Building Effective Technology Internships

Executive Summary

What community colleges can do to ensure that technology internships are effective learning and talent development tools for both students and employers.

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Introduction

Studies have documented the usefulness of technology internships for postgraduate employment, but most of the research has focused on students in four-year programs. It isn't clear how those findings apply to two-year programs. Furthermore, of the studies of internships at two-year colleges, few have focused specifically on IT and engineering technology (ET) programs and the structures that are essential to building effective technology internships. Also, we know little about the impacts that technology internships can have on people from communities that have been underrepresented in both technology careers and technology education—including individuals from low-income backgrounds; Black, Latinx, and Indigenous people; and women of all backgrounds.

To fill these gaps in knowledge, the National Science Foundation provided JFF with funding to conduct a three-year mixed-methods study of credit-bearing technology internships. To carry out that research, we conducted case study analyses at two Florida community colleges, which we call Gulf West and Gulf East. Since internships were required for graduation at Gulf West but only in some technology programs at Gulf East, the two schools provided an interesting comparison of how a requirement affects internship participation and outcomes. Our data included findings culled from interviews with 112 students, faculty members, administrators, and employers; 10 years of student administrative records (2010-2019); and the results of a survey of 106 internship students at Gulf West.

The case studies enabled us to explore internship structure, student participation by demographics, and correlations between internship structures and outcomes. Our research filled gaps in what is known about how internships should be structured to best support student participation and learning and to broaden student participation and employer engagement. Our findings offer details about how internships are structured, who participates in credit-bearing technology internships, and the impact of internships on student learning and career exploration and employer engagement strategies.

Key Findings

Key findings show that stakeholders believe that internships have the potential to prepare students to succeed in tech careers, strengthen students' confidence in their abilities to complete their educations and achieve their career goals, and provide a bridge from education to employment. And these findings cut across gender, race, and ethnicity, suggesting that credit-bearing internships have the potential to broaden participation in technology careers.

However, we also found that very few students take part in internships. This is largely due to the fact that most technology students leave college before they are eligible for an internship. And those who stay face barriers that make it difficult to find and participate in internships.

The problem is that pursuing an internship isn't a simple matter of, say, enrolling in a class. Finding an internship is a lot like looking for a job, and many students told us they didn't know where to begin the process—they didn't know how to find internship opportunities, and they didn't know how to apply for them if they did. Moreover, participating in an internship creates scheduling challenges for students who are already juggling school, work, and personal responsibilities. And commuting can be a problem for those who have limited access to transportation. On top of that, students who need to earn money to support themselves said unpaid internships aren't an option—and many internships are unpaid.

Without substantial and ongoing support and resources from career counselors and faculty, most technology students find it difficult to secure internships. We found that students are more likely to receive effective support when internships are required for graduation. When internships are not required, it is likely that only students who face the fewest barriers to completing technology degrees and entering technology occupations will participate, thus furthering inequity in the technology field. By working more closely with students and employers before and during the internship process, colleges will be best positioned to help students and employers come together and navigate this critical work-based-learning (WBL) opportunity.

Community colleges play a key role in ensuring that internships are effective because they are the hub that brings students and employers together and supports their participation and engagement. Colleges can improve internship programs if they make an internship a requirement for graduation, ensure that students get paid for the work they do, provide students with pre-internship support, continue to support them during the application process and while they are participating in the internship, and actively engage, support, and partner with employers.

Here are summaries of our more detailed recommendations regarding each of those practices.

Internship Requirement

Colleges should 1) make internship a graduation requirement, and 2) ensure that students get paid for the work they do.

Pre-Internship Support

Colleges should 1) introduce new students to internships, 2) provide students with early opportunities for career exploration, 3) ask former student interns to serve as peer mentors to newer students, and 4) offer simulated in-class work-based-learning activities.

Application and Internship Support

Colleges should 1) pair students with faculty or staff mentors who can guide them through the internship application process, 2) offer students faculty support for the duration of their internships, and 3) ensure that employers pair students with mentors.

Employer Engagement, Support, and Partnerships

Colleges should 1) work with employers to link technology internships to career pathways within their organizations, 2) provide employers with training on how to set up internships and work with interns, 3) meet with employers several times during internships and then debrief with them afterward, and 4) work with employers to help them create welcoming workplaces in which students of all backgrounds feel at ease.