

National Survey of College Internships (NSCI) 2021 Report

Insights into the prevalence, quality, and equitable access to internships in higher education

Summary findings from the pilot phase of the NSCI at 17 colleges and universities

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Executive Summary

Nine key findings from the 17-campus pilot phase of the National Survey of College Internships (NSCI)

1

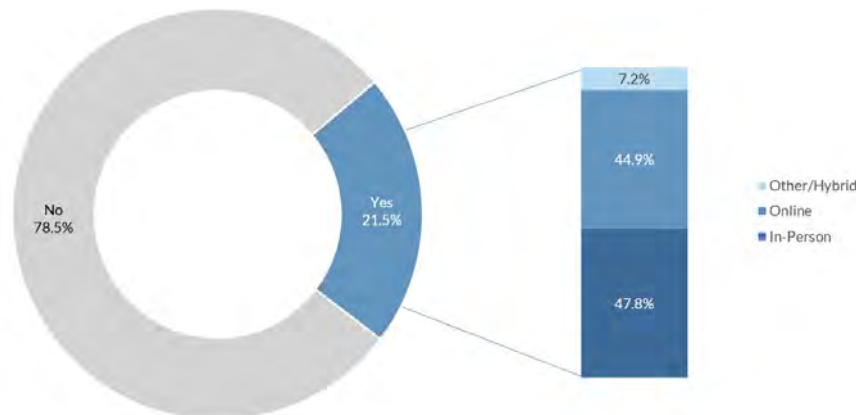
Far fewer college students (just 21.5%) reported taking an internship than previously reported

Prior studies have estimated that 50%-60% of college students have taken an internship. Our data from 12,130 students suggest that these estimates may be too high, though the effects of the COVID-19 pandemic should be considered.

2

Despite claims that internships during the pandemic would shift entirely to online, more student interns took in-person positions (47.8%) than online (44.9%).

While online internships and remote work are here to stay, in-person internships remain an important and widespread type of work-based learning.



3

Internship participation may vary by racial identity, first-generation status, and other attributes of students, disciplines, and institutional characteristics.

Prior research suggests variation in internship participation along a variety of individual, programmatic and institutional characteristics, and future research and practice should attend to these differences.

		Internship Participation			
		Yes		No	
Total		2,609	21.5%	9,521	78.5%
Gender	Female	1,818	21.6%	6,609	78.4%
	Male	731	21.9%	2,606	78.1%
	Another gender identity	51	14.5%	300	85.5%
Race	American Indian/Alaskan Native	13	23.6%	42	76.4%
	Asian or Asian-American	370	21.8%	1,331	78.2%
	Black or African American	90	13.0%	604	87.0%
	Hispanic, Latinx, or Chicano/a	184	14.2%	1,115	85.8%
	Native Hawaiian/Pacific Islander	1	3.3%	29	96.7%
	White	1,752	23.6%	5,665	76.4%
	Two or more races/Ethnicities	153	21.2%	570	78.8%
	Others	32	17.2%	154	82.8%
First-Generation Status	First-generation college students	498	15.8%	2,651	84.2%
	Continuing-generation college students	2,101	23.4%	6,860	76.6%

4

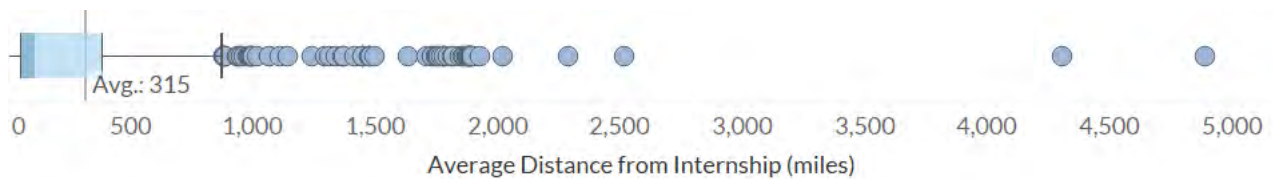
The average length of an internship is 18.3 weeks, which is a considerable investment in student (and employer) time, energy, and other resources.



5

The average distance from students' homes to their internship was 315 miles, with online interns traveling shorter distances (288 miles) than in-person interns (331 miles)

Of the 2,330 respondents who had an internship and reported both their internship and home zip code, 1,591 (68.2%) participated in an internship in the same zip code in which they lived. Among those that left their home zip code for an internship, the distance traveled varies considerably.

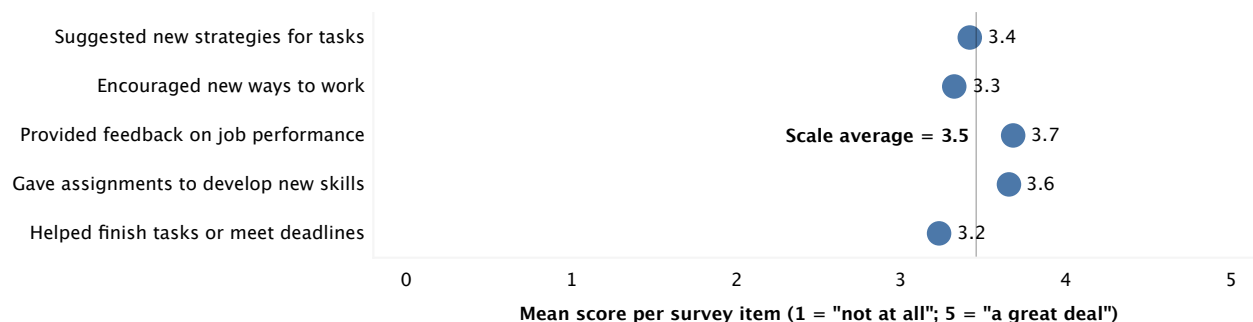


6

The quality of supervision and mentoring is critical for a successful internship, and students rated their supervisors' support for their well-being (M=4.2 on a 1-5 scale) more highly than their task-specific mentoring (M=3.45).

These results suggest that while supervisor support appears to be of high quality, colleges, universities, and employers could provide more training for supervisors on how to be effective mentors with respect to task performance.

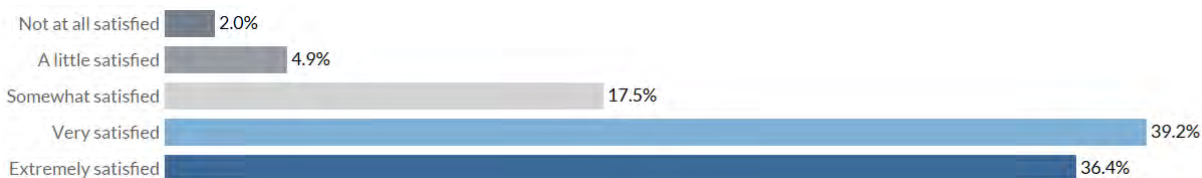
Supervisor Mentoring



7

Students on average reported being very satisfied with their internship experiences, but 1 in 4 reported less than satisfactory experiences.

The large number of students reporting high rates of satisfaction is good news for higher education, but the 25% of students with less than satisfactory experiences indicates that considerable work remains to ensure that all students have access to a high-quality experience.



8

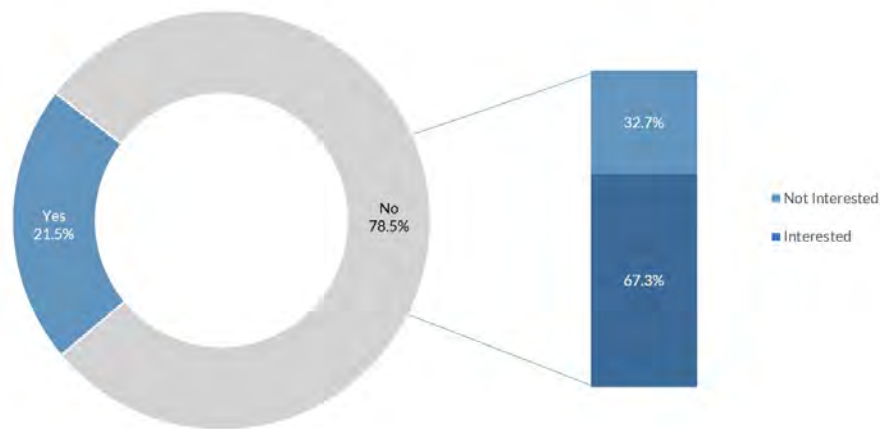
While the number of students reporting discrimination at the internship site on the basis of their race, gender, sexuality, disability status, and/or other personal attributes is relatively low (3.3%), the fact that 86 students reported such behaviors is cause for concern.

Campuses should provide training and resources for students, academic advisors, and internship supervisors regarding anti-discrimination policies in the workplace and what to do in the event that a student experiences inappropriate behavior or treatment.

9

An alarming number of non-interns (67.3% or 6,407 students) in our study had wanted to take an internship but could not due to a variety of obstacles, thus revealing a considerable issue with equitable access.

For the students in this study, the most common reasons for being unable to take an internship were the lack of knowledge about how to find an internship (59.4%), a heavy courseload (55/9%), cancellation due to the pandemic (44.2%), a lack of internship opportunities (41.3%), and the need to work a paid job (40.1%). College and universities should pay more attention to adequately advertising internship positions, exploring how to reach busy and/or working students, and engaging employers in creating more internships or other more accessible forms of work-based learning (e.g., online internships, campus-based experiences, etc).





Introduction

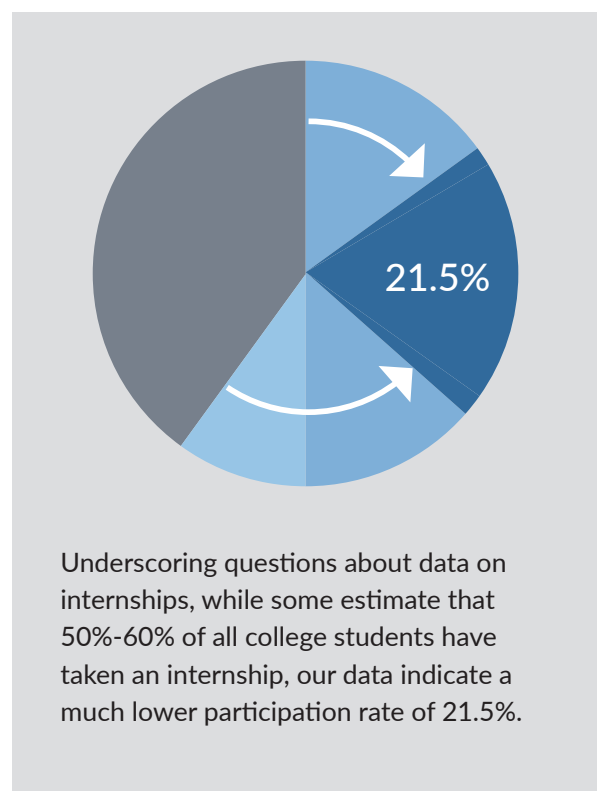
Internships and other forms of work-based learning are one of the most influential ideas shaping research, policymaking, and educational practice in higher education in the early 21st century.

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Internships and other forms of work-based learning are one of the most influential ideas shaping research, policymaking, and educational practice in higher education in the early 21st century. With internships now considered a “high-impact practice” (HIP) that all colleges and universities should strongly encourage students to pursue during their time in college (Kuh, 2008), some argue that they should be required for graduation (Busteed & Auter, 2017). In this way, internships and experiential learning are quickly becoming viewed as a new type of general education requirement, intended to impart to students the essential skills, knowledge, and competencies they will need to thrive in life, work, and society.

With origins in pre-modern modes of vocational preparation such as apprenticeships as well as reformers’ arguments that education should be more grounded in authentic, non-academic experience (Resnick, 1987), the modern internship typically involves a college student spending 2-3 months at an organization working alongside employees performing real-world tasks. While enthusiasm around internships today is due in part to growing political pressure on postsecondary institutions to cultivate students’ “employability,” or the likelihood that they will be competitive in the labor market (Tomlinson & Holmes, 2016), the research literature also shows that students taking an internship are 14% more likely to receive a callback for a job interview (Nunley et al., 2016), and enjoy 6% higher wages (Saniter & Siedler, 2014) and 3.4% higher grades (Binder et al., 2015) than those without an internship experience.

Yet there are considerable challenges in the world of internships that cannot be ignored. First, there is limited data on the number of internships in the U.S., which raises key questions about whether or not sufficient supply exists for the potentially massive demand for internship positions. While some estimate that 50% to 60% of college students have participated in an internship (National Association of Colleges and Employers, 2020; National Survey of Student Engagement, 2020), limitations exist with these estimates that include terminological imprecision, sampling considerations and low response rates. The lack of data also extends to multi-institutional evidence on the specific design features (e.g., length, pay, nature of tasks) of internships, and perhaps most importantly, student experiences (e.g., supervisor quality, skills development) with these mostly off-campus positions. Without robust evidence on these issues, evidence-based decision making, tracking student outcomes, and continuous improvement is impossible.



Second, concerns exist about the legal, ethical, and educational implications of unpaid internships (Curiale, 2009; Silva, 2020), and the potential that hard-to-get internships act as yet another gatekeeping mechanism keeping low-income, first-generation, and/or students of color from participating in these potentially transformative experiences (Hora et al., 2019; O'Connor & Bodicoat, 2017). As the higher education sector becomes more attentive to issues of diversity, equity, and inclusion (DEI) and how structural inequalities and discriminatory practices may impact today's college students, the sometimes problematic "internship" must be included in these conversations and plans for improvement.

To address the inter-connected issues of limited data and concerns about inequality in the world of internships, we launched a new 14-campus longitudinal, mixed-methods study in 2018 at the Center for Research on College-Workforce Transitions (CCWT) at the University of Wisconsin-Madison.¹ Then, to increase the number of institutions that could benefit from these data and to build a multi-institutional dataset, we took the survey from this study and conducted a pilot study of the new National Survey of College Internships (NSCI) in the Spring of 2021.

Our study moves away from the dominant approach of surveys that measure internship experiences as a simple "yes/no" matter of student participation, which renders these complex and highly variable experiences a veritable "black box" that mysteriously transforms students into work-ready individuals (Silva et al., 2016, p. 704). Instead, we developed the Internship Scorecard (Hora et al., 2020) that contains multiple indicators that capture the prevalence and purpose, quality, and commitment to equitable access in the internship labor market.

In this report, we use this framework to present findings from the NSCI pilot study that included 12,130 college students in the U.S. With the scheduled launch of a larger-scale NSCI in the Fall of 2021, we anticipate releasing these reports every spring in order to update a national audience about the prevalence, quality, and equitable access of our nation's internship programs.



12,130

In this report, we present findings from 12,130 college students who participated in the pilot study of the National Survey of College Internships (NSCI).

¹ This study has been supported by the National Science Foundation (DGE#1920560), the Bill & Melinda Gates Foundation, the University of Wisconsin System, and the Wisconsin Center for Education Research.

What types of questions can the NSCI study answer?

- How many students at your college or university are taking internships?
- Are there differences in internship participation by race, gender, first-generation college student status, and so on?
- Which students are experiencing obstacles to internships, what are these obstacles, and how can we change our programs to ensure equitable access to internships for all students?
- Which design features of internships are most associated with student satisfaction and perceptions that their internship was a valuable developmental experience?
- How far are students traveling to their internship site?
- Are your students experiencing racial, gender, or other forms of discrimination during the internship experience?

With rigorous data in hand that answers important questions like these, career services professionals, faculty advisors, employers and postsecondary leaders can begin to identify strengths, weaknesses, and opportunities in their campuses' internship programming.

Without any evidence on these questions, however, internship programming (and continual improvement) becomes an exercise in faith that these programs are accessible, of high quality, and reaching all students on campus. Unfortunately, the research literature indicates that these assumptions are not true, and that more careful monitoring of student experiences and learning (or lack thereof) is critical to the future of higher education.

A note on the historic moment and the role of evidence in transforming higher education

In this moment in history, our society is undergoing massive change and upheaval, with a global pandemic, climate change, and a growing reckoning with our nation's deep-seated racial inequalities—just three of the forces shaping our lives and future opportunities. Of course, colleges and universities are not immune to these disruptions, and long-standing efforts to improve the ability of all students—but especially low-income, first-generation, and historically marginalized college students—to succeed and thrive in college has only taken on a new urgency. And at the center of these and related efforts to improve the quality and efficacy of higher education is the main topic of this report—that of high-quality data and evidence.

Why are data so essential in supporting change and institutional improvement? Borne out of insights into continuous improvement from business and management in the 1980s, the evidence-based decision making movement in education has demonstrated how data can (and should) be used to establish baselines for tracking progress over time, identify gaps or problems in services that can then be addressed, and to document the nature of educational practice at a given point in time (Coburn & Turner, 2011; Mandinach, 2012). These uses of rigorous data on teaching, learning, or institutional programming stand in stark contrast to a time when little to no evidence on these critical practices were gathered, analyzed, and used on a continual basis to improve how students are taught, supported, and eventually sent out into the world. As some observed, the times of relying on intuition and anecdotes were hopefully over.

But an over-reliance on data—especially that of survey and quantitative data—can be inimical to the field of higher education's goal to improve student experiences and outcomes. Research indicates that the ubiquitous end-of-course student evaluations are highly problematic and biased (Mengel et al., 2019), that faculty and administrators sometimes have robust sources of qualitative data informing their practice (Hora et al., 2017), that the “accountability” pressures associated with data use can distort the quality and utility of data (Mandinach, 2012), that students' voices and experiences are too often absent from discourses on educational improvement (McLeod, 2011), and that quantitative analyses are insufficiently attentive to issues of diversity, equity, and inclusion (Sablan, 2019). Simply put, surveys and data are not a panacea to solving the many challenges facing the field of higher education in the early 21st century.

In light of the lack of cross-institutional and fine-grained data on college internships, however, we decided to contribute to the national conversation on experiential learning, HIPs, and internships by launching the NSCI. While our survey certainly cannot capture nuances of an internship only available through an interview or participant observation, we strive to document certain aspects of students' lived experiences and mental frameworks related to their internship via open-ended and impressionistic questions and items focused on details of the internship itself (e.g., nature of tasks, supervisor quality). We also ask questions explicitly about discrimination and exclusion, student thoughts on their futures in light of structural racism and climate change, and other topics not commonly elicited or considered in discussions about college internships. It is our contention, however, that over-looking the immense challenges facing our society today as we discuss internships and HIPs, is short-sighted and fails to situate the college-workforce transition into the broader economic, socio-cultural, political, and ecological problems that our graduates will be forced to contend with as the 21st century unfolds.

Background: What do we know about internships and college students?

What is an internship?

The first question to answer when thinking about the literature on internships is what exactly is an internship? The term “internship,” much like a “course” or “job,” encompasses an immense range of different programs, activities, and student experiences. As a community college administrator once told us, the way internships are defined, designed, and implemented is truly an educational “free-for-all.” In order to impose some standardized conceptions of the experience for the field, and to address the tricky issue of compensation, NACE provided this oft-cited definition:

An internship is a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. Internships give students the opportunity to gain valuable applied experience and make connections in professional fields they are considering for career paths; and give employers the opportunity to guide and evaluate talent.
(NACE, 2018)

Criterion that NACE (2018) uses to determine whether or not an internship is in fact a “legitimate” educational experience, and not solely a labor strategy deployed by employers, include the degree to which the experience is an extension of classroom learning, whether skills learned via the internship are transferable to other settings, if the experience has clearly defined learning goals, if supervision is provided by a professional with expertise, and if feedback and resources are provided to the student intern.

It is notable that several of these criteria can also be applied to the design and assessment of more traditional classroom or academic learning spaces (e.g., a lecture or course), indicating that NACE (2018) clearly views the internship, first and foremost, as a learning experience for the student. Additionally, the use of the term “legitimate” is rather strong in its implication that some internships can be considered illegitimate. But we agree with this focus on quality and the primacy of student learning, which leads to the conclusion that some internships may in fact not be legitimate learning experiences, which is a sentiment too rarely voiced in debates about HIPs, work-based learning (WBL), and experiential learning.

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While the internship literature contains many more definitions of the program (e.g., the Council on Academic Standards, 2018), the NACE definition highlights the variety of dimensions that can be used to differentiate programs. In addition, besides focusing on program quality from an educational and learning perspective, we argue that definitions and/or assessments of internship programs should also include considerations of equity and accessibility, which is the reason that this topic plays such a major role in our Internship Scorecard framework.

Prevalence of internship participation in the U.S.

Besides terminological issues, perhaps the biggest questions in the field of internship studies are precisely how many of them exist, and how many college students are taking them in a given academic year? Unfortunately, we do not yet have definitive data on either of these questions. Estimates of internship participation are not uncommon in the popular media, with some estimating that 1.5 million internships exist in the U.S. (Howe, 2014) or that between 500,000 and 1 million unpaid internships are taken by students each year (Compare Camp, 2020). More rigorous survey studies that capture internship participation do exist, such as the annual NACE Student Survey Report (2020) and the National Survey of Student Engagement (2021), both of which provide widely cited estimates of the prevalence and nature of college student participation in the internship labor market. (see Table 1).

Table 1: Survey estimates of college student participation in national internship labor market

Source	Total % of Intern Participants	Nature of Sample
National Survey of Student Engagement (2020) ¹	50% (n=99,424) of seniors had participated in “an internship, co-op, field experience, student teaching, or clinical placement.”	484,242 college freshmen and seniors across 584 bachelor's degree-granting institutions in U.S. and Canada; 30% response rate of random sample OR entire student body, with surveys sent via individual email recruitment.
National Association of Colleges and Employers (2021) ²	48.7% (n=5,151) indicated participation in an internship only in response to the question, “have you taken part in an internship and/or co-op program since starting college.”	Data from 10,579 students at 139 (mostly 4-yr but some 2-yr institutions). Recruitment information unavailable.
Perlin (2012) ³	Between 1 and 2 million undergraduate interns per year.	Personal estimate based on career information websites and census data.
Gardner (2012) ⁴	21% (n=5,780) had recently completed an internship.	27,500 undergraduates from 234 4-yr institutions. Recruitment information unavailable.

Sources:

¹ NSSE 2020 HIPs Participation Data Dashboard (https://tableau.bi.iu.edu/t/prd/views/ar20_hips/HIPsin2020) and NSSE 2020 overview (<https://nsse.indiana.edu/nsse/reports-data/nsse-overview.html>).

² NACE (2021). The 2020 Student Survey Report. National Association of Colleges & Employers.

³ Perlin, R. (2012). Intern Nation: How to earn nothing and learn little in the brave new economy. Verso Books.

⁴ Gardner, P. (2010). A comparison of credit and non-credit internships in their expectations and the utilization of campus resources. Intern Bridge and the Collegiate Employment Research Institute at Michigan State University.

Unfortunately, federal agencies such as the Bureau of Labor Statistics that are in an ideal position to capture internship participation on a broad scale do not track data on internships. Additionally, federal surveys, such as the Baccalaureate and Beyond Longitudinal Study (B&B) only ask survey respondents about internship participation in the context of the job search process, post-graduate employment, or volunteering.

Discrepancies between studies that document relatively low rates of internship participation (e.g., Gardner, 2010) and the reporting of much higher rates of internship participation (e.g., NACE, 2021) draws attention to the need for additional research on the topic, particularly when institutional policies regarding HIPs and experiential learning may be based on these data. Perhaps most problematic, however, is the lack of multi-institutional data that captures student experiences with internships at a fine-grained level, beyond the mere “yes/no” reply to a survey item about participation. While the NACE Student Survey (2021) report provides excellent details on issues such as intern compensation, skills development (i.e., how internships improve career readiness competencies), satisfaction, and evaluation, the data are limited by a small response rate and limited attention to two critical issues addressed in this report—nuances of program quality and design, and issues related to equitable access to internships.

Evidence about the impacts of internships on college students

For a review of the literature on college internships, see our Center’s 2017 review on key findings on internships from across the disciplines and the world (Hora et al., 2017). Profession-specific reviews also exist in fields such as hospitality (Zopiatis et al., 2021) and business (Sanahuja Vélez et al., 2015), and also on internships in specific institutions such as community colleges (Lucero et al., 2021). Here we provide a brief synopsis of key findings from the literature, to contextualize the NSCI data and to highlight why internships and other forms of WBL and experiential learning are receiving so much attention in the world of higher education.

Advocacy for internship participation among college and university students is predicated on the belief that these off-campus experiences provide students with valuable professional experience and networks, enable educators a venue for their students to translate academic knowledge to real-world situations, and provide employers with a pipeline of new talent - sometimes described as a “win-win-win” situation (Bailey, Hughes & Barr, 2000).

Consequently, internships have become an important signal to employers that students are ready to enter the workforce as well as a “foot in the door” to that all-important first job (Silva et al., 2016). Evidence from the interdisciplinary literature on internships demonstrates that participating in an internship has positive impacts on graduates’ wages (Bolli et al., 2021; Jung & Lee, 2017), increases the likelihood of receiving a job interview (Nunley et al., 2016), facilitates student transitions to professional workplaces (Dailey, 2016), and even enhances outcomes such as academic achievement (Parker III et al., 2016) and career self-confidence (Ocampo et al., 2020). While the specific mechanisms whereby an internship experience leads to these outcomes is poorly understood, scholars speculate that the time spent developing new social networks, acquiring new skills and cultural competencies unique to a profession, and adding the experience to one’s resume can all enhance a students’ prospects in the labor market.

Researchers have also begun to open up the “black box” of internship programs to delve into nuances of the experience in order to identify elements (e.g., supervisor quality) that are particularly important. For instance, studies have demonstrated that the more autonomy interns are given in executing their tasks, the higher their reported workplace learning, career crystallization, and job satisfaction (Feldman & Weitz; 1990; Taylor, 1988; Ramani & McHugh, 2019; Virtanen et al., 2014). However, other scholars have found no relationship between task autonomy and outcomes such as satisfaction, developmental value, and job pursuit intentions (D’abate et al., 2009; McHugh, 2017). A considerable body of research has also demonstrated that both supervisor mentoring (i.e., providing clear directions and feedback)

and supervisor support (i.e., how well the supervisor cares about employee well-being) are positively related to outcomes, including intern satisfaction, interns' commitment to internship sponsor, and a positive attitude toward the hosts' industry (D'abate, Youndt, & Wenzel, 2009; Rose et al., 2014). One of the reasons that supervisors may be so important to the interns' experience is that they represent (to the intern) the organization and even the profession, and may provide guidance, encouragement, and resources regarding the students' career plans (McHugh, 2017).

However, empirical research on internships is complicated by the fact that the term masks considerable variation representing a complex class of experiences and programs. Programs labeled as "internships" come in all shapes and sizes, varying along a variety of dimensions that include differences in program function, modality (e.g., online or in-person), disciplinary or professional affiliation, duration, location, activities, and supervision (Bayerlein & Jeske, 2018; Maertz et al., 2013). This programmatic diversity can be seen as a strength, as students with different goals and situations can find a wide range of internship opportunities to fit their needs (O'Neill, 2010), yet this variation also results in different levels of quality, a lack of clarity regarding which features of an internship (e.g., length, nature of tasks, type of mentorship) are essential for a high-quality experience, and a lack of standardization regarding how researchers define and thus study internships in the field.

In addition, it is critical to acknowledge that there exists a negative side to the college internship experience. While problems with internships in the U.S. may not rise to the level of other nations, such as the Taiwanese electronics manufacturer Foxconn, which has used student interns to work 10-hour shifts on assembly lines building iPhones and iPads, sometimes replacing full-time salaried employees as part of cost-cutting strategies (Chan et al., 2015), our domestic challenges are no less problematic. Critics of the internship market have long raised legal, ethical, and equity-related concerns about unpaid internships, particularly the dangers of students not receiving the protections, rights, and wages ensured under federal labor law (Curiale, 2009; Jacobson & Shade, 2018; Rothschild & Rothschild, 2020). Further, low-income, first-generation, and working students continue to struggle to find and complete internships due to financial barriers, where they face "working multiple part-time jobs, taking out additional loans, or even skipping meals" in order to add an internship to their résumé (Curiale, 2009, p. 1536). Many students may not have access to extensive networks or mentors who can share information about position openings and strategies for obtaining them (Frenette, 2013; Parks-Yancy, 2012), while students attending under-resourced institutions may lack access to the information and training provided by well-resourced career services units (Allen et al., 2013). Consequently, the college internship is not unlike other extra-curricular programs in higher education—such as study abroad—that are known to be disproportionately pursued by privileged students with ample resources (Covington, 2017; Simon & Ainsworth, 2012). It is this landscape of both problematic and promising features of college internships that we situate our work, and frame our study and analysis of internships in the U.S.



Internship Scorecard

To help the field move beyond the common approach to studying college internships by simply asking students to indicate whether they have participated (or not) in the experience, CCWT created a framework distinguishing different types of work-based learning and internship programs designed around the basis of prevalence, quality, and equity (Hora et al., 2020). The Internship Scorecard is based on theory and evidence from anthropology, the learning sciences, and work-based learning, and is designed for higher education professionals, funders, policymakers, and employers so that they can diagnose, study, and evaluate internships with more nuance and precision than is currently available.

This approach varies from those of NACE (2018) and CAS (2018) in not articulating a set of criteria that all internships must meet to be considered “legitimate” or of high-quality. Instead, our position is that depending on the goals of each student and/or their academic program, and their level of maturity and preparedness, the specific format and activities of an internship of an effective internship may vary. Consequently, no determinations of program quality can be made solely on a program’s modality (e.g., online or in-person), duration, or activities, as each may or may not align with students’ unique goals for their experience.

The Scorecard is comprised of three main categories that each have several indicators. Below are the categories and some examples of metrics within each area, which are also used to organize the findings included in this report. For the NSCI we adapted the framework to capture key elements of internships in the necessarily constrained vehicle of an online student survey. It is important to note that data on each of these indicators is not provided in this report, but institutions participating in the NSCI do receive comprehensive data reports that provide insights on each of these indicators.

Table 2: Indicators from the Internship Scorecard included in this report

Indicator	Brief description
Prevalence, format and purpose	
Modality	Location of internship (Online, in-person)
Purpose	Rationale for student pursuing internship
Duration	Length of internship
Features of program quality	
Plan for learning	Presence of plan outlining learning goals
Tasks and activities	Nature of tasks performed
Supervisor mentoring	Mentoring for job performance
Supervisor support	Active support of student goals
Skill development	Whether specific skills and competencies were developed
Network development	Whether their professional network grew
Satisfaction with the internship	Level of students' satisfaction
Developmental value (career & academic)	Self-perceived value of internship for students' career and academic goals
Equitable access	
Compensation	Whether the internship was paid/unpaid (and wages if paid)
Type of posting	If posting was publicly available or reliant on private networks
Non-discrimination posting	Posting by employer of anti-discrimination policies
Experiences with non-discrimination	Student experiences with discrimination
Obstacles to participation	Obstacles keeping non-interns (who wanted an internship) from taking an internship



National Survey of College Internships

Methodology

The NSCI survey instrument was developed and field-tested as part of a 14-campus mixed methods longitudinal study that began at CCWT in early 2018. The instrument used in this pilot study contains a battery of 58 questions that appear to respondents based on a skip logic that differentiates interns from non-interns. The instrument contains questions on student demographic attributes, the nature of their internship program (e.g., duration, structure), the quality of mentoring, the nature of obstacles to internship participation, and many other facets of an internship experience. The instrument, a codebook outlining all variables, and a report from early psychometric testing of the internal consistency, reliability, and validity of survey items and scales are located on the CCWT website (see <http://ccwt.wceruw.org/resources/researchInstruments.html>).

This pilot study was conducted in preparation for the Fall 2021 launch of the NSCI, with the goal to fine-tune survey procedures (e.g., registration, data reporting), examine the face validity of survey items with practitioners in the field (i.e., career services professionals, faculty, academic advisors), and to contribute a multi-institutional dataset on internships in the U.S. Seventeen new institutional partners were recruited for the pilot via an email circulated on an internship list-serve and through professional networks of the first author. Thus, the institutional sample is neither representative nor randomly selected, and represents a small and self-selected group of institutions. An additional limitation to this pilot study is the sampling procedure used at each institution, where students were sent a single anonymous link to a UW-Madison Qualtrics survey via their campus career services office, academic affairs, or other units working with the CCWT research team. In each of the 17 institutions, the survey link was distributed to the entire population of undergraduate students at four-year institutions, or all students attending two-year institutions. For future administrations of the NSCI, students will be sent a unique survey link to their email address with customized reminders, which should improve response rates while also ensuring that responses are reliably linked to individual students.

The survey was administered between November 2020 and March 2021, with the survey eliciting responses about the students' prior 12-months of experiences with internships and/or their desire to pursue an internship. To increase the prospects that respondents were thinking of the same type of program when answering questions, a definition of an internship was provided 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.

Key attributes of the institutions participating in the pilot NSCI, and also the survey sample, are outlined in Table 3. Important features of the sample that should be considered when interpreting the findings in this report include the predominance of four-year institutions (but with two community colleges), variation in the type of institution (e.g., small liberal arts colleges, large public research universities), the non-representative nature of the sample, and the relatively low response rate. Overall, the study sample for the current analysis includes 12,201 students with an average response rate of 4.53% across the 17 institutions.

Table 3. Description of study institutions and response rates

	Type	Region	Survey population	Survey responses	Response rate
1	Public 4-year	Midwest	15,838	538	3.6%
2	Public 4-year	Mountain West	500	96	19.2%
3	Private 4-year	Northeast	1,915	254	13.3%
4	Public 4-year	Southwest	6,041	251	4.2%
5	Private 4-year	Midwest	11,076	1,783	16.1%
6	Public 4-year	Midwest	31,310	3,173	10.1%
7	Private 2-year	Midwest	18,745	437	2.3%
8	Public 4-year	Midwest	19,120	2,271	11.9%
9	Public 4-year	Mid-Atlantic	26,024	108	0.4%
10	Public 4-year	Mid-Atlantic	1,419	260	18.3%
11	Public 4-year	South	29,765	1,205	4%
12	Public 4-year or above	South	2,658	93	3.5%
13	Public 4-year or above	West	17,225	164	1%
14	Private not-for-profit 4-year or above	Northeast	1,480	238	16.1%
15	Public 2-year	West	22,784	855	3.8%
16	Public 4-year or above	West	44,928	114	0.3%
17	Public 4-year or above	Northeast	17,407	331	1.9%

Key Findings & Insights

In this section we outline several key findings from the pilot phase of the NSCI, and discuss insights and implications that they may hold for the community of scholars, practitioners, and institutional leaders interested in internships and experiential learning.

Overview of the Study Sample

The demographic characteristics of the study sample, which includes 12,130 students from 17 colleges and universities in the U.S., are presented in Table 4. In addition to key demographic variables, Table 4 also includes data on one of the key questions answered by the NSCI—how many students are participating in an internship?

Table 4. Overview of study sample by internship participation and key student characteristics

Category	Internship Participation				Total Count of Category	% of Total Variable
	No		Yes			
Total	9,521	78.5%	2,609	21.5%	12,130	100%
Employment Status						
Employed full-time	3,515	76.3%	1,091	23.7%	4,606	37.9%
Employed part-time	5,449	79.0%	1,450	21.0%	6,899	56.9%
Not employed	557	89.1%	68	10.9%	625	5.2%
First-Generation						
No	6,860	76.6%	2,101	23.5%	8,961	74.0%
Yes	2,651	84.2%	498	15.8%	3,149	26.0%
Gender						
Woman	6,609	78.4%	1,818	21.6%	8,427	69.5%
Man	2,606	78.1%	731	21.9%	3,337	27.5%
Another gender identity	306	83.6%	60	16.4%	366	3.0%
Parent's Income						
\$0 - \$39.9k	2,573	82.1%	563	18.0%	3,136	25.8%
\$40k - \$79.9k	1,768	81.4%	405	18.6%	2,173	18.0%
80k - \$119.9k	1,575	76.6%	481	23.4%	2,056	17.0%
\$120k or more	2,040	72.1%	791	27.9%	2,831	23.4%
Not sure/Not applicable	1,565	80.9%	369	19.1%	1,934	15.9%

Category	Internship Participation				Total Count of Category	% of Total Variable
	No		Yes			
Race/Ethnicity						
American Indian/Alaskan Native	42	76.4%	13	23.6%	55	0.5%
Asian or Asian-American	1,331	78.3%	370	21.8%	1,701	14.1%
Black or African American	604	87.0%	90	13.0%	694	5.7%
Hispanic, Latinx, or Chicano/a	1,115	85.8%	184	14.2%	1,299	10.7%
Native Hawaiian/Pacific Islander	29	96.7%	1	3.3%	30	0.3%
White	5,665	76.4%	1,752	23.6%	7,417	61.2%
Two or more races/Ethnicities	570	78.8%	153	21.2%	723	5.9%
Other/Not listed	165	78.2%	46	21.8%	211	1.7%
Enrollment Status						
Full-time	8,314	77.5%	2,419	22.5%	10,733	88.5%
Part-time	1,207	86.5%	189	13.5%	1,396	11.5%
Grade Level						
Associate or Technical degree	399	94.6%	23	5.5%	422	3.5%
Freshman	2,229	92.5%	181	7.5%	2,410	19.9%
Sophomore	2,361	89.5%	276	10.5%	2,637	21.7%
Junior	2,275	78.9%	608	21.1%	2,883	23.8%
Senior	2,000	57.9%	1,455	42.1%	3,455	28.5%
Graduate student	65	57.0%	49	43.0%	114	1.0%
Other/Not listed	192	91.9%	17	8.1%	209	1.7%
Program Major						
Arts and Humanities	935	81.1%	218	18.9%	1,153	9.5%
Biological Sciences, Agriculture, and Natural Resources	1,382	82.6%	292	17.4%	1,674	13.8%
Physical Sciences, Mathematics, and Computer Science	645	79.4%	167	20.6%	812	6.7%
Social Sciences	1,001	76.2%	312	23.8%	1,313	10.8%

Category	Internship Participation				Total Count of Category	% of Total Variable
	No		Yes			
Business	1,177	71.7%	464	28.3%	1,641	13.5%
Communications, Media, and Public Relation	390	69.5%	171	30.5%	561	4.6%
Education	441	87.9%	61	12.2%	502	4.1%
Engineering	1,110	70.8%	459	29.3%	1,569	13.0%
Health Professions	1,411	85.8%	234	14.2%	1,645	13.6%
Social Service Professions	231	76.5%	71	23.5%	302	2.5%
Others	797	83.3%	160	16.7%	957	7.9%

It is important to note that the demographic characteristics of our sample are generally similar to the U.S. population of college students. However, with two community colleges included in our sample, some variation from the national population of students attending four-year institutions is to be expected. Research shows that online survey respondents tend to skew female (Saleh & Bista, 2017). Our data shows the same trend with about 69.5% of our sample identifying as female. Our survey has a higher proportion of female respondents compared to the national proportion of females enrolled in 4-year institutions which is just 54.7% (IPEDs). However, the gender breakdown of our survey is similar to the gender breakdown in the NACE (69.1%) and NSSE (66%) studies.

Internship Scorecard Category 1: Prevalence, format, and purpose

In this first set of findings we discuss indicators from the first category of the Internship Scorecard, which speaks to more descriptive data about the prevalence, format, and purpose of internships. The prevalence and format questions address gaps in national and/or multi-institutional datasets on internship prevalence and type, while the issue of purpose highlights the importance of also documenting the reasons why a student chooses to pursue an internship in the first place, which can have implications for their subsequent experiences and outcomes.

Prevalence of internship participation

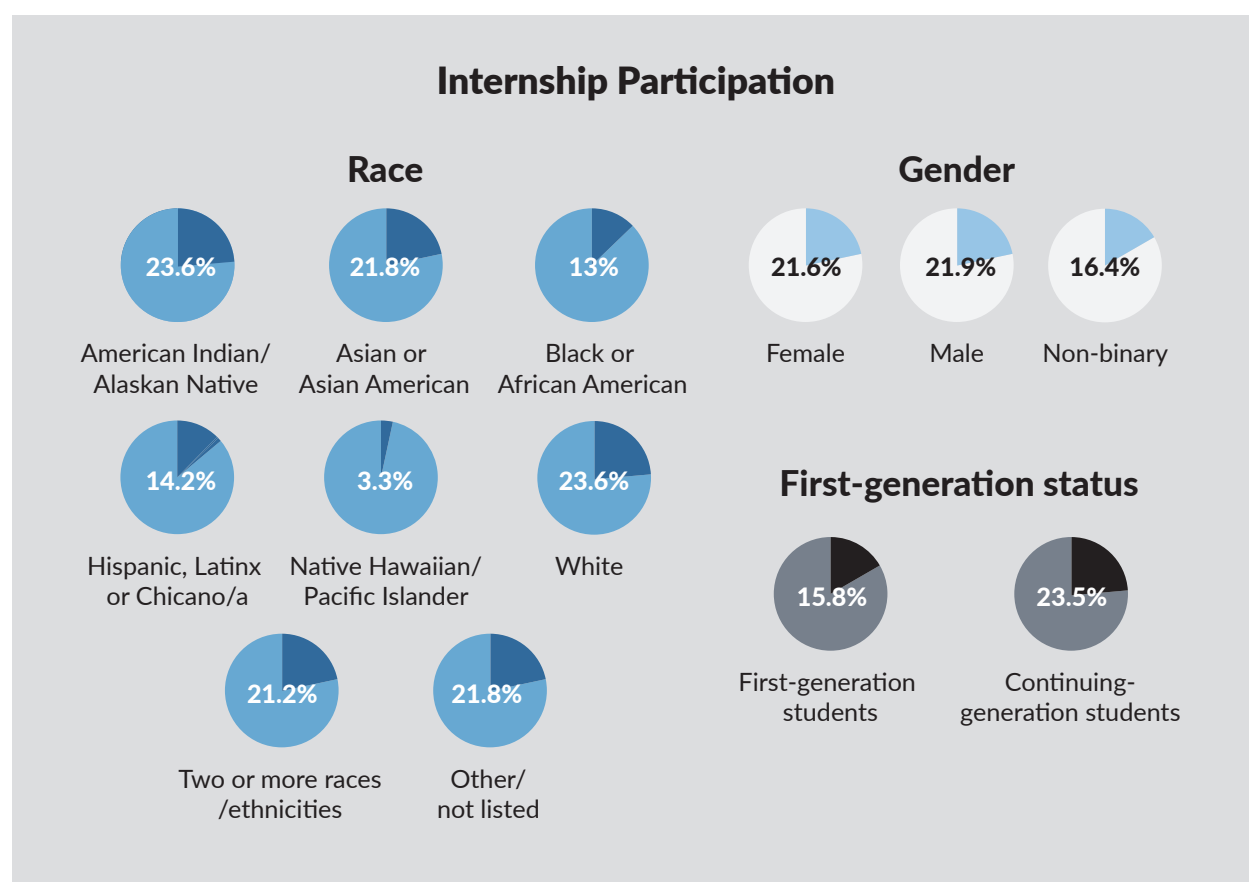
As previously noted, multi-institutional estimates of internship participation are uncommon, with the best resources currently available being the NACE Student Survey and the NSSE survey. These surveys most recently found that 50% of college seniors had taken “an internship, co-op, field experience, student teaching, or clinical placement” (NSSE, 2021) and that 48.7% of survey respondents had indicated participation in an

Our finding that only 21.5% of survey respondents had participated in an internship is a striking departure from prior national estimates.

internship only in response to the question, “have you taken part in an internship and/or co-op program since starting college” (NACE, 2021).

While the number of institutions included in the pilot NSCI study is much smaller than both the NACE (2021) and NSSE (2021) surveys, the sample size is similar to that of the NACE Student Survey and does still represent the experiences of a multi-institutional sample of college students. With this caveat in mind (and also the limitations with the pilot study dataset outlined above), we do conclude that our finding that only 21.5% of survey respondents had participated in an internship is a striking departure from prior national estimates. It is possible that this much lower figure is due, in part, to the disruption posed by the COVID-19 pandemic to the internship labor market during the time of data collection, but prior and pre-pandemic studies by CCWT had indicated similarly low participation rates among individual colleges.² Another consideration for differences with other studies is that our sample captures all levels of current college students (e.g., freshmen to senior), while others focus on seniors or graduates alone.

Some notable trends in our data regarding internship participation include differences by race (American Indian/Alaskan Native 23.6%, Asian or Asian American 21.8%, Black or African American 13%, Hispanic, Latinx or Chicano/a 14.2%, Native Hawaiian/Pacific Islander 3.3%, White 23.6%, Two or more races/ethnicities 21.2%, Other/not listed 21.8%), gender (21.6% female, 21.9% male, 16.4% non-binary), and first-generation status (15.8% first generation students, 23.5% continuing generation students).



² For example, three pre-pandemic studies of University of Baltimore, Northeastern Illinois University, and University of Wisconsin-Parkside have participation rates of 26%, 25%, and 26% respectively.

Continued research using the NSCI instrument—which uses a more precise survey question that does not conflate internships with other forms of work-based learning for survey takers—will be essential to capture the prevalence of internship participation in the U.S. over time.

Internship modality

The modality of internships captures the critical issue of the location of the experience (in-person, online, or both), which can shape the character and outcomes of the experience for students. This indicator also became particularly relevant during the COVID-19 pandemic with the growth of online internships. Among our sample of 2,609 interns, 45% (n = 1,173) took an internship completely online while 47.8% (n = 1,247) maintained in-person status for their internship despite the pandemic. Additionally, 7.2% (n = 188) took an internship that adopted a hybrid form of participation, which involved a combination of in-person and online experiences.

Figure 1. Internship participation by modality: Online, in-person or hybrid

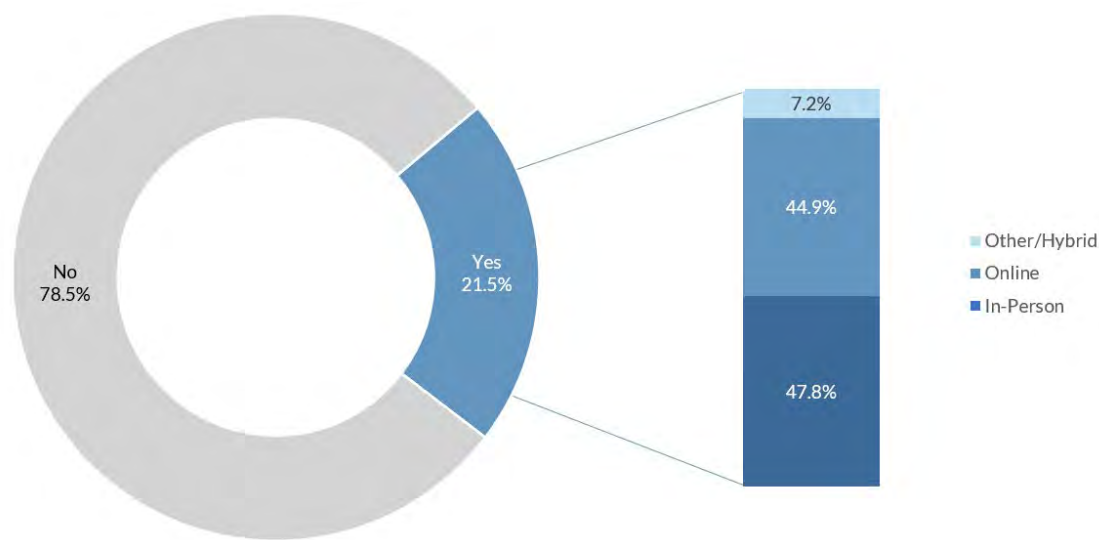


Table 5. Internship modality by key student characteristics

	Internship Modality					
	In-Person		Online		Other	
Total	1,247	47.8%	1,173	45.0%	188	7.2%
Gender						
Woman	857	47.2%	823	45.3%	137	7.5%
Man	373	51.0%	311	42.5%	47	6.4%
Another gender identity	17	28.3%	39	65.0%	4	6.7%

	Internship Modality					
	In-Person		Online		Other	
Race						
American Indian/Alaskan Native	7	53.8%	5	38.5%	1	7.7%
Asian or Asian-American	129	35.0%	219	59.3%	21	5.7%
Black or African American	39	43.3%	45	50.0%	6	6.7%
Hispanic, Latinx, or Chicano/a	74	40.2%	101	54.9%	9	4.9%
Native Hawaiian/Pacific Islander	1	100.0%	N/A	N/A	N/A	N/A
White	905	51.7%	714	40.8%	133	7.6%
Two or more races/Ethnicities	66	43.1%	74	48.4%	13	8.5%
Others	26	56.5%	15	32.6%	5	10.9%
First-Generation Status						
First-generation college students	983	46.8%	974	46.4%	143	6.8%
Continuing-generation college students	261	52.4%	193	38.8%	44	8.8%

Note: Categories may not add up to the total due to missing responses for demographic questions

Purpose for taking an internship

Students have different reasons for pursuing an internship, which may lead to different expectations, needs, and outcomes. While we do not suggest that one reason is better than another, for campus leaders, faculty, and career services professionals, understanding why students are pursuing an internship may be useful information.

At the 17 campuses we surveyed, over three in five respondents (67.9%, n= 1,769) indicated that the main reason for taking the internship was to gain experience in a specific career that they planned on pursuing as their chosen profession. Thus, using an internship to “try out” different careers or professions is not the dominant reason for students in our sample to pursue an internship, which suggests that longer, more targeted and career-relevant positions (as opposed to shorter, more exploratory positions) may be desirable.

Figure 2. Reasons why students decided to participate in an internship

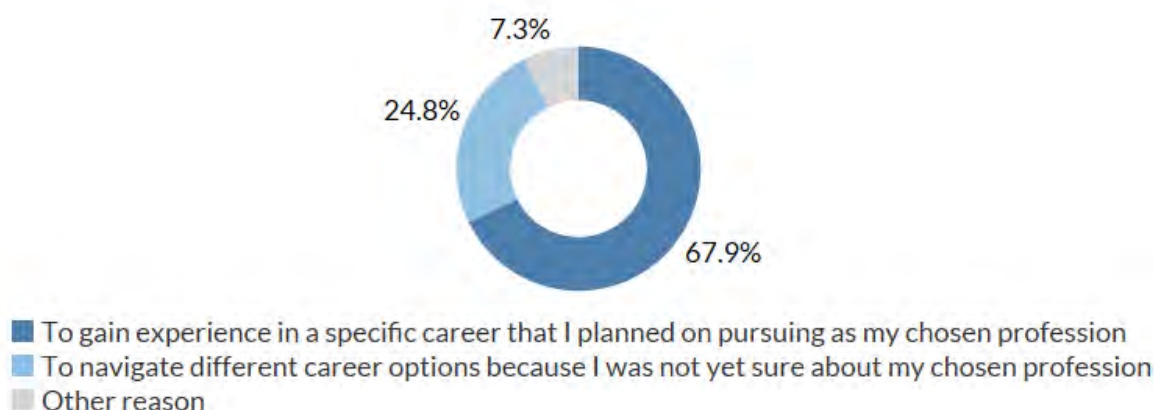


Table 6. Purpose for pursuing an internship by key student characteristics

	Internship Purpose					
	Gain experience in specific career		Navigate different career options		Other	
Total	1769	67.9%	646	24.8%	191	7.3%
Gender						
Woman	1235	68.0%	453	24.9%	129	7.1%
Man	497	68.0%	177	24.2%	57	7.8%
Another gender identity	37	63.8%	16	27.6%	5	8.6%
Race						
American Indian/Alaskan Native	8	66.7%	4	33.3%		
Asian or Asian-American	255	68.9%	95	25.7%	20	5.4%
Black or African American	56	62.2%	26	28.9%	8	8.9%
Hispanic, Latinx, or Chicano/a	122	66.3%	42	22.8%	20	10.9%
Native Hawaiian/Pacific Islander	1	100.0%				
White	1200	68.5%	429	24.5%	123	7.0%
Two or more races/Ethnicities	96	62.7%	40	26.1%	17	11.1%
Others	31	70.5%	10	22.7%	3	6.8%
First-Generation Status						
First-generation college students	349	70.1%	105	21.1%	44	8.8%
Continuing-generation college students	1417	67.5%	536	25.5%	147	7.0%

Duration of the internship

While standards for internships vary according to discipline and program, they can range from very short experiences lasting just a few days to months-long programs. In our research, however, we have found that internships can vary considerably from just 1-2 weeks to over 4 months.

Figure 3. Duration of internship programs

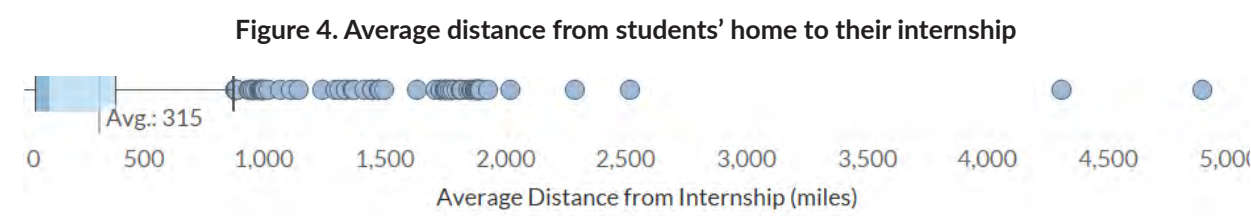


Table 7. Internship duration by key student characteristics

	Internship Duration	
	Mean	SD
Total	18.3	13.9
Gender		
Woman	18.5	14.0
Man	17.6	13.5
Another gender identity	20.3	16.0
Race		
American Indian/Alaskan Native	19.6	14.1
Asian or Asian-American	16.3	12.3
Black or African American	18.7	16.0
Hispanic, Latinx, or Chicano/a	20.3	14.8
Native Hawaiian/Pacific Islander	10.0	
White	18.2	13.8
Two or more races/Ethnicities	19.8	15.0
Others	24.6	18.2
First-Generation Status		
First-generation college students	20.7	13.5
Continuing-generation college students	17.8	15.4

Geospatial aspects of the internship experience

Geography can play a role in access to services, including higher education and job opportunities. To see how geography plays a role in internship opportunities, we examined the average distance from students’ reported home zip codes to the reported zip codes of the internship. Of the 2,330 respondents who had an internship and reported both their internship and home zip code, 1,591 (68.2%) participated in an internship in the same zip code in which they lived. Among those that left their home zip code for an internship, the distance traveled varies considerably. Figure 4 shows that the average distance traveled for an internship, excluding those that remained in their home zip codes, was 315 miles with some outliers traveling more than 4,000 miles to Hawaii.



One notion is that online internships would allow individuals to participate in internships further from home. Among those who had an internship in their home zip code, there is an even split between in-person and online internships. For those that left their home zip code (in-person or virtually), the average distance traveled was greater for those participating in-person. Table 7 shows the average distance by internship modality.

Table 8. Distance from internship by internship modality

	Distance from Internship	
	Mean	SD
Total	315.0	499.8
Modality		
In-person	331.4	545.0
Online	288.0	418.4
Other/Hybrid	328.0	524.9

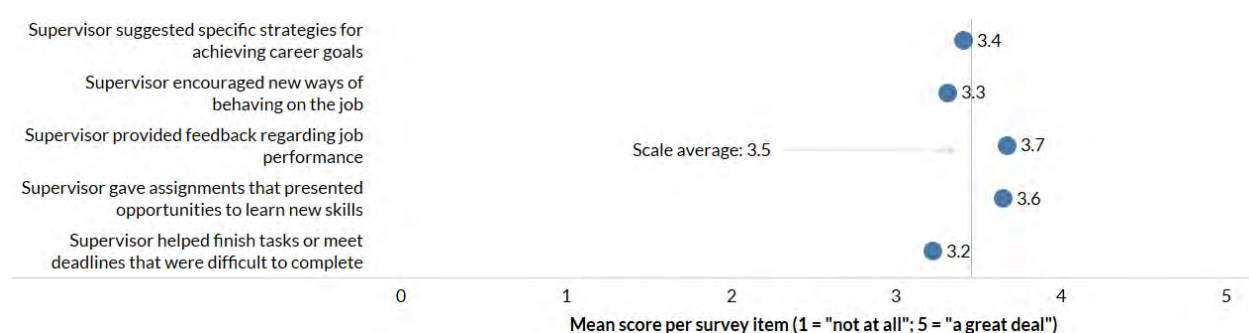
Internship Scorecard Category 2: Quality

This category of the Internship Scorecard captures key indicators of the quality of an internship experience, which is of course a high priority in the world of HIPs, experiential learning, and student success. Drawing on the research literature, as well as national standards (e.g., NACE, CAS), quality indicators include supervision, satisfaction, nature of tasks, and the use of concrete learning plans.

Supervisor Mentoring

Having an effective and supportive supervisor is one of the most important elements of a successful internship experience, and the supervisor mentoring scale in the NSCI captures the quality of mentoring behaviors provided to the students. The scale included 5 items such as, “How often did your supervisor suggest specific strategies for achieving career goals?” and for students at these 17 sites, the mean supervisor mentoring score was 3.45 (on a scale from 1-5) with a standard deviation of 0.74. The figure below provides a comparison of the mean scores along all mentorship items in the survey.

Figure 5. Mean score for supervisor mentoring scale



Note: Sample size n = 2,609 is the total number of interns across 17 campuses. The sample sizes used for calculation of the means are sometimes less than 2,609 due to missingness. The fall survey will include NACE competencies.

Table 9. Mean supervisor mentoring scales by key student characteristics

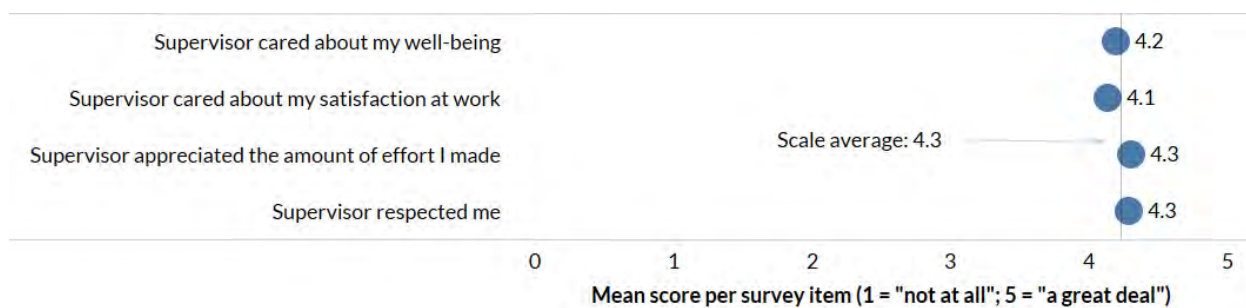
	Internship Supervisor Mentoring	
	Mean	SD
Total	3.45	0.74
Gender		
Woman	3.45	0.75
Man	3.45	0.70
Another gender identity	3.51	0.73
Race		
American Indian/Alaskan Native	3.82	1.04
Asian or Asian-American	3.43	0.74
Black or African American	3.53	0.79

	Internship Supervisor Mentoring	
	Mean	SD
Hispanic, Latinx, or Chicano/a	3.56	0.76
Native Hawaiian/Pacific Islander	3.60	
White	3.44	0.73
Two or more races/Ethnicities	3.43	0.68
Others	3.38	0.72
First-Generation Status		
First-generation college students	3.52	0.76
Continuing-generation college students	3.44	0.73

Supervisor Support

Another aspect of supervision highlighted in the research literature is that of supervisor support, which refers to supervisors' active support of interns' career development and on-the-job satisfaction. One question in this 4-item scale is, "In this internship, how much did your supervisor care about your well-being?" On average, the level of support perceived by student interns at these 17 campuses was 4.23 (on a scale from 1-5), with a standard deviation of 0.86.

Figure 6. Mean score for supervisor support scale



Note: Sample size n = 2,609 is the total number of interns across 17 campuses. The sample sizes used for calculation of the means are sometimes less than 2,609 due to missingness. The fall survey will include NACE competencies.

Table 10. Mean supervisor support scales by key student characteristics

	Internship Supervisor Support	
	Mean	SD
Total	4.23	0.86
Gender		
Woman	4.25	0.85
Man	4.16	0.89
Another gender identity	4.28	0.69
Race		
American Indian/Alaskan Native	4.21	0.90
Asian or Asian-American	4.09	0.86
Black or African American	4.39	0.78
Hispanic, Latinx, or Chicano/a	4.33	0.78
Native Hawaiian/Pacific Islander	5.00	
White	4.24	0.87
Two or more races/Ethnicities	4.27	0.81
Others	4.23	0.97
First-Generation Status		
First-generation college students	4.26	0.86
Continuing-generation college students	4.22	0.86

Student Satisfaction with their Internships

One of the most fundamental questions about an internship experience that should be asked—if the field is to truly adopt a student-centered approach—is whether or not they had a satisfactory experience. While satisfaction alone does not capture or speak to nuances of an internship, such as task design or supervisory behaviors, it could be argued that it is a global measure of a students' evaluation of their overall experience. Scores on the lower end of the satisfaction spectrum could indicate to a campus that work was required with employers, academic advisors, and/or students to improve the programs, while higher scores may suggest that a college or university has a good slate of internship offerings available to their students.

In the pilot study of the NSCI, students at these 17 campuses reported being, on average, very satisfied with their internship experience (M=4.03, SD=0.96).

Figure 7. Student ratings of their satisfaction with their internship experience

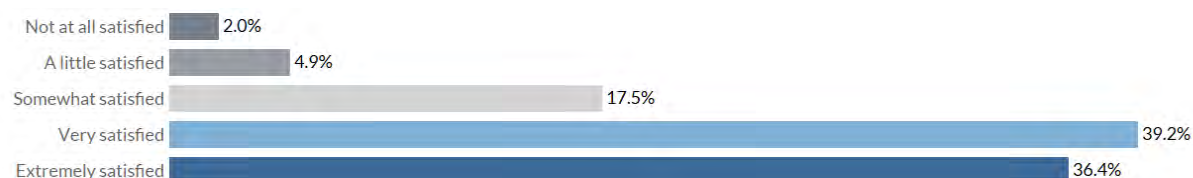


Table 11. Mean satisfaction ratings by key student characteristics

	Internship Satisfaction	
	Mean	SD
Total	4.03	0.96
Gender		
Woman	4.03	0.96
Man	4.02	0.94
Another gender identity	4.11	0.84
Race		
American Indian/Alaskan Native	4.25	1.14
Asian or Asian-American	3.79	0.91
Black or African American	4.09	0.99
Hispanic, Latinx, or Chicano/a	4.06	0.95
Native Hawaiian/Pacific Islander	4.00	
White	4.08	0.95
Two or more races/Ethnicities	4.00	0.99
Others	3.98	0.98
First-Generation Status		
First-generation college students	4.06	0.97
Continuing-generation college students	4.02	0.95

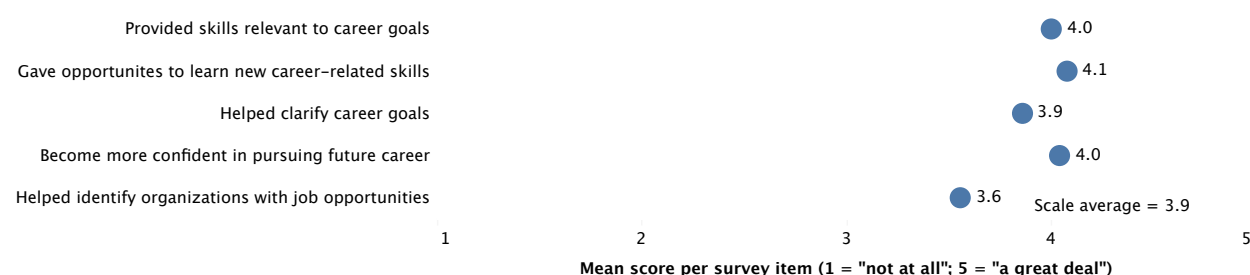
Career Developmental Value of the Internship Experience

Another important outcome of an internship experience is the degree to which it enhanced a students' career goals and opportunities. Based on a survey scale originally developed by Nghia and Duyen (2019), these items measuring a students' sense of the developmental value of an internship include statements such as, "This internship helped me clarify my career goals," and "This internship provided me with important skills relevant to my chosen career."

On average, the level of career developmental value reported by student interns at the 17 campuses in the NSCI pilot study was 3.91 (on a scale from 1-5), with a standard deviation of 0.92. The lowest rated item that pertains to how well the internship helped the student identify future employers, suggests that some element of the job search or exploration process could be enhanced in future programming.

Figure 8. Mean score for career developmental value scale

Career Developmental Values



Note: Sample size n = 2,609 is the total number of interns across 17 campuses. The sample sizes used for calculation of the means are sometimes less than 2,609 due to missingness.

Table 12. Mean career developmental value by key student characteristics

	Career Developmental Values				
	Helped clarify career goals	Provided skills relevant to career goals	Gave opportunities to learn new career-related skills	Became more confident in pursuing future career	Helped identify organizations with job opportunities
Mean (Standard Deviation)					
Gender					
Female	3.9 (1.1)	4 (1.1)	4.1 (1)	3.5 (1.3)	4 (1.1)
Male	3.8 (1)	3.9 (1)	4 (1)	3.6 (1.3)	4.1 (1)
Other	3.5 (1)	3.9 (1)	3.8 (1.1)	3.4 (1.2)	3.9 (1.2)

	Career Developmental Values				
	Helped clarify career goals	Provided skills relevant to career goals	Gave opportunities to learn new career-related skills	Became more confident in pursuing future career	Helped identify organizations with job opportunities
Mean (Standard Deviation)					
Race					
Asian	3.7 (1)	3.8 (1.1)	3.9 (1)	3.4 (1.3)	3.9 (1)
Black	3.9 (1.2)	4.1 (1.1)	4.1 (1.2)	3.6 (1.4)	4.2 (1)
Hispanic	3.9 (1.1)	4.1 (1)	4.1 (1)	3.7 (1.3)	4.1 (1)
White	3.9 (1.1)	4 (1)	4.1 (1)	3.6 (1.3)	4.1 (1)
Two or more races	3.9 (1.1)	4 (1.1)	4.1 (1)	3.6 (1.3)	4 (1.1)
Other	3.9 (1.2)	4.1 (1.2)	4.2 (1.1)	3.7 (1.5)	4.2 (1.2)
First-generation status					
First-generation students	3.9 (1.1)	4.1 (1)	4.1 (1)	3.7 (1.3)	4.1 (1)
Continuing-generation students	3.8 (1.1)	4 (1.1)	4.1 (1)	3.5 (1.3)	4 (1)

Nature of Tasks Performed During Internships

One key aspect of an internship experience that is mostly overlooked by existing data sources is the nature of the tasks that interns perform at the job-site. While a student intern could theoretically benefit from a position where they performed low-skill tasks with supervision or simply shadowed an experienced employee, learning theorists suggest that novices benefit the most from being gradually introduced from low to high-skill tasks under the supervision of a mentor (e.g., Lave & Wenger, 1991). This is especially true for the stereotypical internship where a student performs menial, low-skill tasks, such as pouring coffee or making photocopies, which is an experience with little learning and developmental value. For students who aspire to become professionals in their own right, engaging in fully autonomous work is also an ideal scenario for them to transfer skills learnt in college and to begin developing their own professional identities.

In the NSCI, we ask students about the nature of the tasks performed at the job-site, and the data indicate that substantial numbers (but not majorities) engaged in high-skill tasks (36.8%) and autonomous work (35.2%), while a considerable number were limited to low-skill tasks (22.6%).

Figure 9. Type of tasks performed during the internship

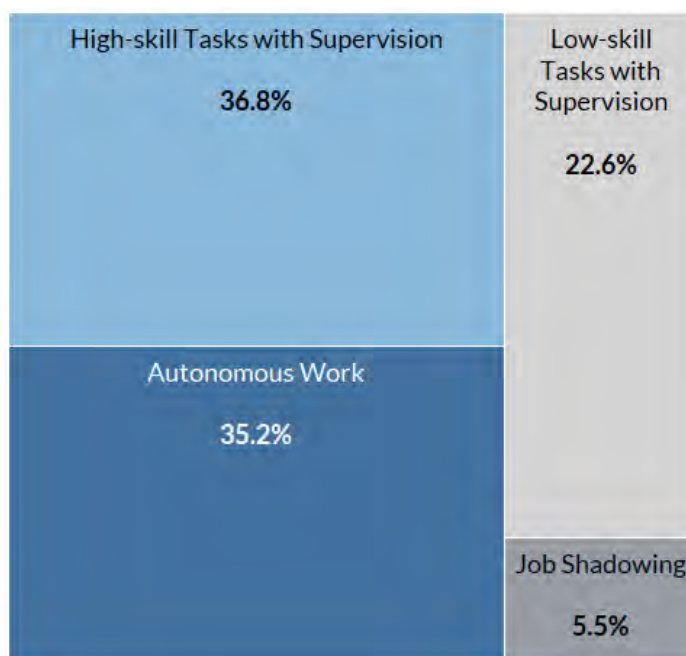


Table 13. Type of intern tasks performed at the internship by key student characteristics

	Internship Tasks							
	Autonomous Work		High-skill Tasks with Supervision		Low-skill Tasks with Supervision		Job Shadowing	
Total	916	35.2%	958	36.8%	589	22.6%	142	5.5%
Gender								
Woman	611	33.7%	672	37.0%	428	23.6%	104	5.7%
Man	283	38.7%	262	35.8%	148	20.2%	38	5.2%
Another gender identity	22	37.3%	24	40.7%	13	22.0%		
Race								
American Indian/Alaskan Native	4	30.8%	5	38.5%	2	15.4%	2	15.4%
Asian or Asian-American	125	33.9%	130	35.2%	97	26.3%	17	4.6%
Black or African American	32	36.0%	28	31.5%	25	28.1%	4	4.5%
Hispanic, Latinx, or Chicano/a	74	40.2%	61	33.2%	41	22.3%	8	4.3%

	Internship Tasks							
	Autonomous Work		High-skill Tasks with Supervision		Low-skill Tasks with Supervision		Job Shadowing	
Native Hawaiian/Pacific Islander	1	100.0%						
White	618	35.3%	660	37.7%	381	21.8%	92	5.3%
Two or more races/Ethnicities	48	31.4%	54	35.3%	32	20.9%	19	12.4%
Others	14	31.1%	20	44.4%	11	24.4%		
First-Generation Status								
First-generation college students	175	35.2%	189	38.0%	96	19.3%	37	7.4%
Continuing-generation college students	741	35.2%	769	36.5%	493	23.4%	105	5.0%

Development of Skills During Internships

The final indicator of internship quality in this report pertains to the critical issue of skills development. One of the primary arguments behind internships is that the experience provides students with opportunities to acquire and hone both technical skills, but also competencies that are variously called “soft” or “21st Century Skills”—terms we dislike due to their obscuring of the complexity of each individual competency.³ In the pilot NSCI study, the instrument included basic questions on the degree to which the internship provided opportunities to develop four key skills (communication, problem-solving, supervising others, teamwork). The data show that students felt that opportunities to develop their communication and problem-solving skills were provided most frequently.

Figure 10. Mean score for opportunities to develop key skills



Note: Sample size n = 2,609 is the total number of interns across 17 campuses. The sample sizes used for calculation of the means are sometimes less than 2,609 due to missingness.

³ Our research group has conducted extensive studies on how students, postsecondary faculty, and employers define and use skills such as teamwork, communication, and critical thinking (e.g., Hora, Smolarek, Martin & Scrivener, 2019), and also published essays describing why the “soft skills” discourse is harmful for college students’ career prospects and societal well-being (e.g., Hora, Benbow & Smolarek, 2018).

Table 14. Mean scores for opportunities to develop skills by key student characteristics

	Internship Skills	
	Mean	SD
Total	3.60	0.64
Gender		
Woman	3.61	0.63
Man	3.59	0.67
Another gender identity	3.64	0.57
Race		
American Indian/Alaskan Native	3.71	0.71
Asian or Asian-American	3.59	0.68
Black or African American	3.76	0.70
Hispanic, Latinx, or Chicano/a	3.66	0.62
Native Hawaiian/Pacific Islander	5.00	
White	3.58	0.63
Two or more races/Ethnicities	3.61	0.60
Others	3.66	0.76
First-Generation Status		
First-generation college students	3.70	0.64
Continuing-generation college students	3.57	0.64

In the fall 2021 version of the NSCI instrument, these items will be revised to capture more detailed information about skills that align with the oft-cited and newly revised NACE competencies. These include items focused on technology, communication, critical thinking, and leadership, and the new survey questions will capture students' perceptions on the degree of growth in these competencies that can be attributed to the internship experience.

The Internship Scorecard Category 3: Equitable Access

The third and final category of the Internship Scorecard framework that informs the NSCI is one that is mostly absent in national discussions of internships and related datasets—that of diversity, equity, and inclusion. In the NSCI, the focus is largely on compensation, access, and students' experiences with discriminatory behaviors, as these issues have long been explored in the literature, especially the way that unpaid positions effectively exclude large numbers of low-income students from even pursuing a position in the first place. Further, with growing acknowledgement of the structural racism that permeates U.S. society and rising income inequality, accounting for these issues within the contexts of internships is critical given their potential role as a “gatekeeping” mechanism to the labor market.

The third and final category of the Internship Scorecard framework that informs the NSCI is one that is mostly absent in national discussions of internships and related datasets—that of diversity, equity, and inclusion.

Compensation

Whether or not an internship is paid or unpaid has been a controversial topic for decades, with lawsuits even being filed against employers whose interns felt that their work was similar to (and even replaced) that of full-time employees. Unpaid internships also make it difficult for low-income and/or working students to participate, which presents a considerable barrier to access and which may limit access to these potentially transformative opportunities to wealthy (and well-connected) students (see Crain, 2016; Curiale, 2009; Perlin, 2012).

However, some evidence suggests that low-income students are actually more likely to pursue unpaid internships, especially those in non-profit organizations and government agencies, and that female students are more likely to take unpaid positions than male students (Gardner, 2010). These findings underscore the need for more research and evidence on this critical topic, and the continued prevalence of unpaid positions in the intern labor market (39.8% in the NSCI pilot study) shows that they are affecting a substantial number of college students.

Figure 11. Percentage of internships by compensation

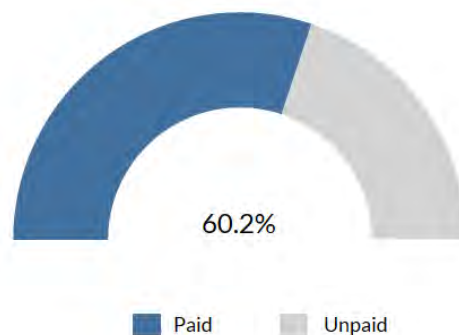


Table 15. Internship compensation by key student characteristics

	Internship Compensation			
	Paid		Unpaid	
Total	1,570	60.2%	1,037	39.8%
Gender				
Woman	987	54.3%	830	45.7%
Man	555	75.9%	176	24.1%
Another gender identity	28	47.5%	31	52.5%
Race				
American Indian/Alaskan Native	5	41.7%	7	58.3%
Asian or Asian-American	196	53.0%	174	47.0%
Black or African American	51	56.7%	39	43.3%
Hispanic, Latinx, or Chicano/a	104	56.5%	80	43.5%
Native Hawaiian/Pacific Islander	1	100.0%		
White	1091	62.3%	661	37.7%
Two or more races/Ethnicities	97	63.4%	56	36.6%
Others	25	55.6%	20	44.4%
First-Generation Status				
First-generation college students	268	53.8%	230	46.2%
Continuing-generation college students	1,302	61.7%	807	38.3%

Presence of Anti-Discrimination Policy

For this indicator we asked students if they were provided with a written document that explicitly described an organizational policy that prohibited discriminatory actions on the basis of race, gender, disability status, and so on. Such a statement reflects a commitment by the employer to maintaining a welcoming environment to student interns from all backgrounds, identities, and experiences.

Figure 12. Percentage of students reporting the presence of anti-discrimination policy

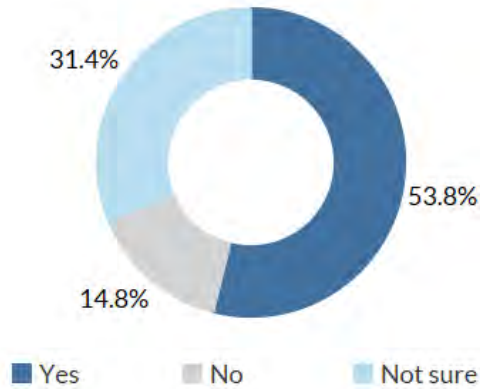


Table 16. Provision of anti-discrimination policies by key student characteristics

	Discrimination Policy					
	Yes		No		Not sure	
Total	1,403	53.8%	386	14.8%	817	31.4%
Gender						
Woman	916	50.4%	293	16.1%	607	33.4%
Man	456	62.4%	85	11.6%	190	26.0%
Another gender identity	31	52.5%	8	13.6%	20	33.9%
Race						
American Indian/Alaskan Native	9	69.2%	1	7.7%	3	23.1%
Asian or Asian-American	200	54.2%	73	19.8%	96	26.0%
Black or African American	52	57.8%	15	16.7%	23	25.6%
Hispanic, Latinx, or Chicano/a	91	49.5%	37	20.1%	56	30.4%
Native Hawaiian/Pacific Islander			1	100.0%		
White	952	54.4%	229	13.1%	570	32.6%
Two or more races/Ethnicities	79	51.6%	20	13.1%	54	35.3%
Others	20	44.4%	10	22.2%	15	33.3%
First-Generation Status						
First-generation college students	263	53.0%	85	17.1%	148	29.8%
Continuing-generation college students	1140	54.0%	301	14.3%	669	31.7%

Direct Experience of Discriminatory Behaviors

The NSCI also asks students about any direct experiences with discrimination they may have experienced during their internship, which is arguably a more important (and potentially troubling) data point than the presence of anti-discrimination policies. The survey item asks about any experiences during their internship where they felt discriminated against based on their race, gender, sexuality, disability status, and/or other personal attributes. Fortunately, the number of students answering in the affirmative (3.3%) is very low, but still captures the fact that 86 students unfortunately reported discrimination during their internships.

Table 17. Experience of discrimination by key student characteristics

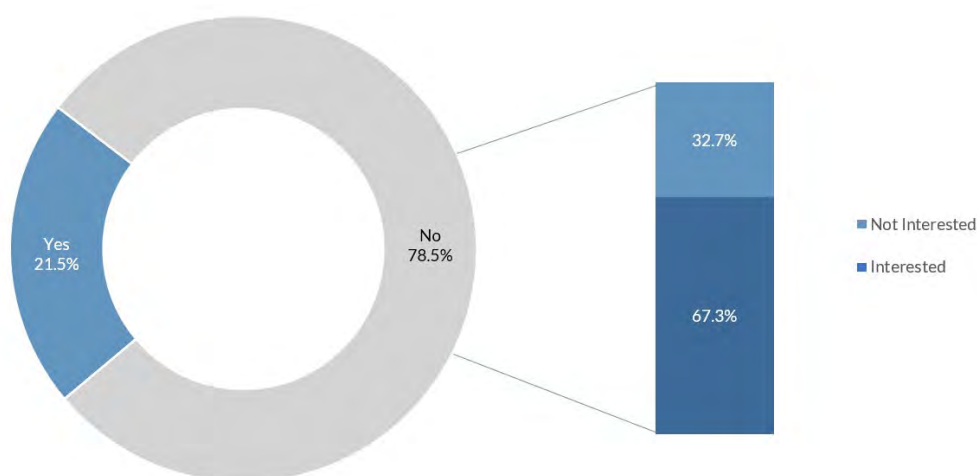
	Discrimination in Internship			
	Yes		No	
Total	86	3.3%	2,522	96.7%
Gender				
Woman	67	3.7%	1751	96.3%
Man	14	1.9%	717	98.1%
Another gender identity	5	8.5%	54	91.5%
Race				
American Indian/Alaskan Native	1	7.7%	12	92.3%
Asian or Asian-American	15	4.1%	355	95.9%
Black or African American	6	6.7%	84	93.3%
Hispanic, Latinx, or Chicano/a	6	3.3%	178	96.7%
Native Hawaiian/Pacific Islander			1	100.0%
White	50	2.9%	1702	97.1%
Two or more races/Ethnicities	5	3.3%	148	96.7%
Others	3	6.7%	42	93.3%
First-Generation Status				
First-generation college students	21	4.2%	477	95.8%
Continuing-generation college students	65	3.1%	2045	96.9%

Obstacles Preventing Students from Taking an Internship

The final indicator for the equitable access component of the NSCI pertains to the obstacles that prevented students who had wanted to take an internship but could not for some reason. These findings indicate that a substantial number of students (67.3% of non-interns or 6,407 students) at the 17 campuses in the NSCI pilot study had wanted to take an internship but could not.

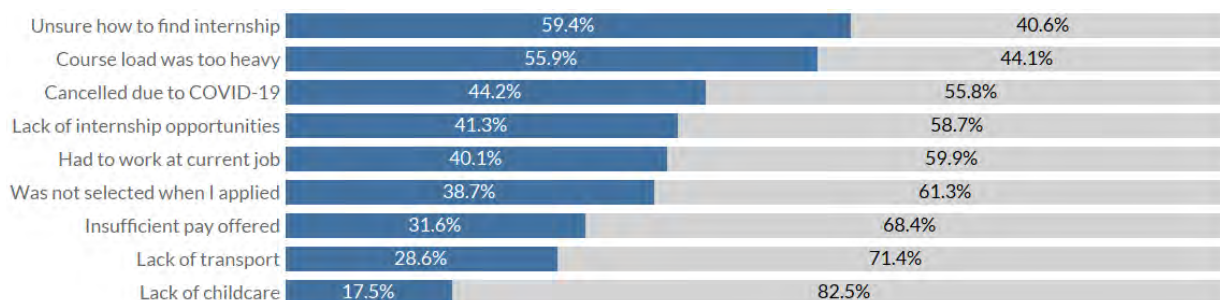
Our data indicates that a substantial number of students (67.3% of non-interns or 6,407 students) at the 17 campuses in the NSCI pilot study had wanted to take an internship but could not.

Figure 13. Percentage of non-interns who were interested/not interested in pursuing an internship



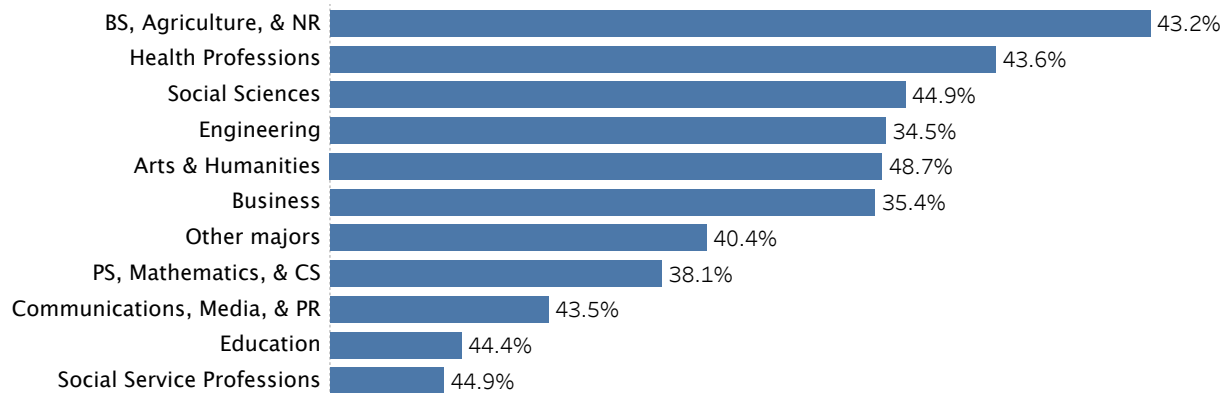
The question that then must be answered is precisely what obstacles prevented these 6,407 students from pursuing and taking an internship? For the students in this study, the most common reasons were the lack of knowledge about how to find an internship (59.4%), a heavy course load (55.9%), cancellation due to the pandemic (44.2%) and a lack of internship opportunities (41.3%). In the survey, students could identify more than one obstacle that prevented them from taking an internship.

Figure 14. Percentage of students reporting individual obstacles to an internship



Finally, we report data on the nature of specific obstacles to internships by student characteristics. The first set of findings pertains to the lack of internship opportunities by major, since concern exists in the field for students who are not in disciplines (e.g., business or engineering) that have longer histories and thus employer contacts than other fields. However, our data indicate that students in STEM-related fields, health professions, and the social sciences are finding it especially difficult to locate an internship.

Figure 15. Lack of internship opportunities by major



Note: BS denotes Biological Sciences; NR denotes Natural Resources; PS denotes Physical sciences; CS denotes Computer Science; PR denotes Public Relations.

The experience of these obstacles also varies by key student characteristics, with Table 18 on the following page including results for how individual obstacles were reported by students in the NSCI pilot study.

Table 18. Barriers to internship participation by race, gender, and first-gen status.

	Obstacles								
	Course load too heavy	Had to work at current job	Lack of internship opportunities	Lack of transport	Lack of childcare	Insufficient pay	Unsure how to find an internship	Was not selected when applied	Cancelled due to COVID-19
Gender									
Female	29.30%	21.60%	21.70%	14.90%	9.50%	16.90%	30.80%	18.50%	22.90%
Male	28.80%	19.70%	21.50%	14.60%	8.40%	15.10%	32.20%	24.70%	23.70%
Other	37.90%	22.80%	24.20%	21.90%	10%	24.50%	33.60%	23.10%	26.50%
Race									
Asian	36.00%	19.70%	27.60%	22.70%	12.10%	17.40%	38.10%	28.50%	28.80%
Black	29.40%	26.50%	23%	17%	10.10%	18.60%	36.40%	19.40%	21.70%
Hispanic	33%	28.50%	19.80%	16.60%	10.20%	17.70%	40.30%	17.60%	22%
White	27.50%	19.90%	20.80%	13%	8.50%	16.30%	27.80%	19.50%	22.70%
Two or more races	27.60%	19.60%	19.30%	14%	8%	15.30%	30%	17.40%	20.60%
Other	27%	17.60%	20.60%	14.30%	7.70%	11.80%	30.90%	15.10%	19.90%
First-generation status									
First-generation students	31.60%	26.20%	21.90%	16%	9.70%	17.80%	34.60%	19.20%	22%
Continuing-generation students	28.60%	19.30%	21.60%	14.70%	9%	16.20%	30.10%	20.70%	23.60%

Conclusions & Next Steps

It is our hope that the data reported from the pilot phase of the NSCI and the Internship Scorecard framework can be used by postsecondary professionals, employers, funding agencies, and other stakeholders to improve their understanding of the nature of internship programs, and how they may be impacting college students' success. Given that many colleges and universities do not have the resources to collect and analyze data on the different categories of internship prevalence, quality, and equitable access outlined in this report, the NSCI represents an opportunity for campuses and the national higher education community to begin developing an evidence-based approach to the design, implementation, and continual improvement of internships in the U.S.

Ultimately, we argue that the field of higher education and work-based learning needs to treat the advocacy for and measurement of college internships with far more precision and nuance than is currently the norm. A new approach and corresponding dataset is needed to unpack the complexity inherent within an internship experience and allows for the measurement of program purpose, quality, and equitable access. As college students graduate into a labor market rife with uncertainty and rapidly changing conditions caused by the COVID-19 pandemic, the potentially transformative experience offered by a high-quality internship may become even more important. It is therefore incumbent that the higher education community improve how these programs are designed and implemented, and that they are made available to all students regardless of race, socio-economic status, and geographic location.

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