

Can Skills-Based Practices Deliver? A Framework for Understanding and Implementation, and A Call for Research

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Organizations are increasingly seeking new ways to identify, develop, and deploy talent, which has given rise to *skills-based practices* (SBPs). Although this term is used predominantly in hiring discussions, SBPs have broader applications, as well as implications for industrial and organizational (I-O) psychology. Building on the foundational overview of SBPs, we intend to advance three interrelated aims through this focal article. First, we clarify the definition of SBPs to support a more widely applicable understanding relevant across I-O domains, such as selection, development, and retention. Second, we position SBPs within a multilevel ecosystem with interdependencies among (macrolevel) socioeconomic factors, (mesolevel) organizational processes, and (microlevel) individuals. Finally, we examine the key strengths and challenges of implementing SBPs in practice and conclude with highlighting areas where future I-O psychology research and practice could help SBPs.

Toward a Shared Definition of SBPs

The term “skills-based practices” is being used widely across research and educational settings, organizational practices, and workforce policy discussions. This movement began in the private sector well before it was adopted by the US federal and state governments in early 2020s (Debroy & Corcoran de Castillo., 2023; Economist Intelligence Unit, 2014; Executive Order 13932). In federal workforce policy, SBPs are often defined as emphasizing what applicants can do rather than where they obtained their credentials (U.S. Office of Personnel Management [OPM], 2022). At the state level, SBPs are operationalized through efforts to remove degree requirements from public sector roles to expand access to employment (National Governors Association [NGA], 2025a). In private industry, the term is used to describe a range of practices, including competency frameworks, structured skill assessments, and hiring systems grounded in demonstrated competencies (Lawler & Ledford, 1992). In higher education, “skills-based” often refers to curricula that emphasize competency-based education and applied/experiential learning over traditional didactic methods (Clark & Porter, 2021).

Labor economists have documented an increasing emphasis on skill requirements in employer demand signals, particularly through analyses of job postings and labor market data (Deming & Kahn, 2018; Hershbein & Kahn, 2018). Related research suggests that employers often rely on educational credentials as signals of worker capability, even when those credentials are imperfect proxies for job-relevant skills (Bills, 2003; Rivera, 2012). SBPs have emerged as a solution to these issues and can be understood as a contemporary effort to operationalize skills into workforce policy and organizational practice.

Despite its growing prominence, there is no universally accepted definition of SBPs. It highlights that SBPs have emerged from multiple disciplines, each emphasizing different aspects

of skills as signals of capability, mechanisms of development, or criteria for decision making.

The absence of a shared definition, thereby a lack of shared understanding, complicates efforts to evaluate SBPs, compare implementations across contexts, and build a cumulative research base.

A Working Definition of SBPs. To provide conceptual clarity, therefore, we define SBPs at a high level as *practices and policies that prioritize demonstrable skills as the primary currency for talent-related decisions, rather than credentials, tenure, or job titles*. This framing positions skills as the central unit through which individuals are deployed within workforce systems while allowing flexibility in how SBPs are implemented across contexts. Importantly, SBPs do not require abandoning jobs as an organizing structure, nor do they necessitate eliminating degrees or other credentials where they are legally or functionally required. Rather, SBPs represent a shift in emphasis, in which skills are made more explicit, measurable, and actionable within existing systems. As such, depending on organizational goals and constraints, SBPs may be applied to a single stage of talent lifecycle (e.g., hiring, training) or integrated more comprehensively across multiple stages (e.g., selection, development).

Old Wine in New Bottles, or Something Different?

For the field of I-O psychology, SBPs raise a question: are they a repackaging of long-established I-O practices, or do they represent a paradigm shift? On one hand, the principles underlying SBPs are not novel. I-O psychologists have developed and validated similar approaches for decades, which suggest that SBPs may be “old wine in new bottles.” On the other hand, the scale and systemic ambition of current SBP initiatives suggest something qualitatively different. From our perspectives as I-O psychologists, however, the answer to the aforementioned question is somewhere in between.

We think SBPs are *not entirely* new. Foundational practices such as job/practice analysis, competency modeling, and validation research have long emphasized the identification and evaluation of knowledge, skills, abilities, and other characteristics (KSAOs) required for effective job performance (Campion et al., 2011; Morgeson & Dierdorff, 2011; Sackett et al., 2022; Sanchez & Levine, 2009; Schmidt & Hunter, 1998). However, SBPs are different only in that they shift the emphasis from jobs as the primary unit of analysis (Cantrell et al., 2022) to skills as more dynamic and portable across contexts. Essentially, SBPs elevate skills to a more central and explicit role in workforce systems. This framing has important implications for how I-O psychologists conceptualize work to design human-capital systems and evaluate talent practices across increasingly fluid labor market contexts.

SBPs manifest in cross-sector reforms as they include national legislation such as the Chance to Compete Act of 2024, which mandates technical assessments across federal hiring (Public Law 118–188, 2024), as well as state and employer-led experiments with interoperable digital credentials (NGA, 2025b). The framing of skills as assets that are portable across jobs and sectors reflects a departure from *static* job descriptions toward a *dynamic and transferable* view of human capital. To further clarify SBPs and distinguish them from common misinterpretations, we propose the boundaries of SBPs, that is, what they are and are not (see Table 1).¹

Table 1.

Clarifying Skills-Based Practices Boundaries

Skills-based practices ARE	Skills-based practices ARE NOT
practices and policies that prioritize demonstrable skills in talent decisions.	simply about removing degree requirements.

¹ We would like to thank the editor and the reviewer for their suggestion to clarify SBPs in such a way that it serves the goal of unifying discourse without perpetuating construct proliferation. The idea of clarifying boundaries of SBPs as shown in Table 1 stemmed from their feedback.

Skills-based practices ARE	Skills-based practices ARE NOT
compatible with job-based systems (jobs remain relevant organizing structures).	a complete replacement of jobs with skills as the only organizing unit.
applicable across one or multiple stages of the talent lifecycle.	limited only to hiring or recruiting practices.
a framework that can enhance economic mobility, alignment, and transparency.	a guaranteed solution to workforce shortages or inequalities.

We contend that, although many of SBP tools and assumptions have roots in I-O psychology, the contemporary push for SBPs is unfolding at a scale that may create practical challenges for I-O scholars and practitioners alike. We discuss them in detail later in this focal article. The crucial question is *not* whether SBPs constitute a rebranding of existing methods or a fundamental shift in our thinking about long-held tools. Instead, it is about their potential (if any) to drive outcomes of interest to us (e.g., job and organizational performance). Our field is well positioned to study this phenomenon to inform its theory and application. In doing so, we will be able to clarify the mechanisms through which SBPs help, harm, or have no effects. In an effort to advance theory on SBPs, we introduce a multilevel ecosystem framework in this focal article.

A Multilevel Framework for Understanding Skills-Based Practices

To advance from definition to research and application, we have conceptualized a skills-based practices framework of interconnected and interacting (individual, organizational, and systemic) elements operating within a complex workforce system (Liljenström & Svedin, 2005). The framework provides an organizing structure for better understanding of SBPs, as well as specify where SBPs operate, who the key actors are, and how actions at one level shape outcomes at another. We also discuss level-specific opportunities and challenges (see Table 2).

Table 2.

Multilevel Framework and Synthesis of Skills-Based Practices

	Actors	Mechanisms	Opportunities	Risks
Macro (System)	• Policymakers • Employers • Educational Institutions • Workforce Development agencies	• Degree requirement reform • Education-to-workforce alignment	• Workforce equity • Talent mobility	• Degree inflation
Meso (Organization)	• Organizational Practices • Human Resources (HR) Systems	• Skills-based job design • Validated assessments • Skills-based hiring & promotion • Training & reskilling systems	• Expanded candidate pool • Better job-skill match	• Implementation challenges
Micro (Individual)	• Students • Jobseekers • Employees	• Skill identification & signaling • Micro-credentials and Learning & Employment Records	• Employability and career mobility • Wage premiums	• Lack of understanding and/or consensus on what skills are

Systemic Opportunities and Challenges (Macro)

SBPs can serve as a macrolevel strategy for creating a more efficient education-to-workforce pipeline when *educational institutions, employers, and policymakers* coordinate to align learning pathways with workforce demand. Policymakers have systematically eliminated degree requirements from many government jobs, influencing both labor market access and employer behavior (NGA, 2025a). Employers signal the competencies they need; educational institutions and workforce development organizations respond by adjusting what they teach and how they prepare learners; and public agencies help fund, coordinate, and institutionalize those efforts. Moreover, SBPs provide conceptual foundation to broader national efforts, such as America's Talent Strategy (US Department of Labor et al., 2025), which emphasizes a shift toward talent marketplace ecosystems supported by learning and employment records (LERs). Think of skills as the shared currency of talent systems, and LERs as the infrastructure to make them portable and verifiable across institutions. And SBPs are especially appealing in moments of demographic turnover, labor shortages, and rapid economic change because they promise faster pathways into work (Dohm, 2000; Fry, 2020), where traditional higher education often cannot supply talent at the pace necessary.

SBPs are driving a fundamental rethinking of workforce development programs like the Workforce Innovation and Opportunity Act (WIOA), pushing for job seeker access to employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers needed to compete in the global economy. Such public sector policies fueled by the SBP movement are much needed for moving away from restrictive and burdensome occupational entry requirements. By reducing reliance on college degrees as a primary hiring filter, SBPs can expand candidate pools and support diversity, especially for

workers historically excluded by degree requirements (NGA, 2025a; Opportunity@Work, 2025), for example, the individuals who are “skilled through alternative routes” (STARs; Heck et al., 2024; Opportunity@Work, 2025) such as those with apprenticeships, military training, or work-based learning. However, as more sectors and workers are pushed toward continuous upskilling, the threshold for what counts as sufficient skill may keep rising, potentially adversely affecting those with fewer resources. At the same time, in the absence of a reliable and universally accepted system for signaling and validating skills, reverting to using the most visible and least risky tools like educational qualifications is highly likely (Sigelman et al., 2024). Therefore, a possible macrolevel danger is “degree inflation” (Crouch, 1997; Fuller & Raman, 2017, p. 2), and consequently a system entrenched in rigid credential-based practices. This is the very problem that SBPs are intending to solve.

Organizational Opportunities and Challenges (Meso)

The mesolevel of SBPs represents the organizational domain of the SBP ecosystem, where *organizations* integrate SBPs across the human capital lifecycle, including recruitment, selection, performance management, training, and reengineering human resource systems around skills rather than job titles. This includes embedding skills into job descriptions and assessments used for selection, aligning performance management with identified skill needs, and developing training or reskilling initiatives tailored to projected future competencies.

The expansion of the candidate pool due to removal of unnecessary degree requirements helps organizations respond more flexibly to workforce shortages. Skills-based hiring may also improve job matching by aligning candidate competencies more directly with organizational needs (Clark & Porter, 2021). However, expanding the pool without improving evaluation methods can overwhelm human resource (HR) systems with underqualified applicants. Without

rigorous assessment tools, organizations may also reinforce inequities, particularly when self-assessments or unstructured interviews are used as proxies for skill measurement (Madison & Menchaca, 2025). Mitigating this risk requires substituting validated skill assessments such as structured interviews, work samples, and job-knowledge tests for the informal proxies that expand a pool without improving the quality of inference drawn from them. In addition, SBPs cannot fully replace degrees in occupations where licensure or statutory credentialing remains essential. The implementation challenge, then, is determining which occupations should retain degree requirements versus shift to validated skill-based alternatives. Resolving this challenge requires a defensible basis for triage rather than blanket adoption. Relevant considerations include whether a credential is legally mandated by licensure or statute, the safety or consequence criticality of selection errors in the role, the availability of a validated measure of the focal skills, and the extent to which the existing credential is itself job related rather than a convenient proxy. Additionally, occupations that are heavily regulated or high-stakes, or that lack validated skill measures, are poor candidates for wholesale degree removal, whereas roles with well-specified, measurable competencies and low regulatory constraint are better suited to skill-based alternatives.

When thoughtfully executed, SBPs can support upskilling, internal mobility, reduced turnover, and more efficient hiring, but they require a balance of validation, scalability, affordability, and timeliness (Sigelman et al., 2024). Effective implementation requires systemic work of rewriting job descriptions, aligning competency frameworks, using skill inventories and competency maps, reengineering assessments, training hiring managers, adapting HR systems and changing the overall organizational culture. Poorly implemented SBPs could harm more than benefit, especially when degree requirements are removed without validated alternatives. Hiring

managers who are under pressure to fill roles quickly may revert to the heuristic they know and trust: the college degree—a proxy for general intelligence and other desirable traits, like conscientiousness (Jach et al., 2023).

Opportunities and Challenges for Individuals (Micro)

SBPs enable individuals—whether *jobseekers*, *employees*, or *learners*—to identify, develop, validate, and communicate their skills. Mechanisms such as digital learning records, skills wallets, microcredentials, structured assessments, supervisor endorsements, or work artifacts can signal skill attainment outside of traditional degree structures (Education Design Lab, 2024). This shift is particularly important given that nearly half of the American workforce do not have a 4-year degree (Fry et al., 2024; Scott & Cooper, 2016) and face a significant barrier to job entry due to a lack of formal credentials.

When individuals can understand which skills are valued and translate their experiences accordingly, SBPs can increase access to opportunities such as jobs, higher wages, career transitions. However, they place greater responsibility on individuals to learn the language of skills (i.e., communicate their skills in ways that employers recognize). It could get overly challenging for individuals, especially in the midst of competing and disjointed skill frameworks that are subject to the jangle fallacy, where different terms are used for overlapping concepts. Such ambiguity creates risk because individuals must invest their limited resources in skills without a clear signal about what is and/or will be valued. Further, although SBPs may increase career mobility and wage premiums, these benefits depend on whether the skills are transferable and scarce enough to command market value. In AI, for example, specific skills have been associated with wage premiums exceeding those associated with a master's degree (Bone et al., 2025). Likewise, nondegreed workers hired into roles that previously required degrees,

experience an average salary increase of 25% and stay in those jobs longer than their degreed counterparts (Sigelman et al., 2024). Explicit skills-based pathways and internal gig marketplaces can also support cross-functional movement and development (Ripla, 2025). However, these benefits are not guaranteed, and a dedicated empirical research effort is needed as much of the existing literature is not peer reviewed.

Organizations often invest in firm-specific training that may have limited value elsewhere, creating dependency and reduced mobility. As overall skill levels rise, individuals may face continuous pressure to keep up (Crouch, 1997), with those with greater resources being better positioned to upskill. This dynamic can contribute to disillusionment and widen inequality—a phenomenon known as Matthew Effect (Acar, 2011) in which economic advantage becomes professional advantage.

Multilevel Synthesis of SBPs

Our multilevel framework and synthesis reveal that SBPs are rich with potential opportunities but also fraught with challenges and risks. We believe that optimal implementation of SBPs will require deliberate actions from policymakers at the macrolevel, organizational leaders at the mesolevel, and from individuals at the microlevel. Systemically, key players in the skills industry are educational institutions, vocational training agencies, and employers. Although there is growing effort in connecting education to workforce (US Department of Education, 2025; US Department of Labor et al., 2025), to our knowledge, no one has successfully integrated all entities into a functioning, end-to-end system for a specific occupation or a regional economy.

A systemic approach to SBP may be able to bridge the gap between the *skills supplied* by educational and vocational training institutions and the *skill demands* of employers. We see a

scope for I-O psychology here (e.g., I-O working with *labor economists* on measuring skill-demand signals in job-posting data, with *learning scientists/education researchers* on competency-based assessment design, and with *credentialing and licensure bodies* on validated skill signals). Moving forward requires building the necessary research base to ensure SBPs are appropriately designed, implemented, and evaluated so that they shape how individuals are enabled to demonstrate employability, how organizations can structure their talent systems around skills, and how economies can build talent pipelines.

Role of I-O Psychology in Skills-Based Practices

For the I-O community, the shift toward SBPs has important implications because it challenges the field's traditional reliance on jobs as the primary unit of analysis and calls for renewed attention to skills as dynamic, measurable, and portable units of human capital. Historically, I-O psychology has been at the forefront of developing rigorous methods for identifying and assessing the KSAOs required for effective job performance. Foundational practices such as job or practice analysis and competency modeling have typically been anchored to relatively stable job structures, where skills are defined in relation to specific roles. However, SBPs position skills, instead of jobs, as the organizing principle of talent systems. This shift raises a question about whether existing I-O frameworks are still applicable.

From a practice perspective, SBPs create both opportunity and risk. On one hand, they offer a pathway to improve the alignment between worker capabilities and job requirements. On the other hand, poorly implemented SBPs, such as removing degree requirements without introducing valid and reliable alternative measures, risk undermining the very principles of job relatedness and fairness that I-O psychology has worked to establish. Additionally, SBPs can modernize workforce systems and improve access, but their success depends on whether skills can be defined, recognized, and validated in ways that are both credible and inclusive. This

tension underscores the critical role of I-O psychology in ensuring that SBPs are implemented with methodological rigor and grounded in evidence-based practices.

At the same time, relying too heavily on pedigree can eliminate individuals from consideration who may lack formal credentials but possess verified, job-relevant skills. For organizations seeking agility and innovation, especially those operating in the technology and AI industry, emphasis on demonstrable skills feels both progressive and practical. However, completely decoupling from educational credentials and qualifications carries its own risks. Education credentials serve as signaling mechanisms that reflect a candidate's long-term commitment, exposure to structured learning, and familiarity with professional standards, and they are especially relevant in some industries like healthcare, engineering, finance, and law.

In the context of personnel selection, while SBPs have clear strengths, it risks oversimplifying the complex nature of some occupations. The best path forward, therefore, lies in blending both SBP and traditional methods into a hybrid approach that values both skills and credentials as complementary indicators of readiness and potential. I-O psychologists have the necessary training and expertise to conceptualize such hybrid approaches based on operational realities of each context. For instance, a technology firm might replace a degree screen with a structured, job-relevant work sample, such as a standardized coding assessment or a scored review of an open-source portfolio validated against on-the-job performance, while still using educational credentials as one input among several rather than a gatekeeping filter. A government agency, by contrast, may need to combine such skill-based assessments with civil-service rules and union agreements, yielding a hybrid model in which validated skill measures supplement, but do not override, established qualification requirements.

As organizations are leveraging more sophisticated HR technologies and becoming increasingly data driven, I-O psychologists have been playing an important role in the context of talent management. They have the expertise to support organizations in designing and implementing infrastructure needed for skills-based initiatives, for instance job architecture frameworks that connect every aspect of human capital operations (e.g., workforce planning, performance management; Lightcast, 2025) and change management as organizations move from traditional to skills-based approaches to human capital management.

SBPs also introduce new considerations for public policy and workforce systems, areas in which I-O psychology has historically had a more limited but growing presence. As governments and organizations adopt skills-based approaches, there is a pressing need for scientifically grounded guidance. For example, I-O psychologists should partner with *policymakers* to design and implement SBP policies that yield valid and reliable selection procedures, with *public workforce agencies* to build skill assessments and job-matching tools that connect jobseekers (including STARs) to roles to ensure matching is not driven by invalid self-report or résumé proxies, and with *state agencies* that are dropping degree requirements to develop skill taxonomies and rigorous selection frameworks.

Unfortunately, SBP adoption has outpaced peer-reviewed scholarship. Therefore, much of the published evidence discussed in this focal article is drawn from policy reports and observational analyses. Causal conclusions about SBP impacts remain premature. This is precisely why we see a timely opportunity (and responsibility) for I-O psychologists to contribute to SBP theory and evidence. We believe that I-O psychologists are uniquely positioned to fill this SBP research-practice gap due to their training in psychometric measurement and validation techniques.

Broadly speaking, labor market conditions, such as talent shortages in high-growth sectors or regulatory requirements in licensed professions, further shape how SBPs should be adopted. Thus, we recommend a tailored skills-based approach, such that SBPs fit the specific needs and constraints of different workforce segments, rather than imposed as a universal solution. Finally, we conclude that SBPs present a dual challenge to I-O psychology: to reexamine foundational I-O practices and to engage with SBPs as a gatekeeper. Concretely, I-O psychologists can set minimum standards for what counts as high-quality SBPs and refuse to legitimize implementations that do not meet these standards.

SBPs open a broad and important research agenda for the field, resulting in several key questions. First, we need to know whether skills-based approaches improve prediction of job performance relative to traditional credential-based methods, which can help guide practitioners in determining when and how to replace degree requirements. Second, we need to know how skills can be reliably measured and compared across settings. This is a prerequisite for portable interoperable credentials and starts with the development of common skill taxonomies that have enough detail to be meaningful. Finally, we need to know whether SBPs ultimately enhance or constrain workforce equity and mobility. SBPs also compel us to engage with broader social and policy question of whether a focus on skills actually reduces inequities perpetuated by degree-based hiring. Addressing these questions will require extending existing I-O theories and methods to account for more dynamic conceptions of work and human capital. And whether SBPs improve or undermine workforce systems will depend, in large part, on the extent to which (or whether) I-O psychology actively engages in shaping SBPs development and implementation, and remains an open empirical question that presents a golden opportunity for future research.

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