

# What Happened to the Promise of a 4-Year College Degree?

College graduates aren't meeting employers'—or their own—expectations at work. Why?

By Dana Wilkie | October 21, 2019

This autumn across the U.S., more than 2 million young men and women packed up their laptops and mattress toppers and headed to college as freshmen, most of them pursuing a promise they've heard practically since infancy—that a four-year university degree will win them well-paid jobs in respectable professions doing what fulfills their passion.

What they may not know is that there is a growing disconnect between what their professors will teach them and what their first employers will expect them to do. And that means many new grads—despite applying themselves academically and graduating with, on average, \$38,390 in loan debt—will be unemployed, underemployed or struggling professionally, even if they land a job in their chosen field.

Our five-part series examines college degree holders' readiness for work, what universities are teaching their students and whether employers want too much from the newest workers.

Interviews with nearly 50 college professors and deans, company executives, workplace and education experts, college students and recent graduates point to complex and competing reasons for this disconnect. But on one trend these interviewees agreed: The public conversation about how colleges prepare young adults for work and how well-prepared those graduates actually are has become increasingly heated in

an economy where technology advances rapidly and constantly reshapes workplace needs.

## Pointing Fingers

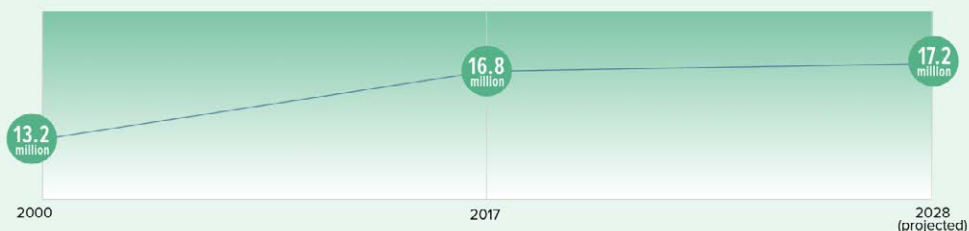
Ask Brenda Leadley if most of the college graduates she hires can write clearly, speak persuasively, think critically, work independently and show initiative, and her answer is simple and unequivocal ...

"No."

## MORE GRADUATES, HIGHER UNEMPLOYMENT

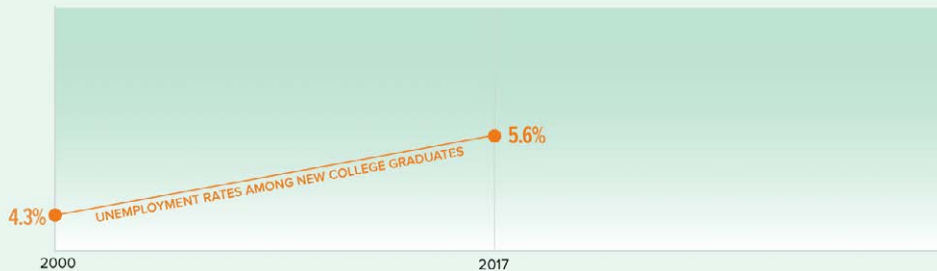
As more people enroll in college, the unemployment rate among new college graduates has risen.

TOTAL UNDERGRADUATE ENROLLMENT AT DEGREE-GRANTING COLLEGES IN THE U.S.:



Source: National Center for Education Statistics.

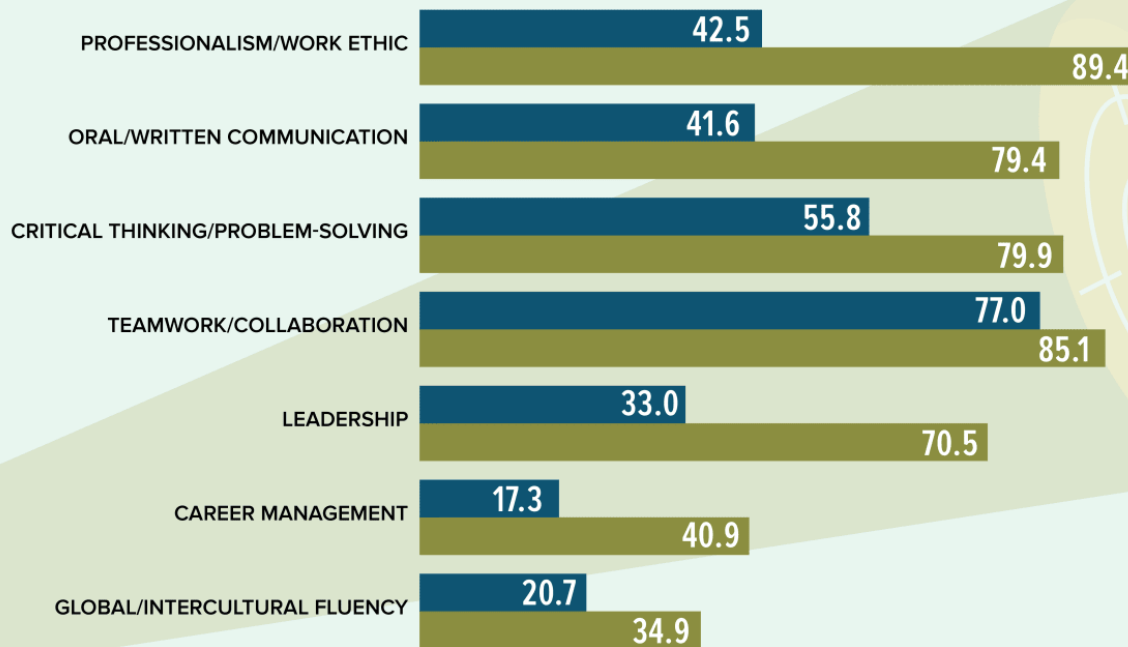
UNEMPLOYMENT:



Source: Economic Policy Institute, Class of 2017  
(<https://www.epi.org/publication/the-class-of-2017/>)

# COLLEGE GRADS THINK THEY'RE FAR MORE PREPARED FOR WORK THAN EMPLOYERS DO

There is a big divide between how prepared students think they are for work and how prepared employers think they are.



● % OF EMPLOYERS RATING RECENT GRADS AS PROFICIENT

● % OF GRADS RATING THEMSELVES AS PROFICIENT

Source: National Association of Colleges and Employers, *Job Outlook 2018* survey.

Leadley's team interviews graduates with degrees in business, finance or economics, mostly for junior underwriter jobs at her commercial insurance company. Leadley expects that college would have taught them these so-called soft skills. Well, not so much.

"It's pretty surprising to us," said Leadley, senior vice president and head of HR Americas at Allianz Global Corporate & Specialty in New York City. "It's almost like the graduates of today finished only three years of college. They really haven't gotten to where I would expect people were 20 years ago."

Ask Martin Fiore if the college business graduates he hires have mastered Microsoft Excel, a standard tool for collecting, organizing and analyzing data. Nope, says Fiore, who is a tax managing partner for the U.S. Eastern region at EY in New York City.

When businesses don't get what they need from the new college graduates they hire, one of their first punching bags is the college system itself.

"The future of work is arriving faster than the speed of light," said Sue Bhatia, founder of Rose International, a staffing agency based

in Chesterfield, Mo. "The educational models of memory-based knowledge accumulation that we rely on are outmoded and will not sufficiently prepare young people for solid careers. We're living in an era of a lag between the old model of college education and the coming future of work. Unfortunately, our young professionals are educated for a world that will not exist as it currently does."

## Colleges Push Back

Not so fast, say leaders of the nation's colleges. Earning a bachelor's degree was never meant to prepare students to hit the ground running on day one of a new job, they say. They note that small and midsize companies now invest far less in onboarding and training new hires than they used to. That, they say, is due to an increase in the number of startups and technology-reliant companies where speed and profit are valued above the time and patience it takes to groom a new employee.

They also suggest that companies expect a great deal from today's college graduate—far more than was expected in decades past. On the one hand, they say, companies post job descriptions that demand expertise in several computer operating systems, software

suites, presentation programs, spreadsheets, and communication and collaboration tools—skills typically mastered in technical schools, not colleges. On the other hand, they want grads with the fine-tuned problem-solving, analytical, writing and speaking skills often mastered in a classic four-year liberal arts program. As the workplace constantly evolves, they say, companies demand employees with the agility to take on roles and responsibilities far beyond their formal training.

“If I’m creating new degree programs around some hot new industry career path, I feel like I’m doing my job because students are going to get right into the workforce,” said Martin Van Der Werf, associate director for editorial and postsecondary policy at Georgetown University’s Center on Education and the Workforce. “Then I hear back from businesses that the graduates don’t have soft skills. There’s this constant push and pull: If I push too far on the technical skills side, I’m skimping on the liberal arts side. If I push too far on the liberal arts side, then I’m skimping on the technical skills.”

Nancy Woolever, SHRM-SCP, is vice president for certification operations at the Society for Human Resource Management (SHRM). Her team helps businesses connect with colleges so the businesses can advise schools on what they’re looking for in a graduate.

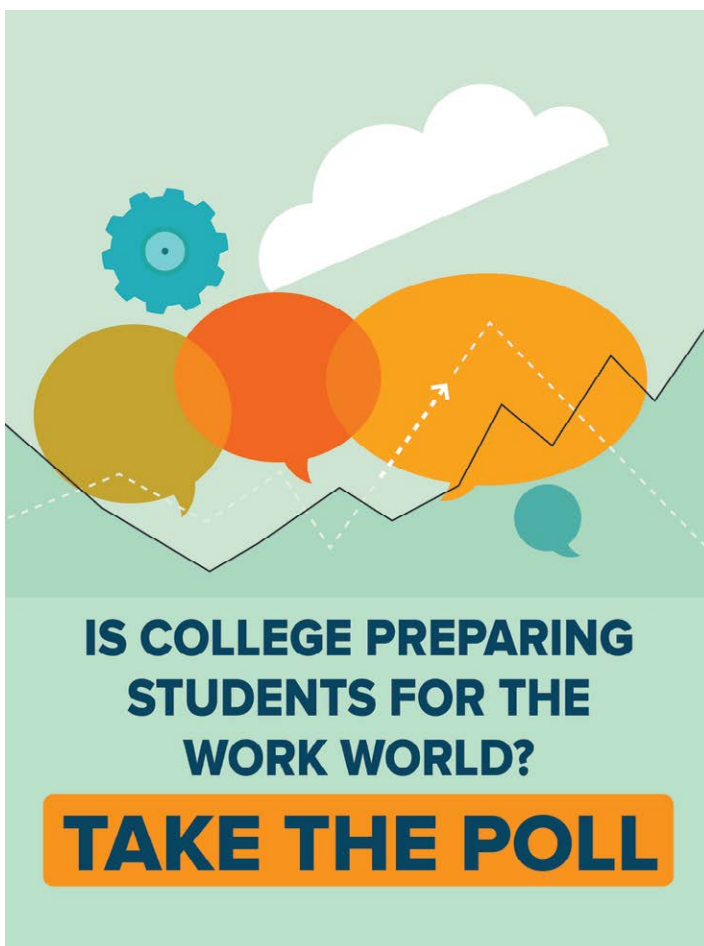
“What does a student need to know when they graduate and ... come walking through your door to take an entry-level position?” she asks. “The consistent feedback we get [from employers] is at least a three-page list with three columns, single-spaced, everything from A to Z .... Some would hold the opinion that employers are being overly demanding. ... The other school of thought would be, ‘Yeah, it’s a competitive workplace.’ “

Moreover, company investment in training new workers appears to be declining. There was a time, decades ago, when business leaders expected that new hires would require a learning curve, so they had managers or colleagues teach new employees on the job. Today’s larger companies may have the resources for that type of training, but small and midsize outfits—where much of the job creation occurs—may not. Even if they do, two recent workplace developments—the tendency for younger workers to job hop and the rise of gig workers—may leave employers skittish about investing too much in new hires.

Still, those same businesses seek college graduates who will

arrive on day one fully armed with all the skills they need to hit the ground running.

Are businesses expecting too much? Or has a college education changed so much—or not kept up enough with the changing workplace—that a four-year degree is no longer a ticket to a rewarding career and a decent living? As vocational boot camps and online certification programs grow in popularity and produce workers who seem to make businesses happy, is college becoming increasingly irrelevant? Even if it is, will that change the learning choices of millions of young men and women raised to believe that college is not a choice— but an expectation?



# Employers Say Students Aren't Learning Soft Skills in College

College grads are deficient in critical thinking, teamwork, speaking and writing, executives say

By Dana Wilkie | October 21, 2019

Jim Link's college-age son came home this summer with a problem: Assigned to clean up a database at his internship, he first had to confirm that the data were accurate and up-to-date.

But the people who could help him didn't reply to his e-mails, responded too slowly, failed to show up for meetings or weren't up to speed on the data.

For a week, Link coached his son through this challenge.

"I taught him about being inspirationally irritating," said Link, CHRO of Randstad North America, a leading staffing company, in Atlanta. "It means saying what you need persuasively, up to the point of driving people nuts. What I was really teaching him was how to work with other people—about influence, negotiation and persuasion."

His son's experience, Link says, illustrates the lack of creative problem-solving that he sees in today's college students.

said that [education systems have done little or nothing to help address the skills shortage](#). The top missing soft skills, according to these members: problem solving, critical thinking, innovation and creativity; the ability to deal with complexity and ambiguity; and communication.

**"Adaptability, problem-solving, creativity, influence, drive, empathy and collaboration. What I've observed is that those things ... aren't being practiced by college graduates."**

**JIM LINK  
RANDSTAD NORTH AMERICA**



## How Important Are Soft Skills?

What Link describes are what today's business world calls "soft skills." And the classic four-year college education, with its emphasis on critical thinking, debating, viewing issues from several angles and communicating clearly, was designed to teach these skills.

Yet nearly 3 in 4 employers say they have a hard time finding graduates with the soft skills their companies need.

In a 2019 report, the Society for Human Resource Management found that 51 percent of its members who responded to a survey

Are college curricula just different than in years past? Are college students different? Has a reliance on technology robbed young adults of soft skills? Or have today's companies—many of them startups and dependent on ever-changing technology—grown impatient and unwilling to wait out what was once a predictable, on-the-job learning curve?

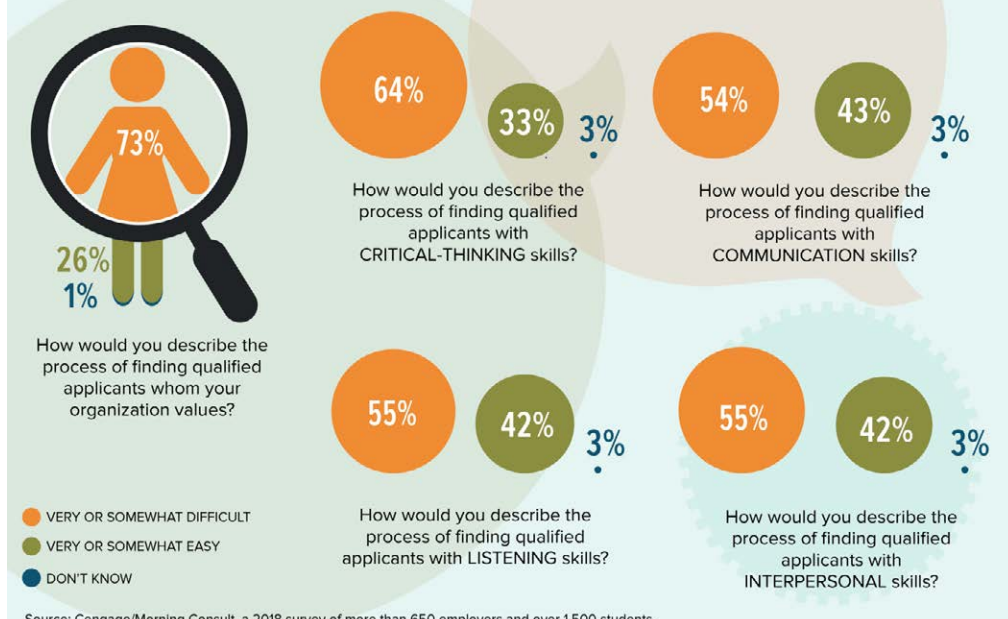
All of those questions may hold the answers, say the executives, educators, students and workplace experts interviewed for this series.

In the immediate future, [the most valuable work skills will be those that machines can't yet perform](#), like soft skills, according to a survey by the Pew Research Center of about 1,400 technology and



## NEW COLLEGE GRADS LACK SOFT SKILLS, EMPLOYERS SAY

Employers want job candidates with “uniquely human” skills, but finding those candidates isn’t easy. Nearly 3 in 4 employers say they have a hard time finding graduates with the soft skills their companies need.



Chris Kirksey is president of McLean, Va.-based Direction.com, a digital marketing and Web design company. He said he’s interviewed “many brilliant people with college degrees,” some of them with multiple degrees. But he often finds them wanting.

“It seems college is graduating many ‘book-smart’ people with no real people skills or no real-world use of their knowledge skills,” Kirksey said. “What’s so great about a degree in something if you only know about it, and not how to teach it, use it, or understand why people want or need it?”

## What’s Happening at College?

Pressured by businesses to produce graduates with up-to-date technical skills, colleges could be relaxing their standards for requiring liberal arts classes—precisely the types of classes that research has shown develop the soft skills businesses also want.

education professionals. The survey suggested that young adults need to “learn how to learn” if they hope to adapt to a fast-changing work world.

Link likes to think further ahead—to 2025, when many familiar jobs will be performed by machines. Machines will be doing basic tasks that require abilities such as operational skills (functioning as forklift operators, assembly line workers), administrative skills (secretaries, bank tellers) and computational skills (accountants).

Soft skills are precisely the skills that a traditional four-year college degree, especially in the liberal arts, is designed to teach, said Lynn Pasquerella, president of the Association of American Colleges & Universities in Washington, D.C.

“I was a philosophy major,” Pasquerella said. “We composed arguments about issues, responded to objections, developed a capacity to imagine what it’s like to be in the shoes of someone different, to listen critically and to consider points of view that might call into question your fundamental beliefs.”

Year after year, her organization’s annual survey on the skills that company executives consider most valuable in college graduates and that prepare students for the workforce finds that soft skills “are the best preparation for long-term career goals.”

Yet “these are areas where colleges are clearly struggling to prepare students,” said Denise Leaser, SHRM-SCP, who is president of GreatBizTools, an HR management products and consulting services company in St. Paul, Minn., and whose daughter just graduated from California’s Biola University. “And the future appears to be worse.”

“A lot of colleges still have curricula grounded in the liberal arts,” said Martin Van Der Werf, associate director for editorial and post-secondary policy at Georgetown University’s Center on Education and the Workforce. “But most could also be accused of chasing after what they think most businesses want ... what the next hot major is. And designing curricula to bring students up to snuff on the technical skills they need for a degree sometimes comes at the expense of grounding them in the liberal arts.”

For example, he said, a college business degree can now be splintered into several subdisciplines (such as a specialty in supply-chain management), each requiring its own specific expertise. “So the emphasis becomes trying to [introduce] new classes, so they’ll shave off one or two of the core liberal arts requirements.”

In addition, he said, colleges are more consumer-oriented today. Because the public can track from year to year what new college graduates earn, schools feel pressure to demonstrate that college tuition is worth the investment, especially at a time when tuition costs are through the roof.

“For colleges, it used to be ‘Hey, we’re a place where students can come and find themselves, learn about their passion and follow it,’” Van Der Werf said. “As the tuition sticker price rose, the leverage has switched to consumers who say, ‘I invest thousands in my education. What guarantee can you give me that I’ll get a job when I’m out, and how much will I make?’ More

and more, colleges are listening and saying, 'OK, maybe it's not the wisest thing to require political science for a business major.' "

Zachary Schallenberger is a rising senior at Montana State University in Bozeman, majoring in computer science. Like most of the computer-science students interviewed for this series, he confessed that college hasn't really taught him some basic interpersonal skills, which is important for science-inclined students who can be introverted and socially awkward.

It wasn't at the university but at an internship at BMW where he first learned these skills.

"One of the things I quickly had to learn was to communicate in a professional environment," he said. "That was never taught to me. What's the formal way to write an e-mail? Is e-mail the most appropriate way to contact someone? How do I have conversations with my manager?"

## Is Digitization to Blame?

Eric Frazer has another explanation for the dearth of college graduates with soft skills—and it has nothing to do with college curricula.



## THE RISE OF AUTOMATION MEANS JOB CANDIDATES WILL NEED 'UNIQUELY HUMAN' SKILLS

As jobs become increasingly automated, employers are seeking workers with skills that machines can't replace.

### HUMAN SKILLS ARE IN DEMAND



Communication Skills:  
**77%**



Listening Skills:  
**75%**



Critical-Thinking Skills:  
**74%**



Interpersonal Skills:  
**73%**

### EASILY AUTOMATED SKILLS ARE NOT AS IN-DEMAND



Memory Skills:  
**54%**



Computer/Tech Skills:  
**50%**



Quantitative Skills:  
**50%**



Ability to Repeat Tasks:  
**54%**

Percent of employers who say these skills are very important to gaining leadership positions at their organizations.

Source: Cengage/Morning Consult, a 2018 survey of more than 650 employers and over 1,500 college students.

College students are more disengaged than students of decades past from campus sports, Greek life, volunteerism and other extracurricular activities that grow soft skills.

"Students are not getting as involved in the opportunities that could develop these skills," said Frazer, who teaches part time at Yale School of Medicine. "Before, one would join a fraternity or sorority, a recreational club, a sport, theater, music—where there's a hierarchy, leaders, where you learn interpersonal and conflict-resolution skills.

"Now [students'] social connections are online. Instead of joining a club, people join an app or an online group. Instead of sitting down with someone and sharing, they share photos and news snippets on phones and tablets."

Link agrees.

"I see this even in my own household," he said. "I am raising four Generation Z students. "While they completely recognize that they need to be persuasive or to manage conflict, they're often perplexed as to how to make those things happen. I think it's because they've been 'digitalized' at a very early age and taught to believe that the best way to solve a problem is go to a machine and find your solution, instead of to another person."

# Employers Say College Grads Lack Hard Skills, Too

Managers want their newest workers to get up-to-speed more quickly, but is that expectation realistic?

By Dana Wilkie | October 21, 2019

**W**hen Kimon Pope showed up at Goldman Sachs as a college intern in the summer of 2018, it was what he hadn't learned at college that tripped him up.

Pope, then a rising junior, had taken classes designed to give him broad exposure to the world of computer programming. Once at Goldman Sachs, he wished he'd had more classes that delved into specific programming languages and that had kept pace with the newest languages many businesses are using.

"I was able to complete tasks but not as quickly and efficiently as my colleagues," said Pope, who graduated from Virginia State University and is now pursuing his master's degree in information security at Carnegie Mellon University's Heinz College in Pittsburgh. "It made me think the [college] curriculum needs to be revamped. They just had me learning one programming language, and then everything else was sort of theoretical."

Pope expresses a common frustration among college students and the businesses that hire them: Whether they majored in computer programming, nursing, marketing, accounting or many other areas of study, graduates often find that their courses didn't prepare them for or keep them up-to-date on the technical and practical skills they need in their first jobs.

Otherwise known as hard skills, these are the knowledge and abilities required to perform a job. For instance, in nursing, hard skills could include such capabilities as starting IVs and inserting catheters. In accounting, they could include manipulating an Excel spreadsheet. In marketing, they might be a proficiency with brand measurement tools.

"A four-year degree—or even a two-year degree—cannot keep up with the quick rate of change facing most industries," said Denise Leaser, SHRM-SCP, who is president of GreatBizTools, an HR management products and consulting services company in St. Paul, Minn., and whose daughter just graduated from California's Biola University. "By the time someone graduates, their knowledge is out-of-date."

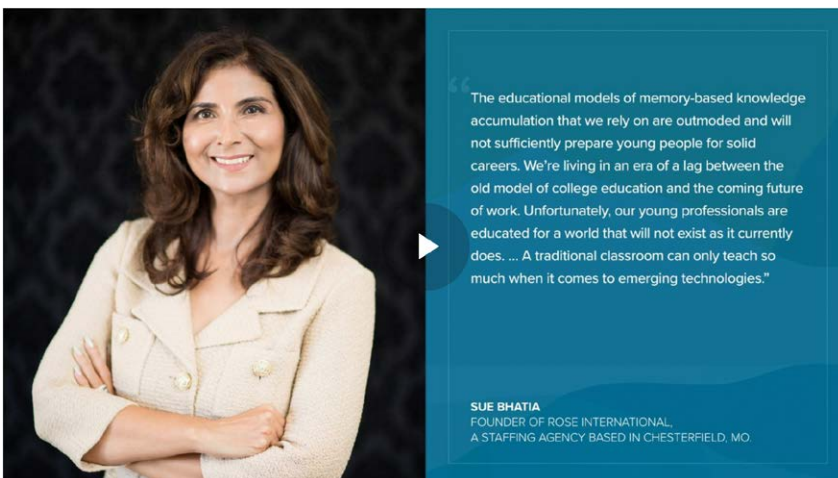
## Employers Say College Education Doesn't Keep Pace with Technology

When Martin Fiore talks with his colleagues, he often hears that managers are disappointed that college didn't equip new hires with what employers consider basic technical and practical skills.

"Maybe a student took an Excel class at college, maybe level 1 or level 2. Then he goes to work and is asked to do modeling in Excel and [has] no idea how to do it," said Fiore, who is a tax managing partner for the U.S. Eastern region at EY in New York City. "Today's businesses have used Excel as a common language for years, so most people now are very advanced at using it."

Sue Bhatia, founder of Rose International, a staffing agency based in Chesterfield, Mo., told of one graduate—from a top computer-science school—who was overwhelmed after taking his first job in cloud computing.

"He had taken three required calculus classes that didn't prepare him for his job," she said. "A traditional classroom can only teach so much when it comes to emerging technologies."





Teri Blackwell was surprised recently when a woman interviewing for a job running the business end of her medical clinic—and who had a college degree in health care management—couldn't explain how a medical practice makes money.

"That would be something you'd need to understand," said Blackwell, an HR professional for Carolina Neurosurgery & Spine Associates in Charlotte, N.C. "I don't know if she missed something in her college studies or what."

## 'Turning Around the Queen Mary'

Part of the blame for this gap between the hard skills colleges teach and the skills businesses want may fall on the colleges, some say.

First, college professors and deans can get huffy when outsiders try to dictate what they should teach and how they should teach it.

"They are in an insular world," said Jeffrey Deckman, who created an alliance between Rhode Island employers and colleges to examine the skills gap. "There's a bit of an elitist culture and ... professors, if they're tenured, don't have to stay super-current to preserve their position. That will create a dynamic that makes an institution less responsive to companies, which have to adapt exceptionally fast and be agile."

Second, the higher-education system itself may get in the way. Even if colleges want to keep coursework relevant to the work world, that's not easily done.

Adding courses to a degree curriculum, much less restructuring that curriculum, is no small feat. It requires consultation with and approval from many layers of academia. If the college hopes to have a curriculum accredited—something that's not required but nonetheless coveted in the academic world—the school must jump through several time-consuming, bureaucratic hoops. For instance, accreditation often requires that certain courses be taught, even if they seem irrelevant to students working on a major or to those planning to hire those students once they graduate.

"It's like turning around [the ship] the Queen Mary," said Amanda Bergson-Shilcock, senior fellow at the National Skills Coalition in Washington, D.C., which advocates for keeping worker skills current with economic demands. "It takes time to get higher education to develop new skills in a curriculum."

Nancy Woolever, SHRM-SCP, is vice president for certification operations at the Society for Human Resource Management (SHRM). As much as colleges want to keep pace with employer demands, she said, that can be a tall order.

"Keep in mind that universities are businesses, too," she said. "They are equally interested in changing with the times, but they have a tendency to move at a much slower pace than businesses in general.

I don't think anyone was too horribly surprised that students seemed over time to be slipping further and further behind by not having the technical skills, the hard skills, the soft skills."

And while students need hands-on training in the workplace to keep pace with technology, many institutions don't offer that experience. Most college degree programs do offer internships, but a few months of practical experience crammed between classes and other demands "is not the same as having a deliberate plan to develop skills over an entire four years," said Eric Frazer, a doctor of psychology who teaches at the Yale School of Medicine.

"In my conversations with Millennial and Generation Z students in college and recent graduates, I hear that the institutions put a real emphasis on maintaining academic rigor and the traditional college experience, but they're lagging in the application of that knowledge," he said. "That's fundamentally absent outside of lab work or independent research projects."



## Are Businesses Demanding Too Much?

To be sure, part of the blame for this gap may fall on businesses.

While [92 percent of HR professionals say soft skills are equally or even more important than hard skills](#), many interviewed for this series are skeptical of that claim.

"On the one hand, [employers] say [they want graduates with soft skills], but when colleges talk to businesses that complain about what [colleges] are producing, they get a different answer," said Martin Van Der Werf, associate director for editorial and postsecondary policy at Georgetown University's Center on Education and the Workforce. "What you hear is that students really need to be up-to-date technologically, have kept up with current skills and even have advanced skills."

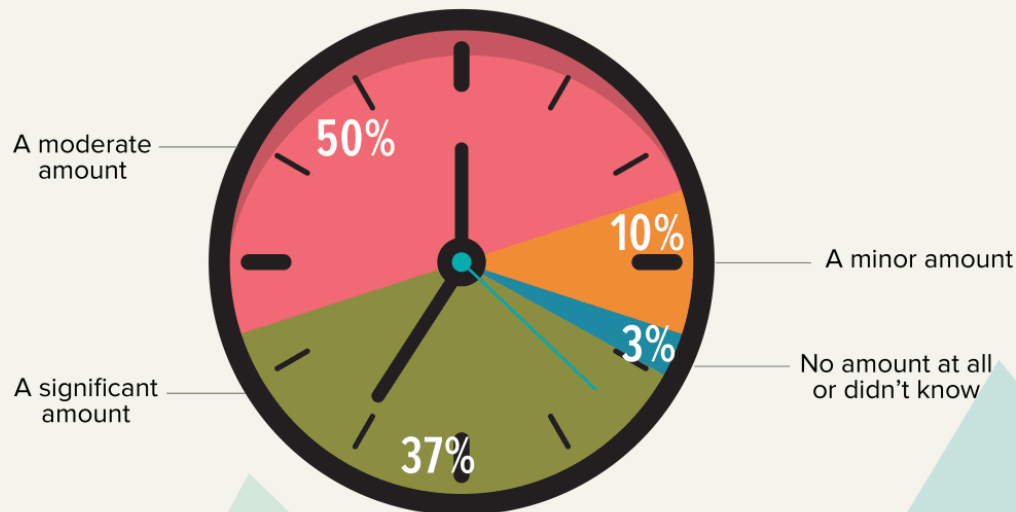
Large companies tend to have well-oiled systems—classes, coaches, mentors—for filling workers' skills gaps. Amazon.com, AT&T, Walmart, JPMorgan Chase and Accenture have launched programs to help workers acquire new skills as automation, machine learning and other technology replace existing jobs. Amazon apparently would rather



# EMPLOYERS OFFER ON-THE-JOB TRAINING

To fill gaps in the skills that employers require on the job, companies offer training programs for new hires.

**EMPLOYERS WERE ASKED HOW MUCH TIME THEY INVESTED IN TRAINING NEW HIRES TO ACQUIRE THE NECESSARY SKILLS FOR THEIR ORGANIZATIONS:**



**HOWEVER, ALTHOUGH EMPLOYERS SURVEYED EMPHASIZED THE NEED FOR HUMAN SKILLS OVER TECHNICAL SKILLS, THEIR TRAINING PROGRAMS DON'T REFLECT THAT PRIORITY:**

Does your current place of work offer job-specific training?

**81%**  
SAID YES

Does your current place of work offer interpersonal skill training?

**50%**  
SAID YES

Source: Cengage/Morning Consult, a 2018 survey of more than 650 employers and over 1,500 students.

pay dearly to coach existing staff—it will shell out \$700 million over about six years—than face a dire talent shortage.

Nikki Bisel is founder of Seafoam Media, a Midwest digital marketing consultancy. Her company launched on-the-job training to address what she calls a “huge gap between what people learn at four-year colleges and what we need them to do on the job.”

The cost: Between \$30,000 and \$50,000 a year for a dozen employees.

“In our industry, the pace of change is just so rapid, and to stay ahead of the curve for our clients, we need workers to be ahead of

the curve,” she said.

But small and midsize companies typically don’t have those kinds of resources. And, because younger workers tend to job hop, even employers that do may be reluctant to sink too much money into training.

“Most job creation is happening at small companies and startups, and they’re typically not ready to hire college graduates because they don’t know how to train or prepare them,” said Roberto Angelo, CEO and co-founder of AfterCollege, a student and graduate career network in San Francisco. “They’d rather hire someone with experience than invest in the entry-level candidate. That’s true whether it’s health care, entertainment or food service.”

# How Business Leaders Influenced College Coursework

Academics, first reluctant to hear executives out, now collaborate with them on curricula

By Dana Wilkie | October 21, 2019

About two decades ago, Jeffrey Deckman assembled Rhode Island business leaders and college deans and professors for a meeting to discuss a pressing problem: Because U.S. graduates with information technology (IT) degrees didn't seem prepared for the work world, companies were hiring—and becoming too reliant on—foreign talent.

The business leaders said they would give the universities money if the latter would change their IT teaching approach and curricula.

The result: About a third of the professors walked out of the meeting.

"The universities were highly offended," said Deckman, author of *Developing the Conscious Leadership Mindset for the 21st Century* (Capability Accelerators Inc., 2019) and founder of West Greenwich, R.I.-based Capability Accelerators, a leadership and organizational design consultancy. "They said, 'You do not tell us what to teach or how to teach it.'"

Today, a partnership that nearly fell apart many years ago is now a thriving collaboration, one that moved Rhode Island from No. 43 to No. 19 on the Milken Institute's ranking of states best prepared for a tech-focused economy. The institute is an economic think tank in Santa Barbara, Calif.

As companies across the country began recognizing that college graduates lacked the hard or soft skills—or both—to succeed at work, business leaders began stepping in, forming alliances with universities in hopes of better equipping students for the new economy.

## Colleges Match Curricula to Employer Needs

In 2000, Rhode Island companies were hiring a lot of their IT talent from abroad, relying heavily on H1-B visas to lure job seekers to the state. When those visas expired, the companies that had invested in foreign workers found themselves short-handed, largely because they were disappointed in the graduates coming out of U.S. colleges.

### COLLEGES THINK THEY'RE PRODUCING WORK-READY GRADUATES. EMPLOYERS DISAGREE.

Most college provosts—the people who lead academic operations at their institutions—think their school does a good job preparing students for the world of work. But more than a third of business leaders think they're not.

**96 percent**  
of chief academic officers at higher-education institutions said their institution is very or somewhat effective at preparing students for the world of work.

**33 percent**  
of business leaders agreed with the statement that "higher education institutions in this country are graduating students with the skills and competences that my business needs."

**56 percent**  
say their institutions are "very effective."

**34 percent**  
disagreed.

**40 percent**  
say they are "somewhat effective."

**17 percent**  
strongly disagreed.

Source: Gallup and Inside Higher Ed survey of college and university chief academic officers.



“I’ve heard a lot about postgraduate depression. Some ... have not even gotten jobs in their major. The workforce is requiring more than a bachelor’s degree now. They want you to have master’s degrees.”

**ASHIA WINSTON**

Ashia Winston is a senior at the University of West Alabama pursuing a degree in psychology. She plans to later earn a master’s degree in social work.

tion and say you need a four-year degree and assume that the degree is a proxy for everything [the business] wants—from showing up on time, to collaboration, to being able to articulate ideas, to responding to critical feedback in a thoughtful way.”

At Purdue University Global, Jeffrey Buck’s staff meets four times a year with a 24-member panel of business executives that advises the school on companies’ needs.

“The people coming to us didn’t have the education they needed, and especially not the ones coming out of college,” Deckman said. “The technology and training most relevant to us in our businesses were moving more quickly than the universities could keep up with.”

Schools needed to find a way to better prepare domestic students for the IT industry.

Today, the partnership Deckman created, called the Tech-Collective, has 4,000 members representing more than 100 employers in Rhode Island, and “it’s growing drastically,” said Tim Hebert, Tech-Collective’s current chairman.

And unlike the academic resistance Deckman encountered nearly 20 years ago when he launched Tech-Collective, the 15 universities that are now members are more responsive than ever to employer feedback. For instance, after hearing from Tech-Collective employers, one Rhode Island college created a new degree: a major in English with a minor in computer science. The idea was to produce graduates with both the soft and hard skills that IT employers are seeking.

“In the last decade, even more so in the past five years, there’s a lot more [effort] to try to match curricula to employer needs,” Hebert said.

## On-Campus Business Advisors

Today, it’s increasingly common on college campuses to find business leaders advising school leaders on what skills hiring companies need in college graduates.

“You need college representatives hearing directly from employers about what works well and where there are gaps,” said Amanda Bergson-Shilcock, senior fellow at the Washington, D.C.-based National Skills Coalition, which advocates for keeping worker skills current with economic demands. “And you need employers hearing from college reps so they understand that you can’t just throw out a job descrip-

“One of the philosophical approaches we have at Purdue is to make sure we’re relevant and meeting the needs of industries,” said Buck, dean of the School of Business and Information Technology. “When I listen to the advisory board, I can group into three buckets the things they want in the future.”

Those things, he said, are excellent written and verbal communication skills; the ability to work with others on projects; and the ability to capture data, analyze it and make decisions based on that analysis.

Out of the advisory board’s input grew an online degree and apprenticeship program for students interested in cybersecurity. Buck and his staff learned what skills and knowledge the companies needed, then customized courses around those skills.

The U.S. Department of Labor projects vast growth for jobs in cybersecurity, but employers are having a hard time filling even existing cybersecurity jobs, Buck said. Under the Purdue program, companies pay for students’ tuition and books as they work toward a bachelor’s or master’s in cybersecurity. In return, the students apprentice at the companies, where they stay current on the latest technologies and hone the soft skills the companies expect from their workers.

“Our economy is changing at such a pace that people continually need to upgrade their skills,” Buck said.

## Strong Speaking and Writing Skills

Angela K. Miles, SHRM-SCP, is an associate professor and department chair at North Carolina Central University’s School of Business.

After hearing from company executives that many graduates lack basic presentation, writing and teamwork skills when they start their new jobs, her university introduced courses to foster those skills.



“We do group activities where [the students] have to work with others to come up with solutions to a problem,” she said. “We also have them make presentations to get them comfortable speaking in front of more than one or two people. This builds interpersonal skills that employers are seeking.”

The National School Boards Association and the Society for Human Resource Management spoke with leading business organizations about the soft skills gap and identified [six LifeReady skills](#) that new workers need to succeed in the workplace. The coalition of business groups seeks to raise more awareness about the skills gap and provide resources for school boards to help students develop and sharpen these skills. The group set a goal: to create 1,000 new partnerships between the business and public education communities by the end of 2020.

## Teaching the Teachers

Boston’s New England College of Optometry has an employer council that advises deans and faculty on how to better prepare students for the work world.

“What’s happening in higher education is we’re looking at how we change what we do to help meet the demands of today and tomorrow,” said Sandra Mohr, the college’s dean of academic resources and administration. “What we found was there was a need to train faculty



on how to use new technology before they teach students how to use it. How do you use all these new machines? If you don’t know, there’s a lot of hesitation and fear.”

At her previous job at the Wentworth Institute of Technology, also in Boston, there was a similar employer council for each of the institute’s four colleges, Mohr said. She believes that should be the model for most universities.

Steven Cates is a business faculty member at Purdue University Global, which offers online business degrees and certifications. While many colleges have business advisory boards—particularly for IT and business programs—there should be more of them, he said.

“Rather than have one general board for a school of business, there should be boards for engineering programs, science programs, accounting programs, so that we know what the business environment requires and how we can offer the type of educational programs that will meet those requirements, not only today, but hopefully into the future.”

# Is the 4-Year College Model Broken?

Boot camps, associate degrees and trade schools do what traditional education can't

By Dana Wilkie | October 21, 2019

Lighthouse Labs is a coding boot camp in Canada that trains software developers in as little as 10 weeks. Unlike in the traditional college classroom, Lighthouse students don't listen to lectures; their training is hands-on, and their teachers all have jobs in Web, software or mobile development.

The boot camp has instructed more than 20,000 Canadians and launched 1,500-plus graduates into careers as professional developers. About 97 percent of the school's graduates find jobs.

Coding boot camps are becoming more popular around the world as employers begin to value the blend of soft and hard skills, as well as hands-on experience, that these schools provide.

"Technological skills learned in a student's first year of college are no longer relevant when they graduate," said Jeremy Shaki, Lighthouse's CEO. "The No. 1 thing we teach at boot camp is that you must be constantly learning. That runs counter to what we see in people we find in college."

## THE COST OF ASSOCIATE AND BACHELOR'S DEGREES AND BOOT CAMPS

The published tuition and fees of colleges and universities, and the net prices students pay after subtracting grant aid and tax credits and deductions:

Average published out-of-state tuition and fees at public four-year institutions:

**\$25,620**  
in 2017-18

Average published tuition and fees at private, nonprofit four-year institutions:

**\$34,740**  
in 2017-18

Average published in-district tuition and fees at public two-year colleges:

**\$3,570**  
in 2017-18

Source: The College Board.

Boot camps last an average of 15.1 weeks and cost \$13,584.

Source: 2019 Course Report poll of full-time boot camps in the U.S. and Canada with courses in Web and mobile app development.

Outfits like Lighthouse Labs are springing up around the world—and doing quite well in the U.S.—at a time when young adults and their parents are expressing deep frustration with the U.S. college system: Each year, getting into good universities becomes increasingly competitive. The cost of a college education has skyrocketed, as has student loan debt. This year’s [college admissions scandal](#) involving wealthy parents who allegedly paid hefty sums to get their children accepted to top U.S. universities demonstrated that coveted school spots can go to the wealthy, influential and deceitful but not necessarily to the honest, deserving and hardworking.

Add to that the fact that many employers see a disconnect between the skills they want in a new college graduate and the skills college graduates actually have, and one can see that the traditional bachelor’s degree model may be falling apart.

“Apple, Microsoft, Google—all are changing how they hire, and they’re not even looking at college degrees to the extent they used to,” said Denise Leaser, SHRM-SCP, who is president of GreatBizTools, an HR management products and consulting services company in St. Paul, Minn., and whose daughter just graduated from California’s Biola University. “Coding schools are doing a better job of incorporating soft skills into their programs, and they’re more responsive than colleges. They can quickly modify a curriculum if it’s missing something. In colleges, you might not know for four years that you’re not preparing people the way employers need. I think the whole paradigm of education is going to be turned on its head.”

## Colleges and Students Think Grads Are Far Better Prepared than Employers Do

At 24, Sean Pour is the co-founder of SellMax, a nationwide car-buying service that he started in high school. Though his company was doing well by the time he was studying at San Diego State University, Pour felt obliged to finish his four-year degree in computer science.

Today, he’s not sure that was necessary.

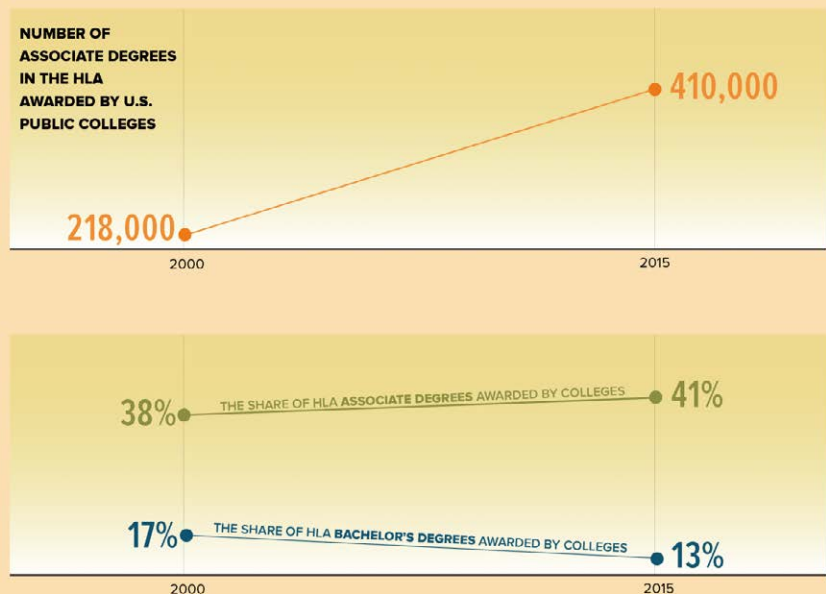
“[People] could train themselves [in computer science] just as well, maybe even better, at a specialized school,” he said. “But people are

still so focused on getting the four-year degree because it’s what’s expected of them. It’s preconditioned into us from a young age, and we feel like a failure if we don’t get one.”

Today, Pour hires some college grads for entry-level positions. But he’s having a harder time finding grads ready to supervise others.

## STUDENTS TURNING TO 2-YEAR COLLEGES TO EARN LIBERAL ARTS DEGREES

U.S. public colleges are awarding an increasing number of two-year associate degrees, typically acquired at community colleges, in the humanities and liberal arts (HLA). Meanwhile, the share of HLA bachelor’s degrees, typically awarded at four-year colleges, has declined.



Source: Community College Research Center, “Humanities and Liberal Arts Education Across America’s Colleges,” by Theo Pippins, Clive R. Belfield, and Thomas Bailey, June 2019.

“Colleges have trained people to simply follow instructions and not think on their own, which means they’re not prepared for managerial roles. We’ve had significant trouble filling these higher-level positions at our company for this reason.”

There is a disconnect between what business leaders need from workers and what higher-education institutions think they’re producing. As far back as 2014, a [Gallup study for Inside Higher Ed](#) found that 96 percent of chief academic officers at higher-education institutions said their school is very or somewhat effective at preparing students for the world of work.

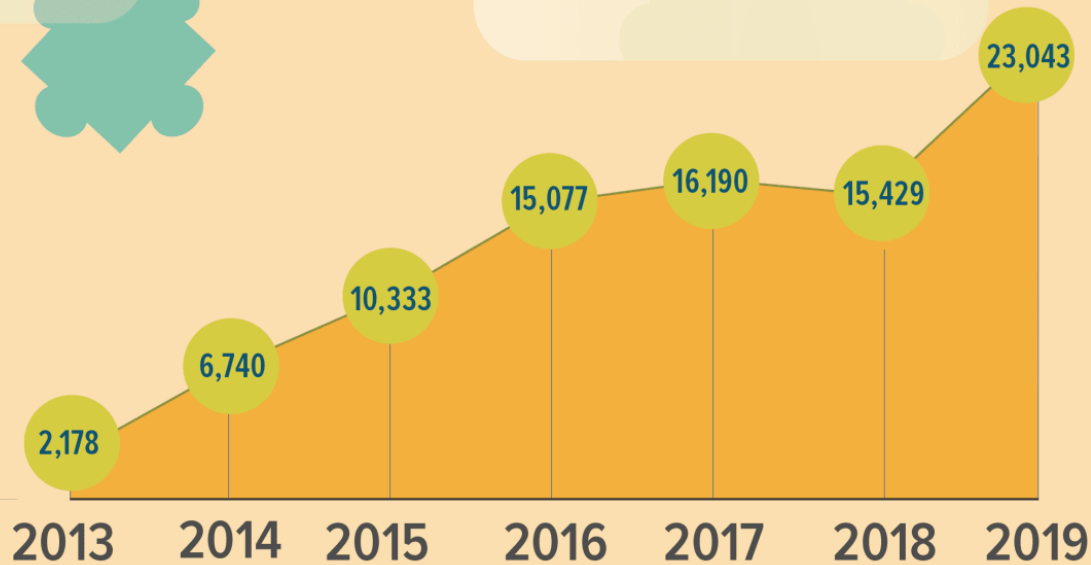
**Business leaders think quite the opposite:** In 2014, only 33 percent of business leaders agreed with the statement that “higher-education institutions in this country are graduating students with the skills and competencies that my business needs.” More than a third disagreed, with 17 percent saying they strongly disagreed.

“That’s really scary,” Leaser said. “You’ve got these parents with



## DRAMATIC GROWTH IN CODING BOOT CAMPS

Despite being relatively new, coding boot camps have grown in popularity and are now a \$309 million industry. In 2019, there were 110 full-time coding boot camps in the U.S. and Canada, which are expected to produce 23,043 graduates this year.



Source: 2019 Course Report poll of full-time boot camps in the U.S. and Canada with courses in Web and mobile-app development.

this huge college debt and students with degrees that either aren't marketable or are not a good fit for their child. Now there's a resurgence in code schools, community colleges, associate degrees and apprenticeships."

### Learning to Get a Job

Today, coding boot camps are a \$240 million industry that graduated about 20,000 software developers in 2018. Their popularity rose in part because [college graduates found their degrees weren't in demand](#) or that their education was too broad to give them the up-to-date technical skills they needed for many jobs.

Coding boot camps like Lighthouse Labs focus mostly on Web programming languages, platforms and tools. Tuition can range from \$9,000 to \$17,000 for a three-month course. Typically, students are between 25 and 35 years old.

In addition, students are increasingly pursuing associate degrees rather than four-year degrees. The number of associate degrees that community colleges awarded in the humanities and liberal arts nearly doubled between 2000 and 2015, according to a [study](#) from the Community College Research Center. Meanwhile, in that same time, the share of four-year bachelor's degrees awarded in the liberal arts declined from 17 percent to 13 percent.

Finally, a shortage of skilled workers in traditional blue-collar occupa-

tions has renewed interest in trade schools for industries as varied as carpentry, plumbing, health care and filmmaking. Those schools promise that for a fraction of the cost and time it takes to get a four-year degree, they can help graduates land jobs in industries that pay well. There were roughly 9.6 million students attending trade schools in 1999; in 2014, there were an estimated 16 million, according to the U.S. Department of Education.

"Policymakers, parents, educators and politicians have created this narrative that college is the next step after high school, but that's not necessarily aligned to the [current] economy or to what certain employers need," said Michael Horn, a Yale University graduate and co-author of *Choosing College: How to Make Better Learning Decisions Throughout Your Life* (Jossey-Bass, 2019). "High-skill jobs require more learning than high school, though it's not clear a college degree is necessary. Employers don't ultimately need the degree; they need aptitude and skills. And there are many ways to gain aptitude and skills."

### The Case for College

Lynn Pasquerella is president of the Association of American Colleges & Universities in Washington, D.C. Narrow technical training, she said, isn't sufficient "when rapidly changing technology is rapidly obsolete."

"We have jobs now that didn't exist 10 years ago and jobs 10 years ago that almost don't exist anymore," she said. "How do we prepare

students for the work of the future when it's a future that none of us can fully predict? The best thing we can offer students is how to be flexible in the face of change ... and how to grapple with problems for which we don't yet have answers. The thinking is that the people best prepared for that will come from a four-year liberal arts degree."

But colleges are businesses. If the degrees they hand out can't keep pace with an ever-evolving work world, the boot camps, technical schools and other new education models will compete for students' dollars, said Ted Kinney, vice president of research and development at PSI Services, whose assessment tools help companies find and hire workers.

"Sure, going through college may have taught some of the soft skills needed for the job by accident," he said. "But those things could

have been acquired in many ways that don't involve college. It really begs the question: When will a college education no longer have a return on investment?"

But Anthony Carnevale, research professor and director of the Georgetown University Center on Education and the Workforce, believes that for employers looking for qualified new workers, the four-year bachelor's degree "is still the gold standard."

"But it's a lot more complicated now," he acknowledged. "There are many alternatives. The associate degree may pay off. Specific education like certifications and boot camps may pay off. But the combination of both—the mix of a general education and specific education—that's the combination that wins."

## POST-COLLEGE JOB SEARCHING BY THE NUMBERS

AfterCollege, a career network for college students and graduates, asked students and recent grads about their wins, failures, fears and frustrations when looking for a job.

### DO YOU HAVE A JOB LINED UP AFTER GRADUATION?

Current students:

**16.6%**

said yes



**83.4%**

said no

New graduates:

**23.7%**

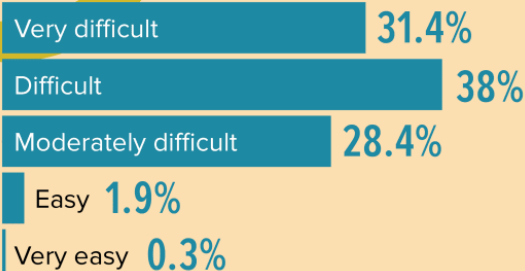
said yes



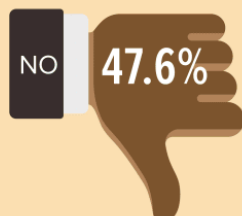
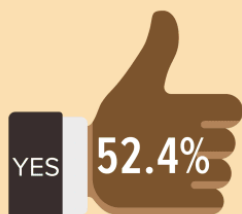
**76.3%**

said no

### HOW DIFFICULT HAVE YOU FOUND YOUR JOB SEARCH TO BE?



### DO YOU FEEL THAT COLLEGES PREPARE STUDENTS FOR THE WORKING WORLD?



### WHAT DO YOU WISH YOUR SCHOOL OFFERED MORE OF TO HELP PREPARE YOU FOR THE WORKING WORLD?

- 1 Networking opportunities
- 2 A focus on getting a job along with academics
- 3 Career fairs

Source: 2019 Course Report poll of full-time boot camps in the U.S. and Canada with courses in Web and mobile-app development.