Results from the College Internship Study at Georgia College

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WISCONSIN CENTER FOR EDUCATION RESEARCH | UNIVERSITY OF WISCONSIN–MADISON

SUMMER 2021

CENTER FOR RESEARCH ON College-Workforce Transitions

The College Internship Study

EXECUTIVE SUMMARY

This report includes findings from the first round of data collection (Spring 2020) at Georgia College 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 an interdisciplinary sample of students who took an online survey (n = 329), interviews with students who have and who have not had an internship experience (n = 25) and an interview with one educator (n = 1).

We would like to thank the college for allowing our research team to conduct this study with your students, faculty and community members, and hope that our findings are useful as you work towards improving internships and work-based learning for your students. 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 program structure and format associated with student satisfaction with their internships and their estimation of the value of the internship for their career development? In addition, given the timing of our interviews (Spring 2020), we were also interested in understanding the students' experiences related to the COVID-19 pandemic. As our research moves into its second year, we will focus on the impacts of the COVID-19 pandemic on the students, faculty and staff at Georgia College, and employer partners with respect to internships and its impacts on their studies and career goals.

Some key findings from our analysis include:

- Georgia College is a historically Black university with nearly 4,000 students. The college's main campus holds 39 academic, administrative, and student support buildings.
- About 54% of the respondents to our survey participated in an internship program within the past year (n = 178), indicating that about 46% (n = 151) did not participate in any internship.
- Of the students who had participated in an internship, 40.4% were in programs that did not require an internship while 51.1% reported that internships were required to graduate.
- Students who reported that they were not sure if an internship was required to graduate participated in internships at a much lower rate.
- Students who are male or full-time employed in a non-internship position which paid them were less likely to participate in an internship. In addition, students with a higher GPA were more likely to have participated in an internship.
- About 91% of students who did not participate in an internship (n = 137) had wanted to do so. Barriers to participation include a heavy course load (68.6%), a lack of internship opportunities

(57.7%), the need to work at their current job (49.6%), a lack of adequate transportation (42.3%), insufficient pay offered (39.4%), and a lack of childcare (20.4%). These obstacles often intersected with one another such that individual students experienced more than one at a time. Interview participants (n = 25) also reported several additional barriers to their participation in internships, including financial considerations, a competitive application process, and lack of time on account of work or academic obligations.

- Supervisor support, supervisor mentoring, and the clarity of internship tasks and goals are positively associated with students' internship satisfaction. Additionally, supervisor mentoring, clarity of internship tasks and goals, and how related an internship was to academic programs is positively associated with students' perceived internship value for both their academic development and career development.
- While the outcomes of internship participation on employment status and wages will be studied over the next 12 months, data from the interviews suggest that short-term outcomes of participating in an internship program for this sample of Georgia College students includes the opportunity to explore one's career interests, develop professional skill, cultivate professional networks and enhance one's resume, and obtain post-graduation employment.

This report concludes with recommendations for specific strategies that students, faculty, and staff, as well as employers who supervise student-interns, can employ to increase participation, access, and program quality for all students. We provide these recommendations with the recognition that faculty, staff, and administrators 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 students' 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 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 research 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, specifically 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.

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, however, 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: (1) identify strengths and weaknesses in current programming, (2) establish a baseline for long-term analysis of program quality and impacts, and (3) inform decision-making about future program development and resource allocation.

In early 2018, the Center for Research on College-Workforce Transitions (CCWT) at the University of Wisconsin-Madison launched the College Internship Study as a translational research program that could provide key stakeholders with robust, actionable evidence about internship programs. Our aim in this study is to provide institutional leaders, faculty and instructors, and career services professionals at Georgia College with rigorous data on issues related to internship program access and quality. In doing so, we place

students' experiences and perspectives at the heart 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?

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. Specifically, students who had an internship have 15% lower unemployment (Silva et al.,2015), 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).

NSSE data claims that internships are a high-impact practice that universally lead to student engagement and success should be interpreted with caution.

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. For instance, the National Survey of Student Engagement (NSSE, 2018) 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.

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; 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).

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.

In our study, we build upon promising lines of inquiry that examine how features of internship program structure (i.e. 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).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, 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). This is a psychosocial variable examined in our study.

Finally, career advisors and postsecondary educators are increasingly concerned about the problem of access, particularly for low-income, first-generation students who may be unable to engage in unpaid labor and/or lack transportation, child-care, or social networks that facilitate participation in 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.

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)**

III. 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 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, interviews with students who had an internship experience and who have not had an internship experience, interviews with educators and professionals (e.g., career advisors, faculty, and area employers) who were 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 Georgia College in the Spring of 2020. The online survey was administered to 1250 students in the second half of their program, and 329 responded, resulting in a response rate of 26.3%. The survey included questions about student demographics, characteristics of internship programs, barriers to internship participation, and students' career adaptability (i.e., a psychological construct linked to positive vocational outcomes). At the conclusion of the survey, 25 students volunteered for interviews, which lasted approximately 30-40 minutes each, where researchers asked more in-depth questions about their internship experience(s), and barriers and challenges to obtaining an internship. In addition, one educator participated in an hour-long interview regarding their own experiences administering internships, helping students with or during internships, and the overall purpose of internships (see Table 1).

Table 1: Description of Spring 2020 sample

	Survey	Interviews
Students	329	25
Educators	N/A	1

1 The data reported here represent the first phase of data collection at Georgia College in Spring 2020 (Time 1). Data also will be collected in Spring 2021 (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, educators, and employers in order to assess the nature of internship programming and/or effects over time.

Table 2: Description of student sample

	Survey Sample	Institutional Population
Total	329	1,552
Gender	Male = 62 | 18.8% Female = 266 | 80.9%	Male = 395 | 25.5% Female = 1,157 | 74.6%
Race	Asian = 1 | 0.3% Black = 302 | 91.8% Native Hawaiian, Pacific Islander = 1 | 0.3% Other = 3 | 0.9% White = 15 | 6.47% Two or more races = 21 | 6.4%	Asian or Pacific Islander = 11 | 0.8% Black = 1,408 | 95.9% Hispanic = 1 | 0.1% White = 3 | 0.2% NA/Missing = 83 | 5.4% American Indian/Alaskan Native = 2 | 0.1% Other = 44 | 2.8%
1st gen status	Yes = 138 | 42.0% No = 191 | 58.1%	Yes = Not reported No = Not reported

Data were analyzed using a variety of techniques, including qualitative analytic techniques, such as inductive theme analysis of interview transcripts, quantitative analytic techniques, such as descriptive analyses of survey responses, chi-square testing, Fisher's exact test of independence, a linear probability model, 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.

IV. RESULTS: Institutional capacity for administering internship programs at Georgia College

A goal 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 four Ws—where, who, what, when, and why—of a program or initiative. 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 the Georgia College, we gathered information on these issues from students and academic personal, along with an analysis of online and hard copy documents.

Are internships required to graduate from the College?

Most students at the college are not required to complete an internship prior to graduation. Across the college's programs, only the Criminal Justice Program mandates a for-credit internship as part of students' trajectory to earning a Bachelor of Arts. Other programs, such as Social Work or Teaching, require practicums with slightly different characteristics than those of internships. While not part of their course requirements, the Department of Mass Media Arts offers an elective course where an internship may be taken, as for example in Theatre and Communication Studies. The School of Business Administration connects students with employers and public agencies for internships. Students outside of these programs, who want to complete an internship, can receive academic credit pending approval from their department.

Who oversees internship programs at Georgia College and which administrative supports are involved?

Programs that require an internship or other practical experiences most commonly organize and oversee them over the course of the summer break. Internships outside of these programs are supported on a university level by the college's career and professional development office. The college is also a member of a consortium of local universities which also supports an independent Office of Academic and Career Services. Both offices encourage students and employers to use the Handshake platform to trace, communicate and access internship opportunities. Different offices at the college also organizes career fairs for undergraduate students.

At the college, three staff members are designated to support students in pursuing internships through individualized and group counseling sessions. Such sessions can include resume and cover letter assistance, coaching on interviewing, job-search strategies, and networking. Advisors also support student internships by arranging various opportunities for students and employers to connect, such as career fairs and other events. The professional development office also adds open internship opportunities to the online platform Handshake and supports students in utilizing the platform.

Why do educators at the College support college internships?

Our conversations with the educators indicate that while many see the value of internships for students' academic and career development, many educators are primarily focused on their classroom interactions with students and do not see it as part of their capacity to support students' internships in addition to their primary teaching duties. One educator suggested that additional resources and conversations would be needed to involve and support faculty in a more institutionalized internship program across academic fields.

V. RESULTS: Which students are taking internships at Georgia College?

In this section, we present findings from the online survey regarding the number of students at the college who have (and have not) participated in an internship experience.

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. In our T1 study, we collected 329 responses from the students at the college. Among them, about 54.1% (n = 178) have participated in internship programs in the past 12 months (see Figure 1). Eighty out of the 178 students (44.9%) had one internship experience, and 57 students (32%) had two. The rest of the students (23%) had three or more internships.

Figure 1. In the past 12 months, have you participated in an internship? (n = 329)

These results indicate that over half of the students in the sample have had an internship experience. Of student participants, 46% have not had an internship experience. Therefore, this finding should be carefully interpreted and considered along with other issues, including barriers to participation for students (e.g., compensation), availability of employer hosts, and the 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 circumstance, 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, and social class), 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).

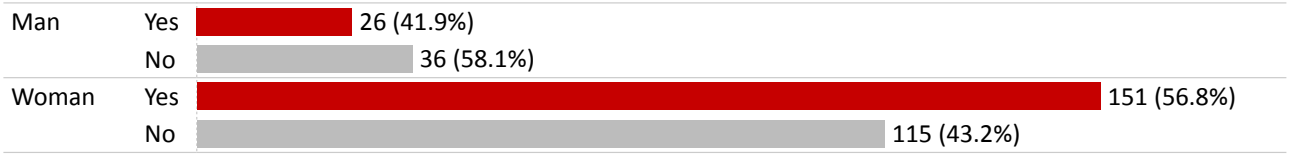
Demographic characteristics and internship participation

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, we examine the issue of equitable access for groups of students.

The results show notable differences in participation rates for female and male students (see Figure 2; 56.8% vs. 42%). Most of the students (91.8%, n = 302) who participated in the survey identified themselves as Black

or African American. Because race/ethnicity is concentrated in a single group for our sample, we will not break down internship participation by race/ethnicity. Based on our early tests, internship participation for specific racial/ethnic groups reflected the participation of the total sample. There were no statistically significant differences in internship participation rates based upon participants' reported first-generation status;[2] however, internship participation of continuing generation students (57.1%, n = 109) was higher than that of first-generation students (50%, n = 69, see Figure 3).

Figure 2. Internship in the Past 12 Months (Yes/No), by Gender (n = 328)[3]



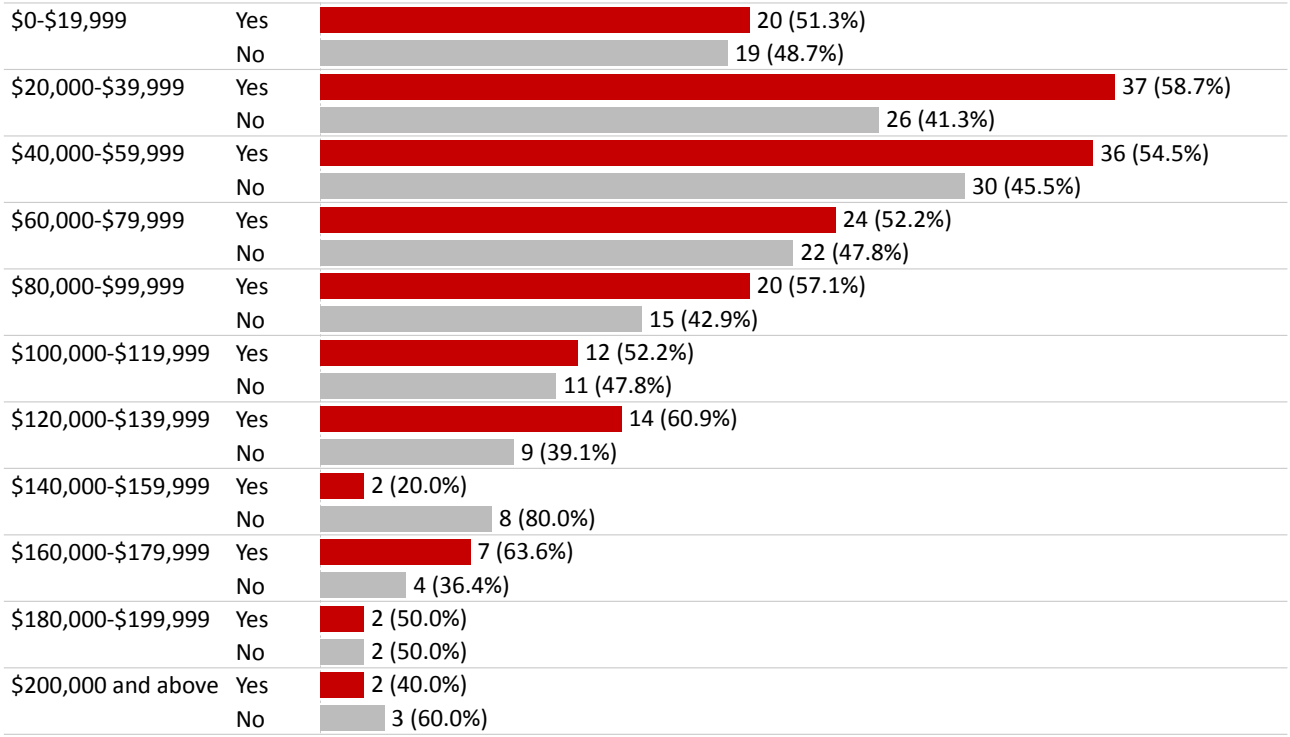
**Note: Transgender, Non-binary, and Other were excluded from this figure due to small sample size.*

Figure 3. Internship in the Past 12 Months (Yes/No), by First Generation College Student Status (FGS) (n = 329)

Next, we look for differences in internship participation based on socio-economic status and we use students' reports of their parents' income as an indicator of such status (see figures 4.1 and 4.2). Students in our sample are concentrated in the lower brackets of the choices available. Almost 51.3% of the students who responded to our survey indicated their parents' income is below $60,000, and nearly 65% reported that their parents make less than $80,000 per year. Figure 4.1 shows the difference of internship participation rates across self-reported parental income groups. We further explored the relationship between internship participation and parental income based on county median annual income. The median annual household income in 2018 was $70,930 in Fulton County, GA . Our parental income brackets did not fit exactly with the median income, so we grouped students' self-reported parental income into below and above $80,000, the closest cut point to the median annual household income. The internship participation rate for students from above the state median household income (53%, n = 61) was nearly identical to the participation rate of those with below median household income (54.7%, n = 117; see Figure 4.2).

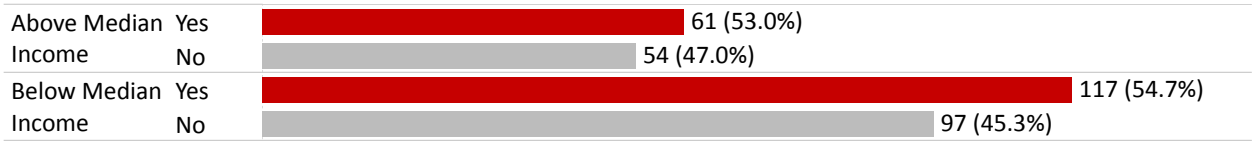
2 Although we are using p value to infer statistical significance in the current study, it is worth noting that p value should not be taken as a definitive validation of relationships between variables. Many factors may influence p value such as effect size, size of sample and spread of the data (Dahiru,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

Figure 4.1. Internship in the Past 12 Months (Yes/No), by Parental Income (n = 325)



**Note: Four students declined to answer this question, so we removed those individuals from our calculation.*

Figure 4.2. Internship in the Past 12 Months (Yes/No), by Parental Income Below, At, and Above Median Annual income (n = 325)



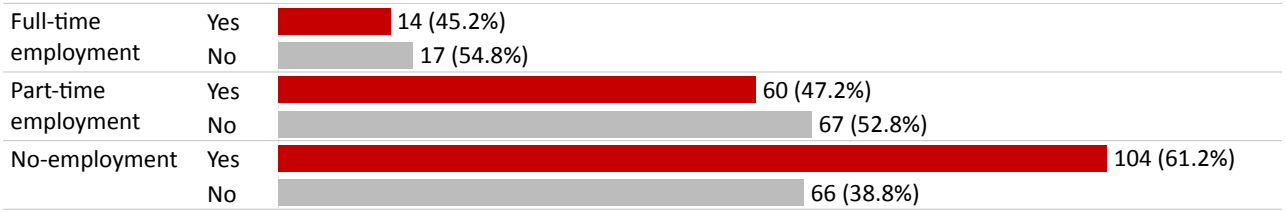
**Note: Four students declined to answer this question, so we removed those individuals from our calculation.*

Life circumstances and internship participation

Next, 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 5 displays internship participation by employment status (PT/FT/No-employment). Most of the students in the sample had no employment, though a sizeable portion worked part-time (38.7%). Only 9.5% reported working a full-time job. For students who worked at a full-time job, 45.2% had participated in an internship. Part-time employed students had a similar participation rate, while students with no-employment participated at a statistically significantly higher rate than those students who were employed[4] (61.2%).

Figure 5. Internship in the Past 12 Months (Yes/No) by Employment Status (n = 328)



**Note: One student did not answer this question, so we removed that individual from our calculation.*

Awareness about college students' challenges with securing adequate food, or what is known as food insecurity, is growing in the U.S. (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 indicate that approximately 9.4% (n = 31) reported relying on these resources in the past 30 days. Those who relied on food assistance are slightly more likely to participate in internships, although the differences are not statistically significant (see Figure 6). Given that housing costs can strain a students' financial situation, we also asked about problems with paying rent or mortgages, with 9.7% (n = 32) of students reporting housing cost problems (see Figure 7). Those students who reported having housing payment problems were more likely to participate in internships, though again the difference is not statistically significant.

Figure 6. Internship in the Past 12 Months (Yes/No) by Students Requiring Food Assistance (n = 329)

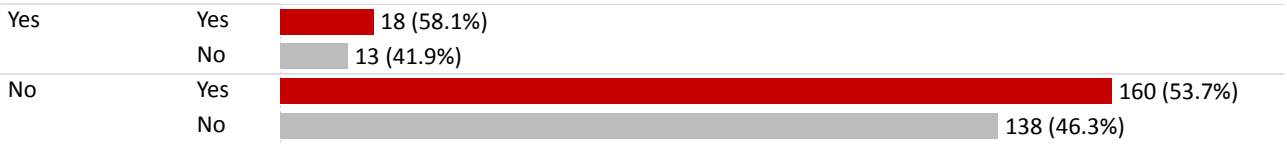
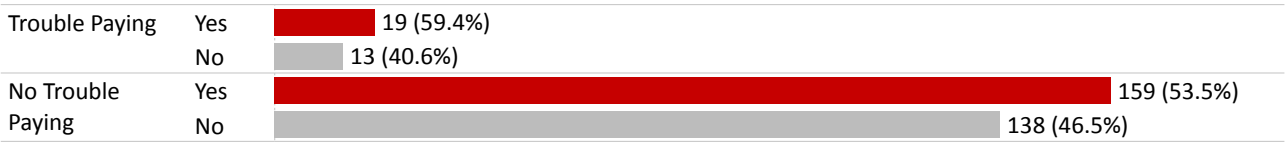


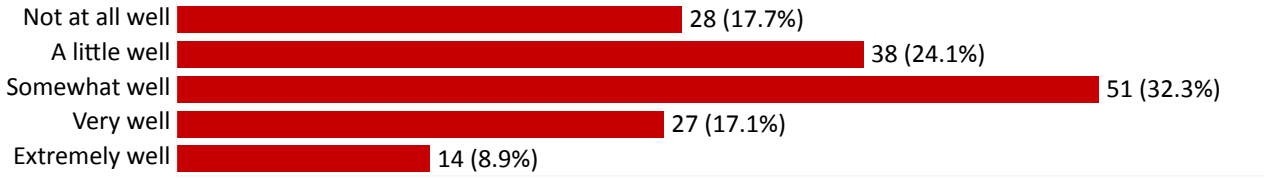
Figure 7. Internship in the Past 12 Months (Yes/No) by Students Having Trouble Paying Rent or Mortgage (n = 329)



4 Statistical significance is based on a Pearson chi-square analysis, $\chi^2 = 6.83$, $p = 0.03$.

Given that many students work part- or full-time, we explored the extent to which they perceived their job as contributing to their career goals (see Figure 8). We see in Figure 9 that only 26% (n = 41) 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, 41.8% (n = 66) of the students reported that their main job provided them with important skills a little well or not at all well. These data suggest that converting FT/PT jobs into internships without intentional educational development may not work very well for this population.

Figure 8. 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 = 158)



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, COVID-19 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*). Cronbach's alpha of the four subscales, using the current data, range from 0.85 to 0.90.

The results indicate that the survey respondents from Georgia College rate themselves as follows across the career adaptability sub-scales: concern (M=3.99, SD=0.77), control (M=4.06, SD=0.72), curiosity (M=3.84, SD=0.83), and confidence (M=3.96, SD=0.79). The mean scores for all sub-scales were similar between the two groups: Concern (Internship: 4.03; No Internship: 3.95) Control (Internship: 4.01; No Internship: 4.11) Curiosity (Internship: 3.91; No Internship: 3.76) and Confidence (Internship: 3.99; No Internship: 3.92). 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 Georgia College dataset (see Figures 9 – 12).

Figure 9. 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 = 329)

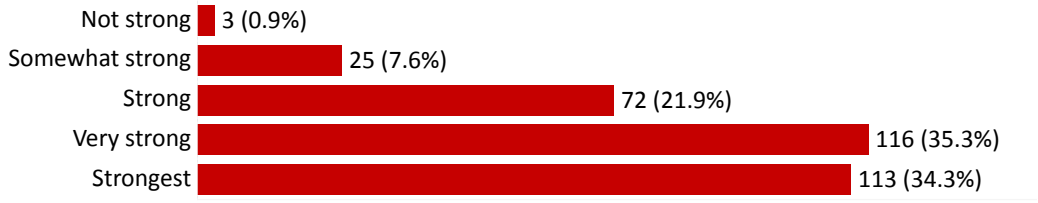


Figure 10. Please rate how strongly you have developed each of the following abilities: Taking responsibility for my actions (n = 329)

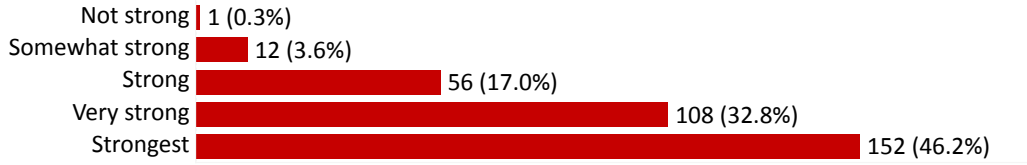


Figure 11. Please rate how strongly you have developed each of the following abilities: Exploring my surroundings (n = 329)

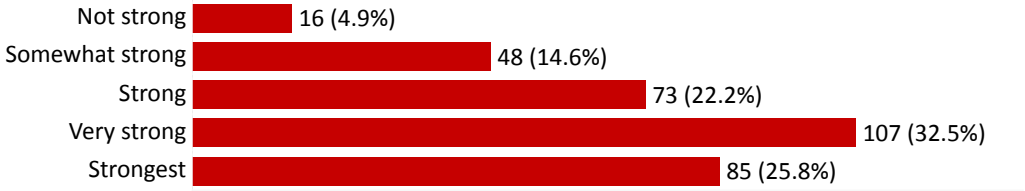
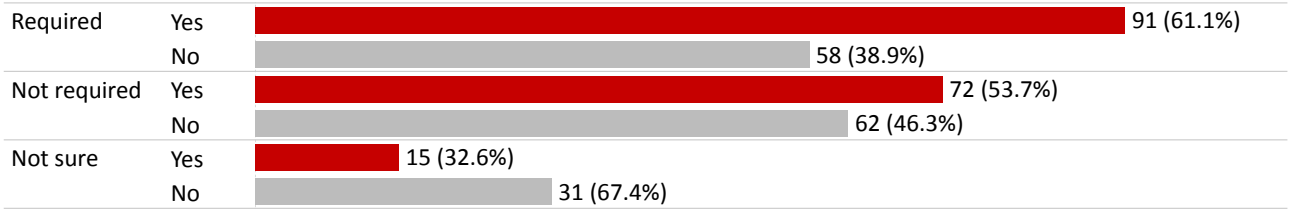


Figure 12. Please rate how strongly you have developed each of the following abilities: Performing tasks efficiently (n = 329)

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 13. Relationship between Internship Participation and whether or not an internship was required to graduate from your academic program (n = 329)



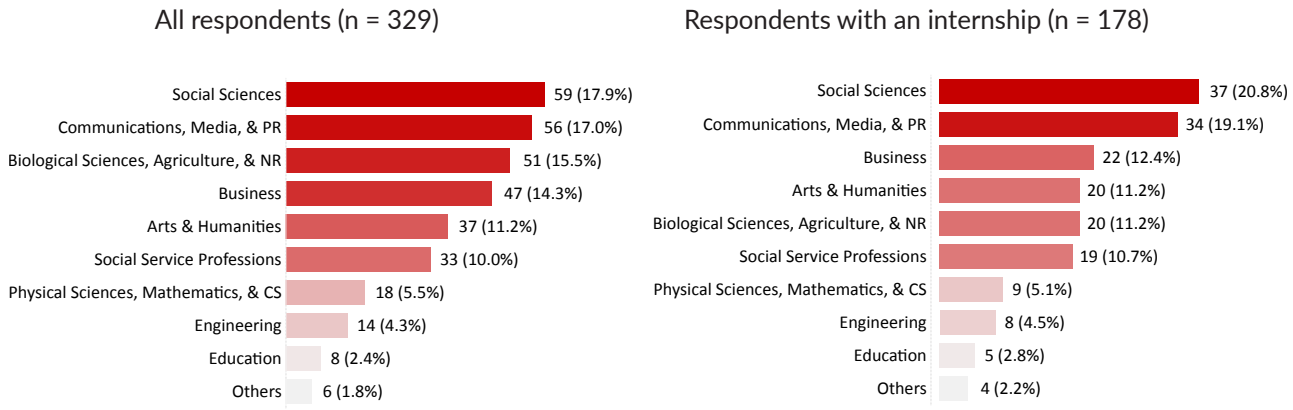
The results indicate that 45.3% (n = 149) of the respondents were in academic programs that required internships. Figure 13 shows that these students were more likely to participate in an internship compared to students who were not required to take an internship to graduate (61.1% vs. 53.7%), and this difference is statistically significant, p = .003. There were also a noticeable proportion (14%, n = 46) of students who were unsure if their program required an internship. These students were less likely to participate than both students who knew they were required (32.6% vs. 61.1%) and students who knew they were not required (32.6% vs. 53.7%).

In addition, nearly the entire sample (98.2%, n = 323) were enrolled full-time. Those who were enrolled full-time were more likely to participate in internships (54.5% vs. 33.3%), though given the very small sample size of part-time students, any interpretation of this should be treated with caution.

Additionally, we examined internship participation rates by disciplinary sectors. We adopted the major field categories defined by the National Survey of Student Engagement (NSSE, 2018). Figure 14.1 presents the distribution of seven majors for all participating students (n = 329, left figure) as well as for students who participated in an internship (n = 178, right figure). The results indicate that the disciplinary sector with the largest number of students was Social Sciences (17.9%, n = 59) and that the disciplinary sector with the largest number of students who completed an internship was also Social Sciences (20.8%, n = 37).

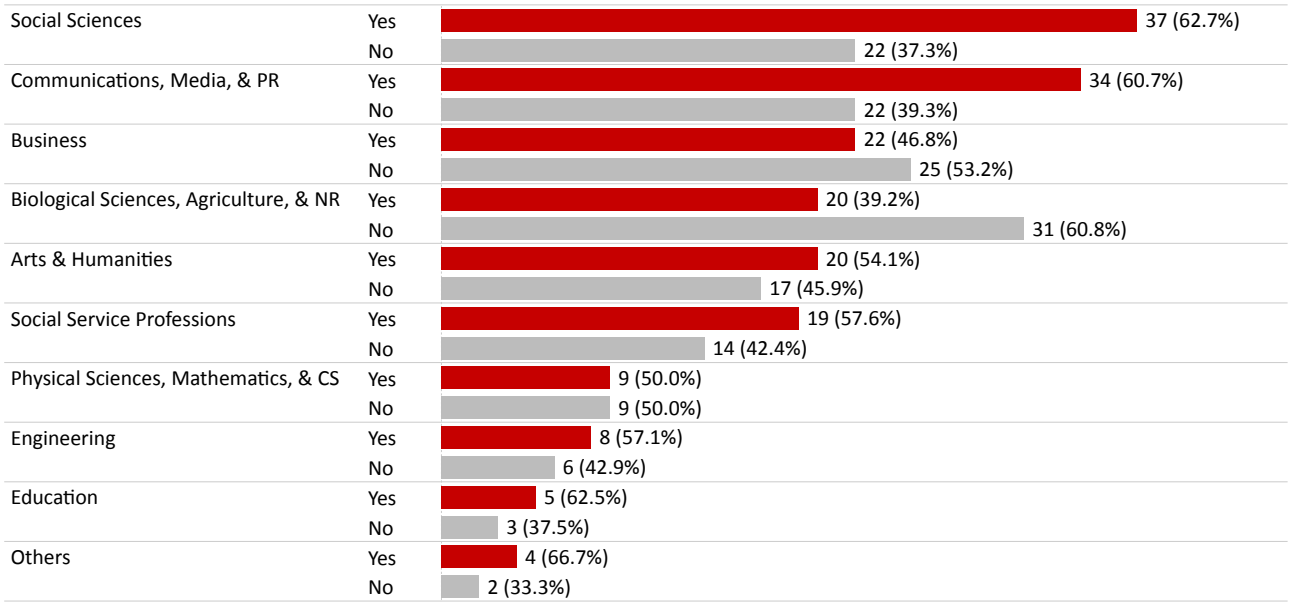
Figure 14.2 displays internship participation rates based on disciplinary sectors. Proportions should be considered carefully given the smaller sample sizes. NSSE majors classified as Social Sciences (62.7%, n = 37) had the highest participation rate, followed by Communications, Media, & Public Relations (60.7%, n = 34), Social Service Professions (57.6%, n = 19), Engineering (57.1%, n = 8), Arts & Humanities (54.1%, n = 20), Physical sciences, Mathematics, & Computer science (50%, n = 9), Business (46.8%, n = 22), and Biological Sciences, Agriculture, & Natural Resources (39.2%, n = 20). A Fisher's exact test indicated that internship participation rates were not differ significantly across those program disciplinary sectors.

Figure 14.1. Students' distribution by Program Disciplinary Sector



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

14.2. Relationship between Internship Participation and Students' Program Sectors (n = 329)



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

Academic performance and internship participation

Finally, we examined the relationship between participating students' grade-point average (GPA) and internship participation. The GPA in our dataset is measured by a self-reported question where we asked students 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., 4.0 = A+/A, 3.7 = A-, 3.3 = B+, 3.0 = B, 2.7 = B-, C+ = 2.3, C = 2.0, C- = 1.7, D+ = 1.3, D = 1.0). The GPAs

range from 1.5 to 4.0, with a mean of 3.28 and a standard deviation of 0.41 for the 329 students who reported their GPA in our sample. A t-test suggests that there exists a statistically significant difference in GPA between students who participated in internships (mean = 3.36, SD = 0.41) compared to those who did not (mean = 3.17, SD = 0.40), with participants having an average of 0.18 higher GPA than their non-participating peers, $t(327) = 4.11$, $p < .001$).

Linear probability regression[5] results also show that there exists a positive and statistically significant relationship between students' grade-point average (GPA) and internship participation, such that the higher the students' GPA the more likely they are to have participated in an internship . These results suggest that students with lower GPAs (B- and below) may require additional support, encouragement, and/or assistance with securing an internship.

VI. RESULTS: Barriers to participation in internships for students at Georgia College

In this section, we present findings from the online survey and student interviews regarding barriers to participation in internships for students at Georgia College. Access to internships is a critical issue with respect to the problems of inequality and social mobility students face in higher education and society. Since internships may provide students with valuable social and cultural capital and enhances 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 151 students who did not participate in an internship, 90.7% (n = 137) of them had wanted to do so (see Figure 15).

Figure 15. 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 = 151)

Next, we asked them to rank the various reasons from most important to least important for not pursuing an internship. Figure 16.1 presents the frequency and percentages of students who cited certain barriers to participation. In general, 68.6% (n = 94) reported a heavy course load as a barrier, 57.7% (n = 79) of students reported a lack of internship opportunities, 49.6% (n = 68) reported their need to work at their current job, 42.3% (n = 58) reported a lack of transportation, 39.4% (n = 54) reported insufficient pay offered, and 20.4% (n = 28) reported a lack of childcare as a barrier to internship participation.

5 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.

Figure 16.2 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 a heavy course load (n = 41), a lack of internship opportunities (n = 39), and a need to work at a current job (n = 26). The number two ranked reasons included a heavy course load (n = 33) and a lack of transportation (n = 20). Figure 19.2 also presents the third to sixth ranked reasons and their corresponding frequencies. Insufficient pay was the barrier most frequently ranked third by respondents (n = 14). In sum, a heavy course load, a lack of opportunity in one's field, the need to work at a current job, and a lack of transportation were the most commonly reported reasons students chose not to pursue an internship.

Figure 16.1. In the past 12 months, why were you not able to pursue an internship? (n = 137)

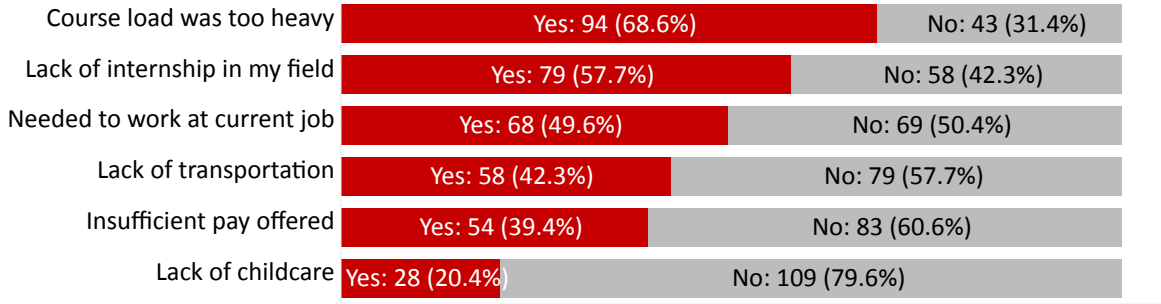
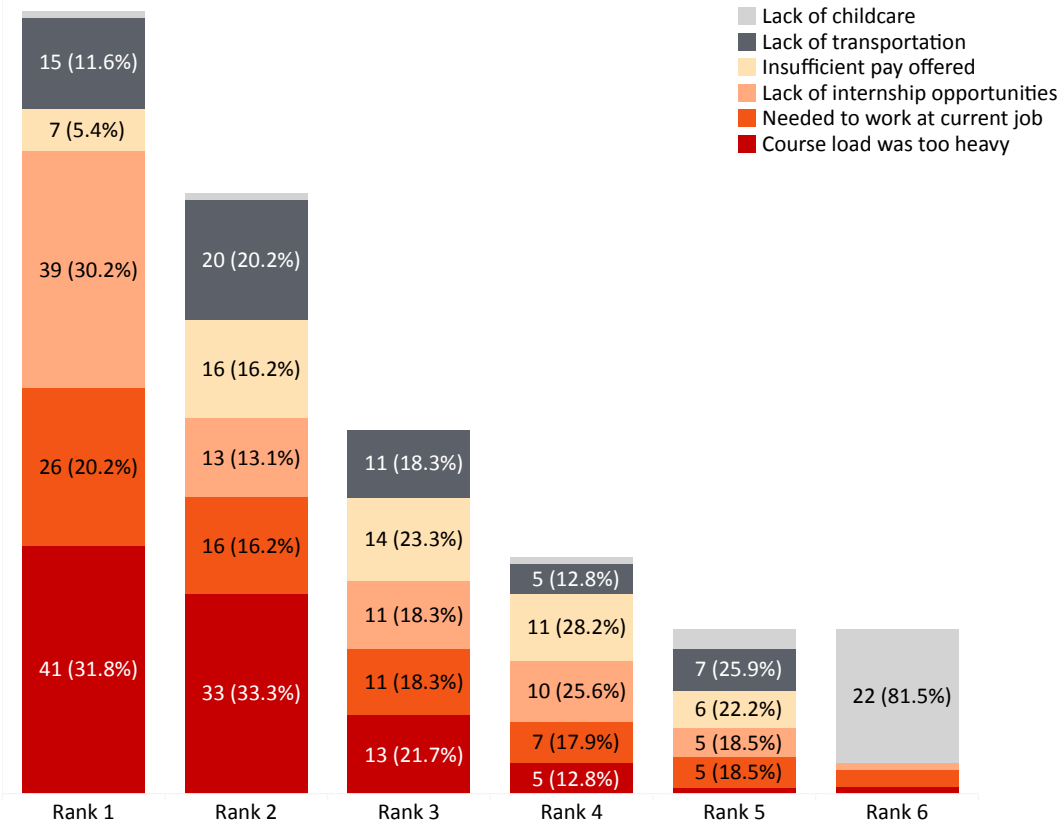


Figure 16.2. Rank the reasons from most important to least important for not pursuing an internship.



Student Interview Themes: What concerns and difficulties do students describe as impacting their decisions about whether to participate in internships?

Data from student focus groups with 25 students helped to further highlight 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, a competitive application process, and a lack of time on account of work or academic obligations. These themes and examples are summarized in Table 3 and further elaborated upon in the text that follows.

Table 3. Student Concerns and Difficulties in Participating in Internships (n = 25)*

Concern	Example
Financial considerations	Issues with the need for financial stability, inability to take unpaid internships
Competitive application process	Issues with the competitive application process; competing with students from top tier schools
Lack of time	Challenges in applying or participating in an internship due to a lack of time because of work or academic obligations

**This sample includes all focus group participants from Georgia College. These difficulties include those that were discussed most frequently, in descending order of frequency*

Students consider finances in varying degrees. Students in our sample of interviews had both paid and unpaid internships, and several student expressed that they would only pursue paid internships, either because they could not afford unpaid work or because the viewed unpaid internships to be exploitative; as one student explained, "I kind of get the feeling that they're kind of like, well this is an opportunity more for you [the employer] than it is for us [the students]. So that's just how I view it when I see that the internships are unpaid." Several students also reported facing financial challenges due to the travel required for an internship, either to relocate for a summer internship, or for local travel during the academic year. A few students had decided not to pursue an internship on account of financial considerations, for example:

> I want to be able to pay my phone bill and stuff. I have a couple of bills. So, an internship, although it would be great for building a comradery towards another businesses [i.e., making professional connections]. ... I still need some type of monetary gain, right at the moment. Because I do pay bills. So, I did want to pursue an internship, but I just couldn't.

A second challenge that students expressed when obtaining an internship opportunity was the competitive nature of the application vetting process. For example, several students who had applied for internships suspected that they may be competing with students who were from more "prestigious" institutions or that there might potentially be a bias against students from HBCUs. A few students expressed a general sense of frustration with the internship application process, either because they had multiple rejected applications or

because they felt that the application requirements were onerous (e.g., applications requiring multiple letters of recommendation).

Lastly, some students reported challenges finding an internship that would accommodate their busy schedule, in particular for full time students who also needed to work for pay. One student explained her concern about a lack of time to schedule an internship:

> I would say I'm a little bit concerned maybe about availability because a lot of my classes that I take now are in the morning and I know that that's more than likely when my internships would occur... So that would probably be my biggest concern is trying to work around my day classes with my internship.

Another student described how academic and work obligations had discouraged her from pursuing an internship, "I just haven't been planning one because -- well, I'm in college fulltime. And I have a job on campus. That's the thing."

VII. RESULTS: What types of internships are students at Georgia College taking and what are their experiences?

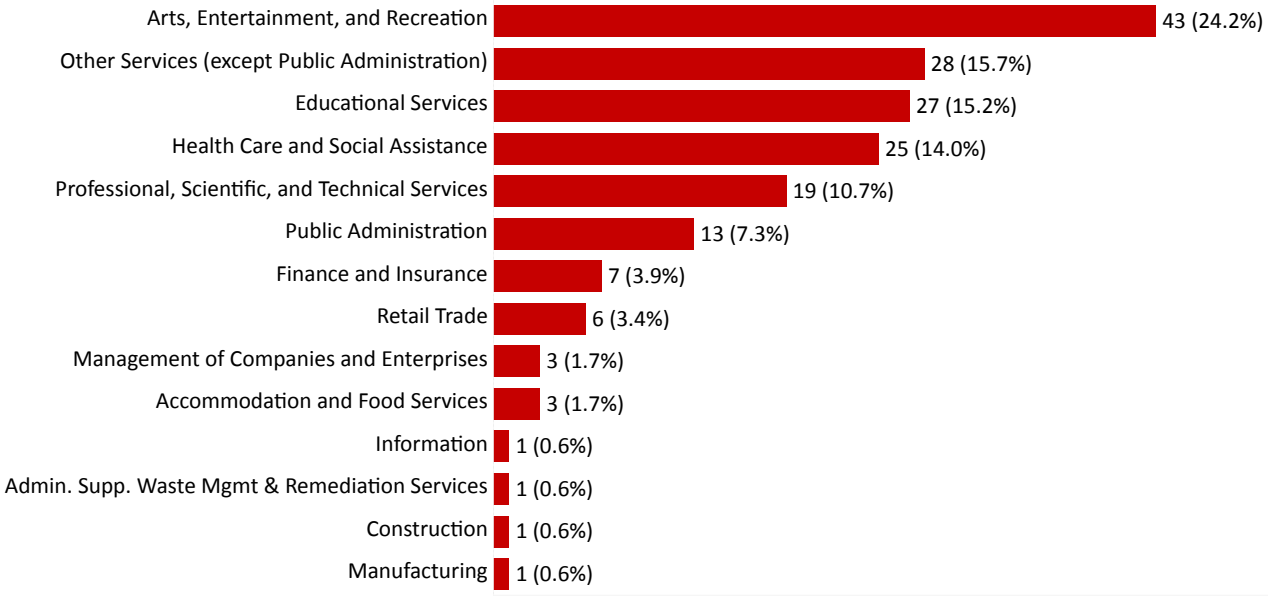
In this section, we present findings regarding the types of internship programs that students at Georgia College have taken and their experiences during their internships. After describing key features of students' internship programs from the survey data (e.g., organization type, sector, length, compensation), 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, referencing focus group discussions, we address students' observations of their internship experiences.

Survey results: Features of internship programs

For the 178 Georgia College students in our study sample that had taken an internship in the past year (as shown in Figure 17), 44.4% of students did so at a non-profit organization, with the remainder interning at for-profit companies (32%) and government agencies (23.6%). Figure 18 demonstrates that many of these internships were concentrated in fields such as the Arts, Entertainment, and Recreation (24.2%), Other Services (except Public Administration) (15.7%), Educational Services (15.2%), and Healthcare and Social Assistance (14%), with the rest of the respondents being well dispersed among the remaining industries.

Figure 17. In what type of organization did you participate in this internship? (n = 178)

Figure 18. In what industry or field was this internship? (n = 178)



As shown in Figure 19, the largest proportion of survey respondents participated in a 9-12 week internship (31.5%). Furthermore, 43.8% of these students were compensated for their internship work, whereas 56.2% were not (Figure 20). The average hourly wage for respondents with paid internships was $14.37, which is above the estimated living wages for one adult with no children in Fulton County, Georgia ($13.66) (MIT Living Wage Calculator, 2020).

Figure 19. For how many weeks did you participate in this internship? (n = 178)

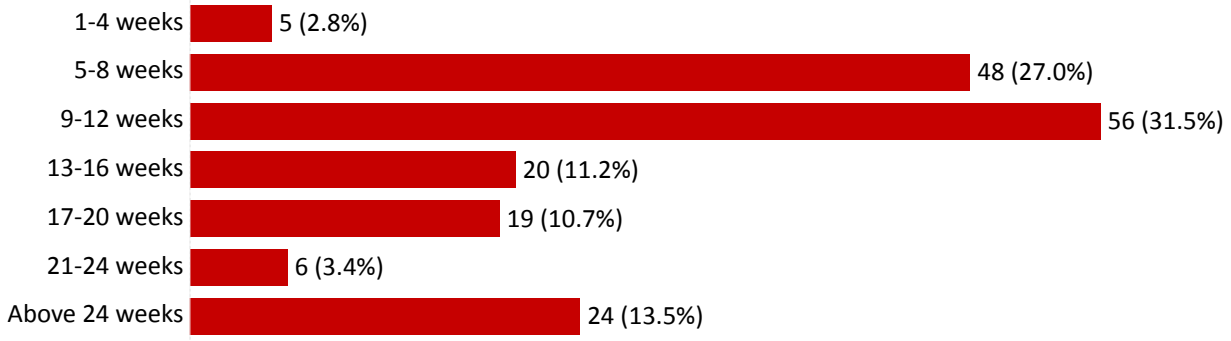


Figure 20. Was the internship paid or unpaid? (n = 178)

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

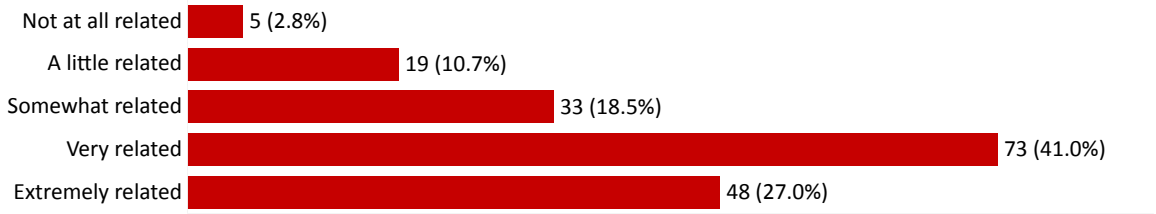
Next, we turn to one of the primary research questions driving this study: What is the structure and format of internship programs that Georgia College students are taking? Examining this issue, we focus on features of internships that the research literature suggests are associated with positive student 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 Georgia College students who participated in an internship, 68% (n = 121) felt that their internship was very or extremely related to their academic coursework (Figure 21). Additionally, 65% of the students reported that their academic program staff and internship supervisors cooperated very well or extremely well to ensure this integration; however, 13.3% (n = 10) of the students reported "a little well" or "not at all well."

Figure 21. How related do you feel your internship was to your academic program? (n = 178)



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 4.31 with a standard deviation of 0.81. The four questions are: (1) In this internship, how much did your supervisor care about your well-being? (2) how much did your supervisor care about your satisfaction at work? (3) how much did your supervisor appreciate the amount of effort you made? And (4), how much respect did you feel you received? Below we report results from two of these items as examples.

Among the Georgia College sample students who had recently taken an internship, 84.2% (n = 150) reported that their supervisors cared about their satisfaction at work either quite a bit or a great deal (see Figure 22), and 82.6% (n = 147) reported that their supervisors appreciated the amount of effort they made either quite a bit or a great deal (see Figure 23). Taken together, these represent important indicators of supervisory support.

Figure 22. In this internship, how much did your supervisor care about your satisfaction at work? (n = 178)

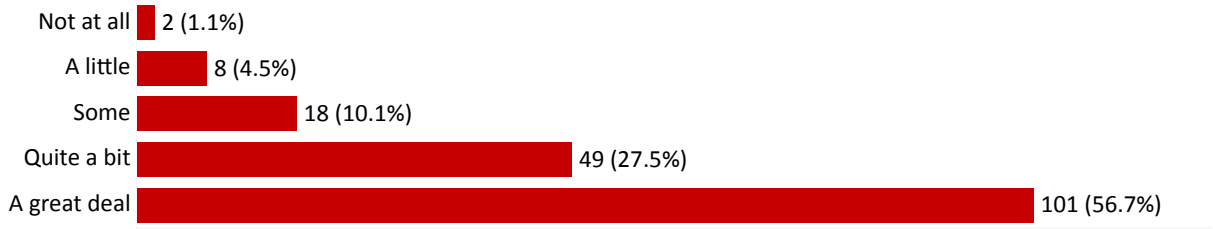
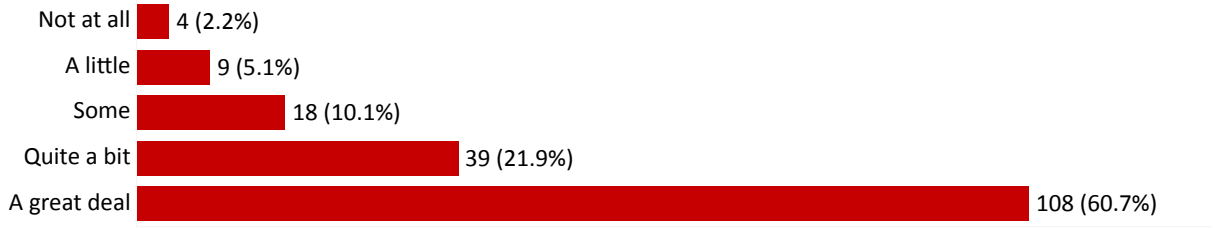


Figure 23. In this internship, how much did your supervisor appreciate the amount of effort you made? (n = 178)



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* to 5 = *extremely often*. The average score for the five questions equals 3.82 with a standard deviation of 0.92. 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 on 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? And (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 the participating students (55.6%, n = 99) reported that their supervisors very often and extremely often encouraged them to try new ways of performing on the job, it is concerning that 17.4% (n = 31) of them feel that their supervisors did not or rarely encouraged students to try new ways of performing tasks at the internship site. This is offset somewhat, however, by relatively high reports of supervisor feedback regarding job performance, with 74.7% (n = 133) reporting that their supervisor provided feedback very often or extremely often (see Figures 24 and 25).

Figure 24. How often did your supervisor encourage you to try new ways of performing on the job? (n = 178)

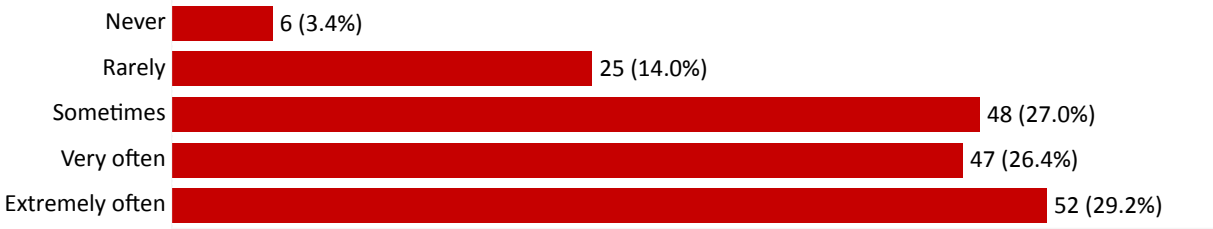
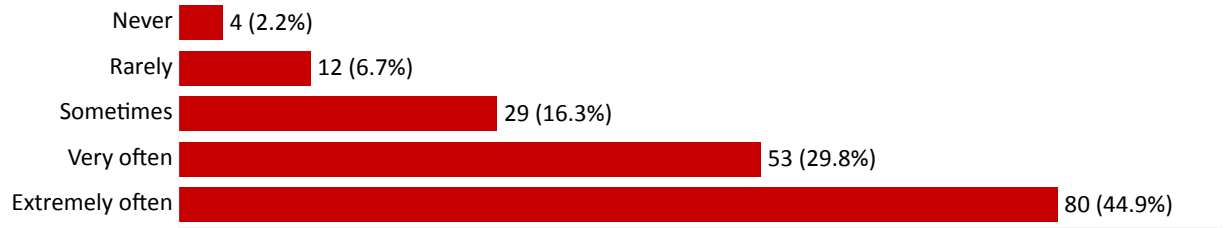


Figure 25. How often did your supervisor give you feedback regarding job performance (n = 178)



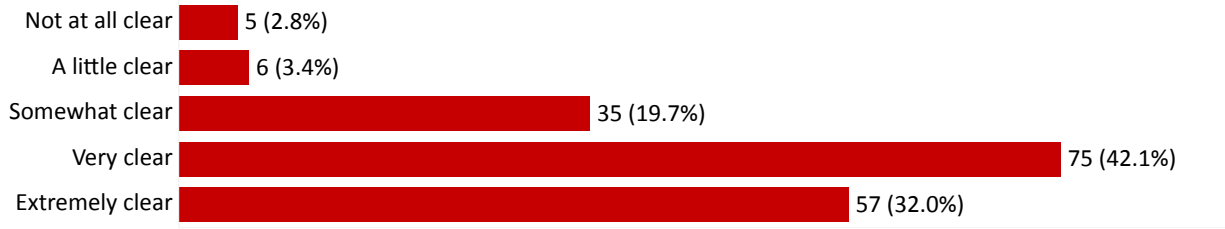
Goal clarity

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 3.96 with a standard deviation of 0.87. Below we report results from these items (see Figures 26 and 27).

The results indicate that the majority (69.1%, n = 123) of participating Georgia College students who participated in internships felt that they were given very clear or extremely clear tasks to be completed. A similar proportion (74.2%, n = 132) of students felt the goals to be accomplished were somewhat clear, very clear, or extremely clear.

Figure 26. In this internship, how clear you felt about the tasks to be completed? (n = 178)

Figure 27. In this internship, how clear you felt about the goals to be accomplished? (n = 178)



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 from 1 = *none*, 2 = *a little*, 3 = *some*, 4 = *quite a bit*, to 5 = *a great deal*. The average score for the two questions equals 4.02 with a standard deviation of 0.97. Below we report results for these items (see Figures 28 and 29).

For Georgia College students, 77.5% (n = 138) reported having considerable flexibility in how they completed their work and 67.4% (n = 120) reported having adequate freedom to decide how to do their work, indicating that, for these students, the internship provided some opportunity to function with autonomy in the workplace.

Figure 28. In this internship, how much flexibility did you have in how you completed your work? (n = 178)

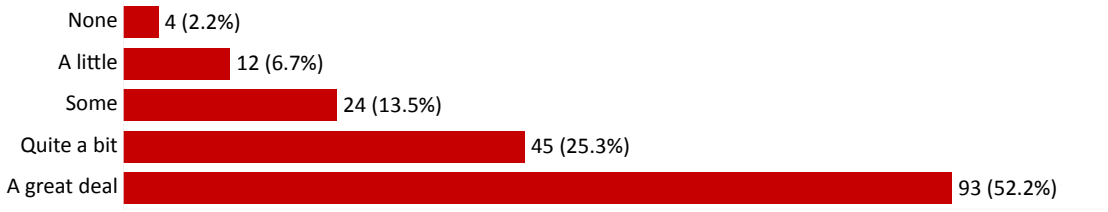
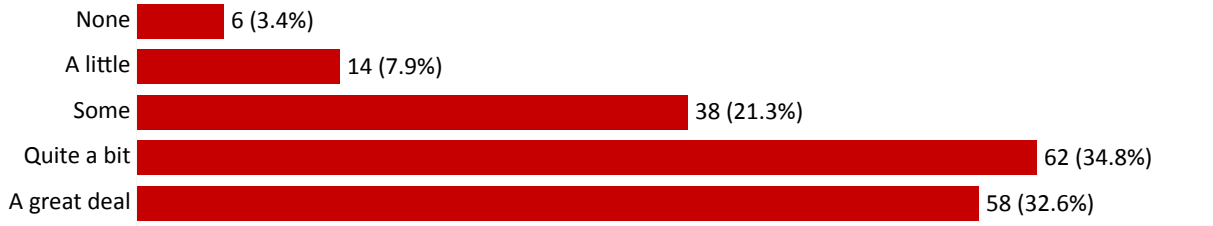


Figure 29. In this internship, how much freedom did you have to decide how to do your work? (n = 178)

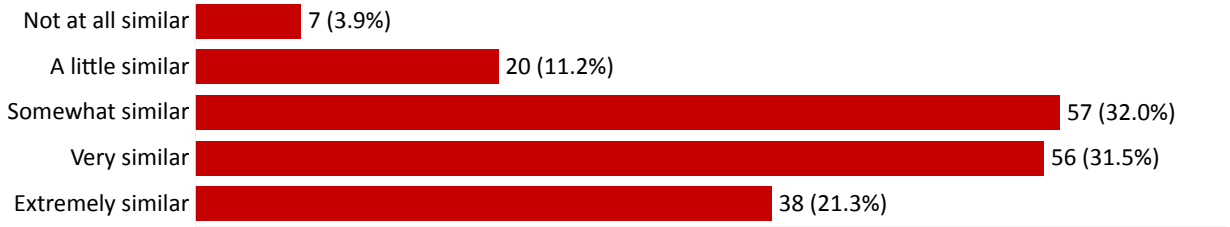


Task similarity to entry-level jobs

Finally, one of the persistent questions in the literature is whether interns are provided with work that is of equal difficulty to entry-level positions (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 question was 3.55 with a standard deviation of 1.05.

The results indicate 52.8% (n = 94) of the participating Georgia College students considered their internship tasks very similar or extremely similar to those in entry-level employment. Of the participating Georgia College students, 15.2% (n = 27) considered their internship tasks not at all similar or a little similar to an entry-level position (see Figure 30).

Figure 30. During your internship, how similar in nature were your tasks to those in entry-level jobs in the organization? (n = 178)



Student interview themes: What were students' experiences with their internship?

In addition to these results from our online survey, we held phone interviews with a total of 25 Georgia College students; eighteen of those students had participated in an internship and described several key features of their internship experiences, including the relevance of their internship to academic or career goals, supervision, mentorship, and project-based work. These themes and examples are summarized in Table 4 and further elaborated upon in the text that follows.

Table 4. Georgia College Student Experiences in Internships (n = 18)*

Concern	Example
Academic and career relevance	The degree of relevance or relatedness between internship tasks and the student's academic interests or career goals
Supervision	The presence of supervisors and mentors to provide work direction and guidance
Mentorship	Opportunities to receive career advice and other guidance provided by supervisors and other coworkers at the internship site.
Project-based work	Indicates an internship involving work tasks related to an ongoing project.

*Notes. *This sample only includes interviews with those Georgia College participants who had internships*

Several students discussed the importance of relevance or a high degree of relatedness between the work tasks or other experiences of their internship and their academic interests or career goals. Students felt that one particular benefit of participating in an internship with a high degree of relevance to their career goals, was that the internship could then provide them an opportunity to explore and refine their career interests and plans. A psychology student, for example, discussed how her internship in a mental health clinic provided her with additional knowledge and an opportunity to see whether or not a career in mental health would be appropriate for her. Similarly, a political science major with an interest in attending law school who participated in an internship with a community law clinic, explained how this high relationship between academic and career goals and her internship site benefited her career exploration:

> My internship experience definitely helped to shape my view of the legal system more, because even though I want to do criminal law, my internship was with a family law attorney. So just opening my eyes to other aspects of the legal system that I never thought that I would be interested in that I am.

Students who participated in internships with a high degree of relationship to their academics felt that their coursework provided them with knowledge that was central to their success in their internship. Such students described internships in which they applied particular course concepts, used technical language that they learned in classes, and worked with technology and software that they had practiced first in a classroom setting. Students also discussed how the internship provided an opportunity to put into practice their academic knowledge, as one student who interned at a law firm explained, "Like the book will tell you the basics but it's all within the experience and the exposure to really understand what to do and how to do it."

Students also emphasize the importance of high-quality supervision in their internships. One student felt that he benefited from his supervisor's clear and straightforward communication about work tasks stating, "She was really cool. She was just really straight-forward, to the point. She said, "Do this" and I did, and then I went home every day. I didn't have any issues with her." Students also emphasize the importance of supervisors providing regular and constructive feedback and being available to address questions and concerns. A few students found that their supervisors were "too busy" and "stressed" in order to make time to meet with them during the internship. One such student whose supervisor was unavailable found he could ask the secretary or other interns for direction and advice with work tasks. In contrast, a few other students described fairly close "shadowing" experiences with their internship supervisor, in which they followed the supervisor through day-to-day work, attended meetings, interacted with colleagues, and supported the supervisor's own work tasks in various ways.

A number of students also described receiving mentorship such as career advice and advice on how to manage workplace culture and politics. Some students who did not receive mentorship directly from their supervisor, benefited from career and other advice from senior co-workers who worked in the same workspace. A few students also mentioned receiving mentorship and support from more senior interns at their worksite. Interestingly, several students who felt that their internship was less related to their career interests, did not request or receive mentorship. One student who interned at a local business, but was planning to go to graduate school rather than enter business explained, "They asked me my career goals but they didn't really give advice. Oh, maybe the only advice that they give, like, you really gotta work hard. But that's not really advice. Like, that's common sense."

Several students also described being engaged in project-based work during their internships, in which they took over a particular project that allowed them to take some ownership of the work and exercise some autonomy to make decisions related to the project. Internships in research labs and engineering firms, for example, often involve project-based work. One intern at a mathematics research lab did a project involving a computer simulation of the Fibonacci Sequence. At the start of the project, the intern received a high degree of guidance and feedback, which then faded as she developed competency over the technical skills needed for the project and started to take ownership over it. The supervisor and other students in the lab were available to answer questions throughout the duration of the project, but as the internship progressed the student was able to work increasingly independently.

VIII. RESULTS: Outcomes of internships

The impact of internships on college 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 panel of students who participated in T1 of our study at Georgia College for at least two additional years, with these questions being addressed during 2021 and 2022. 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 how poorly) the experience enhanced their knowledge, skills, and career aspirations.

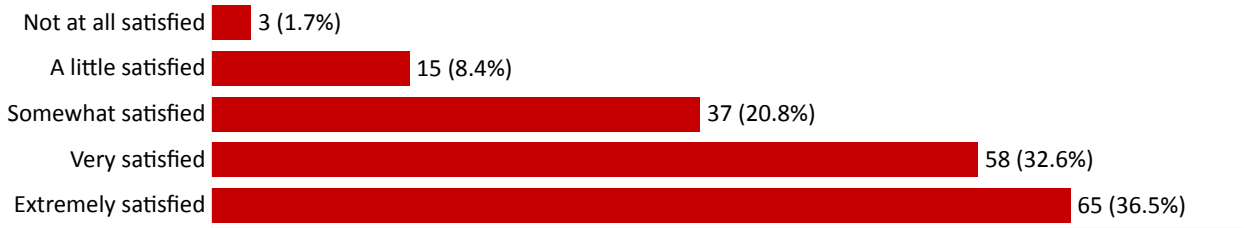
Survey results: Outcomes of internships

Level of satisfaction with internship experiences

An important indicator of the usefulness and impact of an internship experience is how students perceive their experience. For this issue, we asked a single question about overall satisfaction and students rated themselves from 1 = *not at all satisfied*, 2 = *a little satisfied*, 3 = *somewhat satisfied*, 4 = *very satisfied*, to 5 = *extremely satisfied*. The average score for the question is 3.94 with a standard deviation of 1.03.

Of the students who had completed an internship in this sample, 69.1% (n = 123) reported that they were very or extremely satisfied with their internship experience, and 20.8% (n = 37) were somewhat satisfied, leaving 10.1% (n = 18) reporting that they were only a little satisfied with their experience. (see Figure 31).

Figure 31. How satisfied were you with your internship experience? (n = 178)



To investigate the relationship between internship program features and students' internship satisfaction, we conducted correlation and multiple regressions analyses. Please see Table 2 in Appendix B for the correlation and multiple regression results. The results indicate that each of the scales included in the model are all positively correlated with students' internship satisfaction with coefficients ranging from 0.36 to 0.64. After controlling for other variables in the model, our multiple linear regression analysis showed that students with a greater level of goal clarity, supervisor mentoring, and supervisor support were expected to have greater satisfaction (see Table 2 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 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 consists of 10 items of two sub-scales using a 5-point scale from 1 = *none*, 2 = *a little*, 3 = *some*, 4 = *quite a bit*, to 5 = *a great deal:* a) 5-items regarding developmental value of academic learning with an average score of 3.90 and standard deviation of 0.90; b) five items regarding developmental value on career development with a similar average score of 3.92 and a standard deviation of 0.94.

The first scale was measured using 5-items: 1) This internship helped me to better understand the knowledge I learned in my courses. 2) The internship gave me opportunities to apply knowledge from my coursework to real-world situations. 3) The internship gave me opportunities to identify academic knowledge gaps that need to be filled. 4) The internship helped me recognize what I should focus on studying in my program. And 5) The internship motivated me to change from theory-focused to practice-focused learning. The second scale was measured by 5-items: 1) This internship helped me clarify my career goals. 2) This internship provided me with important skills relevant to my chosen career. 3) The internship gave me opportunities to learn new career-related skills. 4) The internship helped me identify specific organizations where I can apply for jobs in the future (including your internship site). And 5) This internship helped me to become more confident in my ability to pursue future career opportunities. We report below the results from the two items of each sub-scale as examples (see Figures 32-35).

Findings indicate that 71.4% (n = 127) of the participating students considered their internships to have provided quite a bit or a great deal of opportunities for them to apply knowledge from their coursework to the real-world. Of participating students, 60.1% (n = 107) reported internships were valuable in terms of providing quite a bit or a great deal of opportunities for them to identify academic knowledge gaps. Somewhat concerning is the fact that 15.7% (n = 28) responded that their internship helped them not at all or only a little in identifying academic knowledge gaps. When reflecting the value of internships to career development, 69.1% (n = 123) of participating Georgia College students reported that the skills they learned at their internships were “quite a bit” or “a great deal” important for their career development, and 69.6% (n = 124) reported that their internships helped clarify their career objectives “quite a bit” or “a great deal.”

Figure 32. This internship gave me opportunities to apply what I have learned in my courses to real-world situations. (n = 178)

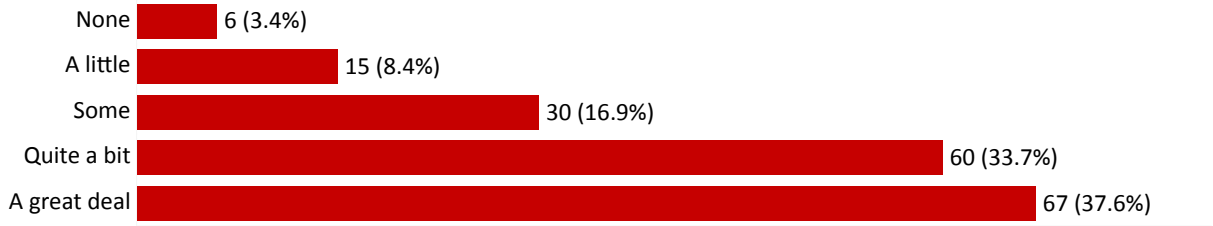


Figure 33. This internship helped me identify my academic knowledge gaps. (n = 178)

Figure 34. This internship provided me with important skills relevant to my chosen career. (n = 178)

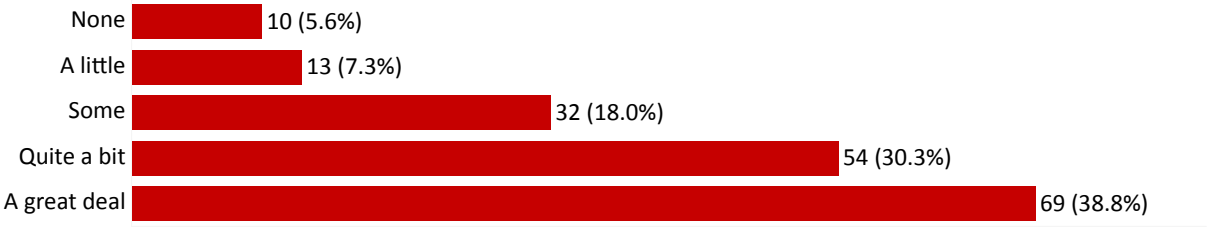
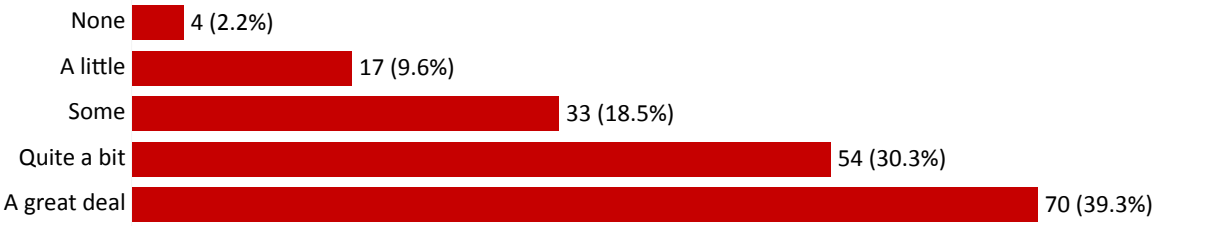


Figure 35. This internship helped me clarify my career goals. (n = 178)



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 3 in Appendix B for the correlation and multiple regression results. The results indicate that each of the scales included in the model are positively correlated with students' perceived internship developmental value, with coefficients ranging from 0.32 to 0.66. After controlling for the other variables in the model, we found that students with higher scores on supervisor mentoring, goal clarity, and relatedness to academic program were expected to perceive a higher level of developmental value of their internship experiences (see Table 2 in Appendix B).

We also looked at the developmental value of academic learning and career development respectively. Regression results show that, in both models, students with greater supervisor mentoring and relatedness to academic program were more likely to report greater internship developmental value to both their academic learning and their career development.[6]

These results indicate that there are a variety of structural factors that may contribute to a students' perception of whether their internship was a satisfactory and valuable experience. Thus, as institutions and employers work towards improving these co-curricular experiences, these factors should be considered as areas worthy of further attention, investment, and improvement.

6 The multiple regression results on supervisor mentoring showed $\beta = 0.34$, $p < 0.001$ for academic learning; and $\beta = 0.42$, $p < .001$ for career development. Results on relatedness to academic program showed $\beta = 0.46$, $p < 0.001$ for academic learning; and $\beta = 0.38$, $p < .001$ for career development β refers to the standardized regression coefficient that demonstrates the change in development value per unit change in predictors.

Student interview themes: Outcomes of internships

In addition to these results from our online survey, we held phone interviews with a total of 25 Georgia College students; eighteen of those students had participated in an internship and described several key outcomes of internship experiences, including exploration of the career field, learning and skill development, networking and resume boosting, and transition to regular employment. These themes and examples are summarized in Table 5 and further elaborated upon in the text that follows.

Table 5. Perceived Outcomes of Internship Participation Great Lakes Technical College (n = 18)*

Concern	Example
Exploration of field	Narrowing the focus of career goals and trajectory; Exploring specific environments or workplaces.
Learning and skill development	Learning and practicing skills specific to the field or job; applying skills learned in the classroom to work environment; general learning.
Networking and resume boosting	Establishing social connections with professionals and adding credentials to resume.
Transition to regular employment	Student is hired as a regular employee after conclusion of internship.

**This sample only includes those interview participants who had completed internships; outcomes are listed in descending order of frequency.*

In terms of exploring the professional field, several students offered examples of how the internship helped them narrow or expand their career focus, or to test out the personal fit with a particular industry, company, or organization. One student, for example, used his experience as an intern to explore his career goals, and determined that the particular company was not a personal fit: "I have a better understanding of what I want to do, and though it was a nice experience, it's not where I want to be at." Another student described the impact of her internship with an attorney to help her refine and test-out her goal of becoming a lawyer:

> I'm saying it was an authentic experience. Because I felt like I wanted, I want to pursue a career in law, but obviously, until you kind of get your feet wet a little bit, you don't really know what you're getting yourself into. So, like, me wanting to go to law school, I feel like that would be foolish to want to put such an emphasis on that before I've even had any type of experience with what it is. Because this is pretty dumb to try to commit yourself to something, and you're not even really sure what all it entails. … I feel like it [the internship] kind of steered me away from wanting to pursue that particular kind of law, criminal defense. So, yeah, I'm pretty open now…

Students also stated that their internship was a setting in which they were able to learn new skills, including both technical skills, such as learning new software, hardware, and grant-writing; and social skills such as communication, teamwork, presentation, leadership skills, and time management. Internships also helped

students to establish cultural skills, such as learning how to act appropriately in an office environment and how to manage office politics.

Students commonly reported that their internship provided an opportunity to develop professional contacts and to enhance their resume for the post-graduation employment market. Several students obtained professional references and letters of recommendations from internship supervisors, whereas another student hoped to use his professional connections from the internship to learn about other employment opportunities stating, "even if I don't get hired there, it would be to make connections with the people who are there who may know of other opportunities elsewhere that I can take on."

Students also discussed how an internship on a resume would make them more competitive on the employment market. For example, as this student explained, "I believe my internship experience will make me look more serious on paper as far as my intentions with pursuing the medical field … which I was told not a lot of college students have done." Another student stated that their internship had already made their resume more attractive:

> I put it [a grant-writing internship] on my resume, and fortunately enough this other internship I applied for this summer asked me to do an interview next week, because, you know, I have experience with grant writing, which is awesome.

Lastly, several students stated that their primary goal was to transition to regular employment after the conclusion of the internship; as one student explained that as an intern, "a lot of times you start off not necessarily doing what you want to do, but you do what you're told to do to the best of your ability, and that way you prove yourself, so then you can work your way up into whatever specific job that you actually want to do. So, the goal would be to get hired." Students reported being told by professors that particular companies tended to hire interns as regular employees, and they reported meeting regular employees during their internship who themselves started as interns. At the time of our interviews, only two students reported having had discussions with their internship supervisors about regular employment; however, we will learn more about how the students managed the transition to the workplace when we follow-up after a year's time.

IX. RESULTS: Student experiences with COVID-19

Finally, given that interviews with students occurred following restrictions to face-to-face classroom teaching in Spring, 2020, we sought to understand how the COVID-19 pandemic had impacted students. Specifically, we were interested in exploring how students' academic trajectories, career development, and internship experiences had been impacted by the onset of the pandemic.

In terms of COVID-19's impact on internships, many students shared their feelings that their internship process had been impacted by the pandemic. Students reported difficulty finding internship postings, having their internship offers rescinded or cancelled, having their internship conclude early, and also having their internship postponed. One student, for example, explained the problem of having internships canceled during the pandemic stating, "I know internship wise, five of my internships that I applied for got canceled. Two might be virtual still, but I haven't heard back from them yet." Several students were able to continue their internships online. For example, at the start of the pandemic, a legal aid intern was able to meet with clients virtually rather than in person to help low-income individuals access legal advice from attorneys.

In addition to the impact of the COVID-19 pandemic on internships, students reported challenges with the transition to online learning. Generally, students who struggled with the transition to online learning described how it conflicted with their personal learning style, which favored face-to-face interactions with educators and peers. Other issues that students reported, included struggling with the amount of "screen time" required for online learning, conducting schoolwork in their parents' home, and technical problems when accessing the internet for online learning. For example, one student who lives in a rural area reported being unable to obtain a strong and reliable WiFi signal in her community noting, "I'm in the areas that the WiFi isn't as fast, so you never know like, I'm just be trying to turn something in and my WiFi manages to conk out." A few students also mentioned that some professors assigned additional work after the courses transitioned to online learning. One student notes, "some of my classes gave me more work than when we were at school, which is aggravating, annoying." However, students expressed appreciation for professors who maintained classroom engagement after transitioning to a virtual platform. The students also appreciated that they were able to select a pass/fail option for their courses.

A number of students discussed feeling disappointed that the unique and special Georgia College traditions associated with graduation had to be canceled due to the pandemic. As one student explained, "There's so many traditions that we have that we can't do, that is starting to affect and mess with me." Students also stated that they miss their friends from Georgia College and graduating seniors in particular described feeling sad that that had to rush to move off campus. One student notes, "that will be the last time I'll see some of those people." However, there was also a general sense that Georgia College was doing a number of things to help students during this challenging time. Teachers were described as "really understanding" and as "supportive," and one student described how the Zoom conference that she participated in with the Georgia College President made her feel close to her Georgia College community. She explained:

> If we need him, we can call him. He gave us his number. He gave us his email. Everyone's really trying to keep the family support together. They're really trying to, I call it 'keep the family together.' They're really trying to make us feel like we are still family, even though we are scattered.

Another student described being contacted by a Georgia College alumni checking in on how she was doing during the pandemic, which was very meaningful for her. She also stated that some of the campus organizations that she was involved in were continuing to meet online, and provided free professional development webinars and conversations with professionals (e.g., she met on Zoom with an African American publicist to learn more about that profession).

In general, in the face of these struggles and frustrations associated with the pandemic, students described utilizing a wide variety of coping and self-care strategies, such as intentionally cultivating an attitude of gratitude, and practices such as meditating, practicing yoga, going for walks, spending time online with friends and family, reaching out to fellow Georgia College students, maintaining a regular sleep schedule, drawing, journaling, walking, getting fresh air, , praying, and keeping a daily routine. One student states, "I've now started to get back into … passing the time and trying to keep my sanity."

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

The literature and the data contained within this report highlights 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 of our report, we provide recommendations for students, educators, and employers for increasing the availability of high quality and equitable internship programs for all students at Georgia College.

What can students do

Students should articulate their own short-term and long-term goals before entering an internship. Just as important, these goals need to be communicated with their academic program coordinator/faculty and internship site supervisor.

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 in Figures 2-16.2, there are 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, including parental income (Figure 4) and employment status (Figure 5), may impact students' ability to access an internship. 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:

- Students are encouraged to actively search for resources, connections, and assistance in their search for and decision-making around participating in an internship. This includes utilizing campus resources and asking for support and guidance from faculty, advisors, and peers. Essentially, students need to be proactive in discovering opportunities and support systems available within the Georgia College community, and if these are lacking, to be vocal to their institution that such support is needed.
- Students should inform themselves about internship requirements and opportunities at their institutions. As we have seen, being unsure about internship requirements is associated with lower participation. Being informed about graduation requirements can help students make career decisions, including participating in internships.

- Students are also encouraged to advocate for better integration of internships within their course schedules. Many students at Georgia College reported wanting to participate in an internship but being unable to do so due to heavy course loads. Advocating for more accommodating course loads while taking an internship will inform the faculty and staff at Georgia College of this needed reform.
- It is important for students to manage their relationships with internship supervisors or mentors and to work to establish effective communication. Students also are encouraged to seek out and participate in professional development opportunities available to them as interns. Although students' internship satisfaction and perceived contributions to their development could be limited by many contextual factors, students are encouraged to treat internships as an opportunity for personal and professional development, regardless of whether the internship is required or elective.
- Students should articulate their own short-term and long-term goals before entering an internship. Just as important, these goals need to be communicated with their academic program coordinator/faculty and internship site supervisor.

What can faculty and institutions do?

Educators can play a critical role in building the academic foundation for students' future careers, by connecting students to educational- and career-related opportunities, and by cultivating students' professional development. Educators can also disseminate information regarding internships to students, facilitate connections with employers who host internships, and help students to anticipate how their course learning might apply to future internship and work settings.

Internships should also be nested within the course list more effectively, to ease the burden of coursework during semesters that students have internships.

We offer the following suggestions to strengthen educators' and campus leaders' impacts on student development and to facilitate high quality internship programs at Georgia College:

- Institutional leaders at Georgia College 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. 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.
- There are numerous formalized coordination efforts that educators enact that support the effectiveness of internship programs. This coordination can involve: (1) centralizing communication between different university-stakeholders on sharing resources; (2) having midterm and more frequent check-in meetings as well as a final end-of-internship evaluation meeting with the students and supervisors; and (3) assigning and evaluating reflective writing assignments or other projects allowing the students to process their experiences. Perhaps some of these reflective writing or other products can be highlighted on the Georgia College website.

- Educators and institutional leaders are encouraged to recognize their students' needs and life circumstances that may function as obstacles to participating in an internship (see Figures 2-16.2). For example, the majority of Georgia College students without internship experience expressed their interests of participating in one (Figure 15). Educators can support students by communicating with those students who do not participate in internships to understand their reasons, help to resolve barriers to participation, and continue to build on students' work or life experiences that may contribute to their professional and personal development.
- Given the number of Georgia College students who work 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 heavy course load and a lack of internship opportunities, as well as challenges with finding a relevant internship (Figures 16.1, 16.2, and Table 3). As such, it is important for educators and campus leaders to continue cultivating relationships with employers. Educators and campus leaders may also benefit from maintaining connections with former students and building an alumni network for the purpose of internship referrals. Internships should also be nested within the course list more effectively, to ease the burden of coursework during semesters that students have internships.
- 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, and relevance to the 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 programs, internships should primarily be considered as an educational and developmental opportunity for the students. Internship supervision related factors (i.e., supervisor support, mentoring, and clarity of goals and objectives) are significantly associated with student internship satisfaction at Georgia College. Employers can enhance this opportunity by carefully designing internship programs to include clear goals and explanations as well as 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 explanations as well as structured guidance about expectations for interns. It is also important for supervisors 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 can also 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 by providing emotional support and financial support, when possible. As many students named financial barriers as a primary obstacle to participating in internships, 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 3).
- The relevance of the internship experience to the academic program plays a critical role in students' perceptions of the value of internships to their academic learning and career development. At the college, students reported little relation between their internship experiences and their academic program. Internship supervisors are encouraged to discuss short- and long-term academic and career-related goals with their interns and to adjust the internship program to fit their academic course when possible in order to provide experiences that can support these 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) interviews with students while in college and then at work, and (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: Spring of 2020 (T1) and then 12 months later in the Spring of 2021 (T2). The study aims to document the effects of internship participation and program characteristics on a variety of student outcomes, group differences in internship participation and student outcomes (e.g., socioeconomic status, race, gender, discipline, and first-generation status), and institutional experiences with hosting and implementing internship programs.

The survey of students and other data collection activities were conducted in Spring 2020. 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 letter, which directed them to a unique password-protected URL. 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 a 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.

Table 1. Descriptive statistics and Cronbach alpha coefficients of the measuring instruments

	Mean	SD	α
Supervisor support	4.31	0.81	0.88
Supervisor mentoring	3.82	0.92	0.86
Goal clarity	3.96	0.87	0.82
Task autonomy	4.02	0.97	0.80
Relatedness to academic program	3.79	1.05	
Similarity to entry-level jobs	3.55	1.07	
Satisfaction	3.94	1.03	
Development value	3.91	0.87	0.92
Academic developmental value	3.90	0.90	0.87
Career developmental value	3.92	0.94	0.88
Career adaptability composite	3.96	0.67	0.95
Concern	3.99	0.77	0.85
Control	4.06	0.72	0.85
Curiosity	3.84	0.83	0.88
Confidence	3.96	0.79	0.90

The results of the survey were analyzed using methods such as Pearson Chi-square test, and linear probability models to explore the effects of demographic background on internship participation. In addition, correlation, simple regression, and multiple regression were 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 a phone or online interview 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 interview at T1 will be asked if they can be contacted for a follow-up online or phone interview.

For the interviews at T1, groups comprised of one to three students were separated into those who have participated in an internship (n = 18) and those who have not (n = 7). Prior to the start of the interview, 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 interview. 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, career advisors, university personal, and employers at Georgia College who support student internships. A list of potential recruits from among the Georgia College staff and area employers was provided by our colleagues at Georgia College. 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 were also collected and analyzed for details about design features of internship opportunities.

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 interviews in parallel. A 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 in internships and the characteristics of internship experiences (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. Researchers identified and resolved a few discrepancies and the codes were then applied to the entire corpus.

The limitations of this study are the small sample size of the student interviews, which could not be representative of students from the wide range of academic programs offered at Georgia College. This was also a non-random sample, with students self-selecting into the pool of volunteers who we contacted and tried to schedule for interviews. 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 2. 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	.64***	.34**	.001
Supervisor Mentoring	.60***	.26**	.005
Goal Clarity	.64***	.57**	.003
Relatedness to academics	.41***	.12	.060
Task autonomy	.40***	.03	.637
Similarity to entry-level jobs	.36***	.06	.309

Dependent variable: Internship satisfaction

Control variables: gender, academic program, GPA, employment status, social class

The multiple regression model produces an adjusted R^2= 0.55, F(23, 152) = 10.4, p < 0.001.

The multiple regression model equation: Satisfaction = 0.34 * supervisor support + 0.26 * supervisor mentoring + 0.57 * goal clarity. This equation reports only statistically significant predictor variables, but controls for all other variables in the model.

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

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

Race/ethnicity was not included as a control variable given that respondents identifying as Black or African American make up 91.8% of the sample.

One participant identifying as non-binary was excluded from the regression given the small sample size.

Two students who did not respond to the question of social class have been excluded from the regression.

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

Table 3. Results of correlations and multiple regression analysis of internship program features and students' development value

Predictor	Correlation with Development value	Developmental Value Composite	
		β	*p*
Supervisor support	.45***	-.02	.799
Supervisor Mentoring	.62***	.38***	<.001
Goal Clarity	.48***	.18*	.010
Relatedness to academics	.66***	.42***	<.001
Task autonomy	.32***	-.01	.854
Similarity to entry-level jobs	.38***	-.08	.123

Dependent variable: Development value

Control variables: gender, academic program, GPA, employment status, social class

This multiple regression model produces an adjusted R^2= .59, F(23, 152) = 11.92, p < .001.

The multiple regression model equation: Development value = 0.30 * autonomy + 0.27 * relatedness to academic program. Autonomy and relatedness to academic program had significant positive regression weights.

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

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

Race/ethnicity was not included as a control variable given that respondents identifying as Black or African American make up 91.8% of the sample.

One participant identifying as non-binary was excluded from the regression given the small sample size.

Two students who did not respond to the question of social class have been excluded from the regression.

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

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The College Internship Study

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The College Internship Study is generously supported by the National Science Foundation (DGE# 1920560) and the Bill & Melinda Gates Foundation.

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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