EDUCATIONAL CREDENTIALS COME OF AGE

A Survey on the Use and Value of Educational Credentials in Hiring

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Educational Credentials Come of Age – Background and Overview

As key hiring qualifications, the educational credentials issued by colleges and universities play a central role in the job market.[1] This valuable role is taking on added importance in a historically tight job market that is near full employment, and in a time when talent strategy has emerged as a top corporate priority.[2] Against this backdrop, globally recognized HR expert Josh Bersin of Deloitte has argued that hiring practices are evolving at the fastest pace in decades – shaped by competitive forces, new technology platforms, and the application of data analytics.[3]

Postsecondary education is in a period of transformation as well. The last decade has seen significant innovation and experimentation – including the continued growth of online learning, the development and launch of numerous new forms of "microcredentials," and the rise of new non-institutional educational providers.[4] With college costs rising, many different parties have called into question the value of traditional academic degrees – and this is amplified by falling public confidence in higher education.[5] Over the last few years, scores of new initiatives, start-ups, and government policies have explored the development of alternatives to traditional college degree attainment, including microcredentialing.[6]

Unfortunately, understanding the value of educational credentials in hiring has historically been an understudied area.[7] Even more specifically, there is little contemporary data to rely on when it comes to analyzing how employers are interpreting new forms of educational credentials; hiring leaders' perceptions of online learning; and documenting shifts in hiring policies and practices during this fast-changing time. Real-time labor market information, salary and earnings data, and anecdotes from Fortune 500 employers are all needed and useful measures of the "value" of educational credentials in hiring – but truly understanding how this market is evolving revolves around strategic questions about employers' perceptions, policies, and practices.

Center Mission

By studying trends and pioneering and testing next-generation learning models, Northeastern's *Center for the Future of Higher Education & Talent Strategy* seeks to improve and optimize the interaction between the postsecondary education system and employers – thus improving outcomes for students, institutions, and the economy and society at large.

Drawing on the expertise of Northeastern faculty and affiliated industry-based scholars, the center's analysis focuses on bringing the voice and perspective of employers into the higher education community, while also serving as a research-based academic voice and resource in the world of corporate learning and talent strategy.

For this reason, Northeastern University's *Center for the Future of Higher Education and Talent Strategy* designed and executed a unique national research survey of 750 human resources (HR) leaders at U.S. employers, spanning all industry sectors and organizational sizes. This project is one of the center's inaugural studies related to understanding the future of educational credentials and their value and use in the workplace – a core research theme. A profile of the survey sample and methodology is included at the end of this report.

The top-line findings discussed in the analysis that follows provide insights on critical questions such as how the value of various educational credentials is evolving; how rapidly skills-based hiring approaches are being pursued; how online degrees and microcredentials are perceived; what hiring leaders view as the key signals of quality; and what the viability of various new credential constructs and degree alternatives is. These perspectives from the employer community can influence the strategies of postsecondary institutions, policymakers, educational technology companies, employers themselves, and other stakeholders in the ecosystem.

Among the study's key findings

- The relative value of educational credentials in hiring has held steady (29%) or increased (48%) for most employers over the last five years

- Nearly half of employers (44%) report that they have increased the level of education preferred or required for the same job roles over the last five years – often due to increased skills demands for these jobs, as well as increased supply in the market

- A majority of HR leaders (64%) believe that in the future, the need for continuous lifelong learning will demand higher levels of education and more credentials – and 52% believe that in the future, most advanced degrees will be completed online

- Skills-based or competency-based hiring appears to be gaining significant interest and momentum, with a majority of HR leaders reporting either having a formal effort to de-emphasize degrees and prioritize skills underway (23%) or actively exploring and considering this direction (39%)

- Online credentials are now mainstream, with a solid majority (61%) of HR leaders believing that credentials earned online are of generally equal quality to those completed in-person, up from lower percentages in years past

- Employer awareness and experience with candidates who hold non-degree "microcredentials" is still relatively low – but this is evolving rapidly in a growing market shaped by MOOCs and new credential offerings. Microcredentials are typically serving as supplements rather than substitutes for traditional degrees

- Work-integrated learning and curriculum that is industry-aligned and employer-validated are highly prioritized by employers as indicators of credential quality

- In the years ahead, pre-hire assessment, talent analytics, microcredentialing, and other innovations in hiring and credentialing are poised to challenge – in various ways and at different paces – the historical emphasis on college degrees in hiring

The Relative Value of Educational Credentials in Hiring Has Held Steady or Increased for Most Employers Over The Last 5 Years

As evidence and signals of knowledge, skills, and ability, educational credentials such as degrees have long served as central hiring qualifications, alongside work experience.[8] However, in recent years, many parties have posited that the value of educational credentials might be declining given a highly competitive market for professional talent, the rise of alternatives to traditional college study, and an increase in the supply of college graduates.

As indicated in Figure 1 below, a majority of surveyed HR leaders reports that relative to other job qualifications, the value of educational credentials in hiring has either increased (48%) or stayed the same (29%) compared to five years ago.

Figure 1. Change in Value of Educational Credentials in Hiring vs. 5 Years Ago

> "Compared to 5 years ago, has there been any change in how your organization values educational credentials alongside other job qualifications?"

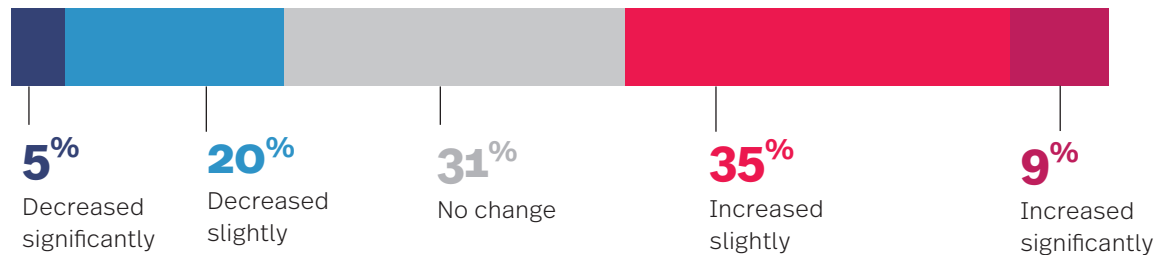**23%** decline

29% stayed the same
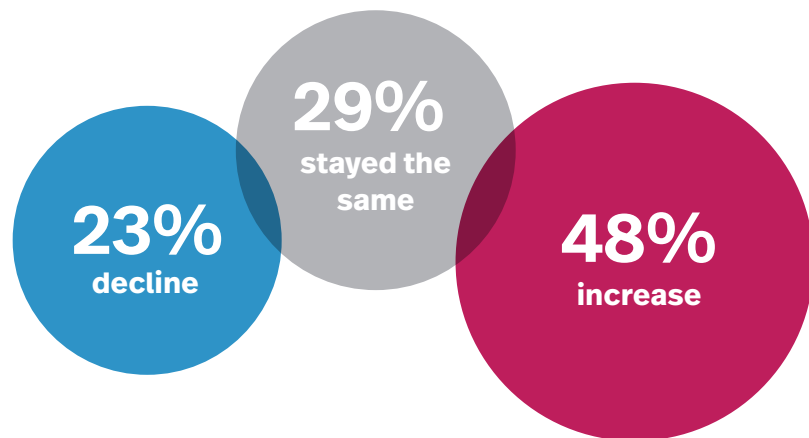
48% increase

The fact that the balance of employers reports an increase or no change in the value of educational credentials appears consistent with hiring demand and salary data – despite the common narrative that educational credentials matter less in today's market.[9]

At the same time, however, it's important to remember that educational credentials are often a proxy for ability in a complicated and often subjective equation that balances education and experience. Consistent with historical research, 60% of employers agree that "years of experience are generally valued more than educational qualifications" – and 74% confirmed that years of experience can often substitute for a lack of preferred or required credential. Hiring decisions are principally about competency, and the relationship between educational qualifications and experience requirements is often fluid.

A majority of respondents (54%) agrees that degrees are "fairly reliable representations of a candidates' skills and knowledge," and an even stronger majority (76%) agrees that degree completion is a "valuable signal of perseverance and self direction."

In the ongoing and important debate about credential inflation, it is also worth noting that survey respondents reported that the level of education preferred or required *for the same job roles* at their organization has typically either increased (44%) or stayed the same (31%) over the last 5 years.

Figure 2. Change in Educational Qualifications Required or Preferred for the Same Job Roles

5%	20%	31%	35%	9%
Decreased significantly	Decreased slightly	No change	Increased slightly	Increased significantly

64%

of employers believe "the need for continuous lifelong learning will demand higher levels of education and more credentials"

Significantly, among the employers who reported that educational qualifications had increased, a majority (63%) indicated that this was because the skills needed for these jobs had evolved. A similar share of all respondents believes that the need for continuous lifelong learning will demand higher levels of education and more credentials in the future.

At the same time, half (51%) of employers who had increased their preferred educational qualifications also reported that qualifications had increased because they can demand higher levels of education based on the supply of graduates in the market. This suggests that the escalation of preferred educational qualifications for the same jobs – often debated in education and economics circles – is likely driven by a *combination* of both skills-biased technological change and credential inflation.
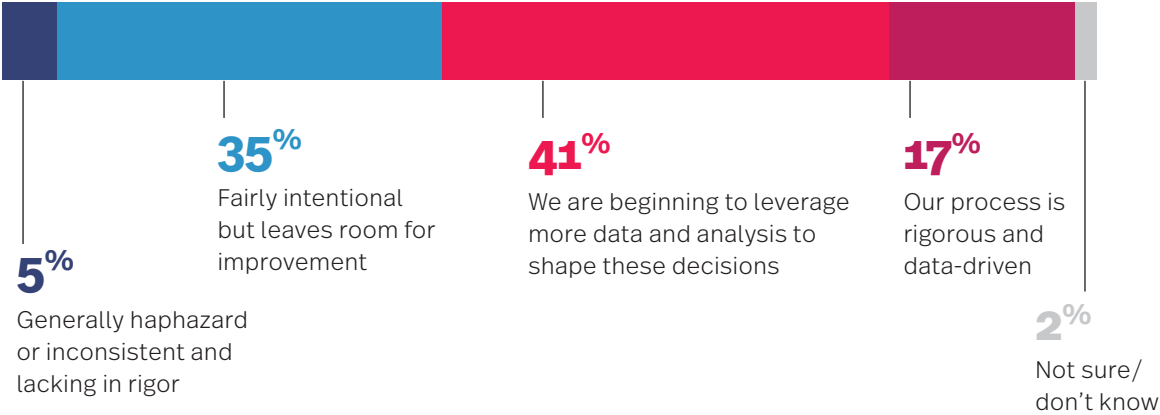
It is clear that educational credentials – typically degrees – retain a central and even growing role in the hiring equation. Yet, as more employers evolve their hiring practices through the application of technology and skills-based hiring practices, the emphasis on degrees is likely to be challenged.

The Rise of Talent Analytics and Skills-Based Hiring

Previous research has suggested that employers' policies and processes for setting the educational requirements for job roles is often not optimized.[10] Some firms' policies and approaches are carefully calibrated and data-driven – while others' are inconsistent or based on gut instinct.

When asked about their organization's approach to determining/setting the educational qualifications preferred or required for job openings, a strong majority of employers report that their process is fairly intentional but has room for improvement (35%) or that they are beginning to leverage more data and analysis to shape these decisions (41%). Only 17% of respondents characterize their process as "rigorous and data-driven."

Figure 3. How HR Leaders Characterize Their Approach to Determining/Setting Educational Qualifications

35%
Fairly intentional but leaves room for improvement

41%
We are beginning to leverage more data and analysis to shape these decisions

17%
Our process is rigorous and data-driven

5%
Generally haphazard or inconsistent and lacking in rigor

2%
Not sure/don't know

Although this characterization concerns only the setting of educational qualifications, it is worth noting that only about 30% of HR departments in 2018 have a person or team dedicated to some type of analytics (up from 10% a few years ago), according to research from Bersin by Deloitte.[11] As data and analytics are applied to HR generally – and the setting of educational qualifications in hiring specifically – many organizations are likely to adapt their preferences and demand for educational credentials.[12] One area in which the application of technology and the desire to bring rigor to setting job qualifications is manifesting itself is the rise of "skills-based" or "competency-based" hiring.
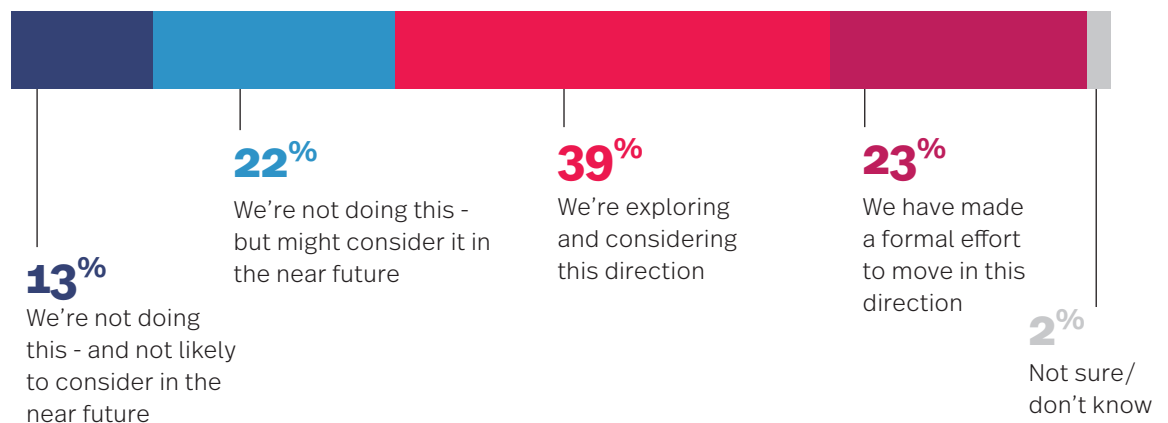
Momentum for Skills-Based Hiring

In a historically tight job market, many employers have begun to re-evaluate their hiring and recruitment processes and embrace skills-based hiring strategies that de-emphasize degrees and pedigree.[13] Often enabled by technology, this still early but growing practice is also being advocated and pursued for equity and inclusion reasons – and may indeed transform employers' historical reliance on degrees and educational credentials in hiring.

A growing group of employers, non-profits, foundations, and technology firms are championing skills-based hiring and providing the tools to support it – with key examples including IBM's "New Collar Jobs" effort, Skillful, Opportunity@Work, Lumina Foundation, and the U.S. Chamber of Commerce's Talent Pipeline Management Initiative, among many others.[14]

To gauge the momentum and interest in this emerging approach, a survey question found that 23% of organizations say they have already made a formal effort to move in this direction – while another 39% report that they are exploring or considering it.

Figure 4. Extent to Which Organizations Have Formal Skills-Based Hiring Initiatives Underway or Are Considering a Strategy That De-Emphasizes Degrees and Prioritizes Skills

13%
We're not doing this - and not likely to consider in the near future

22%
We're not doing this - but might consider it in the near future

39%
We're exploring and considering this direction

23%
We have made a formal effort to move in this direction
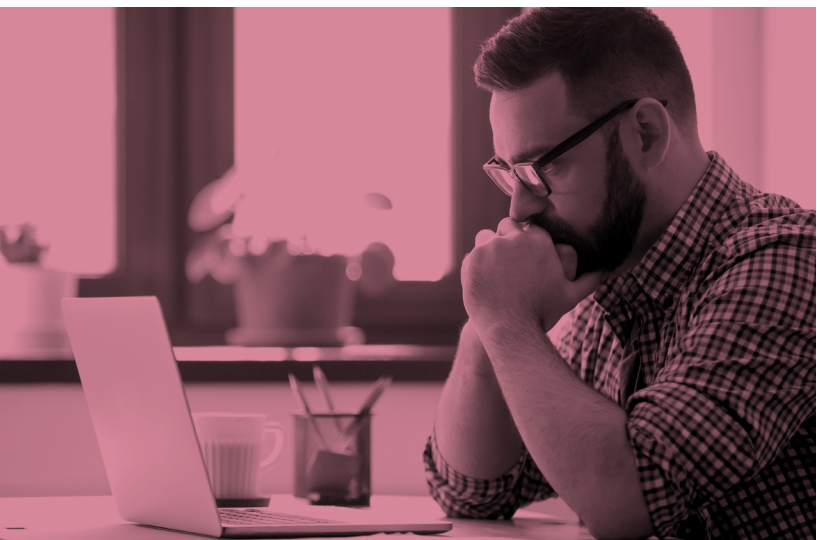
2%
Not sure/ don't know

This is a potentially significant development for the higher education and talent ecosystem as it suggests a future landscape where the traditional role of degrees in hiring will be reshaped by analytics and more rigorous job design and hiring practices. Moving in this direction will of course rely on and create the opportunity to develop new tools, as well as require further study.

Online Credentials Now Mainstream – Entering a Transformative Phase in Online Education's Lifecycle

The online delivery of degrees is one of the most significant innovations in higher education over the last 20 years. Online education now accounts for 16% of all higher education enrollment in the U.S., at 3.1 million students.[15] As online degree attainment has become more common, employer perception has been continuously evolving. In the early days, online degrees were often stigmatized by employers and associated with "online schools" in a market dominated by for-profit universities.[16] Today's online education landscape includes thousands of degree and certificate offerings from colleges of all types – including many of the world's most well-known and prestigious institutions.

Historically, there has been relatively little data available on employers' perception of online credentials. However, based on a variety of academic research projects and spot surveys over the years, it is clear that employer acceptance of credentials earned online has been slowly and steadily increasing. For example, a poll of HR professionals by the Society for Human Resource Management (SHRM) in 2010 found that just 34% of hiring leaders viewed online degrees favorably at that time.[17] Northeastern University's national surveying of hiring leaders found that favorability toward online degrees had grown to 40% in 2013, and 48% by 2014.[18] Given online education's continued growth in recent years – and the evolution of the offerings and institutions engaged – it is especially useful to have a contemporary sense of employer perception about the "quality" of online education.

As of 2018, a solid majority of HR leaders – 61% – believes that credentials earned online are of generally equal quality to those completed in-person, as described in the figure below

Figure 5. Perception of Quality for Credentials Earned Online

6%

55%

39%

- 🟦 Credentials earned online are generally lower quality than those completed in-person

- 🟥 No difference - credentials earned online are generally equivalent to those completed in-person

- 🟪 Credentials earned online are generally higher quality than those completed in-person
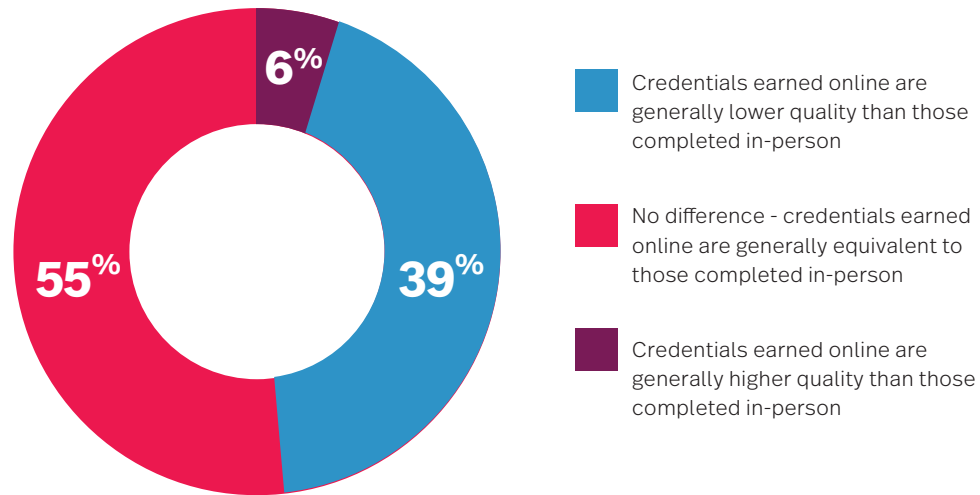
71%

of HR leaders have personally hired someone with a degree or credential completed online

The increase in the perceived quality of online credentials is driven by a variety of factors – including the fact that each year, millions more Americans are completing credentials online, and as a result, this once novel mode of educational attainment is something HR leaders have encountered or experienced more often. 71% report that they have personally hired someone who holds a degree or credential completed online. Yet, it is also notable that for well over one-third of employers (39%), the notion that online credentials are second-class still remains. Note that the use of the term "credential" in this question (rather than degree) was deliberate, to be purposefully inclusive of non-degree credentials.

Given the dynamic nature of online education, it is important to further explore the drivers behind HR leaders' evolving perceptions of quality. The selected, illustrative responses in the figure below – surfaced via an open-ended question – add color and nuance to our understanding about HR leaders' comparisons between online and "traditional" credentials. Common themes, for example, include HR leaders' own personal experience with online learning; the signaling value of traditional degrees and campus-based educational experiences; as well as the increasing inability to distinguish whether or not a credential was earned online.
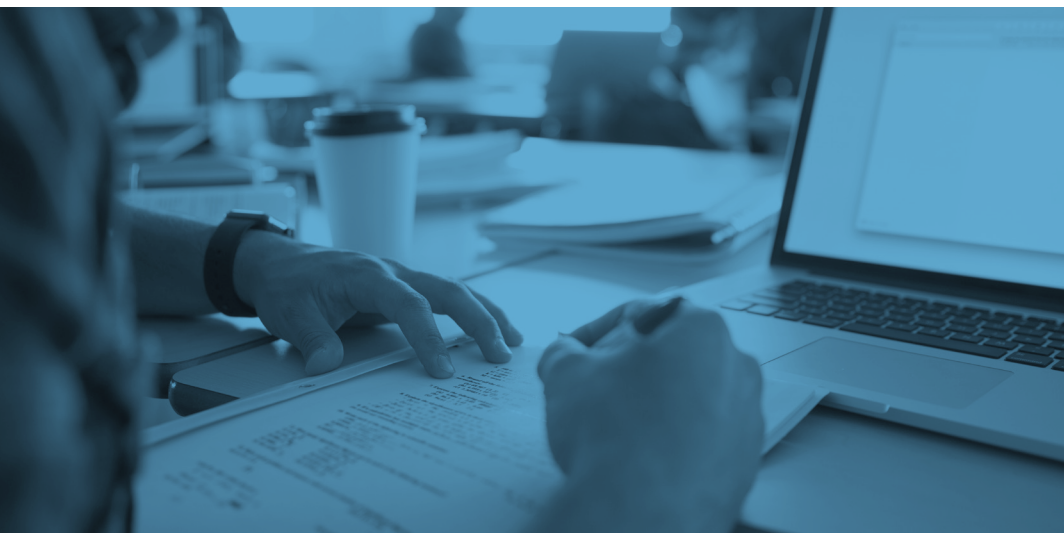
Figure 6. Qualitative Explanations of Perceptions about Online Credentials

❝ PROS

I have done both and can honestly say the online degree was actually more demanding than the in classroom was. It takes a self-motivated and determined individual to earn an online degree.

Of the hires we have made there has been no distinguishable difference between the two.

I earned my M.S. entirely online so I know it's a credible way of doing so.

Online education often requires a greater level of persistence on the part of a candidate than attendance for a face-to-face class. Online is now how a large part of our work is done. Why should education be different?

Online courses, if taken through a reputable university, are just as valid as a degree earned on campus. Often you don't even know if it's an online degree if it's not earned through a for-profit school.

I suppose I'm old fashioned in this, but I believe that the physical presence of a school and professors hold the student/learner to a higher standard.

Online classes do not allow for the in-person collaboration and project work with fellow classmates. There is a deeper grasp of concept and learning when it is done face-to-face.

While I think there is much in favor of online degrees, it is not black or white. Some are far superior in earning an online degree, but it is still a newer way of getting an education. This is something that has to truly be researched.

There have been several nontraditional schools that have provided courses and degrees without being accredited. It seems like there are online schools that will give anyone a degree if they pay enough.

CONS ❞

These types of perceptions and value judgments were further explored in other questions, finding:

58%

believe that an institution's brand/reputation is a main driver of a credentials' value, regardless of whether a credential was earned online

57% say their organizations would favor "hybrid" or blended programs that include an in-person component, over online-only programs

45% are skeptical about the amount it work it takes to complete a credential online

33% believe that enabled by technology, online education will ultimately be *better* than traditional face-to-face instruction

14% report that they would "never" hire someone with an online degree
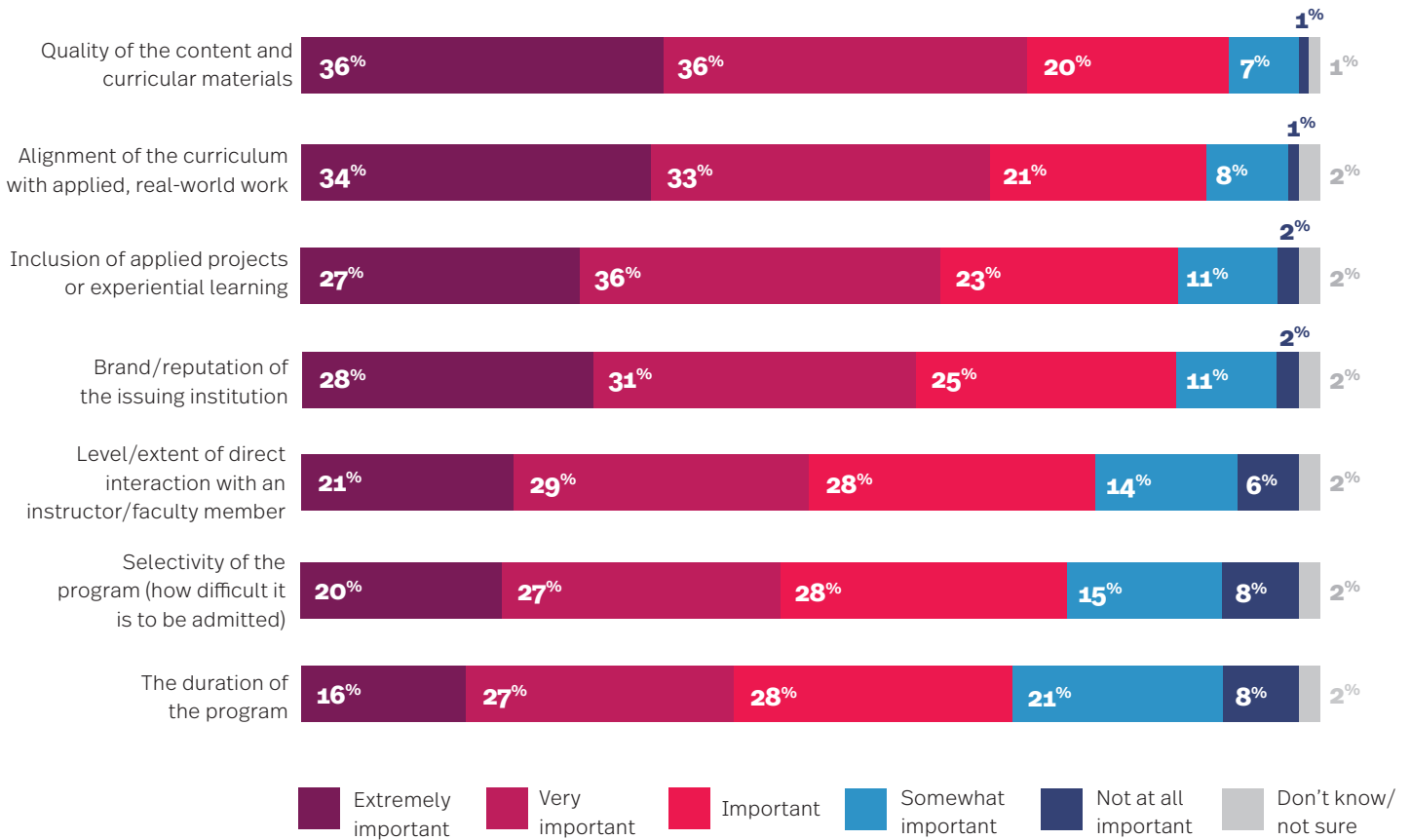
52% believe that in the future most advanced degrees will be completed online

The Evolution of Online Education and the Unbundling of Traditional Models

The very idea of what "online education" entails has been evolving rapidly since the arrival of massively open online courses (MOOCs), and even more so recently with the launch and growth of MOOC-based degree offerings.[19] MOOCs brought some of the world's most prestigious institutions into the online education market – but simultaneously have introduced questions about the level of rigor, assessment, and instructor interaction associated with an online credential. Some of higher education's core constructs – such as 1:1 engagement with faculty, and the delineation between academic credit and non-credit learning – are now being experimented with and refashioned in new models. Given these new ways of constructing and delivering online programs, it is therefore useful explore how important various factors are to employers in shaping the perceived quality and value of online credentials.

Figure 7. Importance of Various Factors in Determining Quality and Value of Online Credentials as Hiring Signals

How important are the following factors when you are determining the quality or value of an online credential as a hiring signal?
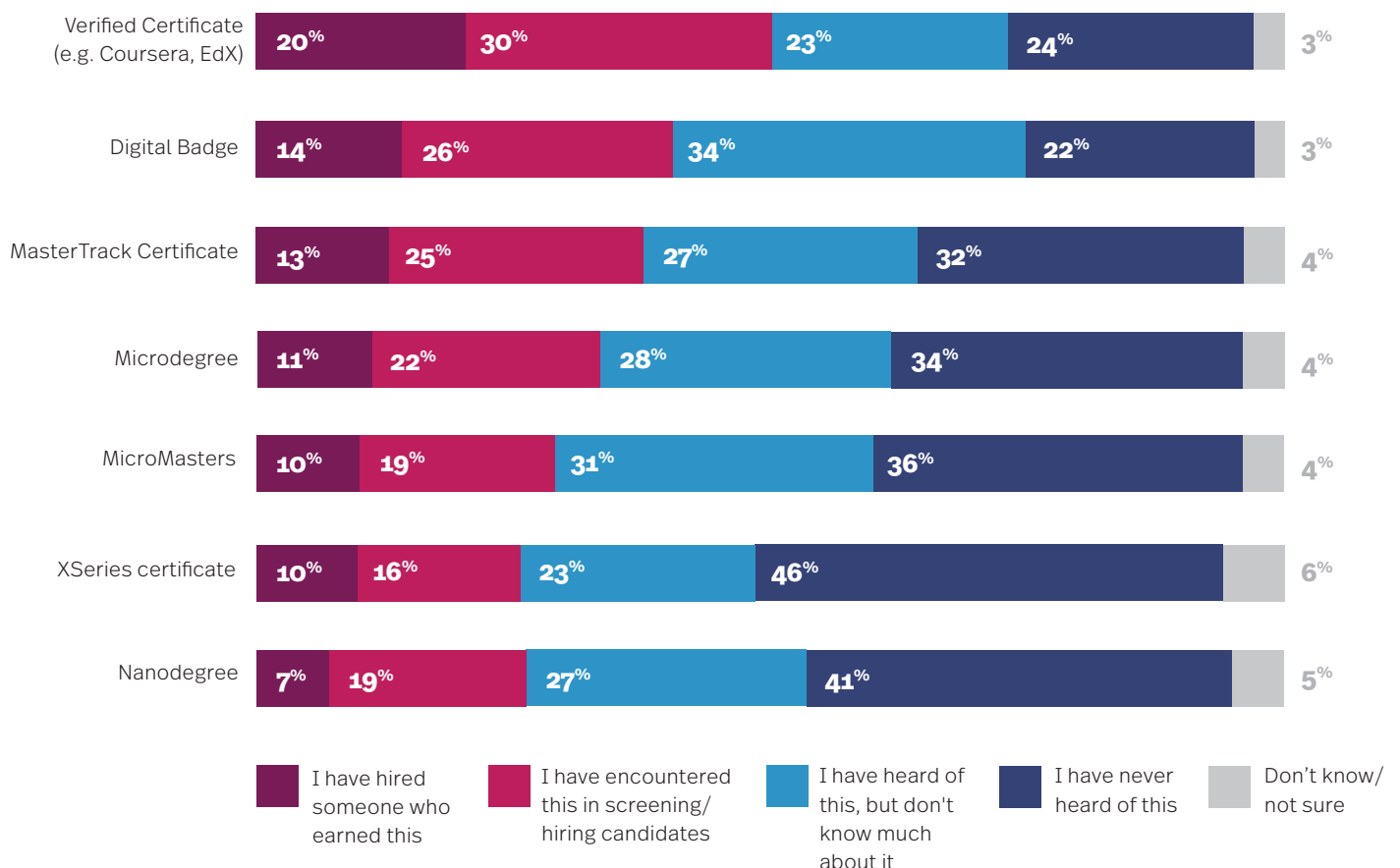
Factor	Extremely important	Very important	Important	Somewhat important	Not at all important	Don't know/not sure
Quality of the content and curricular materials	36%	36%	20%	7%	1%	1%
Alignment of the curriculum with applied, real-world work	34%	33%	21%	8%	1%	2%
Inclusion of applied projects or experiential learning	27%	36%	23%	11%	2%	2%
Brand/reputation of the issuing institution	28%	31%	25%	11%	2%	2%
Level/extent of direct interaction with an instructor/faculty member	21%	29%	28%	14%	6%	2%
Selectivity of the program (how difficult it is to be admitted)	20%	27%	28%	15%	8%	2%
The duration of the program	16%	27%	28%	21%	8%	2%

While all of these factors are clearly "important" to varying extents, it is interesting that the quality of content/curricular materials and alignment with real-world work are reported as the factors given the greatest weight. It is also clear that brand/reputation matters – and that the level/extent of faculty interaction remains an important dynamic.

Relatively speaking, selectivity in admissions is lower on the list, as well as program duration. These responses suggest that the drivers of perceived value and quality are nuanced – and that the market may be slowly evolving from one that prioritizes long programs with selective admissions (the traditional higher ed model) to one that places more value on work alignment and application and outcomes. This is precisely the value proposition of microcredentials – addressed in the section that follows.

Growing Awareness of Microcredentials – and the Perceived Hallmarks of Quality

The growth of online education has spawned a variety of new "microcredentials" – short-form, sub-degree awards that represent the completion of a learning module, course, or series of courses.[20] Microcredentials include both generic offerings such as digital badges as well as proprietary credential constructs such as "nanodegrees" or "MicroMasters." Given the trend in postsecondary education toward more targeted, affordable, and work-aligned offerings, great excitement has developed as millions of students and professionals have earned these non-degree credentials in just the last few years. Yet until now, little has been documented about HR leaders' experiences with and perceptions of microcredentials in hiring.

Figure 8. Level of Awareness or Experience with the Various Types of "Microcredentials" that May Appear on a Candidates' Resume

	I have hired someone who earned this	I have encountered this in screening/ hiring candidates	I have heard of this, but don't know much about it	I have never heard of this	Don't know/ not sure
Verified Certificate (e.g. Coursera, EdX)	20%	30%	23%	24%	3%
Digital Badge	14%	26%	34%	22%	3%
MasterTrack Certificate	13%	25%	27%	32%	4%
Microdegree	11%	22%	28%	34%	4%
MicroMasters	10%	19%	31%	36%	4%
XSeries certificate	10%	16%	23%	46%	6%
Nanodegree	7%	19%	27%	41%	5%

As expected, these results appear to track closely to the relative scale and longevity of each major microcredential type – many of which are proprietary and often trademarked terms.[21] For any given type of microcredential referenced, roughly 50% or more of surveyed HR leaders report a *general awareness*. Between 25-50% have encountered certain types of microcredentials on candidates' resumes during the hiring process – and around 10-15% have hired someone who has earned a given type of microcredential.

55%

agree that microcredentials are "likely to diminish the emphasis on degrees in hiring over the next 5-10 years"

Small distinctions between each microcredential category shouldn't be overemphasized due to the low overall familiarity with these offerings – but there are a few apparent distinctions. As might be expected, certificates from MOOC providers Coursera and EdX have been encountered by HR leaders most commonly, given the tens of millions of learners these firms are serving and the number of years that these microcredential offerings have in the market.[22] Digital badges, which are awarded by numerous entities (including as part of degree programs) follow as the second most commonly encountered in hiring – and the most popular microcredential type in terms of general awareness.

Based on open-ended survey responses and prior research, it also appears that the term "microdegree" is seen and used by many HR leaders as a generic one, synonymous with "microcredential." Likewise, to the extent that Coursera's trademarked "MasterTrack" certificates were recently launched in early 2018, one wonders if this term might have been interpreted by respondents as a general category referring to a graduate-level (i.e., "master track") certificate.[23]

These results underscore how early it still is in the development of the microcredential market and employer awareness and understanding of these offerings. The results also highlight the importance of common terms and standards, as well efforts – such as Credential Engine – to catalog, compare, and document credentials as they proliferate.[24] Half of respondents (53%) agree that "the proliferation of new types of educational certificates, credentials, and badges makes it harder to sort out quality."

A number of other survey questions explored these dynamics further, including testing some of the key value propositions of microcredentials compared to degrees – although it is challenging to draw major conclusions given the relatively low level of employers' experience with microcredential holders. It does appear that many employers appreciate the potential of microcredentials to be "better indicator(s) of specialized knowledge" compared to degrees.

It is particularly illustrative to explore the qualitative, open-ended responses shared by HR leaders who were familiar with microcredentials. Key themes here include the value of microcredentials as signals of continuing education beyond a degree; the targeted and skill-centric nature of microcredentials; and their relatively new nature and the potential for future growth in time.

" **AT THIS POINT IN TIME,** our organization has little use for them since we use data to help guide our hiring system. Any data points with a small sample size and a short history cannot, by definition, be heavily weighted in this process."

MICROCREDENTIALS SHOW a candidates' commitment to continual learning and skills pivoting."

I BELIEVE THAT THESE CREDENTIALS can be helpful, but because they are so new it is hard to determine their overall value and whether they really contribute to a successful employee in the long term."

I VIEW THEM AS A BOLSTER to someone who has a Bachelor's degree. I would be willing to look at them for a candidate who doesn't have a Master's, but I would not be willing to accept them in place of a Bachelor's because they just aren't in depth enough."

I DON'T THINK MUCH OF MICROCREDENTIALS. They seem like they are no better than a certificate of learning."

I INDICATED I HAD HEARD OF A DIGITAL BADGE, but I've never hired anyone with such a certificate. I think the microcredential space will continue to influence hiring strategies going forward but it has little impact on my role today."

I FOUND THAT THE CANDIDATE with the microcredential had a more sharper focus on the job issues at hand than did the regular degreed candidates because their training had been short and intended to meet a specific goal."

IN AND OF THEMSELVES THEY CARRY LITTLE WEIGHT but added to other credentials such as continuing education, years of experience and recommendations they can push one candidate above another for consideration."

Overall, it is clear that microcredentials appear to be functioning most often as supplements to degrees rather than substitutes.
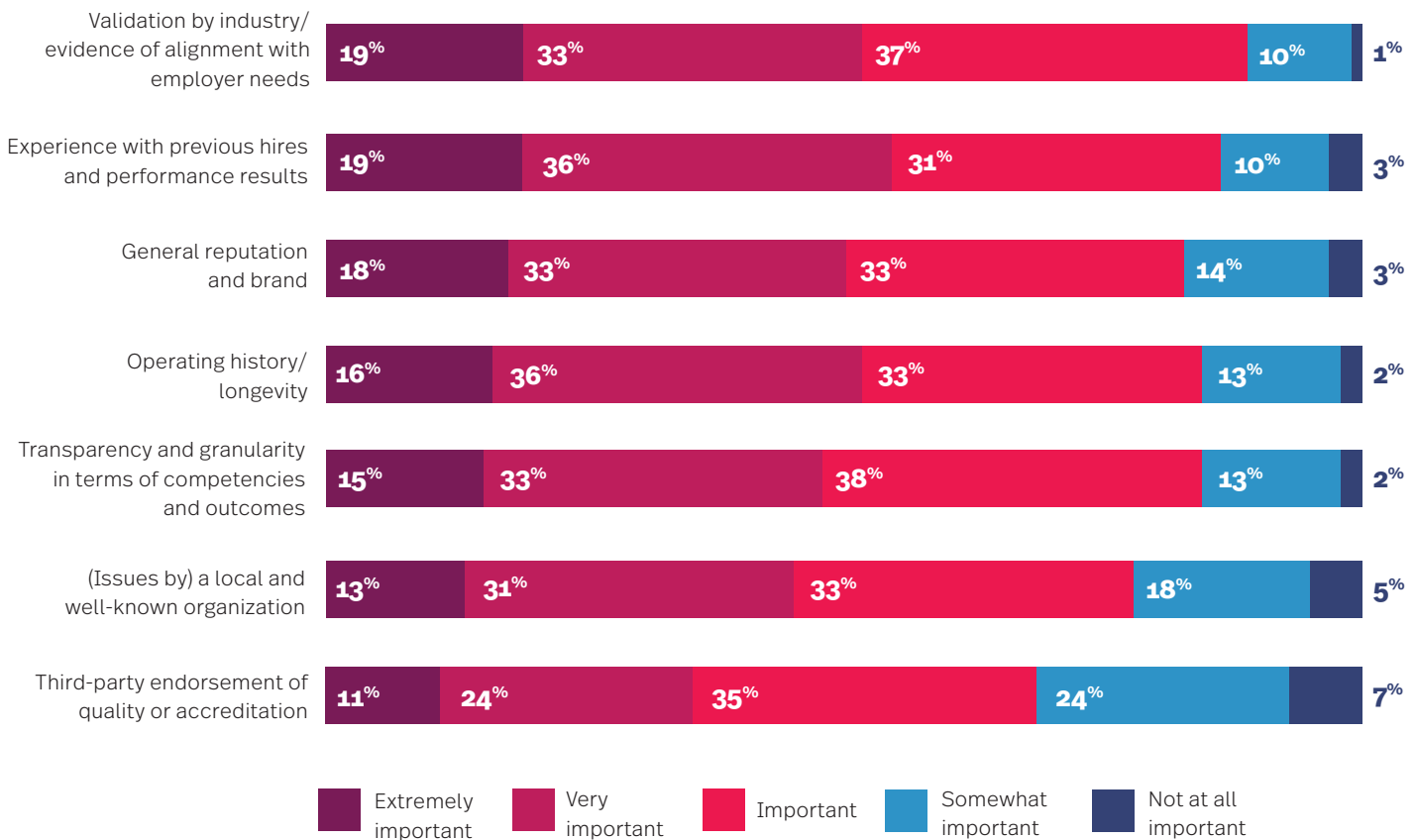
Hallmarks of Quality in a Market Driven by Non-Traditional Providers

The microcredential market has been fueled by the rise of non-institutional educational providers operating largely independent of accredited colleges and universities. Consider for example technology firms offering digital badges and Udacity and its "nanodegrees." In addition, non-profit and for-profit entities that work with university partners – such as EdX and Coursera – award their own credentials, often endorsed by the university.

What are the signals of quality in the eyes of employers? Does formal accreditation not matter when program graduates are generating business results? How big of a factor is brand? What is the role of third party endorsements or seals of approval? Many have speculated about these dynamics since "alternative" credentialing began to boom a number of years ago. These issues were part of the U.S. Department of Education's recognition during the Obama Administration that innovation in credentialing would require new approaches and quality assurance entities, as manifested in the EQUIP experimental site program and the subsequent launch of various quality assurance frameworks.[25]

As new types of credential issuers and credentials continue to appear in the marketplace, it is useful to gauge what attributes hiring leaders associate with quality.

Figure 10. Importance of Credential Issuer Attributes in Signaling Quality

Attribute	Extremely important	Very important	Important	Somewhat important	Not at all important
Validation by industry/evidence of alignment with employer needs	19%	33%	37%	10%	1%
Experience with previous hires and performance results	19%	36%	31%	10%	3%
General reputation and brand	18%	33%	33%	14%	3%
Operating history/longevity	16%	36%	33%	13%	2%
Transparency and granularity in terms of competencies and outcomes	15%	33%	38%	13%	2%
(Issues by) a local and well-known organization	13%	31%	33%	18%	5%
Third-party endorsement of quality or accreditation	11%	24%	35%	24%	7%

Here hiring leaders' emphasis is on industry validation and alignment, as well as experience with previous hires from a credential issuer and their performance results. At the same time it is clear that reputation and operating history/longevity are important as well. Together these are all factors that suggest that new brands can be built, much the way that many new coding bootcamps have been successful.

Perhaps most surprising in this rating of attributes – all of which are rated as "important" – is that "third-party endorsement of quality or accreditation" is rated lowest. Presumably this type of stamp of approval is a *proxy* for – or correlated with – the other attributes. Going forward, it will be important to monitor and further explore employer perspectives on the utility of formal accreditation, particularly as non-accredited offerings continue to grow, and as new quality assurance constructs emerge.
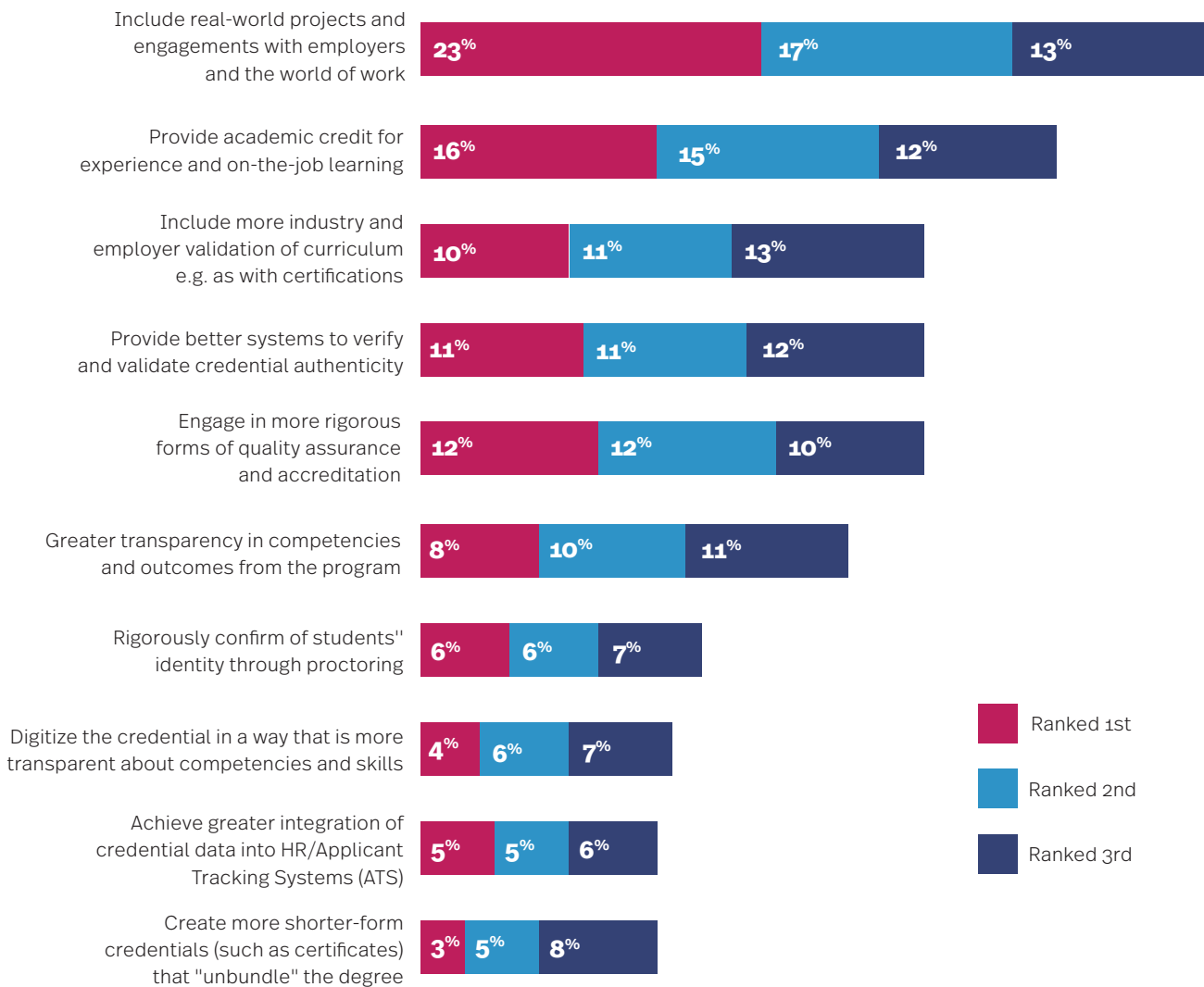
Industry-Aligned Credentials and the Future of Hiring

One of the final questions in the survey asked hiring leaders directly about priorities that they would recommend for *colleges and universities* to pursue to ensure the quality and utility of online credentials in hiring. This was a forced ranking question in which hiring leaders could rank their top 3 priorities from a list of 10 items. As the figure below illustrates, work-integrated learning and industry-validated curriculum emerge as the clear highest priorities.

Figure 11. Employers' Recommended Priorities for Colleges & Universities

Priority	Ranked 1st	Ranked 2nd	Ranked 3rd
Include real-world projects and engagements with employers and the world of work	23%	17%	13%
Provide academic credit for experience and on-the-job learning	16%	15%	12%
Include more industry and employer validation of curriculum e.g. as with certifications	10%	11%	13%
Provide better systems to verify and validate credential authenticity	11%	11%	12%
Engage in more rigorous forms of quality assurance and accreditation	12%	12%	10%
Greater transparency in competencies and outcomes from the program	8%	10%	11%
Rigorously confirm of students'' identity through proctoring	6%	6%	7%
Digitize the credential in a way that is more transparent about competencies and skills	4%	6%	7%
Achieve greater integration of credential data into HR/Applicant Tracking Systems (ATS)	5%	5%	6%
Create more shorter-form credentials (such as certificates) that "unbundle" the degree	3%	5%	8%

This type of applied learning, employer engagement, and blurring the boundary between work and learning is an important frontier for higher education – and indeed they represent the themes that the *Center for the Future of Higher Education and Talent Strategy's* agenda is organized around.

It is also worth noting that systems to verify and validate credential authenticity and "more rigorous" quality assurance and accreditation are relatively high on the list. When compared to the results of the earlier question about the signals of quality, this can be interpreted as suggesting that HR leaders may not fully trust the systems and signals available today – and that they agree with many in higher education who believe that important areas of work and future investment include greater rigor for quality assurance; communicating outcomes; and creating more trusted and verifiable credentials.

Innovations Challenging The Role of Traditional Degrees on the Horizon

Looking ahead, HR leaders were asked to forecast the time horizon on which certain innovations in hiring and educational credentialing might pose a significant challenge to the role that degrees have in hiring – giving a sense of the relative momentum that these practices, products, and technologies have, and the threat that they might represent to higher education.

The responses to this type of forward-looking question can be interpreted directionally and relatively – and reveal that *pre-hire assessments* (such as online tests administered to candidates) appear to pose the greatest near-term challenge to the traditional reliance on educational credentials. More than one-third (39%) of respondents expect pre-hire assessment to have an impact within 1-3 years, and nearly 70% within the next 5 years.

Figure 12. Innovations Poised to Challenge the Role of Degrees in Hiring: Time Horizon

On what timeframe - if ever - do you believe that the following technologies or practices will pose a significant challenge to the value of college degrees in hiring?

Legend:
- Pre-hire assessment
- E-portfolios
- Simulation-based hiring
- Digital badges
- Online Microcredentials
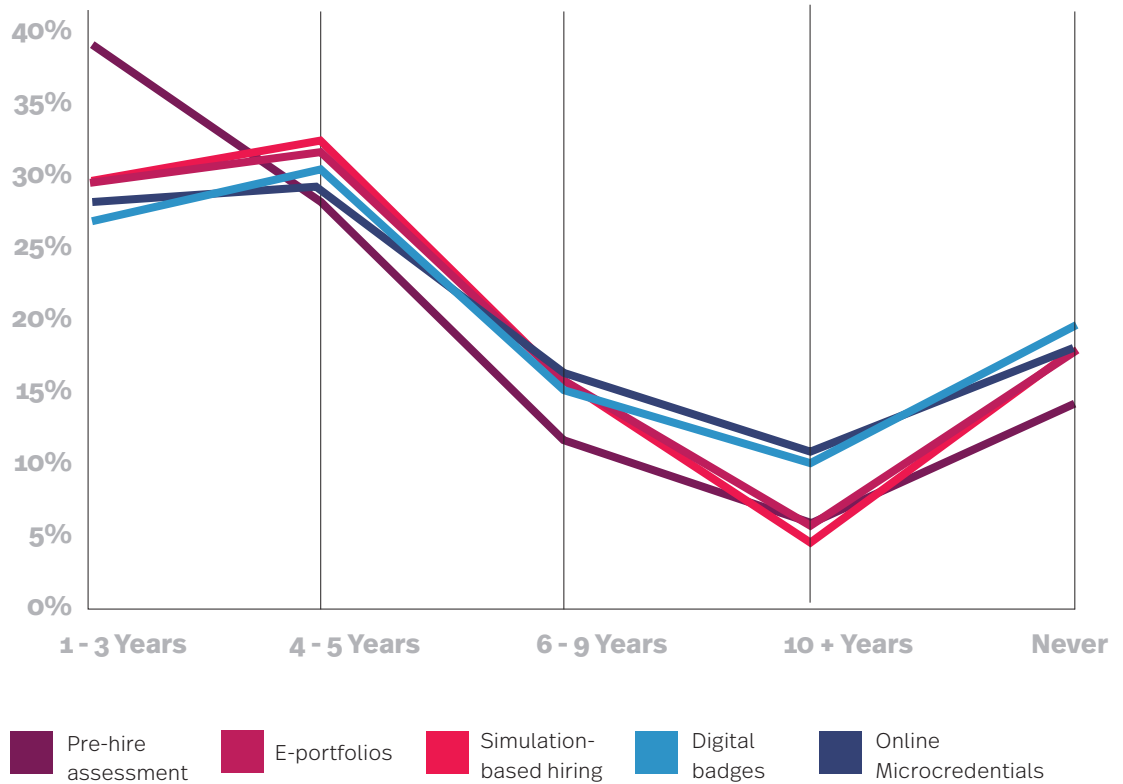
Beyond pre-hire assessment, the conceptual timeframes for other categories are so tightly coupled as to be relatively indistinguishable, with perhaps the greatest skepticism or need for maturation in the digital badge and online microcredential categories. It is important to emphasize that this question was framed as exploring when hiring leaders believed these practices and technologies would pose a "significant challenge" to the reliance on degrees in hiring.

Overall, it is interesting to consider this data as evidence underscoring how early it still is in the evolution of a digital credentialing ecosystem – yet also how quickly technological developments and innovative practices may reshape hiring over the next 5 years.

Conclusion

This report has aimed to improve our understanding of how employers use and value educational credentials in a changing time for both the corporate talent strategy function as well as the postsecondary education ecosystem.

Degrees still have great value in the hiring process – but microcredentials and new hiring practices are beginning to change the equation. Given the conservative nature of the hiring and educational credentialing processes, the acceptance of innovative new products and practices is arguably occurring at more of an evolutionary pace rather than as a shift that is happening overnight.

The developments and findings discussed in this analysis present opportunities for new postsecondary education offerings, new businesses, and new policies that will deliver greater value to employers, students, and other stakeholders.

A particularly important frontier is the blurring boundary between traditional educational credentials – and learning that happens on-the-job or is embedded in the real world of work. Surveyed hiring leaders were clear that this area is greatly valued and an important direction for higher education institutions and their credentials.

Truly erasing the boundaries between learning and work – while assuring quality and reaching a greater level of scale for innovations in educational credentialing – will require more research and analysis; a deeper understanding of practices through hands-on work with employers; and new types of technologies, tools, and interfaces between employers and educational institutions. It is our hope that this study will serve as a foundational contribution in this ongoing agenda.

Survey Methodology and About the Sample

This survey of 750 U.S. hiring leaders was administered online by *Research Now SSI* in August-September 2018 to its nationally representative panel of business-to-business decision-makers. Potential respondents were first qualified as managers within the HR function, with job responsibility for hiring, recruiting, and talent strategy.

As indicated in the profile data below, respondents spanned a wide range of organizational sizes and industry sectors, and the share of responses is generally representative of the U.S. economy overall. There is a slight bias in the sample toward medium and large enterprises – for example, large enterprises with more than 500 employees comprise approximately 52% of all U.S. employment and 56% of the survey sample. The share of respondents within each industry sector is not perfectly representative, but tracks relatively closely to the sector mix of the U.S. job market at-large, with a greater share concentrated in financial, technology, healthcare/social assistance and educational services employers.

The theoretical margin of error for questions where opinion is evenly split is +/- 3.6% at a 95% confidence level.

Approximate total employees in organization

8%	<50
11%	50 - 99
26%	100 - 499
16%	500 - 999
19%	1,000 - 4,999
9%	5,000 - 9,999
12%	10,000 +

Industry Sector

3%	Accommodation and Food Services
0%	Agriculture, Forestry, Fishing, and Hunting
1%	Arts, Entertainment, and Recreation
5%	Construction
9%	Educational Services
7%	Finance and Insurance
18%	Health Care and Social Assistance
8%	Information / Technology
11%	Manufacturing
2%	Other Services (Except Public Administration)
9%	Professional, Scientific, and Technical Services
4%	Public Administration or Government
2%	Real Estate and Rental and Leasing
8%	Retail
2%	Transportation and Warehousing
1%	Utilities
9%	Other

Job Role

32%	Director / Department Head
31%	Manager / Senior Manager
13%	General Manager
9%	C-level Executive
6%	VP / Assistant VP
3%	Partner / Principal
6%	Other

Highest level of schooling completed

0%	Less than high school diploma
6%	High school diploma or GED
9%	Some college, but no degree
11%	Associate degree (e.g. AA, AS)
44%	Bachelor's degree (e.g., BA, BS)
25%	Master's degree (e.g. MA, MS, MBA)
5%	Doctoral or professional degree (e.g. PhD, JD, MD)

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