DESIGNING AND IMPLEMENTING WORK-BASED LEARNING:

A Call to Action for CHROs

Northeastern University
Center for the Future of Higher Education and Talent Strategy

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A Call to Action: Work-Ready College Graduates

Ten years into a sustained economic expansion that has unemployment rates at historic lows, the need for skilled talent is at the forefront of the corporate agenda. Human capital strategy has become a top priority for corporate leaders: CEOs report that their firms are today seeking a much broader range of skills than in the past, and CEOs see attracting and retaining talent as their top internal concern.[1] In the U.S., the value that hiring leaders place on well-educated employees has grown in recent years, and employers increasingly favor educational programs that include engagement with real-world work and on-the-job learning. [2]

Traditionally, in addition to their own training efforts, corporations have counted on higher education institutions to produce a pipeline of skilled talent. Despite the evidence that postsecondary education is valued and continues to command a premium in the market, employers consistently report that the majority of college graduates lack career readiness skills such as professionalism and communication – and that only slightly more than half have the necessary critical thinking skills for the workforce.[3] In national surveys, more than half of college students report that professional experiences would have helped them feel better prepared for careers.[4]

Work-Based Learning: An Increasingly Popular Solution for Talent Development & Acquisition

Work-based learning (WBL) – a category of academic learning models embedded in the real world of work, which includes, for example, internships and apprenticeships – is an underutilized approach for employers to recruit and develop talent, while also providing students with the necessary skills to enter and succeed in the workforce.

WBL can deliver superior educational outcomes for students – facilitating practice and feedback, increasing student motivation, and supporting both mastery and "just-in-time" learning.[5] The research on internships, for example, documents a host of positive benefits to students including improved employability, wages, and academic achievement.[6] Students are also signaling their growing interest in WBL opportunities: over the course of their studies, a majority of all college students now complete an internship – and notably for HR leaders, these students convert into full-time employees and retain at very high rates.[7] Employers see the benefits of WBL for students and their own businesses: Northeastern University's past national opinion polls of C-suite executives have found that 97% of business leaders believe that colleges and universities should expand work-based learning opportunities.[8]

Work-based learning (WBL) is a range of approaches and strategies where individuals learn through a work environment, while also enrolled in an education program that leads to a degree, vocational certificate, or other credential. Internships, apprenticeships, externships, co-ops, and capstone projects are all examples of WBL models.

Additionally, there has also been a growing national movement from policymakers at both the federal and state levels – often working in concert with industry – to expand WBL models such as apprenticeships, and to incentivize work-based learning.

In 2017, the White House launched a national apprenticeship commission and announced $200 million in funding via executive order. In 2019, the U.S. Department of Labor proposed new rules to enable the growth of "industry-recognized apprenticeship programs" – arguing that "industry-led, market-driven approaches" are necessary to scale apprenticeship models.[9] Also in 2019, the U.S. Department of Education launched the Federal Work-Study Experiment, which provides institutions with greater flexibility in how students can use work-study funds to engage in off-campus work-based learning programs such as apprenticeships and internships.[10]

In the Chicago region, major corporations and foundations have joined forces to launch Apprenticeship 2020 and support the Chicago Apprentice Network.[11] The state of Colorado has launched initiatives like CareerWise, a public-private partnership focused on youth apprentices.[12] In Washington state and beyond, an organization called Apprenti is building a training, certification, and placement model for high-tech jobs.[13] These are just a few examples in an entirely new ecosystem of entities and corporate partners that is emerging – as next-generation apprenticeship models are increasingly expanding well beyond their traditional focus on the skilled trades.

Moreover, WBL can be a valuable tool for reskilling and training workers in today's faster-paced, technology-fueled economy. In a recent Northeastern University national survey conducted by Gallup, 73% of American adults said they looked to *employers* to bear the responsibility for retraining in the event of automation and technology-driven job dislocations.[14] WBL presents a way for employers and educational institutions to work more closely together to develop a better-skilled talent pipeline.

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Our college internship program offers real-world, hands-on experience in the business of insurance and financial services. We offer a balance of training, mentoring, and development in a professional/technical atmosphere. It allows us to attract talent and determine employment potential. We see it as a two sided interview – we get to see how the student performs, and they get a chance to see if this is an environment they could see themselves working in permanently. We want to provide an enjoyable and valuable experience so State Farm is viewed as a company of choice."

– Annette Martinez, Senior Vice President, State Farm

Yet, employers may face challenges in developing and implementing WBL. For example, employers may not have the appropriate infrastructure to implement WBL experiences or may experience low ROI when they do. HR may also have difficulty communicating with line staff who supervise these experiences in order to translate the organization's technical needs into an effective hiring strategy. Understanding these challenges and potential models to address them is important to the success of such initiatives.

WBL Insights and a Roadmap for Employers and CHROs

Against this backdrop, employers – and chief human resource officers (CHROs) in particular, as those charged with leading talent strategy – can benefit from an analysis of how leading companies are approaching WBL initiatives. Although there is a fair amount of academic research on WBL – for example, how colleges are integrating internships into their curriculum – there is a significant information gap in terms of understanding how *employers* are approaching WBL.

To meet this need, the Business-Higher Education Forum (BHEF), NORC at the University of Chicago (NORC), and Northeastern University collaborated on a year-long research project. Supported by a grant from the National Science Foundation (NSF), this research – which led to the development of a deep research report that this brief summary serves as a companion to – aimed to provide CHROs an analysis of the latest developments and best practices in the WBL field, with particular attention to the case for improving, scaling, resourcing, and measuring the success of WBL. The project engaged employers and industry associations around the country (representing a wide range of industry sectors) through roundtable meetings, qualitative interviews, case studies, and a pilot survey that together included more than 40 employers.

The goal of *this* brief executive summary for the CHRO audience is to describe the key takeaways from the research, including six recommendations emerging from the study and described in more depth later:

1 Consider WBL more holistically, recognizing the full continuum of models – and that the boundaries and traditional definitions related to these models are evolving

2 Pursue and elevate WBL as a strategic *talent acquisition* vehicle that is integrated with broader workforce planning strategies

3 Ensure WBL programs are afforded dedicated resources – a hallmark of successful programs

4 Recognize the opportunity to create stronger, deeper relationships with colleges and universities – as well as the emergence of new third-party entities that are facilitating WBL initiatives

5 Establish ROI measures to fuel WBL improvement and expansion

6 Design for inclusion and recognize the potential for WBL to increase workforce diversity

Acknowledging the Continuum of WBL Models

Employers can choose from an array of WBL models to fit their workforce planning goals and the resources they are willing to commit to providing students with opportunities to integrate their academic studies with the world of work. From internships and clinical placements to capstone projects and apprenticeships, these models are distinguished by key characteristics including:

- Time commitment and scope
- Relationship to mission-critical or short-term/project-based organizational work
- Level/extent to which the experience is compensated
- Recognition for formal academic credit
- Academic, industry, or professional credentials that result
- Formal connection and recognition in employers' hiring process

Many organizations find that WBL engagement is most impactful when it is highly structured and integrated with important organizational work and job roles. Intentionally designed WBL experiences can meet business objectives rather than only academic objectives. It is also important to note that elements of each model are increasingly being combined in new ways – and that "digital" WBL engagements now exist as well.

Major WBL Models

Internships
Short-term (e.g., often a few months-long) paid or unpaid work experiences in areas related to classroom learning, typically for students with little experience in the field. Internships are learning experiences that relate to college coursework and also provide employers the opportunity to evaluate up-and-coming talent.

Co-operative education (co-op)
A deeper and more structured form of internship specific to some schools and programs – typically paid and often extending for 4-12 months. Co-ops are typically structured around students integrating an extended period of work into their academic program – either on a full-time basis rotating with their studies, or in a parallel, part-time fashion.

Practicums and clinical placements
Workplace-based field experiences – often unpaid and part-time – that enable students to observe and gain experience related to their profession while heavily supervised. These models are especially common in healthcare, clinical psychology, and law for example, and the category is inclusive of "residencies," "externships," and clerkships.

Apprenticeships

A formal, structured, paid, full-time on-the-job training program in which the learner gains skills based on close supervision and observation from a skilled mentor. Apprenticeships are an actual job – often based on "shadowing" – embedded in the workforce but can also be closely associated with academic work. The Federal Government and coalitions of major U.S. employers are currently fueling a push for the expansion of apprenticeships. The U.S. Department of Labor manages a formal, "registered apprenticeship" program, but apprenticeships also exist in many other forms.

Online projects, consulting, and industry-sponsored capstone projects

With the emergence of a "gig economy," employers are increasingly able to tap into talent on-demand and based on shorter time-cycles. Many business, technology, and professional programs for example are integrating employer-sponsored projects into their curriculum – students may engage in paid or unpaid consulting, or simply complete a project related to a real-world business problem. In the engineering field and others, a final signature project or "capstone" is common.

Applied research projects

Students and faculty also often engage employers in collaborative research projects that make use of real-world materials, labs, data sets, etc. While these experiences are more academically grounded, they revolve around real industry and organizational work and assets, and deliver support or a work product to the employer organization.

SIEMENS

In 2011, Siemens developed a mechatronics apprenticeship program at its Charlotte, NC location in response to a local skills gap. As of 2018, the program had 21 apprentices and 16 graduates. The program, in partnership with Central Piedmont Community College, provides participants with a 40 hour a week job while they earn an associate degree. In return, Siemens asks for a two-year commitment to its competitive program. Successful apprentices are seen working across the spectrum of job responsibilities, have greater loyalty to the company, and are highly productive. Siemens hopes to build on these successes by growing the program in other areas of the country in other specialties.

Bloomberg

Bloomberg's marquee WBL program is its New York City internship program. From the beginning, Bloomberg sets out to offer a world-class experience. The summer internship is a 10-12 week program that recruits students from across the U.S. to work together to solve real problems for clients, collaborate across their product groups, and experience informal enrichment activities (e.g., mentoring, networking, and soft skills development) in addition to the day-to-day work activities.

Raytheon

Raytheon offers traditional summer internships as well as part-time internships or co-op opportunities during the academic year. Raytheon's co-op experiences offer challenging work, exposure to real-world projects, mentoring from experienced engineers, an opportunity to work with advanced equipment, insight into work/life "fit" within the company, and excellent networking opportunities with other internship and co-op participants and professional engineers. Raytheon has actively been tracking its WBL data for the past several years: in 2018, the firm converted 81% of interns and co-ops to full-time hire (among those that were eligible for full-time employment). Additionally, there is a strong focus on recruiting females and individuals of color in STEM: one-third of college hires are candidates from diverse backgrounds. Additionally, 40-50% of co-op applicants are women.

wayfair

E-commerce company Wayfair's co-op programs provide highly structured projects that are tied to teams across Wayfair who have established goals and supports for participants. Teams propose the position to HR staff, who work to ensure that participants stand to have a valuable experience and that the teams can adequately support their work. Co-op participants are mentored and given access to interesting projects in order to promote a productive WBL experience for the participant and company. The success of their program has improved application rates to technical roles, and they credit that to an improved employer brand when successful co-op participants spread the word to others.

Key Recommendations

The following recommendations that emerged from this year-long research project can help CHROs to shape WBL strategies going forward:

1. **Consider WBL more holistically, recognizing the full continuum of models – and that the boundaries and traditional definitions related to these models are evolving.** While most employers are very familiar with internships, they are increasingly curious about the potential of other WBL models. For example, as apprenticeships rise in popularity, it is important for companies to consider integrating their WBL efforts rather than operating siloed and disconnected WBL programs out of multiple areas in the business. We found that even among companies operating numerous, large-scale WBL efforts, these initiatives can often be better integrated.

More than ever, leading companies are experimenting with new types of WBL – with new forms of apprenticeships perhaps the most prominent example. Rather than being constrained by traditional and formal constructs (e.g., "registered" apprenticeships), the surging interest in this WBL model is prompting experimentation, innovation, and the stretching of historical definitions. Although consistency in terminology and structure is without a doubt important in the marketplace, it bears monitoring how some firms are adapting attributes from one WBL model and porting them to, or labeling them another – for example, creating new digital skills-focused programs that span what might traditionally be considered an apprenticeship, an internship, and a research experience.[15]

2. **Pursue and elevate WBL as a strategic *talent acquisition* vehicle that is integrated with broader workforce planning strategies.** Not surprisingly, we found a wide range of motivations for employers' engagement with WBL. Many employers' reasons for engaging in WBL revolve around building their "employer brand" or community engagement – and programs are often managed out of the philanthropic side of the firm. Employers should also consider that WBL can also be part of a powerful talent acquisition strategy – especially when fueled by analysis. Firms who are advanced in conducting quality-of-hire analysis or talent analytics have found that internships and other WBL avenues are among their highest quality and most productive talent identification and acquisition avenues. Building the talent pipeline is often emerging as the primary motivation for engaging in WBL.

Related to this, the importance of integrating WBL efforts into broader talent strategy and workforce planning was a common theme that emerged in our discussions and research with employers – and that many executives believe is a key opportunity and necessity. To support that effort, improved relationships between HR and line staff who supervise work-based learning experiences could help HR better understand the technical needs of the organization and translate them into more effective hiring strategies.

3. Ensure WBL programs are afforded dedicated resources – a hallmark of successful programs.

Successful and scalable WBL efforts are built on intentional design and dedicated resources, in staffing, financial, and strategic/organizational design terms. Many employers participating in our research detailed an array of campus visits, student engagement, data analysis, and evaluation that required (and benefited from) a dedicated team. This is also consistent with new research showing that purposeful design, strong supervisor support, and integration with academics are key drivers of students' success and perception of value.[16]

One common challenge is the fragmented variety of entry points and functional owners for WBL efforts at both colleges and within employers: thus, dedicated liaisons and clear channels for WBL activity can be beneficial to success and scale.

4. Recognize the opportunity to create stronger, deeper relationships with colleges and universities – as well as the emergence of new third-party entities that are facilitating WBL initiatives.

Generally, it is well understood that there is demand and a need for employers and colleges and universities to work more closely together.[17] The lack of alignment between higher education and business is often due to individual, siloed attempts to address issues – rather than a holistic top-down approach.[18] As colleges focus more on employability – and as they develop more academic programs integrating WBL, there are many new avenues emerging for higher education-business engagement. This is in a CHRO's interest, as by demonstrating their demand for WBL experiences and willingness to partner, employers can play a catalytic role in growing the crucial supply of higher education WBL programs and graduates – thus ensuring a larger and better-qualified talent pipeline.

A crucial additional development and useful resource for employers is the emergence of a new marketplace of third-party intermediaries that specialize in connecting job seekers to WBL opportunities and facilitating WBL initiatives in a relatively "turnkey" fashion. This growing sector of non-profits, state-based efforts, and commercial start-ups includes, for example, organizations such as Apprenti, CareerWise, and Techtonic Group. These types of organizations represent entirely new business models that may make it easier for CHROs to develop a WBL-driven talent acquisition pipeline – especially in the case of small and medium businesses, and units with limited staff and resources.

5. **Establish ROI measures to fuel WBL improvement and expansion.** At the outset of our research effort, we hoped to study how employers with scaled WBL initiatives were measuring ROI and to benchmark returns. We found that relatively few employers are measuring the return on their WBL efforts – while acknowledging that they are moving in and investing in this direction. This interest is consistent with CHRO's growing deployment of analytics in talent acquisition and college recruiting.[19] Better measurement can illuminate the ways that WBL initiatives are supporting and advancing a company's overall goals and strategy.

6. **Design for inclusion and recognize the potential for WBL to increase workforce diversity.** Many companies are increasingly focused on diversity and equity in hiring[20] – and many organizations' WBL efforts include a focus on and have delivered promising results in terms of creating a more diverse workforce – with examples in our study including Keybank, State Farm, and Northrop Grumman. WBL can be a key vehicle for expanding beyond typical recruitment channels by tapping into broader populations of students and professionals – especially when considering a range of higher education institutions, and when WBL experiences potentially vary in composition, duration, and geography.

DIAGNOSTIC QUESTIONS FOR CHROs TO CONSIDER IN EVOLVING WBL STRATEGY

Based on our research, CHROs may wish to consider the following diagnostic questions related to shaping or scaling their WBL strategy.

- How would our company describe its primary motivations for WBL? Might there be opportunities to align WBL programs more tightly with business goals?

- What strategic growth areas could WBL support? What types of projects and real-world work might be appropriate to more thoughtfully engage students participating in WBL?

- Is there an opportunity for WBL to be unified or managed via more leadership from HR vs. individual business units? What additional support systems and resources would we need to consider to improve or grow our WBL opportunities?

- Have we benchmarked our WBL investment, staffing, and program scale against industry and local peers?

- Have we completed a workforce planning exercise to understand our current and future talent needs? Is WBL represented/aligned with growing investments in workforce planning and talent analytics?

- In what ways could WBL be leveraged to better support our public brand and community engagement?

- What creative opportunities for innovation might exist to stretch beyond traditional WBL definitions and constructs?

- Do we have a good understanding of the growing array of new intermediary organizations and WBL servicers we might partner with? Are there local, state, or federal government programs that could support our efforts and create leverage?

- In what ways might the growth of online education, virtual teaming software, and "gig economy" contracting potentially present new opportunities for remote WBL engagements that open new talent pools?

- What potential opportunities exist to integrate talent acquisition-focused WBL initiatives with internal learning and development (L&D) across employee career stages?

- How can we better engage faculty and administrators at higher education institutions to create stronger alignment between curriculum and industry needs? Is there a strategic opportunity to deepen these relationships through focus and investment, to potentially secure a talent acquisition advantage?

- How might our existing WBL efforts benefit and be expanded by reaching new populations such as in community colleges and high schools?

- How can WBL ROI be better measured? What data is needed - and what outcome metrics could be made more explicit and measured to ensure tracking toward success?

- What changes to WBL strategy and practices could we make to improve conversion to full-time hires?

- How might WBL support strategically reaching targeted candidate populations or geographies?

The [full research report](#) provides additional findings featuring a much deeper level of detail, data, and case studies.

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