lesser time searching for a job. Still, in order to make the most of their experiences, students should be coached on how to advocate for their needs with employers and to communicate their need for mentorship. Additionally, educators and employers should work to ensure that internship supervisors understand the need for and are equipped to provide supportive mentorship to their interns.
- Students' perceived mentoring remained low in the T2 study (similar to the findings at T1). This indicates the need for more attention from educators and employers to mentoring. Students also indicated that they received more support than mentorship from their internship supervisors, suggesting the need for a stronger focus on communicating and facilitating students' career exploration during their internship beyond the completion of job tasks.

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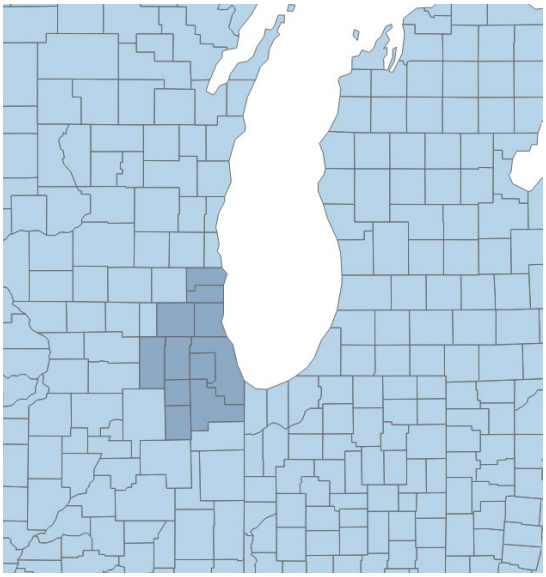
Appendix 1: Intern Labor Market Analysis

As a complement to the primary data we have collected as part of the College Internship Study, we have combined multiple public and proprietary data sources to provide a localized intern labor market analysis. These findings are intended to help contextualize the internship experiences at your institution with respect to the availability, competitiveness, and quality of internships in your regional economy.

We determine Intern Labor Markets based on Commuting Zones (CZ). CZs are statistically derived clusters of counties generated by the USDA and were most recently updated by Fowler et al (2016). These zones are created based on commutes from home to work reported to the Census as well as a hierarchical cluster analysis of consumer data from local economies.[6] The metric we use to measure Intern Labor Markets is the Intern Supply Ratio, which is simply the ratio of supply and demand for interns in the CZ. Demand is based on Burning Glass Technologies Labor Insights job ad data, while supply is the total enrollment of all post-secondary institutions in the CZ. Figure 1 shows a map of the counties included in UW-Parkside's CZ highlighted among their neighboring counties. Though the statistical clustering of CZs includes UW-Parkside with Chicago and the surrounding counties, this geographical designation may not perfectly reflect the realities for many UW-Parkside students.

Figure 1: University of Wisconsin-Parkside's Commuting Zone



The Intern Supply Ratio is not a perfect metric and is currently being refined to account for the fact that not every enrolled student should be considered a "potential intern". At present, it considers the maximum amount of supply, suggesting that the ratio is inflated to its' greatest supply extent. **Table 1 displays the supply, demand, and ratio for the CZ in which UW-Parkside is situated. The ratio indicates that there are roughly 41 potential interns to each internship job posting.**[7]

6 https://www.ers.usda.gov/data-products/commuting-zones-and-labor-market-areas/

7 Burning Glass data can be broken down by required education, though many internship posts do not include this requirement, so we have not disaggregated by this measure. Most institutions also typically have a mix of degree program offerings, resulting in the decision to leave job postings as aggregated.

Table 1: Supply and Demand in Intern Labor Market

Variable	Value
Total Enrollment in Commuting Zone	713,340
Total Internship Job Postings	17,593
Intern Supply Ratio	40.55

Figure 2 shows the top 15 employers of interns in UW-Parkside's CZ (including both credit and non-credit internships). Of the 17,593 total job postings, 1,713 (9.74%) come from these top 15 employers.

Figure 2: Top 15 Employers of Interns in Commuting Zone[8]

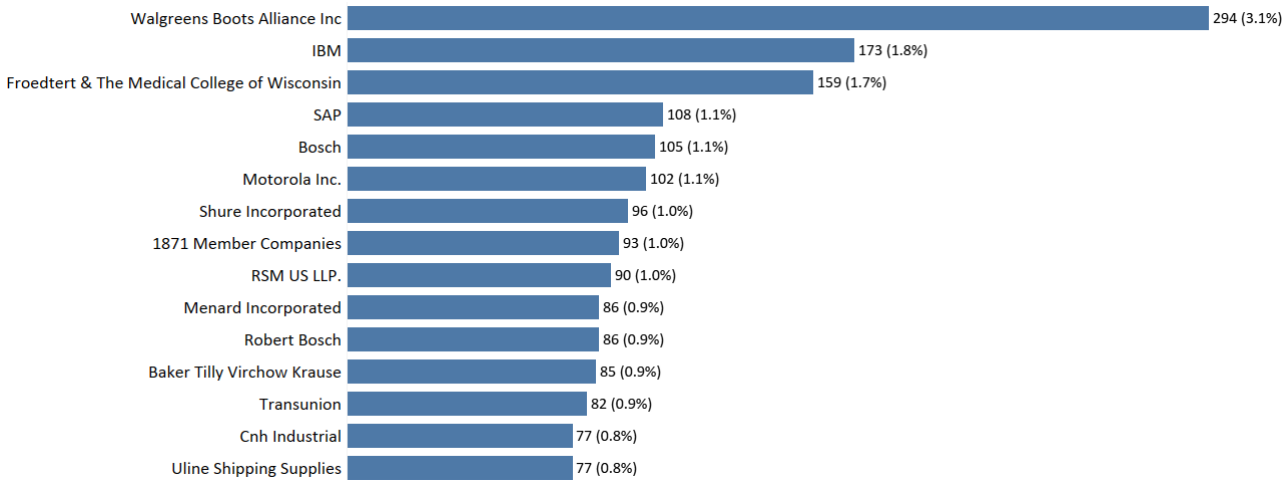
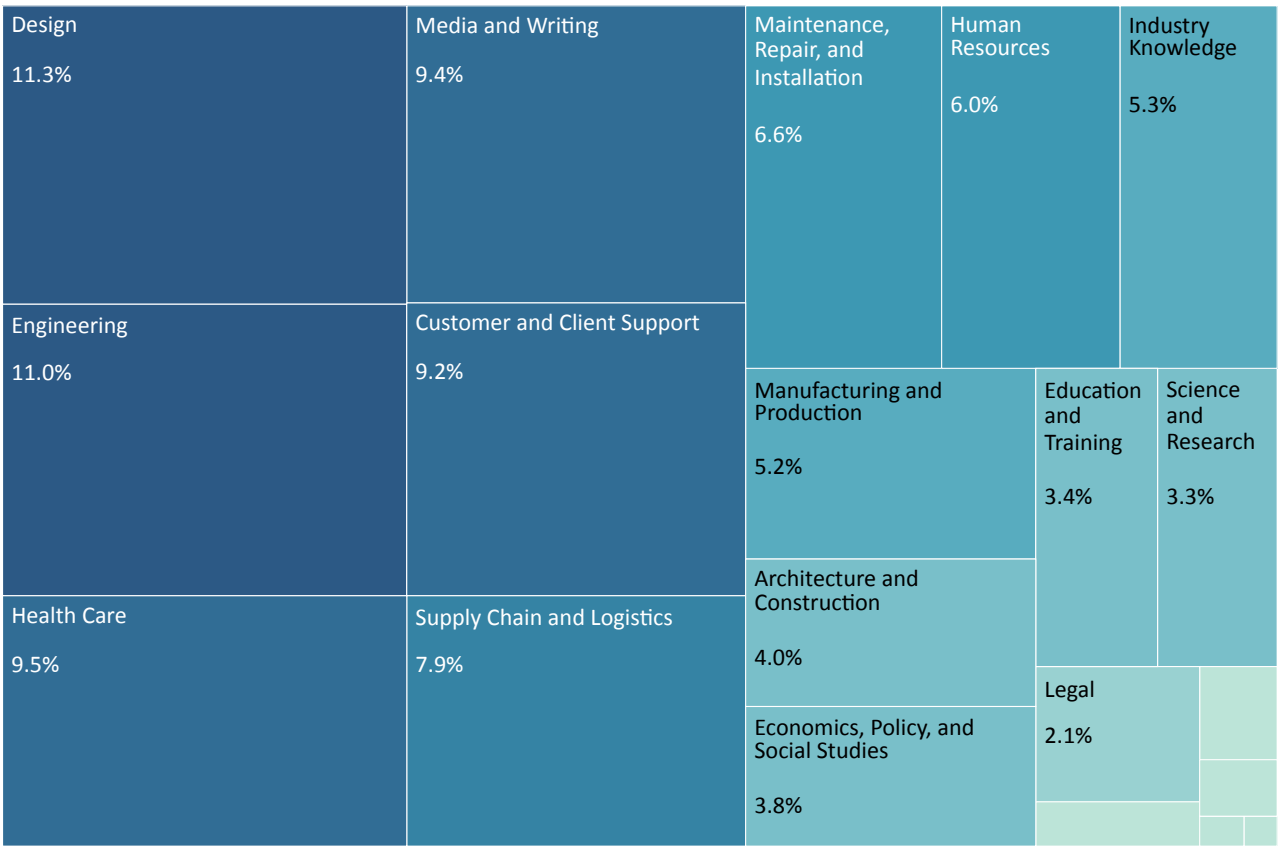


Figure 3 represents the top skill cluster families in demand for interns for the CZ of interest. Skill cluster families are generated by Burning Glass and are explained in their released White Paper.[9] There is a total of 28 skill cluster families. Each job posting can represent more than one skill cluster, meaning that total cluster count should only be considered relative to other skill clusters rather than relative to job postings.

8 Percent in parentheses represents share of total job postings, rather than share of top 15. In the event that employers appear to be listed multiple times by Burning Glass, we have chosen to defer to Burning Glass' employer designation criteria.
9 https://www.burning-glass.com/research-project/skills-taxonomy/

Figure 3: Top Skills in Demand for Interns



The tree map presented in Figure 3 indicates a diversity of skills in demand for UW-Parkside's CZ. Though there is no one clear skill cluster in most demand, Design, Engineering, Health Care, Media and Writing, and Customer and Client Support are all above 9% of the total skill demand. These five skill clusters represent 50.4% of the total skill demand for the CZ. The percent values in the figure can be thought of as the proportion of the given skill cluster relative to the total skill cluster codes.

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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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