

THE CHRONICLE
OF HIGHER EDUCATION®

New Pathways From College to Career

Preparing students for a rapidly changing work force

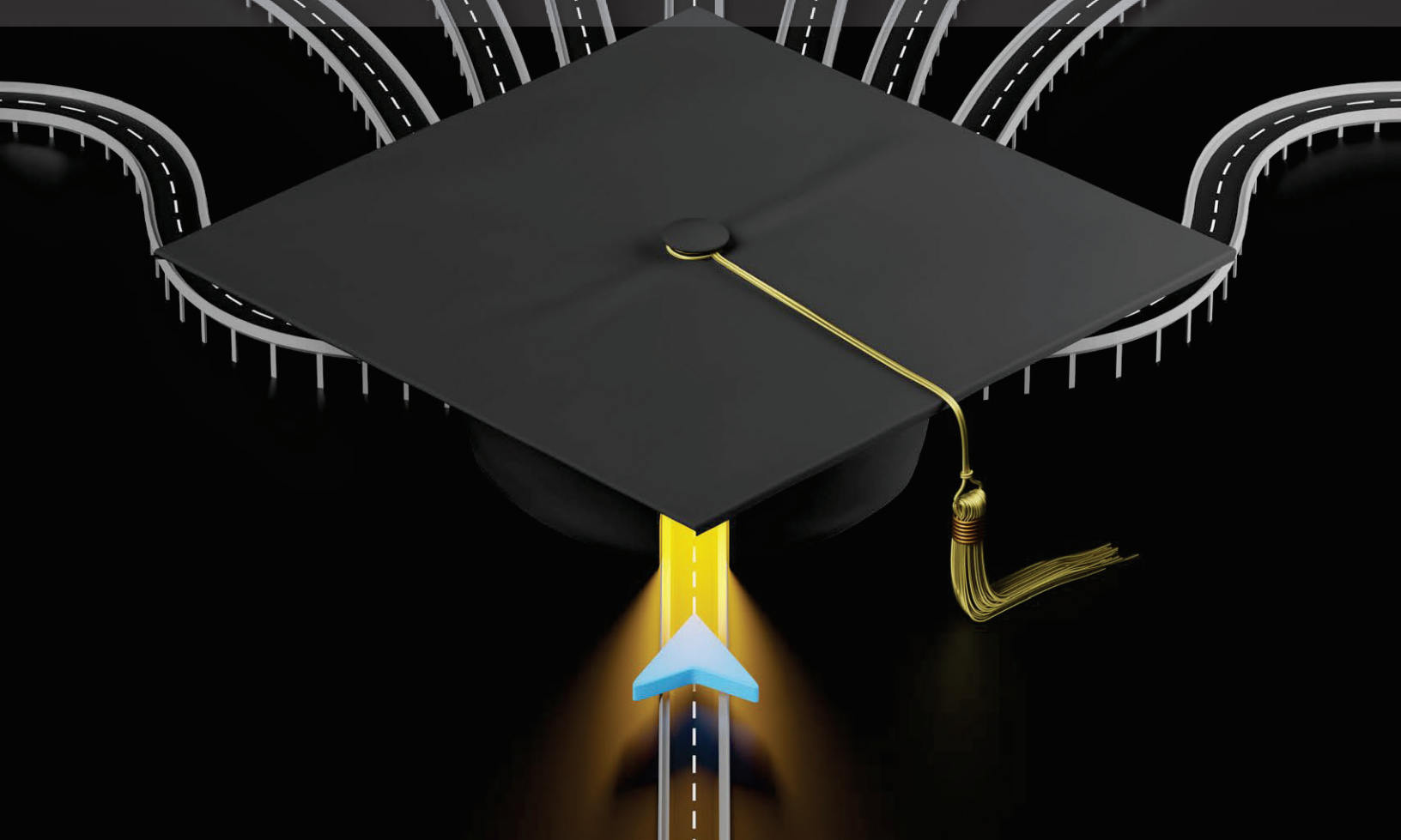


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About the Author



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Cover art and inside illustrations by Ricardo Rey for *The Chronicle*

INTRODUCTION

When students come to college, they are thinking mostly about what they are going to get out of it — a job.

Landing a good job is the single-most important reason students give for going to college. More than eight in 10 first-year students say improving their chances of getting a better job is very important to them, according to a [national survey of freshmen](#) conducted annually by the University of California at Los Angeles's Higher Education Research Institute.

In many ways, this attitude makes sense. Over recent decades, as the American economy has shifted away from one that makes things to one that produces ideas, there has been no surer path to middle-class stability than a college education.

The jobless rate for college graduates is [close to half](#) that of those with just a high-school diploma. Over their lifetime, workers with a bachelor's degree earn, on average, \$2.8 million, [75 percent more than if they had only finished high school](#). During the [Covid-19 pandemic](#), college-educated workers were more likely to hold onto their jobs and were hired back faster if they were furloughed.

Still, the public-health crisis has been a reminder of how globalization can leave economies around the world vulnerable to disruption. Although employment has quickly rebounded in the United States, new graduates will be understandably skittish as they enter the job market.

Other forces, such as automation and technological innovation, are also transforming work across all sectors of the economy, and the change is coming at a breakneck pace. Close to [100 million new jobs](#) could be

created globally by just the midpoint of the decade, according to the World Economic Forum, while existing jobs could require a skills overhaul.

As the employment landscape shifts, students will look to colleges to take an even more active role in helping them navigate the pathway to work. The pressure will be on higher education to deliver on the very thing that students and families say they want most from a college education.

"Graduation isn't the finish line," says David Clayton, senior vice president for consumer insights at Strada Education Network, a nonprofit group focused on education and careers. "It's getting a good job."

"Graduation isn't the finish line. It's getting a good job."

For colleges, the challenges to helping students move smoothly from classroom to career are many. Among them:

How can institutions prepare today's students for tomorrow's jobs when in-demand skills are changing so quickly?

How can colleges close equity gaps in employability for low-income and first-generation students and students of color, so that a four-year degree guarantees a good job for all students, not just those with built-in advantages?

How can college leaders engage and excite faculty members — who have credibility with students, yet may be resistant to what

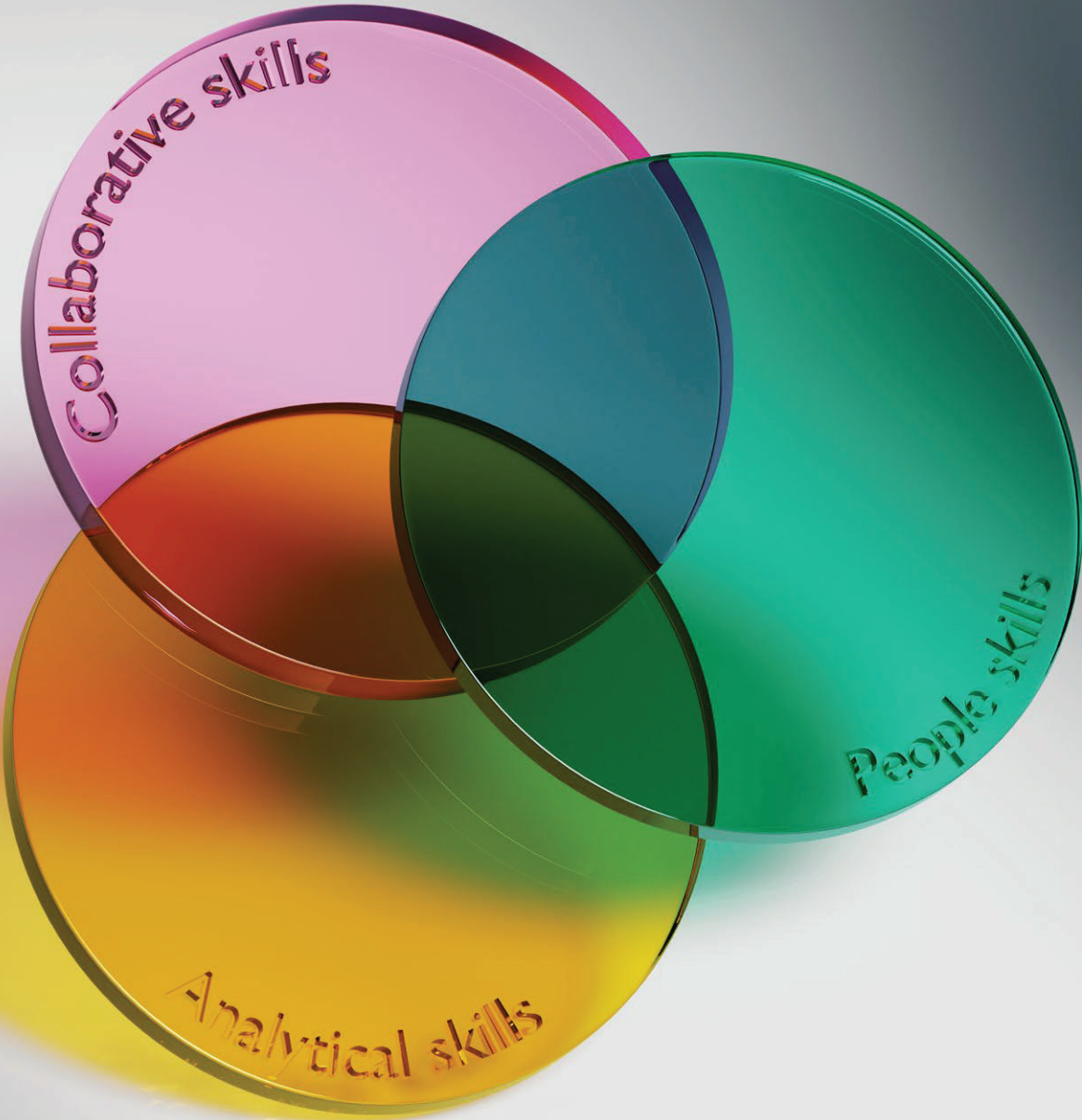
they see as work-force preparation — to help make connections between the curriculum and the critical skills sought by employers?

How can colleges act early and intentionally in their career-education efforts to help students identify their goals for life and work, so they can take part in activities and experiences that will help them achieve their aspirations?

This *Chronicle* report will help college leaders understand how the pandemic, inno-

vation, and automation are changing the jobs their graduates will do — and how, and even where, they will work. It will examine how this revolution in work has created new demands on colleges, affecting what they teach and the ways in which they help prepare students for the job market. And it will highlight some of the exciting innovations in career education and development that can help colleges more sure-footedly guide students along the path from study to work.

SECTION 1



The Skills Revolution

CHANGE. It's the single word that sums up today's employment landscape. A host of forces — automation, artificial intelligence, and globalization — are rewriting job descriptions and transforming the work we do. The retirement of the baby boomers and the entry of a new, far more diverse generation into the job market is reshaping the American work force. And the Covid-19 pandemic, with its sudden normalization of remote and hybrid work, could alter how, and where, we do our jobs.

“Even before the pandemic and certainly since, there's been a quickening pace of change,” says Matt Sigelman, chief executive of Emsi Burning Glass, a company that studies job skills, work-force trends, and labor-market dynamics.

In just the past decade, he says, a third of the skills in the average American job have shifted.

Why has the rate of change accelerated? And what does it mean for both seasoned workers and recent college graduates seeking employment for the first time?

Recent graduates and seasoned employees alike need agility and evolving skills in today's constantly changing work environment.

Colleges may be a partner to their alumni over a lifetime of learning, and should work with employers to design short-term credentials and other programs.

New graduates must demonstrate the competencies they have acquired. A degree isn't enough.

A liberal-arts education offers many skills that employers are seeking, including problem solving, analysis, and critical thinking.

The economy, of course, has been evolving for decades. At the end of the 1970s, 20 million Americans, nearly a [quarter of all non-farm workers, were employed in manufacturing](#), an all-time high. Since then, the demand for workers with physical or manual skills has faded, while employment in jobs requiring higher-level social and analytical skills has increased by [80 percent](#). The [jobs of tomorrow](#) are in computing, technology, and engineering, labor economists say, as well as in health care, the latter a reflection of the country's graying population.

Trade and automation helped usher in that change. No two factors, besides the aging work force, have contributed more to declines in labor-force participation among

lower-skilled workers since the turn of the century, according to researchers' [estimates](#). The globalization of the market for both buyers and sellers means that it has become cheaper and more efficient to make goods in countries where wages and other production costs are lower. And mechanization has sped routine tasks in farming and manufacturing, spurring large gains in productivity even as jobs were lost.

Automation will continue to be a major disruptor, and sectors across the economy will feel its impact. Thanks to advances in artificial intelligence, machines will assume higher-skilled work that was previously thought could be performed only by humans. Self-driving cars could take over from long-haul truckers, filling the nation's highways with autonomous vehicles. AI-powered algorithms could help spot cybersecurity breaches and aid doctors in diagnosing disease and devising treatment plans for patients. The work of accountants, data analysts, insurance adjusters, and even journalists could be automated.

By 2025, the time spent on work-related tasks by humans and machines will be equal, the World Economic Forum projects.

The adoption of technology has quickened in the past two years, the forum reports, with employers particularly interested in cloud computing, big data, and encryption.

Two-thirds of executives in a [June 2020 survey by McKinsey & Company](#), the consulting firm, said they planned to "somewhat" or "significantly" step up investment in automation and artificial intelligence. The Covid-19 pandemic could hasten the embrace of technology as companies redesign their work processes and seek to control costs as a result of the economic uncertainty caused by the global public-health crisis, the McKinsey analysis said.

Automation is a double-edged sword that could both eliminate jobs and create new opportunities for work. The forum found that 43 percent of businesses plan to reduce their work force because of technology, while 34 percent expect technological integration will lead to more hiring. By 2025, the

The Uncertain Job Market

8.5%

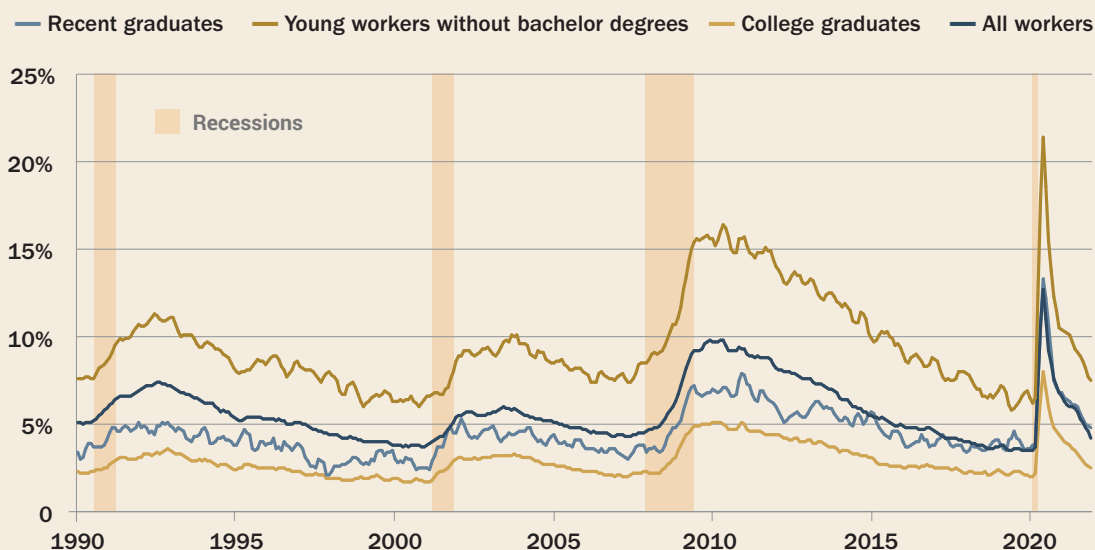
Unemployment rate for bachelor's-degree holders age 20-24, December 2020

4.4%

Unemployment rate for bachelor's-degree holders age 20-24, December 2021

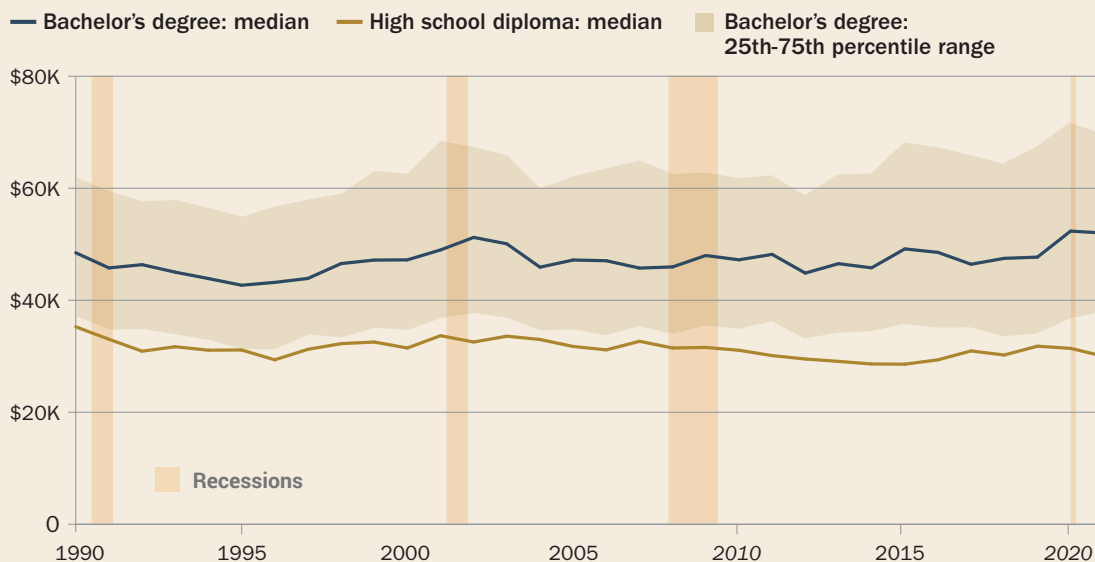
Source: Bureau of Labor Statistics, National Association of Colleges and Employers

Unemployment Rates for College Graduates and Other Groups, 1990-2021



Note: Rates are seasonally adjusted and smoothed with a three-month moving average. All workers are those aged 16 to 65; college graduates are those aged 22 to 65 with a bachelor's degree or higher; recent college graduates are those aged 22 to 27 with a bachelor's degree or higher; and young workers are those aged 22 to 27 without a bachelor's degree. All figures exclude those currently enrolled in school. Vertical shaded areas indicate periods designated recessions by the National Bureau of Economic Research.

How College Graduates' Median Earnings Compare With Those of High-School Graduates, 1990-2020



Note: Annual wages are expressed in constant 2021 dollars. Recent college graduates are those aged 22 to 27 with a bachelor's degree only; high-school graduates are those aged 22 to 27 with a high school diploma only. Figures are for full-time workers and exclude those currently enrolled in school. Note that some portion of the earnings gap could reflect differences in aptitude between graduates and nongraduates. Vertical shaded areas indicate periods designated recessions by the National Bureau of Economic Research. Earnings data are updated annually at the beginning of each calendar year.

Source: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey

Top 10 Employee Skills for 2025

The following skill types were mentioned by employers surveyed as the skills most likely to be in demand in 2025.

Problem Solving

Analytical thinking
and innovation

Complex problem-solving

Critical thinking and analysis

Creativity, originality,
and initiative

Reasoning, problem-
solving, and ideation

Self-management

Active learning and
learning strategies

Resilience, stress
tolerance, and
flexibility

Working with People

Leadership and
social influence

Technology Use and Development

Technology use,
monitoring, and control

Technology design and
programming

Source: Future of Jobs Report 2020, World Economic Forum

The Job Landscape in 2025

By 2025, new jobs are expected to emerge as others are replaced because of a shift in the division of labor between humans and machines.

Decreasing job demand

85 million

Growing job demand

97 million

| | | |
|-------------------------------------------------|----|--------------------------------------------|
| Data-entry clerks | 1 | Data analysts and scientists |
| Administrative and executive secretaries | 2 | AI and machine-learning specialists |
| Accounting, bookkeeping, and payroll clerks | 3 | Big-data specialists |
| Accountants and auditors | 4 | Digital marketing and strategy specialists |
| Assembly and factory workers | 5 | Process-automation specialists |
| Business-services and administration managers | 6 | Business-development professionals |
| Client-information and customer-service workers | 7 | Digital-transformation specialists |
| General and operations managers | 8 | Information-security analysts |
| Mechanics and machinery repairers | 9 | Software and applications developers |
| Material-recording and stock-keeping clerks | 10 | “Internet of things” specialists |

Source: Future of Jobs Report 2020, World Economic Forum

group estimates, 85 million jobs could be lost globally because of automation and AI, while 97 million new positions could emerge that are “more adapted to the new division of labor between humans, machines, and algorithms.”

In the United States, McKinsey projects that as many as one in 10 Americans could need to shift to new occupations by the end of the decade. Although many of those who could be displaced are in low-wage, low-skilled jobs, college graduates will also have to make sure they have the right mix of skills to stay ahead.

In the past, a college degree has given workers some protection from shifting economic winds, and that held true even during the pandemic. Among adults over age 25, the

17
million

U.S. workers, or one in 10, may need to find a different occupation by 2030

Source: “The Future of Work after Covid-19,” February 2021, McKinsey Global Institute

Automation is a double-edged sword that could both eliminate jobs and create new opportunities for work.

unemployment rate for high-school graduates without any college was 4.5 percent as of December 2021, while for college graduates it was 1.9 percent.

Even for the youngest workers, who were more likely to be furloughed or fired during the Covid-19 outbreak, education has been insulation from unemployment. In June 2020, the high point for Covid-related layoffs, the jobless rate was 13 percent for workers ages 22 to 27 with a bachelor’s degree and 22 percent for those without one, according to a study by the Federal Reserve Bank of New York. As of December 2021, unemployment rates had fallen below 5 percent for recent college grads.

RESKILLING FOR ALL

More and more, a college education is the price of admission to the job market: **Two-thirds of all American jobs require a college degree** or some sort of postsecondary training, according to Georgetown University’s Center on Education and the Workforce. And college graduates enjoy a significant salary advantage over those with only a high-school degree.

Still, today’s college graduates are likely to be affected by the churn up and down all rungs of the economy. That’s because, as Sigelman of Emsi Burning Glass says, much of the change is *within* jobs, as technology and other forces alter, and in some cases, transform the skill sets required for positions. The job title may be the same as in the past, but the job description decidedly is not.



WESTERN PATHWAYS.

Matt Sigelman, chief executive of Emsi Burning Glass, a company that studies work-force trends, says job titles may stay the same, but skill sets are changing. (Speaking at Western Pathways Conference, 2018.)

Take the job of software engineer. Graduates in this field might design software programs, build social-media apps, maintain computer systems — or devise autopilot systems for autonomous vehicles. Working on driverless-car technology demands a background in robotics, mechanical learning, and SLAM, or mapping and localization — different expertise than a software-engineering position has typically required. For some jobs, workers will add cutting-edge competencies; in others, it's that the mix of skills has shifted in new and unexpected ways.

The pandemic also may have accelerated these nontraditional job changes, as workers laid off or furloughed from certain positions realized their skills were transferable to new and different fields.

Little will be static. The World Economic Forum projects that **40 percent of the core skills required in a job could change** over

the next five years. Executives surveyed by the group said they expect that half of all workers will require training to keep up.

“Has the average curriculum changed that much? Probably not.”

Employees also recognize the shift: Two-thirds of workers in a Pew Research Center survey said the need to improve skills was greater than it had been in past decades — and they predicted that demand to add new expertise would only increase in coming years.

This realignment also has implications for how workers move between jobs, affecting

the long-term career trajectories of graduates, Sigelman says. Workers' pathways for promotion could change, meaning that their next job could be different than in the past. For example, marketing-research analysts often became marketing managers, but the emphasis on analytics and data visualization in that role might better prepare such employees to step into systems-analyst positions, rather than sticking with the field of marketing. Event planners, on the other hand, will have a tougher time moving into marketing roles because of their lack of digital expertise.

College graduates can no longer rely on their degree to accurately signal their fitness for a job. Instead, they will need to clearly spell out the competencies they have acquired.

In the past, the skill sets of recruiting and sales — cold calling, industry knowledge, customer contact — overlapped. But in the past decade recruiting has become much more driven by technology, and by database work and social media in particular, leading more recruiters to become social-media specialists. And financial quantitative analysts now look a lot more like data scientists, with skills like Python, Tableau, and SQL — opening up that career path, along with more traditional finance roles.

The rapid evolution of skills offers opportunities for colleges, which could play an important role in meeting the demand for

reskilling. Employers and other institutions already spend \$650 billion annually on post-secondary education and training, and they could work more intentionally with colleges to design programs, including short-term credentials and certificates that address specific skills gaps, experts say.

But the skills shift also puts pressure on colleges to keep up. Noting that a third of job skills have turned over in the past 10 years, Sigelman asks, "Has the average curriculum changed that much?" He answered himself: "Probably not."

COMPETENCIES ARE KEY

This has fed skepticism about the value of a college degree. Three out of 10 Americans told Pew that a four-year degree did not adequately prepare graduates for work. And 60 percent of employers surveyed by the American Association of Colleges and Universities said recent graduates had the skills and knowledge needed to do well in entry-level positions, but only about half said they had the knowledge and skills required for advancement and promotion.

Part of the mismatch may reflect a communication breakdown. The skills revolution means that workers often have a poor understanding of the actual expertise required for the positions they're applying for, and employers need to better articulate their expectations. At the same time, college graduates can no longer rely on their degree to accurately signal their fitness for a job to hiring managers. Instead, they will need to clearly spell out the competencies they have acquired in their college education.

Yet, colleges should be well-positioned to ensure that their graduates meet employers' needs. After all, many of the skills that executives told the World Economic Forum are most critical are right in the wheelhouse of a liberal-arts education: problem solving, analysis, active learning, and critical thinking.

The skills revolution is unfolding against a backdrop of demographic change. For all the talk of a Great Resignation during the pandemic, the real phenomenon may be the

Great Retirement. Covid-19 accelerated the exodus of older Americans from the work force. Over two years of the pandemic, 3.5 million workers retired, according to a Pew analysis, compared with about 1 million Americans annually over the prior decade.

As of the end of 2021, half of American adults over 55 were retired, up from 48 percent before the pandemic.

That was a shift. Baby boomers had previously stayed in the work force up to and past retirement age, which economists attribute to a mix of financial pressures brought on by the 2008 recession and improving health outcomes for older Americans. Between 2000 and the start of the pandemic, in fact, workers over 55 were the only age group to increase their labor-force participation.

But it was also inevitable that baby boomers' aging out of the work force would have an outside effect whenever it happened, given the large number of Americans, nearly 72 million in the 2020 U.S. Census, who make up the generation. Indeed, even prior to the pandemic, the U.S. Department of Labor projected a slowing of labor-force growth, to only about 0.4 percent annually over the next several decades. By contrast, the number of Americans working or looking for work grew 1.2 percent a year between 1990 and the start of the 2008 recession.

Employers could make up for some of the work-force declines through automation. But it also means college graduates could enter a labor market where the competition for jobs is less heightened. "Employers can't stay stuck in a beauty-contest mind-set" where it's entirely on job applicants to catch their eye, says Steven Rothberg, who runs College Recruiter, a job-search site for college graduates.

New hires will be different from older workers in important ways. Gen Z is the most racially and ethnically diverse generation; nearly half of the youngest Americans are nonwhite. Its members value a commitment to equity and inclusion. In a 2021 survey by the National Association of Colleges and Employers, or NACE, more



NACE

Shawn VanDerziel, executive director of the National Association of Colleges and Employers, says the short-term job prospects for the Class of 2020 were "the most unfavorable I've ever seen."

than 70 percent of new graduates said a diverse workplace was very important to them. Since the Black Lives Matter protests following a police officer's murder of George Floyd, a Black man in Minnesota, the emphasis has only increased.

As a result, employers are emphasizing their institutional commitment to diversity in the hiring process and seek to expand their applicant pool to attract a more diverse set of candidates. "It's touched off an examination by nearly every organization about who they hire and what their bias is," Rothberg says.

Yet, the racial disparities in employment are significant and persistent. Less than a quarter of Black workers and a fifth of Hispanic workers are in what Emsi Burning Glass calls "future proof" jobs — positions with growing employment prospects, strong compensation, and upward career mobility. Underrepresented graduates are more likely to be underemployed — that is, they are college graduates working in jobs that don't require a bachelor's degree — even when they study fields with traditionally strong employment outcomes. Thirty-six percent of Black engineering majors, for example,

are underemployed, compared with just 16 percent of their white classmates.

Complicating this shifting employment picture is Covid.

In the immediate aftermath of the outbreak, the hiring of recent graduates plummeted. Shawn VanDerziel, executive director of NACE, called the short-term job prospects for the Class of 2020 “the most unfavorable I’ve ever seen.” Three in 10 young alumni — those within a decade of their college graduation — in the 2020 [National Alumni Career Mobility](#) survey reported that the pandemic had some impact on their career or job status, such as being furloughed or unemployed, or making a job change.

A REBOUND IN HIRING

But as the pandemic’s initial economic shock wore off, hiring rebounded, especially for college graduates. NACE reports employers expected to hire 7 percent more graduates of the class of 2021 than of the class of 2020. Phil Gardner, author of the annual Recruiting Trends survey issued by Michigan State University’s Collegiate Employment Research Institute, paints an even more optimistic picture, estimating that hiring for bachelor’s degree graduates will increase 15 percent in 2021-22.

Employers who had been sitting on the hiring sidelines during Covid report high levels of optimism about the college labor market, the strongest outlook since the 2008 recession, although Gardner cautioned there was variation between industries and sectors.

And having a job is not necessarily the same as having a good job. “The market is really hot for certain students,” Jeffrey Moss, chief executive of Parker Dewey, a group that creates micro-internships, said during a recent *Chronicle* event. “It’s great if you happen to have a high GPA in a major that sounds like a job title and a family connection that can make the intro.”

However, over all, in early 2022, there were not enough workers to fill job open-

ings. Nearly three-quarters of employers had increased compensation or were considering such incentives, yet nearly half of executives told PricewaterhouseCoopers that a [lack of available talent](#) posed the biggest risk to their ability to meet growth targets.

The pandemic could further reshape the labor market. Emsi Burning Glass has projected the creation of as many as 18 million new jobs over the next five years. Some will be in fields like health care, logistics, and advanced manufacturing, where the pandemic spotlighted unmet needs. Others could be in areas of new opportunity, such as in the software and IT infrastructure required to support remote work.

Of course, one of Covid’s legacies is the overnight adoption of working from home. Even before the pandemic, working from home had been on the rise — the share of workers who said they had the opportunity to work remotely at least some of the time doubled between 2011 and 2020 according to Glassdoor, the job website. But as office buildings were emptied by Covid, people



The projected increase in new graduates hired from the Class of 2021, compared with the number hired from the Class of 2020

Source: National Association of Colleges and Employers, 2021

spent 148 percent more time each week using Microsoft Teams, the online-meeting platform, than they had previously.

Employers have not wholeheartedly embraced remote and hybrid work; 78 percent of executives surveyed by the World Economic Forum thought it would have a negative impact on employee productivity. But they have accepted that it's the new reality.

McKinsey estimates that as many as a quarter of all workers could continue to work remotely three or more days a week. That's four to five times as many people as did so prior to the pandemic. Accordingly, employers plan to reduce office space, on average, by 30 percent. Even in front-line fields, like customer service and manufacturing, there is greater openness to remote and hybrid work, Manpower Group reports in its 2022 employment outlook survey.

This shift reflects employees' expectations. PricewaterhouseCoopers found that a quarter of employees were considering moving 50 miles or more from their office — and 12 percent had already done so since the start of the pandemic. Among new graduates, half say that flexible work arrangements are important to them in their job search, NACE

“It’s great if you happen to have a high GPA in a major that sounds like a job title and a family connection that can make the intro.”

reports. Yet, the rise of the virtual or hybrid workplace could complicate young employees' transition, making it more difficult for them to learn company culture and pick up on-the-job skills.

No matter where they are logging in from or the work that they do, college graduates will be entering a job market where the one constant is change. Colleges will be challenged to prepare their students for the unanticipated, to teach skills for jobs that have not yet been created, and to help them navigate from college onto a career path that's not yet set.

SECTION 2



Challenges Facing Campuses

THE WHIPSAW OF THE PANDEMIC — going from the worst college job market since the Great Recession to an explosion of help-wanted signs — has created enormous uncertainty for today’s college graduates.

While the unemployment outlook is much improved, Covid-19 has left its imprint on the economy. New graduates will be competing for jobs with earlier classes that graduated during the pandemic, as well as with other young people who were furloughed or laid off because of Covid. Termination rates for workers under 25 years old [were 79 percent higher during the pandemic](#) than for older employees.

The job outlook is also not uniformly good for all students.

These pandemic setbacks cast a shadow on the otherwise-sunny jobs forecast. One in five students in a poll conducted by the Strada Education Network said that Covid had made their opportunities for career exploration “much worse.”

Landing a good job is the single-most important reason students give for going to college, but many wait too long to focus on career planning.

The pandemic has brought greater awareness to changes reshaping work and the need for colleges to better prepare graduates.

As more jobs call for a mash-up of skills, colleges must help students to evaluate their experiences.

Women and underrepresented students report having a better job search with virtual recruiting than in traditional settings.

“Covid-19 will impact these graduates forever,” says Shawn VanDerziel, executive director of the National Association of Colleges and Employers.

For students, the pandemic has been a brute disruptive force, upending their personal lives, their social interactions, and their studies. Many have seen a parent laid off or a loved one fall ill. They may have been sick themselves. Now Covid is coloring their college graduations. Like all major life transitions, leaving school for work has always been a moment of mixed emotions, a time for celebration and a time of trepidation. The pandemic caused those anxieties to go off the charts.

Colleges need to understand this mind-set. If students see a job as the payoff of higher education, they may look to colleges, now more than ever, to deliver on that promise. There could be new and heightened expectations for colleges to help students move, effectively and successfully, into the workplace.

But these demands come as many colleges’ career centers are doing more with less. Career offices have not been immune to the financial squeeze suffered by departments across campus since the start of the pandemic. Half of all career centers surveyed in July 2020 by Handshake, a job and networking site for college students, said their budgets had been cut. Six in 10 had hiring freezes.

Some experts say Covid is also an opportunity to bring new and renewed focus to career education and development. In the years immediately after the 2008 recession much attention was paid to career outcomes and the best strategies to help students find good, satisfying work. But as the college job market rebounded and the economy hummed along, that attention receded on many campuses.

“Higher ed took its foot off the gas,” says David Clayton, senior vice president for consumer insights at Strada.

The pandemic is but one cause, but it has brought greater awareness to the pace of change reshaping work and the need for colleges to do more to prepare graduates. “Covid

made schools realize they can’t keep doing what they’d been doing,” says Andy Chan, vice president for innovation and career development at Wake Forest University. He says some colleges will “take advantage of the moment” and invest in career programming. “They’ve got to innovate out of the crisis.”

THE PURPOSE OF COLLEGE: WORK OR LEARNING?

Yet to do so will require dealing with challenges that have existed and persisted since long before the Covid contagion spread around the globe.

One of the most fundamental is the philosophical rift over the purpose of college. Many people on campus, particularly faculty members, resist discussions about career outcomes and job-placement rates, seeing them as turning the four-year college degree into vocational training. The purpose of college, as they see it, is learning itself — to become a better-educated citizen, not to land a cushy job.

“Covid made schools realize they can’t keep doing what they’d been doing. ... They’ve got to innovate out of the crisis.”

When the American Council on Education released a 2020 paper called “[Beyond Classroom Borders: Linking Learning and Work Through Career-Relevant Instruction](#),” its authors got a lot of pushback. Catherine Haras, senior director for effective teaching and learning at California State University at Los Angeles, and Steven C. Taylor, a found-

er of ED2WORK, a group focused on policy for adult learners, had written about how to make connections between what happens in the classroom and the skills demanded in the workplace. But critics saw the pair as suggesting that professors moonlight as career counselors.

The criticism was frustrating to Taylor and Haras, who say their purpose wasn't to enlist faculty members in work-force development but to suggest new ways to talk about the career relevance of what they already teach. "We're not talking about technical skills," says Haras. She notes that education is key to economic mobility at an institution like hers, which serves a largely Hispanic and low-income student body. "We're talking about the curriculum. Why is that such a big ask?"

Still, the flare-up underscores the persistence of age-old divides. That division plays out in the very way campuses' career services have historically been structured. Typically, the career office was located within student affairs, although that has been changing as more campuses have shifted it to report to the provost.

CAREER EDUCATION SEEN AS OPTIONAL

The legacy structure, however, can feed into the idea that career services is discretionary or optional — an activity that students can choose to engage with, much like joining a club, volunteering in the community, or attending an on-campus event. It's an ancillary resource, not at the heart of the student experience.

"Students don't participate in anything they don't get credit for," says Phil Gardner, executive director of the College Employment Research Institute at Michigan State University.

Out of sight often means out of mind, career-development administrators say. Students frequently don't show up at the career office until they have a specific need. "We have a history of being a supplemental service," says Dwayne Peterson, executive director of career engagement and opportu-

nity at New College of Florida. "We were the résumé people."

As a result, many students don't set foot in the career center until just before graduation, when their job searches are looming.

Indeed, a Strada analysis of 2021 data from the National Survey of Student Engagement, or NSSE, highlighted the extent to which [students put off career exploration](#) and preparation. It found significant gaps in the career-preparation steps new students planned to take and the steps that they actually did take. For example, two-thirds of first-year students planned to network with alumni or professionals in the field in which they were interested, and to interview or job-shadow someone in that career area. Yet only about a third of seniors had interviewed or job-shadowed a person, and just a quarter had engaged in networking, according to the data.

Likewise, students made little follow-through on plans to use career-service resources. Students were significantly less likely to have sought help with a résumé, completed a career profile or self-assessment, or met with career-office staff members by their senior year than they had originally anticipated as freshmen.

The failure to use available resources is particularly striking, given the emphasis students place on employability as a college outcome.

Part of the low uptake may reflect the pandemic and its impact on overall student involvement and engagement, Clayton, the Strada vice president, says. But the disconnect may also reflect a fundamental misunderstanding by students about career education.

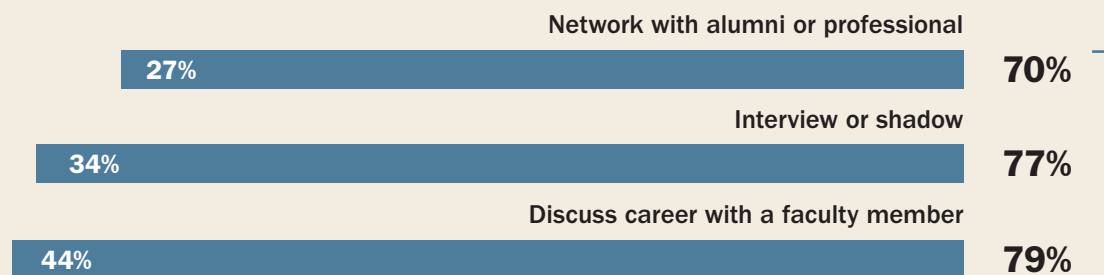
The career office isn't a job-placement service. It's not where you go to get a job, experts say, but rather a place where students gain the skills and experiences to find rewarding work. And while career offices do offer a suite of services — résumé writing, mock interviews, job fairs — they are most effective when they work with students to explore their goals and priorities for profes-

Differences Between Student Intentions and Career-Related Activities

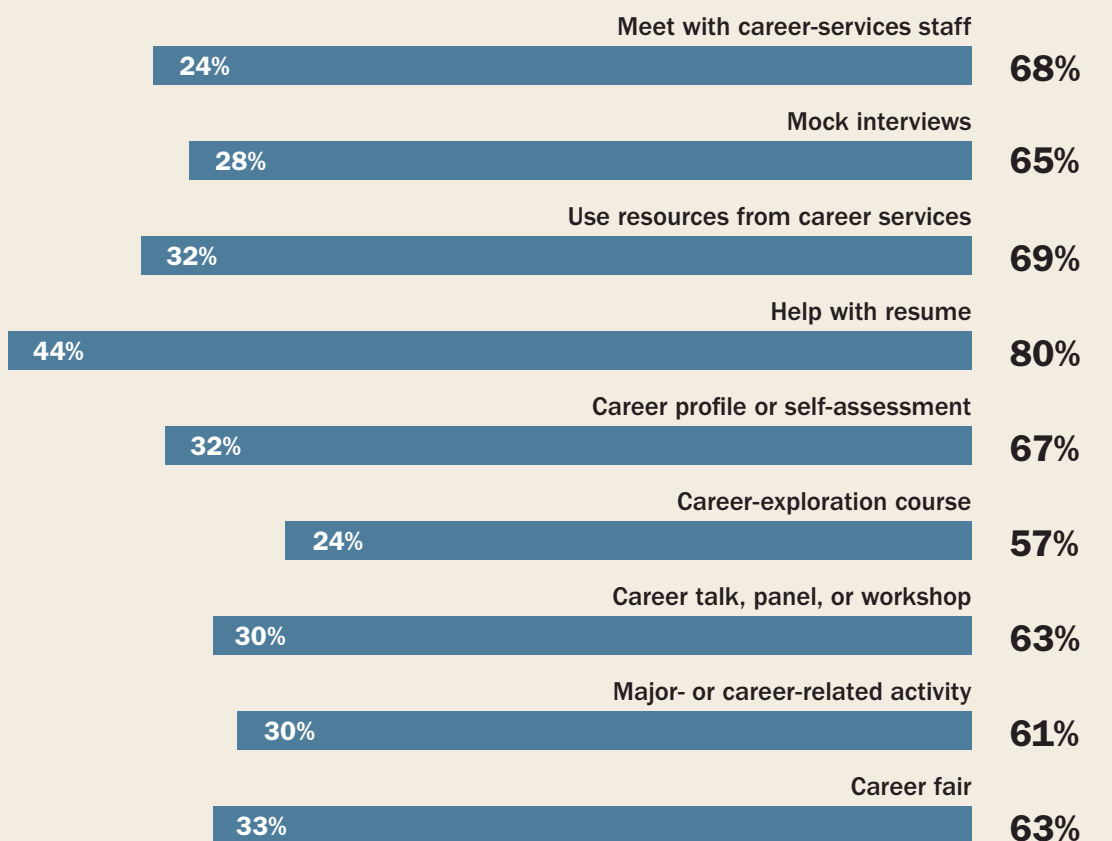
There are significant mismatches between intentions and completed activities, especially in building social capital and utilizing career-services staff.

Percentage-point difference between first-years' plan and seniors' completed activities

Social-capital building



General career-building activities



Note: As part of the 2021 NSSE Career & Workforce Preparation Module, 24,921 first-year and 29,893 senior students were asked which of the activities they have done or plan to do, in person or online, at their institution before graduation.

Source: "Understanding Undergraduates' Career Preparation Experiences," December 2021, Strada Center for Education Consumer Insights

sional and personal development. “It starts with the person,” Chan, of Wake Forest, says.

Doing such exploration is difficult if students don’t show up until the second semester of their senior year.

Procrastination can hamper students in critical ways. Putting off career exploration means that students are charting their academic paths separately from their long-term plans. Advance planning can help students identify specific skills that they might need but that they won’t necessarily learn as part of their studies. For example, it can be easier, and cheaper, for students to add a course in computing and IT to their class schedule than to turn to a boot camp or outside certification program after graduation to pick up the same expertise, Chan says.

Delayed engagement with career education can also cause students to miss milestones. Many employers begin their college recruiting in the fall, all but excluding from the hiring pool seniors who have put off internships, networking, and other career-building activities.

The Strada analysis makes it clear that many students are not taking part in the practices widely seen as leading to post-graduation employability.

Take internships. A 2021 survey by the American Association of Colleges and Universities found that nine out of 10 employers were more likely to hire a candidate who’d had an internship or an apprenticeship, with 49 percent saying they would be much more likely to hire an applicant with such hands-on experience.

Research by the National Association of Colleges and Employers, or NACE, has consistently found that having had an internship, either with an organization or elsewhere in the industry, is among the most influential factors when employers are making hiring decisions about recent graduates. Nearly eight in 10 eligible interns get job offers, NACE found.

As is often the case, Covid has only accentuated the importance of having such experiences on one’s résumé. The National Col-

lege Alumni Mobility Survey, which tracks the career trajectories of recent graduates, found that alumni who did not take part in “high-impact practices” like internships and networking were eight times as likely to

“Students don’t participate in anything they don’t get credit for.”

have lost their jobs during the pandemic as alumni who did.

Yet fewer than half of students in the NSSE survey expressed confidence in their ability to network with alumni and employers to make professional connections.

Career engagement is like exercising a muscle — keep doing it, and you’ll get better at it. Students who participated in career-building activities were more likely than those who had made only cursory use of the career office, or who had not participated in any career preparation, to report feeling confidence and “clarity” in their career plans and their ability to identify the knowledge, skills, and experiences necessary to pursue those dreams, according to the Strada analysis.

INEQUITIES IN CAREER READINESS

The data make clear that students need help and encouragement to take advantage of campus career supports. It’s not enough to leave it up to them to proactively seek out services, even when they recognize their value.

This isn’t traditionally how career offices have worked, relying on students to take the initiative and serving those who do. It was the Field of Dreams model: If you build it, they will come.

But the old model is an artifact of the past, when students were more likely to have

known how to use the office's services, or even that it existed in the first place.

Many of today's students are the first in their families to set foot on a college campus. Fifty-six percent of all college students identify as first-generation, meaning they may lack role models to turn to for advice in navigating college, from picking classes to finding a job after graduation.

Bill Means, director of career and professional development at Florida A&M University, says some students believe the career office works only with a select group of undergraduates. "They think, 'Well, my GPA is less than 3.0 — the career center doesn't have a need for me,'" he says.

When it comes to career-building activities, there are clear gaps by class and color. First-generation and underrepresented students are less likely to take part in the educational experiences and opportunities that are broadly seen as contributing to employability.

“Give students the opportunity for workplace learning, and over all, students benefit. But students of color benefit more.”

For example, only about one in five first-generation students in the NSSE survey reported networking with alumni or professionals in their chosen field. By contrast, about a third of non-first-gen students made such connections.

While more first-gen students completed internships, their participation rates still

lagged behind other students'. Only about a third of students who were the first in their families to attend college had internships, compared with nearly half of continuing-generation students.

Students of color are also less likely to participate in career-building activities, such as networking, job-shadowing, and discussing their career interests with a faculty member. Black graduates were less likely to report on the National College Alumni Mobility survey that they had received career advice as undergraduates or that their institution had helped them develop a career plan.

Matt Sigelman of Emsi Burning Glass says Black students are 16 percent less likely than their white classmates to complete an internship as an undergraduate. Hispanic students are 18 percent less likely.

What makes these lagging participation rates especially troubling is that, for low-income and underrepresented students, taking part in career-relevant activities has more of an impact on their employability, increasing their odds of landing a job more than their peers'. Black computer-science graduates who completed an internship, for example, were nearly 30 percent more likely to get a "good" job, one that requires a bachelor's degree, Emsi Burning Glass found. Among Hispanic IT grads, the difference was 26 percent.

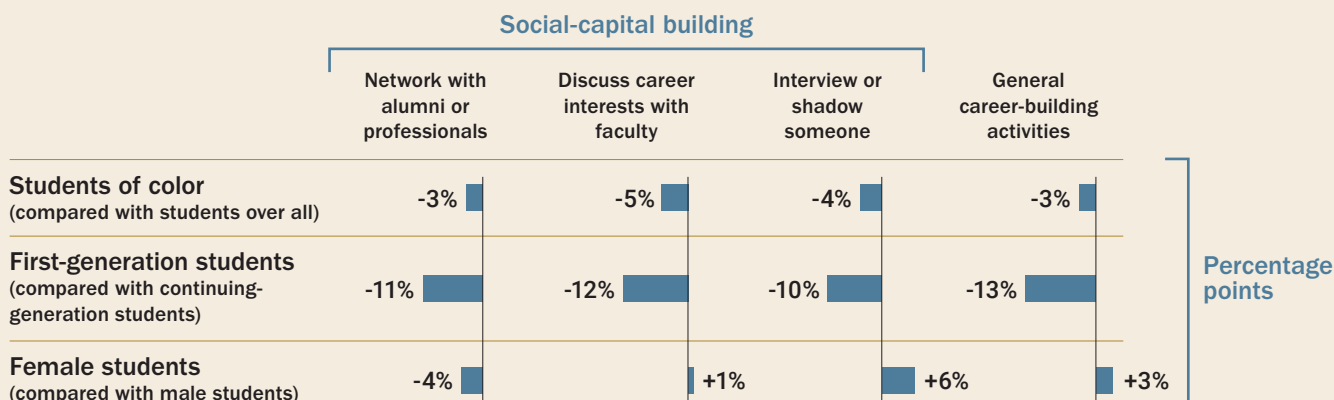
By contrast, an internship lowered white computer-science students' chances of underemployment by 19 percent. "Give students the opportunity for workplace learning, and over all, students benefit," Sigelman says. "But students of color benefit more."

Having work-related experiences also is a confidence booster. Engagement in career education all but eliminates the gaps in the sense of readiness for work between first-generation students and their classmates. In fact, with career-building activities under their belt, first-gen students in some cases reported higher levels of confidence in their workplace skills than did their peers, according to the Strada analysis of NSSE data.

Having an internship or other career expe-

Equity Gaps in Career-Building Activities

Compared with students who had at least one parent with a bachelor's degree, first-generation students were less likely to participate in social-capital building activities. They were 13 percentage points less likely to participate in general career-building activities.



Note: Data from 2021 NSSE Career & Workforce Preparation Module. Responses represent seniors who reported "done or in progress" to certain activities. Source: "Understanding Undergraduates' Career Preparation Experiences," December 2021, Strada Center for Education Consumer Insights

rience in college can be a game-changer for first-gen and minority students because they don't come to college with the kind of social capital that can help them find jobs. They lack built-in networks they can tap when seeking work. They may not know anyone with a job that requires a college degree.

Christelle Louis grew up with a strong sense of hard work — her mother held down two jobs so Louis, whose family emigrated from Haiti, could enroll at Rutgers University's Newark campus. But Louis, who worked as a McDonald's cashier during high school, had lofty aspirations. "I didn't want to work at Wendy's or Chipotle," she says. "I wanted to level up. I wanted to work at one of those big Fortune 500 companies."

But Louis had no role models for how to get her foot in the door at corporate America. That's common for students who are the first in their families to go to college, says Aimée Eubanks Davis, who started Braven, a nonprofit that helps underrepresented

students gain critical career-readiness skills.

For many of these students, first getting to college and then earning a degree have been an all-consuming focus, Eubanks Davis says. They think college itself is the ticket to a good job, and may not know how to seek out résumé-building experiences like internships and mentorships. "If you're a first-generation college student, you have no idea that you actually need resources," she says. "You think your college degree alone is enough, and it's just simply not."

First-generation students may also consider good grades as critical to their job prospects, when the National Association of Colleges and Employers reports that grades are becoming less and less influential in hiring decisions. In fact, Steven Rothberg of College Recruiter says some students may put their efforts into their studies, and skip an internship, because they fear it could detract from their academic performance.



AFKARA MASON

Aimée Eubanks Davis started Braven, a nonprofit that helps underrepresented students gain critical career-readiness skills. “You think your college degree alone is enough, and it’s just simply not,” she says.

“The problem is, doing really well on a test isn’t the same as doing well in the workplace,” he says.

There is another, practical reason those students may not be completing internships and other career-relevant experiences — they lack the time. Half of first-gen students worked more than 20 hours a week, according to the NSSE data, compared with a third of those whose family members had attended college. The need

to work could get in the way of preparing for a career.

As a result, just as there are gaps in who gets into and succeeds in college, there are real differences in career outcomes for graduates. In the National College Alumni Mobility survey, white and Asian alumni reported higher career mobility than graduates in other groups. Black and Hispanic alumni experienced higher rates of job loss during the Covid-19 pandemic. And Black graduates

were more likely than others to report that they were out of work or that their salary did not pay their bills.

These differences in outcomes erode the promise of a college degree as the route to socioeconomic mobility.

THE SKILLS MASH-UP

Another factor feeding the employability gap is what students choose to study. Certain majors have higher underemployment rates — on average, there is more than a twofold difference between the top- and bottom-performing majors, according to a recent analysis by Emsi Burning Glass. Seventy percent of those who studied law enforcement and homeland security, for example, ended up in jobs that didn't require a four-year degree. Among computer and information-services majors, the underemployment rate was only 13 percent.

And Black and Hispanic students were the least likely to enroll in the majors with the lowest levels of underemployment, such as engineering and computer and information sciences.

That's a problem because those who start out behind can get stuck. Graduates who are underemployed in their first post-college job are five times as likely to be in mismatched posts after five years as are those whose initial work fit their education.

Yet, even though there are connections between what students study and their career outcomes, majors themselves are becoming less important as a screening device for employers of new college graduates. The NACE survey found that students' major and grade-point average, as well as the college they graduated from, matter less to employers than do internships and firsthand experience. This is a shift: Just a few years ago, NACE reports, three-quarters of employers screened by GPA. Now fewer than half do.

"Employers," Rothberg says, "are becoming agnostic about these things."

The reason stems from an important trend discussed in Section 1: the rapid evolution of

What Employers Look For When Hiring New Graduates

When choosing between two otherwise equally qualified candidates, employers deemed having an internship with their organization or industry as the most influential factors.

On a five-point scale, attributes assigned a five were considered extremely influential, while those ranked one had no influence at all.

Has completed an internship with your organization

4.4

Has internship experience in your industry

4.3

Major

3.8

Has held leadership position

3.6

Has general work experience

3.7

Has been involved in extracurricular activities (clubs, sports, student government, etc.)

3.5

High GPA (3.0 or above)

3.1

Has no work experience

3.3

Has done volunteer work

2.7

School attended

2.6

Is fluent in a foreign language

2.1

Has studied abroad

2.0

Note: The Job Outlook survey forecasts employers' hiring intentions relating to new college graduates. Data for the survey were collected from August 2021 through October 2021.

Source: Job Outlook 2022 report, National Association of Colleges and Employers.

skills required for today's — and tomorrow's — jobs. "Skills versus degrees," Sigelman says, "it's become something of a mantra."

As skills, and the mix of skills within jobs, have changed, the college major has become a cruder proxy. Yes, it's a good bet that a homeland-security major lacks the coding skills for a software-developer job. But even among students earning degrees in computer science or information technology, there is a wide range of competencies and expertise.

Many jobs now call for an unexpected mash-up of skills. Some are wholly new jobs in emerging fields. But in other cases, traditional positions have been remade by adding skills from seemingly unrelated disciplines. Workers in public relations and graphic design need digital literacy. And the change goes both ways — employers in STEM fields like engineering or programming may prize candidates with soft skills like creativity and communications.

A 'skill' in the workplace is a 'learning outcome' in the classroom.

The morphing skills picture could test many colleges' sense of what it means to be a well-rounded graduate.

The skills shift helps explain why internships have become more critical in the hiring process. They play a dual role: Not only do they help students begin to network and form connections with potential employers, but they also are a way for prospective job candidates to demonstrate their proficiency and know-how. They can take what they learned in the classroom and apply it in the workplace.

Employers are also relying more on assessments during the recruiting process to determine whether a student will possess the right fit for a job opening, Rothberg says. Rather than looking to see if applicants have

computer-science degrees, for instance, employers will test their coding skills.

Just as many colleges still require students to take standardized tests to be admitted, graduates should expect employers to assess their aptitudes on the back end.

The move away from reliance on majors and grades in hiring puts the onus on students to pitch themselves as job candidates. They no longer can point to a diploma or a transcript, and expect that it will make their case (or at least get them into the applicant pool).

More than ever, students must identify and articulate the skills they do have. It's something that they struggle to do, at least in a way that's meaningful to employers. For example, do students make the connection between the group assignments they did in class and the need to work collaboratively on the job?

Haras, the director of teaching and learning at Cal State-Los Angeles, says students often have difficulty making such linkages because the learning process is opaque to them. "There is a so-called hidden curriculum where students don't know what they're doing or why they're doing it," she says. "But if they don't know the vocabulary, that's back on us."

Complicating matters, colleges and employers don't speak the same language. A "skill" in the workplace is a "learning outcome" in the classroom. "It's a kind of a work of translation," Haras says.

With skills becoming both more critical and more fluid, colleges are challenged to become more adept at helping students recognize the expertise they do have and at forecasting the new aptitudes they need.

But when it comes to the future of work, prognostication is an imperfect science. After all, who could have imagined just a few years ago that workplace-environment architect and work-from-home facilitator would be among the hottest new jobs?

COVID'S LASTING IMPACT

For students, Covid-19 placed new obstacles at every step on the path from college to career, changing internships, the recruitment process, and work itself.



VERO KHERIAN

Christine Cruzvergara, chief education-strategy officer at Handshake, says that while online career events may not have the serendipity of wandering a career fair, older models were “not equitable.”

The pandemic all but did away with the in-person internship in 2020. Even in the summer of 2021, 80 percent of internships were performed remotely or in a hybrid form, according to the National Association of Colleges and Employers.

But an August 2021 survey by College Pulse and Inside Higher Ed suggests students may have had little appetite for interning remotely. Just 15 percent of students reported having done a virtual internship during the pandemic.

Virtual internships don’t offer the same sort of casual networking opportunities or ability to shadow different workers across a company or organization. When they are working from home, it can be more difficult for interns to get to know their co-workers and to pick up details about workplace

culture through impromptu and unplanned interactions. “There are a lot of things you don’t learn working out of your basement,” says Peter Cappelli, a professor of management at the University of Pennsylvania’s Wharton School.

Christelle Louis, the Rutgers-Newark student, had landed a coveted internship at Amazon Web Services in the summer of 2020 that went remote. “I’m not going to lie,” she says. “I wish I’d had the experience with a badge and clocking in every morning with my cup of coffee.”

Still, Louis credits her boss and colleagues with trying to make her remote work experience valuable, by including her in meetings and team-building events, reaching out with feedback and advice, and letting her ask as many questions as she needed. Amazon

hired her to a full-time position on the same team when she graduated, in May 2021.

While Louis succeeded, many students fear that the pandemic could set them back in the job search. More than half of students in the Inside Higher Ed/College Pulse poll said they were worried about finding a “meaningful” job after graduation; a quarter were extremely worried.

New graduates are likely to face challenges similar to those of remote interns. Even if they work in an office a few days a week, they may not necessarily have the same schedule as their colleagues.

Phil Gardner of Michigan State says it’s

A continuing challenge for colleges’ career offices will be how to prepare and support students in the new recruiting environment.

easy for experienced workers to forget how long it can take to learn to navigate a workplace with confidence. He and a team of researchers are studying recent graduates who started out doing hybrid or remote work. “They don’t know the people, they don’t know the culture,” he says. “They’re stressed out. They’re utterly lost.”

The shift away from on-the-job training began long before the pandemic, Gardner says, but colleges’ career offices may have to pick up even more of the responsibility of preparing new graduates to make the transition to work.

Covid also is likely to bring lasting changes to how employers recruit. Before the pandemic, Gardner calculated it might be the

end of the decade before even half of employers tried remote recruitment. Overnight, nearly all had. “What the pandemic did was throw everyone in the deep end,” he says.

In 2020, employers hosted seven times as many virtual-recruitment events as they had in the prior year, according to Handshake, the online jobs platform. By May 2021, they had surpassed 2020’s total.

Virtual recruitment freed employers from the constraints of time and geography that previously had limited their outreach. Half of employers surveyed by Michigan State in 2021 about college-graduate hiring trends said they now recruited nationally, rather than in pockets of the United States.

Companies can use technology to recruit students from multiple institutions at once or hold custom events at colleges where previously they would have been just one of many employers. They can conduct initial interviews online, winnowing the candidate pool to meet just a handful of finalists for in-person interviews.

Virtual recruitment is cost effective for employers and streamlines their staff time, allowing a recruiter to spend an hour or two preparing for and participating in an online job fair, rather than days at a time on the road for career events. Students like the convenience, flexibility, and expanded access.

Large majorities of students, employers, and colleges said they would like at least some aspect of virtual recruiting to remain, even when in-person events can resume.

Still, students and employers miss the connection and rapport of in-person events. Available technology platforms do not necessarily lend themselves to job interviews, and can make reading body language difficult. Gardner says there have been many no-shows at remote recruitment sessions, although employers surveyed by NACE said that while participation rates were lower, those who took part were highly engaged.

Remote recruiting also changes colleges’ role in the recruitment process. When employers reached students primarily through career fairs, colleges were the

gatekeepers, organizing events and information sessions and setting up interviews.

Now employers can connect directly with potential hires over LinkedIn and other social-media sites, and can even use artificial intelligence to identify candidates. Online platforms like Handshake allow students to upload their résumés and network even if their colleges don't use the recruitment site.

That puts more responsibility on the individual student to navigate the networking and recruitment process. First-generation, low-income, and underrepresented students could be more on their own in the job search, a tough position for students who lack clear models of how to network and appeal to employers. A fifth of college students don't have reliable Internet access, notes Shawn VanDerziel of NACE.

A continuing challenge for colleges' career offices will be how to prepare and support students in the new recruiting environment. Standing out in a crowd can also be difficult in a virtual space, and career centers could help students figure out ways to set themselves apart and to quickly and succinctly introduce themselves and sum up their skills.

Yet there could be an unexpected silver lining to virtual recruitment, in its appeal to underrepresented students. While students over all have mixed feelings about virtual job interviews, women and students of color prefer such remote interactions.

In a Handshake survey, women and underrepresented students said they'd had a better job-search experience with virtual recruiting than in traditional settings, saying they'd learned more, got a more authentic sense of the employer, and had better interactions with recruiters.

NACE, too, found that first-generation and minority students preferred remote recruiting — 70 percent of Black students and 60 percent of Hispanic students said they'd learned more in a virtual setting.

And, Handshake found, these students were more likely to apply for a job after a virtual career event.

Christine Cruzvergara, chief education-strategy officer at Handshake, acknowledges there's not as much "serendipity" in online events as in wandering between tables at a career fair. But "was the way we were doing it before the best way?" she says. "Because before it was not equitable."

SECTION 3



Seeking Solutions

STUDENTS COME TO COLLEGE to prepare for a good job but leave not always knowing how to find one. Employers worry about the preparedness of today's graduates and about how to attract workers with skills for the future. The employment landscape is undergoing a sustained, yet seismic, shift.

The current environment calls for a renewed focus on career readiness, experts say, one that approaches the connection between the classroom and the workplace with fresh eyes.

A small but growing number of institutions are elevating career development to an institutional priority. Some colleges — including Drew, Johns Hopkins, and Wake Forest Universities, and the University of Richmond — have incorporated plans for curricular and co-curricular career education into their strategic plans.

The University of California at Davis made integrating career preparation throughout the college experience one of its “big ideas,” or key institutional efforts. Davis has attracted

Career offices are moving out of the basement – physically and metaphorically – and gaining clout by partnering with academic-affairs offices.

Students are developing skills portfolios, working with career coaches, and taking part in high-impact activities earlier.

To narrow equity gaps, some colleges are creating special opportunities for low-income and minority students.

Because job changes require life-long learning, more colleges are creating stackable credentials, microcredits, or other nondegree options.

“Early and often” has become a mantra for career planning, with some colleges including the career center on admissions tours.

\$10 million in donor support to its [Aggie Launch](#) program, which seeks to make career planning a standard part of academic advising, infuse career education across curricula, and guarantee internships, co-ops, and professional on-campus work experiences for all students.

“You have to move from, this is a service to this is systemic.”

Hartwick College, a small liberal-arts college in upstate New York, overhauled its approach to undergraduate education, with a focus on career preparation as a core principle, in part to head off enrollment declines.

And institutions of all sizes and profiles are making career education the focus of quality-enhancement plans, a student-success metric that’s a critical part of reaccreditation. In Georgia alone, Georgia State University, the state’s largest public college; the private Reinhardt University; and Spelman College, the elite historically Black college, all have such enhancement plans focused on the college-to-career pathway.

A strategic plan is just that, a document or to-do list, but buy-in from the top can put institutional muscle behind career-education efforts. It can also work as an important signal to rally campuswide support and, hopefully, engagement, potentially addressing a persistent barrier to progress.

“You have to move from, this is a service to this is systemic,” says Jeremy Podany, chief executive of the Career Learning Collective, a group that works with colleges on career-development strategies.



WAKE FOREST UNIVERSITY

As a member of the presidential cabinet, Andy Chan, vice president for innovation and career development at Wake Forest U., can help elevate issues of career readiness.

OUT OF THE BASEMENT

If career development is truly an institutional priority, says Podany, who spent 17 years in higher education, “no longer can it be just the work of a career office in the basement.”

“The expectation that students have to have a clear plan at 18 is unreasonable. The worst question is, where do you see yourself in 10 years?”

At Wake Forest, Andy Chan’s role as vice president for innovation and career development is part of the presidential cabinet. Having such an adviser among a small group of senior leaders has helped elevate issues of career readiness on the regular agenda of institutional leaders. It’s also helped expedite action — if Chan has ideas for programming that involve other departments on campus, he can quickly assemble colleagues like the dean of a college or the head of alumni relations and “make it happen,” he says.

Cabinet-level positions like Chan’s aren’t the norm, but more career-development directors say they report directly to the provost or chief academic dean, giving them a clearer line to decision makers.

But Chan and others say it isn’t enough to raise the prominence of career education — there needs to be a rethinking of the work that career offices do.

Historically, the work of career offices has been seen as a set of services, oriented around matching students with specific jobs. Experts say it should be thought of as more of a process, one that starts with students’

interests. It’s about helping students figure out what they want to do, rather than identifying the jobs they want to get, says Farouk Dey, vice provost for integrative learning and life design at Johns Hopkins.

When Dey and his staff work with students, their starting point isn’t what careers they’re interested in pursuing. Students often don’t know, or have only a vague idea, he says. Instead, they ask, “What are you curious about?” Students always have an answer, Dey says. “We should help students know what they’re interested in and give them the confidence to experiment.”

Nick Huang, a 2018 graduate of Butler University, in Indianapolis, credits conversations with career-center staffers for helping draw connections between his involvement in campus clubs and a potential career. Realizing that he would be happiest doing work that had a lot of personal interaction was an “a-ha! moment,” he says.

Likewise, after Huang studied abroad in South Africa during his sophomore year, a career adviser encouraged him to apply for a Fulbright teaching fellowship, something he wouldn’t have had the confidence to do on his own. Today, he works as a project-marketing manager at Google, serving as a bridge between the development and marketing teams. His year as a Fulbrighter in Macau gave him a more global lens, and helps him work across barriers with a multicultural team of co-workers. “One of the reasons you go to college is to get a good job,” Huang says, “but when I first came to campus, I didn’t know what that meant.”

Dey calls this process “life design.” Others use terms like “life and career exploration” or “personal and professional development.” To some, this language might sound woo-woo. But Dey says the old framing, of career planning, doesn’t fit — if it ever did.

“The expectation that students have to have a clear plan at 18 is unreasonable,” he says. “The worst question is, where do you see yourself in 10 years? It doesn’t work like that.”

If the question was answerable in an era when workers started with and retired from

the same company, it no longer is. Not only are few of today's college graduates likely to stick with a single employer, the skills revolution means the actual job that they do will change many times over the course of their careers.

The idea of a career plan is outdated, Dey says. "It's too linear — and it's not how jobs work. There are jobs that will exist in five years that don't exist today."

"There are jobs that will exist in five years that don't exist today."

It's preferable to prepare students for career exploration and flexibility, says Shawn VanDerziel of the National Association of Colleges and Employers. After all, it's a skill they will need throughout their work lives.

Unintentionally, Covid-19 could help accelerate this change. Freed up from staffing campus visits and in-person fairs, career advisers may be able to spend more time on the counseling and coaching aspects of their work.

A shift in language and approach could help bridge the gap with faculty members and others on campus who have been worried that an emphasis on careers could lead to the overvocationalizing of college. Dey's emphasis on life design doesn't sound far off from the language around educating the whole citizen that's long been at the heart of the case for liberal-arts education.

SKILLS PORTFOLIOS AND CAREER COACHES

Elevating career education as an institutional priority could also help make it a campuswide expectation. Given the

consensus around the types of experiences and activities that help improve students' postgraduation outcomes, it's troubling when only a small share of students engage in them, says Podany, of the Career Leadership Collective. "Who does it hurt when career services are merely offered?"

Setting an institutional agenda for career education is important but not sufficient. Colleges will also need to embrace specific strategies to make sure that career development isn't just for the students who seek out the career office. Instead, institutions must be more intentional and more intrusive.

Margaret L. Drugowich, president of Hartwick College, says colleges, hers included, often put the responsibility on students to "come and ask for help."

"We needed to be much more purposeful," she says.

At Hartwick, that meant a top-to-bottom redesign of its approach to career preparation. Under its new FlightPath program, postgraduate employability is central to the educational experience from the time students arrive at the liberal-arts college. An introduction to career development is incorporated into the first-year seminar, where students connect with a career coach, write a résumé, and start a portfolio of their work — something they often didn't do until later in college, says Amy Forster Rothbart, an associate professor of political science who is coordinator of the first-year experience.

Hartwick students also complete a "21st-century career module," a series of three interlinked classes that focus on three critical skills: communicating across difference, data analysis, and understanding the role and limits of scientific outcomes. The courses are connected by unexpected animating themes: One triad centers on health care, looking at issues such as public-health gaps and the effects of music therapy; another is related to science fiction. And once Covid-19 recedes, students will take part in first-year discovery trips over their January break, giving

them a taste of experiential learning, as well as closer faculty connections.

CAREER PLANNING CAN'T START TOO EARLY

Hartwick isn't alone in its early-and-often approach to career education. Business students at Creighton University go through a four-year Career Portfolio program, which begins with assessing their goals and interests and picking up basic skills, like time management and professional etiquette.

Every first-year student at Stevens Institute of Technology, in New Jersey, is assigned a career adviser, and during winter break, freshmen and sophomores shadow alumni at their jobs, which requires students to research a variety of job titles and careers. New

Colleges are working with academic departments, student groups, and dorm staff to take career education out of the career office and spread it across campus.

College of Florida, the state's public honors college, pairs students with a career coach before they even get to campus.

In fact, a new state law in Florida requires all freshmen and transfer students at public colleges to meet with a career specialist during their first semester to develop a four-year plan to help them prepare for their studies and for their career.

Some colleges don't even wait for students to enroll. Loyola Marymount University, in Los Angeles, includes career-office staff in its admissions events, a recognition that careers are on students' (and parents') minds when they are choosing a college, says Branden Grimmett, the university's associate provost for career and professional development.

Getting a head start has its benefits. It gives students more time to discover and explore their interests — and to cross some options off their list. They can be more deliberate in the courses they choose, the skills they acquire, and the mix of experiences they pursue.

Michigan State researchers say early career exploration also has academic value. If students take part in a career-related activity in their freshman year — even something as low stakes as attending an internship fair or making an appointment with a career counselor — it can raise retention by 5 to 6 percent, says Phil Gardner, executive director of the university's Collegiate Employment Research Institute.

It makes sense, Gardner says: Early engagement helps students see the relevancy of their degree and think more intentionally about what they want out of their time in college. Students without that sense of purpose and direction may be more vulnerable to dropping out.

The first-year experience isn't the only avenue to ensure more students have exposure to career-building activities. Colleges are working with academic departments, student groups, and dorm staff to take career education out of the career office and spread it across campus. Career services goes to the students, where they are, rather than waiting for the students to come to them.

VIRTUAL AND REAL-LIFE NETWORKING

Although some students reported using the career office less during the pandemic, in the long run, the comfort they have gained with online services and programming could help make career services more

accessible. When career offices had to move online, they were also able to scale up their offerings, Podany says.

In particular, colleges made use of online technology to expand networking and mentoring opportunities, another practice that has been proven to move the needle on employment outcomes. Colleges moved some events that would have been previously held in person online, but they also used video-communications platforms like Zoom to link students with employers and alumni who might not otherwise have been available because of distance or time.

Johns Hopkins had already been working toward a goal of connecting every student with an alumni mentor, but the pandemic accelerated it because of the ease of making virtual connections.

Every institution has more graduates than students, and their experiences can seem especially relevant because they once were in students' shoes.

Colleges' alumni are a ready-made resource to tap to expand networking and mentoring opportunities for students. Every institution has more graduates than students, and their experiences can seem especially relevant because they once were in students' shoes. And alumni are often enthusiastic about sharing their insights and advice, Loyola Marymount's Grimmett says.

Butler University has set up "career communities" of alumni who work in certain areas popular with students, like nonprofits, health care, and entrepreneurship. They host regular networking events for students, both in person and, since the start of the pandemic, virtually.

Alumni can also help increase participation in internships among college students. Getting more students to have hands-on experience before graduation is seen as critical to increasing their readiness for work — employers, after all, almost universally [view internship experience](#) as the most important plus-factor in their hiring decisions. Many experts would like completion of an internship to be an expectation for all college grads.

Alumni may hire interns or vouch for them in their professional networks, and they can also help reinforce messages about the value of interning. Faculty members, too, can use the credibility they have with students to encourage them to take on such experiences and can help make connections back to what they're learning in the classroom.

Some colleges have tried to make more-explicit ties between internships and the curriculum. Students at Dickinson College, in Pennsylvania, can take an internship seminar as they are working, in which they examine the workplace through the lens of liberal-arts education. Institutions with cooperative-education programs, like the University of Cincinnati and Northeastern University, in Boston, make work experiences part of what it takes to earn a degree.

In December 2021, the University of Wisconsin at Milwaukee received a [half-million-dollar work-force development grant](#) to place 100 students from underrepresented backgrounds in paid internships in city businesses and organizations over two years. In addition to student stipends, the grant will pay for on-site mentors, campus success coaches, and coursework designed specifically to develop the students' professional skills.

The program gives students who might not otherwise be able to do an internship that critical résumé-building experience.

But it also benefits local companies who have struggled to tap into a more-diverse talent pool.

In Kansas, the Board of Regents and the DeBruce Foundation support a [micro-internship](#) program open to all public-college students in the state. Students are placed with employers to work on short-term projects, of five to 40 hours. Micro-internships allow students who, because of their studies or work or family commitments, might not be able to commit to a full-time internship, still get hands-on experience.

But work itself remains a critical obstacle to internships for low-income and first-generation students who may need to hold down a job to support their families or pay for college.

One solution may be for colleges to think more intentionally about how skills students gain in the workplace, even in low-wage jobs, connect to their majors and can translate to value for future employers. And first-generation students do see career relevance in work — the National Survey of Student Engagement found that work experience gave these students confidence in skills such as effective work habits and working in diverse teams. But their confidence levels increased even more if they had both an internship and work experience.

Some colleges are retooling their work-study programs to give students more professional opportunities. The federal aid program has a little-known provision that allows students to work off campus, either at a nonprofit organization or a private-sector company, if it pays a percentage of their wages. The University of Baltimore has used the provision, known as Job Location and Development, to place students in positions directly relevant to their majors at local nonprofits.

ZEROING IN ON EQUITY GAPS

Many colleges increasingly view career readiness as a social-justice issue, particularly in the wake of the Black Lives Matter protests. It's not enough simply to raise

overall career outcomes — they also recognize the need to reduce, and eventually eliminate, the persistent gaps in employment outcomes based on race, ethnicity, and socioeconomic status.

Micro-internships allow students who might not be able to commit to a full-time internship get hands-on experience.

Career offices are building closer relationships with on-campus partners, like multicultural services and financial aid, to better meet student needs. At Butler, career-center advisers spend four hours a week at the university's diversity center, bringing career services directly to underrepresented students.

Some colleges are creating special career-related opportunities for low-income and minority students. The University of Chicago's Stand Together program offers internships for underserved students in fields including finance, law, and public service. Johns Hopkins's DEI Collective places first-generation, minority, and other students, including students with disabilities, in paid internships with employers interested in hiring diverse job candidates.

Other institutions are creating cohort programs to help underrepresented students get ready for careers. Chicago gives a group of select first-year students access to career-exploration events in various disciplines through a "career catalyst" program. The University of North Carolina at Chapel Hill is expanding its Carolina Covenant Scholars program, which allows low- and middle-income students to graduate debt

free, and offers students networking, guided mentorship, and internship opportunities.

At the University of Oregon, selected first-generation, underrepresented, and Pell-eligible students take a one-term course focused on developing professional competencies. After they complete the course, students are assigned mentors for long-term support and take part in internships, undergraduate research, and other experiential-learning opportunities.

Nonprofit organizations can also be college partners in tackling these inequities. Aimée Eubanks Davis started Braven after teaching sixth grade in New Orleans with Teach for America. Eubanks Davis stayed in touch with her former students, cheering them on as they sought to go to college. When a group did, she figured this was success — a bunch of low-income, Black kids had made it to the ivory tower.

But after graduation, the students struggled to find good jobs; one had a degree from Northwestern but flirted with unemployment.

Eubanks Davis realized that her students were floundering because they didn't have the networks or understanding to navigate the path from college to career or know how to tap that expertise on their campuses. Braven, which works with colleges including Spelman, San Jose State, and Northern Illinois, puts students through a career-focused accelerator course, a combination of online modules and small-group cohorts of students, and then pairs them with a leadership coach.

Christelle Louis, the Rutgers graduate described in Section 2, stumbled across a Braven flier on her way to an algebra class her freshman year and signed up immediately. Mentors combed over her résumé line by line and boosted her confidence in mock interviews, after her hunger to land an internship left her so nervous she could barely answer. Even now, almost a year after graduation, she regularly talks with a group of mentors, who give her pointers about succeeding in the workplace as a Black woman.

“The reality is, you have all these barriers,” Louis says, “and you don't even know what you don't know.”

In eight years, Braven has gone from having just 17 students to 5,500 participants at a half-dozen colleges, Eubanks Davis says. Since the Black Lives Matter protests, she says companies' interest in working with Braven students has only grown. “They want to do good to do better,” she says.

Indeed, the movement for racial and social justice could be an important catalyst to progress in dealing with career equity gaps. Two-thirds of employers surveyed by the National Association of Colleges and Employers said they had allocated more resources to attract and recruit previously underrecruited candidates since the BLM protests. Forty percent have changed the sources they turn to to try to find a more diverse set of applicants.

Diversity is good for a company's bottom lines — a [McKinsey & Co. study](#) found that companies that had the most-ethnically-diverse leadership teams outperformed by 36 percent in profitability those with few executives of color.

Colleges say it's important for many of their students to go to work at companies and organizations that truly value diversity. At UC-Davis, Marci Kirk Holland, executive director of the career and internship center, looks for employers that have employee resource groups — worker-led groups centered around race, ethnicity, gender, ethnicity, and other affiliations — that can help students have a “soft landing.”

Butler's career center created a directory of Black- and minority-owned businesses and did an audit of the diversity practices of employers who hire its graduates. Loyola Marymount required all employers who wanted to recruit on campus to sign a pledge committing to diversity, equity, and inclusion in their hiring and company culture. Not a single employer, says Grimmett, the associate provost for career development, declined.

COLLABORATING WITH THE FACULTY

As colleges rethink their approach to career education, career-center staff members on many campuses are getting a new boss, the provost, and new colleagues, faculty members.

The organizational shift of career development out of student services and into academic affairs is an important one, experts say. It highlights the “education” part of career education — that it’s central to the student experience, not an add-on or afterthought. And proximity, at least within the institutional bureaucracy, could help further engagement between the career center and academic departments. “We’re in the same sandbox,” Grimmatt says. At Loyola Marymount, career education was moved out of student affairs in 2015.

For Grimmatt and his fellow heads of career education, building a closer working relationship with professors is a priority. Faculty members can be critical allies and advocates for career development. They have more face time with students than just about anyone else on campus, and regular classroom interactions give them more opportunities to reach students in their daily lives. The nature of the professor-student relationship — with the professor as teacher, sage, and authority — gives their perspective weight. For many students, faculty members are role models whom they hope to emulate.

“If you want to move outcomes,” says Penny MacCormack, chief academic officer of the Association of College and University Educators, which focuses on effective teaching practices, “go to the people who spend the most time with your students.”

Research also suggests professors may have specific credibility and legitimacy with students when it comes to career guidance. In a [survey](#) conducted by Gallup and the Strada Education Network, two-thirds of students who had a college mentor said it was a faculty member. Nine in 10 of these students turned to their professors for career advice.

Amy Forster Rothbart, Hartwick College’s first-year-experience coordinator, says stu-

dents often trust and relate to faculty members because their suggestions are different from the “formulaic” advice they may have gotten from other adults in their lives, like high-school guidance counselors. “What liberal-arts faculty are good at doing,” she says, “is asking students about what interests them, what motivates them, how they want to do good in the world.”

Career centers are looking for new ways to enlist faculty members in career education. One is to build awareness among professors about the career office and the services it

Professors can be “career champions,” encouraging students to think about their post-college plans and to take part in career-building activities like internships.

offers. Professors can be “career champions,” encouraging students to think about their post-college plans and to take part in career-building activities like internships. Wake Forest has developed tool kits to aid faculty members in responding to students’ career questions. At Mercy College, in rural New York, instructors can request career-office speakers in their classes.

Butler University assigns career advisers as liaisons to the different academic colleges. While all liaisons spend a percentage of time each week based at their colleges, the adviser

attached to the College of Liberal Arts and Sciences is actually stationed there full time, making it easy to meet regularly with faculty and administrators, go to classes and events, and advise students, says Gary Beaulieu, director of career and professional services.

Butler made the liberal-arts college a priority because it is the university's largest, and because its majors had fewer direct career paths than those in more profes-

"I really do think there's a cultural change around increased awareness of preparing students for a career."

sionally oriented colleges like business or health sciences. In the six years since the embedded model has been in place, the number of advising appointments scheduled by arts-and-sciences students has increased by 20 to 25 percent annually — so much that Butler has had to add a second career adviser to work with students in those fields, Beaulieu says.

The other reason faculty members are critical partners is that they hold the keys to the curriculum. It's important to forge closer ties between what students do in the classroom and what they hope to do after graduation. "Integrating into curriculum is everything," says Bill Means, director of career and professional development at Florida A&M. "If we're not in the classroom, if we're not impacting and influencing the curriculum, then we're going to become very obsolete."

CAREER EDUCATION IN THE CLASSROOM

Colleges have taken different approaches to integrating career education into the

classroom. At Mercy, professors can add web-based career-curriculum modules, focused on competencies like interview skills, critical thinking, and writing, to their syllabi. Students then complete the modules as homework assignments.

Institutions like Hartwick have made an introduction to career education part of the first-year seminar. Other colleges have overhauled their capstone programs to emphasize more hands-on work and industry connections, just as students get ready to go out into the workplace.

Dwayne Peterson, executive director of career engagement and opportunity at New College of Florida, says there's no one-size-fits-all strategy. He works with individual faculty members to figure out what would work best in their classrooms. In a computer-science course that he team-taught, he and the instructor analyzed data to figure out where students struggled and how to better articulate the skills they were learning. For a popular drama course, he developed a supplementary workshop in which students were taught about skills valued in the workplace and then asked to complete a self-reflection, analyzing where in the course they may have gained them.

Elizabeth Leininger, an associate professor of biology at New College, has her neurobiology students complete an assignment in which they are given four different jobs ads — to work at a science journal, in science communications and education, at a neuroscience research lab, and in clinical trials. She asks them to write a CV and cover letter for one of them. The lesson works on several levels: Students make connections between what they're learning in class and potential careers, and see the many different options for work within the field. They also exercise critical skills, such as being active readers and persuasive writers. Often, students realize they already have experience and knowledge required for the positions — they learn about database searches in the same course, for instance — and they talk about how to frame that expertise.

“As professors we’re teaching the subject matter, but it could become obsolete,” Leininger says. “What are more durable and lasting are the skills they learn.”

In many ways, efforts like Peterson’s are less about changing *what* professors are teaching than about *how* they teach. In 2017, the Council of Independent Colleges and the Association of College and University Educators, with support from Strada, started a consortium on instructional development that, in part, trained faculty in practices to help integrate career guidance into their teaching and to prepare students with career-ready skills.

The approach was radical only in its simplicity: Professors were asked to be explicit with students about why they were having them do specific assignments or tasks, and how they relate to what happens on the job — for example, how doing group work in the classroom was good preparation for working in teams in the workplace, including point-

The challenge for colleges will be to design pathways to careers that remain navigable even as the jobs themselves morph and shift.

ing out the difficulties that often arise in collaborative assignments.

Faculty members were also encouraged to talk about the careers and jobs related to the disciplines they teach. “It’s motivating to students when they hear faculty members talk about what drew them,” ACUE’s McCormack says.

Colleges participating in the consortium reported increased use of the campus career

office. Dillard University was so pleased that it went to the Andrew W. Mellon Foundation to get additional support for the project after the initial funds ran out. “I really do think there’s a cultural change around increased awareness of preparing students for a career,” says Yolanda W. Page, vice president for academic affairs at the university.

Being transparent about what you’re teaching and why it is valuable, especially to first-generation and other underrepresented students. It disadvantages students when they don’t understand what’s happening in the classroom, says Catherine Haras, who co-authored an American Council on Education paper on career-relevant instruction. “We’d never ask students to play tennis without telling them the rules.”

It also is good pedagogy, says Steven Taylor, her co-author and a senior fellow on postsecondary education at Stand Together, an education-focused nonprofit. Students learn better when they’re able to apply the skills and competencies they are taught.

And such efforts could actually strengthen faculty members’ academic work, Taylor says, by demonstrating its relevance to current challenges and in other contexts.

KNOW YOUR SKILLS

To help students better demonstrate the skills they have learned in the classroom to employers, more colleges are encouraging students to develop portfolios or to complete career inventories.

Florida State University’s career center helps students create an online portfolio where they can collect writing samples, class presentations, and lists of skills they have mastered. They can then send a link to potential employers and others.

Students at Northeastern University can log onto an app to track their skills and to reflect on their experiences inside and outside the classroom. It can help them make connections between what they learn in the classroom, a co-curricular activity, and one of the university’s required cooperative-education experiences.

The State of Kentucky is working on providing a comprehensive learner record for all students, detailing the skills and knowledge they have acquired while earning a degree.

In the wake of the pandemic, it is likely to be even more important for students to be able to articulate and demonstrate their skills. The continued use, at least in the short term, of remote and hybrid internships will complicate employers' ability to do a first-hand assessment of students' skills on the job. In the virtual recruiting environment, students may have just a few minutes to ef-

As the skills revolution continues, alumni and other midcareer professionals could become a more regular presence on college campuses.

fectively convey their qualifications for a job and make a lasting impression.

But some experts say that the accelerated cycle in which job skills are emerging and evolving means that college curricula cannot remain static.

Colleges will need to use their expertise to identify skills and reverse-engineer their educational offerings, mapping shifting job demands and creating new educational programs and sequences.

In some cases, colleges will start new programs and majors, while others will revise their existing curricula to better match employers' needs. But the rapid skills changes mean that even innovative, state-of-the-art programs could become swiftly out-of-date.

The challenge for colleges will be to design pathways to careers that remain navigable even as the jobs themselves morph and shift.

This type of approach has typically been something that community colleges and online providers like Southern New Hampshire and Western Governors Universities have been more adept at using. But traditional four-year institutions need to become more flexible, agile, and quicker to change, says Matt Sigelman of Emsi Burning Glass.

Often, workers need to gain new competencies that can complement their existing skill sets. A study by Emsi Burning Glass and the American Enterprise Institute found that liberal-arts graduates could become eligible for 1.4 million additional jobs if they acquired specific practical or technical skills, like data analysis, computer programming, or graphic design, to supplement their broad-based education. By adding these marketable skills, they could earn more competitive wages.

Career centers can play an important role in helping students understand the changing job market. Their guidance can help students mix and match from a menu of courses and competencies to customize their education to meet employers' appetite for new skills.

Colleges can create stackable credentials, microcredits, or other nondegree options that would be tailored to teach specific skills and competencies. These bite-size programs could appeal to both current students and alumni, and to others already in the work force who need to pick up skills on the fly.

Florida International University's microcredentialing program awards students digital badges to recognize their mastery of 21st-century skills such as initiative, artificial intelligence, and data literacy. The California Community Colleges system also offers digital badges in areas prized by employers, such as adaptability, collaboration, resilience, and social/diversity awareness.

Some colleges have grouped together a series of related courses to form a minicurriculum in a particular area. Students at Virginia Commonwealth University, for example, can

take classes in computer programming, cybersecurity, and data science to earn a digital tech credential, a signal that non-STEM students have marketable digital-technology competencies.

Butler has begun to explore offering stand-alone credentials and certificates in certain high-demand areas like graphic design, human relations, and Excel. Bealieu is hoping to tap alumni to teach some of the courses, which could be offered in on-demand modules.

The university has also struck deals with employers like Wipro Limited, an information-technology and business-process-services company, which runs a 10-week course for Butler students, giving them a basic certification in Salesforce, the popular business software. Students get training, while Wipro builds connections with students who might be potential hires.

Sigelman says that the pandemic could make it easier for colleges to offer more

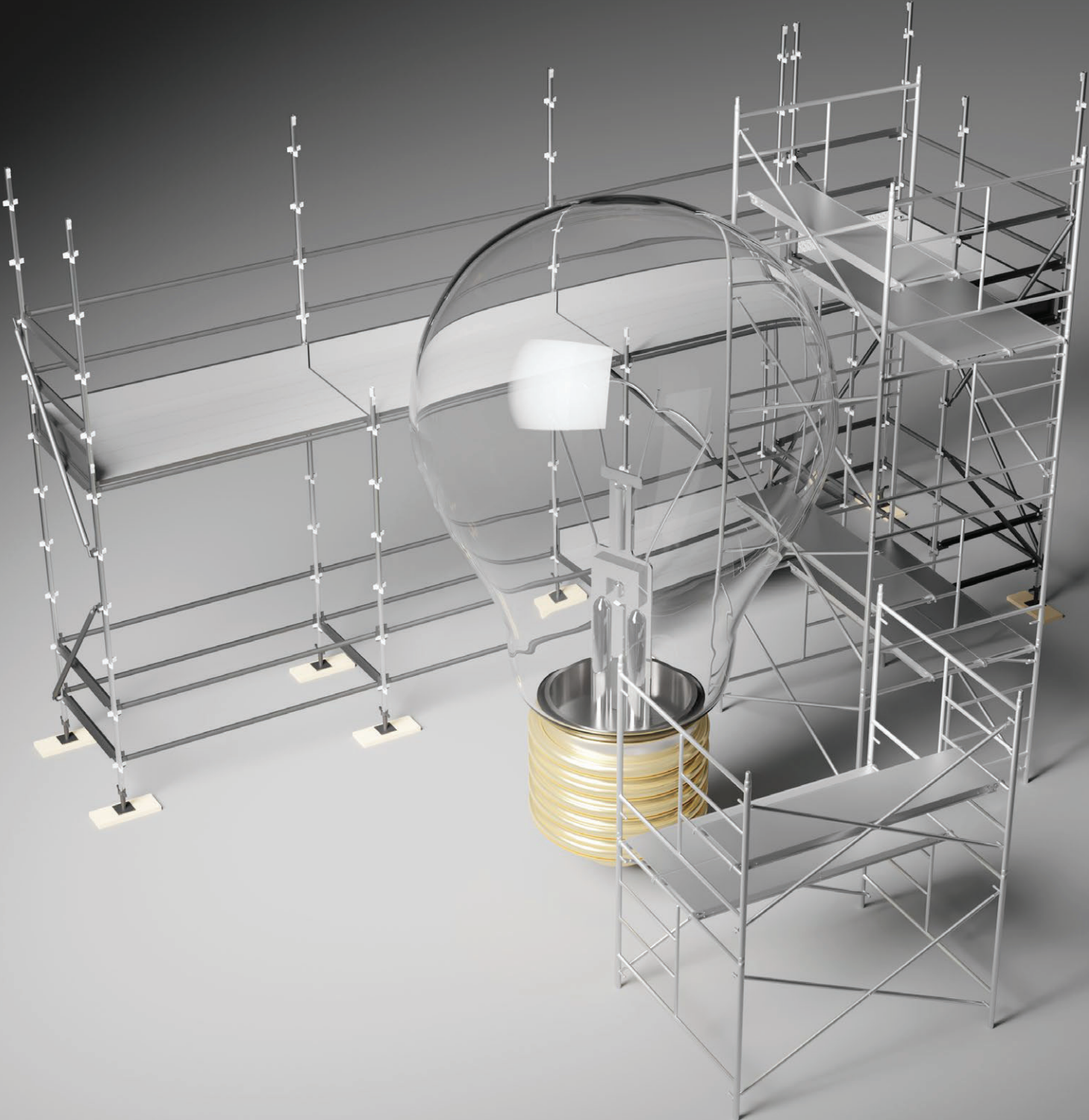
short-term, flexible learning options, because it has forced both students and faculty members to become comfortable with hybrid and online learning. Teaching in those formats can expand colleges' reach, particularly to working learners who might not otherwise be able to fit an in-person, on-campus course into their busy schedules.

As the skills revolution continues, alumni and other midcareer professionals could become a more regular presence on college campuses, even those that typically serve 18- to 22-year-olds — an acknowledgement that workers may need to constantly update and upgrade their skills.

“If the landscape of skills is changing that fast,” Sigelman says, “we need to acknowledge that it’s impossible to provide students with what they need in one fell swoop.”

Educating students for careers will no longer be a one-time endeavor but a lifetime commitment.

SECTION 4



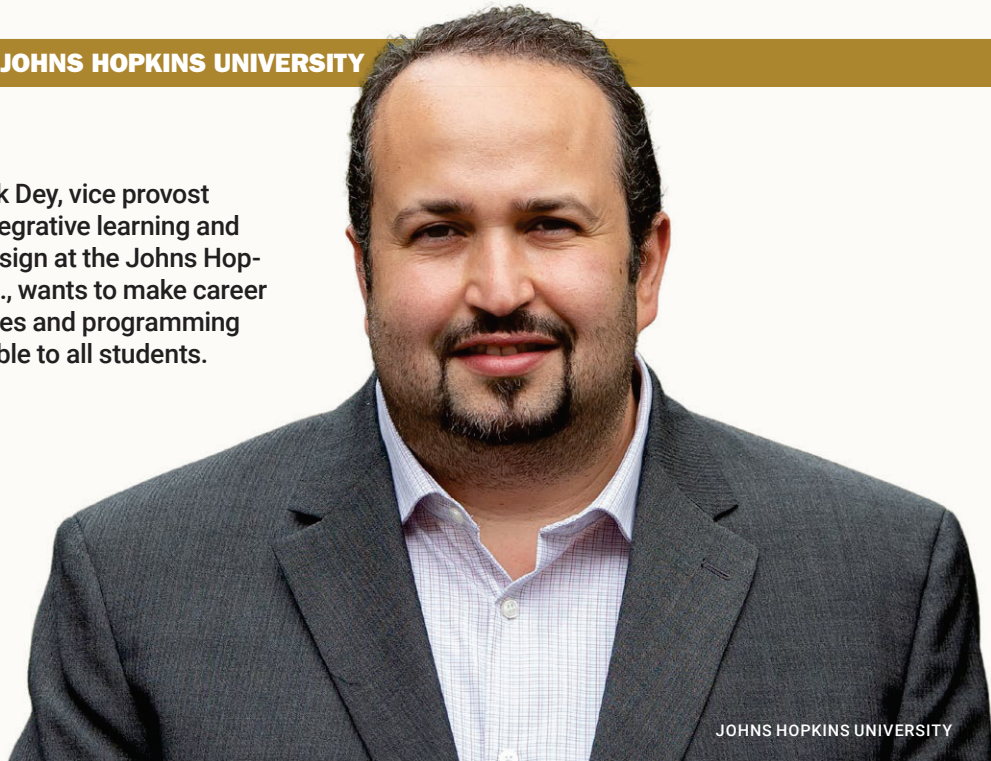
How 6 Colleges Are Rethinking Career Prep

Across the country, colleges are embracing creative and innovative strategies to help students more successfully make the transition from their studies to a career: They're enlisting faculty members to talk about how their academic passions can lead to jobs, both inside and outside academe. Getting students to start thinking early on about what they want to do after they graduate. Nudging at-risk undergraduates to keep them on track in career preparation. Ensuring that all students can take part in experiences like internships and mentoring, which make a real difference in job readiness. Calling out connections between the skills students learn in their courses and what they need in the workplace.

Colleges hope these fresh approaches, featured in the following case studies, will help students move more seamlessly into their careers.

THE JOHNS HOPKINS UNIVERSITY

Farouk Dey, vice provost for integrative learning and life design at the Johns Hopkins U., wants to make career services and programming available to all students.



JOHNS HOPKINS UNIVERSITY

The Challenge:

Students from minority and low-income families needed more support in planning their careers.

The Strategy:

Redesign career programs so all students take part in high-impact practices and receive advising and mentoring. Offer one-stop shopping at a new career center.

The Results:

Gaps in postgraduate employability and salary between disadvantaged students and their classmates have all but been eliminated.

Reimagining Career Planning to Reach All Students

Call up Farouk Dey to talk about careers, and you might find yourself in a discussion about sidewalk curb cuts. Dey, vice provost for integrative learning and life design at the Johns Hopkins University, sees curb cuts — the graded ramps that connect streets to sidewalks, meant to help people

with disabilities — as a design feature that has turned out to be useful to many others. Since the passage of the Americans with Disabilities Act in 1990, curb cuts have helped wheelchair users, older walkers, moms with strollers, movers, Rollerbladers, and more.

Dey, who has been at Hopkins since 2018, takes the same approach to career readiness. He tries to figure out what helps students who have the toughest time moving from college to career, and then make the services and programming available to all students.

“Let’s not make it an accommodation,” Dey says. “Just make it standard so everyone gets it.”

Among the experiences Dey has sought to make standard: Every Hopkins student will have access to an alumni mentor. And every student will graduate having had one or more immersive educational experiences, such as an internship, undergraduate research opportunity, international study, or entrepreneurial activity. These activities are seen as [high-impact practices for career readiness](#) by groups like the National Association of Colleges and Employers.

For Dey, the metric of success isn’t in the topline number alone, the total number of students who complete an internship or take part in a networking event. The measure of progress is in the disaggregated data: Are the results equitable for low-income students and wealthier peers, for students who are members of minority groups and their white classmates, for those who are the first in their families to go to college and those who are not?

Since 2018, Hopkins has made real progress. The gap between the number of first-generation and low-income students and their classmates still looking for work six months after graduation has shrunk to 2 percent, down from 5 percent. Average salaries for these students in their first jobs are now only about \$1,000 less than for their peers.

The focus on greater equality in career opportunity and outcomes is part of a larger push for access and success at Hopkins. Michael Bloomberg, the business executive and former New York mayor, and a Hopkins alumnus, [gave the university \\$1.8 billion](#) for such efforts in 2018, the same year Dey was hired from Stanford University to lead a new, equity-driven approach to career development.

As Dey sees it, the trouble with the legacy model of career education is that it was built on the assumption that students would figure out how to get the right experiences on their own. That was fine when higher education was reserved for elite students who came to college with social and family networks of their own and didn’t necessarily need guidance to put them on a path to success. Colleges initially didn’t invest much in career offices because there was little need to do so.

Even as career placement became a more-common expectation of colleges, the responsibility largely fell to students to figure out what services they needed and how to gain access to them. It’s a model that simply does not work for many students, Dey says. He compares the typical college experience to an à la carte menu: Students from backgrounds where they don’t have many college-educated role models don’t know what to order. Too often, they end up not participating in key activities at all.

“The college experience shouldn’t be a scavenger hunt.”

“These are things not all students get because they are not baked in,” Dey says of needle-moving experiences like experiential learning and mentorship. “You have to know about these things to get them.”

To make career-development opportunities more accessible and inclusive, Hopkins has reorganized and centralized them under Dey. The offices that oversee different high-impact practices can be scattered, dispersed, and sometimes quite literally on the periphery — the study-abroad center on one side of campus, the internship office on another. At Hopkins they will now be con-

solidated in a new, one-stop, state-of-the-art center that was set to open in 2022.

“The college experience shouldn’t be a scavenger hunt,” Dey says.

HELPING STUDENTS RECAST SKILLS

Dey and his team also try to anticipate the different barriers that can make it more difficult for students to take advantage of opportunities, or to cause them to miss out altogether.

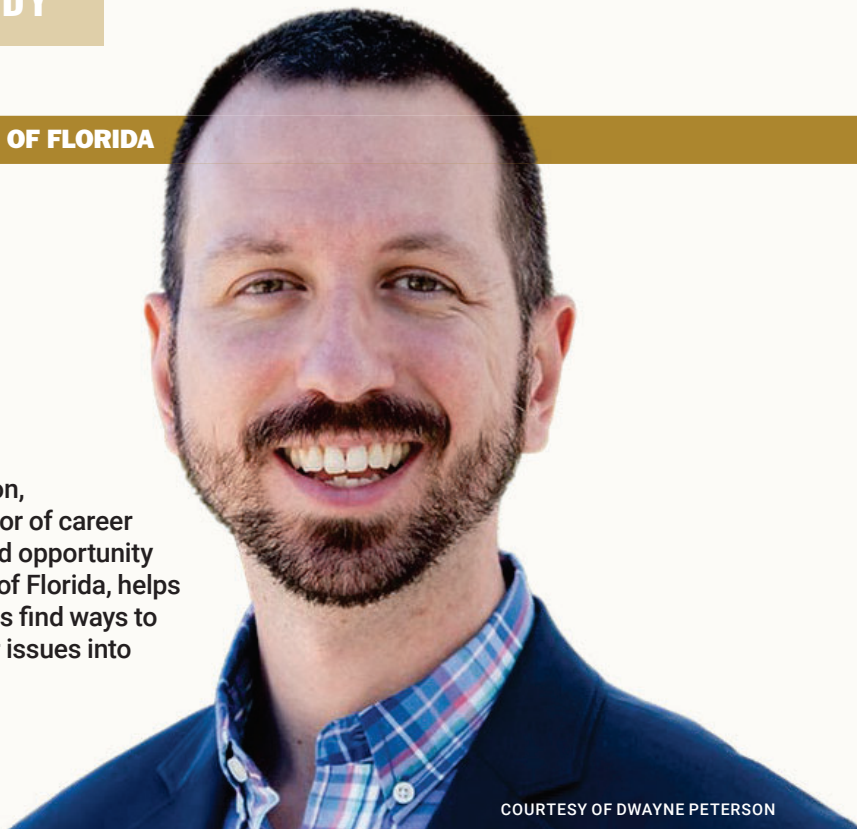
In addition to the centralized career hub, career-center staff go to where the students are, with advisers assigned to different majors and disciplines. These “nested” advisers build up expertise in certain disciplines, make connections with employers and alumni, and can offer students individualized, on-demand career support.

When the pandemic canceled many internship opportunities, Dey raised \$500,000 to fund immersive experiences for students during the summer of 2020. Students used the grants to take part in

unpaid experiences, including volunteer work, research, and virtual internships. Some recipients wrote books or started their own businesses.

The university has also defined immersive experiences more broadly than simply internships. Students can gain important skills through research, study abroad, and campus-leadership roles, Dey believes. Ninety-seven percent of students now get such immersive experiences, an increase from previous years, but Dey and his staff must help students tie these experiences into broader career exploration. A work-study position can be a meaningful experience if connections are made to what students are learning in the classroom, Dey says.

Even the language Dey uses is meant to underscore a cultural shift. The new integrated career office is called the Imagine Center. That’s the message Dey hopes to send to students: “This is an institution you come to to imagine your life, to imagine your future.”



Dwayne Peterson, executive director of career engagement and opportunity at New College of Florida, helps faculty members find ways to integrate career issues into the classroom.

COURTESY OF DWAYNE PETERSON

The Challenge:

The college wanted to demonstrate how a liberal-arts education leads to valuable career skills.

The Strategy:

Help students translate what they learn into skills for a résumé, and provide funding for internships with local employers.

The Results:

The college found its students were more likely to participate in career-readiness activities and engage with professors about careers than peers at other small liberal-arts colleges.

Showing the Career Relevancy of the Liberal Arts

Miriam Wallace’s course on “Restoration and 18th-Century British Drama” didn’t exactly scream résumé builder.

But Wallace, a professor of English and gender studies who is head of the humanities division at New College of Florida, the state’s public honors college, is always interested in finding ways to demon-

strate the relevance of the liberal arts. She reached out to Dwayne Peterson, the college’s executive director of career engagement and opportunity. Together, they came up with a fresh approach. Rather than a final paper, Wallace assigned students to compile a dramaturgy packet for one of the plays they studied; students had to research

the history of the play, highlight key performances, and unpack major themes and important context for the work. Then Peterson worked with the students on an exercise: What if the course was their only experience — what would they put on their résumé?

A lot, it turns out. With reflection, students realized they were conducting research, learning to use different databases, doing critical analysis, distilling complex ideas, and writing for a popular audience.

The liberal arts are like an iceberg. The major floats above the water, but there is much more below the surface: critical thinking, complex analysis, numeracy, and all the other so-called soft skills.

In the past, faculty members and career counselors might have existed in separate orbits, especially at a liberal-arts institution like New College. Now they are becoming critical allies, with a shared goal of spotlighting the value of liberal-arts education to career and to life. “I needed someone like Dwayne to help me translate,” Wallace says.

The pressure on a place like New College is coming from all sides. When Wallace first joined the faculty, in 1995, the college

was a “baby Ph.D. mill,” with a large share of students going on to graduate school, she says. Today, more students are pursuing nonacademic careers, and they, and their parents, want to know how studying art history and French and, yes, 18th-century literature is going to help them in the workplace.

As a public institution, New College also faces scrutiny from lawmakers often skeptical of the liberal arts — and of higher education. Ron DeSantis, Florida’s Republican governor, has degrees from Harvard and Yale Universities, but he recently suggested it might be a “good sign” that fewer men are going to college. In 2021, the Republican-controlled Legislature approved a new law requiring public colleges to survey their level of “intellectual freedom and viewpoint diversity,” a measure that critics worry could chill the teaching of controversial ideas.

Under Peterson, who was hired in 2019, New College hopes to double down on career education while not losing its liberal-arts soul. In fact, Peterson, who was an undergraduate music major, doesn’t see the two as incompatible — he hopes to celebrate the liberal arts and to highlight the rich opportunities it can give students.

Faculty members like Wallace and Elizabeth Leininger, an associate professor of biology, are important partners in this work. Some students come to college with no ideas about careers, while others think there’s only a narrow, prescribed path they can take, like becoming an English professor if you’re an English major, Leininger says.

Leininger was once in the latter group. As an undergraduate at Swarthmore College, she “quickly got on the college-to-graduate-school pipeline,” with plans to study medicine. She only later shifted her focus to neurobiology.

The liberal arts are like an iceberg, Leininger says: The major is the part that floats above the water, visible to the eye, but there is much more to the iceberg just below the surface — critical thinking,

complex analysis, numeracy, and all the other so-called soft skills.

New College tries to call out these connections and nudge students toward thinking about career and life plans early and often.

Students are assigned a career adviser as soon as they put down their deposit. As freshmen, students are introduced to ideas like career portfolios and consider their key interests, and the different pathways they could lead to, as part of the first-year seminar. In the second year, students can take a “designing your life” class where they think more intentionally about their choice of majors and identify where they have skills gaps, areas where they might seek out extra training to supplement their degrees. The goal is to motivate students to take ownership of their career exploration.

When compared with students at other small liberal-arts colleges, New College students were more likely to participate in career-education activities such as interview prep and résumé review as well as to engage with their professors about careers, according to data from the National Survey of Student Engagement.

Now some students are applying for internships as soon as their second semester. “That wasn’t happening when I got here,” Peterson says.

He would like more students to do internships, given how much employers value hands-on experience. But the challenge isn’t simply to get students interested — Peterson has also had to convince employers who don’t necessarily see liberal-arts students as potential workers.

To do that, the college has offered small grants, of about \$1,600, to local employers who create internship positions, which cover student stipends.

WINNING OVER LOCAL EMPLOYERS

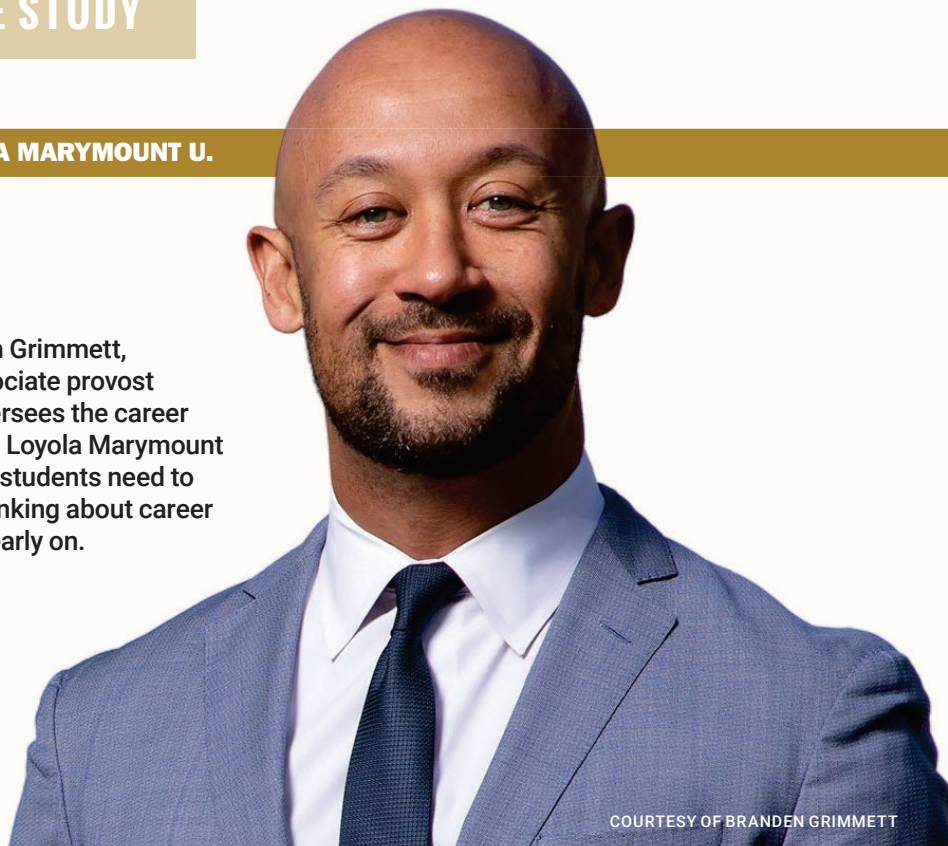
Peterson initially got funding from the Andrew W. Mellon Foundation to support internships in the arts, but he is raising money for internships in mental health, information technology, and the biological sciences — areas of local employment demand and student interest. Even some employers that didn’t win the grant competition have gone on to create internship positions of their own.

What students are learning on the job is having an effect on the classroom. Wallace, the English professor, says one of her students who interned at Easterseals, the non-profit group focused on disability services, is incorporating that experience into her thesis, on illiteracy and disability in the works of Charles Dickens.

And now Peterson is working with faculty members to rethink the thesis, traditionally the capstone for students at the honors college. While it makes sense for students interested in an academic career, it may be less relevant for students planning to go directly to work. With the economics department, he is working on an alternative that combines coursework, an internship, and a final analytical paper that blends economic concepts with first-hand experience — another way, Peterson says, to “reposition the value of the liberal arts.”

LOYOLA MARYMOUNT U.

Branden Grimmert, the associate provost who oversees the career office at Loyola Marymount U., says students need to start thinking about career issues early on.



COURTESY OF BRANDEN GRIMMETT

The Challenge:

Students weren't thinking about career planning until they were about to graduate.

The Strategy:

Reach students earlier by showing them the career center during admissions tours and embedding career education into academics.

The Results:

Eighty percent of students do at least one internship before graduation, a 20-percent increase since the new career-training efforts began.

For These Students, Career Planning Starts on Day 1

When students visit Loyola Marymount University, in Los Angeles, the first stop on the campus tour is always the same: the university's Office of Career and Professional Development.

It might seem strange that students' first impression is of an office that many of them typically don't visit until they're about to graduate. But for Loyola Marymount, it is a deliberate decision.

"We have only a limited amount of time with our students," says Branden Grimmert, the associate provost who oversees the career office, "so it's important to start early."

Landing a prime spot on the campus tour was an easy request for Grimmert — the career and professional-development team reports to the university's vice provost for enrollment management.

The team also reports to the provost, a sig-

nal of how career education is embedded in the Loyola Marymount experience, including academics. The dual reporting structure isn't unique — the University of Chicago has a similar set-up — but it is unusual. It's been that way since 2015, when career development was moved out of student affairs.

Emphasizing career prospects in college admissions is a smart pitch to today's students and their parents.

For Grimmert, getting to students early is a practical move. Fewer traditional-aged students coming to colleges like Loyola Marymount have had work experience as teenagers. Only about [one-third of teenagers hold part-time or summer jobs](#), according to the Brookings Institution, and the share of high-school students who work has been declining for decades. The academic and extracurricular demands on students are more intense. But the number of low-wage jobs has also decreased while competition from older workers, displaced by automation or trade, has grown, Brookings found.

That means Grimmert is exposing many undergraduates to new skills and experiences. He wants them to begin networking and to take part in internships. Eighty percent of Loyola Marymount students do at least one internship before they graduate.

"It normalizes careers as part of their college planning," Grimmert says.

But emphasizing career prospects in college admissions is also a smart pitch to today's students and their parents. After all, many families value a college degree as future job security. Ninety percent of students and parents, in a survey by Barnes & Noble and *Money* magazine,

rated "[preparing for a fulfilling career](#)" as a very, or extremely valuable, benefit of a college education. An annual survey of college freshmen conducted by the University of California at Los Angeles found that students ranked getting a better job above all other factors as very important in their decision to go to college.

Other colleges have sought to make career readiness part of their appeal. After its enrollment declined nearly 14 percent since 2017, Hartwick College, a small private institution in New York, made a focus on postgraduate employability the centerpiece of efforts to attract new students.

CAREER PLANNING ACROSS THE CAMPUS

When David Donovan, a 23-year-old from San Juan Capistrano, Calif., was choosing where to go to college, he was already thinking about his long-term prospects. "Having older siblings, college for me was always about getting a good job," he says. Donovan liked how engaged Loyola Marymount students were with the career-development center; he's now a senior there.

The university's career-staff members participate in almost every admissions and recruitment event, Grimmert says, and come with data at the ready. They can tell students about Loyola Marymount's employment track record for alumni from similar backgrounds and how field of study affects career options.

"Good data makes good college choices,"

"College for me was always about getting a good job."

Grimmert says. The transparency about employment outcomes seems particularly important to parents, who tend to worry about their children's long-term future.

But Grimmett also discusses his own background in his interactions with parents of prospective students, to make the point that major isn't destiny. He studied music and religion as an undergraduate and got a master's degree in theology from Harvard University — not exactly the expected path to working in higher education. A college education, he says, can lead to many different careers.

Because Loyola Marymount's career center is also part of academic affairs, it has close ties with the academic disciplines. Every school and college has a career coach on campus, typically someone with a professional background in a particular industry, rather than in higher ed. When prospective students express interest in a specific major, they can meet the right career adviser during the admissions process, building early relationships. They come to

campus knowing who can help and where to find them.

The career office seeks out other ways to interact with prospective students. It organizes "career treks" — though these have been temporarily suspended by the pandemic — in which groups of about two dozen students travel to cities in both the United States and abroad for career-focused visits with alumni and employers. (During the pandemic, these networking and career-information sessions have been held online.)

As part of the treks, the university also invites prospective students who live locally to select events, to introduce them to the broader Loyola Marymount network. For parents, these events often send messages not just about careers but about community. "They knew even if their son or daughter was on the other side of the country," Grimmett says, "they were part of a support system."

U. OF OREGON

Kimberly Johnson, the U. of Oregon's vice provost for undergraduate education and student success, says students need intentional and intensive career support.



The Challenge:

Low-income, first-generation, and underrepresented students struggle more than others to make the leap from college to career.

The Strategy:

Develop special cohort programs to ensure at-risk students get extra support.

The Results:

It's too soon to tell if employability will improve, but the college has had success using a similar approach to reduce equity gaps in graduation rates

A Focused Model Tackles Equity Gaps

The University of Oregon has made big strides recently in tackling equity gaps, by improving graduation rates for low-income and underrepresented students.

But is that success undercut if students don't land good jobs? Underserved graduates of the public university — including students who receive Pell Grants, are the first in their families to attend college, or are members of racial or ethnic minority groups — earn more than \$15,000 less, on average, in their first jobs than their classmates. (Their

average starting salaries are \$36,000.)

Nationally, alumni of color and first-generation graduates are **10 percentage points less likely than their peers** to earn more than \$40,000, according to a survey by Strada Education Network.

To change outcomes for its most at-risk students, Oregon is investing in an intensive, cohort-based program, designed for a select group of students who complete the effort together. Ducks RISE, which stands for Research, Internship, and Student Engagement,

is a six-month program that focuses on building career skills, professional networks, and internship opportunities for underserved students.

THE FORMULA: INTENSIVE ADVISING AND BROAD SUPPORT

Oregon has a track record with a model that combines intensive advising and a wrap-around support system. In 2015, when it set out to improve college completion, graduation rates were 10 percent lower for low-income and minority students than for the student body as a whole. Its PathwayOregon program has succeeded in eliminating the graduation-rate gap for Pell-eligible participants. Students who took part in the university's Center for Multicultural Academic Excellence did even better — graduation rates for students who completed the program are 10 percentage points higher than for the student body as a whole, even as overall graduation rates have continued to improve.

"We know that very intentional, very intensive support works," says Kimberly Johnson, Oregon's vice provost for undergraduate education and student success.

Ducks RISE, which enrolled its first students in the spring of 2022, will follow a similar playbook, with the aim of improving career placement rates and outcomes. Students invited to be part of the program will complete a three-month career-exploration course that focuses on career competencies such as résumé writing, skills inventories, and professional interviewing. Students will also learn about opportunities for experiential learning, including internships, undergraduate research, and study abroad.

Students can get similar career guidance from the career center, of course, but the

Ducks RISE program brings it directly to them. "We know self-service doesn't work for this generation of students," Johnson says. "It's not something they have to seek. We seek them."

The cohort-based model can be effective because it creates a sense of community and peer support, in which students can learn from one another, Johnson says. Non-first-generation students are more likely to come to colleges with these connections already established.

After students complete the one-term course, they will continue to work with a dedicated program adviser who will make sure they stay on track, "nudging" them to make sure they keep up with career-building activities like applying for internships or visiting the career center for résumé-writing help.

Students will get help connecting with internships, with some campus-based positions set aside for Ducks RISE students. Alumni, particularly those from similar backgrounds as students in the program, will act as mentors.

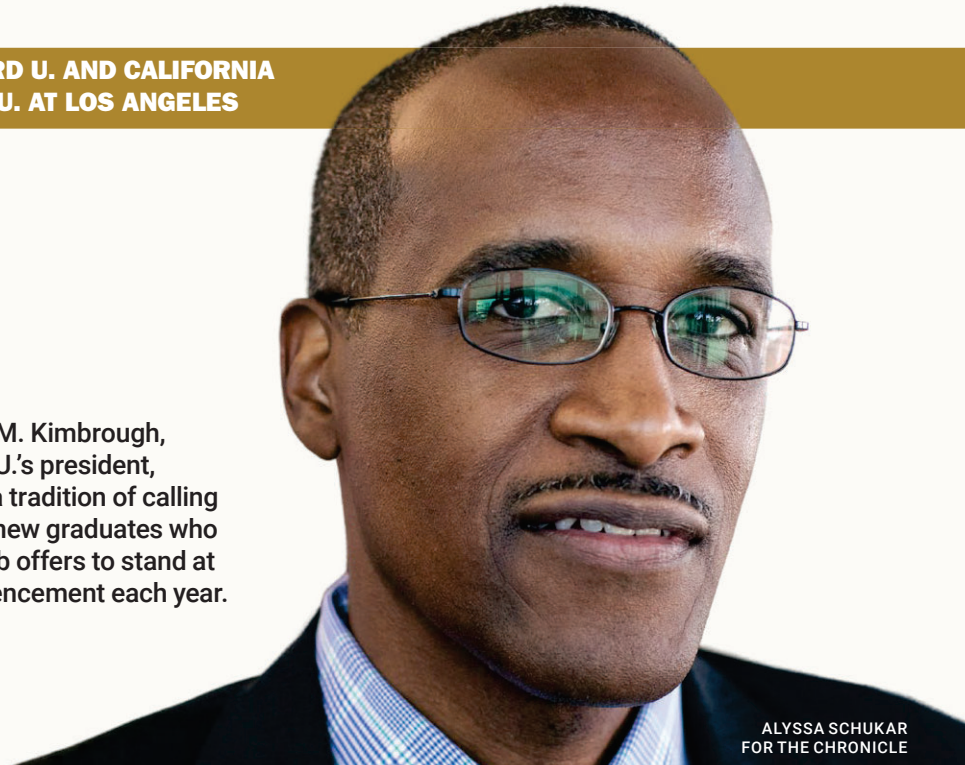
The program began with 60 students, mostly sophomores and juniors, but Johnson says the university hopes it will serve as many as 300 students each year. Strada gave Oregon \$250,000 to help start the program, but the university is matching the funding and plans to continue its support when the grant expires, she says.

Oregon will survey students on their career competencies and knowledge before and after they complete the program, and track its impact not only on graduate employability but on student persistence, time to graduation, and choice of major.

"We want to know if we're helping the students who can benefit the most," Johnson says.

DILLARD U. AND CALIFORNIA STATE U. AT LOS ANGELES

Walter M. Kimbrough, Dillard U.'s president, keeps a tradition of calling on the new graduates who have job offers to stand at commencement each year.



ALYSSA SCHUKAR FOR THE CHRONICLE

The Challenge:

Students often fail to make connections between what they learn in class and the skills they need in their careers.

The Strategy:

Encourage faculty members to embed career guidance in their courses.

The Results:

At Dillard, more students are landing job offers after graduation

Enlisting Faculty to Highlight Career Readiness

Dillard University has been making a big push in recent years to improve career outcomes for its graduates.

But in solving the puzzle of postgraduate career success, Yolanda W. Page, Dillard's vice president for academic affairs, realized a key piece was missing: the faculty. So when the Council of Independent Colleges and the Association of College and University Educators began

looking for colleges interested in training their professors in how to incorporate career-relevant instruction into their classes, the historically Black college was on board.

It was an opportunity, Page says of the 2017 project, "to bridge the gap between the subject matter we teach and the skill sets we want our students to have to navigate employment."

The approach is straightforward. Faculty members don't have to change their curriculum or offer job training.

Rather, professors look for places where they can introduce career guidance. Faculty members can take time to talk about career options connected to the disciplines they teach or remind students of the career office and the services it offers. And they make explicit connections between what students are learning in the classroom — in particular, the skills they are using — and how they might apply those in the workplace.

Marla Parker, an assistant professor of political science at California State University at Los Angeles, has begun to implement these principles in her classroom, particularly in a large entry-level political-science course she is teaching.

“We want our students to know what it is they are learning. The crux of it all is transparency.”

Unlike Dillard, Cal State-Los Angeles wasn't part of the original pilot. But Catherine Haras, senior director of the campus's Center for Effective Teaching and Learning, is an advocate for explicit, intentional discussion of career-relevant skills in the classroom. It's especially important at institutions like hers, a Hispanic-serving university where more than 55 percent of students are the first in their family to go to college. For such students, professors serve as critical role models.

“We want our students to know what it is they are learning,” Haras says. “The crux of it all is transparency.”

In the fall of 2021, Haras held a workshop

to familiarize faculty members with the concepts behind teaching career readiness in the classroom; 75 professors attended. And while Haras planned a second workshop, about putting the principles into action, Parker, a faculty fellow at the teaching and learning center, was excited about moving ahead.

“The classroom is where I, as a faculty member, can have the most control,” she says.

Parker began with the syllabus. The website for her introductory political-science course now includes a section called “professional development.” There students can find links to fellowship opportunities, articles about top jobs for political-science majors, and tips on writing résumés and cover letters.

THE RELEVANCE OF POLITICAL SCIENCE

In class, Parker pauses to call out the kinds of skills students are using in certain tasks or assignments, and why. Posting responses to readings in a group chart, for example, helps students improve their written communication, strengthen their arguments, and — as she reminded students during a recent session — navigate conflict when they disagree.

In one assignment, she asked students to explore U.S. Department of Labor employment statistics for fields they might want to pursue or to compare their own schedules with statistics from the American Time Use Survey, a government [database](#) of the time Americans spend on certain activities such as paid work, child care, volunteering, and socializing. The work allows students to see the relevance of political science outside of the classroom and to practice certain skills, such as database analysis.

Because the general-education course enrolls many nonmajors, Parker tries to highlight the broad applicability of the skills students are using and connect the course material back to their areas of interest. With science and engineering students in mind, for instance, she tries to use examples of STEM policies in class discussions.

“The first thing I try to do is to pique their interest,” Parker says. “When students ask questions, it’s a sign that they’re interested and they find it relevant.”

At Dillard, when the original faculty-training grant ran out, administrators secured additional funding from the Andrew W. Mellon Foundation to continue. The change hasn’t simply been pedagogical, Page says. Collaboration between professors and the Center for Career and Professional Development has improved. The College of Business even created a remote career-services site to give students easier access to

career-building activities and advice.

Faculty members have more conversations with students about their long-term goals and what it means to be career ready, Page says. “Before, they felt that was a job for career services.”

At commencement each year, Walter M. Kimbrough, Dillard’s president, calls on the new graduates who have job offers to stand. In recent years, more and more students have been on their feet. Among the Class of 2021, a third of students already had jobs and an additional 40 percent planned to go to graduate school — a record high.

A FINAL WORD

Today, more than ever, the path to a good career runs through college. Yet for many college graduates, it will not be a straight route. The need for constant transformation of skills will lead many workers to branch off onto alternative tracks; some will detour to employment destinations they never could have imagined on graduation day. Covid-19 serves as a reminder that even when change is anticipated, unexpected roadblocks can occur. Those without college-educated role models and connections may find the road rough to travel.

Colleges can be the mapmakers that help students plot successful career paths. Indeed, students and families expect it. “What families want,” says Christine Cruzvergara of Handshake, “is a great education and a great job.”

Alumni who report receiving good career support during college are more likely to say their education was worth the cost, according to a 2021 Strada survey. At a time when Americans dispute the value of a degree like never before, the strongest case for the merits of going to college may be to demonstrate the success of graduates after they leave.

The work of preparing students for work will not be easy, and it’s multifaceted. Colleges need to help students articulate the skills they have acquired and draw connections between what they’re studying in the

classroom and what they will use on the job. Readyng graduates to excel in today’s job market is key, but colleges must also make certain they have the flexibility to adapt to the workplaces of tomorrow. In many cases, universities will be a partner to their alumni over a lifetime of learning.

And just as higher education has sought to expand access to all Americans, it must do more and do better to ensure equitable employability for its graduates, regardless of background.

“It takes a village to raise a professional.”

This is not simply the work of guiding students to a career but of encouraging them to discover their passions — of helping them chart a path that will lead not just to a job, but to job satisfaction. It is also not only the responsibility of the campus office with a “careers” sign outside its door. Career readiness instead draws on the wisdom, the expertise, and the commitment of the whole college, most especially its faculty.

“It takes a village,” says Gary Beaulieu, the head of career services at Butler University, “to raise a professional.”

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