On-Ramps and Off-Ramps:

Alternative Credentials and Emerging Pathways Between Education and Work

INSIDE
HIGHER ED

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Executive Summary

The college degree remains the best ticket to a rewarding career and the middle class. But the traditional degree pathway is failing to meet the nation's postsecondary education and training needs. As a result, a growing number of colleges are partnering with employers—or brokers who make those connections—and noncollege education providers to offer alternative credentials.

This broad category (see sidebar) includes certificates and industry certifications, apprenticeships, digital badges, microcredentials, and new forms of online master's degrees. Enabled by advancing digital technology and often delivered in modular formats, these credentials typically are aimed at working adults who can't or won't spend the time and money to enroll in a campus-based degree program.

Alternative credentials tend to focus on job-relevant skills and competencies, which education providers develop jointly with employers. Ideally, they are backed by data on labor-market demand, and they can be affordable on-ramps to traditional college programs or off-ramps to jobs.

These emerging forms of postsecondary education currently do not threaten the primacy of the university degree. Rare is the traditional college-age young adult or parent who today would choose an alternative credential over a diploma from State U or Mom's alma mater.

And most of the upstart credential programs featured in this report enroll just dozens or hundreds of students,

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One hundred years from now, degrees will almost certainly still be critically important, as aspirational goals for students, as signals of educational attainment in the workforce, and as heuristics for human communication about the education experience. The question before us is not, in the view of the Entangled Group, how to replace degrees or the institutions that confer them, but instead, how to make them best serve the needs of colleges and universities, faculty members, society, students and employers.

We've observed that educational institutions -- state-led K-12 districts, community colleges, public and private universities and corporate education departments, are linked in a network that behaves more like a complex living ecosystem than an administrative bureaucracy. We try to align ourselves with the real needs of that entire ecosystem.

The Entangled Group's mission is about enabling that ecosystem's transition to optimally support the knowledge economy as opposed to the industrial economy, for which most institutions within it were originally designed. The approach that the ecosystem needs is two-fold -- including both professional services and high-tech ventures.

Professional services, in our view, need to be led by practitioners and innovators who help today's existing education providers to design and pursue meaningful future states that align with the needs of their constituencies. In our view, the world has enough consultants who drop off Powerpoint decks, and what institutions need are thinker-doers who roll up their sleeves to help provide operational expertise, insights and experience to bold leaders.

In addition to professional services, The Entangled Group believes that high-tech ventures can facilitate the transition to optimally support the knowledge economy by developing powerful tools that act as scaffolding as the ecosystem transforms.

As technology platforms become ubiquitous tools for getting work done, companies like PathStream will emerge to help train people on their use. And as the college value proposition evolves, companies like ReUp can help universities to re-engage students who stop out to continue to pursue their dreams. And as colleges seek ways to connect more meaningfully to the knowledge economy and to provide opportunities to their students for internships and in-demand skill training, we think that focused technology companies that have yet to be created can help.

It's not about disrupting schools, it's about helping schools to evolve. And it's a privilege to support *Inside Higher Ed* on this meaningful study of credentials.

Paul Freedman
CEO and Co-Founder of Entangled Group

often through one-off partnerships between community colleges and regional employers.

Yet changes in technology, demographics and the rapidly transforming economy have contributed to potentially unsustainable gaps between higher education and labor markets. Alternative credential programs that are less expensive and shorter in duration than their degree counterparts could help close those gaps, while also competing with traditional colleges that serve adult students.

The expansion of alternative credentials is helping to blur boundaries between credit-bearing and non-credit programs, between colleges and noncollege providers, and between higher education and post–high school job training. Defined broadly, alternative credentials and the competency-based learning systems that undergird them will change how many colleges operate, and warrant attention from faculty members and college leaders.

Roughly 42 percent of American adults hold at least an associate degree. Deep racial and ethnic gaps persist in degree attainment, as just 30 percent of African Americans and 22 percent of Latinos hold a college degree. Yet three-quarters of new

WHAT ARE ALTERNATIVE CREDENTIALS AND PATHWAYS?

This report focuses on postsecondary credentials beyond the traditional college degree as well as emerging entry points to degree programs for students.

Categories explored include certificates issued by employers and other noncollege education providers. These credentials tend to take less than two years to complete and feature assessments based on job-relevant skills. In some cases they include quality-control requirements set by a third party, such as the American National Standards Institute.

Some noncollege credentials include a path to college credit and an accredited certificate, such as through articulation agreements and partnerships with community colleges. This report also looks at experimental forms of short-term, credit-bearing certificates issued by colleges, particularly ones that are designed to be "stackable," meaning that completers can apply them to degree programs without losing credits. Likewise, a growing number of colleges are partnering with nonaccredited providers to offer online course content as a credit-bearing accelerated pathway to a degree program.

Occupational licenses are typically issued by state agencies and feature job-based skill requirements. In some cases states pay for

WHAT ARE ALTERNATIVE CREDENTIALS AND PATHWAYS?
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colleges to administer licensing exams as part of certificate programs.

Work-based education and training programs included in this report include coding and skills boot camps, short-term project-based learning, and apprenticeships that feature credit-bearing college learning.

Alternative credentials students can earn as add-ons to a degree include digital badges, experiential transcripts and noncredit certificates from boot camps or "last-mile training" providers.

Online graduate programs appear to be particularly well suited to alternative credentials. For example, a growing number of colleges and universities are offering short-term, potentially credit-bearing credentials in partnership with massive open online course (MOOC) platforms, such as edX's MicroMasters and Coursera's Specializations, which can be new entry points to those institutions' online graduate programs.

Competency-based education, loosely defined, is the reliance on typically employer-relevant skills and competencies instead of traditional grades, usually with elements of self-pacing. Most of the alternative credentials included in this report use competency-based curricula. And some college degree programs rely on direct assessment, a more experimental form of competency-based education that is untethered from the credit-hour standard, in which students can bypass course content by showing what they know and can do in assessments.

jobs created in the Great Recession's wake required a bachelor's degree. And a projected two-thirds of all jobs will require some kind of post–high school education by 2020.

Based on interviews with more than 75 experts, this report seeks to explore the following central question:

Can colleges and nonaccredited education providers team up with employers to create viable forms of alternative credentials that will help more Americans get a first job or promotion or make a career change?

The last flurry of hype around potential disruptions to the college degree, which peaked six years ago during the MOOC craze, was dubbed an "unbundling" of college-level learning. This time around, however, can be described as a rebundling, or a thoughtful packaging of modularized learning—both the college and non-college varieties—into job-relevant, academically sound credentials.

When done well, alternative credentials give a glimpse of what true lifelong learning—the holy grail for some educators—could look like in the knowledge economy. With flat or sinking enrollment projected for traditional degree programs, these more nimble forms of skills-based training could extend traditional higher education's reach for huge numbers of adult workers who have earned college credits and on-the-job experience but lack a degree. And the

nascent, yet increasing popularity of these credentials opens the door to noncollege providers that can be more agile than traditional colleges.

More money may soon be flowing to alternative credentials. The federal government and states are contemplating new support, including funding for short-term Pell Grants. Meanwhile, the Lumina and Gates Foundations are seeding experimentation as private capital fuels the expansion of new forms of credentials.

Employers are taking a more active role in working with education providers to create more postsecondary educational pathways. Many have no choice, given the serious labor pool shortages they face in the tight job market.

Technology companies have taken the lead in using alternative credentials to hire workers, particularly in IT, data science, cybersecurity or cloud services. But nondegree credentials for so-called middle-skills jobs—meaning ones requiring more than a high school credential but no bachelor's degree—are on the rise in several other industries, too, including hospitality, health care, advanced manufacturing, energy, sales and human resources.

Many within higher education and beyond are deeply skeptical about the push, questioning the vocational focus and value of alternative credentials, which some say are just a repackaged form of job training that employers should be providing to their own workers. An expanding credential system itself is controversial, with some economists and sociologists arguing that degree inflation and the potential for a significant number of low-quality credentials could contribute to a separate-but-unequal tier of higher education.

Yet supporters say alternative credentials could chip away at barriers to the middle class. For example, they could help more prospective college students bypass the traditional degree to get a well-paying job. Ideally, the pathway also offers an affordable start on a college-level education, with less risk of failing to graduate or defaulting on loans, national crises that disproportionately affect black, Latino and low-income students.

The expansion of alternative credentials over the last decade has been slow and incremental. Broad acceptance of them will take years, experts say. But the conditions are right for the creation of more postsecondary options for millions of working adults.

While it remains an ambitious or even far-fetched concept for now, a growing number of educators are working toward a future where students never fully leave college, returning throughout their careers to bolster their skills and knowledge. ■

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GOOGLE'S IT CERTIFICATE

Credential: 8-12 month online certificate program, potentially credit-bearing
Creators: Google, Coursera, Jobs for the Future, 25-plus community college partners
Consumers: Entry-level job seekers in IT support
Cost: $49 per month, reduced by scholarships

Finding qualified candidates for IT support jobs has long been a problem for Google and its parent company, Alphabet, which employs 85,000 people.

"We were struggling to find hires. And we knew we couldn't be the only company," says Natalie Van Kleef Conley, a senior program manager with Google.

IT support is a high-demand occupation, currently accounting for 150,000 open positions in the U.S., according to Burning Glass Technologies, which analyzes the employment market. These are typically middle-class jobs, with federal data showing an average starting salary of $52,000.

So to fill its positions and diversify its work force, Google designed its own credential—spending five years creating an online certificate program. In doing so, the company is following a long tradition set by Microsoft and Cisco, which two decades ago created certification credentials to train IT professionals on their systems. But Google has added some new twists to its certificate.

The online program it launched in January is designed for beginners. By working eight to 10 hours per week on the five-course program, students can earn the certificate in eight months. Google offers the program through Coursera's platform and is paying through its philanthropic arm to knock the tuition rate down to $49 per month. The company also is funding an initial wave of 10,000 scholarships for veterans of the U.S. military, refugees and low-income students who come to the program from nonprofit organizations that partner with Google.

"IT support is not just a job but a career path," says Conley, who was the product lead for the new certificate program. And the problem in finding candidates "is often an access and equity issue, rather than a talent issue."

Google designed the full curriculum for the certificate, including 64 hours of web videos, online lab work and assessments. It focuses on troubleshooting, customer service, networking, operating systems, system administration, automation and security. The content is modularized and competency based.

"Throughout the program, people will hear

directly from Googlers whose own foundation in IT support served as a jumping-off point for their careers," the company said in a written statement.

Company officials are confident that the certificate will help people who earn it land jobs, in part because of the power of Google's brand—with the thinking being that if it's good enough for one of the world's largest tech companies, many others will buy in to the certificate's value.

Even so, Google brought together a consortium of more than 20 employers—including Bank of America, Walmart, Sprint, GE Digital and PNC Bank—who are interested in hiring completers. Certificate holders can automatically share their information with consortium members, Google says.

This cooperation, says Conley, is both "critical for the future of work" and a major shift for Google and other consortium members.

"Companies can think more about coming together to grow talent pools," she says, adding, "It's really important to diversify the talent pools."

In its first five months, more than 40,000 learners enrolled in the certificate program, with 1,200 completing (presumably by putting in more than eight to 10 hours per week). The next step for Google, Conley says, will be to create online credentials that build on the initial certificate, creating a stackable path to advancement for employees.

The certificate doesn't come with college credit and is unaccredited. But Google is developing a credit-bearing option for interested certificate holders.

By working with Jobs for the Future and a growing network of more than 25 community colleges in seven states, Google is helping to integrate the certificate program into more traditional academic programs. The modularized curriculum makes it easier for faculty members to tweak and adapt it, the company says. And many of the expanding group of college partners will offer prior-learning credit to the Google certificate holders.

In addition to campus-based community college partnerships, the company is working with the forthcoming online community college in California to offer a version of the certificate. And more such pairings are in the works, including in the four-year university space.

Duke University, for example, plans to add the Google certificate program to the expanding number of online courses and bundles of courses—or specializations—it offers through Coursera. Matthew Rascoff, Duke's associate vice provost for digital education and innovation, says respected brand names, like Google's, can help build trust and interest in online credential programs.

"You don't have to choose between work that you love on campus and what you think is practical," Rascoff says. "You can do both." ■

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