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Chapter 1

Answering the Big Questions about College and Career

In the past century, Americans have widely embraced the promise of postsecondary education. They've seen college, in all its varied forms, as a vital pathway to upward mobility. But in recent years they have become considerably less certain and more anxious about its career value.

On the one hand, the percentage of recent high school completers enrolling in college rose from 51 percent in 1970 to 69 percent in 2018, fueled by frequently cited income and job benefits for degree holders. By 2021, the percentage of Americans with a bachelor's degree or higher was at an all-time high.¹ On the other, nearly half of US parents now say they want alternatives to four-year college for their children, according to a Gallup poll released in April 2021. That's about evenly split with the 54 percent who still want their high school graduates to attend college. And it continues an extraordinary trend that saw the percentage of Americans who

call a college education “very important” fall from 70 percent to 51 percent in just *six years* from 2013 to 2019.²

The disruption of the global Covid-19 pandemic, combined with preexisting concerns about college value, only served to accelerate this trajectory. By the spring of 2022, two years into the pandemic, headlines proclaimed a massive drop in US college enrollment. Undergraduate enrollment had dropped by about 1.4 million since the pandemic began, with particularly sharp declines in community colleges and public four-year institutions.³ This massive decline comes on top of new data showing a record number of Americans—thirty-nine million, according to the National Student Clearinghouse—who have completed some college without earning a degree. With tuition and student debt rising steeply, many have ended up with the worst of both worlds—debt but no degree.

Why the lack of public confidence in college? And why the poor record of persistence to graduation for so many students? Even as policy makers debate tuition-free community college and broad student debt reduction, skeptics raise fundamental questions about whether the apparent benefits of higher education are real. Are we certain that college provides a path to employment that reliably ensures return on investment? Does the marketplace value of degrees rest more on signaling—the so-called sheepskin effect—than on real, career-enhancing learning? And are too many Americans being pushed to go to college, only to fail to complete it, or to graduate into underemployment and crippling debt at a time when the college wage premium is no longer rising?

Behind these questions lies what many see as a central trade-off between pure academics and more practical, job-

relevant skills. Amid rising costs and growing student debt, that dichotomy has taken on greater urgency. Do we need philosophers or welders? During an economic recovery or job transition, is coding boot camp or a targeted, job-specific credential a better bet than a BA? The stakes are high for young learners, midcareer workers, and those seeking to give them the best opportunities in life.

This book will explore these questions and offer readers some answers in chapters on the value of college degrees, which nondegree alternatives are most useful, and the decisive importance of building social capital to turn education into career success. My narrative will make extensive use of research and data; stories of ordinary people; interviews with experts; and case studies that illustrate effective practices and organizations. The arguments developed in each chapter will build toward the set of eight practices that give this book its name: the career arts.

These eight recommended practices, summarized in the final chapter, range from the continued value of going to college and the need to pursue a combination of broad and targeted skills to the purposeful approach needed to make the best use of nondegree options. *The Career Arts* is aimed at young adults and students of all ages who seek guidelines for getting ahead. The career arts can also shape the efforts of parents, counselors, educators, workforce leaders, and policy makers who want to help more people reach their educational and career goals.

To avoid mission creep, my focus will be the economic advancement that remains the central goal of education and training for most people. Other important outcomes will be

mentioned briefly (learning for its own sake, personal satisfaction) or not at all (civic involvement, better health). Nor will the book examine the complex and unfortunate intersection between high-profile campus culture wars and public concern about the economic value of college. My aim is to lay out the evidence, the arguments, and the trade-offs that should be considered by anybody seeking to understand how to get ahead as they make decisions about college, alternative credentials, and building professional networks.

The Real World of Hybrid Studies and Hybrid Jobs

The variety of offerings and competing demands, both broad and focused, facing American higher education are on full display at Colorado Mountain College, a public college with eleven campuses in high-cost mountain resort communities. Colorado Mountain College is one of about four hundred⁴ “dual-mission” institutions around the country, which means it offers a mix of undergraduate programs, including bachelor’s and associate degrees as well as specialized certificates. Blending some characteristics of a community college with others of a four-year school, it combines the liberal arts with applied career-oriented training. The intentional set of options includes certifications in fields like law enforcement, culinary arts, and avalanche science; associate degrees in majors from English literature to anthropology; and professionally focused bachelor’s degrees in high demand for residents who plan to become teachers, nurses, or national forest managers, to cite a few examples. “We’re not competing in a big urban market-

place with multiple colleges and universities,” says CMC president Carrie Besnette Hauser. “If we don’t offer it, local students don’t have access to it, and our regional workforce partners don’t get the trained employees they need.”⁵

While CMC is distinctive in many ways, including how it is financed, the mixture of targeted skills and broad liberal arts it offers reflects the choices available at a wide range of educational institutions—and comes in direct response to the range of applied and broad skills sought by many employers. Whether students come from local communities or have relocated to the Rockies after previous careers and degrees, many are drawn to specialized credentials needed for the thriving outdoor and tourism industries for which the region is so well known.

Yet Hauser points out that the same employers also seek workers with a range of abilities that will make them valuable over the long term. An outdoor guide, for example, should also be able to work with spreadsheets, communicate with clients, help design a website, and market the enterprise. A fly fishing instructor who ultimately wants to own or start a business will need to compete in a crowded marketplace and likely have some understanding of everything from sales to environmental science. That’s why CMC aims to ensure its students, who don’t always acquire credentials in a straight line from a certificate to an associate degree to a bachelor’s, are equipped with a mixture of targeted career and technical education, or CTE, and broader transferable skills.

“We want learners who come out of CMC to know how to think,” she says. “We want them to be critically engaged in conversations, in their communities and their disciplines. We

want them to know how to write and communicate.” In brief, Hauser explains, “we do liberal arts *and* career-focused skills training—and smash them together.”

The mixture of skills offered at Colorado Mountain College and other dual-mission institutions, and the reasons Hauser cites for their utility, are strikingly similar to those described by the labor market analytics firm Burning Glass Technologies in a report on the mixture of technical and creative thinking required by a growing number of “hybrid jobs.”⁶ Drawing on its massive database of hundreds of millions of online job postings, résumés, and social profiles, the firm—now known as Lightcast—documented much faster job growth in positions requiring a mixture of what the *Wall Street Journal* characterized as creative or social “right-brain” jobs supplemented by “left-brain” technical skills. It also showed that hybrid jobs combining, say, advertising and data science skills, pay more than those requiring a more typical or conventional mixture of abilities. A marketing manager who knows the database program SQL, according to the analysis, can earn \$100,000 annually on average—41 percent more than the \$71,000 earned by a colleague without those skills.⁷ What’s more, hybrid jobs are less likely to be automated. “The jobs that are growing the fastest, that are of highest value,” Burning Glass Institute president Matt Sigelman told me in an interview, “are the ones that are blending skills.”⁸

The Burning Glass analysis of the optimal mix of career skills vividly illustrates the value of tailored, market-ready competencies when combined with a broader set of capabilities. The importance of the second part of this combination for progress through the labor market has been highlighted by

Harvard University economist David Deming. He groups a range of noncognitive skills, including teamwork, collaboration, and oral and written communications skills, under the heading “soft skills.”⁹ And he believes that the employment market is “way ahead of the ivory tower” in its emphasis on those abilities. While economists have devoted considerable attention to the role of pure cognitive skills in determining wages, employers consistently prize qualities such as the ability to work in a team, problem-solving skills, and written and verbal communication in new hires, he notes.

In part for these reasons, Deming has argued forcefully against “the impulse to make college curriculums ever more technical and career focused.”¹⁰ There’s ample evidence that the popularity of college majors in the humanities has declined precipitously in recent decades—down 25 percent from 2012 to 2020, for example, to fewer than one in ten college graduates, even using an expansive definition of humanities that includes the popular “communications” major.¹¹ At the same time, the number of majors in fields like computer science has soared. But Deming makes the case that even the early earnings advantage of college graduates in STEM majors—science, technology, engineering, and mathematics—“fades steady” after their first postcollege jobs and that liberal arts majors gradually catch up by middle age.¹²

That’s because the technical skills that garner a short-term salary premium become obsolescent and require refreshing over time. Meanwhile, Deming adds, the hard-to-quantify liberal arts soft skills like problem solving and adaptability have long-term career value “by design.” At times of rapid technological change, he writes, range and flexibility are even more

crucial: “A four-year college degree should prepare students for the next 40 years of working life, and for a future that none of us can imagine.”¹³

His analysis is underscored by a survey of older and younger STEM workers conducted by an American Enterprise Institute team led by AEI senior fellow Brent Orrell. Those aged fifty to sixty-four were much more likely than their early-career counterparts under age thirty-five to call interpersonal skills and communications skills extremely important to do their jobs. The survey found a similar difference between higher-paid STEM workers making over \$150,000 annually and those making less than \$75,000 a year. “The lesson seems clear,” Orrell writes in *Minding Our Workforce*, an edited volume on the importance of noncognitive skills. “A technical skill can help you get a job, but noncognitive skills are necessary to growing on the job.”¹⁴

The same logic about the need to balance hard and soft skills can be applied not just to different kinds of college majors, but to the choice between a traditional college degree and the increasingly popular set of short-term, intensely practical, career-focused credentials. In an interview for the *Lessons Earned* podcast, Deming told me and cohost Aimée Eubanks Davis that the two kinds of skills complement one another. “If you have the ability to go get a four-year degree, you should do that. However, I think there’s a rapidly burgeoning market of alternatives which can be additions to your education, not substitutions.”¹⁵

Deming envisions a world “where more and more people are getting a four-year degree, and then also going to a coding boot camp, or to get a certificate in some specialized trade.

Because you're not really getting that specialized skill in a more general B.A. program." A world, one could say, that has a lot in common with what already exists at places like Colorado Mountain College and continues to take new forms at many other institutions.

Rising Demand for Nondegree Credentials: Maybe Degrees Are Overrated?

Long before the pandemic, public interest was strong and growing in short-term, affordable, career-focused, skills-based nondegree credentials. In a report released in the early months of the pandemic, the credit rating firm Moody's said that short-term credentials had made up 10 percent of total enrollment in 2018 and projected their market share would continue to grow quickly once Covid-19 had dissipated.¹⁶

During the same period, a series of nationally represented surveys conducted by Strada Education Network found a strong preference among Americans for nondegree and skills-based training during the pandemic. Meantime, as Paul Fain, a close industry watcher, reported for *Inside Higher Ed*, high-profile companies from Google and IBM to Salesforce and Microsoft announced their own bespoke short-term tech-focused credentials. Some tech employers began to say they were dropping degree requirements for certain jobs.¹⁷

The intense economic disruptions brought by the pandemic certainly accelerated the sense of urgency for advocates of short-term credentials. One prominent group of community college leaders and workforce analysts sent a letter to members of Congress in September 2021 seeking to make

near-term, noncredit community college programs eligible for Title IV federal financial aid. “Midcareer adults whose jobs have been eliminated don’t have time for a year or two of traditional academic education,” wrote the group, whose signatories included Anne Kress, president of Northern Virginia Community College, Joe May, chancellor of Dallas College, Chauncy Lennon, vice president of Lumina Foundation, and Joseph Fuller, professor of management practice at Harvard Business School. “They need short, targeted bursts of training that enable them to reenter the labor force as quickly as possible.”¹⁸

In an interview at his Harvard Business School (HBS) office, Fuller elaborated on his emphatic belief that today’s system doesn’t serve enough Americans well. The classic sequence—high school graduation, then on-time graduation from a four-year college, then obtaining a good job—simply isn’t the reality for many. “The current system works very well for a minority of people, and pretty well for another tranche, and not really very well at all for everybody else, which is probably an absolute majority,” he told me. The founder of the global consulting firm Monitor Group, now Monitor-Deloitte, Fuller now coleads HBS’s Managing the Future of Work initiative.¹⁹

Young people require guidance early in life about what kinds of studies correlate with available jobs to ensure that they develop skills and a job history that puts their life trajectory in place, according to Fuller. Otherwise they risk getting stuck in a catch-22 in which lack of experience makes it harder to break into new fields. The short half-life of hard skills also means they will need refreshing over an individual’s career.

Fuller is skeptical that traditional colleges can provide the kind of practical guidance and ongoing reskilling that many people require.

This complex mix of developments—uncertainty and anxiety about the market value of degrees, a strong public (and characteristically American) belief in practicality, the rising desire for inexpensive, short-term, job-oriented credentials, and the cataclysmic impact of the Covid-19 pandemic—combined to strengthen the push for BA alternatives. A contributing factor was the frequently heard argument made by Opportunity@Work, a new nonprofit founded by former McKinsey consultant and Obama administration official Byron Auguste. The group, and others sympathetic with its mission, maintains that excessive degree requirements for many jobs are thwarting opportunities for talented people, often disadvantaged minorities.

These individuals, described as STARS—skilled through alternative routes—may possess the actual skills needed to perform certain jobs successfully without holding the formal credentials listed as prerequisites. In June 2022, the group announced a national advertising campaign, in partnership with the Ad Council and corporate partners like Walmart and Google, to encourage employers to drop four-year degree requirements for job applicants, saying a “paper ceiling” is preventing half the US workforce from getting ahead even though they’ve developed skills in other ways, whether in certificate programs, through military service, in community college, or via on-the-job learning.²⁰ The credential barrier is a particular problem for African Americans and Latinos, who are substantially less likely than whites to hold bachelor’s degrees.

Eventually, degree skeptics began to score some wins. In March 2022, the state of Maryland announced it was dropping bachelor's degree requirements for thousands of state jobs. And according to a study produced jointly by the Burning Glass Institute and several coauthors at Harvard Business School, this trend had already begun before the pandemic started and had made a serious dent in degree mandates. For "middle skill" jobs within the fifty-one million job postings in the analysis, 46 percent of ninety occupations studied saw a drop of more than 5 percent in bachelor's degree requirements from 2017 to 2019.²¹ In another analysis published around the same time, RAND researcher Lindsay Daugherty summed up various findings about positive outcomes for certain nondegree credentials and uneven returns to certain degrees to argue that degree alternatives could be just as reliable a path to the middle class.²²

Earnings Evidence and Revealed Preferences

But while there is ample evidence of public concern about the value of college, attention-getting figures showing a striking drop in enrollment, and a strong, much-discussed appetite for nondegree alternatives, none of these very real developments should be mistaken for a serious challenge to the well-deserved reputation college degrees hold as the gold standard of career credentials.

Extensive economic data, reviewed in the chapter that follows, documents the rising wage premium linked to college completion in the final decades of the twentieth century, an economic return that remains at an all-time-high when com-

pared to average earnings of Americans with only a high school diploma.

In addition, a related and powerful measure of degree value relates to how employers actually use these credentials in the hiring process. Here, the conclusion is straightforward. Degrees matter for those making the decision to hire someone. To understand why, an instructive framework involves a different term favored by economists: “revealed preferences.” It’s a way of discussing the reality on the ground: How do individuals actually behave, regardless of what they say they value? When the Society for Human Resource Management (SHRM) conducted research into how employers feel about alternative credentials, it found that the rhetoric outpaces the reality.

In the summer of 2021, SHRM surveyed 500 executives, 1,200 supervisors, 1,129 human resource professionals, and 1,525 nonsupervisory workers about their views on increasingly popular nondegree credentials like certificates, badges, and apprenticeships. While all of the first three groups shared a positive view of alternative credentials, company leaders were much more likely to see those credentials as impressive and important in the hiring process than were hiring managers and HR professionals—who are directly involved in hiring new employees. For example, although 71 percent of executives said some alternative credentials are equivalent to a bachelor’s degree, just 58 percent of supervisors and an even lower 36 percent of HR professionals agreed.²³

The finding was underscored by an experiment SHRM conducted asking hiring managers to evaluate hypothetical job applicants with and without alternative credentials. Even

when applicants who possessed alternative credentials had higher rankings on skills and would require less on-the-job training, those with traditional degrees had an advantage.

Strictly speaking, the SHRM study shows survey and experiment responses rather than real-world behavior. But it's highly suggestive of how people in a position to act directly are likely to make decisions. Whatever formal requirements might be included in an official job posting, in other words, candidates with degrees are likely to hold a significant edge when the time comes to make a hire. The much-heralded announcement about a reduction in how many state of Maryland jobs require bachelor's degree credentials (later followed by similar announcements in Utah, Pennsylvania, and New Jersey) may or may not translate into a significant increase in non-college graduates being hired.

Indeed, even shifts in formal job requirements are sometimes applauded so vigorously by advocates that their actual magnitude may be overstated. Consider the Burning Glass Institute study mentioned above, "The Emerging Degree Reset." It highlights considerable evidence that employers across industries, including in tech jobs at firms like IBM and Accenture, have loosened degree requirements for some high-skill jobs and even more middle-skill positions amid the pandemic. That includes occupations like customer service manager, paralegal, and billing clerk.²⁴

The report argues that the changes started before Covid-19 and are likely to continue. Because the analysis looks at job postings and not actual hiring decisions, it's possible degree holders are still favored. But Sigelman told me he believes the lower requirements are "at least a decent proxy" for hiring be-

havior. “It’s something they’re reevaluating.”²⁵ The data certainly fit nicely with the popular narrative that we are entering a new world of work, premised on rethinking what it takes to get hired, a story line welcomed by forward-looking thinkers as demonstrating the rise of new pathways into good jobs.

However, the Burning Glass report excluded more than half of fifty-one million job postings it studied to reach its conclusion. The study notes that it “eliminated from the analysis” occupations in which more than 90 percent of postings required a bachelor’s or more. Why? Because such jobs “are highly unlikely to ever drop the degree requirement.” Coauthor Sigelman, Burning Glass Institute president, told me the researchers wanted to account for fields like law, medicine, or chemical engineering in which continued degree requirements are uncontroversial. That exclusion left out 11.73 million job postings.²⁶ The analysis also excluded 24.7 million job postings in low-skill occupations in which fewer than 25 percent of postings required a bachelor’s degree.

Of the remaining listings, when actual job postings rather than occupational categories were examined, a more modest 29 percent of middle-skill job postings and 17 percent of high-skill postings were in occupations with a “material degree reset,” or a drop of more than 5 percent in bachelor’s degree requirements from 2017 to 2019.²⁷ This suggests that the report’s conclusion, while important, was somewhat more narrow than its framing suggested. Moreover, the Burning Glass Institute’s chief economist posted an analysis at the end of 2022 indicating that, despite what employers may say in online job postings about removing degree requirements, they are actually hiring more, not fewer, college graduates.²⁸

In addition, the report acknowledges a significant countervailing story line within its findings. Among new hires at leading firms such as Facebook, Apple, Microsoft, and Google, the share of positions in job postings requiring a bachelor's degree remains extremely high. Despite some decline since 2017, in 2021 nearly eight in ten information technology postings at Google and more than seven in ten at Apple specified a bachelor's or above. At Intel, the share of IT postings with a degree requirement actually rose from 87 to 96 percent. "There are a whole bunch of tech companies that continue to be pretty reliant on degrees," Sigelman said.

Yet big tech giants like Google and Microsoft have received enormous press fanfare in recent years for getting rid of degree requirements for new hires.²⁹ They had declared they would evaluate skills and promise, rather than require traditional credentials, when seeking new employees. In fact, it seems that reports of the demise of the bachelor's degree have gotten ahead of the facts on the ground. Contrary to the popular disruption story, companies like Google have not abandoned traditional credentials. Quite the opposite, says Sean Gallagher, founder of Northeastern University's Center for the Future of Higher Education and Talent Strategy: "they love college degrees."³⁰

Maggie Johnson, Google's vice president of education and university programs, told me that although the company has created well-publicized Grow with Google online certificates for in-demand jobs in fields like digital marketing, IT support, and data analytics, those credentials aren't intended to prepare people to work at Google itself.³¹ A former computer science professor at Stanford University, she says software engineers

need deeper learning abilities than short-term programs typically provide. Although Google has made a small number of hires from top coding boot camps like Flatiron, General Assembly, and Bloomtech (formerly Lambda), those programs have modified their curriculum over the years to address the gap between four-year degrees and purely technical skills. They focus on verbal and written communication to prepare students for interviews, for example. Even so, Johnson says, “I still doubt that boot camp graduates can learn new languages and technologies as quickly as someone with a CS degree, but then not all companies have the requirements that Google has for its software engineers.”³²

There’s definitely growing interest in skills-based hiring, particularly in today’s tight labor market. But even that interest is somewhat deceptive. A lot of the growth and momentum in short-term credentials comes from people who already have degrees and are seeking additional targeted qualifications, Gallagher notes. In other words, the reality of the job market is much more complicated than the degree-is-dead narrative.

This disconnect matters for both practical and philosophical reasons. On the practical front, young people facing decisions about education need to know about the world as it is—not just the world hoped for by advocates of skills-based hiring. And despite some recent changes in occupational requirements, today’s world still rewards degrees substantially. For all the chatter about college degrees being overrated, there remains a massive base of economic evidence for their value, not just for getting hired in the first place, but also for navigating what for many people are likely to be a series of job changes throughout a long career.

That brings us to the philosophy of degrees. It's not that they're perfect for everyone in all cases. As the next chapter will discuss in more detail, the positive data on economic returns to degrees—including an annual earning premium for college graduates of more than \$30,000, or nearly 75 percent, compared to workers with only a high school diploma³³—are about average salaries for degree-holders and don't represent any kind of across-the-board guarantee. What undergraduates study matters a lot for marketability, too. And far too many people start college and don't finish.

But those who actually acquire a college degree, including in liberal arts fields that take longer to pay off than STEM majors, frequently gain just the mix of broad skills and targeted skills required for career success. These skills include reading, writing, and analyzing in general ed classes followed by tailored instruction in fields like accounting, nursing, or computer science—or more academic study in the sciences or humanities before law school, medical school, or another graduate program.

But let's stipulate that a greater number of purposeful career-oriented options would be helpful and attractive to many students. What skeptics of the college access agenda often miss, when they declare knowingly that not everyone is cut out for college, is just how much vocational education *already* exists within the very large umbrella of our postsecondary system. Advocates of postsecondary education filled with purposeful, career-oriented options don't need to look far to find those in the US higher education system.

Consider our land-grant institutions, established in the second half of the nineteenth century with the explicit goal of

providing more practical educational options for a fast-growing nation. Today, undergraduates at places like Iowa State University can major in fields such as animal science and dairy science, among many other agriculturally themed concentrations. Throughout the nation, it's completely unremarkable for undergrads to specialize in subjects like accounting, forensics, hotel management, and physical education. Plato around a seminar table this ain't. Yes, these four-year degrees typically require an academic grounding in a range of basic subjects under the heading "general education." Still, they are often overlooked by critics who imply that going to college will involve some kind of rarefied education that just won't serve many students.

The Case for a Both/And Approach to Degrees and Alternatives

So does the versatility and value of so many degrees mean that degree alternatives are a lost cause or irrelevant? Not at all. Many Americans are looking for faster and cheaper ways to boost their skills and improve their employment prospects. If they choose intelligently—such as in-demand health specialties, or data science, for instance—that strategy can work. To take just one example, Lumina Foundation's Chauncy Lennon points out that although half of employed adults with short-term certificates earn \$30,000 or less per year, those who earn STEM certificates have higher average earnings than holders of associate degrees in education.³⁴

What's more, a growing number of massive employers—Amazon and Walmart among them—will pay for short-term

as well as traditional credentials, because they correctly view education as a useful employee-retention benefit in a tight labor market. When those short credentials can be stacked together into degrees with a track record of improving earnings over the long term, so much the better.

The challenge is for advocates of new pathways to the workforce not to depict degrees and degree alternatives as an either/or choice. That's a recipe for pushing people away from the credentials that are still, in the vast majority of cases, needed to land a job at Google or many other employers. Rather than sound a premature death knell for the degree, we should be calling for a both/and approach that acknowledges the complementary strengths of degrees and the best alternative credentials.

After all, it's quite true that in a both/and world many learners would benefit from robust, career-focused alternatives or supplements to college degrees. That's not because college is overrated, as critics misleadingly claim, but because a variety of opportunities can build human capital for more people in better ways. We need to think of traditional degrees and alternatives like short-term career training not as competing options but as different and *both* legitimate routes—for different people with diverse needs, or for the same person at different times in their life. That's why both/and is the new way, and the right way, to think about postsecondary education. Given the extensive evidence that so many fast-growing jobs require a combination of skills, from foundational abilities in writing and critical thinking to technical skills in areas like social media or IT networking, there's enormous potential to mix

degrees with other kinds of credentials or skill-building opportunities. Liberal arts degrees, argues Sigelman of the Burning Glass Institute, have “twice as much value when combined with some specific technical skills.”³⁵

Giving students that empowering combination, whether through creative efforts at developing clusters of skills inside colleges or by encouraging supplemental skills acquisition, requires moving past what Sigelman calls the “lazy debate” between knowledge for its own sake and vocational skills.³⁶

The resulting mixture of broad and targeted skills can be extremely useful for students’ marketability and for their own satisfaction with the cost-effectiveness of their postsecondary education. A Strada Education Network–Gallup survey of more than eight thousand adults who had completed an associate degree or higher found that graduates who combined a college degree with a nondegree credential were more satisfied than their degree-only peers. They were more likely to agree or strongly agree that their credentials were “worth the cost,” made them “an attractive job candidate,” and “helped me achieve my goals.” The differential was particularly high for those who had earned just an associate degree along with an alternative credential.³⁷

For students eager to improve their near-term prospects, the right kinds of immediate educational offerings can serve as a stepping stone to a more optimal combination of market-ready and long-term skills. That’s what Meghan Hughes has done as president of the Community College of Rhode Island. Her own experience combined formal academic training with a very practical perspective on what students need. She earned

a PhD in Renaissance art history and started her career as a professor at Tufts University, followed by a stint as an executive at the workforce training organization Year Up. When she arrived at CCRI, says Hughes, “we were underserving our Rhode Island residents.”³⁸

Eager to generate opportunities for what she calls “a population that needed a job *right now*,” she had a twin ambition: serving urgent needs while also forging valuable career pathways. “I’m never just going to create an opportunity for a job right now. I don’t believe in it. I don’t believe it’s ethical.” The question, she says, was this: “How do we give our young adults skills as quickly as possible to get them immediately into the workforce to start earning, while also showing them that they are college material—and while seeing them earn a significant percentage of what an associate degree is?” Now, under her leadership, CCRI offers certificates, created in partnership with employers, in fields like CNC manufacturing and finance. (CNC stands for computerized numerical control, a computerized manufacturing process in which software and code is used to preprogram the movement of production equipment.) The credits students earn give them a healthy fraction of what they’ll need to get an associate degree.

Chapter 2 of this volume will review the strengths of college degrees, including the importance of completing. Chapter 3 highlights some of the best alternative credentials offered by community colleges, among others; describes training and work experience programs like Year Up; and shows how broad and targeted skills can be most usefully combined for career preparation, navigation, and lifelong success.

Needed: Social Capital

But although much work needs to be done to extend the college access movement to focus on higher completion rates, while boosting the respectability and usefulness of noncollege alternatives and supplements, these educational options remain necessary but not sufficient for many Americans. Large numbers of people, especially those from low-income and disadvantaged backgrounds, need to develop access to networks—and the ability to tap into those networks to connect their education and training to meaningful workforce opportunities.

These abilities to access and mobilize networks, often called social capital, are the subject of chapter 4. Social capital is the missing link for many who have followed all the rules about obtaining education to get ahead but still struggle to translate their skills into jobs with an upwardly mobile career path. In other words, while it's a cliché and not entirely accurate to declare that “it's not what you know, it's who you know,” this old formula for career success is not entirely wrong either.

There is of course ample evidence that the development of more advanced skills in a changing economy is closely connected to the growing economic payoff of secondary and post-secondary education in the twentieth century and beyond, as documented by economists like Claudia Goldin and Lawrence Katz in their influential 2008 book *The Race between Education and Technology*.³⁹ But education and skills aren't enough for young people who lack the family and community connections that allow those from more privileged backgrounds to learn about a range of professional pathways, try

them out and demonstrate their abilities through summer jobs and internships, and get hired for jobs with real growth potential. Indeed, the value of getting career-oriented work experience while studying, sometimes called experiential learning, is widely recognized; a majority of students now complete an internship before graduation. The feedback and networks that come with internships are invaluable—yet it often takes a network to identify a promising internship opportunity.

Unfortunately, much of our attention has been focused in less vital directions. For example, college skeptics continue to fret that young people in high school are being funneled into traditional academic institutions when they would be better off pursuing practical, career-oriented alternatives such as apprenticeships. Meantime, nonprofits and schools spend more than \$600 million annually to teach financial literacy.⁴⁰ Yet as pointed out by Edward DeJesus, founder of an organization called Social Capital Builders, much less energy has been devoted to helping students build the networks that would help them turn all kinds of academic and practical skills into employment opportunities.

The result is that from high school to college to the crucial years after college, huge numbers of students build academic and career skills without receiving the kind of support they need to create, nurture, and expand a very different but extremely important set of skills and networks. In a July 2020 Gallup survey of college alumni who had graduated in the past decade, the highest percentage—nearly half—picked networking as the skill in which they wish they had received more training during their undergraduate years.⁴¹ Many organ-

izations described in chapter 4 are tackling the problem using diverse tactics.

Those might include helping first-generation undergraduates feel that they really belong in college, as the nonprofit Beyond 12 does, and showing them how networks of peers and professors can help them thrive on campus. It could also entail the kind of programming the organization Braven offers to show low-income college students how to present their strengths in job applications and how to seek meetings with employment contacts who are often all too happy to discuss their own career trajectories and offer advice when asked.

Or it could be the postcollege coaching, tailored sector-specific skill preparation, and peer support provided by COOP Careers to students who may never have received career assistance in college as basic as help strengthening their LinkedIn profiles. Founder Kalani Leifer still remembers “marinating” in social capital as a Stanford undergraduate who literally grew up on the Palo Alto campus as the son of a mechanical engineering professor.⁴² He and others just want to equip students with fewer inherited network advantages with some of the same access to professional connections their more affluent peers have acquired largely by happenstance.

These reforms aren’t always straightforward, of course. Many college students are hungry for professors to help them make professional connections and learn about internships and job opportunities. But despite some promising new initiatives, not all professors see explicit career preparation as part of *their* jobs. For their part, not all students are ready to embrace the notion that developing connections should be part of what they seek in college or through alternative credentials.

Ann Kirschner, professor of practice at Arizona State University and former dean of the City University of New York's Macaulay Honors College, says many of the first-generation students she has known view networking as something akin to cheating—a shortcut that isn't entirely reputable compared to traditional measures of academic accomplishment.

My final chapter sums up the eight career arts for people making choices about education and careers, and for all those who want to offer these individuals their informed support.

The initial three career arts are recommended practices that underscore, first, the value of college: “Go to College (Yes, It's a Good Idea)”; second, the need to find the right institution and program: “Find the Best *Kind* of College and Program”; and third, the importance of graduating: “Complete College.”

The fourth career art is aimed at people not on the traditional college track: “If Pursuing Nondegree Options, Purposefully Build Education, Skills, and Networks.” The fifth career art, “Seek a Both/And Combination of Broad and Targeted Skills,” stresses the need to challenge head-on the philosopher/welder stereotype that creates an unhelpful and false dichotomy when people need to make crucial choices about all kinds of education and training possibilities. Reflecting the concrete examples and stories scattered throughout the book, it calls on educators, parents, and students to embrace broad education and targeted career preparation as a both/and proposition rather than the either/or trade-off that too often dominates public debate.

The sixth career art is intensely practical, advising working adults: “Take Advantage of Employer-Funded Education Benefits.” The seventh career art calls for adding career networking, broadly defined, to the mix—“Find Effective Ways to

Build Social Capital”—to maximize the power of following all the other advice about building credentials and skills. Finally, the eighth career art stresses the importance of following the best available evidence about what degrees, skills, and networks usually lead to success, rather than being sidetracked by wishful thinking: “Prepare for the World as It Is, Not as You Wish It Were.”

In the end, we need to reject the straw man claims that a “college for all” movement is constricting a healthier range of educational choices. It would be more accurate to say that in recent decades American schools have placed a higher premium on the goal of college *readiness* for many more students. (Plenty of practical coursework options are still available. According to the National Center for Education Statistics, in the 2016–17 school year 98 percent of public school districts around the country offered career and technical education, or CTE, to high school students.⁴³ And some CTE coursework can be combined with postsecondary classes.)

Similarly, we should set aside the blue collar romance built into calls for expanded vocational training for jobs like plumbing and truck driving. Nor, to be sure, should we expect that a conventional academic route to a traditional college degree will be the right fit for everyone. Rather than persist in a public dialogue that causes anxiety and uncertainty among ordinary Americans, we should clearly identify the mixture of broad education, targeted skills, and active professional networks that can help individuals and the nation get ahead. That is the rich, varied combination of academic preparation and work readiness that savvy students can and should embrace in the real world.

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