

THE CHRONICLE
OF HIGHER EDUCATION®

FREE REPORT

An illustration featuring a woman in silhouette, seen from the back and side, looking out of a large window. The view outside shows a cityscape with various buildings. In the distance, a prominent university building with a central dome and a flag on top is visible, set against a backdrop of rolling hills. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The overall style is modern and graphic.

What Employers Are Saying About Higher Ed

**For many companies, decisions about
how much education to require are not simple.**

THE COLLEGE DEGREE is commonly seen as the path to a good job. Enhancing one's career prospects stands as one of the biggest reasons students attend college, and one of the main results tuition-paying parents expect.

And for many employers, the college degree has long stood as a basic requirement for job candidates, even as those employers grouse about the kinds of skills that college graduates bring to the job. A [2019 study](#) of employers by the Society for Human Resource Management noted the paradox: While a college degree promised to be the entry point to a career, employers complained that graduates couldn't think critically or communicate and had hard skills that were too basic or theoretical to be useful on Day 1. Colleges, employers in the study said, had been too distant from the work world.

In the tech field, especially, college programs move too slowly to keep up with the needs of employers, driving a conversation about the value of a college degree. A number of companies have started their own boot camps and training programs.

SAS, an analytics-software company, founded a training program 10 years ago and has been offering instruction and support for its data tools for faculty members in business schools, agriculture programs, and social-sciences departments — any discipline that uses data or wants to teach students to work with it in a career — completely free to the institutions.

Lynn Letukas, senior director for Global Academic Programs and Certifications at SAS Education, says the program is “mission oriented but also a strategic play for SAS,” in

that it seeds tech skills among future users of the software.

“They’re hiring for skills. And it’s why we’re seeing this significant ramp-up of tech companies like Google, AWS, IBM, and others launch things like Grow with Google — you know, six weeks and learn how to do this very specific thing.” Letukas has reviewed the content of these programs over the past several months and noted that none of them included lessons related to critical thinking, communication, collaboration, or any of the noncognitive skills sometimes associated with liberal-arts degrees. She is curious to see what the results of these programs will look like over time.

By SCOTT CARLSON

“It’s led to this increasing discussion around skills over degrees, and I think that’s really a false dichotomy and really shortsighted,” she says. “There needs to be a combined focus on those skills and degrees.”

In the rush to hire workers, though, employers may not have the time for that focus. A number of employers have said they are reconsidering longstanding requirements for a four-year degree. (Fields that require degrees and licensure, like engineering or nursing, are, of course, exceptions to the trend.) The State of Maryland announced in March 2022 that it would no longer require applicants to have a college degree to apply for many state jobs. Amid the shortages of teachers, Arizona has started allowing people to become teachers without a bachelor’s degree, as long as they are enrolled in college and working with a licensed teacher mentor. Florida said it would grant teaching certificates to any military veteran with at least 60 college credits, a 2.5 grade-point average, and the mastery of a particular area of knowledge, as demonstrated on a state exam.

In all these cases, the public reaction was divided. Some said the policy changes opened up opportunities, particularly for

Cover illustration by Harry Haysom for The Chronicle

populations that face hurdles in finishing college; others saw them as dumbing down the professions and undermining higher education. “Education has been seen as a pillar of the American Dream. Maybe it isn’t anymore,” one faculty member at Claremont McKenna College told *The Washington Post*.

In many organizations, decisions about how much education to require are not simple. Just consider some cases in the commercial real-estate world: Martina Luskin is director of talent for the Scion Group, a Chicago company that operates on- and off-campus student-housing communities in 34 states. Higher education has always been part of Scion’s brand and identity, but the job market has changed attitudes within the company, where a degree is now preferred but not necessary to work there.

“Sometimes it doesn’t even matter what discipline your degree is in.”

Luskin had gently pushed for a policy change soon after starting at the company in 2016; she saw it as an opportunity to bring in more diverse talent and to reduce labor shortages. Scion’s leaders resisted at first. Luskin says it’s sometimes difficult for people in management positions, who often come from privilege, to understand why someone wouldn’t just get an undergraduate degree.

In the years that followed, Scion started to accept the idea that college degrees should not be a barrier for applicants, an attitude that tracks with national trends. “[The Emerging Degree Reset](#),” a 2022 report from the Burning Glass Institute, found that between 2017 and 2019, employers changed

degree requirements for 46 percent of middle-skill jobs and 31 percent of high-skill occupations.

“People are much more open to that concept now that we’ve hired people without a college education and they’ve seen it be successful,” Luskin says. Even if the job market becomes easier for companies, Scion will remain open to workers without degrees. “I do think it’s permanent.”

“Someone’s credentials on paper don’t tell even a fifth of what’s really going on with that person, without talking to them and actually seeing them put their skills to the test,” Luskin says. Scion sometimes assesses candidates by having them work on the job for a day or complete a real task for the company.

But the four-year degree still holds powerful signaling virtues for many employers. Matthew S. Brown, the chief operating officer of the North American branch of WT Partnership, an international firm that offers consulting and project management in real estate and construction, says the four-year degree is still the standard. “Sometimes it doesn’t even matter what discipline your degree is in,” he says. A bachelor’s degree signals persistence, an important trait, and Brown believes that people who have four-year degrees pick up on new concepts and skills faster.

Frankly, he says, it’s also about optics. “We work in the higher-ed space, and having a basic bachelor’s credential is a starting point,” he says. “I can’t have you go sit in front of a client at an institution and have them find out you never even graduated from college. That’s a nonstarter for us.”



Scott Carlson is a senior writer who explores where higher education is headed. Follow him on Twitter [@carlsonics](#).



TAKEAWAYS

Colleges must communicate better with employers — first, to understand their needs.

Much college instruction moves too slowly to keep up with industry demands.

But shorter-term “boot camps” are unlikely to teach important social and professional skills often developed in college.

Colleges must find ways to incorporate skills training into curricula.

Colleges should also foster essential extracurricular skills like resilience and the ability to deal with complex situations — and make sure employers know that they do.

One solution? Colleges should work with employers to develop more internships and apprenticeships.

But he’s not sure that the most important traits — initiative, communication, teamwork — are taught during an undergraduate degree. “We talk on and off all the time about soft skills, and frankly, they’re more important.”

Soft Skills and Liberal Arts

It’s those skills — but also behaviors and attitudes — that companies are looking for: curiosity, a penchant for problem solving, social and cultural awareness, the ability to handle conflict, the willingness to question assumptions yet still assert leadership and decisiveness at the right moments. And more.

Yet those traits are elusive. The Society for Human Resource Management, in its 2019 study of employers, found that most were having problems finding college graduates with those “uniquely human” skills of critical thinking, communication, and listening. Slightly more than half the employers believed that the education system wasn’t doing enough to address the skills gap, especially in areas where human-resources directors thought job candidates were lacking: professionalism, business acumen, critical thinking, and lifelong learning.

Qualities like those can take years to cultivate in a person, but many people — and many higher-ed organizations — assume that such traits are seeded by a college education, particularly in a liberal-arts discipline. Luskin herself was a music and dance major at Arizona State University who had a “rough go” in Los Angeles for several years working odd jobs and trying to break into entertainment. She moved to the corporate world for more stability. But she retains a belief that liberal-arts majors more often bring those essential, noncognitive skills and habits to the job — even in fields that seem wholly disconnected from the major.



LEA SUZUKI, GETTY IMAGES

A Facebook designer (left) meets with an intern on the company's campus in California.

Complex social situations, challenges that require resilience, grappling with new ideas — although they might not be highlighted in the curriculum, these are lessons like any other in college, which some students pick up on and others don't. "You're exposed to some of that in your college education, and there's a higher chance that you could exhibit some of that," Luskin says. "But it is not definite or guaranteed, and that's been my experience."

Kathleen Duffy, president and chief executive officer of the Duffy Group, an executive-search firm, was also a student

at Arizona State, in the early 1980s. She was heavily involved in Greek life, recruiting new sisters for her sorority, and was also involved in recruiting students to ASU. No one talked to her about how all of this was relevant to work life or a potential career, and like many students, she floundered some after graduation.

"I had a degree in communications, and nobody would even look at me because they didn't know what to do with that," she says. "We weren't having the same kind of conversations with our students back then as we are now about thinking about what

are the skills, the talents that you bring to an organization that you can translate into a job.” Today, organizations such as the National Association of Career Educators and the American Association of Colleges and Universities have developed lists of competencies and skills that come out of the college experience, and particularly studies in the liberal arts, so that advisers and career counselors can help students think more expansively about the college learning experience, beyond the items in an assignment or on a test.

Duffy herself works with ASU’s College of Liberal Arts and Sciences, talking with students and employers, helping them translate majors into skills. She has hired a number of dance majors to work in her recruiting firm. “Those individuals are really hard-working,” she says. “Very disciplined, extremely driven. I can take those skill sets and see how to fit them in an organization.” She was speaking with administrators recently about what careers beyond the ministry might fit students in religious studies.

“If I’m looking to hire somebody in a field that needs to be very trustworthy, [with] high integrity, and be able to maintain confidence, why wouldn’t I look at somebody in a religious-studies program?” she told them.

But religious-studies majors aren’t necessarily morally upright, and dance majors aren’t necessarily industrious. In those cases, the majors are signals of a disposition — much the way that Luskin believes

that liberal-arts majors are more likely to be introspective or open to learning new things.

And many employers contacted by *The Chronicle* were ambivalent about the impact of liberal-arts disciplines, believing that the college experience leads to growth no matter what department a student graduates from. Luskin’s team looks for habits and behaviors in candidates beyond the major to get a sense of the person. Duffy pays attention to activities or part-time work.

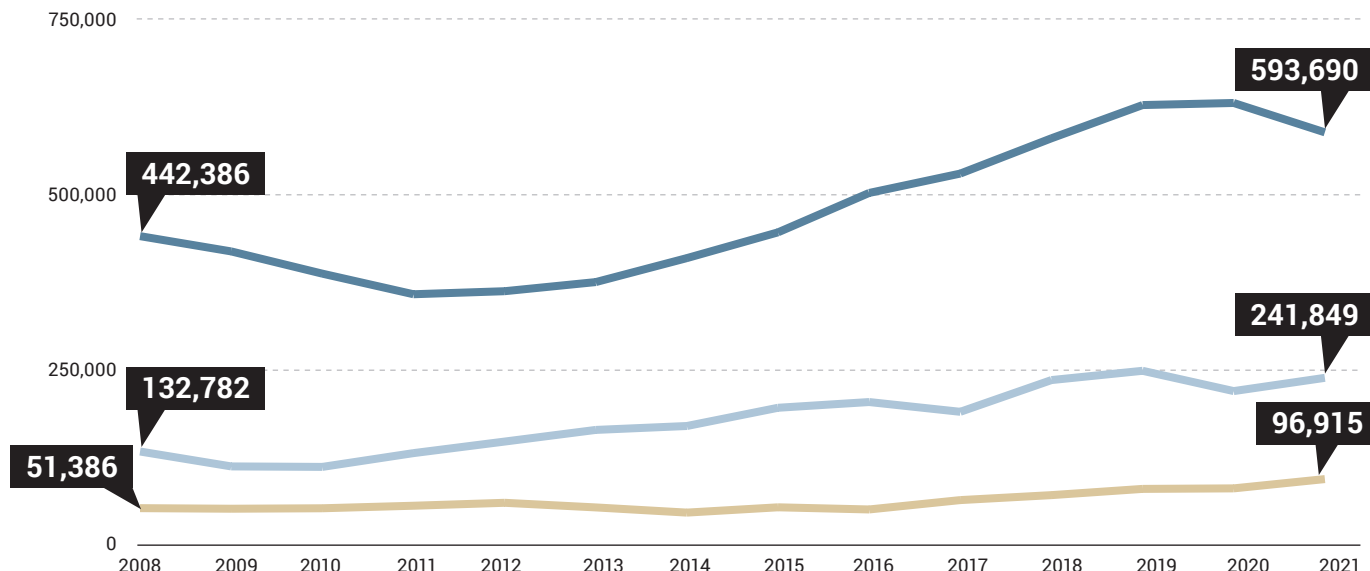
Ben Ellis, the founder and designated broker at E & G Real Estate Services, which manages \$100 million in properties, was a communications major and religious-studies minor at Arizona State. Like many employers, he believes the liberal arts merely defined and highlighted some of the skills he already had, either intrinsically or through his training as a child actor in San Francisco. Neither did his degree necessarily give him any hard skills, he says.

“Communication isn’t going to tell you what a cap rate is or how to write a contract. For me, it was less about what I knew and it was more about who I knew.” Planning events for his fraternity, Alpha Epsilon Pi, gave him training in marketing, navigating conflict, and communication; a fraternity brother helped him land his first job in real estate in 2005. “Those relationships that I built really helped to launch my business career more than anything,” he says. “If I wasn’t a part of that fraternity, there’s no way I would be where I am today.”

The education system wasn’t doing enough to address the skills gap, especially in areas where human-resources directors thought job candidates were lacking: professionalism, business acumen, critical thinking, and lifelong learning.

Apprenticeships on the Rise

■ Active apprentices ■ New apprentices ■ Total completers



Note: New apprentices include those registered during the period of performance. Active apprentices include registered, suspended, and reinstated apprentices. Completers include apprentices who completed their training during the period of performance.

Sources: U.S. Department of Labor's "Registered Apprenticeship National Results Fiscal Year 2021"

Some employers doubt that liberal-arts disciplines have any impact on the desired noncognitive skills: "Soft skills are actually better taught in a business environment than they are in a classroom," says Noel Ginsburg, the former CEO of a plastics company.

The Marriage of Learning and Work

In 2016, while leading his plastics company in Denver, Ginsburg founded Career-Wise, an organization devoted to setting up apprenticeship programs across the country, working specifically to provide other pathways for students in high school. If governments, schools, and higher-ed institutions don't provide opportunity for all people, not just people who pursue traditional college degrees, the country is imperiled, he says.

"Policies need to reflect the new realities of our economy, the speed change is taking

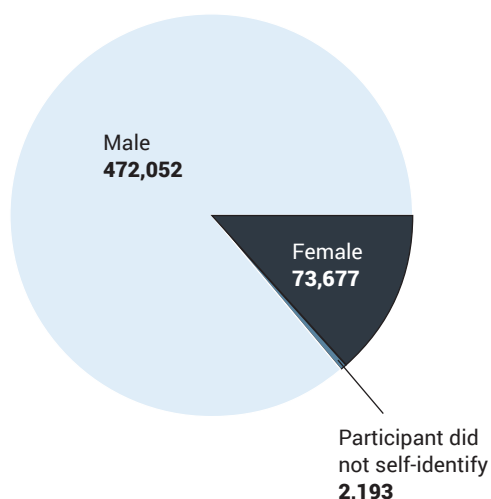
place, which only industry is on the front line of. That's natural. We can't expect schools to know what's going to come next. Only business can really do that."

Many employers talked about the importance of melding work experience with the academic experience. Co-op programs, substantial internships, and apprenticeships got frequent mention as the kinds of programs employers would like to see more often.

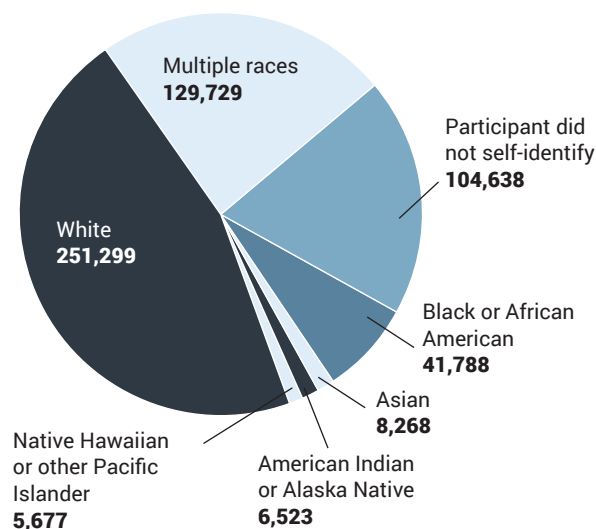
Sara Howren, a vice president for global talent recruitment at Airswift, which hires workers for the energy industry, says colleges need "more interaction with the companies, the people that do the jobs, giving them just more of a flavor of a day in the life."

"If we are not conveying that to the people who are the work force and the future of the industries that we support, we're at a disadvantage," she says.

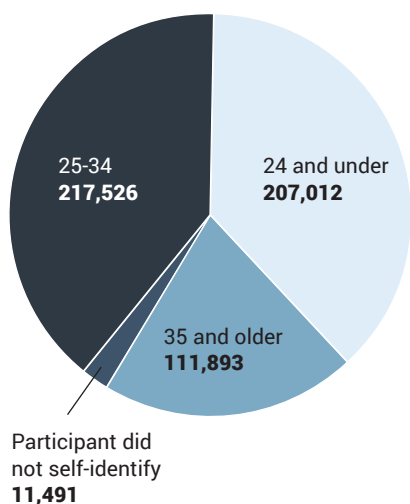
Active Apprentices by Gender



Active Apprentices by Race



Active Apprentices by Age



Note: Data are for fiscal-year 2021.

Sources: U.S. Department of Labor's "Registered Apprenticeship National Results Fiscal Year 2021"

Allison Gerber, the director of employment, education, and training at the Annie E. Casey Foundation, says that employers and higher-education institutions don't interact as often as they should in part because most employers are small to medium-sized and don't have the staff to maintain a relationship with local colleges. "The same goes for the education side," she adds. Colleges need people who have deep industry knowledge to sustain relationships.

"Add to that the fact that our economy has just been changing really rapidly. Even if you think about the last couple years, we're starting to see the beginning of something that is going to continue to snowball. Education just doesn't move at that pace."

The marriage of work and learning might be one way to keep up, and apprenticeships represent the deepest version. Apprentices typically work for a company



JOSEPH PREZIOSO, GETTY IMAGES

An intern at the Center for Coastal Studies uses a net to sample levels of zooplankton, a source of food for right whales, during an expedition on a research vessel off the coast of Massachusetts. Many employers think internships offer valuable work experience.

while they are also taking classes, often from a college or another educational organization. The company helps to pay a student's tuition, and the student, in turn, handles real work duties. While companies have been wary of apprenticeships in the past, worried that students would leave for a competitor as soon as the training was finished, in fact, employees often stay loyal to the organizations that sponsored their education.

Apprenticeships started gaining ground under President Barack Obama, who lauded them in his 2014 State of the Union address and devoted hundreds of millions

of dollars to expanding apprenticeship programs. Support for apprenticeships continued under the Trump and Biden administrations.

"The only bipartisan thing left in this country is apprenticeship, it feels like sometimes," says Deborah Kobes, who directs the Center for Apprenticeship & Work-Based Learning at Jobs for the Future. When the pandemic hit, advocates expected apprenticeship programs to die off as companies retrenched to survive, but their support for apprenticeships held steady.

Now apprenticeships are growing — in part because the "earning while learning"

When the pandemic hit, advocates expected apprenticeship programs to die off as companies retrenched to survive, but their support for apprenticeships held steady.

model promises to help diversify the work force. CareerWise works with students starting in high school, primarily because that's where the organization can find the most diverse talent pool, before various barriers — college costs, mounting debt, or starting a family — emerge to knock a student off the path to a promising career, says the organization's director of national partnerships, Ryan Gensler.

In 2021, Amtrak restarted an apprenticeship program that had been dormant for almost 30 years. It's intended to move employees from the coach-cleaning team — who are mainly women of color — into higher-paying jobs as train mechanics. "Part of this was really a tool to get people into those roles who otherwise wouldn't have the opportunity and were under-represented," says Andrea Gansen, vice president for labor relations at Amtrak. "When somebody becomes a journeyman, doing the work that they're going to do day in and day out, it makes for a better journeyman than pulling a journeyman from construction and trying to make them into a railroad electrician."

Apprenticeships are not just for the trades, like plumbing or carpentry, but are increasingly seen in white-collar work as well. Insurance companies such as Aon and The Hartford have used apprenticeships to lure workers into an industry that might seem dull to the average college student. Amazon has hired apprentices in coding, and apprenticeships have become common in cybersecurity jobs — an arrangement that allows students to learn theory in college while battling the hackers' latest tricks on the job. J.P. Morgan Chase has supported apprentices in banking, and Jamie Dimon, the bank's billion-

aire chief executive, has formed a relationship with CareerWise's Ginsburg over his interest in the model. Apprenticeships for schoolteachers have started in the Cherry Creek school system in Colorado — participants can start earning toward a pension while still teenagers in high school.

The apprenticeship model is meant to "amplify but not replace the value of a degree," says Kobes. "If different employers value work experience and a degree differently, you can bring both of those things to the table."

Community colleges, in particular, have been vital partners in apprenticeship programs, given their historical involvement in trades, but more four-year colleges are getting involved, particularly as apprenticeships become focused more on white-collar work, with shorter programs — 18 months instead of the four to six years typical of traditional apprenticeships. A key challenge: Both employers and institutions need intermediaries like CareerWise to navigate the complex regulations and standards associated with apprenticeships registered through the Department of Labor.

"Employers don't see themselves as trainers, and they need partners and support, especially small and medium-sized ones," Kobes says. Colleges sometimes understand that role, but often don't.

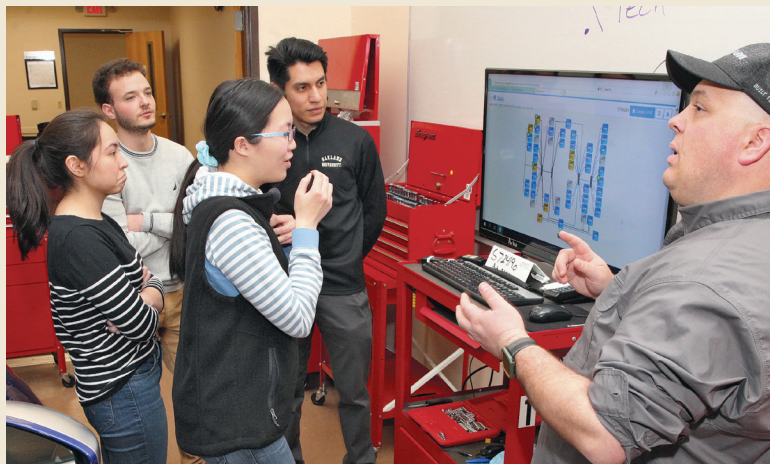
Will apprenticeships or similar work-based learning become more common, given the hunger for talent? In the traditional path from college to work, says Gensler, "there's a need to think differently about the kind of linear, time-consuming, and costly approach that has been there forever in this country and just doesn't work."

Oakland U. Collaborates With Lawmakers

MANY ENGINEERS pick a specialty after they get out of college. At Oakland University, just down the street from the world headquarters for Stellantis (the car company formed when Fiat Chrysler merged with the French company PSA), students get an opportunity to specialize in a particularly needed niche in the auto industry well before they graduate.

Six years ago, Stellantis approached the public university, located in Michigan, looking to build a pipeline into powertrain engineering for the company. Engineers usually took at least a couple of years to acclimate to the work of powertrain systems — the components that propel a car, including the engine, transmission, driveshaft, and axles. The field is growing and changing with the auto industry's new focus on energy efficiency and electrification of vehicles.

Stellantis worked with the dean and faculty members in Oakland's engineering department to create courses relevant to powertrains, along with real-world experiences through the car company. The two-year program enrolls 10 to 12 students in their junior year. Students hear speakers from Stellantis, visit the powertrain team at the company headquarters, work on research projects, and get an opportunity to intern for the company. Most are offered positions at Stellantis after graduation — although they could work for Honda or General Motors, or not work on power-



COURTESY OF OAKLAND U.

Oakland U. collaborated with the car company Stellantis to create courses relevant to powertrains. Here, students take part in a powertrain program.

trains at all, as Stellantis has no claim on the students.

"We use it as an example when our dean and our faculty are approached by companies asking, 'What can we do with you? How can we collaborate?'" says Kathy Livelsberger, the director of employer relations for Oakland University's engineering school.

She notes that there are all sorts of new opportunities in the car industry, given the move to greener technologies and automated driving features. Oakland's powertrain program inspired a new, similar collaboration with the Ford Motor Company in sheet-metal stamping at the university.

And the Stellantis program itself is growing and changing. The study of electrification of automobile engines was set to become a bigger part of the curriculum in the fall of 2022, with the program growing to 20 students.

What It Takes to Make an Internship Successful



COURTESY OF U. OF WISCONSIN

Matthew T. Hora, who directs the Center for Research on College-Workforce Transitions at the U. of Wisconsin at Madison, says high-quality internships require effective mentorship or supervision.

MANY COLLEGES boast to prospective students about internship opportunities they provide, but not every internship is created equal. Matthew T. Hora, an associate professor of adult and higher education who directs the University of Wisconsin at Madison's Center for Research on College-Workforce Transitions, has written extensively about the factors that lead to students' ability to gain employment. His latest research focuses on internships, and he says great ones share some key traits.

What do you count as an effective, high-quality internship?

A lot of it boils down to "it depends." It depends on the student and their goals, on the nature of the academic program they're in. A high-quality internship for a welding student will be different from one for a student in art history or nursing. Calibrating the internship to the goals of the student and the nature of the discipline is an important starting point.

But there are some things the literature suggests run through all high-quality experiences. One is effective mentorship or supervision. Without that, it's really hard to have an experience that really advances the students intellectually, professionally, academically. That's where in our data we find internships sometimes falling short.

Hand in hand with that is having somebody on the academic side, whether it's a faculty adviser or internship coordinator, working with that supervisor to make sure that the tasks are suitable for the student. The tasks should be challenging but not overwhelming.

The supervisor then has to scaffold the tasks so that they're increasingly difficult and challenging over time. Honestly, supervision and setting up challenging tasks are two of the most critical and yet overlooked components of an internship.

It seems like many people think an internship is easy to set up.

Companies have to be very deliberate about how they design their internships. It's not dissimilar to planning a capstone experience, or an in-class activity, or a final research paper for a course. It just takes advanced planning and thinking. What makes it complicated for an internship is it has to also map on to the needs of

the employer. One of the most common pitfalls of an internship is running out of meaningful tasks. And that's when the coffee pouring and photocopying comes into play.

How common is it for students to participate in internships these days?

Our last estimate, before Covid-19, found around 30 percent of enrolled undergraduates had an internship. The National Association of Colleges and Employers and the National Survey of Student Engagement had higher estimates, at 40 to 50 percent pre-Covid. But everybody's capturing a decline since Covid, which is understandable given the mass cancellation of in-person jobs in general and then internships in particular, and then just the challenges students had with fitting an internship into an already stressful situation.

And a good number of those internships students are taking are unpaid. So that's when you get into questions about access, equity, and fairness.

To what extent are students from low-income or nonwhite backgrounds landing internships compared with their white, wealthier peers?

What we're finding in our data is not a whole lot of differences by race with interns, but we're finding differences by geography, in students attending colleges in rural versus urban areas. The internship labor markets are primarily urban, and they're even concentrated in specific cities, depending on the major. And so students attending a rural campus are at a distinct disadvantage.

In the 70 percent of students who aren't taking internships, most wanted to do an internship but couldn't. The top three reasons are pretty consistent: My course load was too heavy; I had to work a paid job; and there weren't enough positions. Having to work a paid job suggests that low-income students are not doing internships at the same rate.

That's where the conversation about work-integrated learning is really important. Just figuring out ways to bring some of these authentic,

real-world workplace-based tasks into the lesson plans of a course or into a final project or a capstone project helps the students who, for financial reasons, can't take an internship. That's one of the directions I think the field needs to be headed.

What's the potential of online internships?

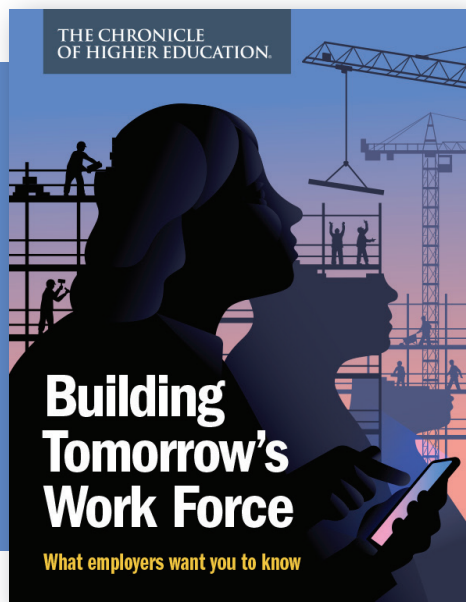
The potential is pretty immense. There has been a lot of research, especially in the EU, about virtual or distance internships, in part because a lot of multinational companies have project teams that are based in different countries. But there are challenges with supply and demand. During Covid, some of the virtual-internship vendors were getting way more applications for positions than there were openings.

And then there are the questions of quality. In our most recent survey of college internships, we found that the satisfaction rate was lower for online interns than in-person, and some of the complaints centered on the lack of networking opportunities, which was a complaint during the pandemic across the board. So I think there's a vast promise of online internships, but there's challenges.

I would imagine that mentorship is a huge piece of internships and that's just harder to accomplish online.

There's been examples of ways to do it well, and there's been more professional development for supervisors or faculty advisers to do it better, because very few of us have been trained how to be supervisors. I never was, and I supervise a lot of people. To have a high-quality internship, in-person or virtual, we're just going to have to train supervisors in the colleges and in the employer sector about how to run these better.

While there's a big push to increase the number of high-impact practices and increase the number of work-based learning experiences, I still see gaps. In rare cases, I see institutions hiring coordinators to run this for a college or department. But too often I see resources being outsourced to an online vendor where it's one person running the show for thousands of students. And that doesn't work.



The education system wasn't doing enough to address the skills gap, especially in areas where human-resources directors thought job candidates were lacking: professionalism, business acumen, critical thinking, and lifelong learning.

Purchase the full report

Building Tomorrow's Work Force

What employers want you to know

In *The Chronicle*, you don't often hear the voices of employers — the managers and business owners who are hiring students. But in many ways employers reflect the priorities of parents, students, and policy makers, all of which consistently tie the value of higher education to results in the employment market.

For this report, we did something different: We reached out to a variety of employers to ask them about how they view colleges, college skills, and the degree-holding job applicants they are getting. Many of these questions have been asked before, but they take on a new urgency in the wake of the pandemic, when the hunt for talent and focus on skills are intense.

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