Increasing Workforce Skills and Diversity

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A GUIDEBOOK FOR LEVERAGING MULTICOMPANY PARTNERSHIPS

BHEF BUSINESS-HIGHER EDUCATION FORUM®

Creating Solutions. Inspiring Action.

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ABOUT THE BUSINESS-HIGHER EDUCATION FORUM

The Business-Higher Education Forum (BHEF) is a private, nonprofit membership organization of leading C-Suite business executives and university presidents who employ the latest market intelligence to inform strategic partnerships that create innovative talent solutions in high-demand emerging fields and promote diversity and inclusion. Members provide leadership by encouraging their peers to act on critical talent needs. For more information about BHEF, visit bhef.com.

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LETTER FROM THE CEO

Dear Colleagues,

For the past several months, the COVID-19 pandemic has required Americans to find new ways to work and communicate. And during this time, we have witnessed what would have been nearly impossible in previous decades: the movement of thousands of workers to completely virtual environments where video meetings, cloud-based file sharing, and online project management have become routine.

These enabling technologies rely on two types of workers. First, the tech professionals—with their deep knowledge in fields like software development, cybersecurity, and artificial intelligence—activate and deploy these technologies. Second, all workers must have basic digital literacy to know how to use and apply these products to complete daily tasks. Developing both types of knowledge within the general population—and particularly among minority, low-income, older, and female workers too often left out of the tech workforce—is crucial to maintaining America's competitive advantage and to supporting durable, inclusive economic growth in our communities.

The Business-Higher Education Forum (BHEF) works with leaders across business and higher education who are committed to building out these important skills. Our recent project—the Workforce Partnership Initiative (WPI), a product of the Business Roundtable and with support from the JPMorgan Chase Foundation—has challenged business leaders to engage multiple peer companies and higher education institutions in creating highly tailored educational and work-based learning opportunities right in their own communities. These initiatives are bringing together unlikely partners, engaging students in new curricula and apprenticeships, and helping America grow its pool of high quality, inclusive, and tech-enabled talent.

This report offers a roadmap for developing multicompany partnerships with higher education. Based on the early successes of WPI, it offers business leaders and their staff insights and practical steps in four phases: Laying the Groundwork; Partnering with Peer Employers; Engaging Higher Education; and Implementing the Program.

Work and life as we know it have changed. As business leaders, we must come together to better prepare the current and next generation of workers to lead in the digital skills revolution. America's continued success depends on it.

Brian K. Fitzgerald
CEO, Business-Higher Education Forum

BUSINESS-LED TALENT DEVELOPMENT

A CALL TO ACTION

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Strong, ongoing collaboration between business and higher education offers a solution to a growing skill shortage. But to see changes at scale, partnerships must exist within an ecosystem that fosters regular communication, relays industry needs to the academic community, and demonstrates to educators the larger marketplace for those skills.

> “If we are going to make changes to our curricula, it must result in durable degree programs that position our students to succeed in a range of occupations and companies. Our faculty members are constantly being informed by industry; what we need is a much more holistic, intentional process to prepare our students for the workforce.”
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> **JILL KLEIN**, interim dean of the School of Professional & Extended Studies at American University

From robotics to virtual meetings, digital technology powers today’s businesses. And as data storage, computing power, and communication speeds continue to grow, so too will companies’ reliance on these products—and their need for a highly skilled workforce to develop, manipulate, select, and apply the right technology (Butler, 2016).

In reality, the majority of businesses will struggle to find the technical talent they need (Robert Half International, 2019). On average, it takes about 40 days to hire a position requiring STEM skills—six days more than non-STEM positions—and proportionally longer as skill needs become more complex, even when accounting for differences in education, salary, and the regional labor market (Rothwell, 2014). Companies may especially struggle to fill fast-growing occupations; for example, Burning Glass Technologies found that cybersecurity postings, which nearly doubled from 2013 to 2018, took an average of 51 days to fill, or 20 percent longer than other information technology jobs (2019b).

Beyond these specialized tech roles, an increasing number of companies also need workers who are “digitally literate” and capable of selecting, understanding, and using technology to complete everyday tasks. A 2016 study by the Brookings Institution estimated that 71 percent of occupations now require at least a medium level of “digital skill,” up from 44 percent in 2002 (Muro, Liu, Whiton, & Kulkarni, 2017). At the same time, companies will probably have a reduced need for workers in low-digital-skill occupations—occupations that are also most at risk of automation and tend to employ a larger share of minority and low-income workers who are traditionally underrepresented in tech (Frey & Osborne, 2017; Bureau of Labor Statistics, 2020).

Strong, ongoing collaboration between business and higher education offers a solution to this growing skill shortage. But to see changes at scale, such partnerships must exist within an ecosystem that fosters regular communication, relays industry needs to the academic community, and demonstrates to educators the larger marketplace for those skills.

“If we are going to make changes to our curricula, it must result in durable degree programs that position our students to succeed in a range of occupations and companies,” said Jill Klein, interim dean of the School of Professional & Extended Studies at American University. “Our faculty members are constantly being informed by industry; what we need is a much more holistic, intentional process to prepare our students for the workforce.”

But to best equip workers with certain universally needed technology skills, academic programs must also focus on how to embed basic skills in digital literacy, programming, and analytics into a range of disciplines.

A number of employers have taken the lead in fostering large-scale partnerships between business and higher education, benefiting their company along with the regions in which they work. They are engaged in the Workforce Partnership Initiative (WPI): a one-of-a-kind, business-led collaboration founded on the principles of collective impact, where multiple peer companies and higher education institutions come together to develop highly tailored educational and work-based learning opportunities to address the most pressing skill needs in their region.

“This initiative is about getting businesses off the sidelines and into the heart of educational transformation,” said Brian Fitzgerald, CEO of the Business-Higher Education Forum. “To do that, they must come together as a community to solve for common talent needs.”

The Business-Higher Education Forum (BHEF) and the Business Roundtable, with support from the JPMorgan Chase Foundation, developed the WPI model in 2018. To date, nine sites have piloted the initiative, each led by one or more Business Roundtable companies and focused on developing skills in advanced manufacturing and digital fields like data analytics, data science, and cybersecurity. Sites have engaged more than 40 higher education institutions, 70 companies, and a dozen state agencies. For more information on their work, please see BHEF’s related case studies.

WORKFORCE PARTNERSHIP INITIATIVE

SITES	LEAD COMPANIES
Chicago	Aon and Accenture
Cleveland	Eaton Corporation
D.C.-Maryland-Virginia	Northrop Grumman
Milwaukee	Rockwell Automation
North Carolina	EY
New York City	IBM
Silicon Valley (San Jose)	Cisco
Southeast	Siemens
Utah	Northrop Grumman

SITE ENGAGEMENT

40	200	70	300	12
ACADEMIC INSTITUTIONS	HIGHER EDUCATION REPRESENTATIVES	COMPANIES	COMPANY REPRESENTATIVES	STATE AGENCIES

> “This initiative is about getting businesses off the sidelines and into the heart of educational transformation. To do that, they must come together as a community to solve for common talent needs.”
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> **BRIAN FITZGERALD**, CEO of the Business-Higher Education Forum

Research has documented several benefits of the various models that WPI sites employ, including decreased training costs, improved retention, increased diversity, and expanded opportunity for nontraditional students. WPI also offers a number of distinct advantages only possible through a multicompany, multi-institution partnership model.

Scale of impact. WPI's focus on regional transformation sets it apart from similar collaborations. Employers are not just grooming their own workforce; they are also embedding in-demand skills within the larger community, enabling other companies to find the talent they need, and distinguishing the region as a hub of growing talent.

Recruitment. Multicompany partnerships highlight the importance of a particular industry or occupation, which can help attract new talent to a field, university, company, or region. The scale of these partnerships can also help to secure funding and other support from government agencies, foundations, and outside stakeholders.

Customization. When employers work together to identify common hiring needs, it signals to educators the overall marketplace for these skills and promises a return on investment from a tailored curriculum. Employers gain access to workers with highly customized skills, colleges increase their rate of post-graduation placement, and students feel confident in their chosen course of study.

Diversity. Multicompany partnerships help local populations develop in-demand technical skills that can increase employment options and overall earnings for workers (Burning Glass Technologies, 2019a). They also help companies recruit traditionally underserved populations and demonstrate their commitment to the community.

Lasting impact. The relationships built through these initiatives will endure and grow over time. By cultivating ongoing discussions and feedback between business and higher education, partners can create processes for continuously signaling demand and refining curricula.

When multiple companies work directly with higher education, they can communicate their specific hiring needs, create collaborative curricula and develop a pool of talent better prepared to enter and adjust to advances in the workforce.

STEPS TO BUILDING A MULTICOMPANY PARTNERSHIP

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PHASE I

Laying the Groundwork

Before a business can engage peer companies and higher education institutions, it will need to define the problem and develop a plan of action.

STEPS

1. Clarify Expectations of Senior Management
2. Analyze the Talent Ecosystem
3. Formulate a Project Plan

PHASE II

Partnering with Peer Employers

As new partners come on board, plans begin to take shape, and leaders uncover the specific set of skills the region needs most.

STEPS

4. Recruit Employers with Similar Talent Needs
5. Agree on the Basic Partnership Structure
6. Identify Education and Training Needs

THE WORKFORCE PARTNERSHIP INITIATIVE offers a template for businesses to collaborate with higher education and peer employers to address a specific workforce need within their region. The model builds from the essential steps profiled in BHEF's report, *Creating Purposeful Partnerships*, with an expanded focus on building relationships, cultivating executive support, and finding consensus when working across multiple businesses and institutions (Business-Higher Education Forum, 2018).

The WPI model follows four phases of development, marked by 12 steps in total. While these steps are presented as linear, partners will probably iterate between them as they build an initiative. Each step also presents an opportunity for third-party facilitators—known as intermediaries—to aid in the process by providing analysis, coordination, and oversight.

PHASE III

Engaging Higher Education

The involvement of higher education translates skill requirements into curricula and preliminary plans into action.

STEPS

7 Select Appropriate Higher Education Partners

8 Resolve Known Barriers to Implementation

9 Build Curriculum to Skill Specifications

PHASE IV

Implementing the Program

Though implementation will vary by site, partners will always need to recruit, monitor, and sustain.

STEPS

10 Recruit Participants from Target Populations

11 Monitor and Refine the Program

12 Sustain and Expand Successful Strategies

STEP 1

Clarify Expectations of Senior Management

BUSINESS LEADERS WHO LAUNCH a workforce development program—whether as small as a single internship opportunity or as large as a multicompany signaling system—share a common purpose: to develop, recruit, and upskill their workforce. Embedded within that broader mission are goals, priorities, and resources specific to the needs of the individual company—which will form the basis of the workforce development program.

The first step is to clarify the vision of the initiative's executive sponsor, such as the chief executive officer, chief human resources officer, or other member of senior management.

Goals. A list of clear, concise goals can serve as a compass for the project, enabling staff to assess the relevance of proposed activities and to communicate the purpose of the initiative to potential partners. Staff can work with the executive sponsor to articulate the specific results the company hopes to achieve, which may range from sourcing qualified talent, to reducing training costs, to serving the company's broader philanthropic mission. In developing these goals, the lead business should focus on what can be achieved by engaging multiple employers. "The promise of this initiative is finding things that you can do collectively that were impossible on your own," said Jennifer Thornton, vice president of programs for the Business-Higher Education Forum. For example, some WPI sites have noted that the involvement of multiple companies may also help them achieve broader goals of attracting new talent to the selected occupation, industry, and/or region.

Priorities. The executive sponsor will probably have a vision for how the program will operate, including in what region it is located, which employers or educational institutions will be involved, and how skills will be acquired (e.g., through an apprenticeship program or targeted in-house training). A discussion with the executive may reveal additional priorities embedded within broader project goals. For example, a company that seeks to develop a more inclusive and diverse workforce might prioritize partnerships with Historically Black Colleges and Universities, community colleges, or institutions that attract mostly local populations.

Resources. Staff should clarify what level of staffing and financing the executive hopes to make available for this initiative. While specific individuals or dollar amounts need not be provided, a general understanding of the employee commitment, executive sponsor involvement, and project budget can help staff when identifying potential activities and models in later steps. This information also communicates to intermediaries the expected scope of work.

In setting these initial expectations, leaders in WPI sites recognized the challenge of remaining focused on the long-term outcomes of the project. "This work is not about launching a single course, credential, or internship program," noted John Enyame, associate director for the Office of Workforce Partnerships at The City University of New York. "We came together to develop something bigger—an ecosystem of collaboration between business and higher education, a way to equip our students with the technical skills and theoretical foundations to be successful in the future."

ENGAGING AN INTERMEDIARY

An intermediary can **guide staff during the initial planning stages and assist with collecting and documenting feedback from the executive sponsor**. An entity with experience in workforce development or higher education can identify realistic goals, priorities, and resource commitments based on the general vision of the business.

WPI PROFILE: **D.C.-MARYLAND-VIRGINIA**

In the D.C., Maryland, and Virginia region, the **Greater Washington Partnership**, a first of-its-kind alliance of university and business leaders, has brought together 19 employers and 18 higher education institutions to develop and implement digital technology credentials.

In 2018 and 2019, companies created Digital Technology Generalist skillsets for students pursuing careers in nontechnical fields and Data Analytics, Machine Learning, and Cybersecurity skillsets for students interested in technical fields. As of spring 2020, six higher education institutions had launched a Digital Technology Generalist credential and enrolled 444 undergraduate students, with businesses committing to sponsor 100 internships. Additional universities plan to implement Digital Technology Generalist and the specialist credentials in fall 2020.

STEP 2

Analyze the Talent Ecosystem

WHILE MOST COMPANIES have an instinctual understanding of their most pressing talent needs, hiring data can quantify the size of the shortage and identify which skills are most critical to develop through a partnership with higher education. In some instances, data may signal the need for a different approach, identify an unexpected partner, or reveal new skill clusters.

Every human resources department will have a different way of analyzing their company's talent needs. Many will look to metrics they can examine across departments, such as hiring projections, the average number of days to fill a position, the number of positions reposted, and the percent of offers declined. Equally informative will be conversations with hiring managers about the skill requirements for certain positions and the qualifications of prior applicants. As with any review of job fit and performance, confidentiality must be maintained and data not associated with an individual. In addition to assessing the overall need for a skill or certain position, human resource analysts will want to note the volume of demand for certain skills—to ensure there will be openings for new hires once those individuals receive the requisite training—and the level of employee needed.

An analysis of the regional demand for skills and occupations, along with the supply produced by area colleges and universities, can place talent needs in perspective and ensure the selected field is broad enough to attract peer businesses and higher education institutions. Example demand metrics include occupational growth projections, size of workforce, and spikes in job postings. On the supply side, analysts can look to data on the number of degrees awarded in a given year, the number of active workers with a desired skillset, and the employment destinations of recent graduates. Note that analysts seeking to compare supply and demand must apply comparable parameters—for example, if analysts use recent degrees as a proxy for supply, they will want to pull only job ads requiring less than two years of experience to calculate the need for entry-level workers.

To place hiring needs in perspective, human resource analysts will want to examine the company's current efforts around talent sourcing, recruitment, and development by creating an inventory of existing strategies, partnerships with higher education institutions, and relevant programs. The lead business should also include intermediaries and government offices on whom they have previously relied for analysis and logistics. Human resource analysts can also examine whether a skills gap is perpetuated by internal hiring policies and procedures, such as education requirements that cannot be substituted for relevant experience or job ads that do not mention the specific skills deemed in high demand by the company. Initiatives focused on building an inclusive workforce should also examine how existing policies and procedures impact the company's ability to achieve this goal.

ENGAGING AN INTERMEDIARY

An intermediary can **work with human resource analysts to identify and interpret data**. Such an organization can also be helpful in conducting the inventory of existing strategies, as they will likely span beyond the human resources department and require a commitment of staff time. Sites that seek a regional analysis of talent needs often engage an intermediary, including workforce boards, third-party data providers, government agencies, management consultants, and others with access to and experience with the data.

WPI PROFILE: **SOUTHEAST**

Siemens, Owens Corning, and Day & Zimmermann are **creating new or expanded apprenticeships** to increase the number of skilled trades workers in advanced manufacturing. These on-the-job training programs offer on-site instruction and continuing education in a range of specialties, including construction, maintenance, and mechatronics.

The programs are primarily located in the Southeast and Southwest regions. Through partnerships with local community colleges and technical colleges, businesses are quickly scaling apprenticeships to include additional roles and locations.

STEP 3

Formulate a Project Plan

A WRITTEN PROJECT PLAN CLARIFIES GOALS, priorities, commitments, and intentions, as well as ensures internal consensus before engaging partners.

In *Creating Purposeful Partnerships*, BHEF offered a five-item checklist that the lead company can use to document its plan and modify it as new partners change priorities and strategies (BHEF, 2018).

The checklist includes:

- ☐ **Field or sector:** the occupation or set of skills to target based on senior management's goals and priorities and the specific talent needs identified in Step 2 of this process. Examples from WPI sites include cybersecurity, aerospace engineering, advanced manufacturing, and data analytics.
- ☐ **Geographic region:** the location on which to focus the intervention, such as a city, state, or metropolitan area. Examples from WPI sites include the city of Milwaukee, the state of North Carolina, and the combined D.C., Maryland, and Virginia region.
- ☐ **Academic credentials:** the credentials that higher education institutions are expected to offer to those participating in this initiative. Examples from WPI sites include apprenticeships, certificates, degrees, and badges.
- ☐ **Industry engagement:** the activities that employers are expected to offer to workers or students participating in this initiative. Examples from WPI sites include work-based learning, resume review, technology donations, and grants to higher education institutions.
- ☐ **Company signaling:** the planned mechanism and frequency with which employers identify and share their talent needs with partners. Examples from WPI sites include ongoing competency mapping, meetings between faculty and subject-matter experts from businesses, and regular revisions to job postings and candidate profiles.

The plan should also include a list of member benefits and establish a preliminary budget for the work based on the model selected, along with expectations for how partner companies will contribute. Budgeted items might include work-based learning wages, fees for intermediaries, expenses for recruiting colleges and universities or training providers, and tuition for training courses. Lastly, the lead company can develop a draft value proposition for the businesses, higher education institutions, and students served by this initiative.

ENGAGING AN INTERMEDIARY

An intermediary can help **identify an appropriate model that meets the lead company's goals, priorities, and hiring need**s. An organization with experience in designing and executing workforce programs can be particularly helpful in weighing the pros and cons of different options.

WPI PROFILE: **SAMPLE VALUE PROPOSITION**

EMPLOYERS

Increase pool of qualified candidates

- Customized credentials aligned with companies' skill needs
- Increased supply of skilled entry-level talent
- Increased access to top talent

Reduce recruiting and training costs

- Reduced training costs for new hires
- Access to training programs that would be difficult to build in-house
- Sorting mechanism to more effectively hire skilled talent

Enhance reputation of industry in region

- Improved perception of the companies and region (attract different kinds of new hires)
- Improved perception through social responsibility

COLLEGES & UNIVERSITIES

Improve partnerships with industry leaders

- Industry-aligned curricula
- Guest speakers/adjunct professors from industry
- Access to real-world projects
- Institutions have a pipeline of internships and job shadowing

Enhance student outcomes

- Increased quality/quantity of students with relevant skills
- Increased post-graduation employment rates

Bolster academic reputation in region

- Participating institutions seen as leaders in higher education
- Influence other local universities to sign on
- Offer credentials for cutting-edge skillsets critical to industry

STUDENTS/WORKERS

Gain valuable work-based learning experiences

- Job shadowing
- Priority for or guaranteed internships
- Mentoring/coaching from current employees

Have priority status in hiring process

- Recognized on participant lists shared across companies
- Guaranteed or priority resume reviews and/or interviews
- Special career fair days

Qualify for higher paying entry-level positions

- Bypass or get experience credit
- Potential bonus or financial incentive
- Career paths to in-demand positions in cutting-edge skillset

STEP 4

Recruit Employers with Similar Talent Needs

A SUCCESSFUL WORKFORCE PARTNERSHIP FORMS when companies with similar hiring needs converge around a common, regional solution. The best partners will not only share the same talent needs but also embrace the same overall vision and priorities of the lead business. They will commit the requisite amount of time, staffing, and resources to the initiative. And they will take ownership and collaborate as a group.

To identify potential partners, the lead business assesses the overall fit of companies with which it has an existing relationship. This strategy not only supports the development of a robust talent pipeline, but it also can help the lead company strengthen ties to both current business customers and industry competitors. Leaders can also look to partners from existing workforce initiatives—documented during Step 2—that have demonstrated a commitment to community impact.

The lead company can supplement its initial list of potential partners by identifying other peer companies with similar talent needs and core values. For example, employers with similar talent needs will probably have a large number of job postings for comparable occupations, as reflected in sources like Chmura JobsEQ, Emsi, or Burning Glass. Likewise, employers with shared values could have a history of engaging in social responsibility and workforce development initiatives and be strong partners.

In recruitment, leaders should be prepared to share with potential partners the draft project plan and a high-level summary of the project's goals and value-add to business. Often, a simple direct ask from the project's executive sponsor can secure the initial partnership. Lead companies may also employ passive recruitment and focus on marketing their work to attract partners.

ENGAGING AN INTERMEDIARY

An intermediary can be **indispensable in recruiting peer businesses, explaining the goals of the project, securing buy-in, and facilitating early meetings.** Membership-based intermediaries like BHEF can leverage their contacts and knowledge of different employers to help the lead company select appropriate partners.

WPI PROFILE: **MILWAUKEE, WISCONSIN**

To tackle the skills shortage in the rapidly evolving manufacturing sector, Rockwell Automation has focused its **workforce development programs** on three populations across Milwaukee and Cleveland.

1. **Veterans.** Rockwell, in collaboration with the Manpower Group, launched the Academy of Advanced Manufacturing to provide U.S. military veterans with training and certifications for work in the high-demand role of instrumentation, automation, and controls technician.
2. **Undergraduates.** Rockwell and Microsoft, working with the University of Wisconsin-Milwaukee (UWM) and a consortium of industry groups and economic development organizations, created the Connected Systems Institute, a multidisciplinary, statewide initiative to develop talent, expertise, and solutions for the Industrial Internet of Things (IIoT). UWM will open its first testing facility at the Connected Systems Institute and unveil six newly designed courses for undergraduate students this year.
3. **Current workers.** As part of the Milwaukee Talent Initiative, Rockwell recently rolled out a series of training programs aimed at recruiting new hires for entry-level manufacturing roles and promoting existing entry-level employees into highly skilled technician roles for the IIoT.

STEP 5

Agree on the Basic Partnership Structure

BUILDING A MULTICOMPANY PARTNERSHIP can be complex and may take several iterations to move from the goals of a single business to a shared purpose among many. Before work commences, participating companies will need to agree to the general focus of the work, the planned activities, and their responsibilities as members. While some partnerships can succeed without a signed agreement among members, most find it helpful to formalize the relationship to clarify expectations and cement each partner's ongoing support.

The specific components of the project plan and membership terms will depend on the type of initiative. However, at minimum, such agreements typically cover the scope of work, governance structure, membership requirements, and provisions on information sharing and confidentiality.

Scope. Partners should review the BHEF partnership checklist—the field or sector, geographic region, academic vehicle, industry engagement, and company signaling—documented in Step 3 and adjust based on the priorities of new partners. For example, the field the lead company has selected may need to be expanded to accommodate the goals of other companies or the boundaries of the selected region adjusted to achieve goals around diversity and inclusion. The industry engagement strategy might include a menu of preferred activities rather than binding all partners to offering a specific approach. The desired educational component—such as a noncredit boot camp, certificate, or minor—and company signaling mechanism may need revision based on how quickly and frequently workers need cutting-edge skills.

Governance. Partners should discuss how the group will make decisions (consensus, majority rules, leadership committee, etc.) and establish a meeting structure and schedule. They should also identify and designate surrogates for each company's executive sponsor. Sites may forgo a formal structure to allow for more flexibility and rapid decision-making—but the principals still need to confirm such a lack of structure.

Membership. The initial partners should determine the process for selecting new members, including any criteria for becoming a member, whether membership is open or closed, who makes decisions about membership, and any required resource commitment. Similarly, the group should discuss under what circumstances membership can be terminated.

Information sharing. Over the course of the initiative, partners will probably discuss or provide data on sensitive topics, such as their talent needs, hiring practices, and workforce demographics. Most members will want formal assurances that the information will be kept confidential and used only for its intended purpose.

In developing these agreements, partners may need to secure buy-in from additional stakeholders within their company who will be engaged in the work, including the chief human resource officer, legal counsel, key staff members likely to serve on working groups, and the individuals responsible for managing any work-based learning component. "From investing time and resources, to working out intricacies of a new program, to openly talking with competitors about hiring needs—developing a highly skilled workforce takes commitment," said Bonnie Zuckerman, manager, Apprenticeships and Functional Development, Northrop Grumman.

ENGAGING AN INTERMEDIARY

An intermediary with **experience in partnership structures or legal agreements will be critical** at this juncture, as will engaging legal counsel if partners are new to developing membership agreements.

WPI PROFILE: **CHICAGO, ILLINOIS**

Aon and Accenture launched the **Chicago Apprentice Network**, which has a goal of creating 1,000 apprenticeships by the end of 2020. The network, supported by Apprenticeship 2020's $3.2-million fund to accelerate the scaling of high-quality work-based learning programs in Chicago, has grown to 40+ companies who have launched or committed to 700+ apprentice opportunities, 16+ educational institutions, and 10 nonprofit organizations.

The network's members have expanded their apprenticeship program locations, including Accenture's expansion to 20 North American cities such as Columbus, Boston, and Detroit, as well as added opportunities in areas such as cybersecurity, health care, and human resources. The network also released an apprenticeship playbook, Bridging the Gap between Talent and Opportunity, that equips companies with the necessary knowledge to develop apprenticeship programs that provide underrepresented groups with access to professional jobs and meets their specific talent needs (Chicago Apprentice Network, 2019).

STEP 6

Identify Education and Training Needs

THE NEXT TASK IS FOR EACH PARTNER—with the help of internal subject-matter experts, entry-level incumbents, and managers—to describe the specific technical knowledge, skills, and abilities that a worker needs to add value and grow within the company.

To get started, the group may conduct an internal survey of members to quantify the specific needs within the organization and standardize how those needs are measured. Depending on the size of the group, a facilitated conversation among partners may also suffice for understanding the range of needs. Labor market information from a subscription-based data service (e.g., Emsi, Chmura JobsEQ, and Burning Glass), free open-source API (e.g., Emsi Skills API and Data at Work's Skills-ML), and public skills reports (e.g., Burning Glass's monthly summary of skill needed within each major U.S. city) can also provide useful information on the range of skills requested in relevant job ads.

WPI sites have frequently turned to existing lists of competencies to get started. While some sites have used these resources as a conversation starter, others have chosen to make only minor adjustments to the list of competencies based on their regional needs. "The vast majority of the skills we needed were the same across partner companies and across different regions of the country," explained Ellen Glazerman, executive director at EY. "It made sense to use an existing resource from another region with minor tweaks."

Some example resources on skills and competencies include:

Federal skills databases. Staff can review the competencies listed in the U.S. Department of Labor's O*NET (particularly its occupational skill ratings and level scale anchors) and the U.S. Department of Education's National Career Clusters Framework. Both resources were developed through an exhaustive process that included the input of job incumbents and labor analysts.

Field-specific competencies. A variety of organizations have developed lists of the skills required within specific fields. For example, the NICE Cybersecurity Workforce Framework and the CAE-CD 2019 Knowledge Units provide a detailed look at the skills required within cybersecurity, while certification company CompTIA presents learning outcomes needed across a range of information technology positions.

Qualification summaries developed by a partner or other region. Partner companies may supply their own list of the skills required for a certain profession or point to a college or university on which they have relied in the past for such a list. Staff may also look at similar work done by other regions; these resources are occasionally publicly available, especially if a government entity developed them.

As partners identify specific skill gaps, they may need to revisit decisions about the overall field on which the initiative is focused, the targeted level of employee (entry, mid, professional), and whether needs are based on occupations or on skills—for example, within data analytics, is it more important to detail the analytical skills needed within the company or the range of technical skills that an analyst must possess? Partners should also look for basic skills that prepare students for a range of entry-level options. "For many careers, it is not just about mastering subject-specific skills and then moving into that role immediately after graduation. Instead, students must gain experience in fundamentals—like software development and programming—to progress into specialized fields," noted Nakisha Evans, director of The City University of New York Office of Workforce Partnerships.

ENGAGING AN INTERMEDIARY

Sites often engage an intermediary to **conduct the skills analysis**, allowing work to remain objective and consistent across companies..

WPI PROFILE: **NORTH CAROLINA**

In North Carolina, partners from a variety of sectors and institutions of higher education are collaborating on a new **digital technology credential**. Using the D.C.-Maryland-Virginia (DMV) region's Digital Technology Generalist credential as a starting point for development, representatives from business have determined their workforce requirements, shared insights into their most in-demand technical skills, and evaluated the gaps and opportunities in existing digital technology programs at higher education institutions.

The credential is focused primarily on data analytics, visualization, and security. However, unlike the DMV's knowledge, skills, and abilities, North Carolina companies added skills areas to the credential: a foundation of systems development life cycle and data application/business acumen. Enrollment for the credential is expected to begin in fall 2020.

> “This work is not about launching a single course, credential, or internship program. We came together to develop something bigger—an ecosystem of collaboration between business and higher education, a way to equip our students with the technical skills and theoretical foundations to be successful in the future.”

—

JOHN ENYAME, associate director for the Office of Workforce Partnerships at The City University of New York

STEP 7

Select Appropriate Higher Education Partners

EARLY DECISIONS made about higher education partners can impact how successful an initiative will be at achieving its goals. Business partners will want to recruit colleges and universities that can articulate strong support for the overall priorities and values set forth by the initiative as well demonstrate the ability to implement highly technical programming that matches employer talent requirements.

Partner businesses may be tempted to recruit only higher education partners with whom they have an existing relationship. However, if the initiative seeks to expand and diversify the pipeline of students and workers with sought-after skills, businesses will probably need to partner with new colleges, universities, and training providers. Ideally, partners will develop membership priorities or requirements before identifying and engaging individual institutions.

To create these requirements, the group can list all colleges and universities in the region that offer the expected type of credential (e.g., training, non-credit certificate, bachelor's degree, graduate degree). Such data are available publicly through the Integrated Postsecondary Education Data System (IPEDS). Using this list as a starting point, partners can develop criteria for selection.

- ☐ **Student demographics.** Initiatives that intend to serve minority, low-income, or local populations will want to identify colleges and universities that actively recruit and enroll such populations. Staff can pull school-level data on race/ethnicity, gender, financial status, home state of undergraduates, and special designation (e.g., Historically Black Colleges and Universities, Hispanic Serving Institutions) through IPEDS. If not already included, community colleges that tend to enroll a higher percentage of those populations may be an appropriate addition to the list.
- ☐ **Reputation.** Initiatives with a strong focus on the quality of instruction and the reputation of academic partners may look to national rankings, particularly within the selected field.
- ☐ **Mode.** Initiatives with shorter timelines that also require flexibility in how courses are offered (such as online, evenings, weekends, part-time) will need to examine—typically through desk research—which colleges and training providers offer such options. Businesses interested in hosting on-site trainings for employees will probably need to contact each institution's office of professional studies.

Partners can go through further vetting to assess each college, university, or training provider's willingness and capacity to engage in this work once they've identified those institutions. Initiatives with a strong focus on expanding the pipeline of students with a given skillset—versus developing the skill within the population of students already pursuing the field—should discuss current student demand for those skills. Many colleges and universities are already overwhelmed by the number of students who want to take computer science and technical classes. If the institution has policies and practices to cap enrollment or restrict entrance into relevant coursework, it might be difficult for them to expand their capacity without additional resources.

ENGAGING AN INTERMEDIARY

As with business recruitment, an intermediary with knowledge of and connections to different institutions can be a tremendous asset in helping partners **identify, vet, and recruit institutions that best meet their goals**.

WPI PROFILE: **SILICON VALLEY, CALIFORNIA**

Companies in Silicon Valley—the combined metro areas of San Francisco and San Jose—have partnered with San José State University to **develop pathways focused on increasing the number and diversity of undergraduate students** with digital technology skills in the areas of data science and analytics, cybersecurity, and machine learning.

Academic leaders and company subject-matter experts are collaborating to introduce several changes to courses in the schools of Business and Engineering. Enrollment for these programs will begin in spring 2021.

STEP 8

Resolve Known Barriers to Implementation

ONCE COLLEGES, UNIVERSITIES, and training organizations have joined the initiative, the group will need to confirm the specifics of the program they plan to offer and review potential barriers to implementation. In some cases, major restrictions may prompt the group to consider a different model or recruit new partners.

WPI sites encountered issues with competing priorities, faculty training, and government regulations when working to develop the nine initiatives.

Competing priorities. Ideally, all individuals who participate in a program receive the same type and level of intervention. Students take the same courses, have access to similar work-based learning opportunities, and receive the same benefit to completion -- such as a badge, certificate, or preferred hiring. Achieving that level of consistency across participating employers and higher education institutions can be challenging. Colleges and universities may be reluctant to create new classes or have a strong preference to offer content only to students in the major, while employers may vary in the extent to which they can offer a competitive wage to students engaged in work-based learning. And all partners may embrace variation as a means to distinguish themselves from their rivals. Ultimately, partners must agree on the minimum level of uniformity and ensure that even if students are having different experiences, they are all being equipped equally with the desired skills (as monitored in Step 11).

Faculty training. In amending curricula, colleges, universities, and training providers will likely need faculty members to teach new skills and content areas with which they have limited exposure. Many WPI sites have met this training need by heavily engaging partner company subject-matter experts. These subject-matter experts may be responsible for training and mentoring faculty, reviewing course content, or even serving as adjunct faculty, provided they possess the appropriate credentials to teach. Depending on the specific knowledge and skills required, some academic partners may leave the initiative if they are unable to meet employer needs.

Government regulations. Partners should anticipate some amount of government oversight, depending on the specific type of program they are implementing. For example, programs that want to register their apprenticeship with the U.S. Department of Labor—which is not required but can be financially beneficial to the company—must demonstrate that the experiences meet national and independent standards for quality and rigor. The development of a new minor, certificate, or badge is also likely to trigger review within the college or university and by state regulators. While some sites have opted to not create a new credential to avoid the need for formal review, many have developed one, deciding that the extra time was worth it to help students and employers find the best fit. "The curriculum approval process took us extra time, but it was also important for us to develop a formal credential," said Jill Klein, interim dean of the School of Professional & Extended Studies at American University. "Now, if students meet the requirements, it will show up on their transcript and be recognized by employers for years to come."

ENGAGING AN INTERMEDIARY

Intermediaries can help partners **identify likely barriers to implementation, particularly if that intermediary has experience implementing a similar workforce development program.** The entity can also moderate a discussion to identify solutions to these barriers, including making adjustments to the model as needed.

WPI PROFILE: **CLEVELAND, OHIO**

Eaton, a multinational power management company, is **building training programs** in areas such as welding, machining, and maintenance for 16 of its manufacturing facilities. Tailored to the specific needs of each facility, Eaton's training opportunities include in-house education, on-the-job training, and apprenticeships.

Eaton is currently training more than 60 new hires and current employees for roles in advanced manufacturing across the sites, with plans to develop additional apprenticeships and training programs for its other manufacturing plants in the near future.

STEP 9

Build Curriculum to Skill Specifications

IN THIS STEP, BUSINESSES COMPARE the specific education and training requirements they set forth in Step 5 against the existing curricula of partner educational institutions. For the most part, individual colleges, universities, and training organizations can exercise discretion in how they interpret these requirements.

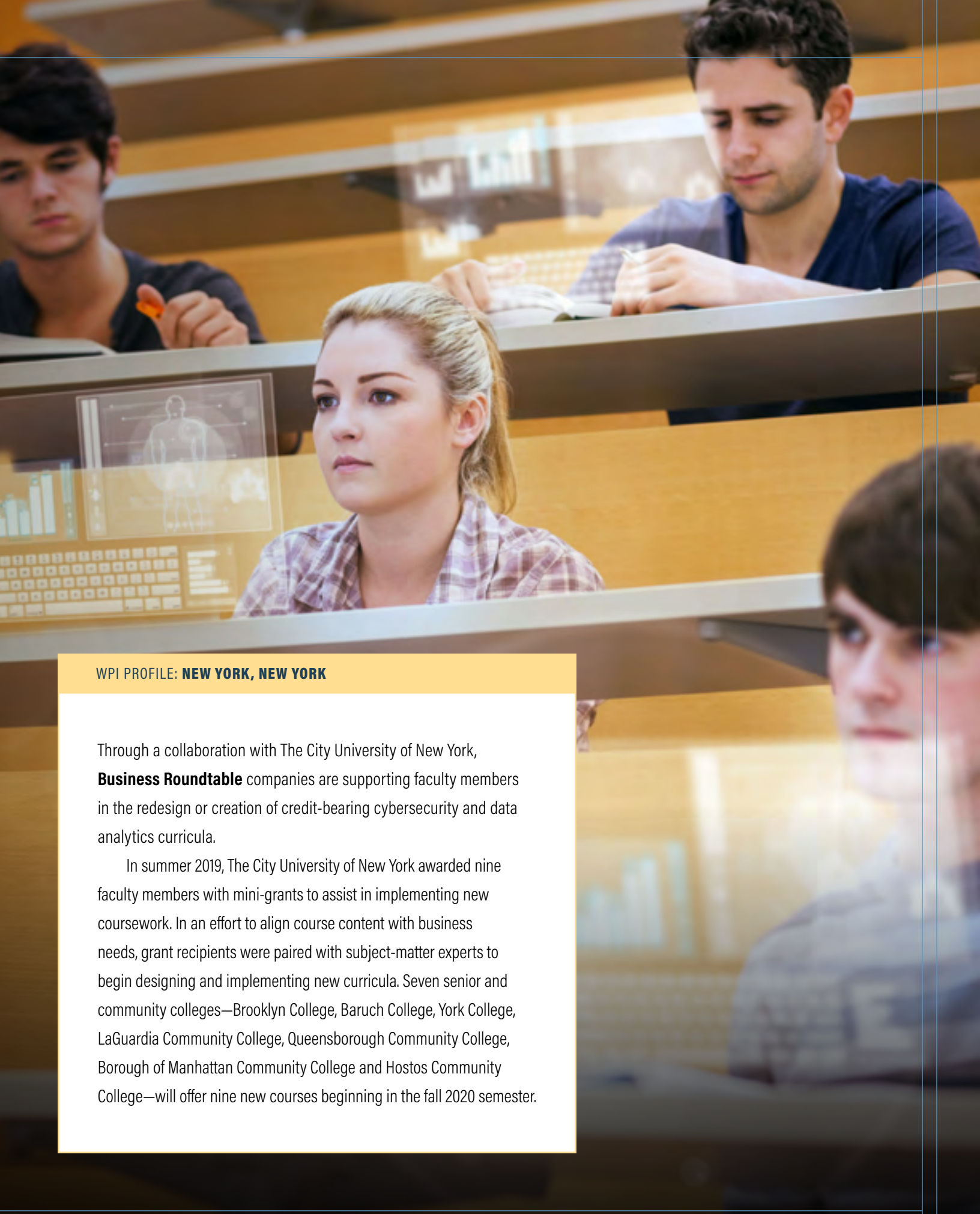
Comparing a curriculum against skill requirements can be done in many ways. Some WPI sites have established a formal process, mapping every applicable course's learning outcomes against the knowledge, skills, and abilities that partner businesses have identified. Administrators may be able to take a quick first pass at reviewing skill requirements, often knowing offhand whether existing courses include the desired learning outcomes, but they may require help when reviewing courses outside of their department. The number of courses that need to be reviewed also depends on the parameters set forth by the larger group; initiatives that seek to incorporate learning outcomes into as many courses as possible will require a larger review than a program that seeks to enroll students in a particular course sequence.

Some WPI sites have incorporated the business-desired competencies into new courses already being planned, which has allowed them to construct new content in lieu of modifying existing courses. Others have taken a less formal approach, pairing subject-matter experts with faculty members to revise course content more iteratively without triggering a formal evaluation and approval process. This less formal process may allow for more departments to participate; for example, the New York City WPI site took this approach and was able to incorporate skill requirements into a variety of nontraditional tech courses, such as the inclusion of cybersecurity concepts into John Jay College's law and justice programs.

Whatever the specific strategies for building out the curriculum, the group will want to discuss how frequently they need to revise it to align content with new knowledge, skills, and abilities.

ENGAGING AN INTERMEDIARY

While academic partners often prefer to do this work on their own, an intermediary can help **identify relevant courses of study and review offerings across multiple programs, departments, and colleges.** Depending on the number of institutions involved, an intermediary can also be essential in synthesizing findings across partners.



WPI PROFILE: **NEW YORK, NEW YORK**

Through a collaboration with The City University of New York, **Business Roundtable** companies are supporting faculty members in the redesign or creation of credit-bearing cybersecurity and data analytics curricula.

In summer 2019, The City University of New York awarded nine faculty members with mini-grants to assist in implementing new coursework. In an effort to align course content with business needs, grant recipients were paired with subject-matter experts to begin designing and implementing new curricula. Seven senior and community colleges—Brooklyn College, Baruch College, York College, LaGuardia Community College, Queensborough Community College, Borough of Manhattan Community College and Hostos Community College—will offer nine new courses beginning in the fall 2020 semester.

STEP 10

Recruit Participants from Target Populations

REGARDLESS OF THE PROGRAM STRUCTURE, implementation begins by identifying, recruiting, and selecting the first cohort of participants.

To find participants, businesses and academic members will need to market the program and directly recruit students and workers to join. Business leaders, in collaboration with subject-matter experts, can brainstorm messages to attract candidates to the selected field. For example, an advanced manufacturing program could highlight interesting applications of technology, provide testimonials of what daily work is like, and showcase data on enticing career prospects. A data and computer science program may dispel myths that the field is only accessible to those who have succeeded in their mathematics coursework or who belong to a certain demographic group. If not already described in the written project plan, partners can also develop a clear student value proposition that describes the benefits to students and workers. To heighten the program's attractiveness, partners can also identify additional benefits that are strong selling points for students but require little extra work from partners, such as resume reviews and priority interviews.

WPI sites have recruited students in a number of ways. They have frequently reached out to campus recruiters or career services to ensure they are aware of the initiative and to request that they highlight opportunities to students. If there is a natural course sequence, students can also be recruited directly from the first course within the series. For example, many programs have focused on digital technology students recruited from first-year statistics courses. Other sites have engaged with nonprofit organizations that coordinate work-based learning opportunities and youth employment to facilitate recruitment. As the program matures, a site can also enlist alumni to recruit the next generation of participants.

Depending on how the program is structured and its overall desirability to students, partners may also need to select which candidates can participate. For example, the college or university may choose to limit enrollment to those who have passed a first-year statistics or computer science course, or those that maintain a B average. Employers may decide to offer internships only to students who have passed a certain number of requisite courses or who have active engagement in the program.

ENGAGING AN INTERMEDIARY

An intermediary can help with all aspects of student recruitment, including hosting on-campus information sessions, contacting interested students to push formal enrollment, tracking conversions, and developing marketing materials to attract new participants.

WPI PROFILE: **STUDENT MARKETING CHECKLIST**

In 2015, Siemens—the lead company in the WPI Southeast region site—partnered with the Dow Chemical Company, Alcoa, the National Association of Manufacturers, and the U.S. Department of Labor to produce the *Employer's Playbook for Building an Apprenticeship Program* (Siemens et al, 2015).

The playbook details steps to build a multicompany partnership specifically for apprenticeships and offers the following checklist to recruit students to the program.

- ☐ Understand unique challenges associated with marketing the field
- ☐ Define target audience and priority segments
- ☐ Determine the marketing strategy for reaching priority segments
- ☐ Develop branding and marketing plan, detailing the timing, messaging, and medium
- ☐ Conduct pre-testing of the marketing plan and revise it based upon feedback
- ☐ Determine community relations plan, detailing the target population, benefits, and company actions
- ☐ Select nonconventional touchpoints to engage a broader audience

STEP 11

Monitor and Refine the Program

IN EARLIER STEPS, partners identified a common goal and the activities needed to achieve it. Now, the group must translate those goals and activities into quantifiable outputs and outcomes to ensure the program achieves desired results.

As noted in Step 1, while the goals of individual employers are likely idiosyncratic, workforce partnerships tend to have similar goals and associated metrics, such as those presented at right. A theory of change or logic model, which describes how the group members expect activities to produce outputs that lead to broader outcomes, can also help them identify critical activities to add, spurious activities to remove, problematic assumptions, and ways the different activities and actors fit together. Initiatives with a strong focus on diversity and inclusion will also want to track participant demographics.

To understand these data, leaders will need a system to collect and report information. That could include developing a template for partners, conducting an annual survey, or simply emailing each partner's main point of contact. Data reporting can take the form of dashboards, report cards, and other standardized reports that compare performance against targets. Most initiatives will not require an automated, real-time reporting system, which would trigger considerable investment in technology, infrastructure, and legal protections.

Lastly, while quantitative information is important, it should accompany regular conversations and feedback from program managers, faculty members, and administrators close to the work—along with participating students and workers. This feedback can take the form of quarterly networking events, trainings and workshops, scheduled meetings, or even open-ended items on a survey. The group can use insights gleaned from conversations and performance metrics to adjust the program as needed. Regular discussions with program participants can also encourage them to persist through the program and eventually become full-time employees.

ENGAGING AN INTERMEDIARY

Intermediaries can help sites develop relevant performance metrics and work through a logic model that makes sense for the work. Finding an intermediary with experience in performance management and benchmarking could be particularly helpful.

WPI PROFILE: **SAMPLE PERFORMANCE METRICS**

The specific metrics to determine the success of the initiative will depend on the goals and objectives of the partnership, along with the nature of the approaches used. But many partnerships will find the following useful.

Participant Recruitment

INVESTMENT: $ in total ad spending

OUTREACH: # unique contacts (e.g., individuals contacted via email/phone or who attended an event, average number of contacts per recruit)

CONVERSION: % of unique contacts who enroll in program

PARTICIPATION: # of program participants

DIVERSITY: Demographics of participants

Education and Training

AVAILABILITY: Ratio of open seats in each course to program participants

UPTAKE: % of program participants who continue to enroll in courses

COMPLETION: % of program participants who complete all required courses or training

DIVERSITY: Demographics of program completers

Work-Based Learning (WBL)

AVAILABILITY: Ratio of open slots at member companies to program participants

UPTAKE: % of participants who engage in WBL at a member company

CONVERSION: % of participants who engaged in WBL that were hired at member company

DIVERSITY: Demographics of interns/apprentices

Outcomes

PROFICIENCY: % of program completers who excel at competency exercise

HIRING: % of program completers who accept a full-time position at a member company

RETENTION: % of program completers who remain at a member company for three years after hiring

COSTS: % of member companies with reduced recruitment, onboarding, and training costs

DIVERSITY: Demographics of new hires from program

STEP 12

Sustain and Expand Successful Strategies

THE PROGRAMS, STRATEGIES, AND RELATIONSHIPS created through these multicompany partnerships require a certain amount of structure to sustain success and effect meaningful change in the community. In this last step, partners focus on developing a permanent mechanism for businesses and higher education to exchange ideas and information, dedicating staff to program administration, and scaling what works.

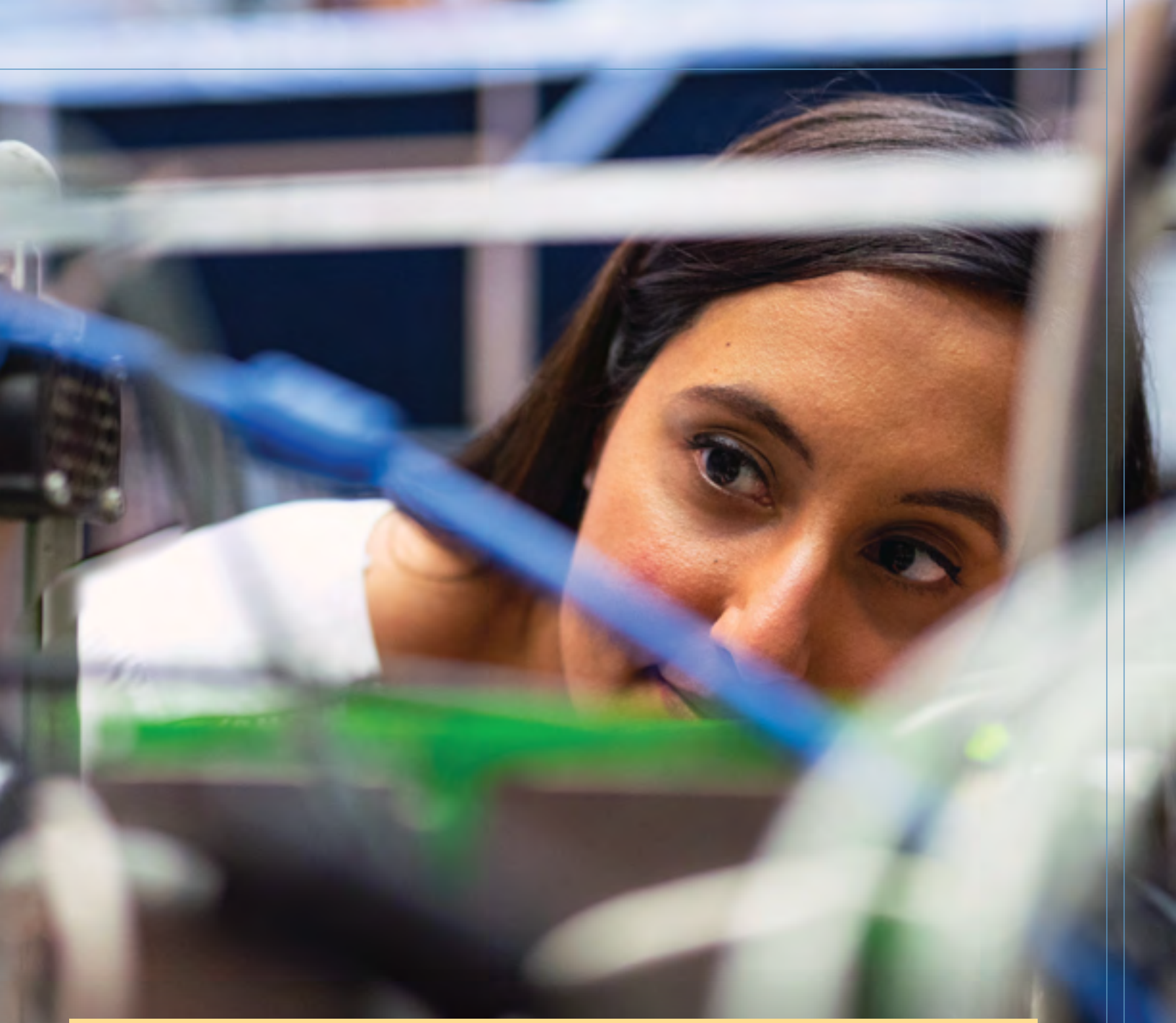
Develop ongoing signaling mechanism. As technology changes, so too will the specific knowledge, skills, and abilities that business partners consider essential. To ensure employers signal these evolving needs to higher education—at a pace that is reasonable for administrators and faculty to revise curricula—partners must decide how frequently they will update competencies for a select field and adjust educational offerings to match those needs. For example, some WPI sites plan to convene a standing committee of subject-matter experts and faculty each year to discuss evolving skill needs and any challenges with program implementation. Programs that rely on labor market data to signal demand—such as skill requirements in job postings—can encourage business partners to work with their human resources departments to develop better job families and classification systems, as well as to revise job ads to better reflect the actual skills, education, and experience needed.

Find a permanent program administrator. To maintain momentum and keep projects on track, multicompany partnerships can work to find an outside entity to handle ongoing program administration and operations. For example, the DMV site has engaged the Greater Washington Partnership to facilitate employer signaling efforts, program monitoring, and member coordination. In Utah, the recent creation and funding of workforce development coordinators within the state's existing network of career and technical colleges will probably support the efforts of the WPI Utah site in developing and expanding apprenticeships.

Replicate what works in other fields and regions. Ongoing performance monitoring—the previous step in this process—provides partners with insight into which elements of the program were successful and which elements should be avoided in future iterations. This information can expand the program into new regions of the country and new fields or career paths. For example, businesses with operations in other regions might consider developing a new multicompany partnership using lessons learned from the initial site, and, depending on the location, leaders may be able to engage key staff and partners with other branches to help with implementation. Businesses can also work with educators and subject-matter experts to identify new skill areas for potential expansion, including those outside of tech fields such as marketing, product management, or health care.

ENGAGING AN INTERMEDIARY

Sites looking to scale and replicate successful strategies can work with an intermediary that has a national perspective on other sites or industries that might be receptive to developing a similar initiative.



WPI PROFILE: **UTAH**

Boeing and Northrop Grumman partnered with the Utah Governor's Office of Economic Development to create the **Utah Training and Education Aerospace Partnership** (UTEAP), an initiative focused on resolving the widespread shortage of workers in advanced manufacturing operations, specifically within aerospace and engineering.

UTEAP builds on the state's aerospace apprenticeship program, Utah Aerospace Pathways, by adding three components: pre-apprenticeship programs, digital credentials for incumbent employees, and transfer pathways from technical and community colleges to university-level credentials for apprentices.

LESSONS LEARNED

As businesses and academic partners embark on this work, lessons learned from WPI sites can assist with facilitating all phases of creating a partnership.

Utilize existing resources to secure early wins.
Building a successful multicompany partnership takes time and effort. To expedite this work and realize early project successes, partners can rely on existing resources and partnerships as a starting point at each phase. In Phase I, for example, the lead business can review existing analyses from human resources to identify company hiring needs and complete BHEF's implementation checklist for initial project planning. In Phases II and III, partners can recruit businesses and academic institutions with which they have collaborated in the past, develop skill requirements based on existing national models or similar initiatives, and work with faculty members to adjust existing courses of study rather than piloting a new credential. In Phase IV, partners can recruit students who have already completed a course or other partial training in the sequence and focus their efforts on scaling in regions and within occupations that have existing workforce development initiatives.

Partner with a knowledgeable intermediary.
Multicompany partnerships like WPI are led by business but supported by intermediaries that help identify and recruit members, conduct analyses, and facilitate meetings and discussions. According to WPI lead businesses, a good intermediary has experience with both business and higher education, an understanding of the targeted skillset (such as advanced manufacturing or analytics), and a knowledge of the region in which the initiative is based. "These are not small problems we are trying to solve; we couldn't just bring in a professional facilitator. We needed someone who really understood both the business and higher education environment, the true systemic constraints we would encounter, and who cared about pushing us from theory to action," explained Ellen Glazerman, executive director at EY. "I've participated in these types of initiatives in the past, and sometimes we came up with fabulous solutions that were just not workable. BHEF has been able to drive us in a very constructive way to get the information we need to stay on target."

Embrace unlikely partners.
Successful multicompany initiatives have benefitted from engaging new, even unlikely, partners. First, they engage competitors: businesses with similar, urgent hiring needs that normally compete for talent along with colleges and universities that offer similar programs to a similar student body and normally compete for students. The multicompany partnerships forged around workforce development seem to transcend this tension. The work becomes focused on strengthening the talent pipeline, not on vying for resources. Second, they engage higher education institutions with which they do not have an existing partnership, such as community colleges and trade schools, to further expand and diversify the talent pipeline. To facilitate a collaborative environment, it can be helpful to have clear rules of engagement and to offer confidentiality when discussing hiring needs.

Diversity is not a single step.
Initiatives that seek to diversify the tech talent pipeline need to prioritize diversity at every stage for it to permeate the culture and have an impact. In Phase I, for example, the lead company can set specific hiring goals around diversity, explore how existing policy and practices might discourage diverse candidates or limit advancement, and propose a model that is accessible and relevant to the desired population. In Phases II and III, the lead company can communicate clear goals around diversity—memorialized in project plans and signed memorandums of understanding—and select partners based in part on their commitment to and ability to achieve those goals. In Phase IV, all partners can tailor their recruitment, monitoring, and integration efforts to ensure that the program achieves desired diversity. "Our initiative recognized early the importance of diversity in fueling innovation and driving progress," said Fatime Ly Seymour, global marketing lead-Engineering Services, Rockwell Automation. "As a result, we focused our efforts on three different populations: veterans, many of whom struggle to find work after leaving the military; females, minority students, and others with limited access to education; and members of our own workforce who need additional skills to progress in our company."

Document everything.
As lead businesses and their partners progress through the steps in this process, it is crucial that they document major findings, insights, and decisions along the way. Doing so ensures all members understand what is happening and have agreed to next steps. In particular, developing a signed agreement—whereby members confirm their commitment to the initiative and agree to decisions—helps to formalize the relationship and cement each partner's continuing support.

CLOSING

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To survive and prosper in the 21st century, companies need to be nimble and quickly adapt to signals of change with sophisticated and effective workforce strategies. COVID-19 has made this even more of an imperative. To achieve a highly skilled, inclusive workforce, leaders in the business community must work together to identify their collective talent needs, partner with the academic community in setting responsive curricula, and offer meaningful work experiences that help students succeed in their chosen career.

The Workforce Partnership Initiative provides that system. Using the steps and tools that this guidebook describes, businesses can take ownership of their talent needs and work collaboratively to develop essential skills in the current and next generation of workers. This work not only benefits the employer who attracts the talent needed to tackle tomorrow's problems, but it also helps educators tailor curricula to meet the needs of a region and improve student outcomes. Moreover, these partnerships equip local populations with meaningful skills, employment options, and overall earnings, and they encourage stable, inclusive economic growth in our communities.

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