

PERSPECTIVES ON OPPORTUNITY

The Value of a Bachelor's Degree

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January 2024

As public confidence in higher education has declined, Americans have become less sanguine about the bachelor's degree and skeptical of its potential return on investment. Nonetheless, four-year degrees continue to be associated with significant economic and noneconomic benefits for individuals and communities. For those who want to attend college, have adequate financing options, and can finish their degrees, the benefits of a four-year degree are significant regardless of major chosen. Since averages apply to no one, students and their families cannot rely on these population-level outcomes to fully inform choices about appropriate pathways. Investing in guidance counseling to help individuals navigate postsecondary education and training options is crucial.

Since World War II, the number of Americans obtaining college degrees has steadily increased, rising from 4.6 percent of the population in 1940 to 37.7 percent in 2022 (US Census Bureau 2017, 2023). This massive investment in human capital has helped create one of the best-educated and most productive workforces in the world. Despite this remarkable success story, public opinion has markedly shifted on the topic of higher education in recent years. According to Gallup, only 36 percent of Americans have “a great deal” or “quite a lot” of confidence in higher education, down from 48 percent in 2018 and 57 percent in 2015 (Brenan 2023).

The cost of a college education is an important factor driving this change in attitude. A recent survey conducted by the Harris Poll found that about half of US adults say money influenced their ability to pursue higher education (Laningham 2022). With US student loan borrowers owing over \$8 trillion, this concern does not seem misplaced (Hanson 2023).

Another factor is likely the perception of ideological bias in higher education. Key evidence for this is the polarization of attitudes toward four-year institutions. According to Gallup, while confidence in higher education has dropped among all party identifications, Republicans have lost the most confidence in higher education by far, dropping 37 percentage points compared to independents' 16 and Democrats' 9 (Tough 2023; Brenan 2023).

These trends, however, appear disconnected from the benefits associated with bachelor's degrees, including cognitive and noncognitive skills (Garcia 2014), higher lifetime earnings, greater employability, and healthier, more social, and happier lives (Kumok and Hahn 2023). In assessing these data, we are confronted with a conundrum: Does the bachelor's degree confer these benefits or only signal them? Is the bachelor's degree a cause or an effect of other unmeasured characteristics?

To explore these questions and assess the value of the bachelor's degree, we have divided this report into two

sections, which discuss the economic and noneconomic values associated with the bachelor's degree. We conclude that the value of the bachelor's degree heavily depends on individual interests, abilities, and goals—and is not easily captured by a binary statement. As we argue, predominant narratives about the bachelor's degree—that say either “BAs for everyone!” or “Don't bother with college”—are misguided because they lack important nuance.

The Economic Value of a Bachelor's Degree

There is no question that attaining a bachelor's degree is associated with a significant earnings premium (Kumok and Hahn 2023). According to the Georgetown University Center on Education and the Workforce, bachelor's degree holders earn a median of 75 percent more than those with only a high school diploma (Carnevale et al. 2021). (See Figure 1.)

Though it has leveled out and even declined somewhat in recent years, the so-called college wage premium continues to be significant—and several percentage points higher than it was in 2000, according to the Federal Reserve Bank of San Francisco. (See Figure 2.)

Accounting for the College Wage Premium: Skills Theory. There are several possible explanations for why college graduates tend to earn more than their nongraduate peers. According to one popular explanation, a college education helps students develop valuable job-market skills, some of which are tailored to specific fields. For instance, students pursuing degrees in areas such as engineering or the sciences may gain domain-specific knowledge and skills, such as factual knowledge about biology or hands-on laboratory techniques. Other skills are generic and can be applied across fields and tasks, such as time management or critical thinking, a metacognitive process that helps one arrive at a logical conclusion to an argument or solution to a problem.

If the “skills theory” as the source of the college wage premium is correct, it is likely that the skills fueling the economic value of a four-year degree are largely generic. As Bryan Caplan (2019) argues, the domain-specific knowledge and skills taught at the undergraduate level are

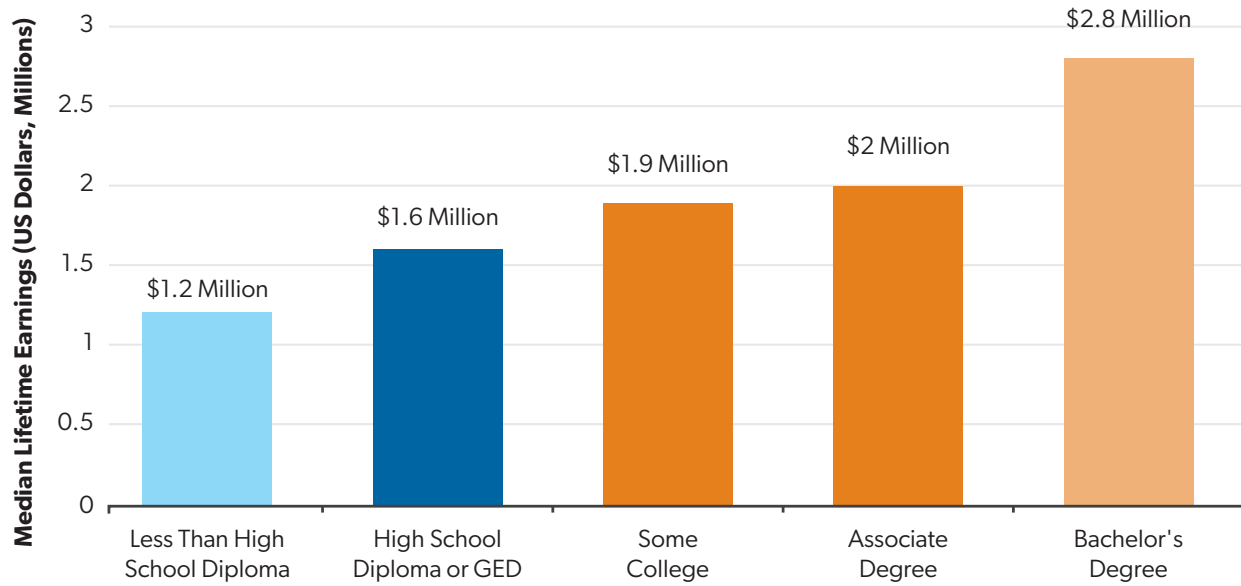
often not directly applicable to the workforce, and students tend to lose these after they graduate. Moreover, many students, such as those pursuing degrees in the humanities, typically do not gain these domain-specific knowledge and skills, and yet they *still* reap most of the economic rewards from a bachelor's degree. According to the American Academy of Arts and Sciences (n.d.), median earnings for those with degrees in the humanities were 66 percent higher than those of workers with only a high school diploma in 2018.

Indeed, bachelor's degree programs purport to teach much more than domain-specific knowledge and skills. Colleges and universities regularly cite their ability to teach generalizable skills, ranging from critical thinking to collaboration, persistence, and effective communication, which are in demand across industries (Schlueter 2016; Hart Research Associates 2013). The exposure to various academic disciplines and the rigorous coursework involved in obtaining a bachelor's degree, experts have often argued, cultivates the ability to analyze information, evaluate different perspectives, and make informed decisions.

Empirical studies, however, have yielded inconsistent results on the connection between college degrees and generalizable skills. In an influential study, Richard Arum, Josipa Roksa, and Esther Cho (2011) followed over 3,000 students from 29 four-year institutions and found that many students show little to no growth in critical thinking, complex reasoning, and written communication skills during their time in college. These authors concluded, “Large numbers of college students report that they *experience only limited academic demands and invest only limited effort in their academic endeavours.*” (Emphasis in original.)

These negative findings sparked controversy among an educational establishment long convinced of the broad pedagogical value of a college education. Another 2011 study replicated Arum, Roksa, and Cho's findings with a different sample of institutions and students (Pascarella et al. 2011). In 2017, the *Wall Street Journal* reached similar conclusions about the role of colleges in teaching critical thinking after analyzing the Collegiate Learning Assessment Plus results of students from dozens of public colleges and universities. This review found the average graduate shows little or no improvement in critical thinking over four years (Belkin 2017).

Figure 1. Median Lifetime Earnings by Educational Attainment



Source: Carnevale, Cheah, and Wenzinger (2021).

Figure 2. Overall College Wage Premium



Source: Bengali et al. (2023).

Other researchers have contradicted these findings. Christopher R. Huber and Nathan R. Kuncel's (2016) meta-analysis found that critical thinking skills and dispositions improve substantially over a normal college experience. However, as they note, their findings do "not guarantee that [graduates] retain these skills long after college or apply them in other contexts." In other words, even if a college education helps students improve on broad skills, the question of whether students retain these skills remains. The dearth of long-term studies (other than the higher economic outcomes already cited) on student outcomes makes this difficult to answer.

Others have contended that substantial research shows targeted instruction can improve students' critical thinking skills, findings that can serve as proof of concept for four-year degree programs (Dwyer and Eigenauer 2017). For instance, a 2013 analysis found statistically significant but small average effect size and evidence of heterogeneity among studies (Niu, Behar-Horenstein, and Garvan 2013), and a 2015 meta-analysis found that there are effective strategies for teaching critical thinking skills, both generic and content-specific, at all educational levels and across all disciplinary areas (Abrami et al. 2015).

The mechanisms of effective interventions in teaching critical thinking remain elusive. A 2014 systematic review found a lack of knowledge on empirically valid principles for designing interventions (Tiruneh, Verburgh, and Elen 2014). Without an understanding of this mechanism, we are largely in the dark about whether bachelor's degree programs can effectively teach critical thinking, and if they do, the precise mechanisms that are at play.

Accounting for the College Wage Premium: Signaling Theory. The conflicted state of the research on bachelor's degree programs' ability to teach broad, generalizable skills such as critical thinking suggests that there may be other sources for the bachelor's degree's value. The "signaling theory," often contrasted with the skills theory, is that the bachelor's degree is primarily a signal or proxy for a package of personal attributes that contribute to long-term work and career success.

According to proponents of the signaling theory, employers use educational qualifications as a "signal" or shorthand for favorable attributes and hire graduates for more lucrative jobs. In this view, a bachelor's degree might stand in for so-called noncognitive skills, such as

conscientiousness, industriousness, and a propensity for conformity, which aid workers in on-the-job learning, adaptation, and sociality.

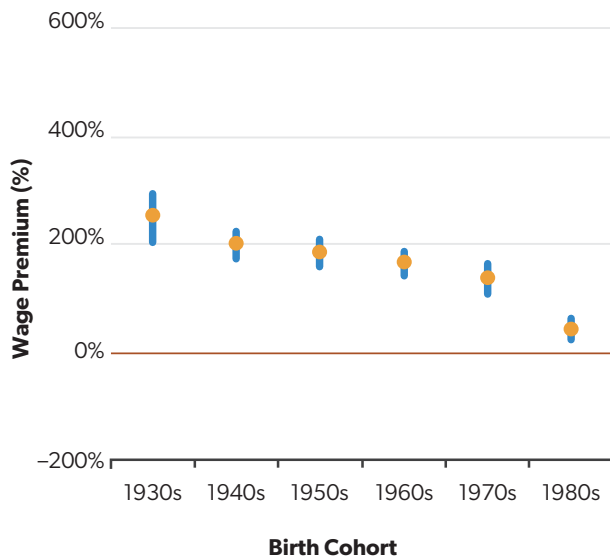
This theory should not be taken to imply that the bachelor's degree's signal is empty and thus without value. On the contrary, a bachelor's degree may signal real traits and skills and thus be a useful tool for employers to identify talent. The bonus that workers receive for their degrees in terms of employment and pay is, in itself, a market signal of value, and it is consistent with recent survey data showing 87 percent of employers continue to believe that getting a college degree or credential is "definitely" or "probably" worth the investment of time and money (Finley 2021).

Compared to the evidence for skills theory, evidence for the signaling theory is far more straightforward. Caplan (2019) argues that 80 percent of the value of a college education is signaling and 20 percent skill acquisition. This so-called sheepskin effect links receiving a diploma with spikes in economic value—even when the diploma is not tied to gains in skills, whether domain-specific or general. According to Caplan, the average study finds that the economic value of a college student's graduation year is worth 6.7 regular college years. Since it is implausible that students increase their skill ability nearly seven times as much in their senior year as they do in any other year of college, the credential itself likely plays a large role in the economic value of a bachelor's degree.

Social Capital and Networking Effects. Another possible explanation for the college wage premium has to do with social capital and networking. The term "social capital" describes the degree of trust people have in others and the extent to which they enjoy access to relationships and information that support economic and noneconomic purposes and needs. According to this theory, a college education provides the opportunity to develop interpersonal relationships that yield economic value. A 2008 meta-analysis found that education is a strong correlate of individual social capital (Huang, van den Brink, and Groot 2009).

Whether through social interaction between students, job fairs, or online services such as Handshake and LinkedIn, college students often have access to more opportunities to build social capital than their noncollege peers

Figure 3. Expected Wealth Premium, White Bachelor’s Degree Families, by Birth Cohort



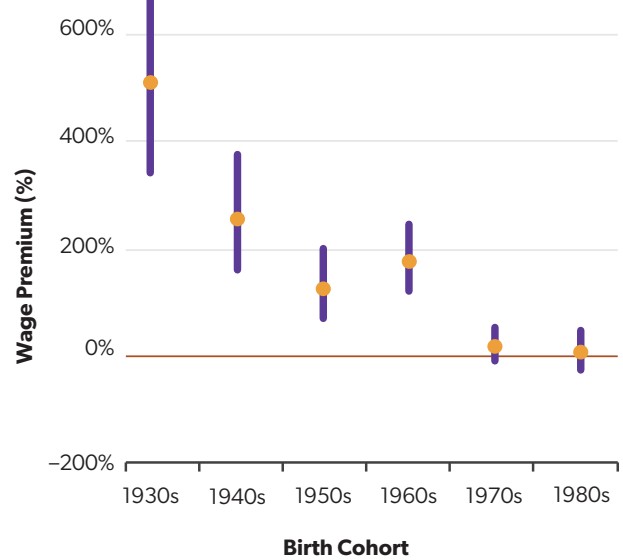
Source: Emmons, Kent, and Ricketts (2019).

do. According to Gitnux, at least 47 percent of college students have secured internships through networking (Castillo 2023). Additionally, students often use colleges’ extensive alumni networks. Some 77 percent of college students believe that networking with alumni directly aids them in identifying promising job openings, according to Gitnux.

The College Wealth Premium. The college wage premium has been a robust finding, but this figure is only part of the story about the economic value of a bachelor’s degree. A full discussion of its value must also consider other factors—perhaps most importantly, the cost of college, which has risen significantly in recent decades. The so-called college *wealth* premium, which considers all the financial assets and debts that one accrues throughout life, helps provide a fuller picture of a bachelor’s degree’s value.

William R. Emmons, Ana H. Kent, and Lowell R. Ricketts (2019) analyzed the college wealth premium for white and black families (Figures 3 and 4) and concluded that “the promise of economic and financial advantages associated with postsecondary degrees remains only partially supported by the most recent

Figure 4. Expected Wealth Premium, Black Bachelor’s Degree Families, by Birth Cohort



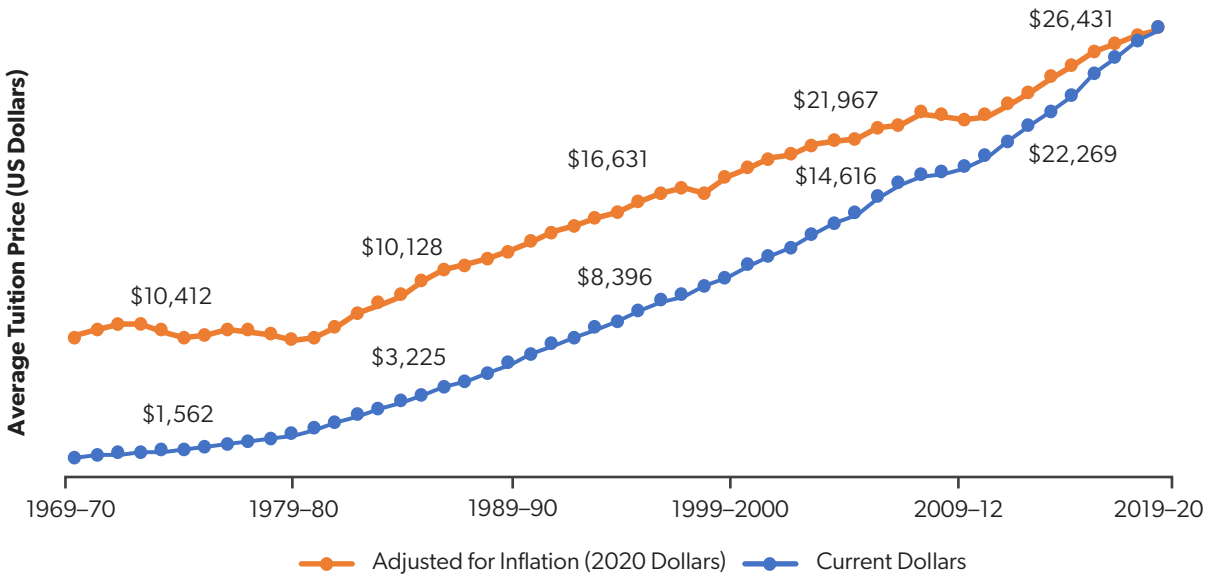
Source: Emmons, Kent, and Ricketts (2019).

data.” According to these researchers, the wealth premium has significantly declined over the years for both white and black families. For white families, the premium has become small, such that white college graduates born in the 1980s have only a bit more wealth than white high school graduates born in the same decade (Tough 2023). For black families, the researchers found, the premium is near zero.

One possible cause of the drastic decline in the college wealth premium is the increase in college costs and the amount of debt students have accrued to finance their educations. Since the early 1980s, the average annual tuition at private institutions has risen steadily, even after adjusting for inflation (Figures 5 and 6).

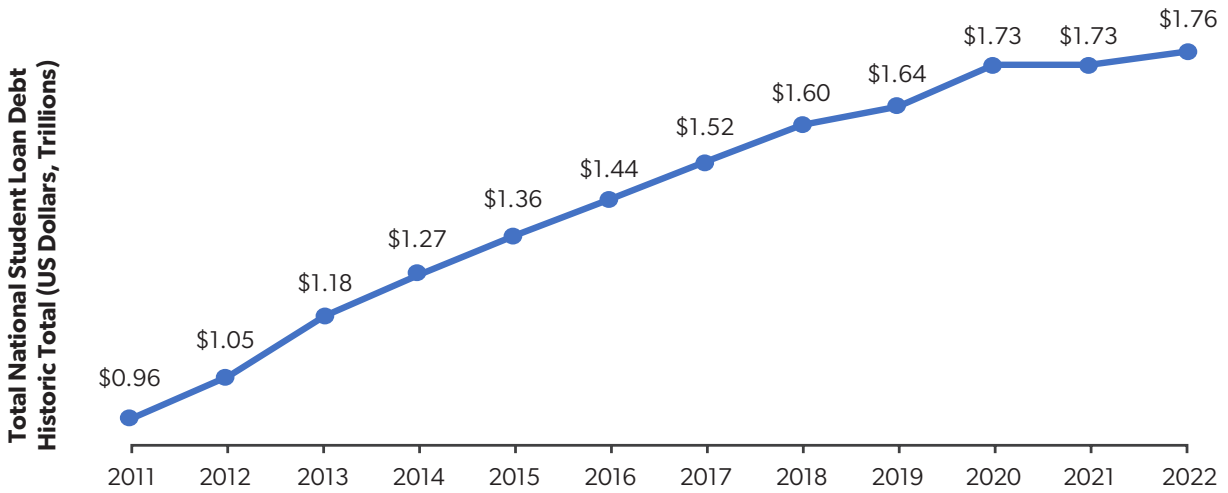
While these findings may temper our confidence in claims that tout the economic benefits of gaining a bachelor’s degree, we should note that this remains an active area of research. David Deming, a Harvard economist, argues that Emmons, Kent, and Ricketts mistakenly assume that the college wage premium will stay constant throughout people’s lives. Deming (2023) argues the wage premium will increase over time, sometimes rapidly, as professional occupations requiring a college degree become more in demand—and thus

Figure 5. Average Annual Tuition and Fees at Private Four-Year Institutions



Source: Hanson (2022).

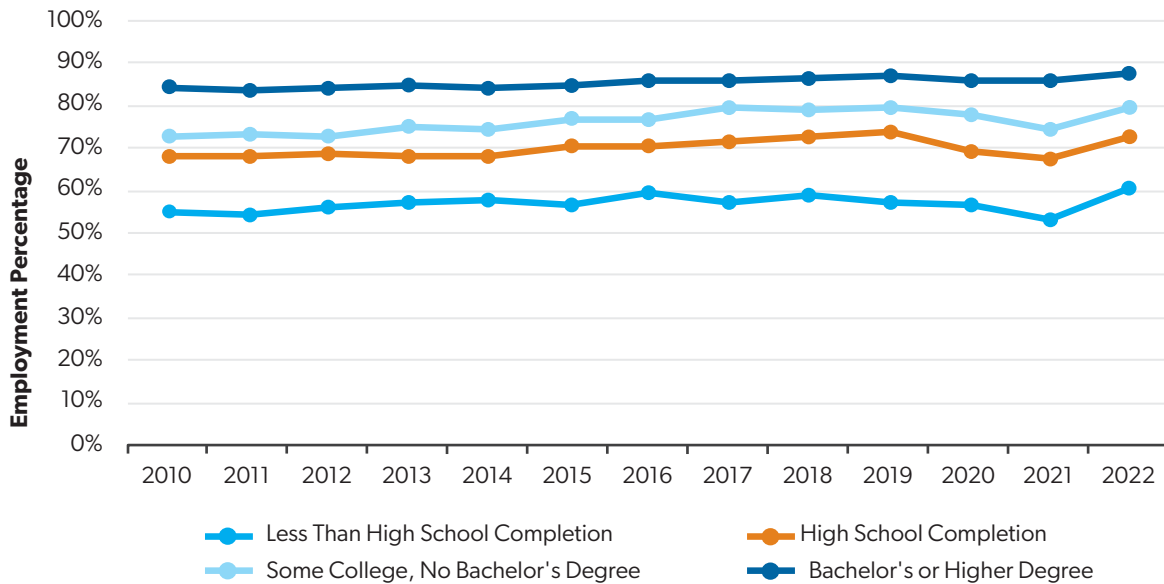
Figure 6. Historical Total National Student Loan Debt (in Trillions), 2011-22



Note: Totals are as of each year's fourth quarter.

Source: Hanson (2023).

Figure 7. Employment Rates of 25- to 34-Year-Olds, by Educational Attainment, 2010–22



Note: To estimate the margin of error, the standard error is scaled based on the desired level of confidence in the estimate. Throughout the condition of education, margins of error are produced based on a 95 percent level of confidence. The margin of error is calculated as 1.96 multiplied by the standard error. Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities) and all military personnel. The employment rate, or employment-to-population ratio, is the number of persons in each group who are employed as a percentage of the civilian noninstitutionalized population in that group. “Some College, No Bachelor’s Degree” includes persons with an associate degree. “High School Completion” includes equivalency credentials, such as the GED. Use caution when comparing 2020, 2021, and 2022 estimates with those of prior years due to the impact the coronavirus pandemic had on interviewing and response rates.

Source: US Department of Education, Institute of Education Sciences, National Center for Education Statistics (2023). For additional information about the impact of the coronavirus pandemic on the Current Population Survey data collection, please see US Census Bureau (2022).

more lucrative—than most jobs that do not require a college degree. When wealth accumulation is adjusted to reflect this dynamic, the value of the four-year degree retains its edge over non-four-year options.

Employability Benefits. Another economic benefit, closely related to the college wage and college wealth premium, is higher levels of employability. On average, college graduates enjoy higher levels of employment. (See Figure 7.) As noted above, despite changes in public opinion on higher education, employers continue to put high value on four-year degrees. These employers especially value the soft or noncognitive skills that a liberal arts education, in particular, claims to teach. College graduates have, as a result, continued to enjoy higher employment rates than high school graduates do (Irwin et al. 2022).

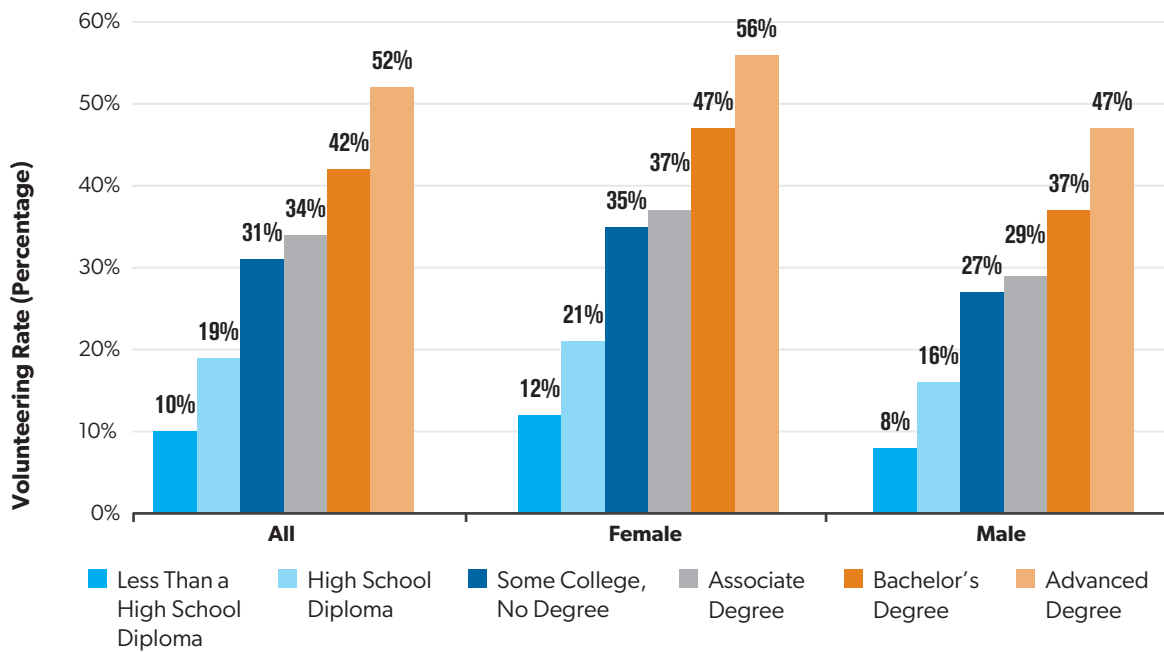
The 2023 College Board Education Pays Report estimates that the unemployment rate among college

graduates age 25 or higher with at least a bachelor’s degree is consistently half the unemployment rate among high school graduates (Ma, Pender, and Welch 2023). In 2021, the unemployment rate for 25- to 34-year-olds with at least a bachelor’s degree was 3.3 percent, whereas 8.3 percent of high school graduates in the same age group were unemployed.

College graduates may have an easier time finding employment opportunities because recruiters often directly target them. Research from Georgetown’s Center on Education and the Workforce found that 80 percent of all job openings requiring a bachelor’s degree or higher are advertised online (Carnevale, Jayasundera, and Repnikov 2014). On the other hand, employers post just 50 percent of jobs open to high school graduates online.

College graduates are also likely to continue benefiting from higher employment rates in the future, as jobs for people with college degrees are likely to be

Figure 8. Volunteering Rates by Educational Attainment



Source: Ma, Pender, and Welch (2023).

in greater demand than jobs for those without degrees (Tough 2023). According to the US Bureau of Labor Statistics Occupational Outlook Handbook (2023), about two-thirds of the nation's 30 fastest-growing occupations through 2032 require a bachelor's degree. By contrast, the 30 slowest-growing jobs are open to candidates without a bachelor's degree. Furthermore, over the next 10 years, some of the most sought-after skills will be digital literacy and data proficiency, which benefit from higher levels of education (Marr 2022).

The Noneconomic Value of a Bachelor's Degree

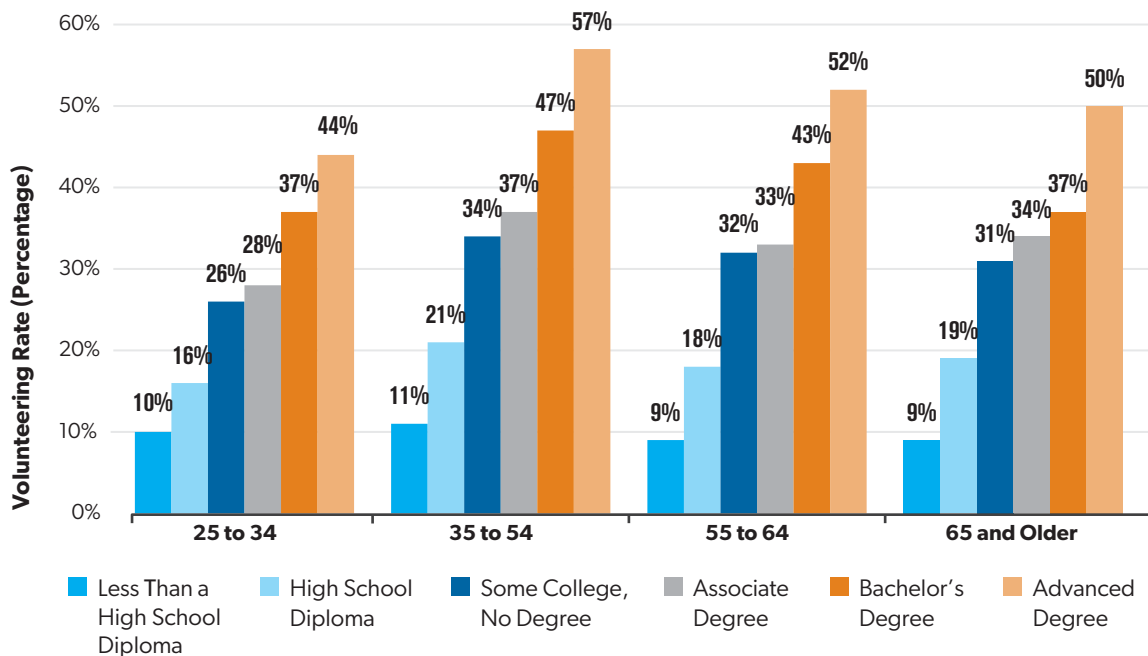
The value of a bachelor's degree is not solely economic. As with economic outcomes, it is often difficult to distinguish correlation and causation when it comes to non-economic questions. Nevertheless, college graduates are more likely to be employed during recessions, volunteer in their communities (Figure 8), lead healthier lifestyles, own a home, get married, and spend time with their children (Kumok and Hahn 2023). Education increases social trust and community engagement, which promote healthier and more tightly knit communities. It also appears to

play a role in attracting business investment that increases community-wide employment opportunities.

Workplace Benefits. Results from a recent report by the Survey Center on American Life indicate that college graduates enjoy several benefits at work. On measures such as perceived fairness in treatment, trust of supervisors, job-based mentoring, and open, supportive work cultures, workers with college degrees significantly outscored those who do not (Cox et al. 2023). College-educated workers are more likely to have had across-the-board salary increases (45 percent vs. 37 percent); have worked for employers who reimbursed for education or training (34 percent vs. 19 percent); have been offered a permanent, flexible work-from-home policy (37 percent vs. 12 percent); have worked for employers who have sponsored social activities in the past year (49 percent vs. 24 percent); and have had opportunities to be mentored by their supervisors (62 percent vs. 44 percent). These benefits translate to higher levels of job satisfaction (59 percent vs. 51 percent).

Health and Social Benefits. Beyond the workplace, college graduates enjoy many health and social benefits

Figure 9. Smoking Rates by Educational Attainment



Source: Ma, Pender, and Welch (2023).

compared to those who have only graduated from high school. According to a study from the University of Maine, college graduates are nearly four times less likely than high school graduates to smoke (Figure 9), and they are significantly more likely to exercise, wear a seat belt, maintain a healthy weight, and regularly see a doctor (Merisotis 2015; Trostel 2015). (See Figure 10.) As a result, life expectancy at age 25 is seven years longer for college graduates than for those with only a high school diploma or less (Figure 11).

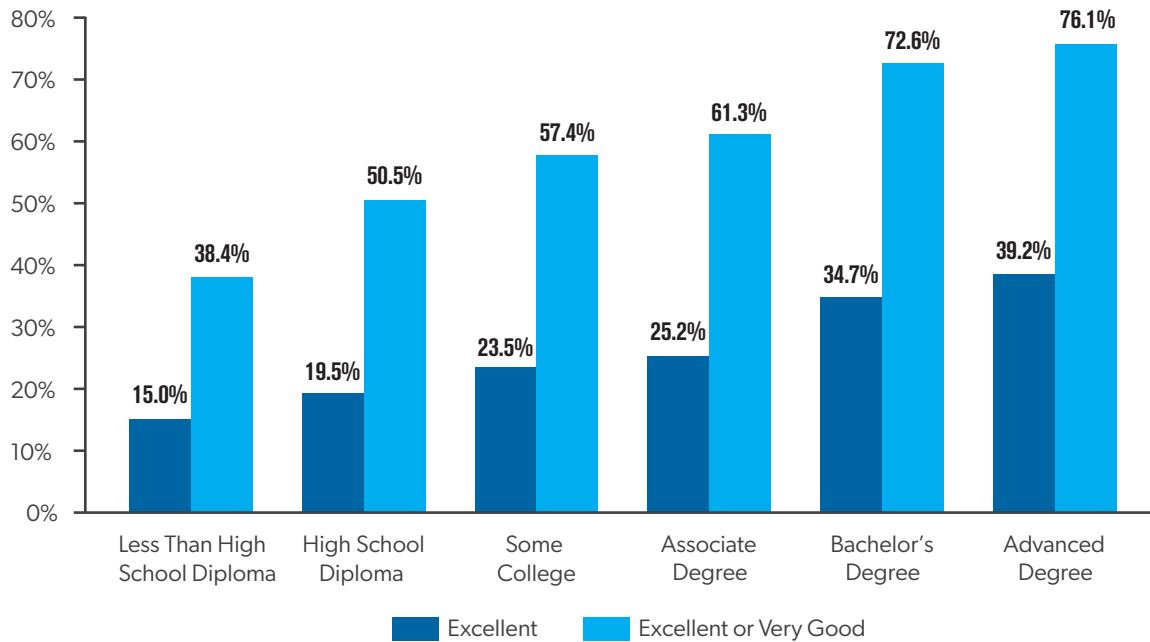
In addition to these health benefits, college graduates are more likely than those with less education to volunteer, vote, and participate in their communities (Merisotis 2015). They also have far higher marriage rates and lower divorce rates (Trostel 2015), have larger social networks and more close friends, experience less loneliness (Cox 2021), and, increasingly, live longer (Case and Deaton 2023). (See Figure 12.)

Population-Level Benefits. So far, we have focused on whether or how going to college can benefit individuals, but there are also issues relating to community well-being and dynamism that merit attention. In addition to improving their communities through higher rates

of volunteering and civic participation, college graduates generate economic value for their communities because they spend more and pay more in taxes, aid in attracting business investment, and help build social capital, all of which tend to strengthen communities (Rothwell 2015).

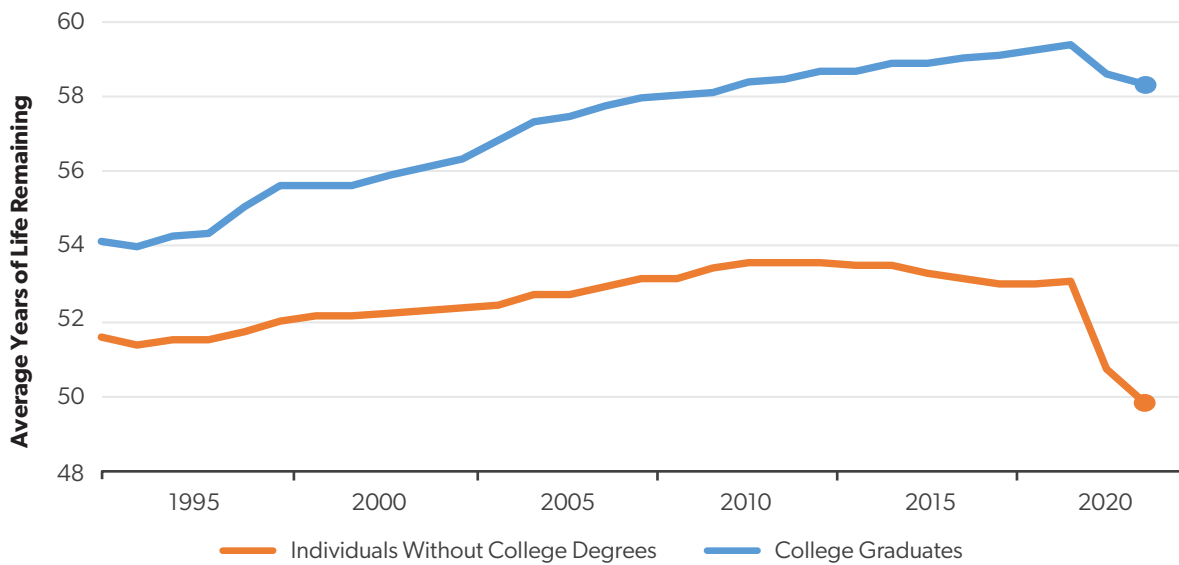
Research has consistently linked the presence of institutions of higher education with regional economic benefits, including significant economic growth and improvements in quality of life (Winters 2011; Valero and Van Reenen 2019). The effects of such institutions, their educators and other staff, and their graduates tend to have self-reinforcing positive effects on growth, employment, and other population-level areas of interest. Analyzing nearly 15,000 universities across 78 countries, economists Anna Valero and John Van Reenen (2019) found that a 10 percent increase in a region's number of universities per capita is associated with 0.4 percent higher regional gross domestic product per capita. These increases in gross domestic product compound, leading to substantially wealthier regional economies over time. Wealthier communities with more highly educated and skilled workforces—along with the “idea industries” that cluster around them—tend to draw additional investment and new work opportunities, helping lift all social and economic boats.

Figure 10. Self-Reported Health by Educational Attainment



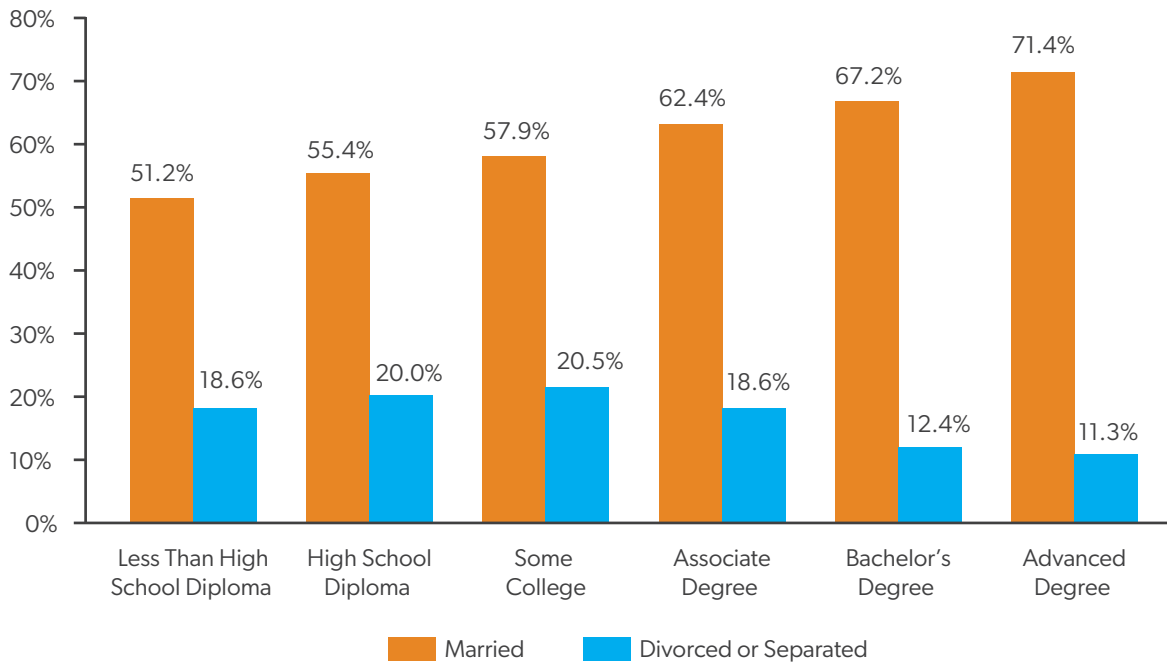
Source: Trostel (2015).

Figure 11. Average Years of Life Remaining for 25-Year-Old Americans



Source: Case and Deaton (2023).

Figure 12. Marriage and Divorce Rates by Educational Attainment



Source: Trostel (2015).

Such benefits are likely to be mediated in large part by increased overall skill levels in the workforce (Valero and Van Reenen 2019; Abel and Deitz 2011).

The converse of the virtuous cycle is also true: Chronic shortages of skilled human capital and associated socio-economic deficits act as a brake on development and investment. In communities throughout the US, especially in poorer and underinvested regions, going to college is out of reach or simply not considered for many high school students. These communities often fall prey to a self-perpetuating intergenerational cycle, in which young people don't go to college because they lack role models and the active encouragement of those who already have degrees.

Elizabeth Currid-Halkett, a professor of urban planning at the University of Southern California, interviewed parents across the country and found that those in rural areas were far less likely than their urban counterparts to care whether their children attended college. As a result, she notes, rural children are far less likely to go to college and far more likely, if they do go, to be “under-matched”—that is, they attend less-selective schools than they are qualified for (Currid-Halkett 2023). Over

time, this problem can form a significant barrier to individual and community-level progress.

As many have noted, the wealthy disproportionately attend college. According to Raj Chetty, children born into the wealthiest families in the US have a nearly 100 percent likelihood of going to college, while those born to the poorest have about a 30 percent chance (Basken 2022). Moreover, students from the top 1 percent of the income distribution are nearly twice as likely to be admitted to the most elite colleges compared to those from low- or middle-income families with comparable test scores (Nietzel 2023).

Despite these inequalities, elite colleges, according to Chetty et al. (2017), have high mobility rates, meaning that they enable students, even those at low ends of the income distribution, to move up the socioeconomic ladder. Yet while attending an elite school is a laudable and desirable outcome for individuals, it isn't necessarily the goal from a community standpoint. A more durable and achievable strategy is to encourage more talented, qualified, and motivated students from low-socioeconomic communities to attain college degrees, whether at elite or non-elite institutions. Higher levels of educational

attainment could help more of these towns and regions achieve an “escape” velocity that boosts economic opportunity for all residents.

Conclusion

Going to college, and graduating, is an investment in time and money. However, taking a binary approach to college degrees (everyone go or nobody go) leads to wasted resources, opportunity, and lives at the individual and population levels. With a 40 percent non-completion rates among those accepted to college (National Student Clearinghouse 2022), it seems clear we are sending too many young people to college who are either not interested in or not ready for the rigors of being a full-time, postsecondary student. Among people with the necessary resources and abilities, however, a four-year degree remains a good investment, both in terms of economic and noneconomic outcomes at the individual and population levels.

The most important shift we can make on this issue is to step back from a directive approach about whether to attend college. This is an old, hard-to-break habit. For decades, American society has piled on the “college education” bus and reaped significant rewards from it, but in recent decades, that solution has run its course and swept in large numbers of young people for whom college was probably ill-timed or just not a good idea based on students’ abilities and interests.

Unsurprisingly, the pendulum has now swung hard in the other direction, resulting in an excessively negative and skeptical perspective on higher education. Advice to young people sometimes gets boiled down to “skip college and learn a trade,” which is misguided on several fronts. First, it neglects how challenging the trades are in terms of training and skill levels; second,

it’s disconnected from a future that, in economic terms, continues to value college degrees over other forms of career preparation; third, and most importantly, it ignores the interests of students themselves.

The way to avoid either-or thinking is relatively simple: Ask students what they want for their futures rather than telling them what they *should* want. This dialogue originates in the family itself, between parents and children. This conversation should focus on not merely whether college is affordable or what career outcomes it can ultimately bring but rather what form of postsecondary education is the best fit for a student’s individual interests and abilities. Thoughtful reflection on these questions improves the chances that a given form of postsecondary education (e.g., a two-year degree, four-year degree, apprenticeship, or short-term credentialing) will be achievable, sustainable, and rewarding in the long term. With these questions answered, other matters, such as finding the right institution and course of study and securing financial aid, will fall more easily into place, and big mistakes—like starting but not finishing postsecondary degrees—will be avoided.

About the Authors

Brent Orrell is a senior fellow at the American Enterprise Institute, where he works on job training, workforce development, and criminal justice reform. Specifically, his research focuses on expanding opportunity for all Americans through improved work readiness and job training and improving the performance of the criminal justice system through rehabilitation and prisoner reentry programs.

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References

- Abel, Jason R., and Richard Deitz. 2011. "Do Colleges and Universities Increase Their Region's Human Capital?" Federal Reserve Bank of New York. March. https://www.newyorkfed.org/research/staff_reports/sr401.html.
- Abrami, Philip C., Robert M. Bernard, Eugene Borokhovski, David I. Waddington, C. Anne Wade, and Tonje Persson. 2015. "Strategies for Teaching Students to Think Critically: A Meta-Analysis." *Review of Educational Research* 85, no. 2 (June 1): 275–314. <https://journals.sagepub.com/doi/abs/10.3102/0034654314551063>.
- American Academy of Arts and Sciences. n.d. "Earnings of Humanities Majors with a Terminal Bachelor's Degree." <https://www.amacad.org/humanities-indicators/workforce/earnings-humanities-majors-terminal-bachelors-degree>.
- Arum, Richard, Josipa Roksa, and Esther Cho. 2011. *Improving Undergraduate Learning: Findings and Policy Recommendations from the SSRC-CLA Longitudinal Project*. Social Science Research Council. <https://eric.ed.gov/?q=Improving+Undergraduate+Learning%3a+Findings+and+Policy+Recommendations+fom+the+SSRC-CLA+Longitudinal+Project&id=ED514983>.
- Basken, Paul. 2022. "Raj Chetty on Inequalities in the U.S." *Inside Higher Ed*. October 13, 2022. <https://www.insidehighered.com/news/2022/10/14/raj-chetty-discusses-inequalities-us>.
- Belkin, Douglas. 2017. "Exclusive Test Data: Many Colleges Fail to Improve Critical-Thinking Skills." *Wall Street Journal*. June 5, 2017. <https://www.wsj.com/articles/exclusive-test-data-many-colleges-fail-to-improve-critical-thinking-skills-1496686662>.
- Bengali, Leila, Marcus Sander, Robert G. Valletta, and Cindy Zhao. 2023. "Falling College Wage Premiums by Race and Ethnicity." Federal Reserve Bank of San Francisco. August 28. <https://www.frbsf.org/wp-content/uploads/sites/4/el2023-22.pdf>.
- Brenan, Megan. 2023. "Americans' Confidence in Higher Education Down Sharply." Gallup. July 11. <https://news.gallup.com/poll/508352/americans-confidence-higher-education-down-sharply.aspx>.
- Caplan, Bryan. 2019. *The Case Against Education: Why the Education System Is a Waste of Time and Money*. Princeton, NJ: Princeton University Press.
- Carnevale, Anthony P., Tamara Jayasundera, and Dmitri Repnikov. 2014. "The Online College Labor Market: Where the Jobs Are." Georgetown University, Center on Education and the Workforce. April. <https://eric.ed.gov/?id=ED558184>.
- Carnevale, Anthony P., Ban Cheah, and Emma Wenzinger. 2021. *The College Payoff: More Education Doesn't Always Mean More Earnings*. Georgetown University, Center on Education and the Workforce. https://cew.georgetown.edu/wp-content/uploads/cew-college_payoff_2021-fr.pdf.
- Case, Anne, and Angus Deaton. 2023. "Without a College Degree, Life in America Is Staggeringly Shorter." *New York Times*. October 3, 2023. <https://www.nytimes.com/2023/10/03/opinion/life-expectancy-college-degree.html>.
- Castillo, Lorena. 2023. "Networking in College Statistics." Gitnux. <https://blog.gitnux.com/networking-in-college-statistics>.
- Chetty, Raj, John N. Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan. 2017. "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility." Working Paper. National Bureau of Economic Research. July. <https://www.nber.org/papers/w23618>.
- Cox, Daniel A. 2021. *The College Connection: The Education Divide in American Social and Community Life*. AEI Survey Center on American Life. December 13. <https://www.aei.org/research-products/report/the-college-connection-the-education-divide-in-american-social-and-community-life>.
- Cox, Daniel A., Brent Orrell, Kyle Gray, and Jessie Wall. 2023. *The Social Workplace: Social Capital, Human Dignity, and Work in America, Volume II*. AEI Survey Center on American Life. October 11. <https://www.aei.org/research-products/report/the-social-workplace-social-capital-human-dignity-and-work-in-america-volume-ii>.
- Currid-Halkett, Elizabeth. 2023. *The Overlooked Americans: The Resilience of Our Rural Towns and What It Means for Our Country*. New York: Basic Books. 211.
- Deming, David. 2023. "The College Backlash Is Going Too Far." *The Atlantic*. October 3, 2023. <https://www.theatlantic.com/ideas/archive/2023/10/college-degree-economic-mobility-average-lifetime-income/675525>.

- Dwyer, Christopher P., and John D. Eigenauer. 2017. "To Teach or Not to Teach Critical Thinking: A Reply to Huber and Kuncel." *Thinking Skills and Creativity* 26 (December): 92–95. <https://www.sciencedirect.com/science/article/abs/pii/S1871187117302481>.
- Emmons, William R., Ana H. Kent, and Lowell R. Ricketts. 2019. "Is College Still Worth It? The New Calculus of Falling Returns." *Review* 101, no. 4 (October 15). <https://research.stlouisfed.org/publications/review/2019/10/15/is-college-still-worth-it-the-new-calculus-of-falling-returns>.
- Finley, Ashley. 2021. "How College Contributes to Workforce Success: Employer Views on What Matters Most." Association of American Colleges and Universities. <https://dgm81phvh63.cloudfront.net/content/user-photos/Research/PDFs/AACUEmployer-Report2021.pdf>.
- Garcia, Emma. 2014. *The Need to Address Noncognitive Skills in the Education Policy Agenda*. Economic Policy Institute. December 2. <https://www.epi.org/publication/the-need-to-address-noncognitive-skills-in-the-education-policy-agenda>.
- Hanson, Melanie. 2022. "Average Cost of College by Year." Education Data Initiative. January 9. <https://educationdata.org/average-cost-of-college-by-year>.
- . 2023. "Student Loan Debt Statistics." Education Data Initiative. August 20. <https://educationdata.org/student-loan-debt-statistics>.
- Hart Research Associates. "It Takes More Than a Major: Employer Priorities for College Learning and Student Success." Association of American Colleges and Universities. April 10, 2013. <https://www.aacu.org/research/it-takes-more-than-a-major-employer-priorities-for-college-learning-and-student-success>.
- Huang, Jian, Henriëtte Maassen van den Brink, and Wim Groot. 2009. "A Meta-Analysis of the Effect of Education on Social Capital." *Economics of Education Review* 28, no. 4 (August): 454–64. <https://www.sciencedirect.com/science/article/abs/pii/S0272775708001180>.
- Huber, Christopher R., and Nathan R. Kuncel. 2016. "Does College Teach Critical Thinking? A Meta-Analysis." *Review of Educational Research* 86, no. 2 (June 1): 431–68. <https://journals.sagepub.com/doi/full/10.3102/0034654315605917>.
- Irwin, Véronique, Josue de la Rosa, Ke Wang, Sarah Hein, Jijun Zhang, Riley Burr, Ashley Roberts, Amy Barmer, Farrah Bullock Mann, Rita Dilig, and Stephanie Parker. 2022. *Report on the Condition of Education 2022*. US Department of Education, Institute of Education Sciences, National Center for Education Statistics. May. <https://nces.ed.gov/pubs2022/2022144.pdf>.
- Kumok, Zina, and Alicia Hahn. 2023. "7 Compelling Reasons Why You Should Go to College." *Forbes Advisor*. June 14. <https://www.forbes.com/advisor/student-loans/why-should-you-go-to-college>.
- Laningham, Andrew. 2022. "Parents Still Struggle to Save for College." Harris Poll. January 5. <https://theharrispoll.com/briefs/parents-saving-for-college>.
- Ma, Jennifer, Matea Pender, and Meredith Welch. 2023. *Education Pays 2019: The Benefits of Higher Education for Individuals and Society*. College Board. <https://research.collegeboard.org/media/pdf/education-pays-2019-full-report.pdf>.
- Marr, Bernard. 2022. "The Top 10 Most In-Demand Skills for the Next 10 Years." *Forbes*. April 22, 2022. <https://www.forbes.com/sites/bernardmarr/2022/08/22/the-top-10-most-in-demand-skills-for-the-next-10-years>.
- Merisotis, Jamie. 2015. "Want to Be Happier and Healthier? Then Go to College." *HuffPost*. October 15. https://www.huffpost.com/entry/want-to-be-happier-and-he_b_8288354.
- National Student Clearinghouse. 2022. "National College Completion Progress Rate Stalls." November 29. <https://www.studentclearinghouse.org/nsblog/national-college-completion-progress-rate-stalls>.
- Nietzel, Michael T. 2023. "How the Admission Practices of Elite Colleges Perpetuate the Advantages of the Wealthy." *Forbes*. July 24, 2023. <https://www.forbes.com/sites/michaelnietzel/2023/07/24/how-the-admission-practices-of-elite-colleges-perpetuate-the-advantages-of-the-wealthy>.
- Niu, Lian, Linda S. Behar-Horenstein, and Cyndi W. Garvan. 2013. "Do Instructional Interventions Influence College Students' Critical Thinking Skills? A Meta-Analysis." *Educational Research Review* 9 (January): 114–28. <https://www.sciencedirect.com/science/article/abs/pii/S1747938X1300002X>.

- Pascarella, Ernest T., Charles Blaich, Georgianna L. Martin, and Jana M. Hanson. 2011. "How Robust Are the Findings of *Academically Adrift?*" *Change: The Magazine of Higher Learning* 43, no. 3 (May 25): 20–24. <https://www.tandfonline.com/doi/abs/10.1080/00091383.2011.568898>.
- Rothwell, Jonathan. 2015. "What Colleges Do for Local Economies: A Direct Measure Based on Consumption." Brookings Institution. November 17. <https://www.brookings.edu/articles/what-colleges-do-for-local-economies-a-direct-measure-based-on-consumption>.
- Schlueter, John. 2016. "Higher Ed's Biggest Gamble." *Inside Higher Ed*. June 6, 2016. <https://www.insidehighered.com/views/2016/06/07/can-colleges-truly-teach-critical-thinking-skills-essay>.
- Tiruneh, Dawit T., An Verburgh, and Jan Elen. 2014. "Effectiveness of Critical Thinking Instruction in Higher Education: A Systematic Review of Intervention Studies." *Higher Education Studies* 4, no. 1 (January 23): 1–17. <https://www.ccsenet.org/journal/index.php/hes/article/view/32095>.
- Tough, Paul. 2023. "Americans Are Losing Faith in the Value of College. Whose Fault Is That?" *New York Times Magazine*. September 5, 2023. <https://www.nytimes.com/2023/09/05/magazine/college-worth-price.html>.
- Trostel, Philip A. 2015. "It's Not Just the Money: The Benefits of College Education to Individuals and to Society." University of Maine, Margaret Chase Smith Policy Center and the School of Economics. https://digitalcommons.library.umaine.edu/mcspc_gov_civic/4.
- US Bureau of Labor Statistics. 2023. Occupational Outlook Handbook. <https://www.bls.gov/ooh>.
- US Department of Education, Institute of Education Sciences, National Center for Education Statistics. 2023. "Employment and Unemployment Rates by Educational Attainment." May. <https://nces.ed.gov/programs/coe/indicator/cbc>.
- US Census Bureau. 2017. "Highest Educational Levels Reached by Adults in the U.S. Since 1940." Press Release. March 30. <https://www.census.gov/newsroom/press-releases/2017/cb17-51.html>.
- . 2022. "Current Population Survey 2022 Annual Social and Economic (ASEC) Supplement." <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar22.pdf>.
- . 2023. "Census Bureau Releases New Educational Attainment Data." Press Release. February 16. <https://www.census.gov/newsroom/press-releases/2023/educational-attainment-data.html>.
- Valero, Anna, and John Van Reenen. 2019. "The Economic Impact of Universities: Evidence from Across the Globe." *Economics of Education Review* 68 (February): 53–67. <https://www.sciencedirect.com/science/article/pii/S0272775718300414>.
- Winters, John V. 2011. "Human Capital, Higher Education Institutions, and Quality of Life." *Regional Science and Urban Economics* 41, no. 5 (September): 446–54. <https://ideas.repec.org/p/pramprapa/28484.html>.

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