# Macro-trends impacting the evolution of higher education

## How colleges and universities can adapt to create value in the 21st century

David Richardson, TIAA Institute

TIAA Institute

# Contents

# Introduction

For generations of Americans, higher education has stood as a beacon of personal achievement and a clear path to a better life. The role of colleges and universities in delivering on that promise has long been regarded as self-evident. In 1973, Derek C. Bok, barely two years into his tenure as president of Harvard University, declared with confidence that the fundamental purpose of a college education "scarcely requires justification."[1]

A half-century later, evidence suggests the value of a college degree, and the reasons for pursuing one, are as important as ever. Yet a combination of forces is putting this long-term perspective to the test. While colleges and universities continue to attract millions of students each year and many elite institutions are flooded with applications, the higher education system overall is grappling with challenges ranging from rising costs and shifting demographics to technological change and eroding public support.

If the challenges are great, so is the opportunity. Higher education can and should remain a vital force in shaping individual lives, leveling the field of opportunity for all Americans and preparing new generations to propel society forward. This report examines several macro-trends creating headwinds for higher education today, as well as some popular misperceptions that, left unanswered, may place the future viability of many institutions at risk. We conclude with some ideas on how individual colleges and universities, and the higher education community as a whole, can adapt to remain a critical component of the American economy through the 21st century.

## Part 1: Facing the headwinds

While institutions have always encountered operating challenges and uncertainties, a confluence of pressures are creating unique challenges compared to prior years. As a sector, higher education today must navigate a number of meaningful headwinds to achieve long-term objectives.

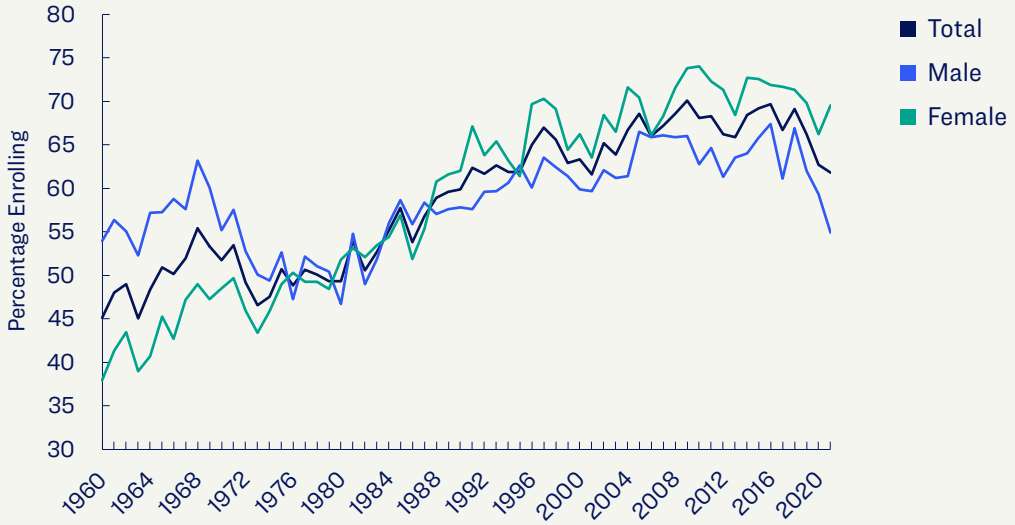
## A dramatic drop in college enrollment

A troubling recent development for colleges and universities is the decline in college enrollment among recent high school graduates. After rising from 45% in 1960 to 70% in 2009, the enrollment rate slipped below 62% in 2023. The most dramatic drop was among men, with fewer than 55% enrolling in 2021—their lowest rate since the early 1980s. The enrollment rate for men rebounded in 2023 to nearly 58%. Still, by contrast, 65% of women graduates enrolled that year.[2]

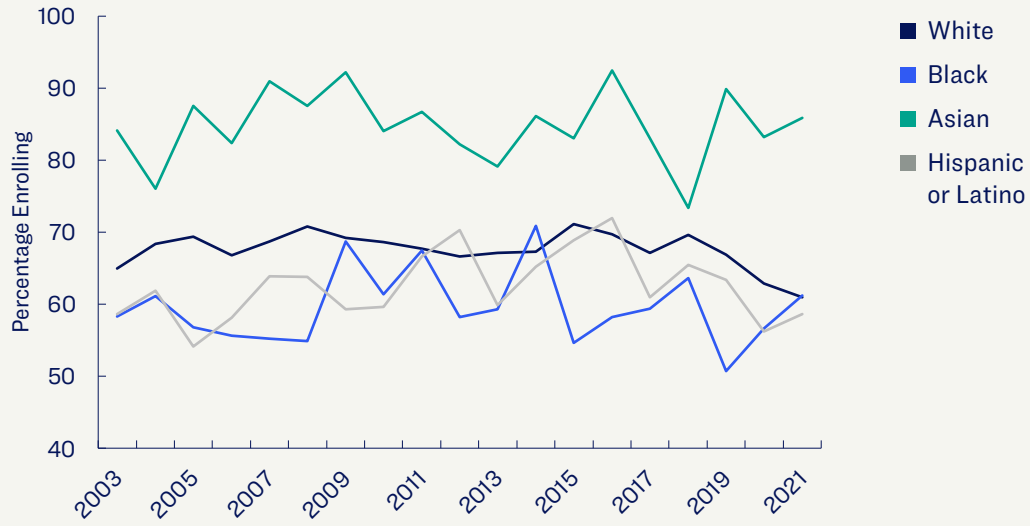
While enrollment rates broken down by race and ethnicity reveals wide differences—including significantly higher enrollment by recent Asian high school graduates—across all groups, the percentages of students entering college are substantially below their peaks.

**STUDENT ENROLLMENT HEADWINDS—RECENT HS GRADS**

By sex




By race/ethnicity




Source: BLS

Total enrollment has declined at both public and private institutions, dropping from a high of more than 18 million in 2010 to a little more than 16.6 million by 2023.[3] While public postsecondary school enrollment outnumbers private postsecondary school enrollment by about three to one, the trajectories for both have roughly paralleled one another. Enrollment growth for public and private colleges and universities stalled out around 2010, leading to a long-term drop despite occasional annual increases.

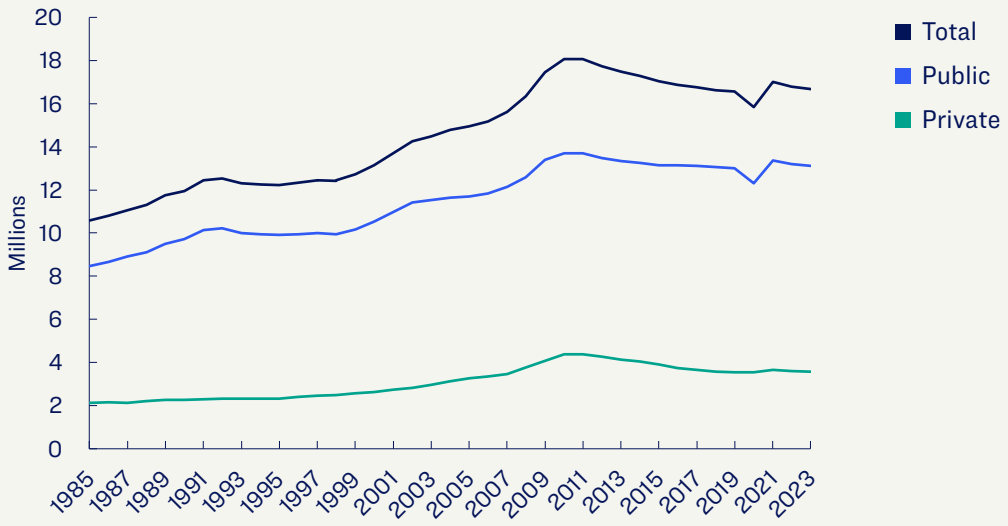
**TOTAL COLLEGE ENROLLMENT**

2010: **18 million**

2023: **16.6 million**

**STUDENT ENROLLMENT HEADWINDS—PUBLIC VS. PRIVATE**

Total enrollment



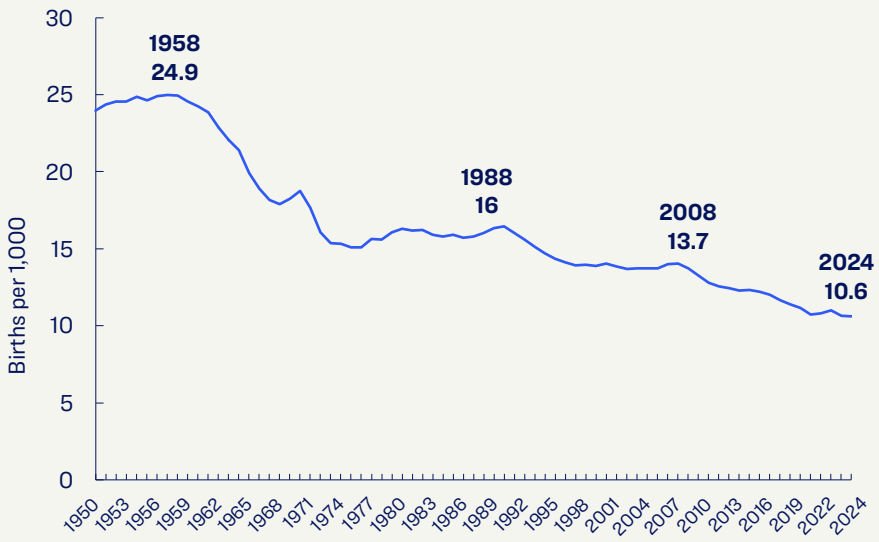

Enrollment growth


Source: NCES

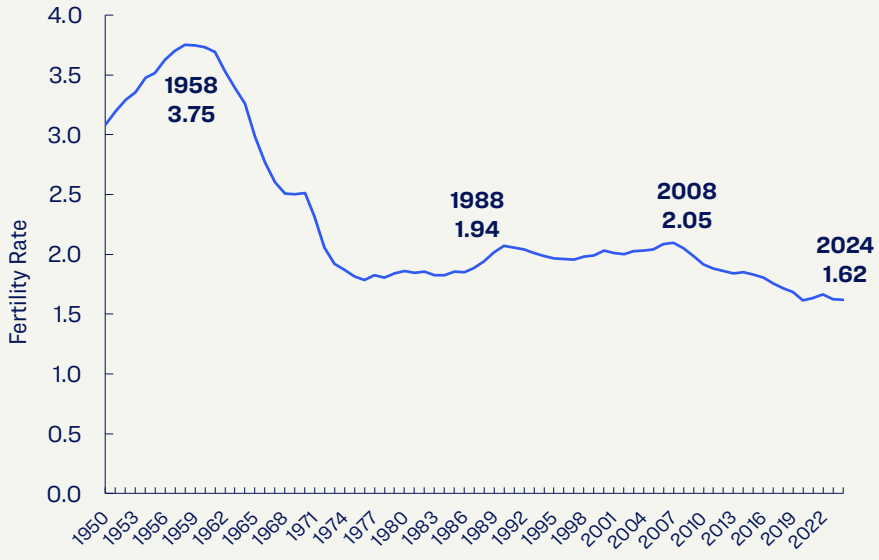
What's behind the decline in enrollment? One obvious cause of falling enrollment is that people are having fewer children. While the challenges are greater in Europe and parts of Asia, the U.S. birth rate has declined dramatically, from nearly 24 births per 1,000 people in 1950 to just 10.6 in 2024, according to United Nations world population projections. During the same period, the U.S. fertility rate (the average number of babies women have during childbearing years) plummeted from 3.1 babies in 1950 to 1.6 in 2024.[4]

**DEMOGRAPHIC HEADWINDS**

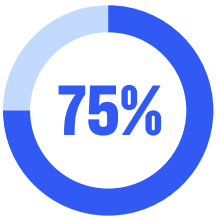
U.S. birth rate




U.S. fertility rate




Source: UN World Population Projections




U.S. institutions operate at 75% capacity, with 3–5 million unused "seats."

The long-term implication is there will be a smaller pool of traditional age college students. Combined with declining likelihood of post-secondary attendance by recent high school graduates, these trends have profound implications for any organization that depends on a new influx of young people each year. Colleges and other institutions can't control these demographic forces; they can only adapt and adjust.

## More classroom seats than students

Declining enrollment and lower birth rates have long-term implications for a higher education infrastructure—both physical capital and labor force—that was developed to accommodate the post-World War II demand for education, spurred by rapid economic growth, the GI Bill and the baby boom.

A 2020 EY study on excess college capacity found that, overall, U.S. institutions of higher learning operate at 75% capacity, with the estimated 3 to 5 million unused "seats" costing those institutions up to $50 billion a year.[5] What will become of this excess capacity? Recent reports indicate the U.S. higher education system is losing one college per week through closure.[6] As the Washington Post recently noted, each closure means a community loses a cherished institution and its jobs, and students lose their academic homes, perhaps never to complete their degrees.[7] At greatest risk are hundreds of small liberal arts colleges and regional universities trying to compete with major universities that have sizable endowments and national or international reputations.

## Families feel the pain of rising prices

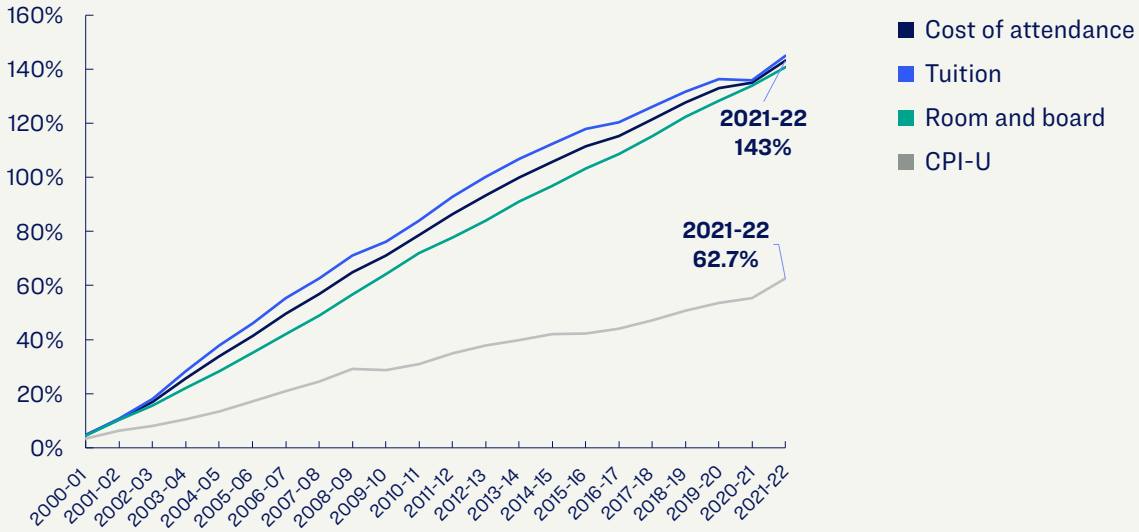
Declines in enrollment may be exacerbated by continued cost of attendance pressures. The rising cost of a college education and the debt burden on students are subjects of endless inquiry by those chronicling the financial challenges of American families. In the spring of 2024, a flurry of news reports heralded the approach of the $100,000-per-year college education.[8] While that once unimaginable threshold applies only to a handful of the nation's most expensive schools, the average total costs at a private four-year college approached $63,000 for the 2024–2025 school year—enough to give all but the wealthiest families sticker shock. And as with health care, college costs have outpaced inflation. From the 2000–2001 academic year to 2021–2022, the cost of attending college jumped 143%, more than double the 63% rise in the Consumer Price Index.[9]

**COLLEGE COSTS**

**Increased 143%** from 2000–2001 to 2021–2022

**COST OF ATTENDANCE HEADWINDS—GROWTH RELATIVE TO INFLATION**

Cumulative growth: 2000 to 2022




Source: College Board

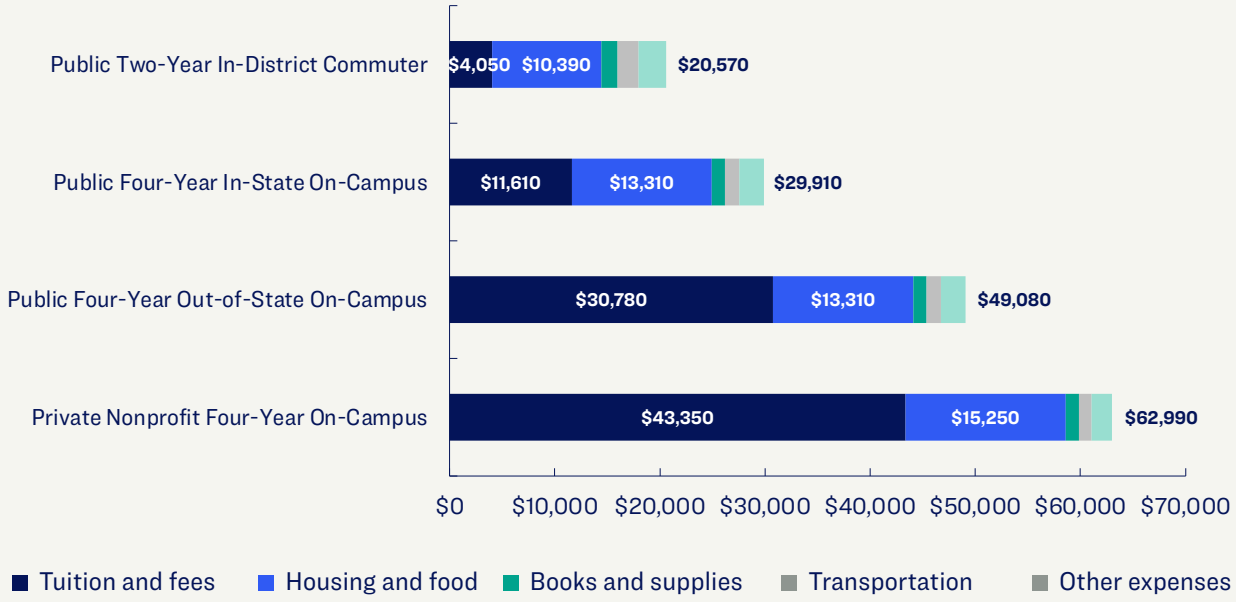
But a crucial part of the story of rising costs is buried under eye-catching headlines: “The sticker price that is often advertised for any institution is rarely the amount a student is paying,” says Charles Welch, president and chief executive officer of the American Association of State Colleges and Universities (AASCU). “But I’m not sure we do a good enough job of explaining that.”

Indeed, despite the wide availability of financial aid, especially for low- or moderate-income households, “perception of cost is obviously an issue because people think they can’t afford it,” says Sandy Baum, a nonresident senior fellow at the Urban Institute’s Center on Education Data and Policy. For many families, the lack of clear information about student aid may be a deterrent. “The pricing system and the payment structures are so complicated that many people have no idea that they don’t have to just pay for it themselves,” Baum says. “It’s expensive, but you can get grant aid, you can borrow money. There are ways to finance it.”

Even so, tuition is only part of the story. “Even when students get all the grant aid that they need to cover their total tuition and fees, they still struggle,” Baum adds. “How are you supposed to pay for food and housing if you’re not working or not working full time?” Indeed, a breakdown of college costs reveals that while tuition varies widely depending on the type of school, living costs remain consistent (and high) across the board. While tuition for in-state students at public colleges is 73% lower than for private schools, the differential for on-campus room and board totals less than $2,000 a year. Nor does off-campus living offer much relief, since students (except those who commute from home) face prevailing market rates for housing.

**COST OF ATTENDANCE—UNDERGRADUATE BUDGETS**

Estimated 2023–2024 school year




Source: College Board

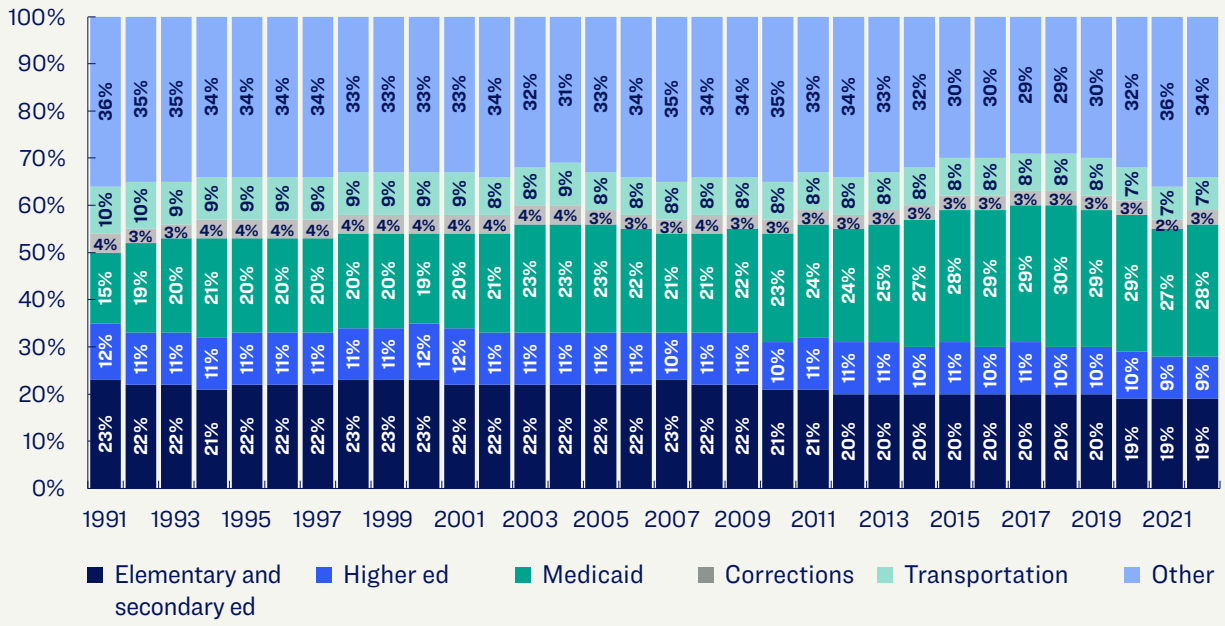
## A drop in government funding for higher education

College tuition and fees have historically outpaced inflation—in part to make up for a decline in financial support from state governments that, unlike the federal government, must balance their budgets. As funding recipients compete for slices of a fixed pie, state colleges and universities have been steadily losing ground to health care.

Since 1990, mandatory spending on Medicaid has ballooned from 15% of state budgets to nearly 30%. During that same period, higher education's share of that pie has narrowed by 25%, from 12% of state budgets to under 9%.[10]

**PUBLIC SUPPORT HEADWINDS—GOVERNMENT SPENDING ON PUBLIC HIGHER ED**

State government expenditures by function

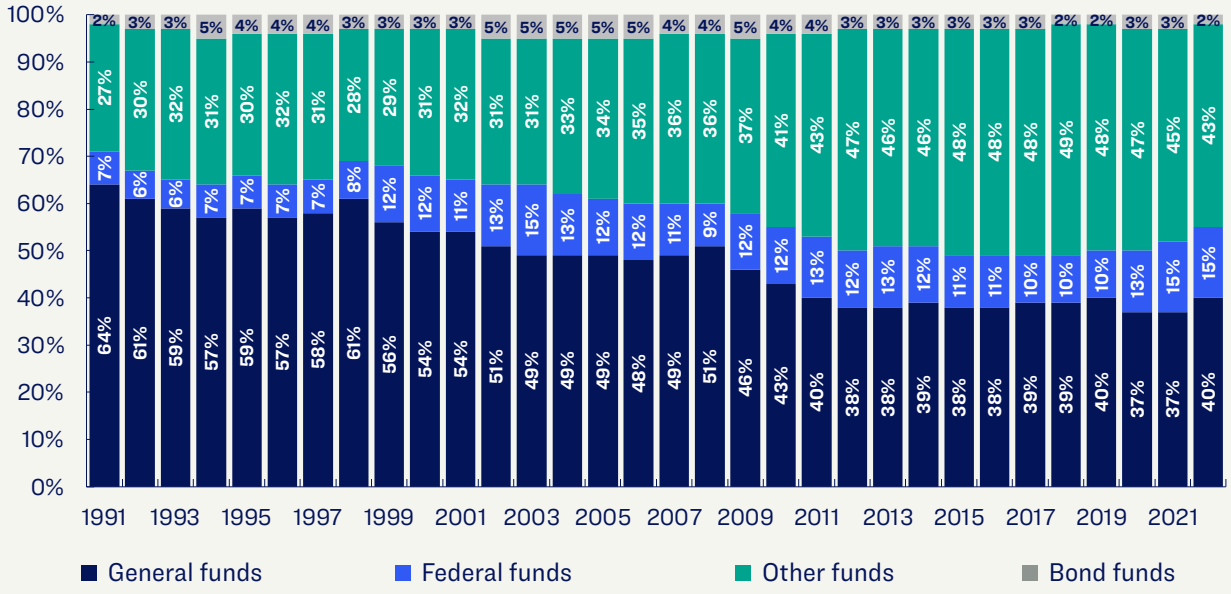



Source: National Association of State Budget Officers

For higher education, this drop in funding has led to a shift in who covers the bills. In 1991, nearly two-thirds (63%) of funding that public colleges and universities received came from state government general funds. As that figure has shrunk to less than 40%, institutions have been compelled to rely more heavily on other funding sources, namely students (and their families) and endowments.[11]

**PUBLIC SUPPORT HEADWINDS—GOVERNMENT SPENDING ON PUBLIC HIGHER ED**

Higher ed funding sources




Note: "Other Funds" primarily include tuition and fees paid by students
Source: National Association of State Budget Officers

Shifting more of the cost burden to students and their families can impact demand for higher education as households' may question their ability to finance a growing share of the cost of attendance. Resultingly, colleges and universities may feel compelled to continue to shift the costs (through discounts) of providing financial aid across students and the endowments, on top of other rising expenses, such as technology, energy, health care, non-financial student support and more.

## Elusive productivity gains

Labor productivity gains spur economic growth, resulting in rising wages and lower prices for consumers. Industries such as manufacturing and agriculture rely on steady technological innovation to improve productivity and lower costs. In 2015, for example, U.S. farms produced three times the goods produced in 1948, while using 75% less labor and 24% less land.[12] The education sector, by contrast, has not had comparably substantial productivity gains. A professor could effectively teach up to 30 students in 1948 and can do the same today. The impact of this relative lack of productivity growth in labor-intensive industries (like education and health care) is known as the Baumol Effect, which posits that the services provided by these industries become relatively more expensive over time. That's because over time labor costs rise faster than technological advancements can improve productivity—if they do at all. A classic illustration of the Baumol Effect is a string quartet, which will always be composed of four musicians whose salaries continually rise over time.

Massive open online courses (MOOCs) sparked excitement over a decade ago, but they remain a sideline despite technological advances.

The human element of teaching, while a signature strength in delivering quality education, intensifies pressures on institutions to make ends meet. Institutions have tried to address this, in part, by hiring increasing numbers of contingent faculty. These lower-paid, part- or full-time teachers with fragile job security and no path to tenure now comprise almost 70% of staff instructors, according to the American Association of University Professors.[13]

The trend represents one of the most serious threats to higher education, says Adrianna Kezar, director of the University of Southern California's Pullias Center for Higher Education. Faculty working on short-term contracts can't provide the continuity students and institutions rely on—and that students at risk of leaving early may need in order to stay enrolled, Kezar believes. Such students "don't have a faculty member who's there for them to mentor and support them," she says.

Nor has a higher ratio of contingent faculty provided the hoped-for cost savings, Kezar adds. "They've just redistributed costs into different areas and taking them out of what I call the core of the institution, which is instruction and teaching and learning."

## An uncertain role for technology

Whether technology, including artificial intelligence, will offer meaningful solutions to the productivity problem remains to be seen. For example, technological advances enabled massive open online courses, or MOOCs, which were met with much fanfare more than a decade ago. Yet initial excitement over MOOCs has yet to translate into them being anything more than a sideline.

Jeffrey Brown, dean emeriti of the Gies College of Business at the University of Illinois at Urbana-Champaign, is a strong proponent of online education. After adding an online MBA program, the school eventually dropped in-person MBA classes altogether. But Brown notes that not all schools have figured out how to do online education well. "To do it right, you have to break down a course completely into its fundamentals and rebuild it for the audience," he says. "You can't just take what you are doing in the classroom and throw it online."

## Part 2: Reaffirming the value of higher education

As vexing as these challenges may be, a college or post-secondary degree remains a key passage to a working career that provides higher lifetime earnings. Ambitious high school graduates should still view higher education as a logical next step in their lives. And businesses and communities have a vested interest in welcoming new graduates as a continual source of productivity and economic growth. While higher education has perhaps never been under greater scrutiny, the value of its product—a college or graduate degree—has never been higher.

## Expanded job opportunities

America's steady transformation into an increasingly skills-based economy requires a steady supply of highly educated workers. In 1983, less than a third of all U.S. job openings required any college experience and less than 20% required a bachelor's or graduate degree. That left plenty of opportunities for those with no higher education to find gainful employment. Indeed, nearly 70% of jobs required no college at all.

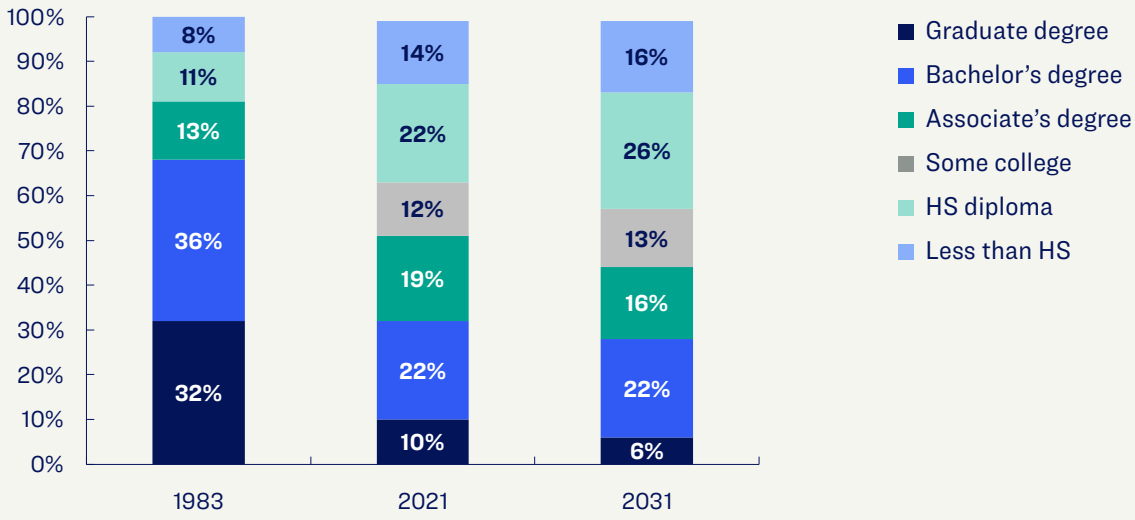
In less than 40 years, that scenario fundamentally reversed. In 2021, nearly 70% of jobs required at least some college, and 48% required completion of an associate's, bachelor's or graduate degree. By 2031, according to a 2023 report by the Georgetown University Center on Education and the Workforce, which compiled this data, more than half of jobs (55%) will require a degree, while just 6% will be open to those with less than a high school diploma.[14]

**BY 2031**

**55%** of jobs will require a degree

**TAILWINDS—U.S. LABOR MARKET REQUIRES SKILLED WORKERS**

Educational requirements for open jobs




Source: Georgetown University Center on Education and the Workforce

Of course, employment numbers don't tell the whole story. Rapid advances in technology continue to drive demand for skills in engineering, which, not surprisingly, emerges as the academic discipline whose graduates are most likely to be recruited and hired within their discipline. Participating in those high-growth and high-paying sectors requires skills that only a college education, and in many cases a graduate degree, can provide.

**DEMAND BY ACADEMIC AREA**

| Academic Discipline | Percentage of Total Respondents Hiring |
|---|---|
| Engineering | 75.90% |
| Business | 72.30% |
| Computer Sciences | 64.30% |
| Accounting | 57.10% |
| Economics | 28.60% |
| Misc. Majors | 21.40% |
| Physical Sciences | 20.50% |
| Communications | 17.90% |
| Social Sciences | 14.30% |
| Humanities | 11.60% |
| Agriculture | 4.50% |
| Education | 1.80% |
| Health Sciences | 1.80% |

Source: Georgetown University Center on Education and the Workforce

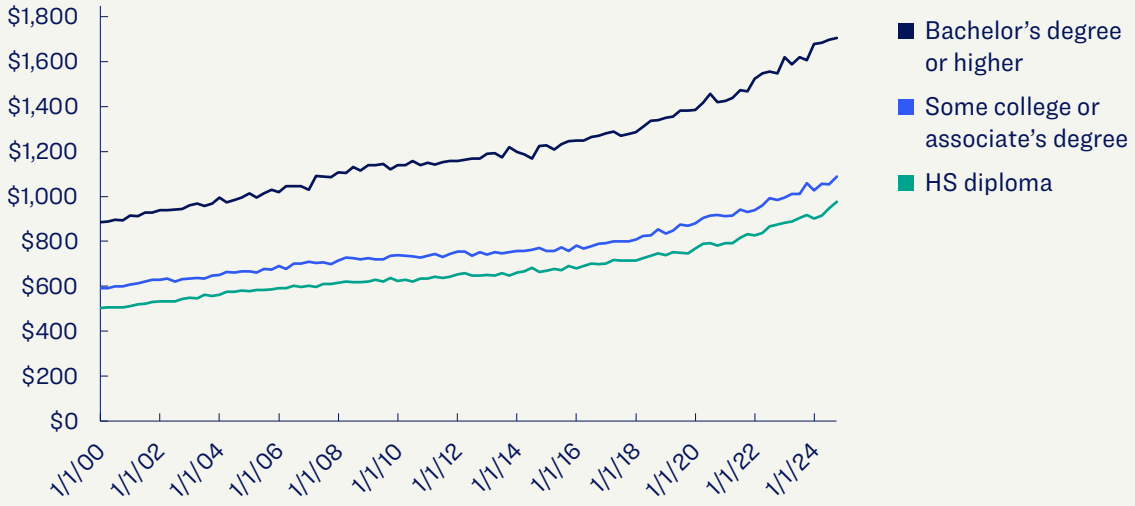
## Higher lifelong earnings

Investing in education can be viewed as an investment in human capital. Earnings comparisons based on this human capital investment underscore the irreplaceable value of higher education—especially for students who complete their degrees in four-year programs. The median earnings for a worker with an associate's degree or some college stood at $1,053 per week in the third quarter of 2024. That's a relatively modest 11% increase over those with a high school degree. Those who graduated with a bachelor's degree or higher, by contrast, earned $1,697 per week, 61% higher than those with an associate's degree or some college, and 79% more than those with a high school diploma.[15]

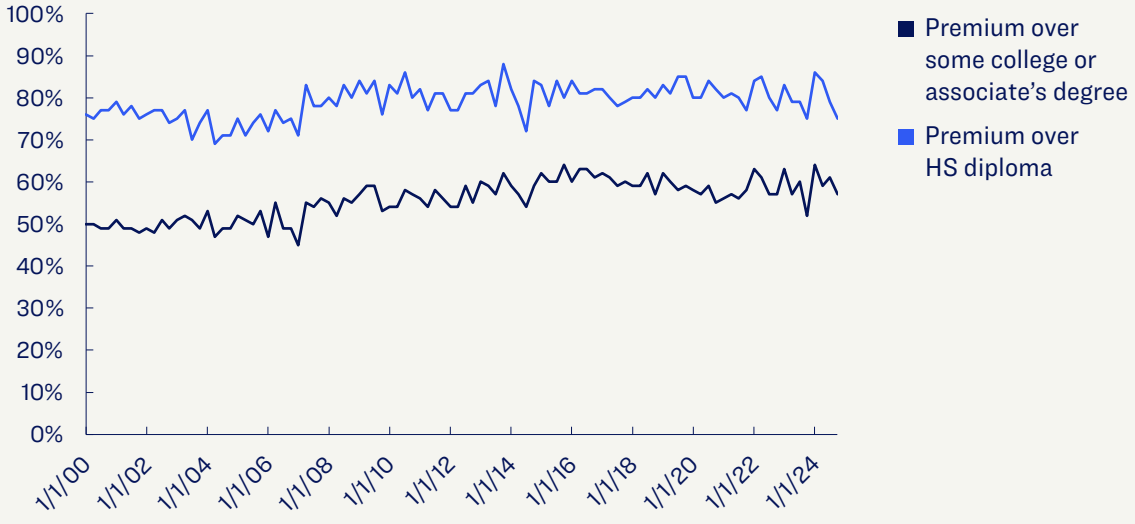
The college earnings premium for degree completers is about 79% more than those with only a high school degree.

**TAILWINDS—COLLEGE EARNINGS PREMIUM**

Average weekly earnings by education level




Earnings premium of attaining bachelor's degree or higher




Source: Bureau of Labor Statistics

## Benefits to the community

Media reports about colleges spending lavishly on “lazy rivers” and other luxury amenities become easy fodder for policymakers proposing spending cuts, says Welch of AASCU. Yet such anomalies fly in the face of the service that institutions such as AASCU’s more than 500 regional public colleges and universities nationwide provide on perennially constrained budgets.

Consider, Welch notes, the broad benefits of higher education for society and the economy: developing a skilled workforce to keep pace with a competitive global marketplace, producing higher earners and a more robust tax base, and lowering incarceration rates and dependence on public assistance. “Invest in higher education and every one of those things improves,” he says. Higher education is also associated with more civic engagement. A recent report from Gallup and the Lumina Foundation found that the likelihood of voting, volunteering and donating to charity rises with education level.[16]

## Better health, happiness and more

A college education provides for more than just higher earnings and better job opportunities. In numerous surveys and studies, college graduates report better health, improved longevity and greater happiness. In the Gallup and Lumina Foundation survey, 60% of those with a bachelor’s degree rated their health excellent or very good; only 43% of those with no higher education said the same. And new research based on participants in the multigenerational Framingham Heart Study found that people who complete more years of education age more slowly and live longer.[17]

Given the current skepticism of the continuing value of a college education, Welch argues, colleges and universities must work harder to communicate these wide-ranging benefits to policymakers, students and families.

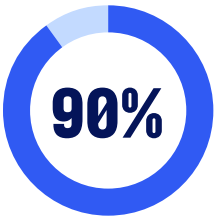
## Part 3: Closing the perception gap on the cost of college

Paying for college is a major commitment—and a substantial burden for many families. Yet it is important to separate perception from reality when it comes to understanding the various costs of college attendance. Discussions about the affordability of higher education (or lack thereof) generally revolve around two areas: the total sticker price and the debt burden many students carry with them after graduation. A closer look at both reveals a more nuanced picture.

## Most pay less than sticker price

As discussed above, the cost of attendance have risen faster than inflation. While this has a real impact on students and their families, it's helpful to look beyond headline-grabbing sticker prices and consider that fewer and fewer students pay full listed price of attendance. Over the past 20 years, the percentage of students receiving financial aid has risen by nearly 21%.[18] And while students and families continue to make a substantial financial commitment to pay for a college education, the institutions themselves are bearing a higher burden than they have in the past through discounting, often covered by a school's endowment.

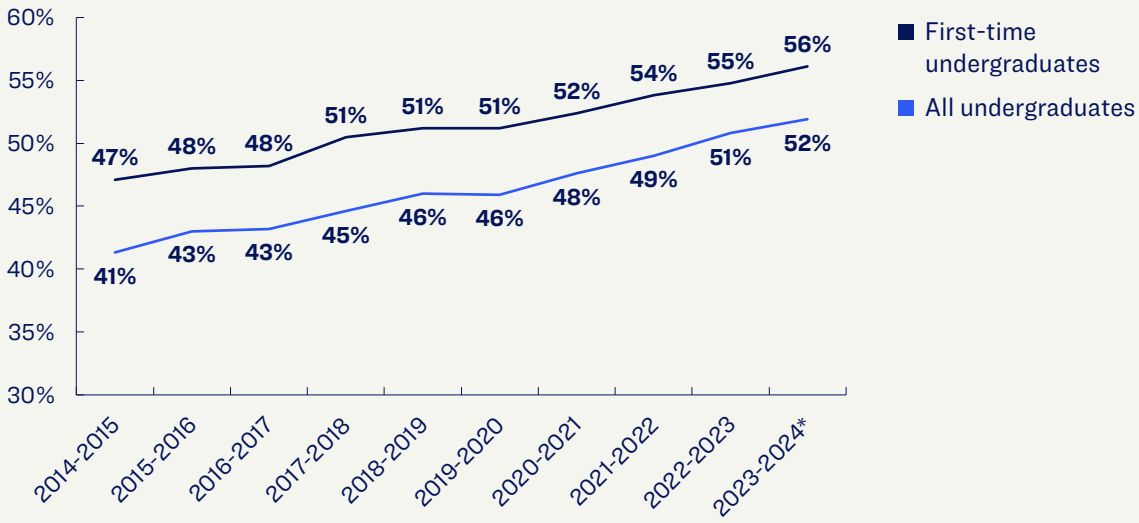
For the 2023–2024 school year, undergraduates at private, nonprofit colleges received discounts that, on average, accounted for more than half their tuition bill (51.9%). It's the second year discounts have topped 50%, representing a dramatic upswing from a decade earlier, when discounts stood a little over 40%. The discount is highest for freshmen, with 90% of first-year students receiving grant aid and overall tuition discounts that average 56%.[19]




of first-year private college students receive grant aid.

**HE SUPPORT—STUDENT DISCOUNTS**

Private institution discounts

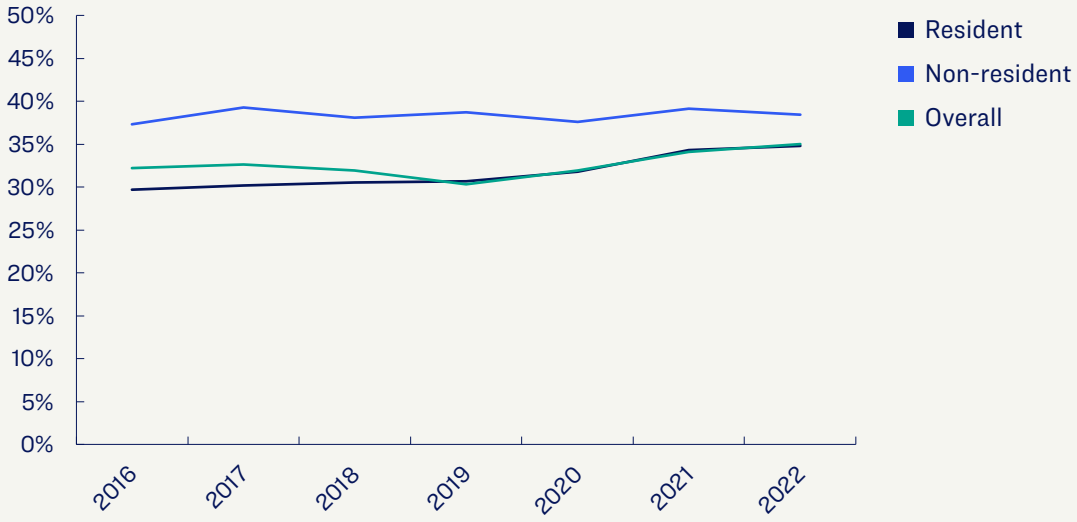



Source: NACUBO

At public institutions, which typically charge lower tuition to begin with, the discounts are lower but still significant: 35.1% for first-year students in 2023 with slightly deeper average discounts for nonresident students (who are typically charged much more for tuition).[20] While these discounts generally cover tuition only (not housing and food), they represent the lengths to which colleges and universities are going to attract talented students and keep higher education affordable.

**HE SUPPORT—STUDENT DISCOUNTS**

Public institution discounts




Source: RNL (2023). 2023 Discounting Report for Four-Year Private and Public Institutions.

## Student debt is not one-dimensional

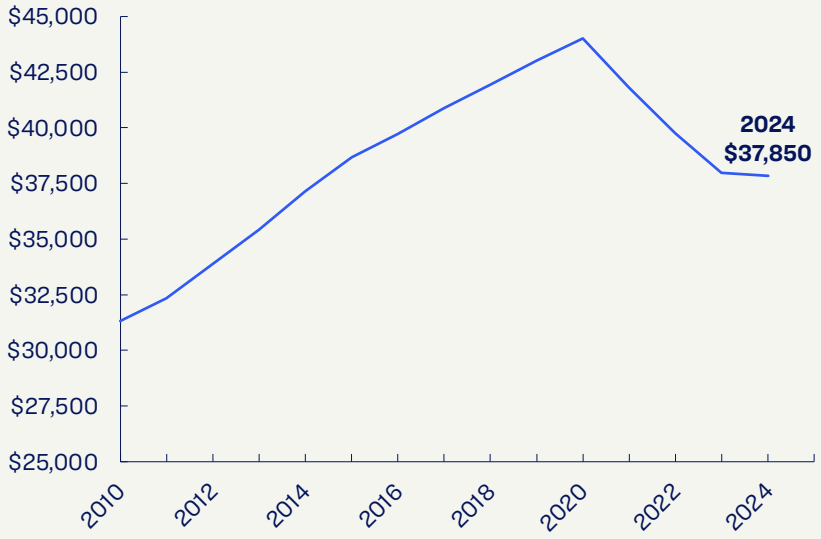
Households can use a combination of funding sources to pay for higher education expenses, including drawing down savings (529 plans), incurring debt (student loans) or using available cash. A common misperception is that student loans leave all students and their families saddled with such large debt that it impedes their ability to achieve other life goals such as buying a home or starting a family. While debt can certainly pose a problem for people just starting out in life, the burden for most students is more manageable than it may initially appear.

First consider the perception that students routinely graduate hundreds of thousands of dollars in debt. Less than 8% of borrowers owe $100,000 or more, while a third owe less than $10,000.[21] "It's a tiny number of people who owe a lot of the debt," Baum notes. And most of those borrowers facing six-figure debt loads are people earning graduate degrees in professional areas such as medicine, business or law, where high salaries soon after graduation often make loan repayment less of a burden than it would be for those in lower-paying fields.

In fact, the average federal student loan debt at graduation stood at $37,850 as of 2024.[22] And debt levels haven't been rising at spectacular rates. Growth in average student loan debt in 2020 was just above zero, at 0.3%. Despite some peaks and valleys in the intervening years, that's about where student debt growth stood in the late 1990s.

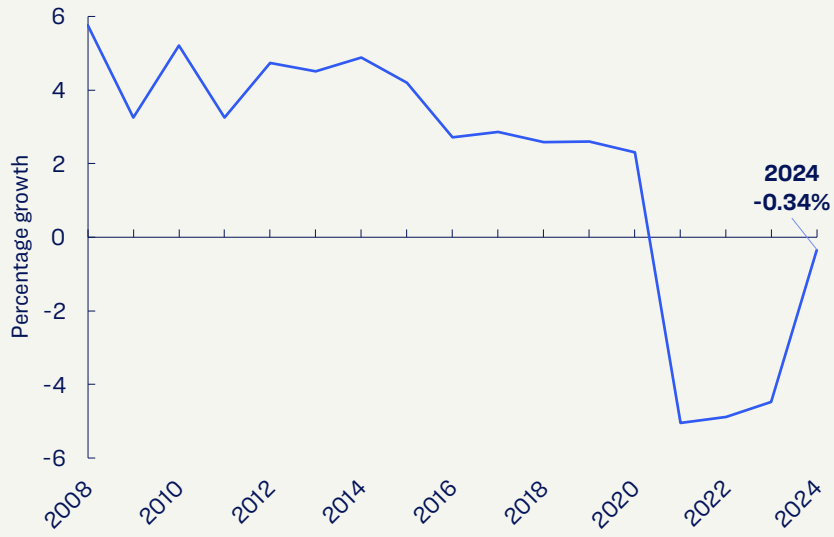
**AVERAGE DEBT AT GRADUATION**

By graduation year




**GROWTH IN AVERAGE DEBT AT GRADUATION**

By graduation year in 2024 USDs




Source: educationdata.org

While $37,850 may feel intimidating for a new college graduate, it's less than the average loan taken out for a new car in 2024 ($41,068), according to Experian (the average for even a used car is just over $26,000).[23] There's no denying the importance of a car, especially in areas with little access to public transportation. However, while an automobile's value begins to depreciate the moment it's driven off the lot, a college or graduate degree is an investment that only increases in value over the years through potentially higher earnings—recently an almost 80% average earnings premium over having a high school education alone.

Perhaps counter-intuitively, the greatest debt burden often falls not on those taking out the largest loans but the smallest. "Proportionately, people who are struggling seem to be the ones who borrow a relatively small amount of money but never finish college," says Hironao Okahana, executive director of the American Council on Education's Education Futures Lab. Nationally, colleges retain only about 68% of their students from their first to second year, meaning nearly a third fail to move on toward graduation. And retention rates are still lower for Hispanic (63.6%), Black (56.6%) and Native American (52.8%) students.[24]

Debt of $10,000 or less may feel like mountains to climb for students lacking the earning power of a diploma. Not surprisingly, borrowers with no degree default at a far greater rate than those who have them.[25] Such statistics suggest remedies may lie less in focusing on the dollar amount of student debt and more on finding ways to help students who are debt financing their education successfully graduate. "Particularly for first-generation students, who might not know much about how college works," Okahana says, "providing advice and mentoring is an important part of getting them to the finish line."

Baum, of the Urban Institute, has written on student debt for the TIAA Institute, including an exploration of gender and racial and ethnic gaps in student debt.

## Part 4: The road forward

Higher education is not unique in facing numerous challenges and headwinds. As technological innovation accelerates the pace of change, industry after industry is being forced to reevaluate its processes, adapt to new environments, and move forward.

What can colleges and universities do? While possible responses are extensive and varied, experts suggest some focus areas for institutions as they seek to ensure their long-term viability and prepare students for success.

### Support students through graduation

While colleges have long touted graduation rates as a symbol of institutional excellence, a more concerted approach to ensure individual students—particularly first generation students and those with low financial resources—leave campus with a degree in hand could help deliver on the promise of higher education. With a system called "intrusive advising," for example, a college closely monitors at-risk students and offers proactive counseling. Baum of the Urban Institute points to an approach called "guided pathways," which creates explicit road maps for the courses and performance required to attain a specific degree. "More money alone doesn't seem to solve the problem," she says. "You need a better support network to increase student success."

### Demystify college costs

Students and families who overestimate costs may take larger loans than necessary or, worse, avoid college altogether. That's a deep misfortune for students and society alike, says AASCU's Welch, who suggests a three-pronged approach to turning the tide on public perception:

- Work with the media to present a more balanced picture. Articles on costs should focus less on the price tags of prestigious and wealthy institutions and more on what students actually pay to attend college.
- Better communicate direct societal benefits of government support for students and colleges to policymakers.
- Expand outreach to families to help them better understand the options available to make college affordable.

### Embrace online education

Colleges and universities with sprawling campuses and extensive facilities may not see the internet as a potential savior, but Illinois' Brown believes technology can transform higher education for the better. "Our ability to reach people anywhere in the world with high-quality content has come at exactly the time when we need to be rethinking the fundamental products that higher education provides," he says. "We have a huge opportunity to reach hundreds of millions of people who can benefit from a world-class education."

Even though his business school is online only, Brown doesn't believe distance learning can fully replace what's valuable about the on-campus experience for the traditional 18- to 22-year-old undergrad. "So much more learning goes on about how to be an adult, how to lead student organizations, how to deal with conflict and how to become part of something bigger than yourself," he says. But many of today's college students may be returning to school after a break, juggling classes with a full-time job or family responsibilities, or commuting to campus. For those nontraditional students, online education could be a powerful resource. "Schools that are really good at serving students where they are and when they need it are going to thrive," Brown says.

> Michael K. Thomas, president of the New England Board of Higher Education, led the Next-Gen Digital Learning Infrastructure project with the TIAA Institute. His research brief, "Fast forward: Forces defining the future of postsecondary learning," focuses on the digital transformation of higher education and the education technology boom.

### Adapt to a changing labor market

A rapidly-evolving economy will require more students to enter (or reenter) the workforce equipped with skills and credentials suitable to evolving occupations. While liberal arts will always have a place in higher education, colleges are well positioned to offer certificate programs that provide much needed skills for the 21st century, catering not just to recent high school graduates but also to workers well into their careers who are looking to adapt their skill set for new occupations. Such changes would enhance higher education's value by offering, in addition to the traditional four-year, on-campus experience, with shorter time, more tactical educational experiences.

## Provide lifelong learning

Brown envisions another model, with colleges focusing on teaching foundational skills that won't become obsolete within a few years of graduation—the ability to think critically, deal with ambiguity, adapt and continue to learn, for example—and supplementing that with lifelong learning, mainly provided online. "I think there's a role for universities and colleges to be there when students need a refresher," he says.

A related opportunity is helping an aging society thrive as life expectancy rises. Colleges and universities might, for example, offer curricula focused on entering the workforce in different capacities at different life stages, or workshops offering strategies for "longevity fitness."

Redirecting resources to support the longevity economy could leverage alumni networks wanting to reconnect with an institution or encourage research that supports innovation addressing the specific needs of the aging economy.

> To help higher education leaders determine the best path forward for their own institution, the TIAA Institute commissioned a report by Richard Ekman, president emeritus of the Council of Independent Colleges, "How to recognize and respond to genuine trends with potentially significant impact on your institution."

In addition to adapting to the macro-headwinds and rapidly evolving economy, colleges and universities, both individually and as an industry, must do a better job of how investment in higher education improves outcomes. The unquestioned confidence with which Bok declared the value of a college education more than 50 years ago can't be the mindset today. If higher education can succeed in these areas, public and private institutions of all sizes will remain essential threads in the fabric of society.

Despite the manifest challenges facing higher education, "at the end of the day, I'm optimistic," Welch says, "because I know it's still the single greatest transformative opportunity in an American's life." Welch doesn't just speak to the benefits of higher education; as the first in his family to attend college, he's lived it. "My father's father could not read or write. My father didn't graduate high school. My mom is a high school graduate only," Welch says. "I realize not every student is going to be blessed with the same opportunities I've had, but I know they're going to have more chances in life to do things they never dreamed imaginable."

# Endnotes


1 D. Bok, "Clearing the Blurs in Education," *Harvard Crimson*, February 6, 1973, https://www.thecrimson.com/article/1973/2/6/clearing-the-blurs-in-education-pithe/

2 U.S. Bureau of Labor Statistics, "61.4 percent of recent high school graduates enrolled in college in October 2023," May 10, 2024, https://www.bls.gov/opub/ted/2024/61-4-percent-of-recent-high-school-graduates-enrolled-in-college-in-october-2023.htm

3 National Center for Education Statistics, "Digest of Education Statistics," 2023, https://nces.ed.gov/programs/digest/d23/tables/dt23_303.70.asp.

4 United Nations, Department of Economic and Social Affairs, Population Division, Data Portal, accessed October 2024, https://population.un.org/DataPortal/

5 K. Lundy, H. Ladd, C. McKay, K. Swoap, & S. Gagnon, "Quantifying the impact of excess capacity in higher education," EY-Parthenon, October 2020, https://www.luminafoundation.org/wp-content/uploads/2020/12/quantifying-the-impact-of-excess-capacity-in-higher-education.pdf

6 O. Sanchez, "Experts predicted dozens of colleges would close in 2023—and they were right," *Hechinger Report*, January 12, 2024, https://hechingerreport.org/experts-predicted-dozens-of-colleges-would-close-in-2023-and-they-were-right/

7 J. Marcus, "Colleges are now closing at a pace of one a week. What happens to the students?" *Washington Post*, April 26, 2024, https://www.washingtonpost.com/education/2024/04/26/college-closures-student-impact/

8 J. Moody, "Inching toward the $100,000 sticker price," *Inside Higher Ed*, April 3, 2024, https://www.insidehighered.com/news/business/revenue-strategies/2024/04/03/inching-toward-100000-sticker-price; R. Lieber, "Some colleges will soon charge $100,000 a year. How did this happen?" *New York Times*, April 5, 2024, https://www.nytimes.com/2024/04/05/your-money/paying-for-college/100k-college-cost-vanderbilt.html

9 College Board, "Trends in College Pricing and Student Aid 2024," October 21, 2024, https://research.collegeboard.org/trends/college-pricing

10 National Association of State Budget Officers, "2024 State Expenditure Report," December 10, 2024, https://www.nasbo.org/reports-data/state-expenditure-report

11 NACUBO, "2023 NACUBO-Commonfund Study of Endowments," August 12, 2024, https://www.nacubo.org/Research/2023/NACUBO-Commonfund-Study-of-Endowments

12 S. L. Wang, R. Nehring, & R. Mosheim, "Agricultural Productivity Growth in the United States: 1948–2015," U.S. Department of Agriculture, Economic Research Service, March 5, 2018, https://www.ers.usda.gov/amber-waves/2018/march/agricultural-productivity-growth-in-the-united-states-1948-2015/

13 American Association of University Professors, "Background Facts on Contingent Faculty Positions," https://www.aaup.org/issues/contingency/background-facts#:~:text=Adjuncts%20are%20often%20hired%20on,one%20or%20two%20student%20complaints

14 Georgetown University Center on Education and the Workforce, "After Everything: Projections of Jobs, Education, and Training Requirements through 2031," November 16, 2023, https://cew.georgetown.edu/wp-content/uploads/Projections2031-ES.pdf

15 U.S. Bureau of Labor Statistics, "Usual Weekly Earnings of Wage and Salary Workers Third Quarter 2024," October 17, 2024, https://www.bls.gov/charts/usual-weekly-earnings/usual-weekly-earnings-over-time-by-education.htm

16 Lumina Foundation, "Higher education linked to greater wellbeing, job fit and societal progress, Lumina-Gallup study finds," August 30, 2023, https://www.luminafoundation.org/news-and-views/higher-education-linked-to-greater-wellbeing-job-fit-and-societal-progress-lumina-gallup-study-finds/

17 C. Ryan, M. Kothari, A. Aiello, P. Muennig et al., Columbia University, Mailman School of Public Health and The Robert N. Butler Columbia Aging Center, "More Schooling Is Linked to Slowed Aging and Increased Longevity," March 1, 2024, https://www.publichealth.columbia.edu/news/more-schooling-linked-slowed-aging-increased-longevity

18 M. Hanson, "Financial Aid Statistics," Education Data Initiative, May 25, 2024, https://educationdata.org/financial-aid-statistics

19 National Association of College and University Business Officers, "2023 NACUBO Tuition Discounting Study," May 2024, https://www.nacubo.org/Press-Releases/2024/Annual-NACUBO-Tuition-Discounting-Study-Finds-Financial-Aid-Awards-on-the-Rise

20 Ruffalo Noel Levitz, "2024 Discounting Report for Four-Year Private and Public Institutions," 2024, https://www.ruffalonl.com/thank-you/download-the-2024-discounting-report-for-four-year-private-and-public-institutions/

21 D. Mangrum, J. Scally, & C. Wang, "Three Key Facts from the Center for Microeconomic Data's 2022 Student Loan Update," Federal Reserve Bank of New York *Liberty Street Economics*, August 9, 2022, https://libertystreeteconomics.newyorkfed.org/2022/08/three-key-facts-from-the-center-for-microeconomic-datas-2022-student-loan-update/

22 M. Hanson, "Average Student Loan Debt," Education Data Initiative, August 16, 2024, https://educationdata.org/average-student-loan-debt. 23 Experian, "State of the Automotive Finance Market Q3 2024," https://www.experian.com/content/dam/noindex/na/us/automotive/finance-trends/2024/experian-safm-q3-2024.pdf

24 National Student Clearinghouse Research Center, "Persistence and Retention," June 27, 2024, https://nscresearchcenter.org/persistence-retention/

25 A. J. Hess, "Millions of student loan borrowers don't have a diploma to show for their debt," July 23, 2021, https://www.cnbc.com/2021/07/23/millions-of-student-loan-borrowers-dont-have-a-diploma-to-show-for-it.html

## About the author

**David P. Richardson** is Managing Director and Head of Research at the TIAA Institute. Before joining TIAA, he served as senior economist for public finance at the White House Council of Economic Advisers and held the New York Life Chair in Risk Management and Insurance at Georgia State University. Previously, he worked as a financial economist in the Office of Tax Policy at the U.S. Treasury and was an assistant professor in the Department of Economics at Davidson College.

Richardson's research interests include public pensions, employer retirement benefit plans and household financial security. He has served as a research fellow for the China Center for Insurance and Social Security Research at Peking University, a research fellow for the Center for Risk Management Research, and a research associate at the Andrew Young School of Policy Studies at Georgia State University. He also is a member of the Pension Research Council Advisory Board, the American Economic Association, the American Risk and Insurance Association and the National Tax Association.

Richardson earned an MA and a PhD in economics from Boston College, and a BBA from the University of Georgia.

## About the TIAA Institute

The TIAA Institute helps advance the ways individuals and institutions plan for financial security and organizational effectiveness. The Institute conducts in-depth research, provides access to a network of thought leaders, and enables those it serves to anticipate trends, plan future strategies, and maximize opportunities for success.

**To learn more, visit tiaainstitute.org.**

**Join the conversation online:**
**@TIAAInstitute**



4433712

TIAA Institute

(05/25)