

# Same Idea, Different Evolution: Skills-Based Practices and Competency-Based Education

*Connecting Research Perspectives*



Gauri (Gee) Rege and Kelle Parsons

## Background

Today's dynamic and rapidly changing economy is marked by ongoing labor shortages and by continuous advancements in technology and industry. An organization's growth and success hinges on a skilled workforce that is capable of navigating these advancements. Skills-based practices (also referred to as skills-first practices) to select and develop talent have emerged as a way to support the needs and goals of the workforce (Curnow et al., 2021). Although employers continue to adopt and implement skills-based practices, education providers can also play a role by providing learners and jobseekers with opportunities to develop valuable skills and competencies to be competitive and effective in the workforce. At the American Institutes for Research (AIR), our workforce and postsecondary education teams engage with employers and postsecondary education institutions to study, understand, and track their adoption and maturation of related skills-based practices—including how they navigate the evolving landscape of skills-based practices and the degree to which these approaches deliver on their potential to increase equity.

Traditional approaches for selecting and developing employees—which tend to rely more on résumés, educational credentials, and networking—hinder the ability of employers to meet the challenges of labor shortages and to be responsive to advancements in technology. For employers, the implementation of skills-based practices into the human capital life cycle has emerged as a nimble way of supporting the organizational needs and goals of the workforce, opening the talent pool to a broader range of people (e.g., those without college degrees), and improving organizational diversity (Curnow & Baker-Inzitari, 2023). Following similar principles, postsecondary education providers have been responding to the interests of learners—especially adult learners or those who do not fit the traditional definition of a student

### Differences in Language

Although both employers and education providers are moving toward an emphasis on skills rather than on traditional measures—such as time, grades, or degrees—they use different language and concepts. For example, employers use *skills-based* (or *skills-first*) *practices*, and postsecondary education providers use *competency-based education* (or *CBE*). As both fields continue to mature, employers and education providers may benefit from having common definitions for and understandings of these concepts.

matriculating directly from high school and attending full-time—by adopting competency-based education (CBE) models (Mason et al., 2021). Instead of time and grades, CBE models emphasize flexible, self-paced learning and mastery of competencies that are transparent to the learner.

This brief draws connections between the progress of and conversations among employers and education providers and the ways that foster further advancement of skills-based practices. The brief also explores (a) perspectives from employers on the challenges they face and on the benefits of skills-based practices; (b) perspectives from postsecondary education institutions on the challenges they face and on their motivations for adopting CBE models; and (c) early adoption trends and their impact on the broader education–workforce landscape.

## Employers’ Perspective: Skills-Based Practices

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**The need for workers is acute.** Findings from the Job Openings and Labor Turnover Survey from the Bureau of Labor Statistics (BLS) (2023) showed that in November 2023 there were approximately 1.4 unfilled job positions for every unemployed person in the United States. According to the 2022–2023 *Society of Human Resource Management (SHRM) State of the Workplace Report*, 80% of human resources (HR) professionals identified labor shortages as one of the top two most significant external challenges facing workplaces (SHRM, 2023). Embracing hiring and promotional practices that emphasize skills, rather than relying solely on degree requirements as a proxy for skills, could help to mitigate labor shortages by expanding the pool of qualified talent, increasing the efficiency of the hiring process, and reducing employee turnover.

- **Using skills-based practices for hiring and promotion increases the number of qualified workers.** Adopting skills-based practices acknowledges that skills can be developed and acquired through education, training, and/or experience (Curnow and Baker-Inzitari, 2023). LinkedIn Research shows that skills-based hiring can increase the number of qualified workers by up to 20 times, but the extent to which talent pools would be expanded by skills-based hiring varies significantly across jobs and industries (LinkedIn Economic Graph, 2023). **This increase in the talent pool can give employers a greater ability to fill open jobs in a way that more effectively matches candidates with jobs that require their skillsets.** For example, skills-based practices increase the talent pool for digital marketing managers in the United States by almost 22 times because many of the skills associated with this job—such as digital marketing, web analytics, and online advertising—are common across other jobs (LinkedIn Economic Graph, 2023).
- **Skills-based hiring processes can result in a faster, more efficient hiring process.** Assessing the skills of candidates enables companies to quickly filter out potential employees who are not suitable for a role; this allows hiring managers to focus on candidates who have the required skills to get the job done. Eighty-two percent of 1,500 employers saw a reduction in their total time-to-hire, with 19% reporting at least a 51% reduction in the time to hire (Test Gorilla, 2023). According

to the *SHRM Benchmarking: Talent Access Report*, the average cost of hiring an employee in 2021 was \$4,683 (SHRM 2022). Recruiting based on skills can also help to reduce the cost to hire (TestGorilla, 2023). TestGorilla’s survey findings showed that 74% of employer respondents noted a reduction in their total cost-to-hire, with 16% seeing a fall of more than 51%.

- **Using skills-based practices helps to diversify organizations and make them more equitable.** In a society with unequal access to education and opportunities for economic prosperity, employers that focus on traditional degrees as a proxy for skill attainment automatically exclude from their talent pool 80% of Hispanic workers, 70% of African American workers, 75% of rural Americans, and 70% of military veterans (Committee on Education & the Workforce, 2023). Evaluating individuals on their skills, not just their degrees, can open more opportunities to potential employees in these population groups that otherwise may not have been considered. Skills-based practices can also support an organization’s diversity, equity, and inclusion goals (Curnow, et al., 2021). Skills-based hiring practices allow employers to equitably assess diverse experiences and hire qualified candidates from historically overlooked sources and backgrounds. The TestGorilla Skills-Based Hiring Survey found that 84% of the 1,500 employers reported an increase in workplace diversity due to skills-based hiring (TestGorilla, 2023).

**At a time when turnover rates are on the rise, implementing skills-based practices can be an advantage.** BLS (2023) reported that more than [4 million Americans](#) quit their jobs each month between July and November 2022. In addition, Gartner (2022) forecasted that organizations may face turnover rates [as high as 24%](#) in the years to come. At a time when staff turnover rates are on the rise, early evidence shows that skills-based hiring can help organizations to improve retention, but the mechanisms for that are not yet well-understood (Galeano & Kiernan, 2022; Santhosh & Lewis, 2021). **Because of this, employers—including federal and state governments—are taking note and adopting skills-based practices for hiring new employees.** Executive Order 13932: Modernizing and Reforming the Assessment and Hiring of Federal Job Candidates directs agencies to use valid, competency-based assessments and to scale back reliance upon educational qualifications as a substitute for competencies in the federal hiring process (Executive Office of the President, 2020). As of June 2023, 13 state governments had taken steps to implement skills-based hiring practices (Debroy & Corcoran de Castillo, 2023).

**To best realize the benefits of skills-based practices, private-sector employers who are working to adopt skills-based selection and development practices at scale must continue to address specific needs.** Although the implementation of skills-based practices is outpacing research on this topic, lessons from the field show that one critical factor in advancing skills-based practices is being able to measure and track the skills that employees learn on the job (Curnow et al., 2021). Additionally, employers emphasize that, to bring skills-based practices to scale, efficient practices to measure and validate skills must be integrated into the existing HR–information technology infrastructure (Committee on Education & the Workforce, 2023).

## Postsecondary Education Perspectives: Competency-Based Education Models

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Education providers are also beginning to align their perspectives with skills-based practices, particularly in the growing adoption of CBE models. Mason and colleagues (2021), in their surveys of postsecondary institutions, found that at least 128 colleges and universities (both 2- and 4-year institutions) reported developing CBE programs. These institutions indicated that their interest in building CBE programs was, in part, a response to the needs of the workforce and employers (59%) and to the interests of nontraditional learners (67%).<sup>1</sup>

CBE programs can expand and diversify the pool of learners who are ready for promising careers with employers because these programs focus on *learning* and *mastery* of competencies and skills rather than on *time* and *grades*. CBE programs may attract new learners into postsecondary education because traditional time-based models can be a challenge for adult learners or low-income learners who must work and/or attend to family demands while they are enrolled. In addition to flexibility, CBE models also emphasize transparency of competencies and learning—both to learners and prospective employers—by articulating and describing the competencies and expectations of mastery (Brower et al., 2017). This transparency is important for learners because understanding learning outcomes and expectations increases the likelihood that they will achieve those goals (Gaston, 2015). That same transparency can also help employers better understand the specific competencies that these learners demonstrate. This transparency about the learner’s own mastery of competencies—typically measured against a rubric or industry-defined standards—is much clearer to employers than traditional grading approaches, which often use grades as a filter for indicating performance *relative to the other students in the class* at the end of a term. Together, these facets of CBE models can provide value to both learners and prospective employers.

## Early Adoption and Implications for the Education and Workforce Landscape

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The rise in adoption of skills-based practices has affected the broader education–workforce landscape. The disconnect between education and employability has long been a topic of debate and contention. Although practices may lag, Mason and colleagues (2021), in their 2020 national survey of colleges and universities, found that 82% of colleges believed that practices associated with CBE would continue to grow over the next 5 years. That figure indicates that colleges and universities are sensing the shift in demand, and some employers are not waiting and are **taking their own approach to**

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<sup>1</sup> We focus on CBE programs because they are the most ambitious and comprehensive approaches to aligning with competencies and in-demand skills, but postsecondary institutions use other strategies that focus on skills that do not fit a full definition of CBE.

**providing alternative options for demonstrating skills.** For example, IBM SkillsBuild from IBM offers free learning, support, and resources to foster STEM and new-collar skills from secondary education (students who are 13–18 years of age) to entry-level employment; and [learning.sap.com](https://learning.sap.com) from SAP allows individuals to develop SAP-relevant skills. These training platforms have emerged with a commitment to upskill millions of individuals—particularly those from historically excluded communities, such as minorities, veterans, and unemployed or underemployed individuals (IBM, 2021; Wessel, 2022). Other employers are also working directly with colleges, particularly community colleges, to align curricula (in *both* competency-based and traditional degree programs) with forecasted skills needed at the local level. **The goal of these efforts is to align educational curricula with localized skill requirements. Doing so provides students and educators with a blueprint of skills that will be in-demand when students graduate and offers employers with a pipeline of qualified candidates.** At the federal level, the U.S. Office of Personnel Management is engaged in a series of initiatives focused on skills-based hiring for early career talent (ECT). These initiatives include an intern experience program, a public service apprenticeship hub, an ECT marketplace, and a pilot study focusing on skills-based mobile assessments for ECTs.

**Education providers and employers who adopt skills-based practices must make specific and targeted procedural, systemic, and cultural adjustments to meet their desired goals** (Curnow & Baker-Inzitari, 2023). From an education provider perspective, colleges that adopt CBE models must first identify the skills and competencies that they believe graduates should have, including understanding the needs of employers in the field. Knowing both, then, colleges can design programs to set up learners for success in careers and for engaging in lifelong learning. As they redesign these programs, colleges will need to adjust their business processes, assessment practices, and other important systems and processes that can serve as barriers to change (Mason et al., 2021). Although such technologies as learning and employment records are emerging to make some changes possible, the associated process changes are significant and do not occur automatically—they still involve significant efforts and change management by both employers and education providers (Glover, 2023). From an employer’s perspective, a shift in how talent is being hired and managed has implications for organizational culture and processes (Curnow & Baker-Inzitari, 2023). Adopting skills-based practices as a change management effort requires adjustments to existing processes within a supportive infrastructure so the benefits of these practices can be realized. For example, an organization that adopts skills-based hiring must rewrite job descriptions; identify how to source candidates; and invest in training leadership teams, recruiters, and hiring managers on how to assess talent based on the skills needed for a particular position (Opportunity at Work, 2023).

## Going Forward

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Employers and postsecondary education providers have an opportunity to reimagine the fundamental systems and structures of practices that focus on skills and competencies rather than on time, credits,

degrees, and other signals that traditionally exacerbate inequalities. AIR will continue to engage with employers and postsecondary education providers to study, understand, and track the adoption and maturation of these practices. These fields are evolving quickly, with implementation outpacing research to understand who benefits from skills-based practices, including how and under what circumstances. AIR will continue to share lessons learned, best practices, and research-based insights on skills-based practices and to synthesize and translate takeaways for both employers and education providers.

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1400 Crystal Drive, 10th Floor  
Arlington, VA 22202-3289  
+1.202.403.5000 | [AIR.ORG](http://AIR.ORG)

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