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The Future of College Enrollment

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The Future of College Enrollment Can institutions survive declining student numbers?

• By Sarah Glazer



Despite the prospects of a dismal job market, loss of government funding and rising student debt, these students are betting on the benefits of a college degree as they move into a dorm at Eastern Illinois University in August 2025. (Getty Images/Tribune News Service/Chicago Tribune/John J. Kim)

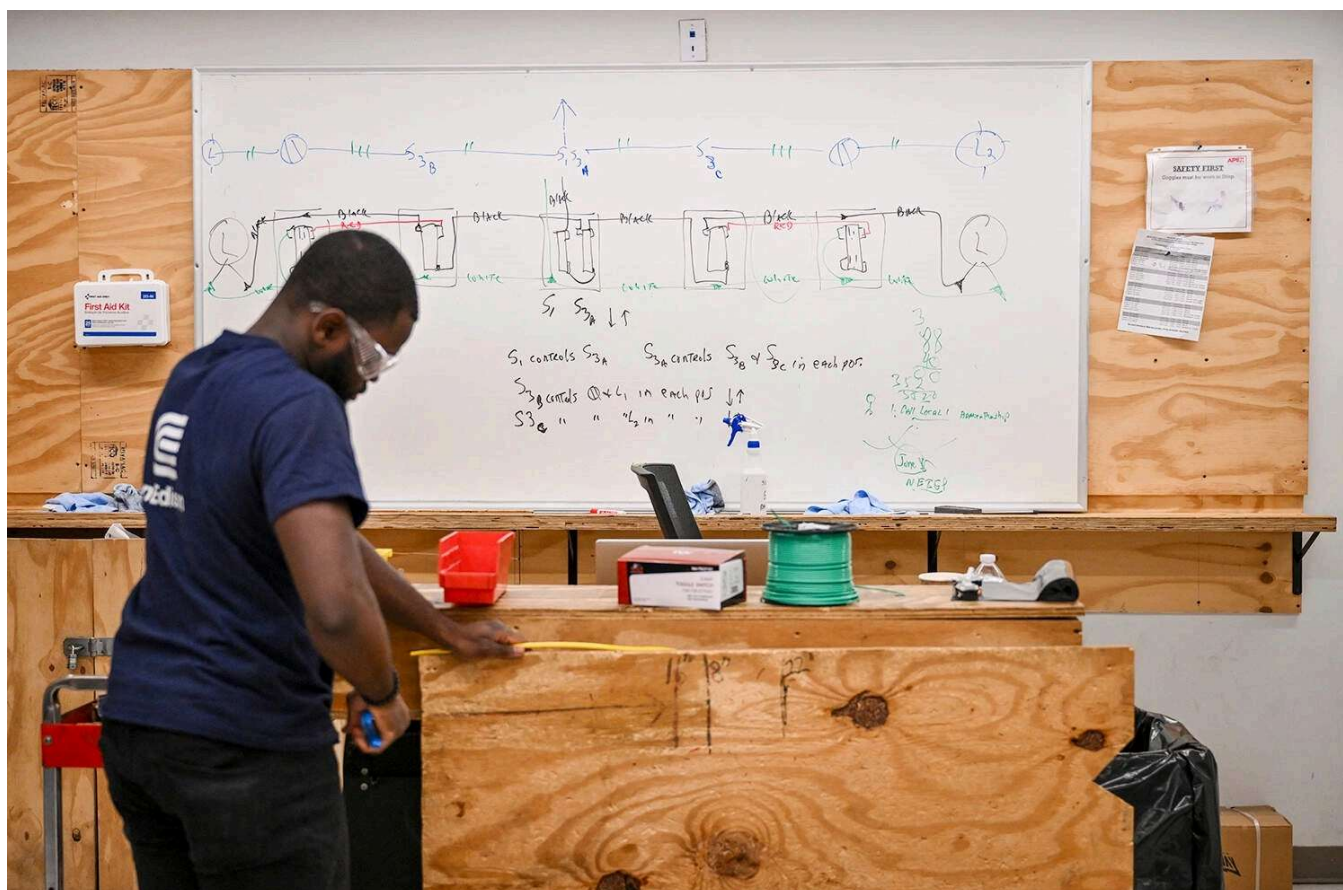
Colleges find themselves at the intersection of several challenging trends: demographic drop-off leading to fewer Americans of traditional college age, rising student debt, the effect of AI on jobs and loss of government funding. As colleges face declining enrollment, some are trying to refashion themselves as direct routes to jobs. But in a rapidly changing world, institutions are unsure how to do this and whether they should move away from their traditional liberal arts focus. While some adherents say a well-rounded college education

gives students the cognitive competence they will need to learn the work skills of the future, other experts argue that for most young people, learning specific vocational skills is a faster, more cost-effective route to a job. Meanwhile, politicians at the state and federal level are looking at shifting funding to alternative job-training pathways and to institutions showing the greatest return for the dollar invested vs. the salary gained.

Overview

Ryder Paredes, 22, had been a computer science undergraduate student for three years. “AI was still in its infancy,” when he began his studies, he said. But by last year, the capacity of artificial intelligence (AI) in his field had advanced so much that the Montclair, N.J., native feared he could no longer get a job with the already outdated skills offered by a computer science degree. Paredes dropped out of college last year and is now in trade school studying to be an electrician. “At first I was in denial,” Paredes said. “But eventually I had to just face it.” [1](#)

Paredes has plenty of company. Increasing numbers of high school graduates are exploring alternatives to a four-year college degree, including apprenticeships and short courses in specific job skills that provide a certificate or other alternative credential rather than a Bachelor of Arts or Science degree. Recent data from the National Student Clearinghouse Research Center, a research group that compiles data on postsecondary enrollment, show that enrollment in certificate programs and community colleges, which have a more vocational focus, is continuing to rise at a faster clip than those at four-year colleges. [2](#)



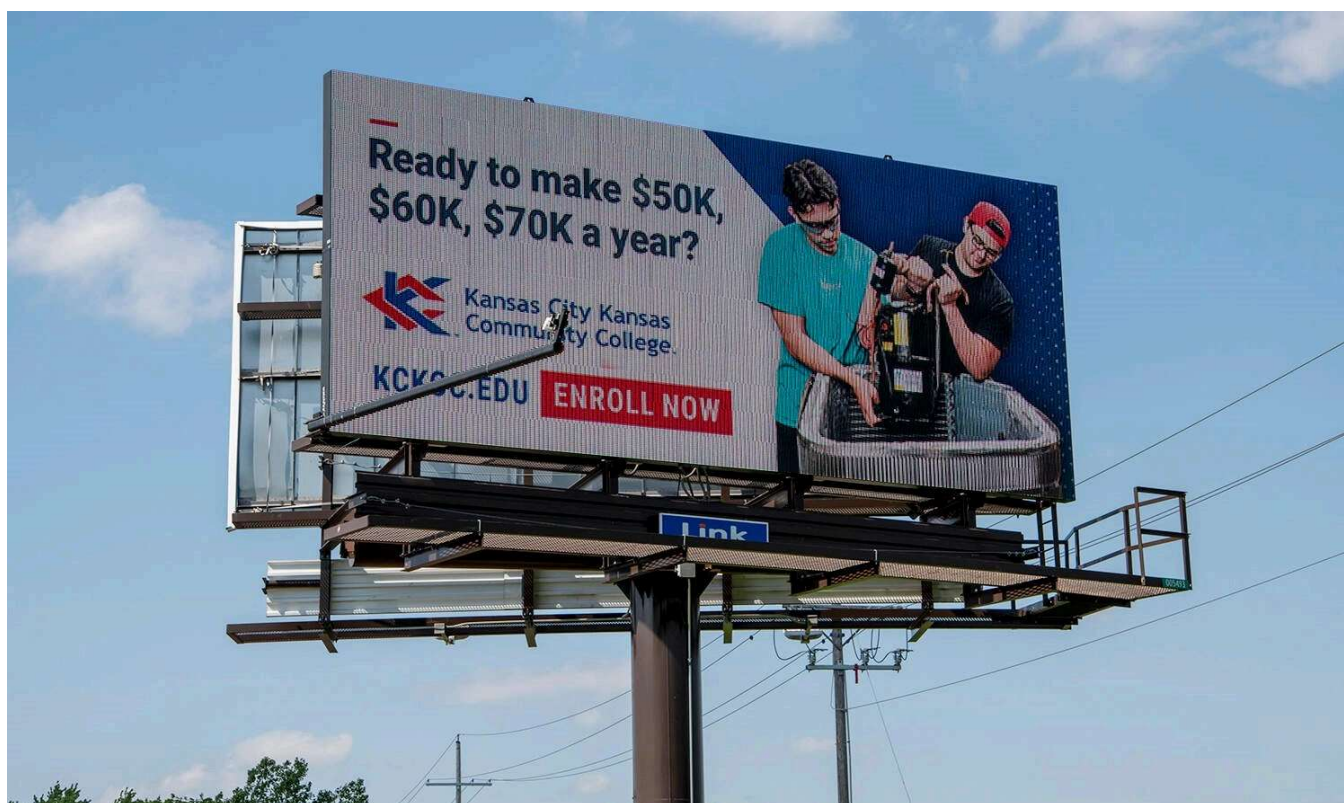
At the Apex Technical School in Manhattan, students learn skilled trades through hands-on experience, such as in this Advanced Electrical program class in July. (AFP/Getty Images/Angela Weiss)

Colleges find themselves at the intersection of several challenging trends: demographic drop-off leading to fewer Americans of traditional college age, rising student debt, the effect of AI on jobs and loss of government funding. As colleges face declining enrollment, some are trying to refashion themselves as direct routes to jobs. But in a rapidly changing world, institutions are unsure how to do this and whether they should move away from their traditional liberal arts focus. While some adherents say a well-rounded college education gives students the cognitive competence they will need to learn the work skills of the future, other experts argue that for most young people, learning specific vocational skills is a faster, more cost-effective route to a job. Meanwhile, politicians at the state and federal level are looking at shifting funding to alternative job-training pathways and to institutions showing the greatest return for the dollar invested vs. the salary gained.

The most recent spring enrollment data underlines these trends in young adults' reorientation toward career-based training and their growing disenchantment with some forms of higher education in the age of AI. Com-

munity colleges have seen enrollment grow 5.2 percent since 2021. Meanwhile, the number of students majoring in computer science dropped for the first time in five years amid rising college student concerns about AI reducing the currency of coding and other computer skills learned in college. [3](#)

In the toughest job markets faced by new graduates since the pandemic, many students, as well as experts, are questioning the value of a college degree when weighed against its cost and the debt that many students take on. Almost four in 10 students who enter four-year colleges drop out without getting a degree, and more than 40 percent of graduates can't find a job requiring a college credential, so even those who complete their courses may end up working low-paid jobs, at least initially. [4](#)



A billboard advertises Kansas City Kansas Community College. Enrollment in community colleges, which often have a more vocational focus and certificate program options, has been rising in recent years. (Getty Images/UGC/Universal Images Group/Michael Siluk)

A new Lumina Foundation-Gallup poll released on May 12 finds only 25 percent of adults without a college degree believe most people can afford a quality education — the lowest level recorded since 2022. Pressures are also affecting students' willingness to continue their college education, the survey found. One-third of students has considered leaving school in the past six months. The main reasons, the survey found, were

emotional stress and mental health difficulties, followed by the cost of school. [5](#)

Most people who have dropped out (69 percent) say they'd like to reenroll, according to the survey. Yet only 2 to 3 percent of the 43 million Americans who have dropped out actually return to college, according to the Education Data Initiative. [6](#)

That gap between intention and reenrolling may be because many of these dropouts are working adults, often with children or other family dependents, says Courtney Brown, vice president of Impact and Planning at the Lumina Foundation, a private foundation committed to expanding learning opportunities for all. Yet most colleges schedule their classes, counseling office hours and other services from 9 a.m. to 5 p.m., tailoring them to full-time students who entered directly from high school and creating a barrier for working adults.

Recent college graduates are more likely to be unemployed than the average worker, although they have better employment prospects than their peers with no college degree. The unemployment rate for college grads in March was 5.6 percent, compared with 4.2 percent for all workers and 7.2 percent for young workers 22 to 27 without a college degree, according to the Federal Reserve Bank of New York. [7](#)

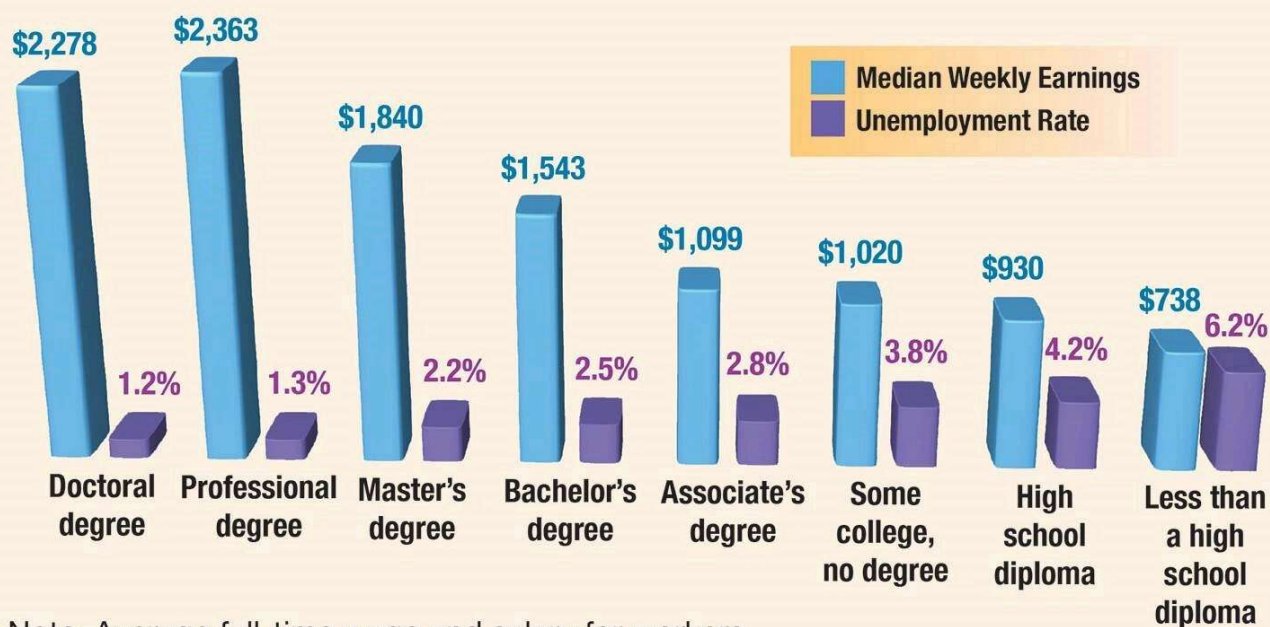
Considering those trends, some experts argue that a four-year college degree is no longer worth it, and the nation should put more investment into apprenticeships and other shorter pathways to jobs. "Higher education institutions do a good job of equipping young people with cognitive skills but do not do a good job of giving them work experience, which is increasingly important with what AI is doing to entry-level work," says Ryan Craig, cofounder of Apprenticeships for America and managing partner at Achieve Partners, a private equity firm that invests in companies that build apprenticeships. Unless a prospective student plans to major in a high-demand technical field and chooses a prestigious college that offers a work-based program like a guaranteed internship, Craig says, "then it's a really tough decision to say I'll enroll and take on debt to earn a degree."

Yet recent studies still find that graduates with a bachelor's degree earn about 70 percent more and suffer less unemployment than high school graduates. [8](#)

College Degrees Still Deliver Better Work Prospects

Research shows educational attainment aligns with higher earnings and lower unemployment. In 2024, workers age 25 and older with doctoral degrees had the lowest unemployment rate (1.2 percent), while those without a high school diploma had the highest unemployment rate (6.2 percent).

Earnings and Unemployment Rates, by Education Level, 2024*



* Note: Average full-time wage and salary for workers age 25 and older.

Source: "Education pays, 2024," Career Outlook, U.S. Bureau of Labor Statistics, May 2025, <https://tinyurl.com/bvsaxmb5>.

"The college degree is still going to be incredibly valuable and provide workers with opportunities and resilience to navigate the labor market over their entire career," says Zack Mabel, director of research at the Georgetown University Center on Education and the Workforce, citing data that college graduates continue to earn a significant premium compared with those without a degree. Mabel says he shares critics' concerns about the high college dropout rate, but "that doesn't mean that the college degree is not worthwhile. ... What it really means is we need to put our public money where our mouth is and provide the types of supports that we know work to increase degree completion."

Advocates for college say the four years provide other societal benefits — such as high-level critical thinking skills, which will become even more important as AI replaces some basic work tasks — and an educated

population employed in the kinds of jobs that spur the economy.

Colleges can and should fulfill both needs: career readiness along with teaching traditional liberal arts — “the skills to acquire new skills,” says Matt Sigelman, president of the Burning Glass Institute, a labor analytics firm.

“On the one hand, students must have the applied skills to be work-ready on day one, and on the other hand, students need to have a robust preparation in the fundamental skills they can get through liberal arts as a way to keep advancing through their careers,” he says.

Research by the Georgetown Center on Education and the Workforce has estimated that increasing the number of people who get college degrees — thereby increasing their incomes — could result in a gross domestic product (GDP) boost of \$542 billion from increased spending for goods and services, as well as increasing tax revenues and reducing government spending on public assistance programs. [9](#)

Meanwhile, employers remain cautious about hiring amid uncertainties about the economic climate and the changes that AI might make in the future. [10](#)

In June, *Business Insider* reported on 16 companies that had attributed recent layoffs to letting AI do the job instead of humans, including multinational tech company Cisco, which announced in May it would lay off close to 4,000 people. However, on July 1 *CNBC* reported that several large corporations that laid off workers and replaced them with AI now regret those decisions. Ford is rehiring hundreds of engineers, *CNBC* reported, to work on quality problems AI could not fix. IBM found that AI systems couldn’t handle some of the routine requests to its human resources department, such as those involving ethical dilemmas, and announced plans to triple entry-level hiring across all business units this year. [11](#)

Recent polls show that confidence in the value of a college education has been declining in recent years, both among the general public and college students. A Gallup poll last year found that just over a third of Americans considered a college education very important — a steep decline from previous years. In 2019, just over half of U.S. adults, 53 percent, said a college degree was very important. That was already a drop from 70 percent in 2013 and 75 percent in 2010. Fewer than four in 10 college graduates say college is very important, according to Gallup. [12](#)

As for preparing students for well-paying jobs in today’s economy, more than half of Americans (55 percent) give colleges and universities fair or poor ratings in a survey from the Pew Research Center. [13](#)

Fewer Students and Fewer Prospects

Students may already be voting with their feet. Enrollment this year dropped slightly at four-year private non-profit colleges, though it rose at public four-year and community colleges, according to the most recent spring 2026 statistics from the National Student Clearinghouse Research Center. [14](#)

Patrick Lane, vice president for policy analysis and research at the Western Interstate Commission for Higher Education (WICHE), which tracks enrollment and graduation rates nationally, notes that the Northeast and Midwest have been seeing declining college enrollment, especially among small private colleges, mainly for financial reasons.

Exacerbated financial pressures may be a result of recent changes to government student loans that make pricier institutions less accessible. (For more information, see *CQ Researcher's* "[U.S. Student Debt](#)" report.) Though a court recently paused part of those changes, only graduate programs are affected. [15](#)

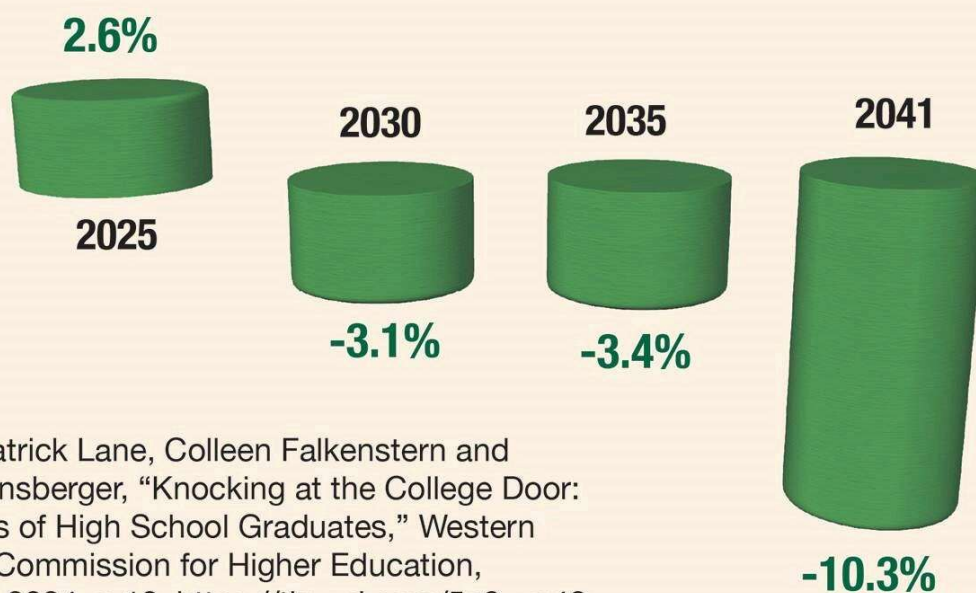
Although college enrollment hit a 10-year high in fall 2025 and again in spring 2026, largely fueled by community colleges, enrollment has still declined since its peak in 2010 at 21 million. One reason: College-going rates for high school grads have declined from 70 percent in 2016 to around 62 percent in 2022 (the most recent year for which statistics are available). [16](#)

In addition, colleges will soon face a "demographic cliff": Even if the same percentage of students chose to go to college, it would be 62 percent of a smaller number. The number of 18-year-olds, the traditional age for entering college, is expected to gradually decline because fertility rates (births per 1,000 women) have been falling since 2007 and are expected to continue to drop. By 2041, the number of high school graduates will be 13 percent fewer than in 2025, predicted WICHE. [17](#)

U.S. Colleges Face Looming Demographic Cliff

Due to declining fertility rates, the number of students entering college will gradually decrease in coming years. By 2041, researchers predict there will be 10.3 percent fewer high school graduates than there were in 2023.

Projected Change of High School Graduates from 2023



Source: Patrick Lane, Colleen Falkenstern and Peace Bransberger, "Knocking at the College Door: Projections of High School Graduates," Western Interstate Commission for Higher Education, December 2024, p.13, <https://tinyurl.com/5n9uzn42>.

However, "the declining number of high school grads has not hit higher ed yet, broadly speaking," says Lane.

The latest spring enrollment figures released June 4 by the National Student Clearinghouse Research Center underscore many of the trends around affordability and career-readiness concerns:

- Undergraduate enrollment increased fastest for certificates (up 10 percent from last year) reaching 768,000. Bachelor's degree students increased 1 percent from last year to 8.4 million.
- Public institutions saw the most enrollment growth, with community colleges growing 3.1 percent over last year and public four-year colleges up 1.5 percent. By contrast, enrollment at private non-profit four-year colleges, which are generally more expensive, dropped slightly by 0.1 percent.
- Enrollment at community colleges with a high vocational focus rose 2.8 percent. [18](#)

College Closures

When Hampshire College in Amherst, Mass., announced in April that it would shut its doors in fall 2026, it drew additional attention to the question of how many others were likely to follow suit. According to one projection, 442 of the nation's 1,700 private nonprofit colleges are at risk of closing or merging in the next decade.

[19](#)

Colleges like Hampshire “are very dependent on tuition ... they’re not bringing in state or research dollars, and they are seeing students that are more cost conscious” — all factors that “make it a difficult time for them,” says Lane.



Graduates celebrate at the May commencement ceremony at Hampshire College in Amherst, Mass. The school announced in April that it will be closing after the fall 2026 semester, amid declining student enrollment. (Getty Images/The Boston Globe/Finn Gomez)

Nearly 300 colleges and universities offering an associate degree or higher closed between 2008 and 2023, but the majority of those (more than 60 percent) were for-profit operators. Prime reasons for closure were loss of accreditation and financial challenges, exacerbated by high dropout rates. Enrollment declines during the COVID-19 pandemic added to their financial insolvency. [20](#)

In contrast to for-profit schools, most colleges survived the pandemic “thanks to timely federal support and emergency actions taken to freeze or reduce personnel costs,” according to the Federal Reserve Bank of Philadelphia. [21](#)

However, in the past five years, private nonprofit colleges have been shutting down at a faster rate than for-profits, according to Best Colleges, a college-ranking website. Since March 2020, it counted 49 nonprofit or public campuses that have closed and another 40 that merged or announced merger plans, it reported in April. Last year, at least 12 nonprofit or public colleges closed or merged, citing financial issues and declining enrollment. [22](#)

The accelerating closure trend among nonprofit four-year colleges was evident as early as 2023. By that year 7.3 percent of the 1,715 nonprofit four-year colleges that were open in 1996 had closed, compared with just 1.7 percent by 2006, according to the Federal Reserve Bank of Philadelphia. Their analysis cited the declining share of high school graduates headed to college and the withdrawal of pandemic-era federal funding as contributing to an increase in closures during 2023 and into 2024. [23](#)

Colleges Pivot to Attract More Students

Colleges have initiated a wide variety of approaches aimed at attracting more students and addressing their affordability and job concerns — three-year degrees, apprenticeship degrees, free tuition, the guarantee of a job post-graduation and more direct help making career links to employers.

Recently, two highly selective universities, Yale University and the University of Chicago, announced they

would expand their admissions for qualified students for upcoming freshman classes. Yale announced that it would increase the size of its faculty to support an additional 100 students per year starting with its 2025-2026 fall entering class. While increasing the class size, “the university will maintain its commitment to admitting exceptional students regardless of their financial resources,” Yale Provost Scott Strobel and dean of Yale College Pericles Lewis announced. By fall 2025, more than one in three Yale undergraduates was a first-generation college student or from a low-income family.

The University of Chicago administration said in May that it would return to the growth trajectory it was on from the early 2000s until the pandemic. “Gradually expanding the size of the College over time has allowed more talented students to benefit from the University’s distinctive and rigorous experience,” a university spokesperson wrote to the student newspaper, *The Chicago Maroon*. However, an editorial in *The Chicago Maroon* opposed the expansion, saying it would “dilute” the student experience without concomitant investments in expanded faculty, dorms and classroom space. In January, American University in Washington, D.C., announced a \$4,500 stipend for every undergraduate to engage in an internship. Valuable internships are often unpaid and therefore affordable only by upper middle-class or wealthy students, says Kathleen deLaski, author of the 2025 book, *Who Needs College Anymore?* and founder of Education Design Lab, which advises colleges and employers on how to design shorter, more targeted forms of education. [24](#)

“Four-year universities are going to need to function somewhat more like community colleges,” in training graduates for jobs in the AI era, says Mark Muro, a senior fellow at the Brookings Institution, a think tank in Washington, D.C. Muro coauthored a 2024 report that predicted that more than 30 percent of workers could see half their tasks replaced by AI — a prediction he now says could come true as early as this year, adding that this AI trend could eliminate some jobs. [25](#)

“Almost all of the most exposed occupations are clearly B.A. or college-supported information and office jobs” — the “sweet spot” for entry-level jobs among college grads, Muro says. “Universities need to think about: ‘How do we teach AI as an important element of helping students to develop careers?’”

As examples of colleges that are starting to do this, in a recent talk Muro cited Ohio State, which has woven “AI fluency” into its required introductory general education course, and Purdue, which is making “AI working competency” a requirement of graduation. [26](#)

Dario Amodei, CEO of Anthropic, a San Francisco-based AI company famous for developing the Claude AI

assistant, predicted that half of all entry-level white-collar jobs will be wiped out within the next five years. A Stanford University paper estimated that employment among young workers aged 22 to 25 in the most AI-exposed occupations, such as software developers, fell by 16 percent relative to less-exposed fields between late 2022 (after ChatGPT was introduced) and September 2025. [27](#)

But there's little consensus about how four-year colleges should address this challenge.

Last year, California State University, the largest four-year public college system in the U.S., comprising 22 campuses, introduced an AI initiative that involved a \$16.9 million deal with OpenAI to provide 500,000 licenses of ChatGPT to be issued to all students, faculty and administrators. At the time, administrators touted this as "the nation's first and largest AI-powered public university system." [28](#)

California Polytechnic State University junior Langdon Block wrote that he was "worried about the dangerous precedent of hooking students on AI tools, seemingly without input from faculty." Having the expensive premium model of ChatGPT offered by the university at his fingertips would be like constantly checking the answers at the back of a textbook, he argued: "[R]elying on it too much defeats the purpose of learning foundational skills." By contrast, using the less extensive free model of AI tools "reminds me, 'Hey, you have a brain and critical thinking skills; you don't need me for everything,'" he wrote. [29](#)

Many faculty, fearing students would use ChatGPT to cheat, opted for in-person tests using blue books or used plagiarism detectors like Turnitin to try to catch AI-generated work, *CalMatters*, a nonprofit newsroom, reported. [30](#)

The dangers of college students cheating with the help of AI gained national prominence in May when Stanford University senior Theo Baker described a culture of "omnipresent" cheating with AI on his campus in an op-ed for *The New York Times*. "I don't know a single person who hasn't used AI to get through some assignment in college, yet the school was at first slow to realize how widespread this would become," he wrote. [31](#)

This month, in an interview with *The Chronicle of Higher Education*, Brown University Professor of Economics Roberto Serrano expressed frustration with what he called his university's inaction in the face of a cheating scandal he reported. In his midterm take-home final, nearly half of the students in his class earned a perfect 100 score — unprecedented in his years of teaching the class, he said. When his assistants fed one of the questions into ChatGPT, it gave a "convoluted" answer that appeared on many of the exams, Serrano said.

The value of the degree from a prestigious university “will go down if these universities produce mediocre graduates that refuse to work,” he said. He changed his final to an in-person test, and 27 students dropped the course, including 22 who had obtained perfect scores on the midterm. The average score on the final was 48.6, so Serrano voided the midterm. [32](#)

A petition organized by San Francisco State University faculty and signed by nearly 1,000 faculty members asked the California State University Chancellor not to renew its contract with OpenAI and to spend the funds instead to protect faculty jobs threatened by the introduction of AI. It pointed to the mass layoffs of faculty that had already occurred at Cal State in the midst of a budget crisis. The petition stated that ChatGPT Edu, the version of the chatbot designed for higher education being offered at Cal State, does not use reliable sources and is “indifferent to whether its answers are correct.” “We believe that investing in [Cal State’s] human workforce is the best way to ensure the quality of research, teaching and learning,” the petition said. Some faculty also cited concerns that ChatGPT has dangerous effects on mental health, pointing to lawsuits on behalf of plaintiffs who died by suicide after allegedly using ChatGPT as a “suicide coach.” [33](#)

“We see AI entering an ecosystem of education that is already weakened by austerity measures,” said Martha Kenney, a leading organizer of the petition and a professor in the women and gender studies department at San Francisco State University, which has been buffeted by falling enrollment and an 8 percent state budget cut, leading to the firing of faculty members. She also expressed concern that the use of AI would create an intellectually passive student. [34](#)

In contrast, Taiyo Inouye, a professor of math at Cal Poly Maritime Academy in Vallejo, Calif., expressed support for the agreement with OpenAI: “The very real concerns about hallucinations [the term for AI’s sometimes false output] and mental health are precisely why we need faculty and institutions in the conversation, not standing outside it.” [35](#)

Touting the new initiative, San Jose State University President Cynthia Teniente-Matson compared herself to Silicon Valley tech leaders in an interview with *The New York Times*: “We’re all trying to do the same thing ... which is to mobilize our entire workforce in this rapidly changing environment to adapt, create, innovate and be more productive.” [36](#)

In May, Cal State officials renewed the OpenAI contract for three years at \$13 million per year.

In a newsletter to faculty and staff, Vice Chancellor Patrick J. Lenz said Cal State “will increase training opportunities and create clear, consistent and student-centered guidance on AI use, privacy and expectations so that faculty and students can use AI with confidence.” As part of its AI effort, he said, Cal State had worked with industry leaders to create short-term, paid internships so students “can apply their AI skills in real-world settings.” [37](#)

Much of the debate about how to prepare college students for today’s rapidly changing working world comes down to the question: Should colleges centered around a liberal arts education abandon that tradition in favor of a more vocational orientation? That debate came to the fore most recently when the most detailed study to date, based on Texas data, was released in May and identified which undergraduate degrees provide the best return on investment. It found that the biggest payoffs occurred for those with degrees in engineering and architecture; business and economics; and security and protective services. Liberal arts and social science students saw among the lowest returns. [38](#)

That study confirmed past research finding liberal arts majors tend to earn less than those in technical fields. Across the country, colleges have been shutting down or merging humanities departments into other programs as the number of majors in humanities has been declining. [39](#)

As prospective college students and their parents look at the grim earnings forecasts for some traditional degrees, the increasingly pressing question is whether the investment in a college education is worth it. The average annual cost for tuition and fees at a private college is now almost \$45,000 (and \$25,000 at a public college for out-of-state tuition/fees). [40](#)

“That price tag has made a liberal arts degree a luxury good,” says deLaski. Advising everyone to go to college, she says, is akin to saying “We should all have a BMW.”

But champions of liberal arts say people with those degrees still do better on average than their peers with no college degree, and that there are nonmonetary benefits both individually and societally. Commenting on the Texas study, Dick Startz, an economist at the University of California, Santa Barbara, said, “One of the basic tenets of economics is that money is not all that matters. If you just ask people about job satisfaction, people with lots of liberal arts degrees are just as happy as anybody else with their jobs and their careers.” [41](#)

At a debate last year, “Is College Still Worth It?”, at Arizona State University, Bridget Burns, executive director

of the University Innovation Alliance, which advises universities on how to increase the number of graduates, said, “We want to live in a society of educated people,” noting people with college degrees are more likely to vote and contribute more to the economy by paying more taxes than those without. And money aside, “Anyone living in America right now wants to live in a society where people understand how to listen to each other’s ideas, how to be nimble and malleable in their thinking. College is about more than content, it’s about awakening your soul,” she said. [42](#)

Indeed, there’s a growing consensus that young people need to be equipped with skills that are special to humans and can’t be delegated to AI. Sometimes called “soft skills” or “durable skills,” they include critical thinking, communication and teamwork. These are often cited by employers in surveys as skills they’re seeking, says Mary Gatta, director of research and policy at the National Association of Colleges and Employers (NACE), representing college career advisers and employers that recruit at colleges. [43](#)

However, there’s less consensus on how these skills should be developed. NACE has identified communication and critical thinking as among eight essential career competencies, which it says colleges typically develop through their courses. But “helping students articulate and demonstrate their skills to employers is really important,” Gatta says. At job interviews, students need to describe how they’ve acquired these skills, whether through classes, internships or extracurricular activities, says Gatta, and NACE is encouraging colleges to help students do that.

But deLaski isn’t convinced a college education is necessary to acquire “durable” skills. She would like to see special credentials created for them — the equivalent of “a black belt in critical thinking,” she says.

In addition, deLaski’s organization is working on creating short pathways to jobs with two or three “microcredentials,” which aim to impart a specific job skill that employers say they need, in courses lasting six months to a year. [44](#)

The movement to create nondegree credentials aimed at specific occupations has exploded in recent years, moving beyond more established certificates in the construction trades or licenses for fields like nursing that are recognized by industry. Completion of short-term certificates, which take less than a year of training, surged by 33 percent from 2013 to 2023, compared with an 8 percent rise in bachelor’s degrees. Certificates tend to be significantly less costly than a college degree, ranging from \$50 per month for several months to more than \$6,000, depending on the specialty, according to Coursera, an online learning platform that offers

professional certificates as well as degrees. [45](#)

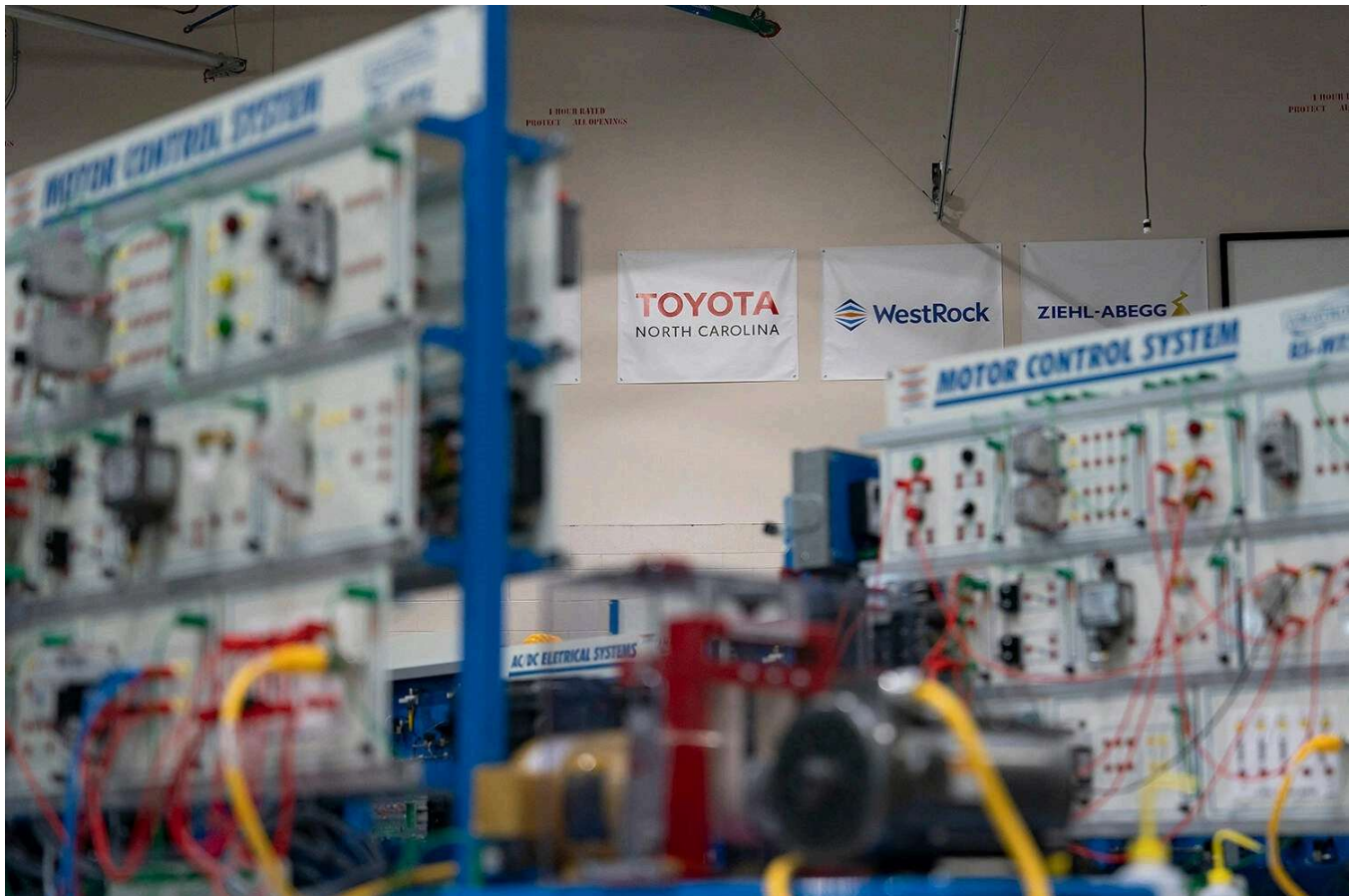
There are now 1.8 million credentials (including college and high school degrees) of various types, according to the credential-mapping organization Credential Engine. That includes occupational licenses, industry-recognized certifications, microcredentials, certificates and over one million “digital badges” for specific skills. (In 2021, Credential Engine counted just under one million credentials.) [46](#)

But a report released last year by the American Enterprise Institute, a center-right conservative think tank, and the labor analytics firm Burning Glass Institute called the credentials field the “Wild West” because of the lack of reliable information about which credentials actually help someone launch a career, move up the career ladder or make wage gains. In a study of some 23,000 credentials, only about a third provided benefits based on one of those measures, says study coauthor Matt Sigelman, president of the Burning Glass Institute.

“Credentials are supposed to be a way of signaling readiness for a given career or proficiency with a given technology or skill,” to both job seekers and employers, says Sigelman. “The problem is that credentials only sometimes work — and actually most credentials don’t.”

However, the report found that the top 10 percent of credentials provided an incremental earnings boost of nearly \$5,000 annually just one year after earning the credential, compared with peers who did not have the credential. For example, earning premiums ranged from \$5,500 in data science and \$5,700 in marketing to \$14,150 in nursing. [47](#)

Some experts say the nation needs to rethink the goal of the past few decades of encouraging more people to attend college.



An apprenticeship program at Guilford Technical Community College, in Greensboro, N.C., allows students to work at Toyota, giving them practical, firsthand experience while they earn their education. (AFP/Getty Images/Allison Joyce)

“As a country, we’ve overinvested in tuition-based, classroom-based, debt-based infrastructure and underinvested in work-based earn-and-learn” programs like apprenticeships and internships, says Ryan Craig, co-founder of the advocacy group Apprenticeships for America and managing director at Achieve Partners, which invests in companies that help employers engage apprentices. “In a digital era, the skills employers can’t find are actually easier to learn on the job than they are in the classroom,” he says, especially as more of the entry-level “grunt work” is performed by AI. “As a country, we’re spending \$400-500 billion on classroom-based learning. There needs to be more of a balance.”

The Congressional Budget Office has previously projected that federal spending on student loans alone will reach close to \$400 billion over the decade ending in 2034. [48](#)

President Donald Trump issued an executive order last year setting a goal to create one million apprenticeships a year. Currently, the Department of Labor counts about 700,000 registered apprentices. [49](#)

But John Colborn, executive director of Apprenticeships for America, says the administration hasn't made an equivalent promise in dollars. "We need to be talking numbers with a b —billions," he says.

Still, Zack Mabel, director of research at the Georgetown University Center on Education and the Workforce, says the country also needs to focus on the 66 percent of well-paying jobs that the center projects will require a bachelor's or graduate degree by 2031. [50](#)

"We need to make college education work better for people who are starting on that pathway because, in fact, our economy needs that," he says, "and when people do complete their programs, that is setting them up for the greatest chance of success over the long term." The key, he says, would be to focus on reducing the high college dropout rate, now running at almost 40 percent. If more people complete college, he says, "we're helping the economy grow by virtue of producing more college educated talent."

And current college students appear to share a more optimistic view of their chances, according to a new survey, released in February by Gallup, of 4,000 college students and 6,000 graduates. About 9 in 10 bachelor's students believe the overall investment is worth it, and three-quarters of college graduates say it's worth the cost. [51](#)

Background

Expanding College Enrollment

In 1940, under 5 percent of the U.S. population had a college degree, and most jobs did not require a degree. The GI Bill (officially the Servicemen's Readjustment Act of 1944) made college accessible and free to mostly white returning vets of World War II, providing tuition and living expenses for college or vocational training. (While the bill did not nominally bar veterans of color from benefiting, it was implemented in such a way that the 1.2 million Black World War II veterans were largely shut out.) [52](#)

The National Defense Education Act in 1958 authorized the first federal student loans to students in scientific

fields, amid Cold War fears that the Soviet Union, which had launched the first space satellite, Sputnik, the year before was leapfrogging ahead of the United States. [53](#)

Until the 1960s, less than 10 percent of adults — mostly white men — attended college. The decade saw rapidly expanding college enrollment as the first wave of Baby Boomers reached college age. [54](#)



President Franklin D. Roosevelt signs the Servicemen's Readjustment Act (also known as the GI Bill) at the White House in June 1944, providing educational funding, among other benefits, for veterans returning from active duty. (Getty Images/HUM Images/Universal Images Group/Contributor)

Broadened access to financial aid contributed to a 45 percent increase in undergraduate enrollment between 1945 and 1960, along with the opening of new community colleges. [55](#)

By the 1960s, manager roles proliferated as departments grew in business, finance, marketing and research.

College degrees were a requirement for half of all management jobs. [56](#)

The Guaranteed Student Loan Program, also known as the Federal Family Education Loan Program (FFEL), was approved by Congress in the Higher Education Act of 1965, part of President Lyndon Johnson's "Great Society" programs. Under the program, loans were issued by private banks but guaranteed by the federal government. [57](#)

By the 1970s, the proportion of the population enrolled in college had doubled. (In 1947, about 1.6 percent of the population was enrolled in college; by 1970, that share rose to 4.2 percent of the population.) [58](#)

Starting in the 1972 to 1973 school year, the federal government offered the first Pell Grants, originally called Basic Educational Opportunity Grants, to cover tuition for lower-income students. In response to complaints from middle-class families about the increasing unaffordability of college, Congress passed the Middle-Income Student Assistance Act of 1978, which broadened eligibility for low-interest federal student loans to more income groups. [59](#)

College Costs Rise

During the 1990s, college costs and student debt both saw rapid rises. To help counter those rising costs, the 1992 Higher Education Act reauthorization broadened access to federal loans even further for middle-income students.

Apprenticeships gained bipartisan interest as the income gap widened between college graduates and others. [60](#)

President George H.W. Bush proposed the Youth Apprenticeship Act of 1992 to link high school education with paid work experience and training, but it did not pass. In 1994, President Bill Clinton persuaded Congress to pass the School-to-Work Opportunities Act (STWOA) of 1994. However, the grant program ended up funding internships and job shadowing, and few apprenticeships emerged from it. It sunsetted in 2021. [61](#)

In 2007, Congress created the Public Service Loan Forgiveness program, which incentivized college graduates to enter government jobs — typically in professions such as education and social work. After applicants had completed 10 years of service and payments, the program would forgive the remaining balance on direct

loans. [62](#)

Also in 2007, the nation's fertility rate reached a peak; it has fallen 24 percent since then — a declining trend that is expected to continue. [63](#)

In response to the Great Recession of 2007 to 2009, more adults returned to college to improve their job prospects. College enrollment peaked at 21 million in 2010, about 7 percent of the total U.S. population. [64](#)

President Barack Obama supported the American Apprenticeship Initiative late in his second term, resulting in a \$100 million pilot project launched in 2015 that provided grants to boost apprenticeships in such high-growth fields as healthcare and biotech. [65](#)

Also, that year, President Obama made free college a national issue, calling for the elimination of tuition at community colleges for most students. Dubbed America's College Promise, his proposal was modeled after the Tennessee Promise, which launched the year before. The nationwide effort didn't succeed, but at least 30 states have started similar promise programs in the years since. [66](#)

The COVID pandemic, starting in 2020, led to dramatic declines in enrollment at community colleges and smaller declines at four-year colleges. By 2022, entry into two-year colleges was 21 percent lower than before the pandemic, but only 6 percent lower at four-year colleges. Some analysts attributed this decline to remote instruction at K-12 schools, which left graduating high schoolers with less in-person support from college counselors and teachers when it came to filling out college and financial aid applications. Enrollment at four-year colleges quickly rebounded. By spring 2024, undergraduate enrollment was up 2.5 percent compared with the previous spring, though still below pre-pandemic levels. [67](#)

In 2020, responding to the economic disruptions of the pandemic, President Trump signed the COVID-19 Emergency Relief for Student Loans Act, pausing student loan payments, stopping collections on defaulted loans and initiating a zero percent interest rate on federal loans. The Biden administration extended that program in 2021 and 2022. [68](#)

On June 26, 2020, President Trump issued an executive order to encourage federal agencies to remove degree requirements and replace them with skills-based hiring. Maryland was the first state to adopt a similar change in requirements for state government jobs, followed by 20 other states. [69](#)

President Joe Biden, in his first 100 days as president in 2021, proposed a \$109 billion program for free community college, but the proposal failed to move forward in Congress. Biden would make several more, smaller proposals to fund grants aimed at making community colleges tuition-free in 2023 and again in 2024, but none passed in Congress. [70](#)

In 2022, the Biden administration proposed a plan to cancel up to \$20,000 in student loans for eligible borrowers. Following legal challenges, the Supreme Court ruled 6-3 in 2023 that the administration lacked authority to implement changes of this magnitude without congressional approval. Although the Biden administration failed in several subsequent efforts at student loan forgiveness, it did forgive nearly \$189 billion in loans for 5 million people over four years. [71](#)



A demonstration for canceling student debt is held in front of the Supreme Court in Washington, D.C., in February 2023. The Court ultimately ruled against the Biden administration's efforts to forgive up to \$20,000 in student loans for some borrowers. (Getty Images/Bloomberg/Valerie Plesch)

Also in 2022, OpenAI released ChatGPT, a generative AI chatbot, which became the fastest-spreading tech platform in history and reached 1 billion monthly visits just four months after its launch. The advent of ChatGPT soon raised questions about whether AI could replace American jobs. [72](#)

In 2023, a bill passed in Texas that shifted the funding formula for community colleges away from the traditional basis — how many students were enrolled — to a performance basis, rewarding colleges based on how many students graduate with a credential in a high-performance field (including certificates) or transfer to a four-year college. [73](#)

In July 2025, President Trump signed the Budget Reconciliation Act of 2025 (One Big Beautiful Bill Act), which includes a major restructuring of the student loan system that raises student loan payments for most borrowers. The bill also includes Workforce Pell legislation, which expands Pell Grant eligibility to learners and workers who want to pursue a short-term job training program. [74](#)

In recent years several colleges have been offering job guarantees to college graduates, while others have been making offers of free tuition to a widened spectrum of students. The University of Tulsa guarantees undergrads a job offer or graduate school admission within six months of graduation. If a student meets all requirements but fails to get a job, the university offers a free semester of graduate tuition. Other colleges, including Curry College in Massachusetts and Davenport University in Michigan, also guarantee their graduates a job if they participate in career development while attending college. [75](#)

More than 100 schools now offer free tuition based on family income, including state schools and selective private universities. Although schools have recently expanded free tuition to higher family incomes, programs with lower thresholds have existed for decades. In 2004, Harvard made history when it announced parents with incomes under \$40,000 would no longer need to make any contribution toward their children's education, saying it was the first selective college to do so. It raised its cutoff to \$200,000 in March 2025. In 2024, several colleges including the Massachusetts Institute of Technology (MIT) and the University of Texas system, an-

nounced they would offer free tuition to students whose family income fell below a certain threshold — less than \$200,000 at MIT and \$100,000 or less to in-state students in Texas. [76](#)

Rutgers University offers a freshman, for-credit seminar that allows students to explore career areas of interest, including taking a self-assessment before they choose a major and “start thinking about building out their entire career journey,” according to William Jones, assistant vice provost for career development at the Rutgers campus in New Brunswick, N.J. Rutgers has also created a career mentoring network, which includes being an intern for a day at a company of interest and helps students expand their network of potential employers, according to Jones. [77](#)

Current Situation

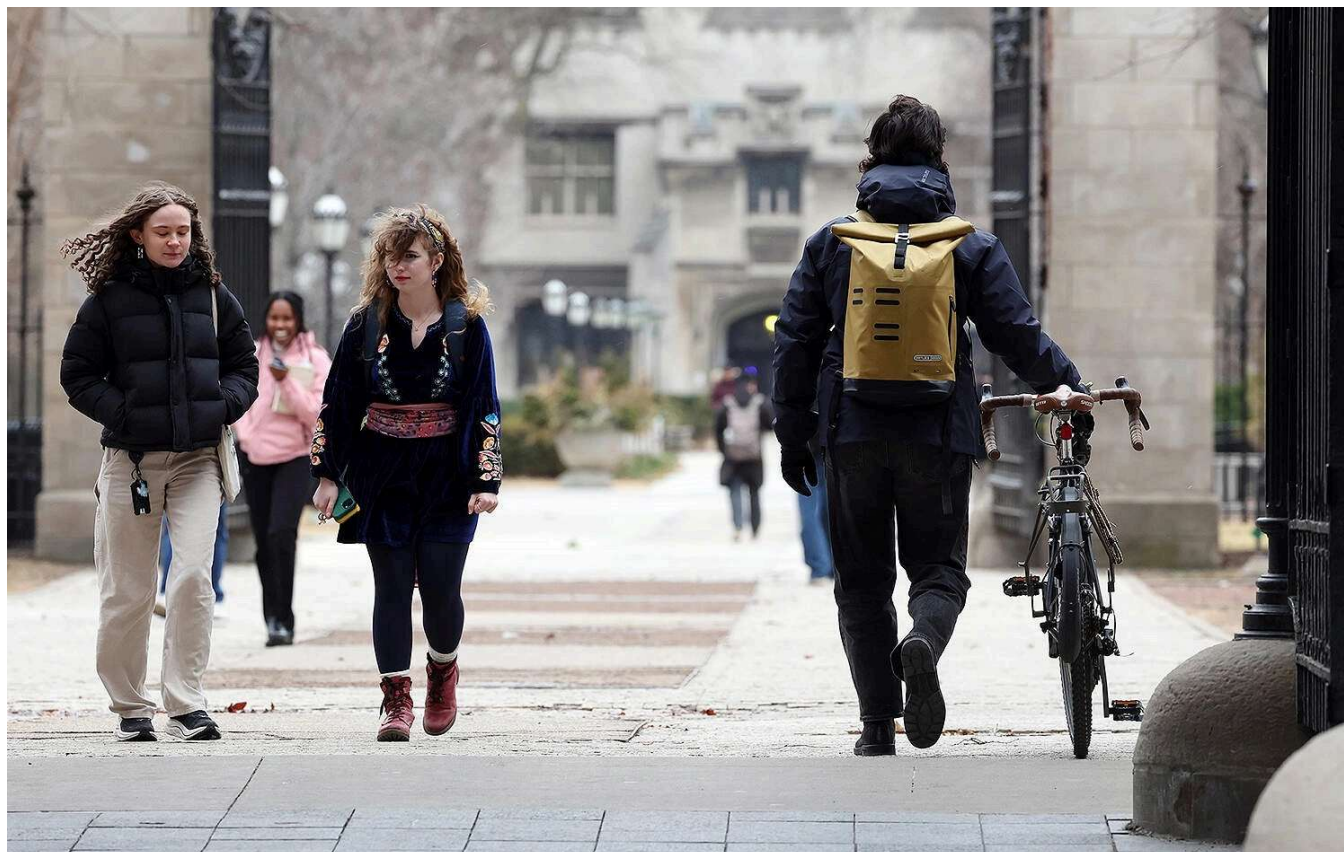
Federal and State Actions

Following President Trump’s pledge to create one million apprenticeships yearly, the Department of Labor announced on Jan. 6 that it will make \$145 million available over four years to companies and intermediaries to set up apprenticeships. [78](#)

On July 1, Workforce Pell grants went into effect. [79](#)

On April 17, the Department of Education announced that it was seeking public comment on a proposed rule that would cut off federal student loans to undergraduate programs whose graduates fail to earn a positive return on investment — if, for example, its graduates do not earn more than a high school graduate. The department’s announcement said its new “accountability” framework “will break the cycle of low return on investment for students and taxpayers.” The federal student loan portfolio now approaches \$1.7 trillion, and “students are left financially worse off than if they had never attended college,” the announcement said.

The new framework would hold all programs, from certificate to graduate programs, “accountable for their graduates’ earnings,” based on data reported to the federal government, according to the department. [80](#)



Students walk across campus at the University of Chicago in February. The university will be offering free tuition to any student whose family makes less than \$250,000 per year, beginning in the fall semester of 2027. (Getty Images/Tribune News Service/Chicago Tribune/Terrance Antonio James)

The Education Department's proposal follows a broad movement among state governments toward "performance-based funding" for state-funded colleges. Currently 31 states look at a college's performance — on such issues as students completing their degree, attaining a credential or getting placed in a job — in allocating funding to community colleges, and 29 states do so for four-year colleges, according to the Education Commission of the States, which advises education leaders and government officials in all 50 states. [81](#)

College Actions

Both four-year colleges and two-year community colleges are increasingly adopting approaches to tie the cur-

riculum and their students more closely to jobs through a wide variety of approaches.

A report released in January by the think tank New America found that about 350 higher education institutions nationwide offer nearly 600 apprenticeship programs. They combine on-the-job training, paid work experience and classroom instruction aligned to the employer's needs. Registered nursing and K-12 teaching account for the largest share of the 91 degrees offered. Two-thirds of the programs offer two-year associate degrees, while 29 percent offer bachelor's degrees. [82](#)

Four-year colleges are also introducing changes to make their institutions more affordable to middle-class families:

- Yale University announced in January that starting in fall 2026 it would eliminate all billed costs — including tuition, housing and the meal plan — for freshmen who come from families earning less than \$100,000 a year and would ensure need-based scholarships for families earning below \$200,000. [83](#)
- Starting in the fall of 2027, the University of Chicago will offer free tuition to students from families making less than \$250,000 a year. [84](#)

In April, the Khan Academy, a free digital learning platform, announced an online college degree program costing under \$10,000 for total tuition — with a bachelor's degree in applied AI as its first offering. Offered jointly with the TED Institute and ETS, a standardized testing nonprofit, its curriculum will be guided by corporate partners, including Google and Microsoft. Instead of lectures by professors, the faculty will create virtual assignments that students can complete independently. Graduates will have transcripts with evaluations of technical skills and durable skills like communication, according to Khan Academy founder Sal Khan. The program is not yet accredited but expects to open applications within 12 to 18 months. [85](#)

Short Features

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Apprenticeships Are Growing in America

Increased government support is needed to expand this pathway to jobs, advocates say.

When Shannon Dison graduated from community college with an associate degree in computer science four years ago, she could not find a job in the Huntsville, Ala., region where she lives. Competing with a glut of new graduates in her field, she found employers wanted more experience or costly certifications in specific computer languages.



Shannon Dison participates in training as part of a Toyota apprenticeship program in Alabama. She attends community college two days a week and has on-the-job training three days a week. (Courtesy Calhoun Community College)

Feeling “desperate,” Dison went to work at the local Toyota manufacturing plant putting parts into engines on the factory floor.

Her boss noticed she had a knack for fixing the machines she was working on and nominated her for Toyota’s apprenticeship program, which trains maintenance technicians to work in advanced manufacturing, fixing robotic and other factory machines. The 22-month program paid for her to go back to school at the local community college two days a week and do on-the-job training three days a week at the factory. This spring, as she was about to graduate from the program with an associate degree in applied science, the 25-year-old Elkmont, Ala., native said Toyota had offered her a full-time job. Dison estimates she will earn

\$100,000 in her first year with overtime, and about \$180,000 in her second year.

“It’s awesome,” she says. “I never thought I’d be where I’m at.”

The number of active apprentices in the U.S. has more than doubled over the past decade (between 2014 and 2024), according to the Department of Labor, which currently counts 700,388 apprentices registered with the department. [1](#)

Registered apprenticeships have traditionally been associated with construction trades, but they are increasingly used to attract young workers to areas suffering talent shortages like skilled manufacturing, nursing and teaching. [2](#)

Over the next decade, the manufacturing sector will need to fill 3.8 million jobs, but community colleges and apprenticeship programs are expected to fill only half of those, according to a Deloitte study. Toyota said it’s working to address this shortage through apprenticeships that expose young people to jobs they may not have contemplated. [3](#)

“Every industry has a storytelling problem” when it comes to promoting their jobs to young people, including the insurance industry, says Julie Wilmes, apprentice program manager for Denver-based Pinnacol Assurance, which sells workers’ compensation insurance to Colorado employers.

Pinnacol has offered a three-year apprenticeship program to high school students in the Denver-metro area since 2017. An insurance underwriter is probably not high on a typical high school graduate’s list of desirable careers, but “through telling a captivating story of robust career pathways and providing opportunities for hands-on learning, apprenticeship gets young people interested in industries they may not have considered before,” Wilmes says. When Pinnacol started its apprenticeship program, the company was projecting a 28 percent loss of its workforce to retirement over the next 10 years. “We knew we would need to find talent,” she says. “So, we decided to try apprenticeship as a way to build talent.”

Pinnacol now hires about 30 percent of the apprentices it trains, according to Wilmes. “The rest we prepare to access excellent opportunities in the job market,” she says.

President Trump issued an executive order last year, framing a goal of creating 1 million apprentices a year. In January, the Department of Labor followed Trump’s executive order by announcing a \$145 million grant program offering an incentive payment for each new apprentice enrolled by a business, nonprofit or other

organization. On July 7, the Department of Labor announced it had awarded the grants to five recipients, including the Florida Department of Commerce. [4](#)

“We were really excited when the president set the goal” of 1 million apprenticeships, says John Colborn, executive director of Apprenticeships for America, which advocates for expanding apprenticeships. The administration has implemented “over half our recommendations,” he says, including streamlining some regulations for creating registered apprenticeships. The Labor Department issued new guidelines on March 9 aimed at reducing burdens on apprenticeship sponsors and speeding up its determination of whether an apprenticeship meets its registration requirements to no more than 30 days. [5](#)

“The one thing the administration is not at the plate for,” Colborn says, is providing a “meaningful increase” in dollars.

Advocates for the apprentice route say the nation still spends only a pittance on apprenticeships: \$1 for every \$1,000 spent on higher education, according to Apprenticeships for America. [6](#)

Some advocates say the United States should look to European countries like Switzerland, which engages high school students in vocational pathways leading to apprenticeships and jobs. [7](#)

In the U.S., apprentices make up only about 0.3 percent of the working population, compared with closer to 2 to 3 percent in Germany, Switzerland and the United Kingdom. Whereas half of all Germans 18 to 24 are apprentices, only 2 percent of young adults in the U.S. engage in apprenticeships. [8](#)

Some experts are skeptical the United States will ever make the kind of cultural and spending shift needed to expand apprenticeships on that scale, arguing that most employers won’t want to pay for them.

“I don’t see a reality [of vastly expanded apprenticeships] given how business has traditionally oriented themselves, which is largely to say, ‘We expect someone else to develop talent and then we will absorb them and hire them,’” says Zack Mabel, director of research at the Georgetown University Center on Education and the Workforce.

Registering apprenticeships recognized by the Department of Labor can also be administratively complex and difficult to set up, even advocates of apprenticeships acknowledge.

Requirements can vary in the 29 states where the program is administered by state agencies. “We think the regulatory process has room for improvement: It’s slow and cumbersome, especially for national employers

that operate in multiple states,” says Colborn. Although informal apprenticeships exist between some small businesses and young workers, they lack the portable credential provided by a registered apprenticeship, which is recognized nationwide by industry. Registered apprenticeships also must meet requirements for classroom training, wage increases and safety measures. [9](#)

Ryan Craig, cofounder of Apprenticeships for America, says the key is not to depend on employers to develop apprenticeships, but to create them through intermediaries, such as nonprofits or talent agencies, which can handle the administrative work of pairing graduates with employers. That’s how it works in Europe, he says, where the government often provides incentives to intermediary organizations.

In Colorado, an apprenticeship program modeled on the Swiss approach and designed in partnership with high schools, launched after a group of business and government leaders visited Switzerland in 2015. The program, CareerWise, acts as an intermediary, helping companies build training and handling government paperwork. It has trained some 2,600 apprentices since its founding in 2016. [10](#)

Students generally enter the program in their junior year of high school for three years, typically spending three days in school and two days in the workplace. The organization also trains apprentices in New York and has worked with more than 80 intermediaries across 35 states to build apprenticeships, according to Ryan Gensler, executive vice president of CareerWise.



A high school apprenticeship with Mastercard turned into a full-time job for Chris Grant as a product designer. While working full-time, Grant now takes night classes — with assistance from Mastercard that keeps him from incurring student debt — at the City University of New York's Baruch College. (Courtesy Christopher Grant)

Chris Grant, 21, started a CareerWise apprenticeship with Mastercard as a high school junior in 2021 and has been a full-time product designer with the company in New York City since 2024, designing apps and

customer web interfaces. He now earns about \$115,000 a year. Currently a junior taking night classes at Baruch College of the City University of New York, he says he will have an “insane leg up” over other college graduates. He will graduate with “zero debt,” thanks to Mastercard paying for virtually all his college tuition, and with the equivalent of six years of job experience. “Especially in this very contested job market, there are so many reasons I’m blessed compared to my class right now,” he says.

- Sarah Glazer

1.

Matt Thompson and Emily Lang, “[The Return of the Apprentice](#),” *The New York Times*, Headway Newsletter, May 27, 2026; Colleen Flaherty, “[The Apprentice: Why Higher Ed Is Leaning into Earn-and-Learn](#),” *Inside Higher Ed*, February 17, 2026.

2.

Colleen Flaherty, “[The Apprentice: Why Higher Ed Is Leaning into Earn-and-Learn](#),” *Inside Higher Ed*, February 17, 2026.

3.

“[Creating Pathways to Skilled Trade Careers in Advanced Manufacturing](#),” Toyota USA Newsroom, January 6, 2026.

4.

“[Preparing Americans for High-Paying Skilled Trade Jobs of the Future](#),” The White House, April 23, 2025; “[Pay-for-Performance Incentive Payments Program](#),” Grants.gov, March 16, 2026; “[US Department of Labor Awards \\$162M to Expand Registered Apprenticeship Through Performance-Based Incentives in Key Industry Sectors](#),” Employment and Training Administration, U.S. Department of Labor, July 7, 2026.

5.

“[US Department of Labor Issues Guidance on Registered Apprenticeship Aimed at Accelerating Growth, Reducing Burdens, Improving Transparency](#),” Employment and Training Administration, U.S. Department of Labor, March 9, 2026.

6.

“[President Donald J. Trump Modernizes American Work Force Programs for the High-Paying Skilled Trade Jobs of the Future](#),” The White House, April 23, 2025; “[Issues](#),” Apprenticeships for America, accessed

June 9, 2026.

[7.](#)

Colleen Flaherty, "[The Apprentice: Why Higher Ed Is Leaning into Earn-and-Learn](#)," *Inside Higher Ed*, February 17, 2026.

[8.](#)

Colleen Flaherty, "[The Apprentice: Why Higher Ed Is Leaning into Earn-and-Learn](#)," *Inside Higher Ed*, February 17, 2026.

[9.](#)

Benjamin Collins, "[Registered Apprenticeship: Federal Role and Recent Federal Efforts](#)," Congressional Research Service, February 7, 2025.

[10.](#)

"50 States, One Apprenticeship Movement," [CareerWise](#), accessed July 19, 2026; Joseph Fuller, "The Options Multiplier: Decoding the [Careerwise](#) Youth Apprentice Journey," *The Project on Workforce*, November 14, 2022.

Outlook

The Future of Higher Education

Predictions for the future of college education and college graduates range from apocalyptic to optimistic.

Howard Gardner, professor of cognition and education at Harvard's Graduate School of Education, has predicted that AI will have a radical impact on education because "AI instruments will eventually — if not quite soon — do a more impressive job than we do" in acquiring knowledge and even in creative endeavors. [86](#)

Those AI capabilities will displace the need for four years of college, he predicts. "Over the next 50 years, colleges will be more like the Aspen Institute — places people will go for limited periods" on specific topics of interest, he says, such as Emily Dickinson's poetry or quantum mechanics, and "spend a few weeks going deeper."

Some experts foresee a potentially gloomy future for college graduates. As AI displaces many entry-level white-collar jobs, a glut of college graduates will be competing for the few jobs available by 2034, The Burning Glass Institute predicted in a recent report. “[A]ccepting a permanent underclass of educated but under-employed workers ... would mark not just a social failure but a strategic surrender of the country’s greatest advantage,” the report concluded. [87](#)

“Fundamentally, the problem is there aren’t enough jobs,” says Burning Glass Chief Economist Gad Levanon, coauthor of the report. One solution may be for college grads to gain more skills by going to graduate school — since companies are increasing their postings for jobs requiring more experience — or shifting into fast-growing professions like healthcare, he says.

The Georgetown Center on Education and the Workforce foresees the largest job growth in the next decade occurring in positions that demand a bachelor’s or graduate degree. [88](#)

Indeed, some experts, including the Georgetown Center, are predicting dire worker shortages in such fields as teaching, nursing and engineering between now and 2032 as the last of the Baby Boomers retire. A recent article in *The Hechinger Report* reported a mismatch between the fields college students are majoring in — such as business and finance — and future areas of need like healthcare. Experts say the combination of boomer workers retiring and the decline in college graduates entering the work force could leave a worker shortage of anywhere from 4.6 million to 6 million. [89](#)

However, some experts and companies are looking toward a job market where job skills, not degrees, will govern how employers choose applicants. To meet that need, Alabama has created a digital learner wallet that allows job seekers to upload certifications, diplomas and work experience. [90](#)

But right now, it’s hard for employers to tell which of these credentials is a reliable measure. “We need more industry-recognized credentials,” says deLaski, of Education Design Lab.

With the coming demographic cliff, “smaller regional colleges are going to increasingly fight for students,” says the Lumina Foundation’s Brown. Colleges need to make themselves more appealing to adult working students, who compose many of today’s dropouts, she says. “[T]here is a large pool of adults who remain interested in completing [college] ... but current systems are not making reenrollment easy or realistic for many of them,” she says.

Student expectations about the need to learn how to use rapidly changing AI means more colleges are likely to start embedding AI in their curriculum, says Van Davis, vice president of digital learning at WICHE. But he predicts this transition won't be easy. "Higher education is a medieval institution; our caps and gowns are monks' robes," he says. "Changing higher education is like getting an ocean liner to change course."

Pro/Con

Is college worth it?

[Show All](#)

Pro

Zack Mabel

Director of Research, Georgetown University Center on Education and the Workforce

- Written for *CQ Researcher*, July 2026

Concerns about the value of a college degree are growing — and for good reason.

The labor market for recent graduates is unusually weak. High costs and debt burdens are intensifying the pressure for degrees to pay off quickly. And the rapid advance of artificial intelligence (AI) is creating uncertainty as to whether the lucrative, white-collar jobs traditionally accessible to college graduates are, or will soon be, disappearing.

These concerns are understandable. But concluding that college is no longer worth it ignores an important fact: The chances of achieving financial security and upward mobility remain substantially higher with a postsecondary credential than without one.

College is not the only pathway to prosperity, and earning a credential does not always pay off. Like any investment, attending college involves risk. Earnings and employment outcomes vary [depending on choice of major](#) and program quality. And too many students [fail to complete](#) college, leaving them in precarious

financial circumstances afterward.

Despite these uncertainties and shortcomings, the evidence continues to show that college delivers for most graduates. Last year, the [college earnings premium](#) was nearly identical in size to the premium a quarter century ago. And while unemployment among recent college graduates today is high in historical terms, it remains [well below the rate](#) for similarly aged workers without a degree. According to [research](#) at the Georgetown University Center on Education and the Workforce, over the next five years, 85 percent of jobs delivering economic self-sufficiency will go to workers with postsecondary education or training.

Nor is AI making college-educated workers obsolete. Emerging evidence suggests that AI may be slowing hiring for specific roles, but it is [not eliminating the need for skilled workers](#) altogether. If anything, earning a degree may prove increasingly valuable for conferring the knowledge and skills that foster resilience and adaptability. Thus, workers with a degree are likely best positioned to weather periods of significant change in the future.

The question, then, is not whether college is worth it. For most graduates, the evidence clearly shows that it is. The more pressing question is how to make college pay off for more people, more quickly. Thankfully, we also have a general understanding of how to make this happen: by making college more affordable, improving completion rates and ensuring that students acquire both the skills that employers need today and those that will equip them for whatever comes next.

Con

Ryan Craig

Managing Director at Achieve Partners

- Written for *CQ Researcher*, July 2026

The class of 2026 is graduating into one of the toughest job markets in years. The unemployment rate for recent college graduates has risen [above the national average](#) for all workers while [underemployment](#) remains stubbornly high (over 40 percent).

While America's colleges and universities are doing as good a job as ever at equipping students with the cognitive skills and durable skills needed for employment and economic mobility, it's no longer enough.

With the shift to digital hiring, employers have hundreds and hundreds of applicants for every open job. In less than one generation, hiring managers have gone from considering high-potential candidates with no relevant skills or experience for entry-level positions to explicitly or implicitly requiring both — thereby transforming “good entry-level job” into something of an oxymoron for the average graduate. Meanwhile, as companies are beginning to expect new workers to use artificial intelligence (AI) for lower-level tasks and instead spend their time on higher value project work, the experience gap is likely to become a chasm. Within a few years, most new grads will be invisible in the hiring process without substantial relevant paid work experience.

As a result, there are only four scenarios where college will continue to be a good bet. First, attend a highly selective institution; their graduates are likely to continue to have excellent outcomes across programs of study. Second, consider a STEM or health sciences program. Computer science may now be in question, but the STEM suite is still generating strong return on investment (ROI). Third, choose an institution with formalized, paid work-based learning such as internships or co-op programs. Fourth, if a student’s family has sufficient resources so as not to worry about taking on debt and ROI, college remains a beneficial pathway. If students aren’t checking any of these four boxes, ROI from college is likely to disappoint.

For decades, America’s policy for bridging the gap from high school to career launch has been college-for-all, with college being synonymous with classroom-based learning. Unfortunately for policymakers and the college-industrial complex, the qualifications employers are seeking are now more readily gained through work-based learning. As a nation, we’ve dramatically overinvested in tuition-based, debt-based, classroom-based learning and correspondingly underinvested in work-based learning models such as internships, co-ops and apprenticeships. Until federal and state governments begin to shift meaningful funding from classrooms to work, we are unlikely to meet the demands of the 21st century economy and restore the American dream.



Discussion Questions

Here are some issues to consider regarding the future of college enrollment:

- What are some of the factors contributing to declining college enrollment?
- What actions have some colleges taken to address declining enrollment numbers? Do

you think these efforts will be effective?

- Why do some advocates for college say the institutions are important for students beyond just future employment attainment? Do you agree?
- Should the U.S. government look to European countries like Switzerland and significantly increase funding for alternative job training pathways such as apprenticeships?
- In your opinion, is the investment in a college education worth it? Why or why not?

Chronology

1940s-1960s

GI bill and federal student loans spur more Americans to attend college.

1944

The GI Bill (Servicemen's Readjustment Act) makes college free for veterans returning from World War II.

1958

The National Defense Education Act creates the first federal student loans, later called the Federal Perkins Loan Program, to students in scientific and technical fields.

1965

The Higher Education Act includes the Guaranteed Student Loan Program, with the fed-

eral government subsidizing capital from banks to provide loans to low- and middle-income students.

1970s-1990s

College enrollment rises along with increasing college costs and student debt.

1970

By this year, 8.6 million people are enrolled in college, doubling the proportion of the population in 1947.

1972

Federal government offers the first Pell Grants (Basic Educational Opportunity Grants) to cover tuition for low-income students.

1992

Higher Education Act reauthorization broadens access to federal loans for middle-class students.

1994

Congress passes the School-to-Work Opportunities Act, with support from President Bill Clinton, but few apprenticeships emerge from it.

2000-2026

College enrollment peaks, and Congress passes limits on student loans.

2007

Congress creates the Public Service Loan Forgiveness program to encourage graduates to enter civil service jobs; the number of births in the U.S. peaks at 4.3 million.

2010

College enrollment peaks at 21 million as more adults return to school following the 2007 to 2009 recession.

2015

President Barack Obama's administration launches the American Apprenticeship Initiative, providing grants to boost apprenticeships in high-growth fields like healthcare and biotech.

2020

President Donald Trump signs an executive order encouraging federal agencies to hire based on skills instead of degrees. More than 20 states follow suit for state government jobs.

2022

ChatGPT is released, raising questions about AI's effect on education, jobs and the value of a college degree. The COVID-19 pandemic leads to enrollment declines in community colleges and four-year colleges.

2023

Texas passes a bill to reward community colleges based on how graduates do in the job market — half of states now use similar performance-based funding.

2025

Trump issues an executive order setting a goal of increasing new apprenticeships (currently at about 700,000) to 1 million. ... Trump signs the Budget Reconciliation Act (One Big Beautiful Bill Act) including Workforce Pell Grants for short-term job training and restructuring student loans to raise payments for most borrowers. ... Yale announces plan to expand college admissions by 100 per year in fall 2025 and to increase its spending to expand faculty; more than one in three Yale undergraduates is a first-generation college student or from a low-income family by fall 2025.

2026

The Labor Department announces \$145 million in grants over four years to help companies and intermediaries set up apprenticeships. ... Yale announces free tuition for students from families earning under \$100,000 annually and scholarships if under \$200,000. ... A study by liberal think tank New America finds that about 350 colleges and community colleges offer apprenticeship programs (January). ... The Education Department proposes a rule to cut off federal student loans to college programs that fail to deliver a positive return on investment for their graduates. ... The Khan Academy announces an online college degree program with total tuition of under \$10,000 (April). ... A Lumina-Gallup poll finds one-third of college students considered dropping out in the past six months, citing stress, mental health and cost. ... The University of Chicago announces a plan to increase college admissions and offer free tuition for students from families earning under \$250,000 (May). ... Spring figures show enrollment in bachelor's programs is growing more slowly than undergraduate certificate programs and associate

degree programs; public four-year colleges and community colleges post the most undergraduate enrollment growth, while enrollment at private, nonprofit four-year colleges drops (June). ... Workforce Pell Grants, which provide aid to engage in short-term work training programs, including apprenticeships, go into effect (July).

The Next Step

AI and College Grads

Ember, Sydney, "[A Job Market Leaving Young Graduates Behind Could Scar them for Years](#)," *The New York Times*, June 5, 2026. If AI begins to automate entry-level jobs on a large scale, recent college graduates could be among the job seekers most harmed, experts say.

Flaherty, Colleen, "[Why Students Aren't All In on AI—and What They Want from Colleges](#)," *Inside Higher Ed*, June 11, 2026. A new survey shows that more than half of college students expect AI to affect their career prospects negatively.

Hsu, Andrea, "[Remote work—not AI—has sidelined recent college graduates, research finds](#)," *NPR*, June 1, 2026. A Federal Reserve Bank of New York analysis finds that companies are less likely to hire recent college grads into work that can be done remotely, opting instead for more experienced workers who don't need to be trained from a distance.

College Actions

Bay, Joshua, "[The Rise of Degree Apprenticeships](#)," *Inside Higher Ed*, Jan. 26, 2026. An increasing number of colleges are offering degree apprenticeships, which combine on-the-job training and paid work experience with a bachelor's, associate or master's degree, at a time when skepticism is growing about the value of a traditional college education.

Marcus, Jon, "[Faster, Thinner: Colleges Are Swiftly Trimming a B.A. Degree to Three Years](#)," *TheHechinger*

Report, March 11, 2026. About 60 colleges have introduced reduced-credit, three-year bachelor's programs or are considering introducing them, amid political and economic pressures to create faster routes to a college degree.

Patel, Vimal, "[University of Chicago Waives Tuition for Families Making under \\$250,000](#)," *The New York Times*, May 14, 2026. The University of Chicago will guarantee free tuition for undergraduates from families with incomes below \$250,000 a year — one of several colleges, including Harvard and Princeton, competing to raise income limits for free tuition in recent years.

Government Efforts

Archer, Analisa Sorrells, "[As NC prepares for workforce Pell, only a fraction of short-term programs are expected to qualify](#)," *EdNC*, Feb. 11, 2026. A new federal grant program that will pay students to get short-term job training has launched amid questions of just how many training programs will meet the requirements to participate.

Hsu, Andrea, "[Trump set a target of 1 million apprenticeships: Here's how that's going](#)," *NPR*, March 8, 2026. President Donald Trump set a target of reaching 1 million apprenticeships yearly in the United States, compared with about 700,000 registered today, but his administration also canceled millions of dollars of apprentice contracts.

Camhi, Tiffany and Cory Turner "[Under a new federal rule, colleges must leave grads better off or lose financial aid](#)," *NPR*, July 9, 2026. Under a new federal law, if a program's graduates don't earn more than someone who never went to college, the program and its students could lose access to federal student loans.

Notes

¹ Rachel Wolfe and Te-Ping Chen, "[What Young Workers Are Doing to AI-proof Themselves](#)," *The Wall Street Journal*, March 22, 2026.

² "[Final Spring Enrollment Trends](#)," National Student Clearinghouse Research Center, June 4, 2026.

3 [“Final Spring Enrollment Trends,”](#) National Student Clearinghouse Research Center, June 4, 2026, Fig. 3.2, Fig. 5.1; Stephanie Marken, [“College Students Weigh A.I.’s Impact on Majors and Careers,”](#) Gallup, April 2, 2026.

4 Melanie Hanson, [“College Dropout Rates,”](#) Education Data Initiative, July 7, 2025; [“Underemployment Rates for Recent College Graduates,”](#) The Labor Market for Recent College Graduates, Federal Reserve Bank of New York, May 5, 2026; Sydney Ember, [“A Job Market Leaving Young Graduates Behind Could Scar Them for Years,”](#) *The New York Times*, June 5, 2026.

5 [“Valued but Out of Reach: The Reality of Higher Education Today,”](#) Gallup and Lumina Foundation, May 12, 2026.

6 Melanie Hanson, [“College Dropout Rates,”](#) Education Data Initiative, July 7, 2025.

7 [“Underemployment Rates for Recent College Graduates,”](#) The Labor Market for Recent College Graduates, Federal Reserve Bank of New York, May 5, 2026; [“Unemployment Rates for Recent College Graduates Versus Other Groups,”](#) The Labor Market for Recent College Graduates, Federal Reserve Bank of New York, May 5, 2026.

8 Catherine Morris, Ban Cheah and Jeff Strohl, [“The Major Payoff: Evaluating Earnings and Employment Outcomes Across Bachelor’s Degrees,”](#) Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University, 2025.

9 Anthony P. Carnevale *et al.*, [“The Cost of Economic and Racial Injustice in Postsecondary Education,”](#) McCourt School of Public Policy, Georgetown University, 2021.

10 Sydney Ember, [“A Job Market Leaving Young Graduates Behind Could Scar Them for Years,”](#) *The New York Times*, June 5, 2026.

11 Ana Altchek *et al.*, [“16 Companies That Have Said They’re Doing AI-related Layoffs,”](#) *Business Insider*, June 22, 2026; Justina Lee, [“Employers who Laid Off Workers Citing AI are Already Starting to Regret it,”](#) *CNBC*, July 1, 2026.

12 Lydia Saad, [“Perceived Importance of College Hits New Low,”](#) Gallup, September 11, 2025.

13 Kim Parker, [“Growing Share of Americans Say the U.S. Higher Education System is Headed in the Wrong Direction,”](#) Pew Research Center, October 15, 2025.

14 [“Final Spring Enrollment Trends,”](#) National Student Clearinghouse Research Center, June 4, 2026.

15 Ben Unglesbee, [“Court pauses Education Department regulations limiting ‘professional’ degrees,”](#) *Higher Ed Dive*, June 25, 2026.

16 Daniel Douglass-Gabriel, [“College Enrollment Hits 10-Year High, Fueled by Community College Growth,”](#) *The Washington Post*, January 15, 2026; [“Final Spring Enrollment Trends,”](#) National Student Clearinghouse Research Center, June 4, 2026; Joel Winkelman, Gad Levanon and Mels de Zeeuw, [“College Numbers Down, Degrees Up: Understanding the Post-2010 Enrollment Shift,”](#) The Burning Glass Institute, September 29, 2025; Jon Marcus, [“The Number of 18-year-olds is about to Drop Sharply, Packing a Wallop for Colleges—and the Economy,”](#) *The Hechinger Report*, January 8, 2025.

17 Jon Marcus, [“A Looming Demographic Cliff,”](#) *NPR*, January 8, 2025; Patrick Lane, Colleen Falkenstern and Peace Bransberger, [“Knocking at the College Door: Projections of High School Graduates,”](#) Western Interstate Commission for Higher Education, December 2024.

18 [“Final Spring Enrollment Trends,”](#) National Student Clearinghouse Research Center, June 4, 2026.

19 Jon Marcus, [“More than a Quarter of Private Colleges are At Risk of Closing, New Projection Shows,”](#) *The Hechinger Report*, April 13, 2026; Mark Arsenault, [“Hampshire College Will Close Amid Student Enrollment Declines,”](#) *The New York Times*, April 14, 2026.

20 Marina Villeneuve and Olivia Sanchez, [“Tracking College Closures,”](#) *The Hechinger Report*, December 23, 2024; Rachel Burns *et al.*, [“A Dream Derailed? Investigating the Impacts of College Closures on Student Outcomes,”](#) State Higher Education Executive Officers Association/National Student Clearinghouse Research Center, 2022.

21 Robert Ketchen, Dubravka Ritter and Douglas Webber, [“Predicting College Closures and Financial Distress,”](#) Federal Reserve Bank of Philadelphia, December 2024, p. 3.

22 Evan Castillo and Lyss Welding, [“Tracking College Closures and Mergers,”](#) Best Colleges, April 16, 2026.

23 Robert Ketchen, Dubravka Ritter and Douglas Webber, [“Predicting College Closures and Financial Distress,”](#) Federal Reserve Bank of Philadelphia, December 2024.

24 [“Yale to Increase Undergraduate Enrollment,”](#) *Yale News*, February 4, 2025; [“Investments to Support an Expanded Yale College Class Size,”](#) Yale University Office of the Provost, February 4, 2025; Mark Dunn,

[“New First-Year, Transfer, and Adult Students Begin Their Yale College Journey,”](#) *Yale News*, September 3, 2025; Nathaniel Rodwell-Simon and Olin Nafziger, [“College Plans to Expand to 9,000 Students, Provost Says at Budget Town Hall,”](#) *The Chicago Maroon*, May 7, 2026; Maroon Editorial Board, [“Expanding the College Is a Mistake,”](#) *The Chicago Maroon*, June 30, 2026; Natasha Abel, [“Meet Our Moment: American University Pledges Career Readiness for All Students,”](#) American University, January 26, 2026.

[25](#) Molly Kinder *et al.*, [“Generative AI, the American Worker, and the Future of Work,”](#) Brookings Institution, October 10, 2024.

[26](#) Mark Muro, “Prompting Opportunity: AI and Higher Education,” AI in Higher Ed Convening, Indianapolis, February 24, 2026; [“A.I. Fluency,”](#) Office of Academic Affairs, The Ohio State University, accessed July 18, 2026; Phillip Fiorini, [“Purdue Unveils Comprehensive AI Strategy: Trustees Approve ‘AI Working Competency’ Graduation Requirement,”](#) Purdue University News, December 12, 2025.

[27](#) Jim VandeHei and Mike Allen, [“Behind the Curtain: A White-Collar Bloodbath,”](#) *Axios*, May 28, 2025; Erik Brynjolfsson, Bharat Chandar and Ruyu Chen, [“Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence,”](#) Stanford Digital Economy Lab, November 13, 2025.

[28](#) Linda Kinstler, [“A University System Went All in on A.I. Now It’s Tearing Itself Apart,”](#) *The New York Times*, June 1, 2026.

[29](#) Landon Block, [“CSU’s AI Move Feels Less Like Innovation and More Like Overreach,”](#) *Mustang News*, February 18, 2025.

[30](#) Angel Corzo, [“Cal State Struck a Deal with OpenAI. Some Students and Faculty Refuse to Use It,”](#) *Cal-Matters*, May 1, 2026.

[31](#) Theo Baker, [“What A.I. Did to My College Class,”](#) *The New York Times*, May 17, 2026.

[32](#) Evan Goldstein, [“The Ivy League Cheating Scandal No One Wants to Talk About,”](#) *The Chronicle of Higher Education*, July 6, 2026; Susan Svrluga, [“An Ivy League professor suspected AI cheating, so he decided to fight back,”](#) *The Washington Post*, July 15, 2026.

[33](#) Martha Kenney, [“Cancel ChatGPT Edu. Invest in Humans,”](#) Action Network, Petition to Mildred García, Chancellor, California State University System, accessed July 19, 2026; Martha Lincoln, [“It’s Time to Pull the Plug on ChatGPT at Cal State,”](#) *Inside Higher Ed*, November 25, 2025.

[34](#) Linda Kinstler, "[A University System Went All in on A.I. Now It's Tearing Itself Apart](#)," *The New York Times*, June 1, 2026.

[35](#) Kate Rix, "[California State University Renews Controversial Systemwide Contract with OpenAI](#)," *Ed-Source*, May 21, 2026.

[36](#) Linda Kinstler, "[A University System Went All in on A.I. Now It's Tearing Itself Apart](#)," *The New York Times*, June 1, 2026.

[37](#) Kate Rix, "[California State University Renews Controversial Systemwide Contract with OpenAI](#)," *Ed-Source*, May 21, 2026; Patrick J. Lenz, "[Student Success is at the Core of CSU's AI Commitment](#)," *CSU Leader*, May 19, 2026.

[38](#) Todd Wallack, "[Here Are the Undergraduate Degrees that Pay Off \(and Some that Don't\)](#)," *The Washington Post*, May 14, 2026.

[39](#) Alice Speri, "[Just Not Monetizable: Humanities Programs Face Existential Crisis at US Universities](#)," *The Guardian*, January 20, 2026.

[40](#) Sarah Wood, "[See the Average College Tuition in 2025-2026](#)," *U.S. News and World Report*, September 23, 2025.

[41](#) Todd Wallack, "[Here Are the Undergraduate Degrees that Pay Off \(and Some that Don't\)](#)," *The Washington Post*, May 14, 2026.

[42](#) "[Is College Still Worth It? A Debate on the Future of Higher Education and Economic Mobility](#)," University Innovation Alliance, July 24, 2025.

[43](#) "[Competencies for a Career-Ready Workforce](#)," National Association of Colleges + Employers, March 2024; Naomi Boyer, "[Why We've Embraced the Term 'Durable Skills'](#)," Education Design Lab, November 8, 2024.

[44](#) "[The Lab's Durable Skills Micro-credentials](#)," Education Design Lab, accessed July 19, 2026.

[45](#) Mark Schneider *et al.*, "[Holding New Credentials Accountable for Outcomes: We Need Evidence-Based Funding Models](#)," American Enterprise Institute, June 16, 2025; "[What Are Certificate Programs? A 2026 Guide](#)," Coursera, April 27, 2026.

46 [“Education and Training Expenditures in the U.S., \(2021\),”](#) Credential Engine, February 2021; [“Counting Credentials 2025 Report,”](#) Credential Engine, December 2025.

47 Mark Schneider *et al.*, [“Holding New Credentials Accountable for Outcomes: We Need Evidence-Based Funding Models,”](#) American Enterprise Institute, June 16, 2025.

48 [“President Donald J. Trump Modernizes American Workforce Programs for the High-Paying Skilled Trade Jobs of the Future,”](#) The White House, April 23, 2025; Preston Cooper, [“CBO: Cost of Federal Student Loans Nears \\$400 Billion,”](#) *Forbes*, June 19, 2024.

49 [“Apprentices by state,”](#) Apprenticeship USA, U.S. Department of Labor, July 15, 2026; [“Preparing Americans for High-Paying Skilled Trade Jobs of the Future,”](#) The White House, April 23, 2025.

50 Jeff Strohl, Artem Gulish and Catherine Morris, [“The Future of Good Jobs: Projections Through 2031,”](#) Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University, 2024.

51 [“The College Reality Check: What Students Experience Vs. What America Believes,”](#) Gallup and Lumina Foundation, 2026.

52 Michelle Johnson, [“U.S. student debt,”](#) *CQ Researcher*, October 24, 2025; Erin Blakemore, [“How the GI Bill’s Promise Was Denied to a Million Black WWII Veterans,”](#) History.com, May 8, 2026.

53 Michelle Johnson, [“U.S. student debt,”](#) *CQ Researcher*, October 24, 2025.

54 Kathleen deLaski, *Who Needs College Anymore?: Imagining a Future Where Degrees Won’t Matter* (Harvard Education Press, 2025): p.13.

55 Michelle Johnson, [“U.S. student debt,”](#) *CQ Researcher*, October 24, 2025.

56 Kathleen deLaski, *Who Needs College Anymore?: Imagining a Future Where Degrees Won’t Matter* (Harvard Education Press, 2025).

57 Michelle Johnson, [“U.S. student debt,”](#) *CQ Researcher*, October 24, 2025.

58 Michelle Johnson, [“U.S. student debt,”](#) *CQ Researcher*, October 24, 2025.

59 Dave Roos, [“Why Many US Colleges Were Once Tuition-Free,”](#) History.com, January 6, 2026.

60 Robert I. Lerman, [“Has the Apprenticeship Moment Finally Arrived?”](#) *Washington Monthly*, September 1,

2025.

[61](#) Robert I. Lerman, "[Has the Apprenticeship Moment Finally Arrived?](#)" *Washington Monthly*, September 1, 2025.

[62](#) Michelle Johnson, "[U.S. student debt](#)," *CQ Researcher*, October 24, 2025.

[63](#) Sarah Mervosh, Francesca Paris and Claire Cain Miller, "[U.S. Schools Face a Crisis as the Number of Children Drops](#)," *The New York Times*, May 8, 2026.

[64](#) Michelle Johnson, "[U.S. student debt](#)," *CQ Researcher*, October 24, 2025.

[65](#) Robert I. Lerman and Lindsey Tyson, "[Wisconsin's Well-Structured Youth Apprenticeship Program](#)," Urban Institute, July 11, 2023; Roy L. Austin Jr and Brron G. Auguste, "[The Promise We Make: My Brother's Keeper Initiative and Expanding Access to Career Pathways for Youth](#)," Obama White House Archives, February 12, 2015; Douglas Walton, Karen N. Gardiner and Burt Barnow, "[Expanding Apprenticeship to New Sectors and Populations: The Experiences and Outcomes of Apprentices in the American Apprenticeship Initiative](#)," Department of Labor, August 2022.

[66](#) Katherine Knott, "[How Biden Raised the Profile of the Free College Movement](#)," *Inside Higher Ed*, August 19, 2024.

[67](#) Douglas N. Harris *et al.*, "[The Effects of the COVID-19 Pandemic on Educational Attainment](#)," *RSF: The Russell Sage Foundation Journal of the Social Sciences*, Vol. 10, no. 1, January 1, 2024, pp.152–80; Anna Merod, "[COVID Remote Learning Put Drain on College Enrollment](#)," *Higher Ed Dive*, April 10, 2026; Janet W. Lee, "[After the Pandemic Students Are Starting to Come Back to College. Report Shows](#)," *NPR*, May 23, 2024.

[68](#) Michelle Johnson, "[U.S. student debt](#)," *CQ Researcher*, October 24, 2025.

[69](#) Taylor N. Riccard, "[Executive Order 13932 on Assessing and Hiring Job Candidates in Federal Agencies](#)," August 25, 2020; Kathleen deLaski, *Who Needs College Anymore?: Imagining a Future Where Degrees Won't Matter* (Harvard Education Press, 2025): pp.15-20.

[70](#) Katherine Knott, "[How Biden Raised the Profile of the Free College Movement](#)," *Inside Higher Ed*, August 19, 2024.

[71](#) Michelle Johnson, "[U.S. student debt](#)," *CQ Researcher*, October 24, 2025.

[72](#) Molly Kinder *et al.*, "[Generative AI, the American Worker, and the Future of Work](#)," Brookings, October 10, 2024.

[73](#) Renzo Soto, "[Understanding HB 8: The New Funding Formulas](#)," Texas 2036, August 20, 2023; Kathleen deLaski, *Who Needs College Anymore?: Imagining a Future Where Degrees Won't Matter* (Harvard Education Press, 2025): pp. 15-20, 95.

[74](#) Mary Cunningham, "[New student loan rules take effect July 1. Here's what borrowers should know](#)," *CBS News*, July 2, 2026; Michelle Johnson, "[U.S. student debt](#)," *CQ Researcher*, October 24, 2025.

[75](#) "[Job Placement Guarantee](#)," The University of Tulsa, accessed July 18, 2026; "[Stand Out. Belong](#)," The University of Tulsa, accessed July 18, 2026; Ashley Mowreader, "[More Colleges Promise Grads Employment, Grad School Placement](#)," *Inside Higher Ed*, September 16, 2025.

[76](#) Amanda Holpuch, "[Which Colleges Offer Free Tuition?](#)" *The New York Times*, January 28, 2026; Karen W. Arenson, "[Harvard Says Poor Parents Won't Have to Pay](#)," *The New York Times*, February 29, 2004.

[77](#) "[Year One: Start Your Career Journey!](#)" Career Exploration and Success, University, accessed July 18, 2026.

[78](#) "[US Department of Labor Announces Availability of \\$145M in Funding to Support Performance-Based Registered Apprenticeship Expansion](#)," Employment and Training Administration, U.S. Department of Labor, January 6, 2026.

[79](#) Benjamin Collins and Cassandra Dortch, "[Workforce Pell Grants](#)," Congressional Research Service, June 23, 2026.

[80](#) "U.S. Department of Education Issues Proposed Rule to Hold Colleges and Universities Accountable for Low Earning Outcomes," U.S. Department of Education, April 17, 2026.

[81](#) Chris Duncombe and Sarah Torres Lugo, "[How States Fund Public Colleges and Universities](#)," Education Commission of the States, October 7, 2025.

[82](#) Lancy Downs, Braden Goetz and Ivy Love, "Mapping the Landscape of Degree Apprenticeship: Expanding a Promising Model for Mobility," *New America*, January 20, 2026.

[83 “Yale to Offer Free Tuition to Families with Incomes Below \\$200,000,”](#) *Yale News*, January 28, 2026.

[84 “UChicago Will Offer Free Tuition for Families with Incomes Below \\$250,000. Greatly Expanding Undergraduate Aid,”](#) *UChicago News*, May 13, 2026.

[85 Michelle Peng, “Sal Khan Launching a \\$10K AI Degree, with Help from Google, Microsoft, and Replit,”](#) *The San Francisco Standard*, April 14, 2026.

[86 Howard Gardner, “Five Minds ... Rethinking Education in the Era of AI Intelligence,”](#) Howard Gardner blog, July 2, 2025.

[87 Gad Levanon et al., “No Country for Young Grads: The Structural Forces That Are Reshaping Entry-Level Employment,”](#) The Burning Glass Institute, July 2025, 2,15.

[88 Jeff Strohl, Artem Gulish and Catherine Morris, “The Future of Good Jobs: Projections Through 2031,”](#) Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University, 2024.

[89 Nicole Smith et al., “Falling Behind: How Skills Shortages Threaten Future Jobs,”](#) Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University, 2025; Jon Marcus, [“As College Graduates Fret over Finding Jobs, a Record Shortage of Workers Is Projected,”](#) *The Hechinger Report*, July 12, 2026.

[90 “The Future of Work in Alabama is Skills-Driven,”](#) LER.me, accessed June 8, 2026.

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