Results from the College Internship Study at Morgan State University

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WISCONSIN CENTER FOR EDUCATION RESEARCH | UNIVERSITY OF WISCONSIN–MADISON

JUNE 2020

CENTER FOR RESEARCH ON College-Workforce Transitions

The College Internship Study

EXECUTIVE SUMMARY

This report includes findings from the first round of data collection at Morgan State University (MSU) 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 = 308), individual phone interviews with students who have and who have not had an internship experience (n = 41), individual phone interviews with career specialists, faculty, and program directors (n = 7), and individual phone interviews with employers (n = 5).

We would like to thank MSU for their partnership with our research team and for allowing us to speak with your students, educators, and community members. We hope that our findings are useful as you work toward 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 also were interested in understanding MSU 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 MSU and employer partners with respect to internships and its impacts on their studies and career goals.

Some key findings from our analysis include:

1. Educators indicated that internships and experiential learning opportunities are incredibly important for students' professional development and outlined both current support strategies as well as potential opportunities to strengthen MSU's approach to internships. Employers we interviewed emphasized the mutual benefit of meaningful institutional partnerships at MSU to facilitate internship placement. Additionally, employers spoke about the employers' responsibility to evaluate internships to design intentional, accessible, and supportive experiences.

2. About 37% of the respondents in our survey participated in an internship program within the past year (n = 114), meaning that about 63% (n = 194) did not participate in any internship. Of the students who had participated in an internship, 49% were in programs that did not require an internship while 43% reported that internships were required to graduate.

3. Students who are first-generation college students or enrolled part-time in their academic programs were less likely to participate in an internship. Additionally, students with a higher GPA were more likely to have participated in an internship.

4. About 80.9% of students who did not participate in an internship (n = 194) had wanted to do so. Barriers to participation include a heavy course load (51%), a lack of internship opportunities (48.5%), the need to work at their current job (45.9%), a lack of transportation (41.8%), insufficient pay offered (34.5%), and a lack of childcare (20.6%). These obstacles often intersected with one another such that individual students experienced more than one at a time. During individual interviews, many students (n = 41) also reported barriers to their participation in internships, including GPA concerns, need for institutional support, travel and relocation, financial concerns, and a lack of time due to academic and work commitments.

5. The clarity of internship tasks and goals, supervisor support, supervisor mentoring and similarity to an entry-level job are positively associated with students' internship satisfaction. Additionally, supervisor mentoring, autonomy, similarity to entry-level job, and how related an internship is to academic programs is positively associated with students' perceived internship value for both their academic and career development.

6. 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 MSU students includes the opportunity to explore their professional field, the ability to engage in a valuable learning experiences, an increase in their competitiveness for future employment by developing on-the-job experience, gaining real world experience, and increasing their self-confidence.

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

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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 regarding 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 MSU 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?

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

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.

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Furthermore, before claiming causal relations between particular programs and student outcomes, it is essential to first describe these variables and the mechanisms that may govern their relations (Loeb et al., 2017). Consequently, descriptive research on critical mediating factors such as the structure and format of internships is essential in order to avoid treating the internship experience like a "black box" that mysteriously transforms students into work-ready individuals (Silva et al., 2016, p. 704). Similarly, it is untenable to assume that all internships provide a robust experiential learning opportunity in the spirit of the types of hands-on learning envisioned by educational theorists (e.g., Dewey, 1938; Resnick, 1987). As a result, research examining the specific structural features of the learning environment that comprise the internship experience is particularly needed to inform internship policy and practice (Cannon & Geddes, 2019).

In our study, we build upon promising lines of inquiry that examine how features of internship program structure - such as compensation, quality of supervision, and task clarity—may impact student outcomes. These programmatic features are important to consider because research on the coordination between employers and academic programs shows that the more internships are clearly coordinated with academic coursework, the more students will gain from the overall experience (Katula & Threnhauser, 1999; Narayanan, Olk, & Fukami, 2010). Another important factor in perceived internship quality and efficacy is the behavior of job-site supervisors. Active and meaningful supervisor support was found to positively impact business students' satisfaction with the internship experience (D'abate, Youndt, & Wenzel, 2009), and was also positively

associated with job pursuit, satisfaction, and career development in a study of 99 students in an undergraduate management program (McHugh, 2016). Other program design features that have been associated with satisfaction and other student outcomes include the duration of internships (Murphy, Merritt, & Gibbons, 2013), the degree of student autonomy to design and perform tasks (Virtanen, Tynjala & Etelapelto, 2014), the clarity and variety of work tasks (Bauer et al., 2007; Beenen & Rousseau, 2010), and the presence of detailed feedback from both educators and employers (Rothman, 2007).

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 psychosocial variable is 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.

III. INSTITUTIONAL CONTEXT: Morgan State University (MSU)

Mission & Academic Programs

Morgan State University is a Historically Black public research University in Baltimore, Maryland. Maryland's largest HBCU, MSU has an independent governing board outside of the state's University System. According to the university's website, MSUs' mission is to serve:

> *The community, region, state, nation, and world as an intellectual and creative resource by supporting, empowering and preparing high-quality, diverse graduates to lead the world... through collaborative pursuits, scholarly research, creative endeavors, and dedicated public service, the University gives significant priority to addressing societal problems, particularly those prevalent in urban communities. (MSU, 2020)*

MSU is also designated as Maryland's Preeminent Public Urban Research University by the 2017 Maryland Legislature with the responsibility of addressing the needs of residents, schools, and organizations within the Baltimore metropolitan area (Morgan State University Cultural Diversity Report, 2017). In addressing this mission and responsibility, Morgan has developed a strategic plan and a variety of programs and initiatives to support student success and applied research, particularly in the surrounding underserved communities.

MSU offers 48 bachelor's, 37 master's, and 16 doctoral degree programs across eight colleges and schools. These include: The College of Liberal Arts, School of Computer, Mathematical & Natural Sciences, School of Business & Management, School of Social Work, School of Architecture & Planning, School of Engineering, School of Global Journalism & Communication, School of Graduate Studies. School of Community Health & Policy, and School of Education & Urban Studies (Morgan State [MSU] University, 2020). In 2019, the most common degree programs awarded included Applied Liberal Arts, Civil Engineering, Business Administration, Psychology, Social Work, Electrical Engineering, and Biology. Importantly, MSU has been one of the leading state institutions in bachelor's degrees awarded to African Americans, and first in degrees awarded in engineering, architecture, journalism, and physics. At the graduate level, MSU is first in the state in the number of doctorates awarded to African Americans (Morgan State University Cultural Diversity Report, 2017).

Enrollment Information

As of Fall 2019, the latest enrollment data available, 7763 students were enrolled at MSU, with 1302 enrolled as graduate students. The vast majority of undergraduates included full-time students (87.1%). The retention rate among first-time full-time students was 71% in Fall 2018, which is on par with national public institution rates. The majority of MSU undergraduates are 18-24 years of age (72.3%), with 16.5% being 30 years and older (MSU, 2020).

Snapshot of the Regional Economy

MSU is located in Baltimore City, which is part of the Baltimore-Columbia-Towson metropolitan area. With a population of 2.8 million, Baltimore and its neighboring urban areas constitute one the medium-sized metropolitan areas of the United States. Regarding population demographics, Baltimore city proper is predominantly African American (61.3%) with Non-Hispanic White residents comprising 27.7%, and Hispanic residents representing only 5.5% of the population (American Community Survey, 1-year estimates, 2018). Notably, since 2010, Baltimore City has experienced a decline in its population size by about 18,000 people (American Community Survey [ACS], 2010, 2018).

Nearly 63% of Baltimore City residents over 16 years old are in the labor force, meaning they are either working or are actively looking for a job. Almost a third of them work in educational services, health care, and social assistance industries (30.7%), which are, by far, the dominant industries in the area in terms of numbers of jobs. Professional, scientific, management and administrative services (12.7%), entertainment, recreation, accommodation, and food services (9.2%), retail trade (8.8%), and public administration (7.6%) represent considerably smaller shares in the number of jobs in the area (ACS, 1-year estimates, 2018).

In terms of the size of its economy, the Baltimore metropolitan area generates over 205 billion dollars in gross domestic product (GDP), which places it in the top tier in the ranking of metropolitan areas by contribution to the national GDP. In fact, for its population size, the Baltimore metropolitan area has a relatively "large" economy. The most recent data shows that the local economy is dominated by the private sector, which contributes to 81% of the local GDP (see Table 1). In the private sector, finance, insurance, and real estate are the largest contributors with 21.7%. The professional and business services and the educational services, health care, and social assistance industries account for about 44% of all jobs in the area, making up about 14% and 11% of the local GDP, respectively. Notably, the public sector accounts for almost a whole 20% of the local GDP (Bureau of Economic Analysis, 2019).

Table 1. Gross Domestic Product (GDP) Baltimore-Columbia-Towson, MD Metropolitan Statistical Area 2018 (thousands of current dollars)

Description	GDP 2018 (current USD)	% of industry total
All industry total	205,313,937	
Private industries	166,109,321	80.91
Agriculture, forestry, fishing and hunting	138,138	0.07
Mining, quarrying, and oil and gas extraction	123,236	0.06
Utilities	2,188,086	1.07
Construction	8,554,980	4.17
Manufacturing	13,052,151	6.36
Durable goods manufacturing	6,807,191	3.32
Nondurable goods manufacturing	6,244,959	3.04
Wholesale trade	10,867,433	5.29
Retail trade	9,284,784	4.52
Transportation and warehousing	6,096,221	2.97
Information	7,298,961	3.56
Finance, insurance, real estate, rental, and leasing	44,477,084	21.66
Finance and insurance	13,395,788	6.52
Real estate and rental and leasing	31,081,296	15.14
Professional and business services	29,192,042	14.22
Professional, scientific, and technical services	20,074,530	9.78
Management of companies and enterprises	2,205,303	1.07

Description	GDP 2018 (current USD)	% of industry total
Administrative and support and waste management and remediation services	6,912,209	3.37
Educational services, health care, and social assistance	22,064,983	10.75
Educational services	4,856,615	2.37
Health care and social assistance	17,208,368	8.38
Arts, entertainment, recreation, accommodation, and food services	8,433,831	4.11
Arts, entertainment, and recreation	3,170,205	1.54
Accommodation and food services	5,263,626	2.56
Other services (except government and government enterprises)	4,337,390	2.11
Government and government enterprises	39,204,616	19.09

Source: Bureau of Economic Analysis, December 12, 2019 update
Gross Domestic Product (GDP) is in thousands of current dollars (not adjusted for inflation). Industry detail is based on the 2012 North American Industry Classification System (NAICS).
(D) Not shown to avoid disclosure of confidential information; estimates are included in higher-level totals.

The industries that have registered the most job growth in the past decade are professional, scientific, management and administrative services, and transportation and warehousing, and utilities, with 14.4% and 12.5% more jobs in 2018 than in 2010, respectively. Notably, industries that have seen a significant decline in the number of jobs over the past decade include manufacturing (-28.6%), public administration (-21.6%), and information services (-18.2%; ACS, 2010, 2018).

The unemployment rate in the Baltimore metropolitan area mirrors the national trend, experiencing a slow decline from 4.6% in January 2018 to 3.5% in March 2020, at the time our survey was conducted. Official unemployment records show that, by April 2020, the local unemployment rate had jumped to 10.4% due to the economic slowdown produced by the COVID-19 pandemic (Local Area Unemployment Statistics, 2020). Finally, official accounts also show that the estimated poverty rate for the county is 18.4%, and that the median household income is $51,000 (2018, adjusted for inflation; ACS, 1-year estimates, 2018).

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

IV. METHODOLOGY

The College Internship Study is a mixed-methods longitudinal study of internship programs that is guided by the following research questions: (1) How many students are participating in internship programs, and does participation vary by student demographics, academic status, or life/employment situation? (2) What barriers exist for students to participate in internship programs? (3) What is the structure and format of internship programs? And, (4) How, if at all, is 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 includes an online survey of students, interviews with students who had internship experience and those 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 regarding internship programs and services at the institution. A team of trained researchers collected this data in partnership with MSU in the Spring of 2020. The online survey was administered to students in the second half of their program (with the exception of students in teacher education and nursing programs) which resulted in a response rate of 24.8%. 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, 41 students volunteered for individual phone interviews lasting approximately 30-60 minutes, where researchers asked more in-depth questions regarding their internship experience and barriers to obtaining an internship. In addition, educators and employers participated in an hour-long phone interview regarding their own experiences administering internships, helping students with or during internships, and the overall purpose of internships (Table 2).

Table 2: Description of Spring 2020 sample

	Survey	Interviews
Students	308	41
Educators	N/A	7
Faculty/Deans	N/A	3
Career advisors	N/A	4
Employers	N/A	5

1 The data reported here represent the first phase of data collection at Data also will be collected in) 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.

Data was analyzed using a variety of techniques, including qualitative analytic techniques, including inductive theme analysis of interview and focus group transcripts, 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.

V. RESULTS: Institutional capacity for administering internship programs at Morgan State University

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, and when—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 MSU, we gathered information on these issues from students and academic personnel, along with an analysis of information available on the MSU website. In particular, individual interviews with 7 MSU career specialists, faculty, and program directors informed responses to these four Ws.

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Are internships required to graduate from Morgan State University?

College students at MSU are not all required to complete an internship prior to graduation. However, across the institution, many specific colleges and departments may require students to complete an internship before attaining their degree. For example, the School of Global Journalism and Communication requires internships, as does psychology. Additionally, within the School of Architecture and Planning, construction planning requires an internship prior to graduation; however, other majors do not. Many majors at MSU do offer internship courses as electives for students. Some students complete an internship as part of their graduation commitment (for-credit), while others take on internships for professional development (non-credit).

Who is involved in the oversight and administration of internship programs at MSU?

There is no central oversight system for internship programs at MSU. Instead, a variety of offices, departments, and faculty work together with students on internship applications and completions. The specific processes and procedures differ depending on the academic department, employer or internship site, and MSU's history with a particular internship site. For academic credit internships, MSU requires that a Memorandum of Understanding (MOU) be completed by the academic department and employer. This MOU is reviewed by MSU's central office legal department. Based upon our interviews, it appeared that some academic departments found the policy helpful whereas others noted it to be a barrier to working with some internship employers.

The Director and four Career Specialists at the Center for Career Development (CCD) support internships alongside students' overall career planning and development at the individual and campus levels. The Lead Career Specialist works on the Career Pathways Initiative in addition to job duties as a career specialist. At the time of this report, these positions were supported by the Career Pathways Initiative Grant and the CCD Associate Director or Recruitment Coordinator position was vacant. This position would serve primarily to liaise and partner with employers.

The CCD utilizes a unique model in which Career Specialists are embedded within four identified industry clusters at MSU: (1) Education, Public Health and Behavioral Sciences, (2) Arts, Humanities and Media (the School of Global Journalism and Communication and College of Liberal Arts), (3) STEAM (the Schools of Engineering, Computer, Mathematical and Natural Sciences, Architecture and Planning), and (4) Business and Entrepreneurship. Each Career Specialist has their office within their respective industry cluster and works with assigned faculty liaisons within those departments. Although faculty liaisons and departments varied in their level and degree of involvement with Career Specialists, the embedded model overall was described by faculty directors, CCD staff, and interviewed employers as beneficial. Some faculty and employers collaborate with the CCD on recruitment, efforts, professional development events, workshops, class-based experiential learning, and resources to support their students' internships. Others work more independently without coordinating with the CCD.

The CCD offers career counseling, resume and cover letter review, job search strategy support, interview skills practice sessions, and assistance searching for internship and post-graduation opportunities through one-on-one advising and larger-scale outreach activities. The CCD also works to identify and create relationships with employers including inviting employers to fall and spring campus job fairs as well as the campus internship fair. Career specialists' relationships with each academic department is unique; however, some career specialists work with an academic department to recruit and locate potential internship employers. One career specialist described their role in this way, "I [fill] the gap between employer, student and the university."

This past spring (2020), MSU hosted its first ever virtual job fair following the COVID-19 crisis. The CCD also supports an online job and internship portal called E-Bear by Simplicity. This platform allows the CCD to vet and post internship opportunities, track applications, and obtain and track data on internship participation and experiences. Additionally, CCD staff distribute a survey to employers on E-Bear after the position post closes; however, they reported inconsistent responses from employers. MSU staff named collecting data on which employers have hired MSU students and closing the recruitment feedback loop as two specific challenges

faced when systematically evaluating internship. The CCD staff have named this as a specific goal for the future.

The CCD website has an Employer-facing page that specifically provides guidelines on internship design, compensation, and posting suggestions in line with the National Association of Colleges and Employers (NACE). It is important to note that this represents a unique form of advocacy on behalf of MSU to protect student interns. Unfortunately, however, use of E-Bear across the University appeared inconsistent.

The CCD defers to each academic department for approval and management of for-credit internships. Employers and academic departments, who manage for-credit internships, partner with employers outside of the E-Bear platform to cater specifically to students within certain majors, whereas others partner with career specialists and E-Bear to find internship hosts for their students. Some academic departments also support their own job portals or host their own mini-job fairs with the support of the CCD.

Within individual departments and among faculty who oversee for-credit internships, faculty often leverage professional industry relationships to seek out and maintain relationships with internship hosts. These faculty members also ensure that the experiences meet the academic department standards for academic credit. They also prepare, advise, and support students throughout the internship experience. In addition, evaluation and data gathering processes vary across departments. One Career Specialist embedded in the School of Business worked with the School to begin surveying students regarding their experiential learning experiences. In contrast, other Schools at MSU may have no formal school-wide processes for evaluating student internship experiences. These evaluations are instead individually developed and initiated by the faculty who oversee internship courses, and associated information is not necessarily routed to a central office or shared campus wide.

Finally, some academic departments prohibit paid for-credit internships (e.g. School of Education and Urban Studies and the School of Social Work), whereas other academic departments permit students to receive compensation for academic credit internships (School of Architecture and Planning).

When do these activities take place?

The timing of student internships varies widely across departments and programs on campus. Internships tied to courses are usually completed during the semester in which the course is taken. Some academic programs also have a standardized timeframe for internships either during the academic year or within a set sequence over the course of academic study. Internship opportunities often become available during the academic year depending on employers' needs.

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

University personnel (i.e., directors, faculty, and career services staff) interviewed at MSU cited numerous reasons that they value and support internship programs and see them as "key" professional development experiences for students. Educators emphasized the importance of internships as opportunities for professional development and socialization into the world of work that will further students' post-graduation success by helping them to get their "foot in the door," "open the door for them" professionally, and get "their feet wet." One educator named three important outcomes for students: narrowing their career path or "figuring out what [they] really want to do", networking with professionals on internships, and "connecting the dots" between their classroom learning and real-life scenarios. Some personnel also emphasized the necessity of internships or real-world experience for careers and industries in which they worked, highlighting the differences between classroom experiences and practical application.

Other educators described the importance of continuous communication with faculty, students, and employers to think flexibly about internship opportunities and how they may connect with a student's program of study. For example, some described the importance of encouraging students to look for and recognize internship opportunities that may not be advertised to prospective interns within their specific major but for which students may be highly competitive and for which the internship may be relevant to future career goals.

Some educators also noted conflict between the value and importance of internship experiences while also recognizing the reality that many students with whom they work have a number of barriers that keep them from completing internships. For example, educators noted that they worked with students who cannot accept unpaid internships due to financial barriers, lack transportation to internship sites, or may not meet employer GPA requirements. As one educator stated, "Some of our students just cannot participate in unpaid internships because many of our students have multiple responsibilities and, you know, many of them are primary caregivers and they need to be—you know, they can't step away from a paid role in order to do an unpaid internship… So just balancing the playing field so that all students can participate would be nice but you know, that's just a wish, I guess."

Several educators also stressed their role in preparing students for internship experiences. Some educators noted their responsibility to educate students about topics such as workplace conflict or discriminatory experiences that students may be unsure how to navigate. Indeed, some educators expressed uncertainty regarding when or if students received advice regarding managing difficult or discriminatory internship experiences. Some noted the potential benefit of preparing faculty who oversee internship courses to respond to issues related to discrimination that students may bring to class discussions or to supervision check-in conversations.

We also interviewed five employers or recruiters who had partnerships with MSU. All 5 of these employers had positions related directly or indirectly to inclusion, human capital, or the recruitment of diverse interns. Interviewees noted this in their description of their work roles, describing how they worked within their organizations or companies to provide meaningful rationales for hiring and working with diverse interns from

new recruitment sites such as MSU. Employers shared a variety of reasons that their company or agency seeks to hire interns, including to: (1) convert interns to future employees; (2) develop a pathway of future associates in a field or agency with an aging workforce; (3) use new perspectives when solving problems in a company or organization; and (4) give back to the community by engaging in student development. Overall, internships were viewed as an investment for the company. The employers themselves also shared a personal passion and responsibility for student development, student success, and a just and equitable workforce. One employer stated, "We should prepare our young people to assume the reins of leadership, but that means preparation. They need time to grow into positions. They need mentoring... they need the opportunity to develop individually, and as adults." Taken together, employers described being involved in internships to increase students' access to opportunities, support students' career development, and equip them to have "choicefulness" in their post-graduation employment.

Employers shared the steps they or their organizations had been taking along with new initiatives started within the past 2-3 years to improve and structure their internship programs and/or diversify their workforce. One employer reported that in response to prior intern feedback, the company had recently centralized their approach to internships in order to offer a cohesive and meaningful experience. To do so, the company instituted a program-wide orientation, including a "lunch and learn" with senior staff and professional development opportunities (e.g. resume writing). The company also shared expectations with hiring managers, which included expectations related to providing interns with meaningful, project-based work on teams that preferably offered networking opportunities for interns. Another employer viewed work tasks as "problems to be solved," which entailed careful evaluation of potential problems and solutions that were appropriate for internships. This employer acknowledged that it was difficult to ensure offices and hiring managers were following through with evaluation procedures and other systematic oversight.

As mentioned above, the 5 employers we interviewed expressed concerns about the role of discrimination in the full life cycle of the internship process. They shared varied responses regarding how best to address discrimination in the workplace, prepare students for internships and the world-of-work, and support students during internships. One employer reported feeling less certain about how to address discrimination in the workplace, prepare and support students, and navigate possible bias they may encounter from hiring managers. This employer states, "I've heard comments about the professionalness of the students, and... I worry that sometimes it's discrimination. Or, it's a young college student who has never been in the workplace." At this company, the goal is to intentionally recruit more students from HBCU schools in the area and this has impacted the development of their relationship with MSU educators and career staff. This company reported engaging in a thorough evaluation of their recruitment and screening processes (e.g., interview questions, transportation to interview). Changes to their internship screening process as a result of this evaluation was initiated to directly combat bias in hiring. For example, they created an expectation that search committees are diversified and trained in potential biases. Similarly, another employer noted a lower tendency to hire international students, which they perceived to be related to employers being unaware of how to engage in the logistics processes required to hire these students.

Employers recognized that pervasive barriers exist for students. These include a lack of transportation, financial resources, and challenges in balancing homelife responsibilities (e.g., childcare). One employer described efforts

their organization took to ensure that students were paid. This employer named the history of rewarding students' academic credit as an "excuse" not to compensate interns. Additionally, they noted that issue that employers may miss qualified interns who do not have the financial means to take an unpaid internship. As a result, this particular employer continues to pay its interns while also extending the hiring timeline to allow students the time needed to request academic credit from their departments. This employer also noted the importance of administrators and faculty themselves to continue to advocate for paid internships for students and to encourage students and prospective employers to expect compensation. One employer noted that in their experience they had seen academic departments comment that students "expect" internships to be unpaid and therefore do not ask employers for compensation nor negotiate for higher compensation packages. As one employer put it, "This is one of the most critical, essential factors in helping our HBCU or first-generation low-income college students be successful - is being able to provide that standard to give them the cushion to not have other stressors and barriers so they can perform better at work."

In addition to these obstacles, a significant barrier or challenge mentioned by one employer working as part of recruitment and outreach at a major government agency, is creating individual relationships in schools that ensure information is accurately and effectively disseminated to students. For instance, this employer works for an agency that hires paid internships across academic majors and actively seeks HBCU students but was unsure if students were aware of or fully informed of these opportunities.

Employers who reported effective collaboration emphasized the benefits of their relationships with Career Specialists in the CCD office as vital entry points.

VII. RESULTS: Which students are taking internships at Morgan State University?

In this section, we present findings from the online survey regarding the number of students at MSU who have (and have not) participated in an internship. A team of trained researchers collected this data at MSU in the Spring of 2020. There are a total of 2483 students currently enrolled in the second half of their program (with the exception of students in teacher education and nursing programs). With a goal to select a representative sample based on resource constraints, we capped the size of the study sample at 1,244 students using random stratified sampling method based on two strata—gender and race. As a result, 308 completed our survey, with a response rate of 24.8% (see Table 3).

Table 3: Description of student sample and MSU student population

	Survey Sample	Institutional Population
Total	308	2483
Gender	Male = 111 | 36.2% Female = 195 | 63.5%	Male = 1221 | 49.2% Female = 1260 | 50.7%
Race	Asian = 7 | 2.3% Black = 270 | 88.2% Hispanic = 6 | 2.0% White = 4 | 1.3% American Indian or Alaska Native = 4 | 1.3%	Asian = 25 | 1.0% Black = 1865 | 75.1% Hispanic = 80 | 3.2% International = 244 | 9.8% White = 60 | 2.4%
1st gen status	Yes = 118 | 38.4% No = 189 | 61.6%	Yes = Not reported No = Not reported

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. Three hundred and eight students responded to the online survey. Among them, about 37% (n = 114) have participated in internship programs in the past 12 months (Figure 1). Fifty-six out of the 114 students (49.6%) had one internship experience, and 33 students (29.2%) had two. The rest of the students (21.3%) had three or more internships.

Figure 1. In the past 12 months, have you participated in an internship? (n = 308)

These results indicate that a large number—over 60% of the study sample—have not had any internship experience. 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 requirements of and relevance for individual students and/or their academic program. 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, disability status, and parents' income), life circumstances (i.e., employment status, food insecurity, rent or mortgage payments), psychological variables (i.e., career adaptability), and features of academic programs (i.e., requirement to take internships, academic enrollment, major, and GPA).

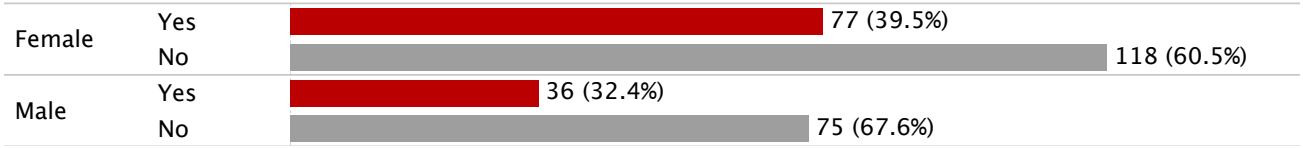
Demographic characteristics and internship participation

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 examined the issue of equitable access for groups of students.

The results show small differences in participation rates for female and male students (see Figure 2; 39.5% vs. 32.4%). In our survey, the majority of the students (88.2%, n = 270) identified themselves as Black or African American. Of these students, about 37% (n = 99) had internship experiences (Figure 3). Other racial categories (e.g., Asian, Hispanic, etc.) all had very small numbers of students. Chi-square tests display insignificant differences in internship participation rates across all racial categories.[2]

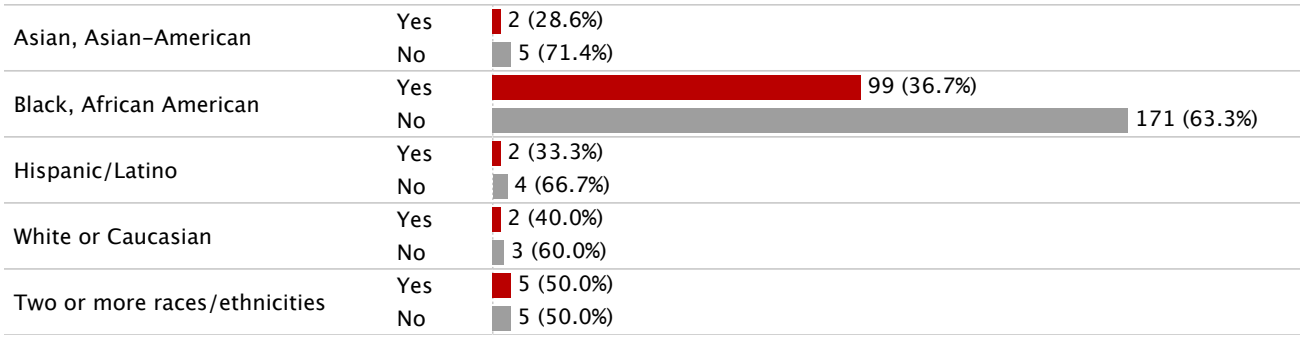
2 Although we are using p value to infer statistical significance in the current study, it is worth noting that p value should not be taken as a definitive validation of relationships between variables. Many factors may influence p value such as effect size, size of sample and spread of the data (Dahiru, 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.

Figure 2. Internship in the Past 12 Months (Yes/No), by Gender (n = 306)[3]



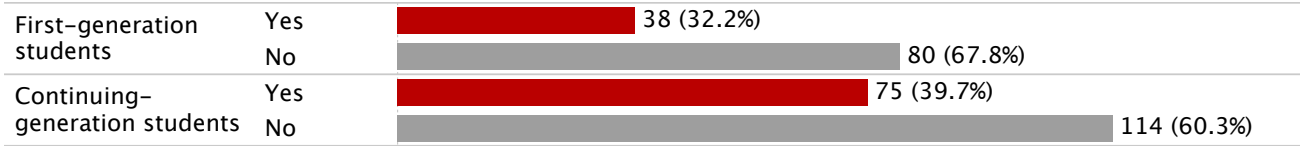
*Note: Transgender, Non-binary, and Other were excluded from this figure due to small sample size.

Figure 3. Internship in the Past 12 Months (Yes/No), by Race / Ethnicity (n = 288)



*Note: Two students declined to answer this question, so we removed those individuals from our calculation. Another eighteen students that identified themselves as other than the above race groups were also excluded from this figure.

Figure 4. Internship in the Past 12 Months (Yes/No), by First Generation College Student Status (FGS) (n = 307)



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

Participation in internships was also analyzed based on first-generation college status (see Figure 4) and parents' income (Figure 5.1). Internship participation rate of first-generation students (32.2%, n = 38) was slightly lower than that of continuing-generation students (39.7%, n = 75, see Figure 4). However, the difference was not statistically significant based on the current sample (χ^2(df=1, N=307) = 1.44, p = 0.23).

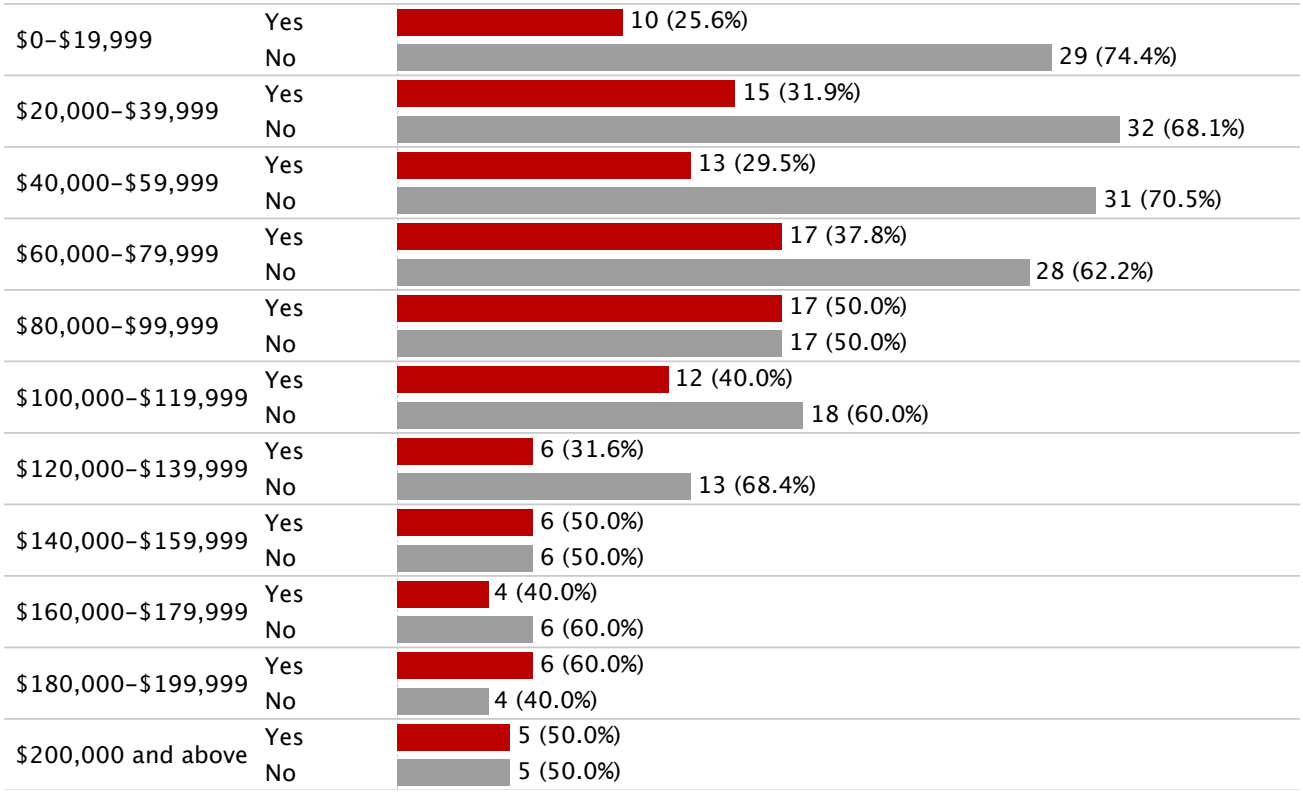
Parental income is used here as an important indicator of students' socio-economic status. Internship participation rates across different parental income brackets are shown in Figure 5.1. Based on our current sample, the differences were not statistically significant. We further explored the relationship between

3 Figure labels describe frequency of each bar and internship participation rate within each group.

internship participation and parental income based on state median annual income. The median annual household income in 2018 was $83,242 in Maryland.[4] Our parental income brackets did not match exactly with the median income. We grouped students' self-reported parental income into below and above $80,000, the closest cut point below and above median annual household income.

The internship participation rate for students from above the state median household income (44.8%, n = 56) was significantly higher than the participation rate of those below the median household income (31.4%, n = 55, χ^2(df=1, N=300) = 5.03, p = 0.025).

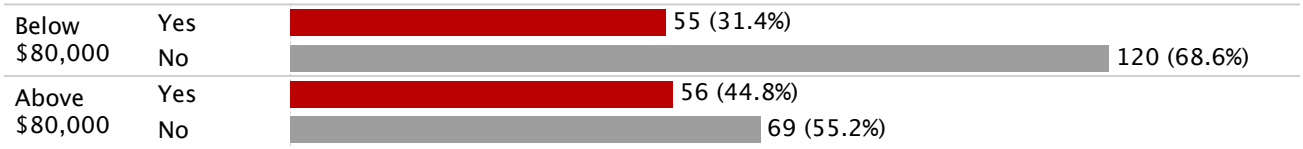
Figure 5.1. Internship in the Past 12 Months (Yes/No), by Self-reported Parental Income (n = 300)



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

4 The median annual income of Maryland comes from Data USA: https://datausa.io/profile/geo/maryland#economy.

Figure 5.2. Internship in the Past 12 Months (Yes/No), by Parental Income Below and Above Median Annual Income (n = 300)



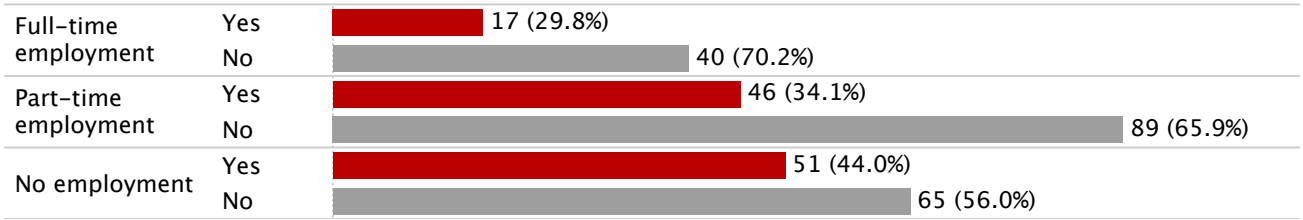
*Note: Eight students declined to answer this question, so we removed those individuals from our calculation.

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 students' 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 examined the relationship between these variables and internship participation. Finally, given that 192 (62.3%) students reported being employed at least part-time, we examined the extent to which students believe that their current job provides them with the skills and knowledge required to be successful in their desired future careers.

Figure 6 displays internship participation by employment status (PT/FT/No-employment). Students who had no employment were most likely to participate in internships with a participation rate of 44.0% (n = 51). Students who worked at a full-time job that was not considered an internship during the last 12 months were least likely to participate in internships (29.8%, n = 17).

Figure 6. Internship in the Past 12 Months (Yes/No) by Employment Status (n = 308)



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. The results show that approximately 8.8% (n = 27) reported relying on these resources in the past 30 days. Those who did rely on food assistance are more likely to participate in internships (40.7% vs. 36.7%), although the differences are not statistically significant (Figure 7). Given that housing costs can strain a students' financial situation, we also asked about problems related to paying rent or mortgages, with 8.4% (n = 26) of students reporting housing cost problems (Figure 8). Students with difficulties paying rent or mortgages reported a lower internship participation rate than students without such difficulties (30.8% vs. 37.6%), although the differences are not statistically significant.

Figure 7. Internship in the Past 12 Months (Yes/No) by Students Requiring Food Assistance (n = 308)

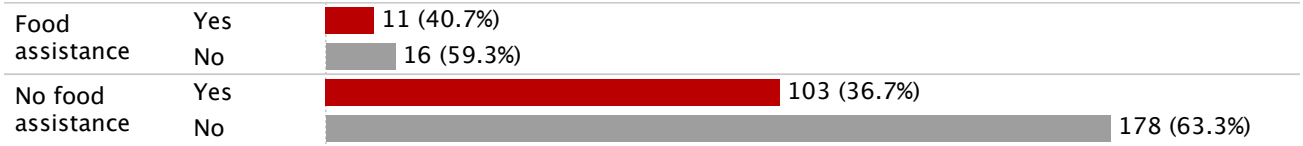
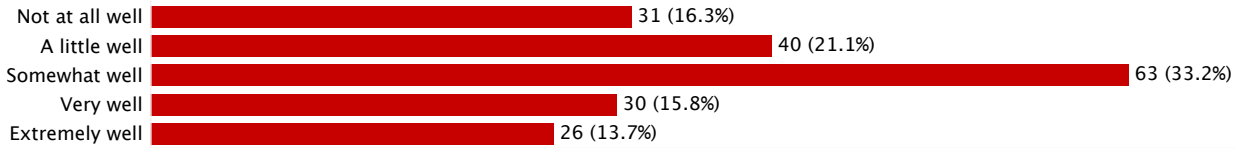


Figure 8. Internship in the Past 12 Months (Yes/No) by Students Having Trouble Paying Rent or Mortgage (n = 308)

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 9). We see in Figure 9 that only 29.5% (n = 56) of the students with a non-internship position felt that their main job was providing important career-related skills, very well or extremely well. On the other hand, 37.4% (n = 71) of the students reported that their main job provided them with important skills a little well or not at all well.

Figure 9. How well do you think that your main job provides you with important work-related skills, knowledge, and abilities that you will need in your desired career? (n = 304)



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

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). This 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 of work (and lower job security), 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 subscales including concerns about the future, control over one's future, curiosity about different career

options, and the 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 MSU rate themselves across the career adaptability subscales as follows: Concern (M=3.93, SD=0.79), Control (M=3.94, SD=0.73), Curiosity (M=3.79, SD=0.80), and Confidence (M=3.89, SD=0.78). The mean scores for all subscales were similar between the two groups: Concern (Internship: 3.96; No Internship: 3.91), Control (Internship: 3.93; No Internship: 3.95), Curiosity (Internship: 3.85; No Internship: 3.75), and Confidence (Internship: 3.99; No Internship: 3.84). The mean difference was only statistically significant for the Confidence subscale (p = 0.086).

To illustrate the types of questions that are included in the career adaptability survey, we report one example for each subscale from the MSU dataset (see Figures 10–13).

Figure 10. Please rate how strongly you have developed each of the following abilities: Becoming aware of the educational and vocational choices that I must make (n = 308)

Figure 11. Please rate how strongly you have developed each of the following abilities: Taking responsibility for my actions (n = 308)

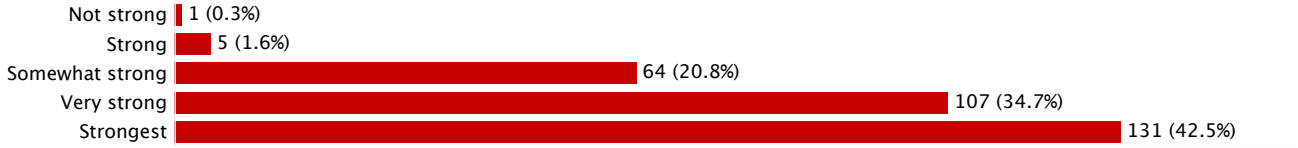


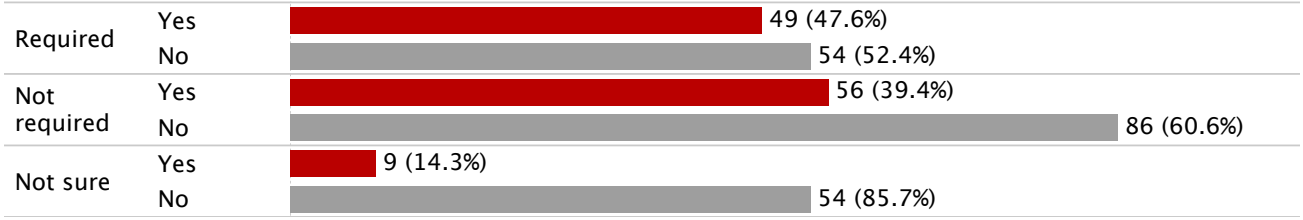
Figure 12. Please rate how strongly you have developed each of the following abilities: Exploring my surroundings (n = 308)

Figure 13. Please rate how strongly you have developed each of the following abilities: Performing tasks efficiently (n = 308)

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, and grade point average) may be related to their participation in internships. Here, we examine the relationship between students' academic programs and students' participation in internship programs.

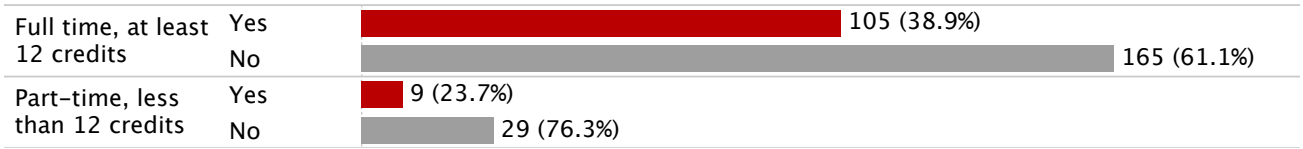
Figure 14. Relationship between internship participation and whether or not an internship was required to graduate from your academic program (n = 308)



The results indicate that 33.4% (n = 103) of the respondents were in academic programs that required internships. Figure 14 shows that these students were more likely to participate in an internship compared to students who were not required to participate in an internship to graduate (47.6% vs. 39.4%). There were also a noticeable proportion (20.5%, n = 63) of students who were unsure if their program required an internship. These students were less likely to participate than students who were sure (14.3% vs. 47.6%). Those differences in internship participation across the three groups were statistically significant, $\chi^2(df=2, N=308) = 19.24$, $p < 0.001$.

Additionally, 87.7% (n = 270) of the survey respondents were full-time students and 12.3% (n = 38) were part-time students. Internship participation rate of full-time students (38.9%) is higher than that of the part-time students (23.7%, Figure 15). The difference was marginally statistically significant ($\chi^2(df=1, N=308) = 3.30$, $p = 0.07$).

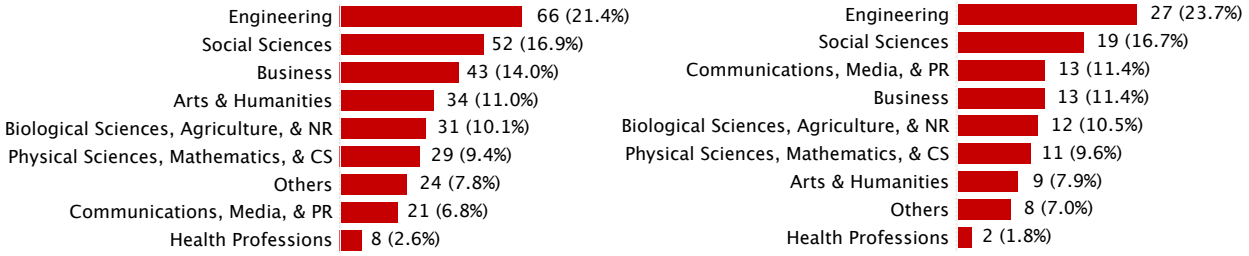
Figure 15. Internship in the Past 12 Months (Yes/No) by Enrollment Status (n = 308)



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 16.1 presents the distribution of majors for all MSU participating students (n = 308, left figure) as well as for students who participated in an internship (n = 114, right figure). The results indicate that the disciplinary sector with the largest proportion of students was Engineering (21.4%, n = 66) and that the disciplinary sector with the largest proportion of students who completed an internship was also Engineering (23.7%, n = 27).

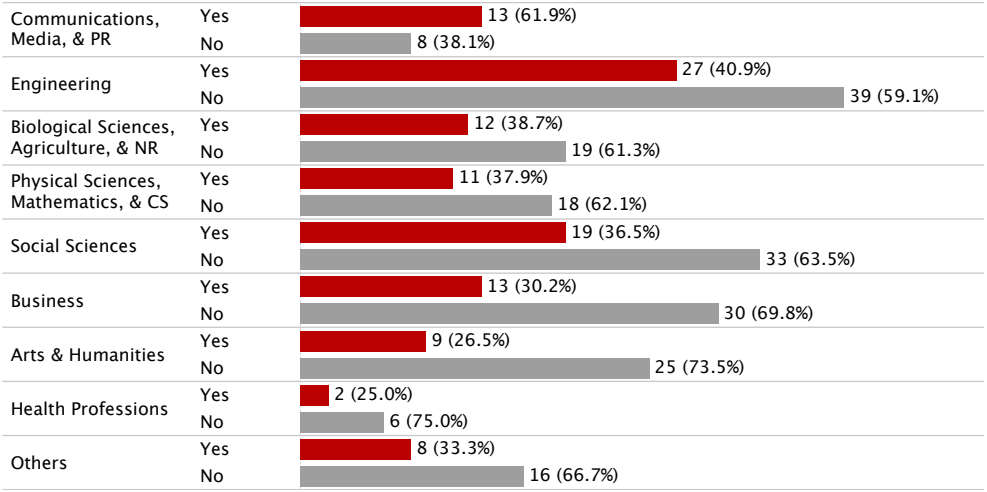
Figure 16.2 displays internship participation rates by disciplinary sectors. Communications, Media and Public Relations has the highest participation rate (61.9%, n = 13), followed by Engineering (40.9%, n = 27), Biological Sciences, Agriculture, & Natural Resources (38.7%, n = 12), Physical sciences, Mathematics, & Computer science (37.9%, n = 11), Social Sciences (36.5%, n = 19), Others (33.3%, n = 8), Business (30.2%, n = 13), Arts & Humanities (26.5%, n = 9), and Health Professions (25.0%, n = 2). A Fisher's exact test indicated that internship participation rates did not significantly differ across those program disciplinary sectors.

Figure 16.1. Students' Distribution by Program Disciplinary Sector



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

Figure 16.2. Relationship between Internship Participation and Students' Program Sectors (n = 308)



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 variable in our dataset is a self-reported measure where we asked the student a single question: "Thinking about the past 2019-2020 academic year, which of the following best describes your grade point average? The question allowed for a numeric input on a sliding scale that contained letter markers.

The GPAs ranged from 1 to 4, with an average of 3.1 and a standard deviation of 0.52 for the 308 students in our sample. About 62% (n = 191) of self-reported GPAs were 3.0 or above. Descriptively, students who have done an internship (n = 114) appear to have, on average, a slightly higher GPA (mean = 3.21, SD = .48) than those who have not (mean = 3.04, SD = .54). A t-test suggests that the difference between the two groups is statistically significant at conventional significance levels, t(259) = -2.97, p = 0.003.

Linear probability regression also shows 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.[5] These results suggest that students with low GPAs may require additional support, encouragement, or assistance in securing an internship.

VIII. RESULTS: Barriers to participation in internships for students at Morgan State University

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

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

For the 194 students who did not participate in an internship, 80.9% (n = 157) of them had wanted to do so (see Figure 17).

Figure 17. 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 = 194)

Next, we asked them to rank the various reasons from most important to least important for not pursuing an internship. Figure 18.1 presents the frequency and percentages of students who cited certain barriers to

5 Linear probability regression results indicate that a one more grade point increase in GPA is associated with a 20.3% increase in the probability that a student is participating in internship. This means that an increase from an average 2.0 to 3.0 is associated with a nearly 20.3% increase in the probability of participating in an internship. This result was statistically significant ($p < 0.001$) after controlling for a number of demographic variables in the model.

participation. In general, 63.1% (n = 99) reported a heavy course load, 59.9% (n = 94) of students reported a lack of internship opportunities, 56.7% (n = 89) reported their need to work at their current job, 51.6% (n = 81) reported a lack of transportation, 42.7% (n = 67) reported insufficient pay offered, and 25.5% (n = 40) reported a lack of childcare as barriers to internship participation.

Figure 18.2 shows how students ranked the barriers overall. The reasons that students ranked as the number one important factor influencing their decision not to pursue an internship included: their heavy course load (n = 41), the need to work at their current job (n = 33), and a lack of internship opportunity (n = 33). The number two ranked reasons included: a heavy course load (n = 31), a lack of internship opportunity (n = 25), insufficient pay (n = 22), and the need to work at their current job (n = 21). Figure 18.2 also presents the third to sixth ranked reasons and their corresponding frequencies. A lack of transportation, the need to work at their current job, and insufficient pay stood out in the third and fourth ranked reasons. In sum, one's need to work at their current job, a heavy course load, a lack of opportunity in one's field, and insufficient pay were students' most commonly reported reasons for not pursuing an internship.

Figure 18.1. In the past 12 months, why were you not able to pursue an internship? (n = 157)

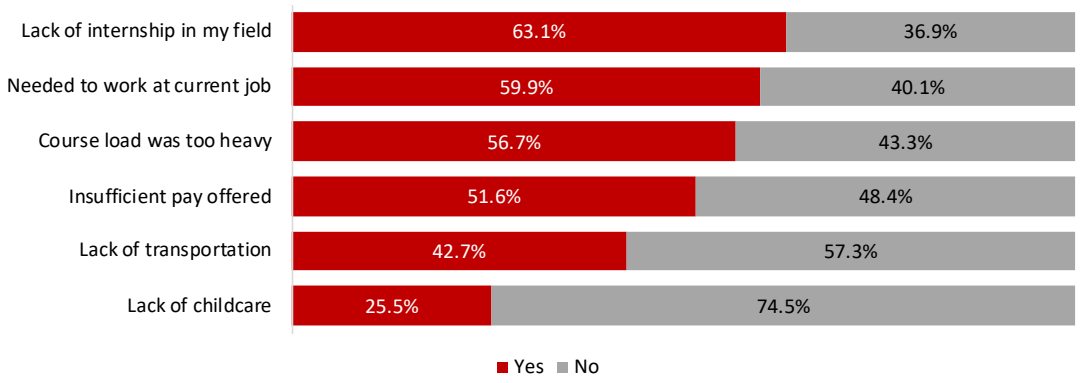
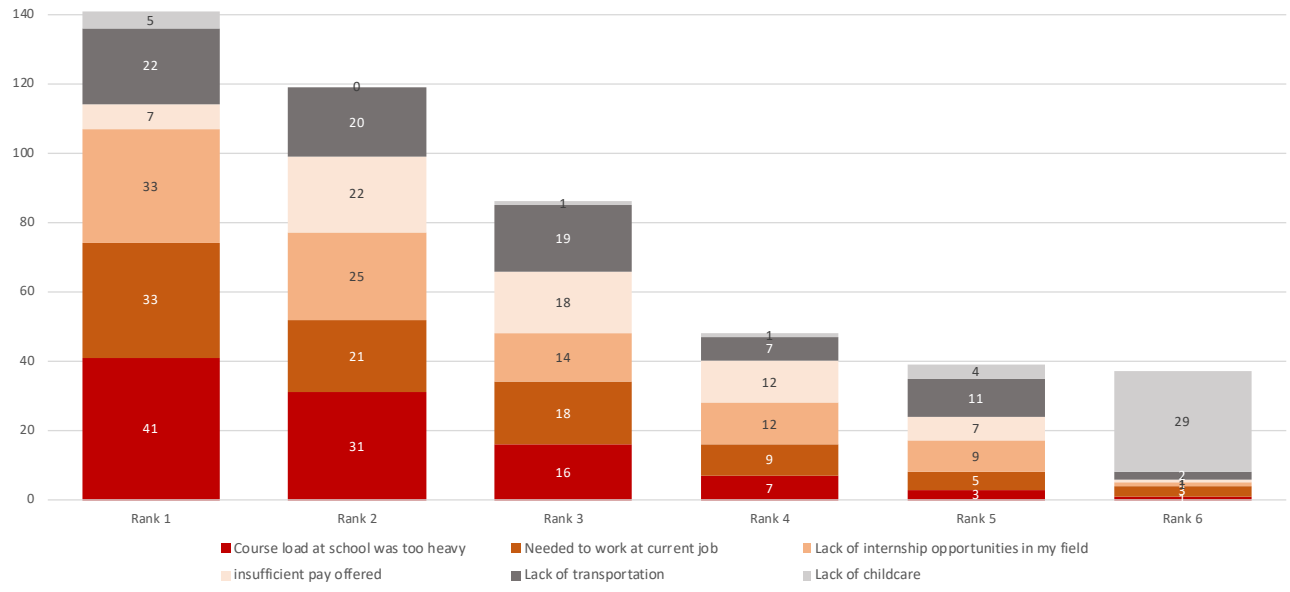


Figure 18.2. Rank the reasons from most important to least important for not pursuing an internship.



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

Data from individual phone interviews with 41 MSU students helped to further illuminate some of the barriers that students face when participating in internships. Students discussed a variety of barriers to their participation in internships, including concerns with their GPA, the need for institutional support, travel and relocation requirements, financial concerns, and a lack of time due to other academic and work-related commitments. In addition, some students described other challenges to completing an internship. These themes and examples are summarized in Table 4 and further elaborated upon in the text that follows.

Table 4. MSU Student Concerns and Difficulties in Participating in Internships (n =41)*

Concern/Difficulty	Examples
Application process	*Issues with GPA meeting requirements for application, competitiveness for desirable internships*
Institutional support	*Different perceptions of outreach based on majors, need for more direct employer relationships and referrals, unsure if opportunities are relevant to career interests*
Financial Considerations and Unpaid Internships	*Concern with taking unpaid or low-paid internships, financial barriers to transportation or childcare*
Lack of time because of school, work, or Family Obligations	*Issues with having time and support to apply and complete an internship given school, work, familial obligations, and extracurriculars*
Other Challenges	*Regional restrictions, relationships with professors to serve as references*

*This sample includes all student participants from MSU; these difficulties include those that were discussed most frequency, in descending order of frequency

The top concern students named was an ability to participate successfully in the **application process** due to concerns about their GPA not meeting eligibility requirements and perceived competitiveness of desirable internships. One student reported how her current GPA acted as a barrier to complete applications online with automatic screening questions. She said:

> *"It would have to be my GPA because most of the requirements... most of them require a 3.0 or higher, and as of right now I do have a 2.7. ... if they [applications] are electronic, they don't even accept it. Like it's not even like, okay, go ahead and just take a risk. Like they're like I don't want you.... But like if they have a document for you to just send to an e-mail, then it's pretty easy for you to take that risk but a lot of them do not have that option."*

Another student who had experienced a personal hardship that impacted her ability to focus on schoolwork, which she felt was not understood by potential employers. She described it as, "If you don't have focus, your grades are going to drop. So now it's like I'm struggling to kind of get my GPA back up to where I need it to be. So that's really my major thing is that most require my other GPA part. And it's kind of frustrating, because I'm like, nobody's looking past GPA."

A second concern for students was the availability of **institutional support** in locating and obtaining internships. Numerous factors appeared to be at play that impacted students' perception of institutional support, including students' perception of their academic program's rigor, campus resources, responsiveness of faculty and staff, and connections to potential internships via personal or professional networks. It is important to note that students' perception of institutional support varied, with some students naming the institutional support received as vital to their academic and personal success. In particular, students mentioned the Student Research Center as a supportive space. Finally, two students expressed concerns that being international students and an undocumented student meaningfully restricted their access to institutional support and internship opportunities. One student said it in this way:

> *"Because I'm international a lot of times when I apply for some programs, or go for interviews and things like that, people often say, 'Oh' Like at the end of the interview, they're like 'Are you an international student and would you require sponsorship?' And like, those automatically exclude me from the race or something because they don't hire international students…[when applying], I definitely make sure to ask in a lot of questions about whether the company is interested or is open to international students applying before I apply."*

Several students also reported that **financial considerations and unpaid internships** function as a barrier to their participation. One student who later participated in an internship discussed how low-paying or non-paying internship opportunities had to be evaluated alongside other opportunities to gain work experience related to her field. She explained it in this way:

> *"That's the main reason why I pushed off having internships in the beginning. Because my thing was like… they don't really pay anything for the most part. There's somewhere they give stipends and all that. But that's really rare to find for some reason, unless it's during the summer. And then I thought about, like if I'm working at a hospital during the summer, I kind of get medical experience… and they're paying me, you know… over $15 an hour and internships are barely paying me, but I'm still both getting real life experience. It's like, what's the point?"*

For other students, low or unpaid internships acted as a barrier when coupled with other financial stressors and needs or a lack of transportation. One student, who worked part-time jobs to support themselves and their family, noted: "So, it's harder for me to do unpaid internships because I don't know how I'm going to pay for college."

Another major theme reflected in student interviews that served as a barrier to internships was a **lack of time due to academic, work, or familial responsibilities.** Several students noted the need to support themselves or family members financially, manage childcare, focus on their academic responsibilities, and maintain paid work schedules. For example, one student noted that they had to turn down an opportunity at Honeywell due to academic scheduling conflicts. The themes of time, responsibilities, and financial concerns were often compounded together, as evidenced in one student's statement:

> *"I think the biggest challenge was probably like being two places every day, like sometimes my car won't work or I had to go by bus. You know, this transportation is huge for the most part. And childcare sometimes. I have to send my son to school, two of my classes are in the early morning. You know, you're trying to work around being a mom, being at school and also try to work… I try to manage my time, try to catch up."*

In addition to these primary themes, some students mentioned **other challenges** that impacted their ability to complete an internship. These included barriers related to a preference for in-state and local internships, concerns about being able to obtain recommendations or create relationships with professors, as well as general concerns regarding the perceived competitiveness of internships in their respective academic fields.

IX. RESULTS: What types of internships are students at Morgan State University taking, and what are their experiences in them?

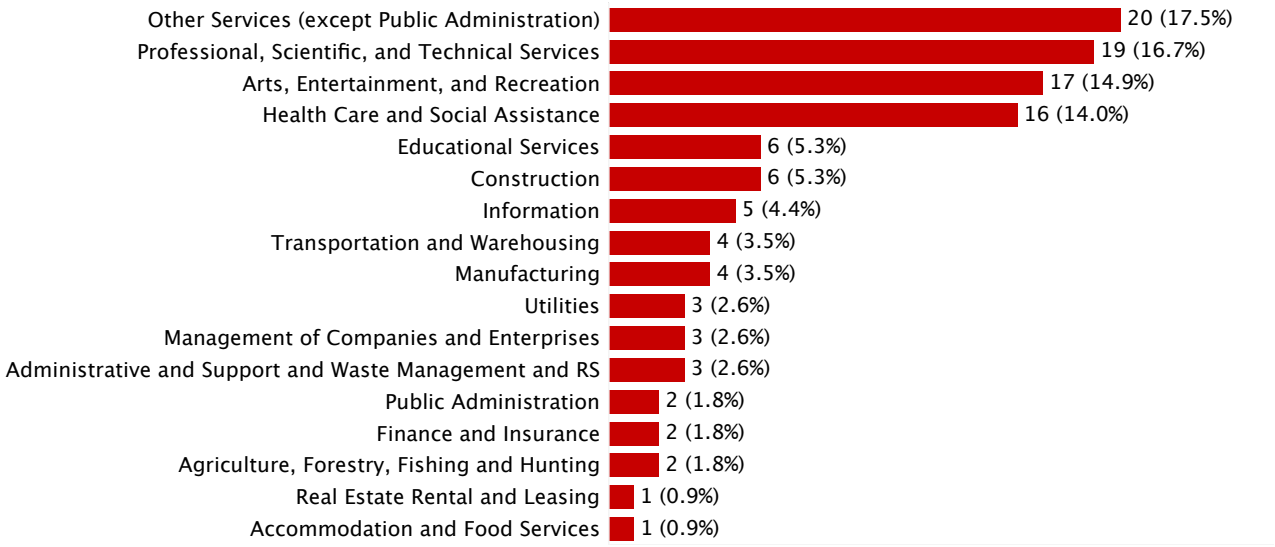
In this section, we present findings regarding the types of internship programs that students at MSU have taken, and their experiences during their internships. After describing key features of students' internship programs from the survey data (e.g., organization type, sector, length, compensation),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

Survey results: Features of internship programs

For the 114 respondents that had participated in an internship in the past year (Figure 19), 44.7% of them did so at a non-profit company, with the remainder occurring at government agencies (28.1%) and for-profit organizations (27.2%). Figure 20 demonstrates that many of these internships were concentrated in fields such as Other Services except Public Administration (17.5%), Professional, Scientific, and Technical Services (16.7%), Arts, Entertainment, and Recreation (14.9%), and Health Care and Social Assistance (14.0%), with the rest of the respondents being well dispersed among the remaining industries.

Figure 19. In what type of organization did you participate in this internship? (n = 114)

Figure 20. In what industry or field was this internship? (n = 114)



As shown in Figure 21, the largest proportion of survey respondents had taken an internship for 9-12 weeks (41.1%). Further, 74.6% of these students were compensated for their internship work, whereas 25.4% were not (Figure 22). The average hourly payment is $ 16.80, which is above the estimates of living wages for one adult in Maryland ($14.56) (MIT Living Wage Calculator, 2019).

Figure 21. For how many weeks did you participate in this internship? (n = 114)

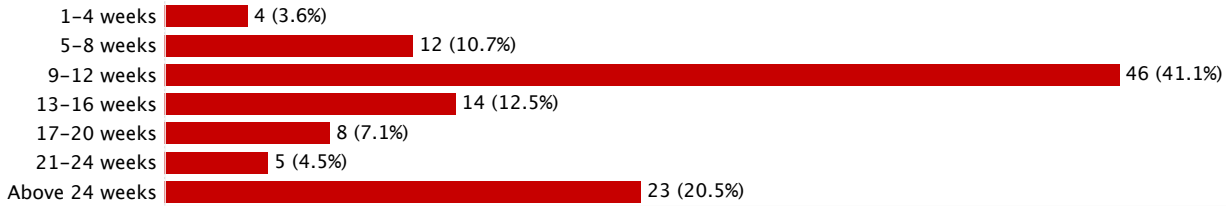


Figure 22. Was the internship paid or unpaid? (n = 114)

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 MSU 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 MSU students who participated in an internship, 52.6% (n = 60) felt that their internship was very or extremely related to their academic coursework (Figure 23).

Figure 23. How related do you feel your internship was to your academic program? (n = 114)

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* to 5 = *a great deal*. The average score for the four questions was 4.38 with a standard deviation of 0.78. The four questions are: (1) In this internship, how much did your supervisor care about your well-being? (2) In this internship, how much did your supervisor care about your satisfaction at work? (3) In this internship, how much did your supervisor appreciate the amount of effort you made? And (4) In this internship, how much respect did you feel you received? Below we report results from two of these items as examples.

Among the students who had recently participated in an internship, 82.4% (n = 94) reported that their supervisors cared about their satisfaction at work either quite a bit or a great deal (Figure 24), and 86.9% (n = 99) reported that their supervisors appreciated the amount of effort they made either quite a bit or a great deal (Figure 25). Taken together, these represent important indicators of supervisory support.

Figure 24. In this internship, how much did your supervisor care about your satisfaction at work? (n = 114)

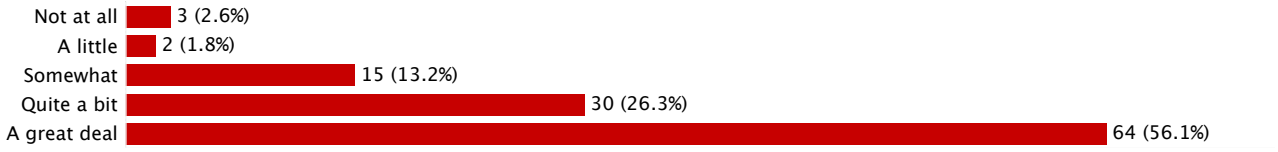


Figure 25. In this internship, how much did your supervisor appreciate the amount of effort you made? (n = 114)

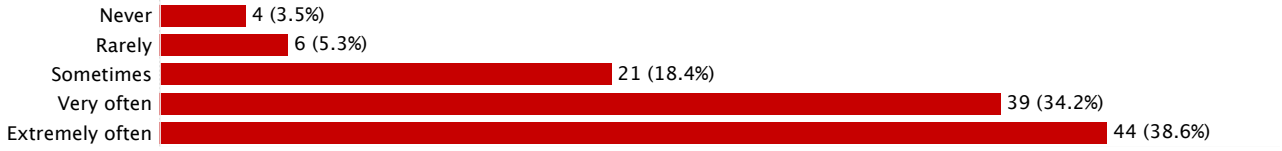
Supervisor mentoring

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 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 0.91. 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 MSU participating students reported that their supervisors encouraged them to try new ways of performing (63.7%, n = 73) as well as gave them performance feedback (72.8%, n = 83) very often and extremely often, about 13.1% (n = 15) of them feel that their supervisors did not or rarely encouraged students to try new ways of performing tasks at the internship site and 8.8% (n = 10) of the students reported never or rarely receiving adequate feedback regarding their performance (see Figures 26 and 27).

Figure 26. How often did your supervisor encourage you to try new ways of performing on the job? (n = 114)

Figure 27. How often did your supervisor give you feedback regarding job performance (n = 114)



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* to 5 = *extremely clear*. The average score for the two questions was 3.92 with a standard deviation of 0.87. Below we report results from these items (see Figures 28 and 29).

The results indicate that the majority (69.3%, n = 79) of participating MSU students who participated in internships felt that they were given very clear or extremely clear tasks to be completed. A similar proportion (79.8%, n = 91) of students felt the goals to be accomplished were somewhat clear, very clear, or extremely clear.

Figure 28. In this internship, how clear you felt about the tasks to be completed? (n = 114)

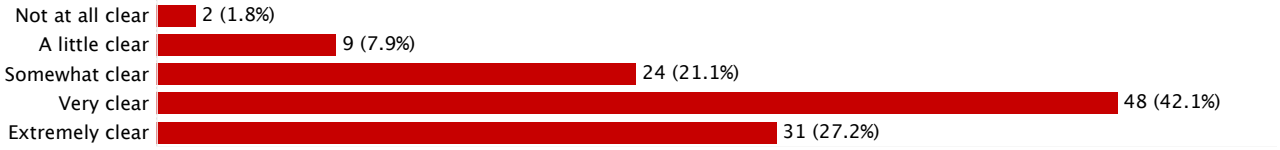


Figure 29. In this internship, how clear you felt about the goals to be accomplished? (n = 114)

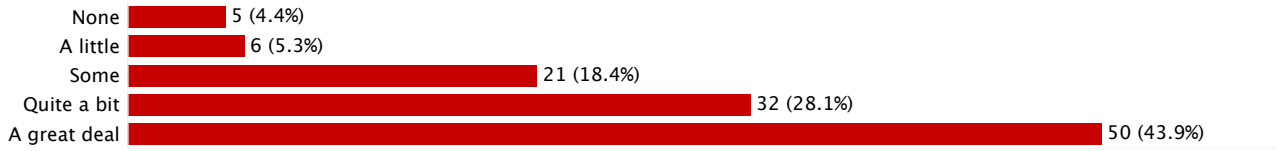
Task autonomy

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* to 5 = *a great deal*. The average score for the two questions was 4.09 with a standard deviation of 0.76. Below we report results for these items (see Figures 30 and 31).

For MSU students, 79.0% (n = 90) reported having considerable flexibility in how they completed their work and 72.0% (n = 82) 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 30. In this internship, how much flexibility did you have in how you completed your work? (n = 114)

Figure 31. In this internship, how much freedom did you have to decide how to do your work? (n = 114)



Task similarity to entry-level jobs

Finally, one of the persistent questions in the literature is whether interns are provided with work that is of equal difficulty to entry-level employees (Hora, Wolfgram & Thompson, 2017). This was measured using one question with a five-point Likert scale from 1 = *not at all similar* to 5 = *extremely similar*. The average score for the question was 3.68 with a standard deviation of 1.08.

The results indicate that 65.0% (n = 39) of participating MSU students considered their internship tasks very similar or extremely similar to those in entry-level employment. Of participating MSU students, 11.7% (n = 7) considered their internship tasks not at all similar or a little similar to entry-level employment (see Figure 32).

Figure 32. During your internship, how similar in nature were your tasks to those in entry level jobs in the organization? (n = 114)

Interview results: What were students' experiences with their internship?

The 21 students who participated in an internship described several key features of their internship experiences (Table 5). These include the level and types of supervisor support, the level of supervisor mentorship, the nature of the work, experiences with multiple internships, and compensation. Overall, students expressed positive internship experiences, however, several also noted significant challenges. The majority of students who had completed an internship were majoring in STEM fields. Engineering and Information Systems were the highest represented majors among those who had completed an internship.

Table 5. Key Features of Internships for MSU Students (n = 21)*

Focus of Internship	
Supervisor Support	*Level and type of work direction, guidance, and feedback provided by supervisor*
Mentorship	*Supervisor level of openness, encouragement, role modeling, or developmental approach*
Nature of Work	*Nature of internships tasks, whether project-based, entry-level tasks, or research*
Multiple Internships	*Engaging in multiple internship experiences over the course of their academic program*
Compensation	*Level of pay, unpaid internships, and working other jobs during internship*

**This sample only includes MSU interview participants who participated in internships*

All students discussed the importance of **supervisor support** in their internship experience. Experiences with supervisors ranged in the extent to which supervisors communicated with interns, gave clear directions and expectations for work tasks, provided regular check-ins, feedback and guidance, and offered interns a level of autonomy. Students spoke about their appreciation and value for supportive supervisory relationships. Positive supervision experiences included several key features, such as a sense that their supervisor understood their status as a student, having the opportunity to receive and provide regular feedback, and feeling actively supported in their work tasks. One student who spoke about the positive learning experience she had during her internship noted, "I always say she [my former manager] really did a great job for me. We have one-on-one[s]… and she literally explained things to me—how the team is working, what they are doing."

It is important to highlight that many (n = 15) students also spoke about negative or challenging components of supervision that impacted their experience of their internship. These students described struggling with unresponsive or inconsistent communication, "minimal" support with work tasks, unclear expectations, and a lack of structure. Some also described negative experiences related to supervisors who were not physically present in the office or who did not have "time" to engage with interns. As one student explained, "Because [my supervisor] wasn't there, I couldn't ask him for help, half the time I just had to say alright, I'm just going to read this or hopefully I can find someone that can give me some information but for the most part I was on my own."

Students also discussed varying degrees of **mentorship** during their internship experience. Students differentiated between supervisors who acted simply as supervisors from those who offered mentorship. For example, some students reported that their supervisor interacted with them solely to assign tasks or answer work questions. One student described her lack of mentorship during internship in this way, "I feel like that more like it's a job…. I barely interact with anybody. I don't really feel like I'm being mentored." For students, this lack of guidance at times led to a lack of clarity, purpose, or motivation in their work, or a lack of investment in the employer/organization. In contrast, other students shared meaningful experiences of mentorship characterized by encouragement, career guidance (such as interview or resume prep), and support with work-place socialization. Students described these supervisors and mentors as those who recognized the internship as a valuable learning experience for students as well as a forward-looking professional development opportunity. One student explained the value of these conversations. She notes:

> *"My bosses, you know, at the end of it had talked to me. It's like, so what's your next step? How can we help you get to wherever you want to go? And they were very supportive in that, and some, you know, of my next steps was always, maybe not this. Because sometimes, after an internship, you do get a little discouraged. It's like, maybe I didn't do everything I needed to do… but they were just really supportive."*

Another important element of students' experience with internships included the **nature of the work itself.** Students described a wide variety of work environments and job tasks completed during internships. These included project-based work (such as within a research project), independent or team-based tasks, and work that most closely mirrored that of an employee.

Some students expressed compensation as an important consideration regarding their experience of internships. For some students, unpaid internships were not perceived as an undue burden because they had other financial support while completing the internship. Many students, however, reported that even paid internships did not offer adequate compensation. As one participant states, "I mean, I ended up working at another job as well at the same time. But that's because it's like my personal, like, expenses as far as like

paying for school and stuff." Other students reported the pay scale as a primary deciding factor in determining which internship they ultimately accepted. Some students also reported that some departments required that internships be unpaid when taken for academic credit.

Finally, a key feature of internship experiences among 10 of these 21 students who completed internships included participating in multiple internships over the course of their academic program. Nine of these 10 students majored in either the School of Engineering or Information Systems. Those who had completed **multiple internships** described their value in helping students to explore their career goals and build toward future employment. For example, when describing their intended career path, one student said, "Then that experience [second internship] really even further solidified it." Additionally, five students, all of whom were either Engineering or Information Systems students, were offered post-graduation full-time positions with the organization in which they completed their internship. These students seemed to illustrate a specific route to employment specific to the field. They described a process of finding an internship opportunity with a valued company and creating a relationship that translates to full-time employment.

X. RESULTS: Outcomes of internships

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

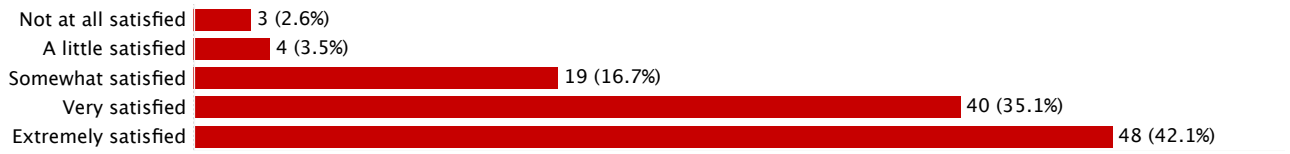
Survey results: Outcomes of internships

Level of satisfaction with internship experience

An important indicator of the usefulness and impact of an internship experience is how students themselves perceive their experience. For this issue we asked a single question about overall satisfaction and students rated themselves from 1 = *not at all satisfied* to 5 = *extremely satisfied*. The average score for the question was 4.11 with a standard deviation of 0.98.

Of the students who had completed an internship in this sample, 77.2% (n = 88) of them reported that they were very or extremely satisfied with their internship experience, and 16.3% (n = 19) were somewhat satisfied, leaving only 6.1% (n = 7) of them a little or not at all satisfied with their experience. (see Figure 33).

Figure 33. How satisfied were you with your internship experience? (n = 114)



To investigate the relationship between internship program features and students' internship satisfaction, we conducted correlation and multiple regression analyses. Please see Table 2 in Appendix B for the correlation and multiple regression results. The results indicate that supervisor support, supervisor mentoring, goal clarity and autonomy, relatedness to academic program, and similarity to entry-level jobs all are positively associated with students' internship satisfaction with coefficients ranging from 0.30 to 0.68. After controlling for other variables in the mode, our multiple linear regression analysis showed that students who participated in internships with greater level of goal clarity, better supervisor support, better supervisor mentoring, or more similarity to entry-level jobs have greater satisfaction.

Developmental value of the internship experience

Next, we examined the impact of program structure on another important outcome of internships—students' perception of how much their internship experiences have influenced their academic learning and career development (i.e., developmental value). This Developmental Value scale was developed based on the work by McHugh (2017) and Nghia and Duyen (2019), and consists of 10 items of two subscales using a 5-point scale from 1 = *none* to 5 = *a great deal:* a) five items regarding developmental value of academic learning with an average score of 3.91 and standard deviation of 0.90; b) five items regarding developmental value on career development with the same average score of 4.07 and a standard deviation of 0.86.

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 to 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 to 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 and look 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 subscale as examples (see Figures 34-37).

Findings indicate 64.1% (n = 73) of MSU participating students considered their internships providing quite a bit or a great deal of opportunities for them to apply knowledge from course work to the real-world. Of student participants, 69.3% (n = 79) reported internships were valuable in terms of providing quite a bit or a great deal of opportunities for them to identify academic knowledge gaps. In addition, when reflecting on the value of internships for career development, 73.7% (n = 84) of participating MSU students saw the skills they learned at internships as quite a bit or a great deal important for their career development and 71.1% (n = 81) reported that their internships helped to clarify their career objectives quite a bit or a great deal.

Figure 34. This internship gave me opportunities to apply what I have learned in my courses to real-world situations. (n = 114)

Figure 35. This internship helped me to identify my academic knowledge gaps. (n = 114)

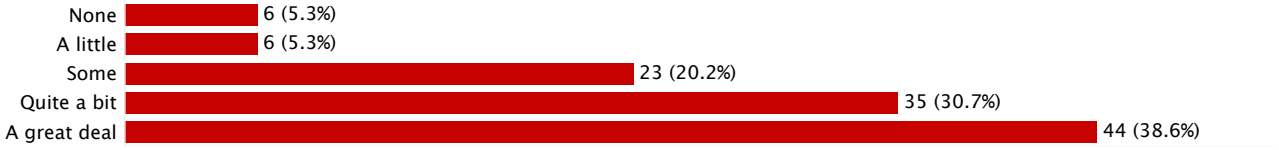


Figure 36. This internship provided me with important skills relevant to my chosen career. (n = 114)

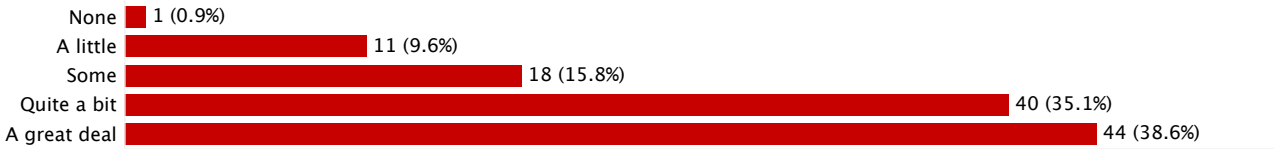
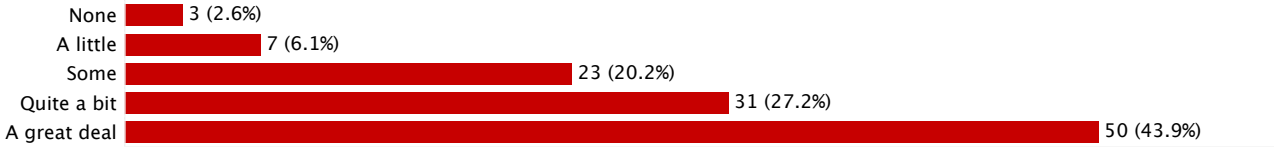


Figure 37. This internship helped me to clarify my career goals. (n = 114)



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 supervisor support, mentoring, goal clarity, autonomy, relatedness to academic program, and similarity to entry-level jobs are all positively correlated with students' perceived internship developmental value, with coefficients ranging from 0.45 to 0.60. After controlling for the other variables in the model, we found that students who reported greater internship supervisor mentoring, autonomy, relatedness to academic program, and similarity to entry-level jobs were expected to perceive a higher level of developmental value from their internship experiences (see Table 3 in Appendix B).

We also looked at the developmental value of academic learning and career development respectively. Regression results showed that, in both models, students who reported that their internship had greater relatedness to their academic program, had greater similarity to an entry-level job, better supervisor mentoring,

and greater autonomy were 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 or not their internship was a satisfactory and valuable experience. Thus, as institutions and employers work toward improving these co-curricular experiences, these factors should be considered as areas worthy of further attention, investment, and improvement.

Interview results: Outcomes of internships

The students who had completed internships and who participated in interviews (n = 21) described their perceived outcomes of participating in an internship. Table 7 depicts the key categories that emerged as perceived outcomes of internships, including: exploration of their professional field, engaging in a valuable learning experience, increasing their competitiveness for future employment by building their resume, gaining real world experience, and increasing their self-confidence.

Table 7. Perceived Outcomes of Internship Participation (n = 21)*

Outcome	Examples
Exploration of the field	*Clarified or shifted the focus of career goals and trajectory; explored specific environments, skill sets, or workplace types*
Learning and skill development	*Learned and practiced skills specific to the field or job; applied skills learned in the classroom to the work environment; general learning*
Resume Building to Boost Competitiveness for Future Jobs	*Experience that makes students look better as applicants to future employers or graduate programs*
Real World Experience	*Gained experience not found in the classroom, including hands-on, fieldwork experience in a career setting*
Increased Self-Confidence	*Greater sense of independence or belief in self*

**This sample only includes MSU participants who had internships. Outcomes are listed in descending order of frequency.*

More than half of the students who had completed internships expressed appreciation for their internship in helping them to engage in **exploration of the field.** In particular, they indicated that their internship experience shaped their understandings of what they wanted to do in the future. In some cases, the internship was

6 The multiple regression results showed β = 0.02, p = 0.03 for academic learning; and β = 0.31, p = 0.008 for career development. β refers to the standardized regression coefficient that demonstrates the change in internship satisfaction per unit change in predictors.

reported as an experience that expanded students' ideas of what their future career could look like through exposure to a new experience. In other cases, it helped "narrow down" or "cement" students' interest in a field. For some, completing their internship revealed a career path that a student realized they did not want to pursue, whether that be a corporate environment, research, or a specific sub-field. For example, one student stated, "The biggest thing I gained was what I don't want to do." Another student said it in this way:

> *"All my internship experiences kind of motivated me to understand where I wanted to go in my future. Because, you know, knowing what you don't want to do is just as important as knowing what you want to do. So, like through my first internship I knew I didn't really want to do material science, but I wasn't completely off put with the fact of like doing research, like I didn't mind that."*

The majority of students also discussed the **learning and skill development** they were able to gain during their internship as both a motivation for, and positive outcome from, internship. For example, students reported gaining specific skills in research, coding, communication, management, and other specific industry or technical skills. Some students noted that learning took place despite, or at times was necessitated because of, a lack of supervisor support.

Another theme shared by the majority of participants was the ability of internships to provide opportunities for **resume building to boost competitiveness for future jobs.** One student described internships as offering "a little bit of extra experience" that would increase their competitiveness for post-graduation employment or graduate school opportunities. For some, internships were perceived as offering a chance for students to get their foot "in the door." One student explained how they had noticed this during their recent job search:

> *"My internships have definitely helped my resume. A lot more people look at me more. My internships give me the confidence to know that I know what I'm doing. I have experience. They will definitely make me more successful in my future jobs. And wherever I really want to go, I have some sort of basis I can rely on."*

The **real-world experience** of the internship acted as both a motivation for participation and as an outcome of the experience. It helped students to apply what they learned in their classrooms to actual experiences. As one student put it, internships allowed them to "get their hands dirty." For some students, internships provided an opportunity to learn and be exposed to new things they had not learned in the classroom. One student explained it in this way:

> *"learning and working with the material in school was so much different than when you actually go out into the real world and you start doing it yourself. So… I'm actually seeing how the things I'm learning in academics apply to science in the real world and at home."*

A final theme expressed by some students who had completed internships was a sense of **increased self-confidence.** This manifested as a greater sense of direction, independence, or belief in themselves. Students also expressed a sense of empowerment, or of using "[their] voice." These students were typically involved in STEM, business, or engineering internships in which students were given significant workplace responsibility. As one student explained:

> *"Postgraduation, I'll know exactly what I'm doing. How to interact with people that are working on different levels than me. Working with a diverse group of people… If I didn't do my internships, I probably would have no idea what I'm doing. And I would be scared to graduate. But I feel the total opposite. I feel confident. And I feel ready for the world."*

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. In particular, we were interested in exploring how students' academic trajectories, career development, and internship experiences had been impacted by the onset of the pandemic.

COVID-19 Internship Impact

In terms of COVID-19's impact on internships, many students shared a belief that their internship process had been impacted by the pandemic. Seven students reported that their **internships had moved online** because of the pandemic. One student had obtained an online, unpaid internship related to the pandemic and another student's internship had changed for the worse due to understaffing and increased workload.

Students who had been or were in the process of applying to internships indicated that their experiences were significantly impacted by the pandemic. Seven students reported **difficulty finding internship postings,** four students had **internship offers rescinded or cancelled,** and one student reported that their **internship had been postponed** because of the pandemic. One student had been accepted to a prestigious summer public health internship that was cancelled due to COVID-19. The student described this in this way, "I'm actually kind of hurt about it. Because, yeah, I was really ready and excited to be able to pursue something that I'm really interested in.... So, yeah, I kind of felt a little crushed about that." Two students were struggling with the ambiguity of not knowing the status of their pending internship applications, and one withdrew their applications due to pre-existing health conditions and fears related to possible risk of exposure should they be accepted into the internship.

One student characterized both the concerns and perseverance of students when asked whether they were applying to internships. The student said it in this way, "I am planning to. I was planning to. But because of this whole Covid-19 business, I don't know how possible that will be.... Because certain jobs are cancelled, put on hold. So, it's like, do I even apply? Is it worth it to apply? But, regardless, I still think it's worth it to apply because you never know how long this thing might last."

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

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

What can students do?

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

As illustrated by Figures 2-16, there is considerable social-economic variation among the students who completed our survey, including demographic characteristics, life circumstances, and features of their academic programs. Some of these factors may impact individual student's ability to access an internship experience, such as parental income (Figure 5.1 and 5.2) and employment status (Figure 6).

What can students do?

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

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

1. Students are encouraged to actively seek resources, connections, and assistance during their search for and decision-making process regarding internship participation. This includes utilizing campus resources and asking for support and guidance from faculty, advisors, and peers. In particular, students are encouraged to be open with supportive staff about potential concerns or barriers as well as their career development goals. In other words, students are encouraged to be proactive about utilizing opportunities and supports available within the MSU community, and where these are lacking, to be vocal to their institution that such support is needed.

2. Students are also encouraged to consider ways to pursue their professional development, including building self-knowledge, confidence, and job skills. They are encouraged to take advantage of campus-based resources offered at MSU, such as attending virtual workshops or trainings related to career development concerns they may have.

3. Given that students expressed a wide variety of experiences in regard to learning and supervision within their internships, it is important for students to work toward effectively managing their relationships with internship supervisors and/or mentors. To do so, we encourage students to view the internship process as providing an opportunity for support and consultation with faculty, advisors, support staff, and peers.

4. Students 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.

5. Students are encouraged to articulate their own short-term and long-term goals before entering an internship, and 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 about 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.

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

1. Institutional leaders at MSU may benefit from carefully scrutinizing the information presented in the institutional capacity for internship programs section

What can faculty and institutions do?

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

of this report. In doing so, educators are encouraged to consider areas that represent strengths, limitations, 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 or other experiential learning experiences for students.

2. There are a number of formalized coordination efforts that educators could enact at MSU in order to further support the effectiveness of internship programs. Four tasks may help to support these efforts:

   (1) Evaluate the efficacy of current institutional coordination efforts from academic stakeholders (MOU process).

   (2) Understand internship academic credit requirements across campus for potential inconsistencies that may contribute to potential inequities regarding internship participation expectations among students (e.g. internships being required to be unpaid in some schools).

   (3) Consider returning to using an Internship Handbook to create a baseline of common language and expectations, where possible, to provide a central resource to academic departments. For example, this handbook could provide areas that should be assessed by each academic department during their student feedback evaluations. This would support academic departments in evaluation efforts.

   (4) Continue efforts to consolidate data gathered from various offices and the evaluation of current internship efforts and initiatives.

3. 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, 18). There appeared to be disparities in internship participation based on first-generation college status and parents' income. In addition, students' reported barriers to internships related to available internships in their field, perceived competitiveness for opportunities, and financial challenges. Therefore, we encourage educators to recognize and assist students who may benefit from greater institutional support. For example, educators may benefit from communicating with students who do not participate in internships to understand their reasons, seek and share resources to resolve internship obstacles (if desired), and continue to build on students' work or life experiences that may contribute to their professional and personal development. For example, students may be unaware of applicable internship opportunities that are not advertised specifically within their major, or they may not see themselves as competitive applicants for opportunities.

4. Given the number of MSU students who work while attending college, academic programs and other campus entities, such as the CCD, are encouraged to consider ways to maximize opportunities for students to acquire and practice career-relevant skills in their paying jobs.

5. Educators and campus leaders may benefit from maintaining connections with former students and building an alumni network for the purpose of internship referrals.

6. 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. Evaluations should include understanding the experiences and needs of students. Additionally, maintaining some consistency across campus may offer a greater ability to evaluate growth areas or successes. 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 and hiring processes, work setting and design, and mentorship and feedback directly impacts students' internship experiences and outcomes. Therefore, employers who host internships or who are planning to host internships are encouraged to attend to the following:

What can employers do?

- Carefully designing internship programs to include consistent quality supervision and mentorship;
- Allow for some task autonomy for their interns while providing clear objectives and explanation;
- Highlight interns' progress and accomplishments, while also provide periodic feedback on growth areas and improvement plans;
- Value interns' efforts and time through providing emotional support and financial support.

1. Employers reported that in their organizations and positions, successful internship design and facilitating a diverse workforce necessitated a holistic approach that extends beyond efforts to increase recruitment of underrepresented students. Therefore, we recommend that employers interested in diversifying their workforce or creating partnerships with minority-serving institutions work with Institutions to evaluate the full life cycle of the internship process and structure. This includes an evaluation of the internship experience for students at various time points (pre-application, interview and selection processes, and post-internship feedback). Employers are encouraged to commit to addressing needed adjustments to their current recruitment and selection practices, institutional norms and attitudes, hiring policies and procedures, compensation, on-boarding processes, supervisor mentorship and support, and barriers to conversion. For example, after recognizing low application rates from students attending minority-serving institutions, employers could initiate partnerships with these institutions to identify potential barriers students encounter when considering whether or not to apply to an internship and to learn from institutional leaders the needs of students. Employers who note lower conversion rates among women, for example, may examine the role of implicit bias in intern selection as well as prospective interns' perceptions that there will be few opportunities to gain professional mentorship from women supervisors if they were to accept an internship. Employers discussed the benefit of such approaches to more clearly identify growth opportunities and increase the success of investments in diversity.

2. In addition to and in alignment with 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 goal clarity is critical to student internship satisfaction. Employers

can enhance this opportunity by carefully designing internship programs to include clear goal setting 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).

3. Employers also are encouraged to value interns' efforts and time by providing financial compensation. As many students named financial barriers as a primary obstacle to internships, employers interested in recruiting and attracting more diverse applicant pools should consider financial compensation as a mechanism to successfully recruit and possibly convert valuable applicants who may not otherwise be able to access and participate in internship experiences (see Table 4).

4. Students named the developmental value of mentorship they received during internships as well as the impact of supportive supervision on their career growth and investment in the internship site. Supervisors are encouraged to allow for some task autonomy for their interns by encouraging creativity and participation, while also providing clear objectives and explanations. Additionally, they are encouraged to provide interns with structured guidance regarding expectations. It is also important for supervisors to provide interns with regular feedback that highlights 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 in order to optimize learning goals and outcomes.

5. The relevance of the internship experience to a student's academic program plays a critical role in students' internship satisfaction as well as their perceptions of the value of internships to their career development. Internship supervisors are encouraged to discuss short- and long-term academic and career related goals with their interns and to adjust the internship program when possible in order to provide experiences that can support those goals.

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APPENDICES

Appendix A: Research Methodology

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

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

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

To participate in the survey, students were contacted with an email recruitment 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.

Descriptive statistics and Cronbach alpha coefficients of the measuring instruments

	Mean	SD	α
Supervisor support	4.38	0.78	0.88
Supervisor mentoring	3.82	0.91	0.88
Goal clarity	3.92	0.87	0.81
Task autonomy	4.09	0.94	0.76
Relatedness to academic program	3.98	1.07	
Similarity to entry-level jobs	3.68	1.08	
Satisfaction	4.11	0.98	
Development value	3.99	0.83	0.90
Career adaptability composite	3.80	0.54	0.79
Career adaptability composite	3.93	0.79	0.87
Concern	3.94	0.73	0.85
Control	3.79	0.80	0.86
Curiosity	3.89	0.78	0.90
Confidence	4.07	0.77	0.90

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

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

follow-up online or phone interview.

For the focus groups at T1, groups comprised of one to three students were separated into those who have participated in an internship (n = 4, students in 4 groups) and those who have not (n = 10 students in 6 groups). Prior to the start of the focus group, students were given the opportunity to review the IRB-approved consent forms, ask questions, and to voluntarily consent to participate in the research by signing the form. Students received a cash incentive after consenting to participate in the audio-recorded focus group. Focus groups allow for interactions among participants that explore their experiences and thought processes (Kitzinger, 1995). Students who had an internship experience during college answered questions about the nature of their experience, support from both the academic program and their job-site supervisor, their general level of career adaptability, and so on. For those who have not had an internship, questions focused on the reasons why they have not participated in an internship, as well as their level of career adaptability, and so on.

Lastly, we conducted an audio-recorded interview with educators at Benedict College who supports student internships. A list of potential recruits from among the Benedict College staff and area employers was provided by our colleagues at Benedict 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 themselves, were also collected and analyzed for details about design features of internship opportunities.

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

The limitations of this study are the small sample size of the student focus groups which could not be representative of students from the wide range of academic programs offered at Benedict 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 focus groups. Finally, in our study we did not examine whether or not study participants had participated in other work-based learning programs (e.g., apprenticeships), and the potential impacts of these experiences on their learning and career goals.

Appendix B: Results of Regression tables

Table 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	.68***	.60***	<.001
Supervisor Mentoring	.61***	.20*	.03
Goal Clarity	.60***	.20*	.04
Relatedness to academic	.30**	.02	.72
Task autonomy	.46***	-.05	.59
Similarity to entry-level jobs	.43***	.19***	.009

Dependent variable: Internship satisfaction

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

The multiple regression model produces and adjusted R^2= 0.60, F(25, 88) = 7.74, p < .001.

The multiple regression model equation: Satisfaction = 0.60 * supervisor support + 0.2 * supervisor mentoring + 0.20 * goal clarity + 0.19 * similarity.

β refers to the 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.

*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***	-.06	.564
Goal Clarity	.45***	.04	.654
Supervisor Mentoring	.60***	.28***	<.001
Link between academic program and internship	.56***	.25***	<.001
Task autonomy	.48***	.20**	.010
Similarity to entry-level jobs	.52***	.21***	<.001

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

This multiple regression model produces an adjusted R^2 = .57, $F(25, 88) = 7.11$, $p < 0.001$.

The multiple regression model equation: Development value = 0.28*supervisor mentoring + 0.20 * autonomy + 0.25 * relatedness to academic program + .21* similarity to entry-level jobs.

β refers to the 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.

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

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CENTER FOR RESEARCH ON
College-Workforce Transitions

The College Internship Study

Wisconsin Center for Education Research
SCHOOL OF EDUCATION
UNIVERSITY OF WISCONSIN–MADISON

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.

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