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RESEARCH BRIEF #2

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What do we know about the impact of internships on student outcomes?

Results from a preliminary review of the
scholarly and practitioner literatures



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KEY FINDINGS

1. A considerable amount of empirical and practitioner research exists on internships, but the literature is limited by terminological imprecision, incomparability across countries and disciplines, and a lack of rigorous field studies on student outcomes.
2. A detailed and standardized definition for what constitutes an “internship” experience does not exist.
3. Evidence indicates that internships improve students’ employability, academic outcomes, and career crystallization, but the evidence is mixed regarding the effects of internships on employability over the long-term and little research exists about the effects of internship experiences on wages.
4. Evidence also indicates the importance of internship characteristics such as job-site mentoring, autonomy, pay, and meaningful tasks on outcomes such as student satisfaction and job pursuit, yet few studies examine the relationship between these design characteristics and student outcomes.
5. The practitioner or “grey” literature highlights the importance of careful planning, institutional support systems, coordination between academic programs and job-site mentors, a large “stable” of employers willing and able to host interns, and careful attention to legal and ethical issues.
6. States and institutions hoping to scale up internship programs should ensure adequate staff, funding, and willing participants are in place before creating internship programs at scale.
7. The field needs rigorous mixed methods longitudinal studies that examine the impacts of specific internship characteristics on a variety of student outcomes.

Introduction

Work-based learning, whether in the form of an internship or apprenticeship, is currently one of the most influential ideas in public higher education and workforce development policy. For example, President Trump recently proclaimed that, “Apprenticeships are going to be a big, big factor in our country,¹” and Wisconsin’s Governor Scott Walker included a provision in the recent state budget that all recipients of bachelor’s degrees from the UW System be required to have an internship experience.²

The central idea behind this advocacy for work-based learning is that hands-on experiences in authentic, real-world contexts are an important complement to academic programs and classroom teaching – an idea expressed by educational researchers and learning scientists for decades.³ Internships in particular are often touted as being a win-win-win situation: Students can get real-world job experience and establish professional networks, educators get their students opportunities to translate theory into practice, and employers get inexpensive and educated workers that may turn into new hires. Additionally, internships are increasingly seen as a central strategy in solving the so-called “skills gap,” such that newly trained workers would fill open positions, boost local economies and essentially fix the many ailments facing local labor markets.

With these apparent benefits and mounting pressure for colleges and universities to adopt work-based learning programs, one could argue that U.S. higher education is poised to enter the “era of the internship.” But several questions remain:

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1. What do we really know about internships and their ultimate impacts on student outcomes such as wages, employment status, and career satisfaction?
 2. What are the most important design characteristics of an internship that lead to positive student outcomes, and which could potentially lead to negative student and employer experiences?
 3. Are initiatives at the state and institutional levels promoting and even mandating that college students have an internship experience being designed with attention to the evidentiary base?
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These are critical questions, because many state governments and institutions of higher education across the U.S. are actively developing and/or expanding internship programs that will affect the lives of millions of college students, the companies they intern with, and the academic programs that are ultimately responsible for their education.

However, despite the fact that the notion of internships as a positive and beneficial experience is a “repeated dictum” among policymakers and many educators, the view in the literature is that the relationship between internships and early career experiences is “under-tested” to say the least.⁴ In fact, as we discuss in this policy brief, while a rich body of practical knowledge exists regarding how to design and implement effective internships, the research literature on internships is severely limited by a lack of rigorous studies, terminological confusion and by being scattered across various disciplines and industries. Additionally, while the literature does include evidence regarding the value of internships for students, educators, and employers alike, researchers have also identified many challenges and problems with internship programs.

One of the central findings of our review of the literature on internships is that attention to design characteristics - such as the duration, type and quality of mentorship, pay, and coordination with academic advisors – is an essential yet frequently

¹ Fain, P. (June 14, 2017). New money and new players on apprenticeships. *Inside Higher Ed*.

² Walker, S. (2017). State Government of Wisconsin: Budget in brief. Madison, WI: Department of Administration.

³ Dewey, J. (1997). Experience and education. *Kappa Delta Pi*; Resnick, L. B. (1987). *The 1987 presidential address learning in school and out. Educational Researcher*, 16(9), 13-54; Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193-212.

⁴ Silva, P., Lopes, B., Costa, M., Melo, A. I., Dias, G. P., Brito, E., & Seabra, D. (2016). The million-dollar question: can internships boost employment?. *Studies in Higher Education*, 1-20, p.2

overlooked component of internship programming. If not sufficiently considered, an internship can be detrimental to the interests of students and employers alike. After years of experience as a director for career services at a major university, Nancy O’Neill felt that while internships could provide many benefits to students, she nevertheless cautions that:

“... I also met many students who landed in my office precisely because their internships lacked direction and meaningful work. These students, frustrated and disappointed, began to view internships quite cynically as “resume fillers” and “door openers” that needed to be completed in order to land a job after graduation.”⁵

In the interests of avoiding situations like this, we conducted a preliminary review⁶ of the scholarly and practitioner literatures⁷ to inform policymakers, employers, higher education leaders and career services professionals’ decisions about how to design and administer internship programs. In this policy brief, we report findings from our review that includes the following: (1) a discussion about what internships are to different researchers and practitioners, (2) evidence from the empirical literature on key characteristics of internships and their relationship to student outcomes, and (3) design tips for creating effective internship programs.

As we examined the literature, it quickly became apparent that no single definition exists and in practice, internships can take many different forms and vary according to a range of characteristics.

What is an internship?

Before examining what the scholarly and practitioner literatures have to say about internships, it is worth considering and articulating precisely what is meant by the term. As we examined the literature, it quickly became apparent that no single definition exists and in practice, internships can take many different forms and vary according to a range of characteristics.

For example, consider the following definitions of internships. For Merriam-Webster, an internship is defined as “an advanced student or graduate usually in a professional field (such as medicine or teaching) gaining supervised practical experience (as in a hospital or classroom).” This definition considers what are known as practicum (in nursing) or student teaching (in education) as internships, along with the view that the experience is supervised and limited to

The Center on Research for College-Workforce Transitions

The mission of the Center for Research on College to Workforce Transitions (CCWT) is to conduct and support research, critical policy analysis, and public dialogue on student experiences with the transition from college to the workforce in order to inform policies, programs, and practices that promote academic and career success for all learners. In particular, CCWT aims to document and analyze the perspectives and experiences of the various constituencies involved in the college-to-career transition process: which include employers, students and their communities, educators and career services professionals, and state governments. Consequently, our approach to this literature review was to critically consider the needs and perspectives of all constituencies involved in the college-to-career transition process.

⁵ O’Neill, N. (2010). Internships as a high-impact practice: Some reflections on quality. *Peer Review* 12 (4): 4–8.

⁶ This policy brief represents an early, preliminary review of the literature on internships based on keyword searches of academic databases and reviews of reference lists from widely-cited papers. A more systematic and scholarly literature review is currently underway that will involve a more intensive and lengthy review of the research base. Our aim in producing this preliminary review was to disseminate early conclusions and findings in order to inform current debates about internship programming.

⁷ The term “research literature” refers to peer-reviewed journal articles published in scholarly journals, while the terms “practitioner” or “grey” literatures refers to self-published how-to guides, policy analyses, and other non peer-reviewed publications. We view the grey literature as a valuable source of information on internships, particularly for those engaged in the practical aspects of designing and implementing programs.

advanced students. In contrast, the Oxford English dictionary considers internships to be, “The position of a student or trainee who works in an organization, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification.” This definition views the learner as a neophyte and considers them to be employees of an organization, while also raising the issue of pay (or lack thereof), and the goal of obtaining qualifications (which is often associated with apprenticeships).

Clearly, a shared conception of what precisely constitutes an internship experience does not exist, and this poses considerable issues for researchers, policymakers, students, educators and employers alike.

The differences in these definitions are symptomatic of the terminological differences and lack of consistency in defining internships evident in the research and practitioner literatures. For instance, while some scholars clearly specify what is meant by the term “internship” in their research, in most cases the term is never defined. Besides a lack of operational specificity, another issue is the fact that some consider internships to encompass a wide range of work-based learning (e.g., apprenticeships, practicum, work placements, etc.),⁸ while others limit their conception of internships to short, work-based learning programs undertaken by undergraduate students.⁹

Another widely used approach, which underscores the issues with a lack of clear and standardized definitions regarding what precisely constitutes an internship, is the reliance on students to indicate whether or not they have participated in one – with no indication regarding what type of program (e.g., duration, nature of work, link to academic program, etc.) is being documented.¹⁰

Clearly, a shared conception of what precisely constitutes an internship experience does not exist, and this poses considerable issues for researchers, policymakers, students, educators and employers alike.¹¹ In order to address this problem, the National Association of Colleges and Employers developed the following 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 (National Association of Colleges and Employers, 2011).

While this definition adds clarity regarding the relationship between academics and job-site experience, it unfortunately fails to distinguish internships from other forms of work-based learning (e.g., coop programs) or to specify programmatic features that could be used to discern one type of internship from another. While making such distinctions may not appear to be important in practice, for empirical research such clarity is essential. Furthermore, as governments and postsecondary institutions move ahead with scaling up or even mandating internships, developing a consistent and robust definition will be of utmost importance so that students and employers have some guarantees that they are participating in a particular type of program.

⁸ Silva, P., Lopes, B., Costa, M., Melo, A. I., Dias, G. P., Brito, E., & Seabra, D. (2018). The million-dollar question: can internships boost employment? *Studies in Higher Education*, 43(1), 2-21.

⁹ McHugh, P. P. (2017). The impact of compensation, supervision and work design on internship efficacy: implications for educators, employers and prospective interns. *Journal of Education and Work*, 30(4), 367-382.

¹⁰ In the widely used “National Survey of Student Engagement,” student respondents are asked to indicate whether they have, “Participated in an internship, co-op, field experience, student teaching, or clinical placement,” which are considered “high-impact” practices. However, the differences among these programs and what precisely constitutes an internship is not articulated. See: http://nsse.indiana.edu/html/high_impact_practices.cfm

¹¹ Indeed, we advise readers to consider that in the literature we discuss in this brief, given the absence of operational definitions regarding internships, it is possible if not likely that the researchers and practitioners whose work we cite all had different conceptions of what exactly constituted an internship.

Distinctions from other forms of work-based learning

While the literature on internships often does not distinguish among different types of work-based learning, there are widely viewed distinctions among programs such as internships, co-ops, apprenticeships and practicums. In order to provide readers with a sense of how these work-based learning experiences vary according to researchers and practitioners, we offer the following brief overview (see Table 1).

Table 1: Outline of four common forms of work-based learning programs

Internship	A short-term opportunity for students to work (paid or unpaid) for an employer where ideally their academic learning can be applied to real-world tasks.
Co-op	A formal academic program where students work full-time for a significant duration at a firm while still being considered a student. Work is standardized, structured and project-based. Most co-ops function via a contractual agreement between a university and an employer, who “cooperate” in educating the student. ^{12, 13}
Apprenticeship	A structured academic program where students “learn and earn” by working at a job site while taking a limited number of academic courses. Apprenticeships can take between 3-4 years, often require on-the-job-training and can lead to professional certification and often full-time employment at the job site. ¹⁴
Practicum	A component of some educational programs where students are placed in a job site (e.g., classroom, hospital) and observe the work of professionals while also spending some time performing tasks themselves. Typically, students are also enrolled in a course connected to the practicum for deeper understanding and meaningful facilitation of what is being learned during the experience.

One of the key takeaways from a comparison among these four types of work-based learning is that internships are the least regulated and standardized among them. Apprenticeships are often regulated by strict federal and state standards with respect to duration, type of academic programming, nature of on-the-job mentorship, and compliance with industry standards. Co-ops and practicums are formal educational offerings that have clearly articulated criterion and standards by host institutions and/or departments regarding program characteristics (e.g., duration, mentorship, etc.), and often feature some form of oversight by industry boards. While the specific nature of each type of work-based learning program can vary from institution to institution, internships are unique in their lack of definitions, articulated guidelines and monitoring even within a college or university.

What does the research literature say about internships?

In this section we review the key findings from our review of the literature. Before summarizing the empirical evidence on internships and their effects on students, however, we highlight four issues that we identified in the literature that are important to consider.

The first issue is that the literature is scattered across multiple disciplines and countries. While variation in the disciplinary and national contexts where studies about internships take place indicates a widespread, global interest in internships, it also presents challenges. Different countries and regions have distinct approaches to and policies about internships, making comparisons across national borders difficult. For example, in some European countries such as Denmark and Austria internships are compulsory for 1st or 2nd degree programs, whereas in others (e.g., Portugal) there is no such

¹² Katula, R. A., & Threnhauser, E. (1999). Experiential education in the undergraduate curriculum. *Communication Education, 48*(3), 238-255.

¹³ Barrick, D. (November 18, 2016) “Co-Op vs. Internship: What’s the difference?” Cooperative Education and Internship Association. <http://www.ceiainc.org/co-op-vs-internship-whats-difference>

¹⁴ “Apprenticeship USA,” United States Department of Labor Employment and Training Administration. <https://www.doleta.gov/OA/apprenticeship.cfm>

requirement. Research on internships has also taken place in fields as varied as marketing and business, the performing arts, science and engineering, and the social sciences, each with potentially different academic expectations, internship characteristics, and workplace tasks. Along with the aforementioned issue of terminological consistency, the various disciplinary and national contexts where studies occur makes comparability across studies even more difficult and even untenable.

The second issue is that there exists a considerable practitioner literature on internships that is not published in scholarly journals. These reports and “how-to manuals” are often authored by higher education career services and corporate relations professionals, and provide in-depth advice about designing and implementing internship programs for postsecondary educators and employers. These reports represent a valuable source of practical wisdom, yet they are often absent from research articles and would not show up in a traditional academic literature review. We integrate findings from these reports into our analysis, and also provide a brief list of practitioner manuals in the Resources section.

The third issue is that while a considerable number of practitioner guides exist, and a search of Google Scholar using the term “college internships” results in 110,000 hits, there is a surprising lack of rigorous empirical research on the impacts that internships have on student outcomes. As one scholar said, “An assessment of the impact of internships on the unemployment rate, accounting for mediating factors such as the structure and format of internships, is virtually non-existent.”¹⁵ Another paper stated that, “Simply put, the literature on internship experiences is largely descriptive and anecdotal.”¹⁶ Complicating the general lack of empirical studies on the topic are methodological problems raised by terminological inconsistency and the subsequent inability to discern precisely what an “internship experience” reported in a study really looks like in practice.

There is a surprising lack of rigorous empirical research on the impacts that internships have on student outcomes.

The fourth issue is that the literature focuses on two distinct yet inter-related aspects of internships – characteristics of programs themselves and their effects on student outcomes. In quantitative research, these foci translate into dependent (i.e., characteristics) and independent (i.e., outcomes) variables, and in Table 2 we outline some of the most common variables included in each category. One of the key findings of our review is that besides insufficiently defining what is meant by the term “internship,” the literature also too infrequently operationally specifies these variables and examines the specific relationships between them.

Table 2: Key variables used to study internships: Program characteristics and student outcomes

Characteristics of internships	Outcomes of internships
Compensation	Student employment opportunities
Coordination between academics/job-site	Student long-term wage gains
Supervisor behaviors/roles	Student academic achievement
Duration	Student career planning/expectations
Autonomy	Employer opportunities to “trial-run” potential hires
Task clarity	Educators enhance reputation of program
Frequency	
Feedback mechanisms for students	

¹⁵ Silva, et al., 2016. p.704.

¹⁶ Narayanan, V. K., Olk, P. M., & Fukami, C. V. (2010). Determinants of internship effectiveness: An exploratory model. *Academy of Management Learning & Education*, 9(1), 61-80.

Finally, for readers interested in specific and illustrative examples of the diverse research base on internships, we highlight three papers and two practitioner guides that provide an excellent introduction to the literature.

Table 3: Selected papers on the impacts of internships on student outcomes

Type	Author(s)	Title	Publisher	Results	Pros/Cons
Journal article	Narayanan, V. K., Olk, P. M., & Fukami (2010)	Determinants of internship effectiveness: An exploratory model	Academy of Management Learning & Education, 9(1), 61-80.	Aspects of employer and university actions impact student satisfaction.	Good literature review, rigorous methodology, and innovative 3-stage model; little insight into employer behaviors/ student experiences.
Journal article	McHugh, P. (2017)	The impact of compensation, supervision and work design on internship efficacy: Implications for educators, employers and prospective interns	Journal of Education and Work, 30(4), 367-382.	Supervisor support and mentoring are significant predictors of internship efficacy.	Good literature review, focus on specific outcome and internship characteristic variables; little insight into employer behaviors/ student experiences.
Journal article	Klein, M. & Weiss, F. (2011)	Is forcing them worth the effort? Benefits of mandatory internships for graduates from diverse family backgrounds at labour market entry	Studies in Higher Education, 36(8), 969-987.	Mandatory internships do not have a positive effect on labor market outcomes, especially for 1st generation students.	Longitudinal analysis of 2,594 German students, little insight into employers' reasons; little insight into employer behaviors/student experiences.
Practitioner guide	Univ of Notre Dame, Career Center	An employer's guide to developing an internship program	Notre Dame Career Center	4-step guide for program design (planning, description, recruitment, management)	Thorough guide for employer considerations before launching internship program.
Practitioner guide	True, M.	Starting and maintaining a quality internship program.	Messiah College, Technology Council of Central PA.	Review of key steps for starting internship program.	Thorough review of planning steps, legal issues, supervision.

In the remainder of this section, we provide brief descriptions of the research findings with respect to programmatic characteristics of internships and effects of internship participation on student outcomes.

Internship characteristics

Many scholars of internships focus on specific characteristics of programs that are examined on their own merits or in relation to outcomes such as employability or career satisfaction. In this section, we outline some of the key issues and findings addressed in the literature.

Compensation

Both paid and unpaid internships are commonly offered to college students across the world, and the issue of compensation has long been a controversial issue in the field. The U.S. Department of Labor has weighed in with a six-point test to determine if an internship can legally be unpaid,¹⁷ and based in part on these criteria the National Association for Colleges and Employers issued a statement on unpaid internships arguing that they should be permissible if and only if the educational quality of the experience can be demonstrated and not simply an “operational work experience that just happens to be conducted by a student.”¹⁸

There are also ethical consequences about the normalization of unpaid and temporary labor, and its role as an obstacle to social mobility. Some have argued that the Department of Labor has failed to enforce the Fair Labor Standards Act which would protect students from substandard unpaid internships.¹⁹ Considerations of students’ economic status is essential with respect to internship pay, since low-income students are unlikely to be able to afford the time away from paid labor to engage in unpaid internships, or the additional expenses of needed travel and professional wardrobes.^{20, 21} In terms of research findings, scholars have found that important benefits of internships such as career development and student satisfaction are lower for unpaid than for paid interns, and that low-income students who struggle to afford unpaid work are less likely to receive the benefits often associated with worksite placements.²²

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Coordination between educators and employers

Studies have shown that the more internships are clearly coordinated with academic coursework, the more students will gain from the overall experience.^{23, 24} One study of 114 business students at a large university in the southwestern U.S. who had participated in internships found that these students derived greater value from internship programs that were more specifically structured, were integrated into the students’ program of study, and that were clearly related to their specific interests and career goals.²⁵ In contrast, in a study of workplace learning in the health, engineering, business, and social work industries, a lack of coordination between academic staff and employers in terms of the internship standards and procedures for providing feedback and evaluations, led students and employers to feel that the program was a frustrating waste of time and resources.²⁶

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¹⁷ <https://www.dol.gov/whd/regs/compliance/whdfs71.htm>

¹⁸ <http://www.naceweb.org/about-us/advocacy/position-statements/position-statement-us-internships/>

¹⁹ Bennett, A.M.. (2011). Unpaid internships and the Department of Labor: The impact of underenforcement of the Fair Labor Standards Act on Equal Opportunity. *University of Maryland Law Journal*, 11(2), 292-311.

²⁰ Curiale, J. (2010). America’s new glass ceiling: unpaid internships, the Fair Labor Standards Act, and the urgent need for change. *Hastings Law Journal* 61: 1531–1560.

²¹ Perlin, R. (2011). *Intern nation: How to earn nothing and learn little in the brave new economy*. Brooklyn, NY: Verso.

²² McHugh, 2016. Ibid.

²³ Katula & Threnhauser, 1999. Ibid.

²⁴ Narayanan, Olk, & Fukami, 2010. Ibid.

²⁵ Hergert, M. (2009). Student perceptions of the value of internships in business education. *American Journal of Business Education*, 2(8), 9-14.

²⁶ Martin, E. (1997). The effectiveness of different models of work-based university education. Aust. Government Pub. Services.

Supervisor behaviors and roles

An important factor in perceived internship quality and efficacy is the behavior of job-site supervisors. High-quality mentoring as measured by factors such as careful screening, project definition, and matching students to appropriate work, has been found to be positively associated with whether interns became interested in permanent employment.²⁷ In addition, supervisor support positively impacts students' satisfaction with the internship experience,²⁸ and supervisor support was positively associated with job pursuit, satisfaction, and career development in a study of 99 students in an undergraduate management program.²⁹ As McHugh said, "Organizations and the supervisors who accept internship placements need to be cognizant that interns require, and likely expect, a higher level of supervisory engagement." Thus, if a company desires to keep interns on as full-time employees and/or intends to provide a satisfying learning experience for students, the evidence suggests that they should ensure that interns' supervisors are well-trained and provide a meaningful experience.

Duration of internships

One of the least discussed aspects of internships is how long they should last. While apprenticeship and co-op programs have clearly articulated requirements for the number of hours required for workplace training, research on internships infrequently addresses this critical issue. In some of the few studies on the topic, researchers found that most were 120-150 hours for three academic credits in criminal justice,³⁰ and another reported that while students felt that 400 hours was excessive, supervisors felt that such an amount of time was adequate for an internship.³¹

Autonomy of interns

Another aspect of internship design that researchers have examined is the degree of authority and autonomy students have in the workplace. One of the key aspects of student satisfaction in an internship is autonomy, and greater freedom to design and perform tasks is associated with increased workplace learning³² and career crystallization.³³ Another study found that intern autonomy predicted job satisfaction and interest in accepting a full-time position in a retail setting.³⁴ However, some have found no relationship between autonomy and job satisfaction,³⁵ leading to speculation that too much autonomy is a risk as many student interns are unaccustomed to professional workplace tasks and expectations.

²⁷ Narayanan, et al., 2010; Zhao, H., & Liden, R. C. (2011). Internship: a recruitment and selection perspective. *Journal of Applied Psychology*, 96(1), 221; Hurst, J. L., Good, L. K., & Gardner, P. (2012). Conversion intentions of interns: what are the motivating factors? *Education+ Training*, 54(6), 504-522.

²⁸ D'abate, C. P., Youndt, M. A., & Wenzel, K. E. (2009). Making the most of an internship: an empirical study of internship satisfaction. *Academy of Management Learning & Education*, 8(4), 527-539.

²⁹ McHugh, 2016. Ibid.

³⁰ Stichman, A. J., & Farkas, M. A. (2005). The pedagogical use of internships in criminal justice programs: A nationwide study. *Journal of Criminal Justice Education*, 16(1), 145-179.

³¹ Murphy, D., Merritt, W., & Gibbons, S. (2013). Student and supervisor perspectives on the benefits of criminal justice internships. *Journal of Criminal Justice Education*, 24(2), 235-250.

³² Virtanen, A., P. Tynjala & A. Etelapelto. (2014). Factors promoting vocational students' learning at work: study on student experiences. *Journal of Education and Work* 27(1): 43-70.

³³ Taylor, M. S. (1988). Effects of college internships on individual participants. *Journal of Applied Psychology*, 73(3), 393.

³⁴ Feldman, D. C. & B. A. Weitz. (1990). Summer interns: factors contributing to positive developmental experiences. *Journal of Vocational Behavior* 37: 267-284.

³⁵ D'abate, Youndt, & Wenzel, 2009. Ibid.

Clarity of tasks and activities

Another feature of internships associated with positive student outcomes is task clarity, where students are provided with a clear understanding of the work, expected deliverables, and performance criteria. The absence of task clarity is associated with reduced student satisfaction, in part due to the fact that many students will be making the transition to the workplace for the first time, in contrast to professionals switching jobs or careers.³⁶ In a study of interns from an MBA program, researchers found that goal clarity was positively associated with job searching behaviors and students' learning,³⁷ while others have found that task variety as well as feedback and chances to interact with professionals were significantly related to career crystallization and perceptions of self-efficacy.³⁸

Frequency throughout academic programs: The thick-thin distinction

A distinction is made in the European literature between what are called "thin sandwich courses" which includes two or more shorter, work-based learning experiences within a degree program, and "thick sandwich courses" that are single experiences of a longer duration.³⁹ In the U.S., internships are generally thought of in terms of a single "thick" experience towards the latter end of a student's program, but it is important to recognize that an internship can take a variety of forms in terms of when they occur and how long they last. For example, some scholars have found the prospect that early placement (i.e., in first or second year of a program) can increase the pedagogical repertoire of instructors and also enhance students' employability.⁴⁰ In any case, the critical design characteristic of the frequency and duration of internships is too often ignored in the empirical literature and policymaker debates.

Feedback mechanisms for students

The hallmark of the internship experience is by performing real-world tasks on the job. But participation in such work must be accompanied by critical self-assessment informed by detailed feedback from both educators and employers. In a study of 402 undergraduate business students' perceptions of the quality of their internship experiences, many emphasized the need for more and higher quality feedback, especially with specific directives rather than ambiguous suggestions.⁴¹ Besides employers providing detailed critiques and feedback, academic programs can also develop programs that spark student self-reflection and growth. For example, a university that offers an internship as part of academic credit for a technical writing certificate requires that students maintain an activity log, create a professional portfolio and write a final assessment of their internship experience.⁴² Students benefit from opportunities to self-assess their internship experience—rather than simply being assessed by their academic or workplace supervisor at the end of the experience, usually with a grade or pass-fail determination. Such tasks provide students with an opportunity to evaluate their progress toward their own learning goals and identify connections between their internship and their academic program.⁴³ Consequently, interns should be provided with detailed feedback so that students can self-evaluate, reflect, and intellectually process the experience and relate it to their academic learning.⁴⁴

³⁶ Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: a meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92(3), 707.

³⁷ Beenen, G., & Rousseau, D. M. (2010). Getting the most from MBA internships: promoting intern learning and job acceptance. *Human Resource Management*, 49(1), 3-22.

³⁸ Brooks, L., Cornelius, A., Greenfield, E., & Joseph, R. (1995). The relation of career-related work or internship experiences to the career development of college seniors. *Journal of Vocational Behavior*, 46, 332-349.

³⁹ Silva, et al. 2016. *Ibid.*; Harvey, L., Moon, S., & Geall, V. (1997). Graduates' work: Organizational change and students' attributes no title. Birmingham: Centre for Research into Quality and Association of Graduate Recruiters.

⁴⁰ Trede, F., & McEwen, C. (2015). Early workplace learning experiences: what are the pedagogical possibilities beyond retention and employability?. *Higher Education*, 69(1), 19-32.

⁴¹ Rothman, M. (2007). Lessons learned: advice to employers from interns. *Journal of Education for Business* 82(3): 140-144.

⁴² Tovey, J. (2001). Building connections between industry and university: implementing an internship program at a regional university. *Technical Communication Quarterly* 10(2), 225-239.

⁴³ Jones, E. A. (2002). Transforming the Curriculum: Preparing Students for a Changing World. ASHE-ERIC *Higher Education Report*. Jossey-Bass *Higher and Adult Education Series*. Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741.

⁴⁴ Eyler, J. (2009). The power of experiential education. *Liberal Education*, 24-31.

Internship outcomes

Researchers have also examined a variety of outcomes that students may experience as a result of participating in an internship. It is important to note that student outcomes include not only employment opportunities or wages, but also non-economic factors such as job satisfaction, academic achievement, and career crystallization.

Employment opportunities for students

One of the most common effects of internship participation examined in the literature is that of students' employment status immediately upon graduation and/or their general "employability" or perception by employers regarding their readiness to enter the labor market. For example, a study in Korea about 961 college graduates found that participation in an internship shortened the duration of time between graduation and acquiring a job, increased their wages and overall job satisfaction.⁴⁵ In a widely cited study, researchers found that internships increased employment opportunities for business students, but these students also had a higher GPA, which raises question about participation bias.⁴⁶ Research on business students found that those who participated in an internship were hired sooner by top organizations with higher salaries relative to students without internships.⁴⁷

A few studies were notable given their methodological rigor and/or creativity. An innovative resume audit study, where fictitious resumes were sent to employers with internships being the key variable distinguishing experimental groups, revealed that internships increased the callback rate for interviews by 14%, suggesting that internships make applicants more employable than those without.⁴⁸ A large-scale study of Portuguese internships found that graduates with internships had unemployment rates below the national average.⁴⁹ One study argued that "career readiness" was enhanced by internships, particularly through providing new skills, knowledge and abilities that would help the transition from college to work. Several other studies exist on the topic of general employability, making it perhaps the most studied of internship outcomes.⁵⁰

But there exists some contradictory evidence on this point of employability, especially whether internships improve not only immediate employability upon graduation but long-term employment prospects. A study of a cohort of college graduates in Germany who completed mandatory internships did not find any significant effect of internship experiences on later employment. In addition, this study found that mandatory internships did not level the playing field by improving the disadvantages that students from lower educational backgrounds face when attempting to navigate their way into the labor market.⁵¹ Finally, some scholars observe that a debate exists in the field regarding how to measure student employability – full-time

While evidence does indicate that internships increase employability for students immediately after graduation, there is far less evidence (and even some negative findings) about impacts on their long-term employability.

⁴⁵ Jung, J. & Lee, S. (2017). Impact of internship on job performance among university graduates in South Korea. *International Journal of Chinese Education*, 5(2), 250-284.

⁴⁶ Knouse, S. B., Tanner, J. R., & Harris, E. W. (1999). The relation of college internships, college performance, and subsequent job opportunity. *Journal of Employment Counseling*, 36(1), 35-43.

⁴⁷ Weible, R., & McClure, R. (2011). An exploration of the benefits of student internships to marketing departments. *Marketing Education Review*, 21(3), 229-240.

⁴⁸ Nunley, J. M., Pugh, A., Romero, N., & Seals Jr, R. A. (2016). College major, internship experience, and employment opportunities: Estimates from a résumé audit. *Labour Economics*, 38, 37-46.

⁴⁹ Silva et al, 2017. Ibid.

⁵⁰ Ross, L. E., & Elechi, O. O. (2002). Student attitudes towards internship experiences: From theory to practice. *Journal of Criminal Justice Education*, 13(2), 297-312; Maynard, M. L. (2000). Challenging the 3.0 GPA eligibility standard for public relations internships. *Public Relations Review*, 25(4), 495-507; Gault, J., Leach, E. & Duey, M., (2010). Effects of business internships on job marketability: The employers' perspective. *Education+ Training* 52(1): 76-88.

⁵¹ Klein, M. & Weiss, F. (2011). Is forcing them worth the effort? Benefits of mandatory internships for graduates from diverse family backgrounds at labour market entry. *Studies in Higher Education* 36(8): 969-987.

employment immediately upon graduation or several months (or years) out. Ultimately, while evidence does indicate that internships increase employability for students immediately after graduation, there is far less evidence (and even some negative findings) about impacts on their long-term employability.

Long-term wage gains for students

Much less research exists on a topic that is of great interest to current policymakers – whether internships increase a student’s wages. In one of the few studies we identified, researchers in Germany estimated the effects of mandatory internship completers have 6% increase in wages, driven by immediate full-time placements in the first five years after graduation.⁵² The study also found that former interns pursued doctoral studies less frequently, and the primary driver of these wage effects were a higher propensity for former interns to be working full-time five years after graduation. But little else was identified in this review, indicating that this is a critical question for future researchers.

Students' academic achievement

Research indicates that workplace learning has positive measurable benefits towards academic achievement. One study found that internships led to a 3.3% increase in final grades as well as the probability of seeking (and acquiring) a higher degree classification.⁵³ Another study found internships in the second year of a bioscience degree led to an increase of four percentage points in final grades, while controlling for pre-college qualifications, gender and previous performance.⁵⁴ Other researchers have examined the effects of internship participation on students’ ability to apply theoretical concepts to practice⁵⁵ and develop critical skills such as interpersonal competencies⁵⁶ and leadership.⁵⁷

Student career planning and expectations

Students often use internships as a way to test out career options, which in some cases can lead to what scholars in counseling psychology call the “crystallization” of career plans and identity.⁵⁸ For instance, some studies have found that students who take an internship have higher rates of job satisfaction,⁵⁹ which some argue is due to the reduction of “entry shock” to full-time work after college.⁶⁰ Other career planning benefits of internships include the development of

⁵² Saniter, N. & Siedler, T. (2014). Door opener or waste of time? the effects of student internships on labor market outcomes. IZA Discussion Paper No. 8141.

⁵³ Binder, J., Baguley, T., Crook, C. & Miller, F. (2015). The academic value of internships: Benefits across disciplines and student backgrounds. *Contemporary Educational Psychology* 41, 73-82.

⁵⁴ Gomez, S., Lush, D., & Clements, M. (2004). Work placements enhance the academic performance of bioscience undergraduates. *Journal of Vocational Education and Training*, 56(3), 373-385. See also Bayens, G., Berry, P., & Smith-Mahdi, J. (2005). A descriptive study of student appraisals of the benefits of a criminal justice internship. *American Jails*, 19(5), 26-30; Gordon, G. R., & McBride, R. B. (2011). *Criminal justice internships: Theory into practice*. Routledge.

⁵⁵ Swift, C. O., & Kent, R. (1999). Business school internships: Legal concerns. *Journal of Education for Business*, 75(1), 23-26; Hymon-Parker, S. & Smith, C. (1998). Benefits and limitations of internships as viewed by educators and retailers. *Journal of Family & Consumer Sciences*, 90, 76-8; Fender, D. L., & Watson, L. E. (2005). OSH internships: One program’s perspective on benefits for students, employers and universities. *Professional Safety*, 50(4), 36.

⁵⁶ Beard, F., & Morton, L. (1998). Effects of internship predictors on successful field experience. *Journalism & Mass Communication Educator*, 53(4), 42-53.

⁵⁷ Cook, S. J., Parker, R. S., & Pettijohn, C. E. (2004). The perceptions of interns: A longitudinal case study. *Journal of Education for Business*, 79(3), 179

⁵⁸ Taylor, 1988.

⁵⁹ Gault, J., Leach, E. & Duey, M., (2010). Effects of business internships on job marketability: The employers’ perspective. *Education+ Training* 52(1): 76-88.

⁶⁰ Paulson, S. K., & Eugene Baker III, H. (1999). An experiential approach to facilitate anticipatory socialization. *The International Journal of Organizational Analysis*, 7(4), 365-378.

professional contacts and networks,⁶¹ and their increased knowledge of the nature of particular occupations. For example, one study found that supervisors of criminal justice interns (and interns themselves) felt that the primary benefit of the experience was a more accurate understanding of the roles and work involved in policing. Additionally, the students felt that they also benefited from the opportunity to establish professional contacts (i.e., develop social capital).⁶² However, one study found that while students who completed an internship were over four times more likely to obtain employment after graduation, they reported no more confidence in the suitability of that position than their peers who did not participate in an internship.⁶³

Providing employers with opportunity to “trial-run” potential employees

Another potential outcome of internships accrues to employers, in that they can be used as an extended on-the-job selection process for permanent employment, potentially benefiting both the employer and the intern.⁶⁴ Some researchers consider internships to be “risk-free” evaluations of potential hires,⁶⁵ which ultimately reduces recruitment and training costs to employers.⁶⁶ Additionally, interns can provide seasonal labor for employers who experience cyclical demand (e.g., hospitality) or personnel for projects that require a rapid infusion of short-term hires.⁶⁷ Of course, providing such training and oversight comes at a cost to an employer, in the staff-time required to mentor interns that could have been used for company projects.

Hosting internships can enhance reputations of academic programs

There are other benefits of internship programming to educators, documented in a survey of 619 deans of business schools across the United States. The benefits to universities that support their students’ internships include a better connection and reputation of the university in community, and an increase of students being hired by small businesses, which facilitates local economic development.⁶⁸

While there is a considerable amount of research on internships across disciplines and national borders, little empirical research exists on this key issue: How do design characteristics of internships affect student outcomes? Future research will need to pay careful attention to operationally defining internship characteristics with precision, focus on outcomes beyond wages and employability, and utilize more mixed-methods and longitudinal designs that reveal nuances in the internship experience.

⁶¹ Murphy, D., Merritt, W., & Gibbons, S. (2013). Student and supervisor perspectives on the benefits of criminal justice internships. *Journal of Criminal Justice Education*, 24(2), 235-250.

⁶² Farmer, R. (1978). Internships in police higher education: An evaluation. *Journal of Police Science and Administration*, 6, 452-461

⁶³ Callanan, G. & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education + Training* 46(2), 82-89.

⁶⁴ Zhao & Liden, 2011. Ibid.

⁶⁵ Knemeyer, A. M., & Murphy, P. R. (2002). Logistics internships: Employer and student perspectives. *International Journal of Physical Distribution & Logistics Management*, 32(2), 135-152.

⁶⁶ Gault, Leach, & Duey, 2010; Callanan, G., & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education + Training*, 46(2), 82-89.

⁶⁷ Knemeyer, A. M., & Murphy, P. R. (2002). Logistics internships: Employer and student perspectives. *International Journal of Physical Distribution & Logistics Management*, 32(2), 135-152.

⁶⁸ Weible, R. (2010). Are universities reaping the available benefits that internships offer? *Journal of Education for Business* 85, 59-63.

Recommendations: Key issues to consider when designing programs

In this final section of this report, we draw upon insights and evidence from both the scholarly and practitioner literatures to make several recommendations about how to design and implement internship programs. We advance these recommendations, even in the absence of a rigorous evidence base, given the growing interest in and advocacy of internships at the institution, state, and national level. As work-based learning is increasingly viewed as an important – if not essential – feature of a college education, educators, employers and legislators should attend to these issues in order to ensure that students participate in experiences that are truly in their vocational and personal best interests over the long-term.

1. Pay serious attention to legal and ethical issues

There are a number of serious legal and ethical issues raised by internship programs, which need to be addressed when considering expanding such an internship requirement to the level of a college or university, let alone, an entire state university system. Who is legally responsible for the safety of such students, or if instances of sexual harassment or workplace injury occur? In fact, legal scholars have argued that student interns exist in a “legal limbo,” between their status as students and as employees or volunteers at a worksite, and the fact that there is such wide variation in the quality of supervision of interns makes that legal limbo even more concerning.^{69, 70}

With the price-tag of college and basic needs increasing, unpaid internships can arguably be considered unethical and unfair.

The ambiguous employment status of unpaid interns also raises various regulatory issues, such as if they are covered under the Federal Fair Labor Standards Act.^{71, 72, 73} Given this ambiguity, 13 Presidents of universities asked the US Department of Labor to relax their regulation of unpaid labor, so as not to dampen their internship programs.⁷⁴ While this approach is not uncommon, stakeholders also need to consider how unpaid internships are untenable for low-income students and may serve to reproduce socio-economic inequalities by providing privileges to upper-income students. In addition, with the price-tag of college and basic needs increasing, unpaid internships can arguably be considered unethical and unfair, especially if they are mandated by states or institutions as a requirement for graduation.

2. Explore whether a critical mass of willing (and capable) employers exist

One of the under-explored issues with respect to expanding internship programs across departments, institutions and entire educational systems is whether or not employers even exist that are willing and able to adequately host interns at their company. Before launching an internship program at scale, it is essential for policymakers and educators to do their homework and identify a critical mass of companies especially if students are required to have an internship experience.

Before launching an internship program at scale, it is essential for policymakers and educators to do their homework and identify a critical mass of companies especially if students are required to have an internship experience.

⁶⁹ Bowman, C.G., & LippSmith, M. (2000). Legal limbo of the student intern: The responsibility of colleges and universities to protect student interns against sexual harassment. *Harvard Women's Law Journal* 23: 95–131.

⁷⁰ Burke, D. D. & Carton, R. (2013). The pedagogical, legal, and ethical implications of unpaid internships. *Journal of Legal Studies Education* 30 (1), 99–130.

⁷¹ Coker, L. 2009. “Legal implications of unpaid internships.” *Employee Relations Law Journal* 35(3): 35–39.

⁷² Curiale, 2010. Ibid.

⁷³ Svacina, L. (2012). A review of research on unpaid internship legal issues: Implications for career services professionals.” *Journal of Cooperative Education & Internships* 46 (1): 77–87.

⁷⁴ McHugh, 2016. Ibid.

Factors that should influence employers' willingness and ability to host interns include availability of mentors, presence of meaningful work, ability to pay students and coordinate with their academic programs. Employers should not sign up to host interns simply because they need low-cost labor. Other factors that may influence the presence of a critical mass of employers is whether the discipline has a clear, obvious, and historical link to a group of employers. For instance, engineering departments tend to have a long history of internship programs that are linked to regional engineering-related companies. Schools of Business, especially in urban centers, have a similar tradition and benefit from a dense and elaborate network of firms and alumni within the region. Other colleges and departments, particularly in the arts and humanities, may be less well coordinated with regional industries and may struggle to find employers to host high quality internships for their students. Further, colleges and universities in rural or economically depressed regions may also struggle to place their students (and students from such areas are more likely to be place bound).

3. Ensure that colleges and universities have adequate resources and organizational capacity

Designing and hosting internship programs requires significant resources at the college or university level. In many colleges with established programs, staff are often dedicated to working with employers, mentoring students, and administering the program. For example, 90% of their 2,550 undergraduate students at the UW-Madison School of Business have at least one internship before graduation, and five career advisors facilitate student internships at 50% of their time. In addition, there is a fulltime Director of Career Services and three fulltime Employer Relations Consultants. Jamie Marsh, the Director of Career Services at the School of Business, explains why such resources are essential to ensure that high-quality internships are available for their students:

“There are some common things that have to be in place to support the student and there have to be important measures to help consult employers to help them maximize their opportunity when they're with these students. So if an office doesn't have the infrastructure to support either the student prep side or the employer consulting side, it's going to be a challenge. And those two units need to work in tandem with each other to make sure it's an overall positive experience.... So, our role is to come to the middle, ask the right questions, consult with both sides to make sure it's a positive experience. That (coordination) is huge. It's really important.”

Besides coordinating and establishing a program, one of the critical functions of internship coordinators is helping students find appropriate placements, which can be challenging due to issues such as the aforementioned lack of capable and willing employer hosts. Additionally, if no coordinator is in place to help students find appropriate placements, the students must do so on their own, which is particularly difficult. One study found that internship programs that required students to find their own placements placed the students under enormous pressure—in one case a student contacted 40 worksites before locating an employer willing to supervise an internship.⁷⁵ The work of identifying quality internships becomes increasingly challenging when local pressure on the internship market increases with the expansion of higher education internship programs. As faculty and internship coordinators search far-afield for such opportunities, another issue is that it becomes increasingly difficult to provide adequate institutional oversight to such far-flung and diverse placements.⁷⁶

In addition, academic programs should carefully consider whether developing an internship program is in their (and their students') best interests. Some issues to consider on this topic include whether the student body is more full-time than

⁷⁵ Webber, R. (2005). Integrating work-based and academic learning in international and cross-cultural settings. *Journal of Education and Work* 18(4), 473-487.

⁷⁶ Divine, R. L., Linrud, J. K., Miller, R. H., & Wilson, J. H. (2007). Required internship programs in marketing: Benefits, challenges and determinants of fit. *Marketing Education Review*, 17(2), 45-52.

part-time, if an internship coordinator or other personnel are available, whether the institution is located near a critical mass of employers, and if industry contacts and student employability are an institutional priority.⁷⁷

Ultimately, it is clear that one of the essential ingredients to administering an effective internship program is to ensure that colleges and universities have adequate resources to do so. Providing one or two staff members to oversee an institution or even system-wide internship program, or a web portal that acts as a clearinghouse for internship opportunities, is not a sufficient replacement for advisors “on the ground” in colleges and departments to assist and mentor students.

4. Develop standards for internship quality

Once it has been established that a large cohort of employers exists and that local postsecondary institutions are adequately resourced, it is essential to establish standards for internship quality. Much like apprenticeships and practicums for nursing and teaching programs have detailed criterion regarding work-based learning experiences, so too should internships have similarly articulated standards for quality. Quality criterion should be developed not solely by policymakers or institutional leaders, but also in close coordination with higher education professionals (i.e., faculty and career services staff) and employers who have a track record of hosting successful internship programs. An ongoing system to regularly assess the quality and efficacy of internship programs should also be established in order to ensure that students are being exposed to high-quality learning experiences.

These standards should include details regarding: the duration of the experience, expectations for meaningful workplace tasks, the presence of high-quality mentoring at the job site, coordination between academic programming and internship experiences, and so on. In the remainder of this section we provide details regarding some of these quality standards.

5. Ensure that employers can provide quality job-site supervision

Supervision of the student through the duration of their internship, by both an academic advisor and a work-site supervisor is critical to a successful internship experience. The quality of worksite supervision is a key factor which makes a difference between a positive and negative experience for student interns. In one study of the internship experiences of 154 students majoring in criminal justice at a public university in the Midwest, nearly all students reported positive experiences, highlighting that their assignments met their expectations and that their supervisors took an interest in their professional development. The 10% who reported negative experiences, however, emphasized the unhelpful nature of their supervisors, who failed to train the interns and “misused” them by assigning a large amount of non-vital administrative tasks.⁷⁸ The degree of support from a work-site supervisor also has effects on the gains a student is able to make during their internship experience, with a common complaint among students being a lack of supervision and direction for their work.⁷⁹ Students that receive more guidance and support from senior employees at their workplace are generally happier with their experience. A study of internship effectiveness shows that having a mentor, especially in the workplace, was found to be critical in overall student satisfaction and success in the experience.⁸⁰

The amount and quality of internship training and supervision is one area with a high degree of variation. Worksite training of interns in general varies a great deal as well, but it is typically lower quality and duration than that received by

⁷⁷ Divine et al., 2007. Ibid

⁷⁸ Ross, L. & Elechi, O. (2002). Student attitudes towards internship experiences: From theory to practice. *Journal of Criminal Justice Education* 13(2): 297-312.

⁷⁹ Katula, R. & Threnhauser, E. (1999). Experiential education in the undergraduate curriculum. *Communication Education*, 43(3), 238-312.

⁸⁰ Anson, C. M., & Forsberg, L. L. (1990). Moving beyond the academic community: Transitional stages in professional writing. *Written Communication*, 7, 200–231.

new employees.⁸¹ Interns, however, may potentially need more training than new employees because as novice workers, the goals of their internship should include a broader array of learning and career developmental outcomes.⁸² Thus, the internship how-to manuals for employers also universally emphasize the importance of adequate and competent supervision. Supervisors should be motivated to work with interns, and they should have time in their schedule to do so, and they should have some job training or teaching experience, or otherwise they should receive some training to do so.

6. Ensure that employers have meaningful work for interns

In the grey literature, many educational professionals emphasize that internships are intended to be an educational experience for the interns, and warn employers against considering prospective interns as inexpensive labor or as a way to offload menial or boring tasks from permanent employees. When given such tasks, the satisfaction level of student interns declines and so does the ultimate benefit of a work-based learning experience to their education and professional development. Thus, before enrolling in an internship program, employers should be willing and capable of involving students in authentic, professional-level tasks that are appropriate for an entry-level employee.

The grey literature also encourages employers to involve interns in professional networking events or informal social activities such as taking the student out to lunch as part of an effort to socialize students into a professional workplace setting. Employers are encouraged to also plan for the welcome and orientation of the intern to the workplace culture, providing details about the reporting structure of the workplace, workplace norms and expectations (e.g., dress code and performance metrics), and so on. Employers are especially warned about the bad impression and disorientation that is caused by having an intern arrive unwelcomed on their first day of work. Basically, interns require a stable workplace and the necessary tools to do their work—as would any other employee.

7. Ensure that close coordination between educators and employers exists

The degree of coordination with what a student is studying and its applicability in their work at their internship is also a major factor that influences the quality of the experience. Effective internships allow students to make connections between their academics and what they are doing in the workplace. Faculty, employer coordinators, and students should work together to design specific educational learning objectives for the duration of the student's internship.⁸³ In addition to well-planned learning goals, other ways to coordinate academic content and internship experiences include internship journaling assignments, capstone projects, and structured feedback and evaluations coproduced by the academic supervisor, the worksite supervisor, and the student.⁸⁴

One of the most important aspects of educator-employer coordination is in developing clear procedures for providing students with meaningful feedback. Internship how-to manuals for employers provide many suggestions for creating such feedback mechanisms, including weekly meetings with supervisors to debrief the progress of the work, encouraging interns to present a summary of their experience at the worksite, focus groups and/or exit interviews with students, as well as using surveys and other instruments to collect data from interns about the effectiveness of their internship program. Results from analyses of such data should then be fed back to employers and educators so that they can make corrections to internship offerings and continually improve the experience for students.

⁸¹ Tovey, Janice. (2001). Building connections between industry and university: Implementing an internship program at a regional university. *Technical Communication Quarterly* 10, no. 2 (2001): 225-239.

⁸² McHugh, 2016. Ibid.

⁸³ Jones, 2002. Ibid.

⁸⁴ Young, D. S., & Baker, R. E. (2004). Linking classroom theory to professional practice: The internship as a practical learning experience worthy of academic credit. *Journal of Physical Education, Recreation & Dance*, 75(1), 22-24.

8. Until and unless more evidence (and resources) exists, internships should not be mandated

In several states such as Wisconsin, policymakers are considering a requirement to make internships mandatory for students prior to graduation. At this early stage of the research program on internships, and in light of current fiscal challenges facing the postsecondary sector, we argue that such a move is premature.

First, consider that in the European countries where internships are mandatory, a much stronger infrastructure exists for quality control, employer involvement, state support, and institutional resources. For example, in Germany and Switzerland, government agencies act as a mediator between employers and academic institutions, performing regulatory functions, such as setting mentoring standards and guidelines for internship wages, all of which do not currently exist in the US.⁸⁵ Without a system in place with strict requirements on the quality of internship experiences and larger employer involvement and professional career services support, it is likely that what qualifies as “an internship” will include experiences which vary in ways that fail to advance students’ academic or professional goals.

Second, given that the evidentiary base on the effects of internships on student outcomes is limited by terminological confusion, a lack of rigorous empirical studies, and splintered across disciplinary and national contexts, policymakers should pause in efforts to expand work-based learning programs and instead take a data driven decision-making approach. Such an approach would involve investing in research on internship efficacy, and then develop policies based upon robust evidence that particular forms of internship programming would advance the interests of students, employers, and society.

Conclusions

While workplace learning has many benefits, some of which are well documented, this review has demonstrated there is considerable variation in many aspects of the quality of internship programming and experiences, all of which require substantial support from faculty, academic career services professionals, and employers in order to ensure that outcomes are maximized. While internships may confer many benefits to students, the unplanned and unsupported expansion of internship requirements opens universities and employers to a host of legal and ethical issues and is unlikely to expand those benefits to students, and may in cases actually frustrate the academic, developmental and career attainment of students.

The Center for Research on College-Workforce Transitions plans a program of research to address these gaps in the literature, and to inform how policymakers, educators, and employers approach internship design and implementation.

This review of the academic and practitioner literature on internship programming indicates that there is a lack of research both on the outcomes of internships in general, as well as of qualitative and mixed methods research to document the characteristics of student internship labor and how they are experienced by a variety of students. The Center for research on College-Workforce Transitions plans program of research to address this gap in the literature and thus, to conduct research which might better inform internship design and scaling.

⁸⁵ Hoffman, N. (2011). *Schooling in the workplace: How six of the world's best vocational education systems prepare young people for jobs and life*. Harvard Education Press.

Resources

There are a number of excellent internship how-to manuals available online, which provide advice for employers to develop their own programs; including the following:

“Designing a Successful Internship Program.” Business Career Center, University of Wisconsin School of Business. https://bus.wisc.edu/~media/bus/recruit-hire/internship_guide.ashx

“Starting and Maintaining a Quality Internship Program.” Technology Council of Central Pennsylvania. <https://www.binghamton.edu/ccpd/employers/starting-maintaining-quality-internship-program.pdf>

“Employer Guide to Structuring a Successful Internship Program.” A collaborative effort of all of Rhode Island’s colleges and universities. Bridge: Connecting Academic, Business, Community. [http://career.bryant.edu/resources/files/RI%20Employer%20Guide%20Good%20Internships%20are%20Good%20Business%20\(3\).pdf](http://career.bryant.edu/resources/files/RI%20Employer%20Guide%20Good%20Internships%20are%20Good%20Business%20(3).pdf)

“Internships: An Employer’s Guide to Developing an Internship Program.” The Career Center, University of Notre Dame. https://careercenter.nd.edu/assets/136851/employer_internship_development_guide.pdf



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