

Land-grant Universities and the Future of Higher Education

Purdue Farm Policy Study Group

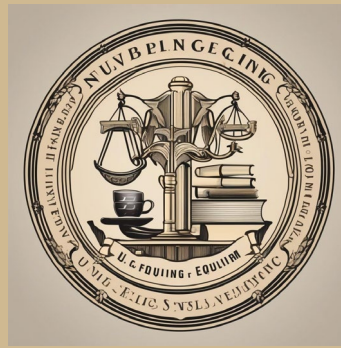
Jay T. Akridge

Trustee Chair in Teaching and Learning Excellence

Department of Agricultural Economics

July 8, 2025





Finding Equilibrium: Two Economists on Higher Ed's Future

10 Questions Universities Should be Asking

Some Summer Homework for Faculty, Staff, and Leaders



JAY AKRIDGE AND DAVID HUMMELS

MAY 16, 2025

Higher Education Today...

**“Most look at that field and see fat, slick cattle:
I am looking for the holes in the fence.”**

- Grandpa T.R. Akridge



Source: Cattle International Series-Hereford

Diminishing Trust...Questions of Value...

Americans Are Losing Faith in College Education, WSJ-NORC Poll Finds

Confidence in value of a degree plummeted among women and senior citizens during pandemic



Is college worth it? Poll finds only 36% of Americans have confidence in higher education

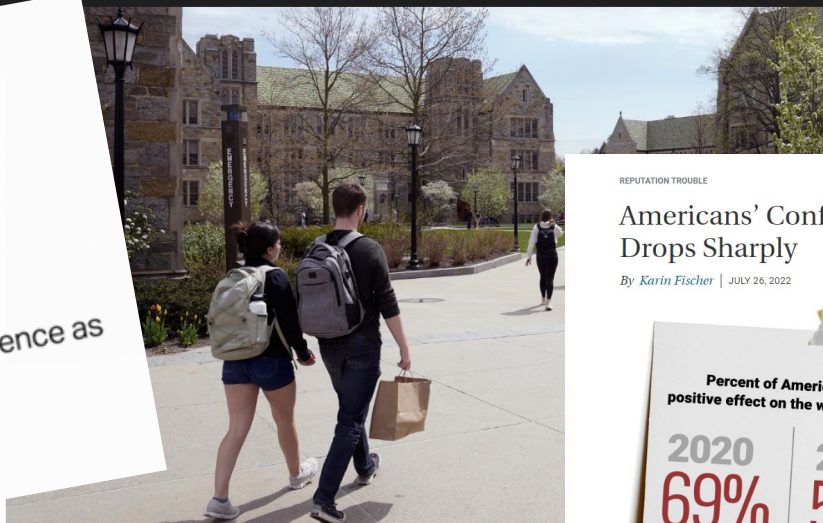
People ages 18-34 are among those who...

EDUCATION JULY 8, 2024

U.S. Confidence in Higher Education Now Closely Divided

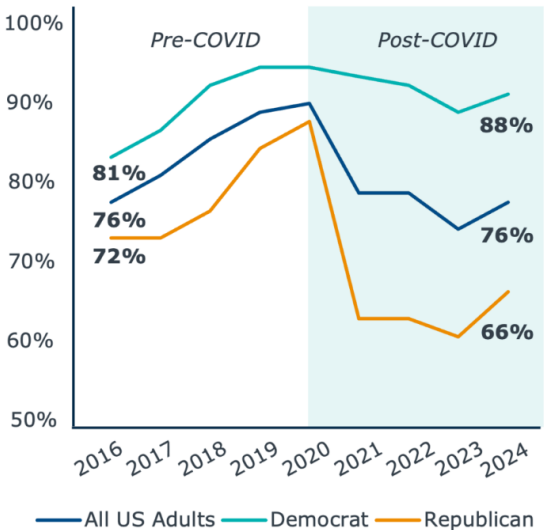
Nearly as many U.S. adults have little or no confidence as have high confidence

BY JEFFREY M. JONES



Public confidence in scientists is just starting to rebound from the big COVID-19-induced decline

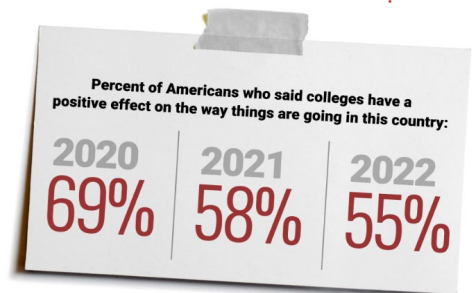
Percentage of Americans who have a great deal or a fair amount of confidence in scientists to act in the best interests of the public



REPUTATION TROUBLE

Americans' Confidence in Higher Ed Drops Sharply

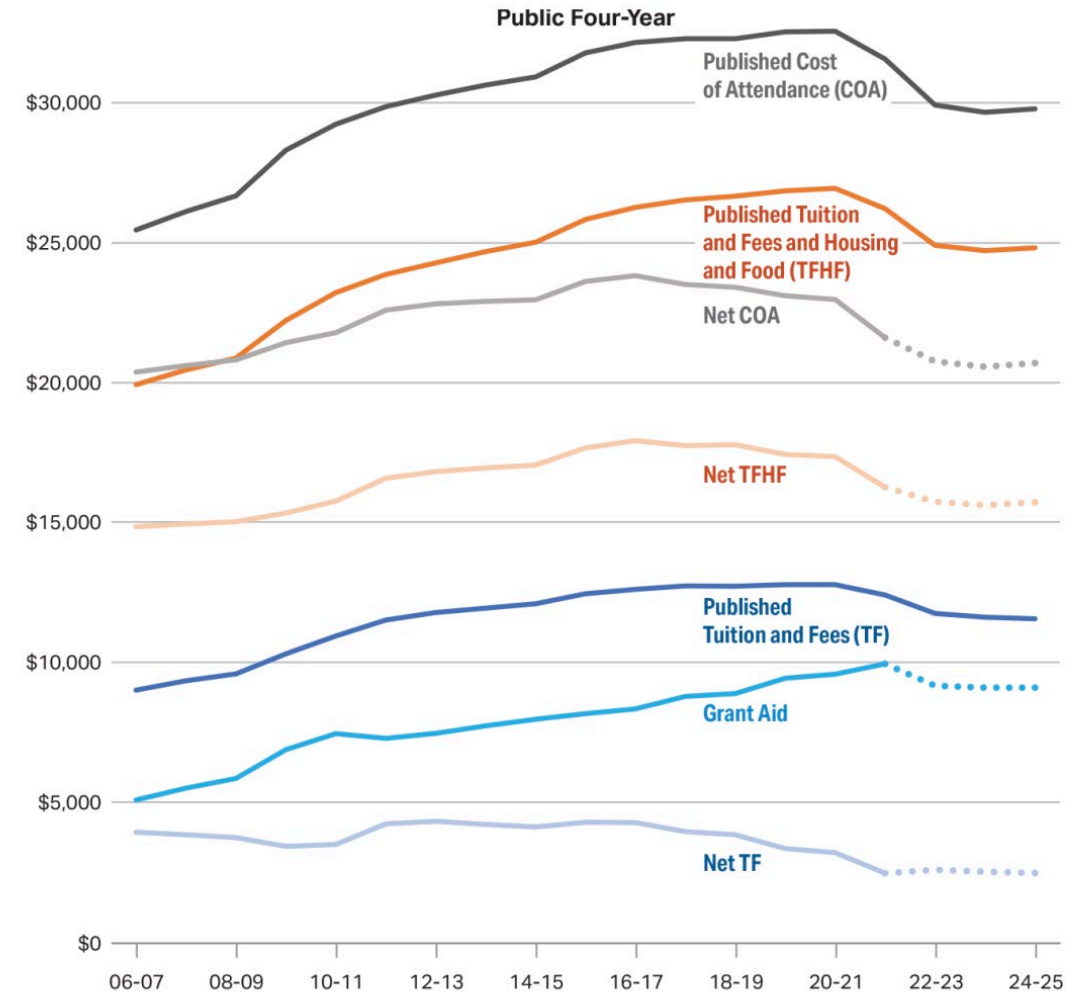
By Karin Fischer | JULY 26, 2022



Cost....

Public Four-Year Universities

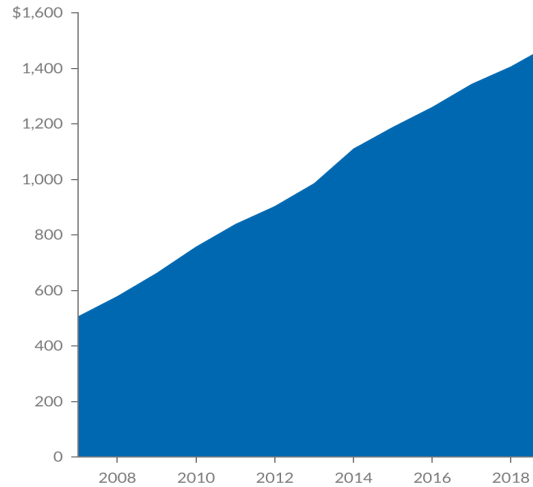
- Net tuition/fees actually declining in real terms, as grant aid has increased
- Softening real cost of attendance



Student Debt...

Student debt has been rising steadily

Total Student Debt (Billions of \$)

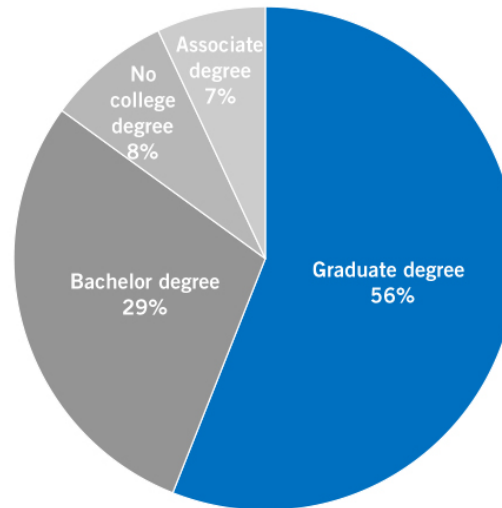


Source: Federal Reserve Bank of New York
Note: Data are from the Q2 2024 report.



Those with a graduate degree account for over one-half of student debt

SHARE OF STUDENT DEBT OUTSTANDING, BY EDUCATIONAL ATTAINMENT



SOURCE: Brookings Institution, *Who owes the most in student loans: New data from the Fed*, October 2020.

NOTES: The data above are for households led by someone age 25 or older. Graduate degree refers to masters, professional, and doctorate degrees. The Brookings Institution based their analysis off of the 2019 Survey of Consumer Finances from the Federal Reserve.

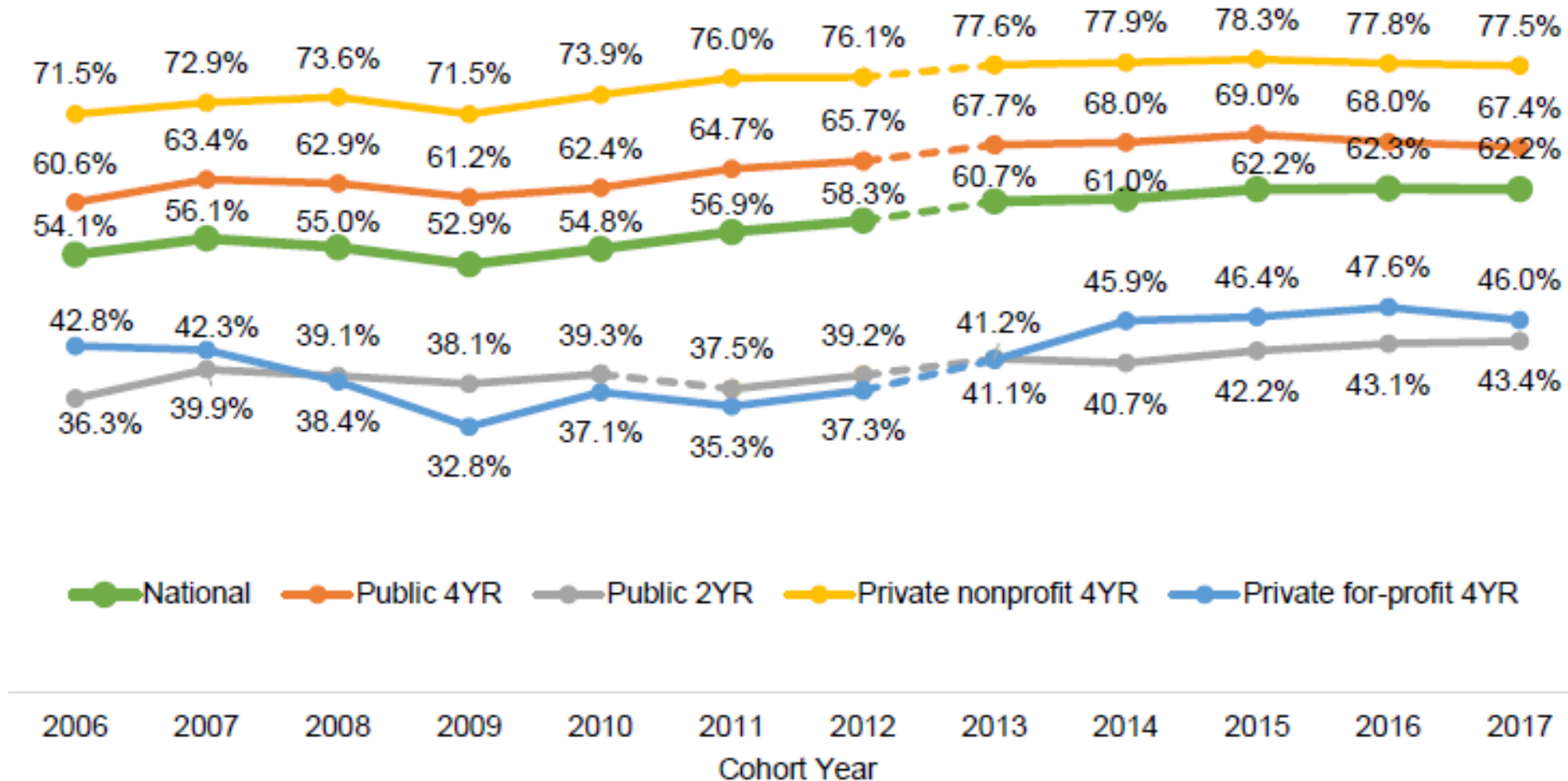
© 2021 Peter G. Peterson Foundation

PGPF.ORG

- Annual borrowing down 10 straight years
- 75% of undergraduates have no federal loans
- **Graduate/professional students hold 56%**
- Associate degree students hold 7%
- 53% of borrowers owe less than \$20,000
- **7% of borrowers hold 38% of debt**

Completion...

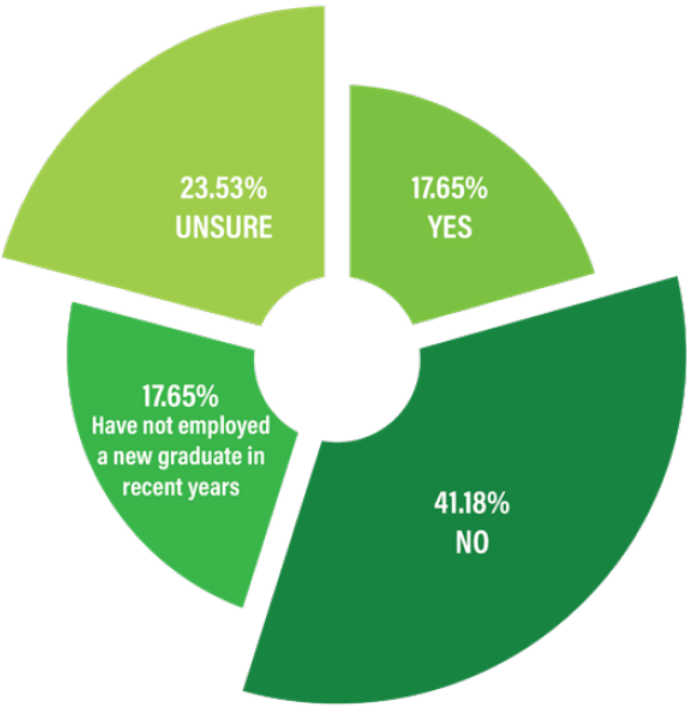
Figure 1. Six-Year Completion Rates by Starting Institution Type: 2006 – 2017 Entering



67% of students who enroll at 4-year public university complete a degree (from some institution) in six years

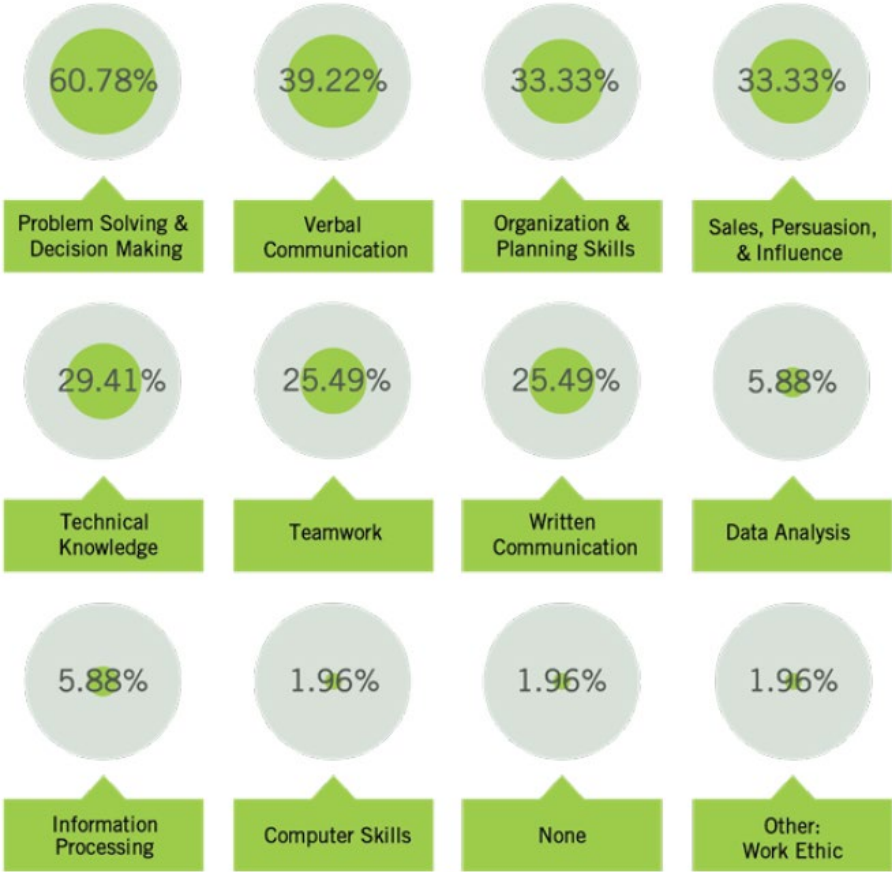
Student Preparation...Agriculture

Do you feel that new graduate hires are adequately prepared with work-ready skills upon hire?



All Content © AgCareers.com 2024

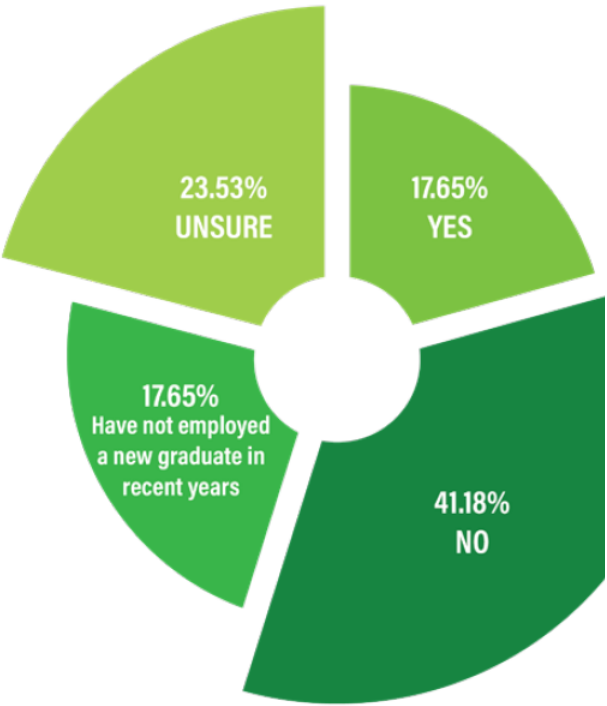
What do you see as the biggest skills gap for new graduate hires?



Student Preparation...Agriculture

What do you see as the biggest skills gap for new graduate hires?

Do you feel that new graduate hires are adequately prepared with work-re:



All Content © AgCareers.com 2024

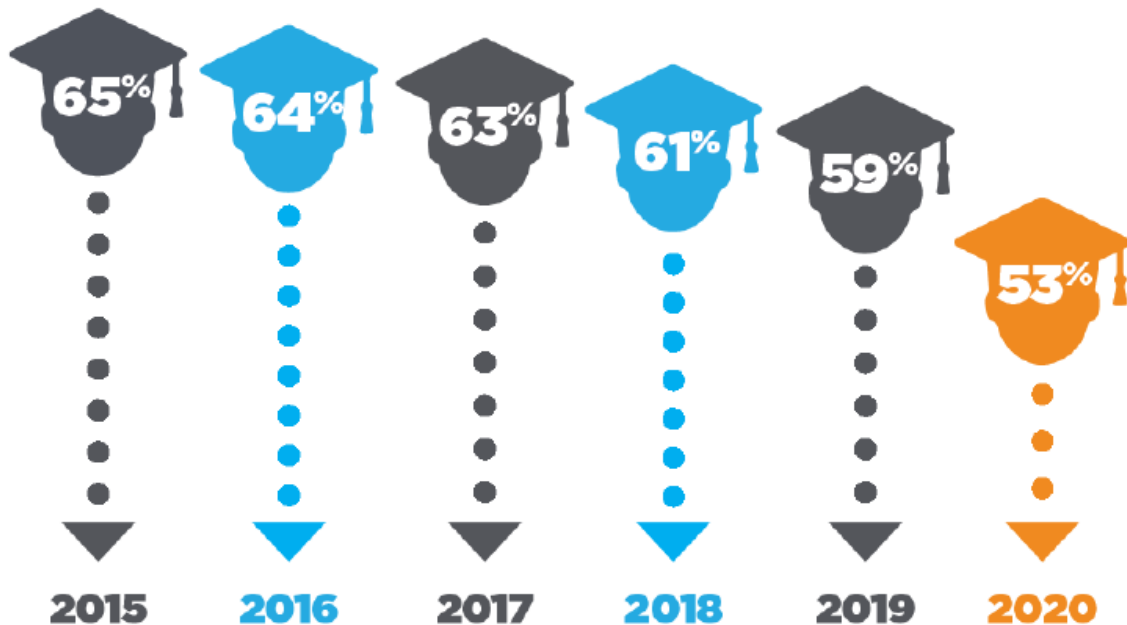
Indiana College-Going Rate

53%

College-Going Rate
High School to College

High Schoolers Going Straight to College

The rate of high school students enrolling in college continues to drop.



Indiana college-going rate
was 52% 2023

IBJ
INDIANAPOLIS
BUSINESS JOURNAL

**Editorial: In-depth study needed to
know why students opt out of college**

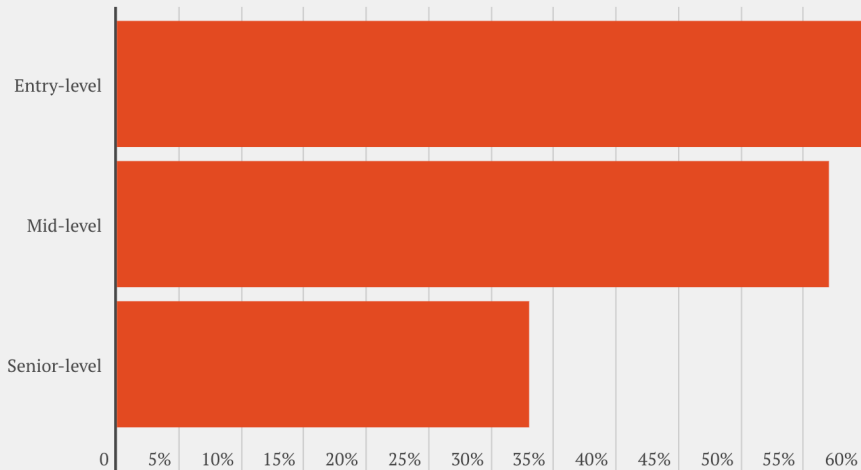
January 26, 2024

KEYWORDS [EDITORIALS](#) / [OPINION](#)

Source: ICHE 2023-2025 Budget Recommendation.

Employers Dropping Degree Requirements...

Level Roles for Which Bachelor's Degree Requirement Was Eliminated



*Respondents could choose more than one answer

n=525

Intelligent.com

CNBC WORK

No college degree? No problem. More companies are eliminating requirements to attract the workers they need

PUBLISHED MON, APR 25 2022 10:30 AM EDT UPDATED WED, APR 27 2022 4:02 PM EDT

Dropping college degree requirements:

- Intelligent.com surveyed 1,000 U.S. hiring managers
- 53% of hiring managers company's bachelor's degree requirements were eliminated in some roles
- 76% say they are likely to favor experience over education

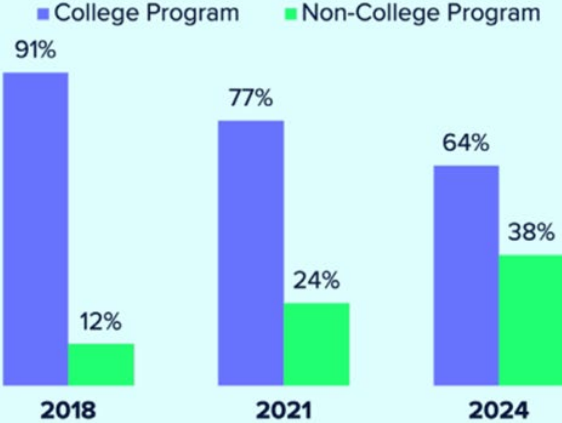
Non-degree credentials...

	Apprenticeship	A formal program of study that blends paid work experience with a structured program of coursework.
	Boot camp	A short-term, specialized, intensive training program focused on technical skills for a career (such as a coding boot camp).
	Certificate	A credential issued as part of postsecondary study for credit or noncredit learning (such as a certificate in business from a college).
	Certification	A voluntary industry/trade credential (such as Certified Welder) that requires some form of competency-based assessment.
	License	A competency-based credential (such as a registered nurse license) required by a state to meet its occupational requirements.

**More interest in
non-college
programs/credentials...**

Source: ASA: Next Steps An Analysis of Teens' Post-High School Plans, 2024; Beyond Degrees, American Student Assistance, 2023.

Education Plans Teens Are Considering, by Year



Each year, fewer teens are considering 4-year college, and an increasing number are considering non-college programs.

Considering	2018	2021	2024	Δ 2018-2024
4-Year College	68%	56%	43%	- 25%
2-Year College	23%	21%	21%	- 2%
Vocational/ Trade School	8%	13%	16%	+ 8%
Apprenticeship Program	2%	8%	12%	+ 10%
Tech Bootcamp/ Certification	1%	4%	9%	+ 8%

Government Intervention...

All the Actions the Trump Administration Has Taken Against Harvard

The pressure campaign to try to force the nation's oldest and wealthiest university to fall in line with President Trump's agenda has sprawled beyond just one singular task force or agency.

Share full article



The Harvard

Colleges Across the U.S. Fear Chill on Enrollments of Foreign Students

By Karin Fischer | May 28, 2025



DNYS, ILLUSTRATION BY THE CHRONICLE, GETTY IMAGES

NEWS
NIH funding cuts pose challenges to Institute's health research
15% cap would result in annual cuts of \$30 to \$35 million at MIT
By Vivian Hir | Feb. 20, 2025

E&W BLOG

Hearing Recap: "Beyond the Ivy League: Stopping the Spread of Antisemitism on American Campuses"

WASHINGTON, D.C., May 7, 2025



Indiana CAPITAL CHRONICLE

COMMENTARY EDUCATION ECONOMY GOVERNMENT & POLITICS HEALTH & ENVIRONMENT

EDUCATION GOVERNMENT & POLITICS

Indiana budget bill curbs university faculty power, ties tenure to new 'productivity' reviews

Multiple provisions baked into the new two-year spending plan will bring big operational changes to the state's higher education institutions.



In Texas, University Presidents May Soon Control Faculty Senates

A bill awaiting Gov. Abbott's signature would require college administrators to set procedures for faculty governing bodies and appoint their leaders, part of an effort to address "liberal faculty control over universities."

Government Intervention – What Matters Most?

Financial Pressures

- Research funding investments and F&A reimbursement rates
- Changes in student loan provisions/underserved student support funding
- Reduced state funding
- Restrictions on international student enrollment

Governance Pressures

- Weakening faculty governance/more power to administrators
- Direct control of leadership
- ‘Red Tape’/bureaucratic ‘accountability’ requirements
- Eliminating tenure/P&T review policies

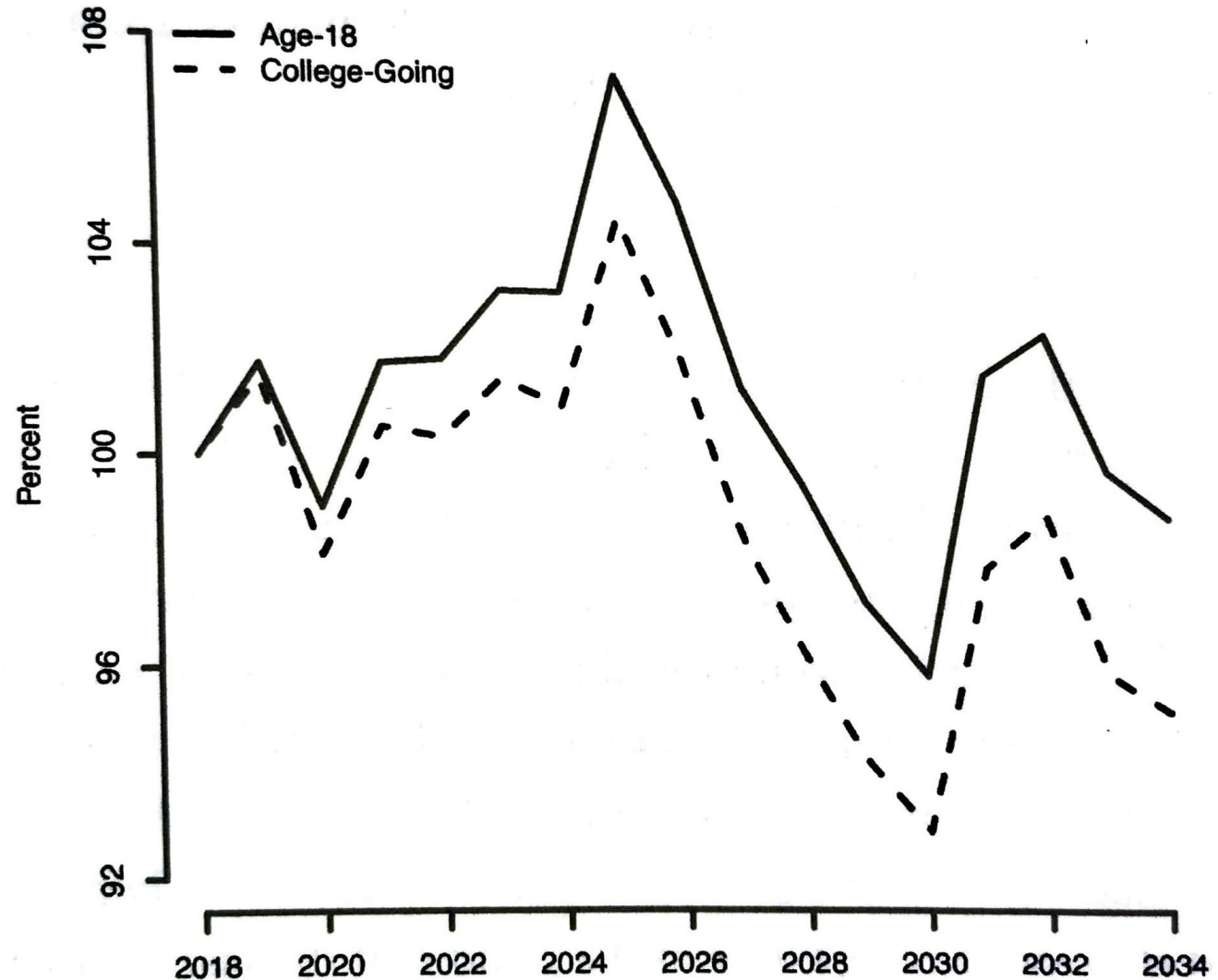
Curricular/Academic Freedom Pressures

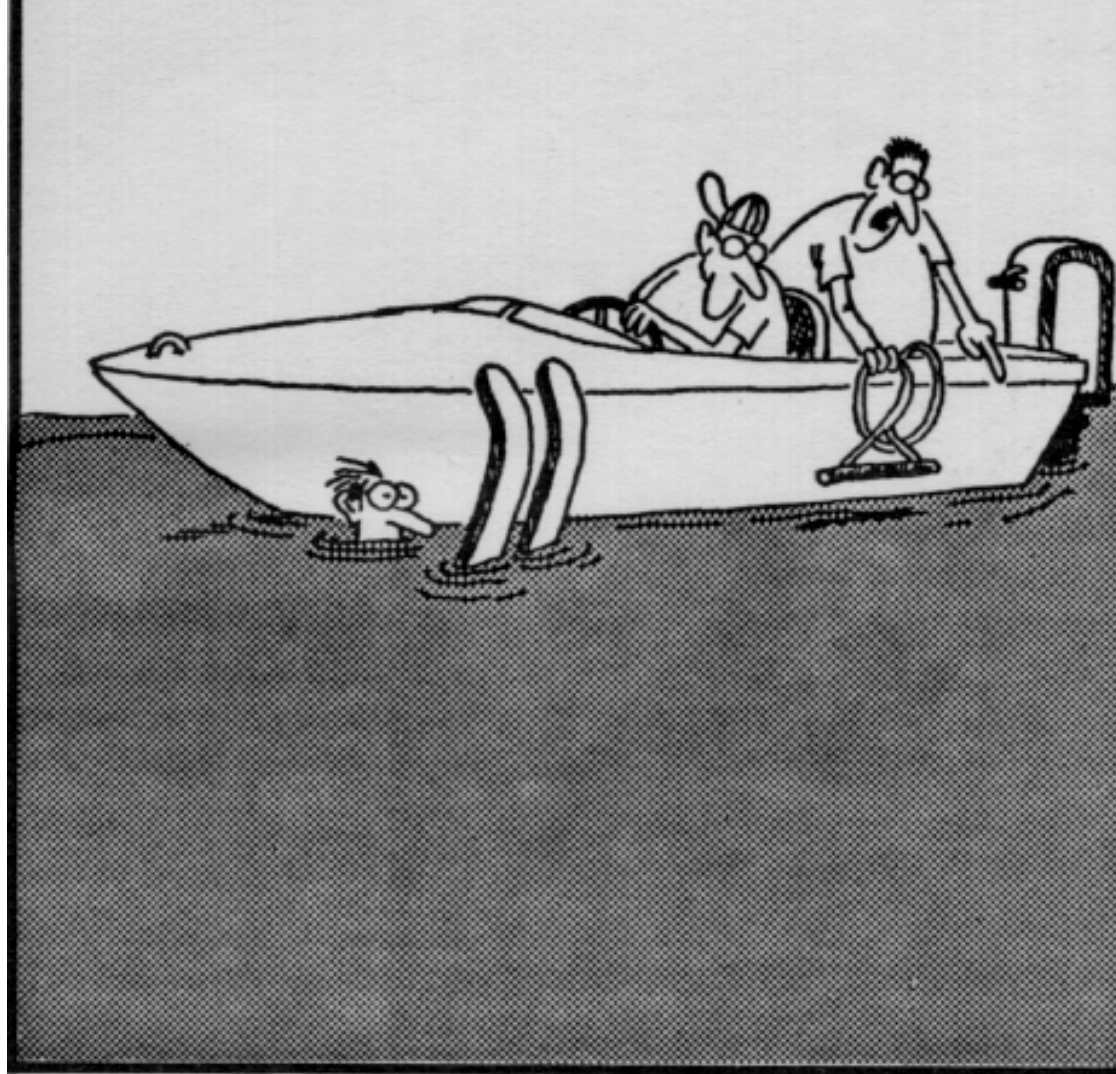
- Restrictions on controversial topics/‘free speech’ policing
- Curricula intervention/requirements
- DEI bans
- Cutting majors

Demographics and Enrollment...

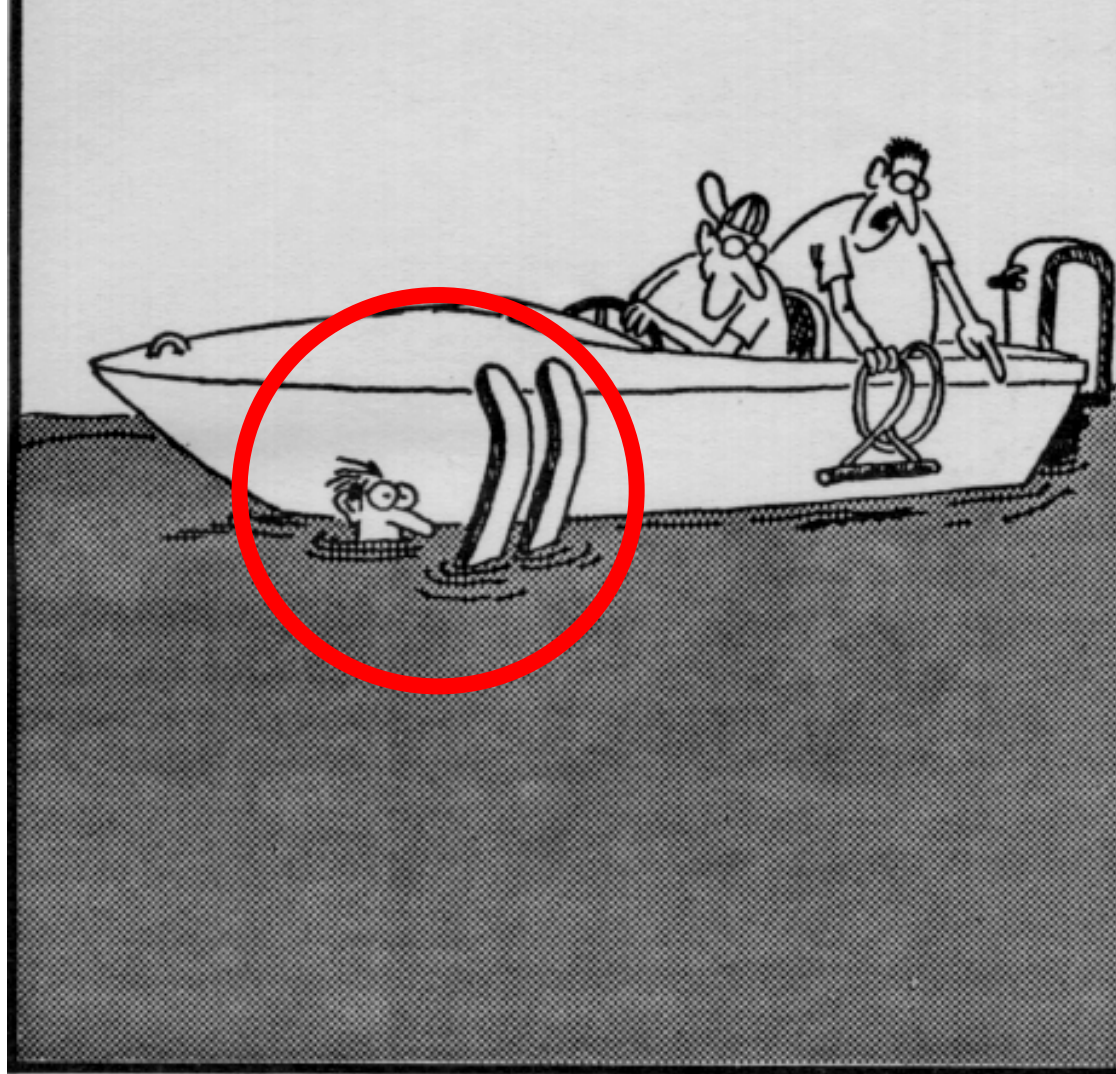
Post-Great Recession declines in birthrates will lead to a drop in college-going population:

- **2030: 93% of 2018**
- **2030: down 9 percentage points from 2025 peak**





"There! Quick, Larry! Look! . . . Was I kidding?
. . . That sucker's longer than the boat!"

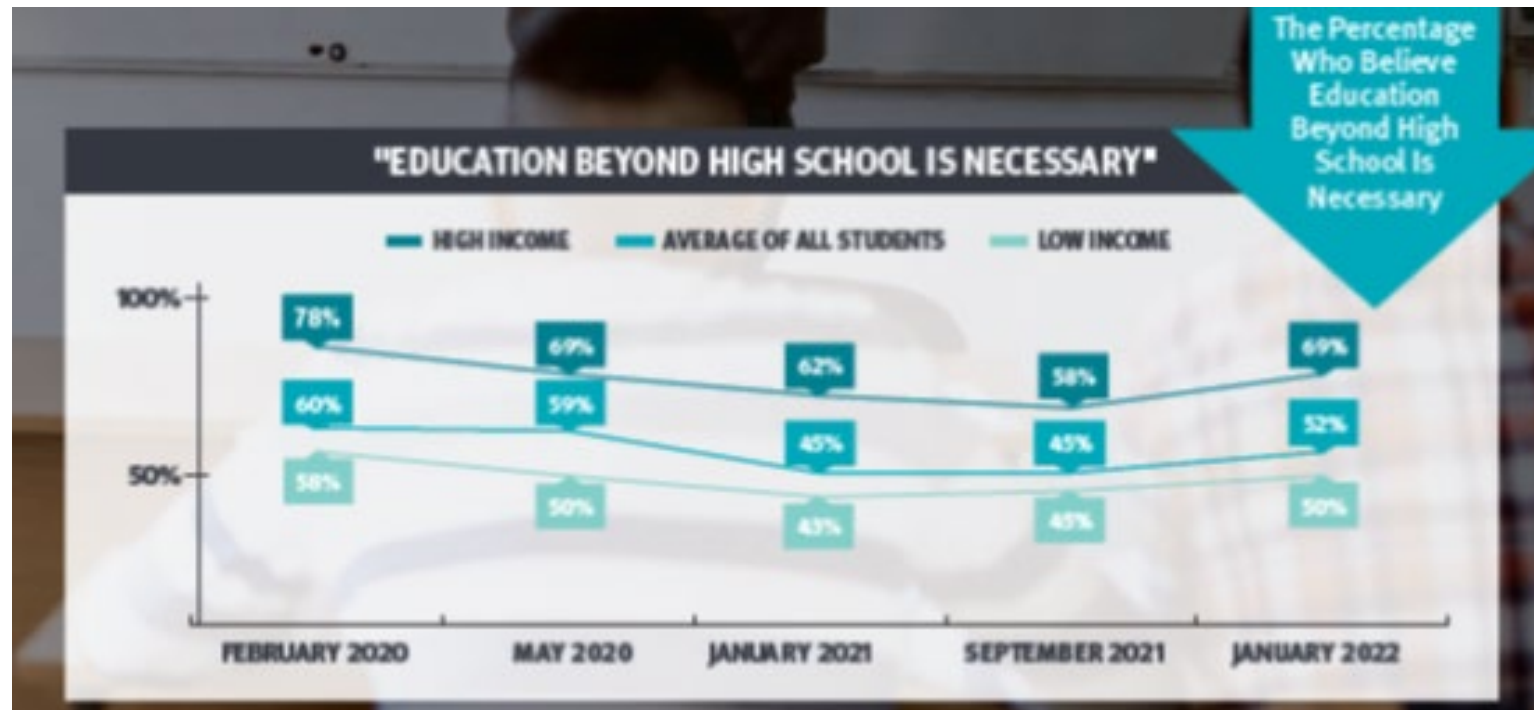


"There! Quick, Larry! Look! . . . Was I kidding?
. . . That sucker's longer than the boat!"

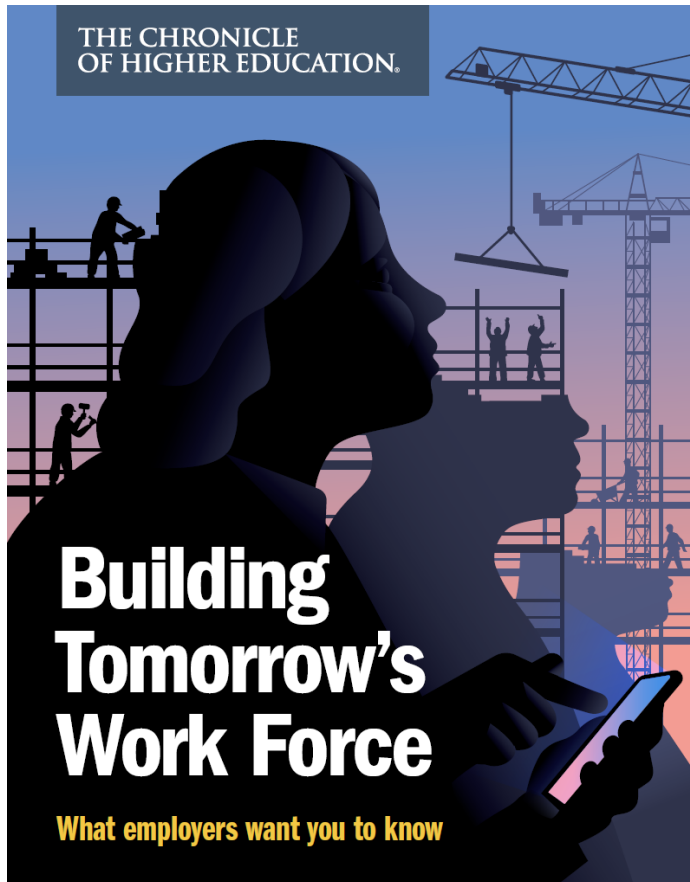
Value/Trust – Major Concern

GEN Z'S HIGHER EDUCATION OUTLOOK

69% high income teens, 50% low income teens believe education beyond high school necessary

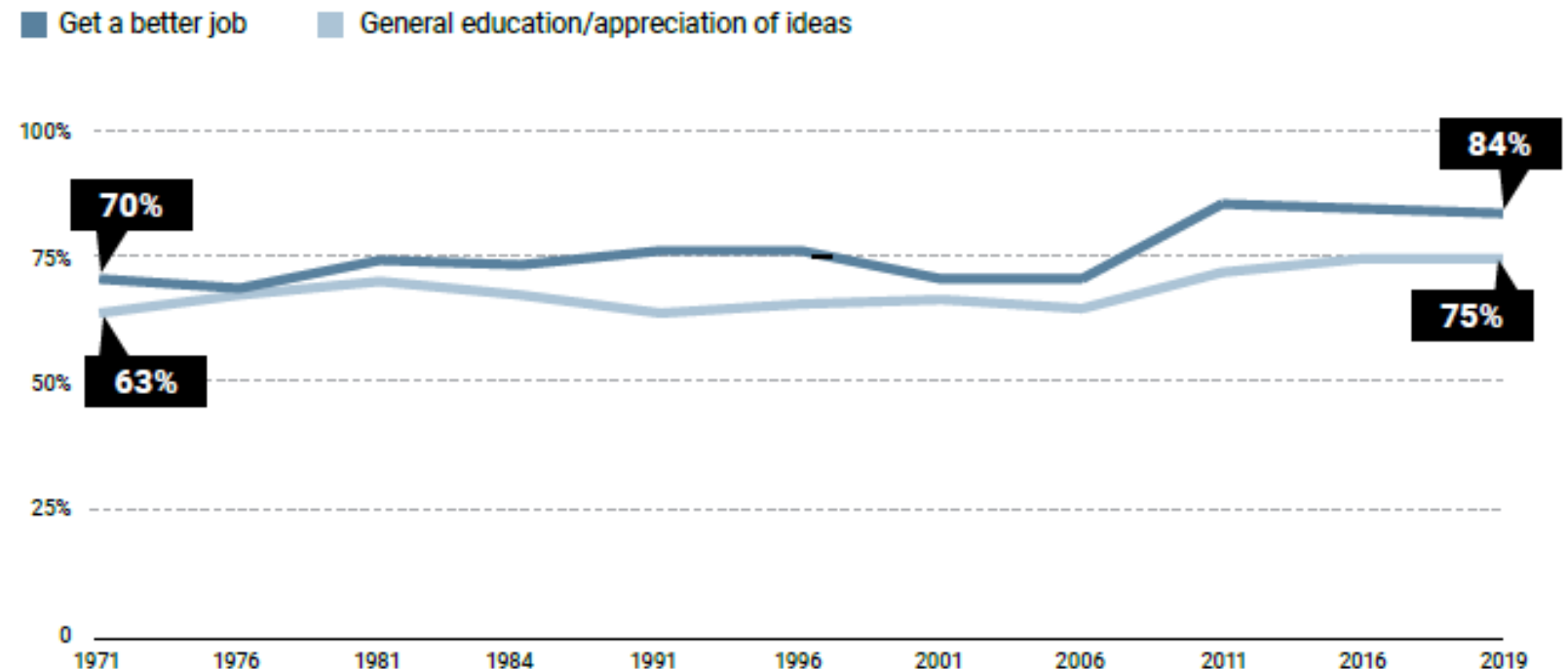


Value...Careers Matter...



Students Have Long Viewed the Purpose of College as Career Preparation

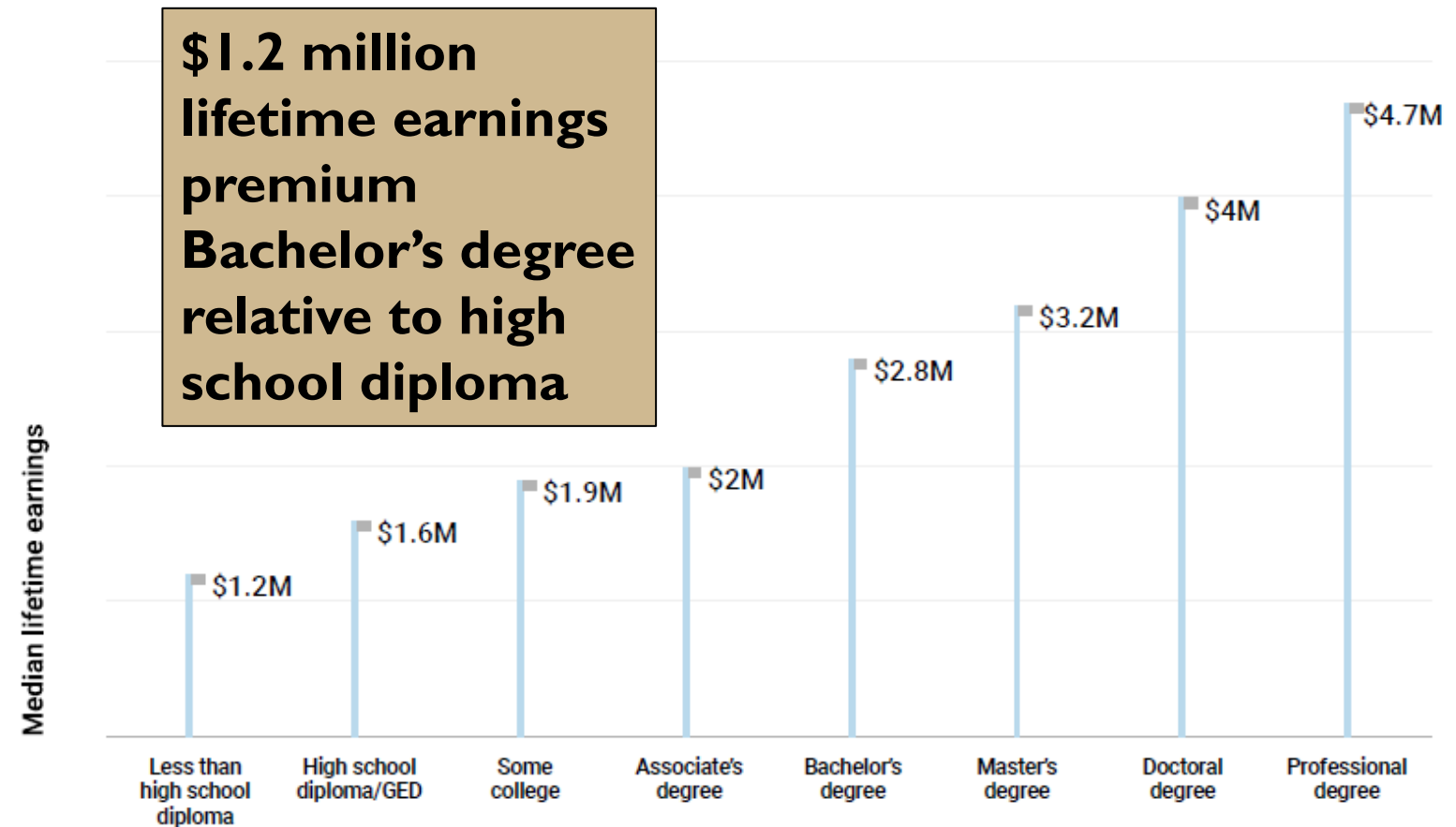
Percent of first-year students reporting reason as "very important" in deciding to go to college



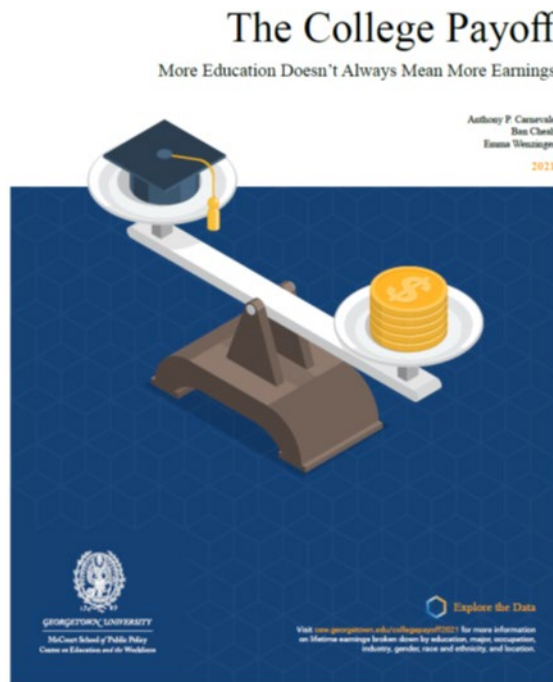
Source: "Demonstrating Value in Times of Crisis," Lightcast

Value...

Figure 1. Median earnings rise with each additional level of education.

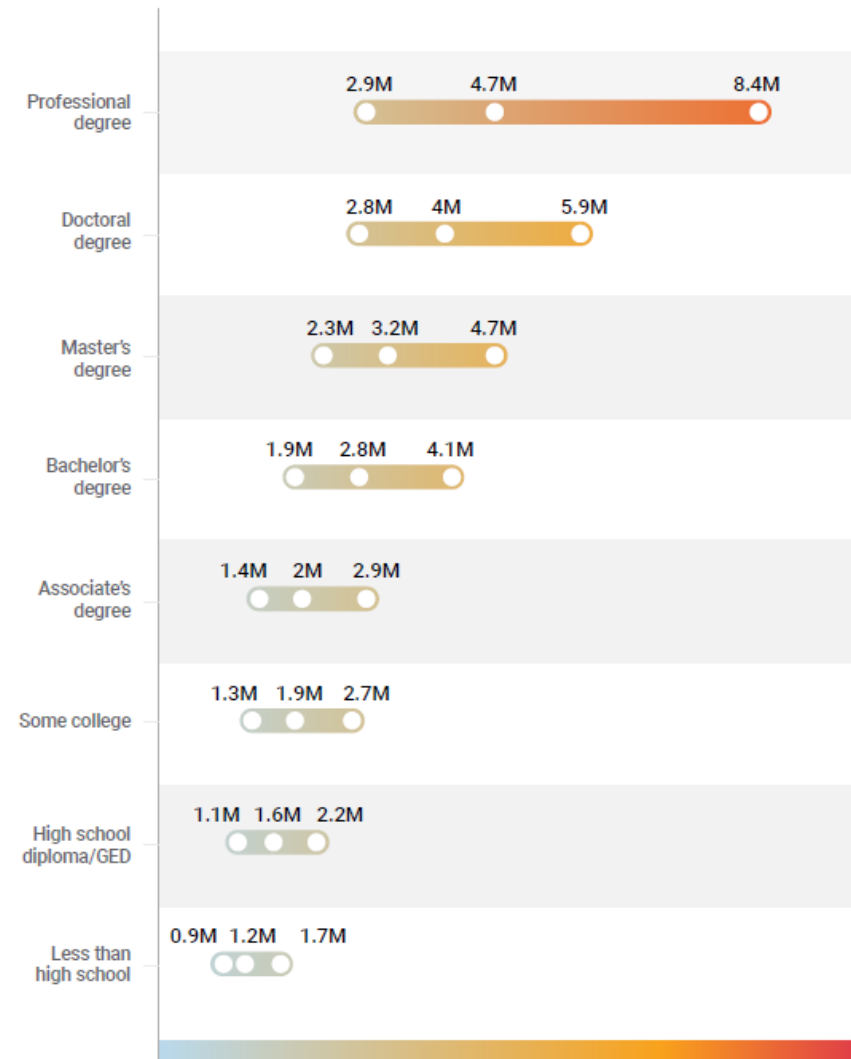


Value...

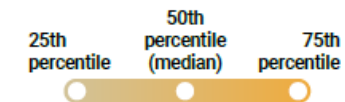


Source: The College Payoff, page 5.

Figure 2. Substantial variations in earnings within education levels mean that some workers with less education can earn more than others with more education.



But...
28% of Associate degree holders and 16% with high school diploma earn more than 50% of those with a Bachelor's degree



Source: Georgetown University Center on Education and the Workforce analysis of the US Census Bureau, American Community Survey (ACS), 2009–2019.

Note: The figure is based on data for 25- to 64-year-olds working full-time, full-year.

Indiana Jobs – 2031...

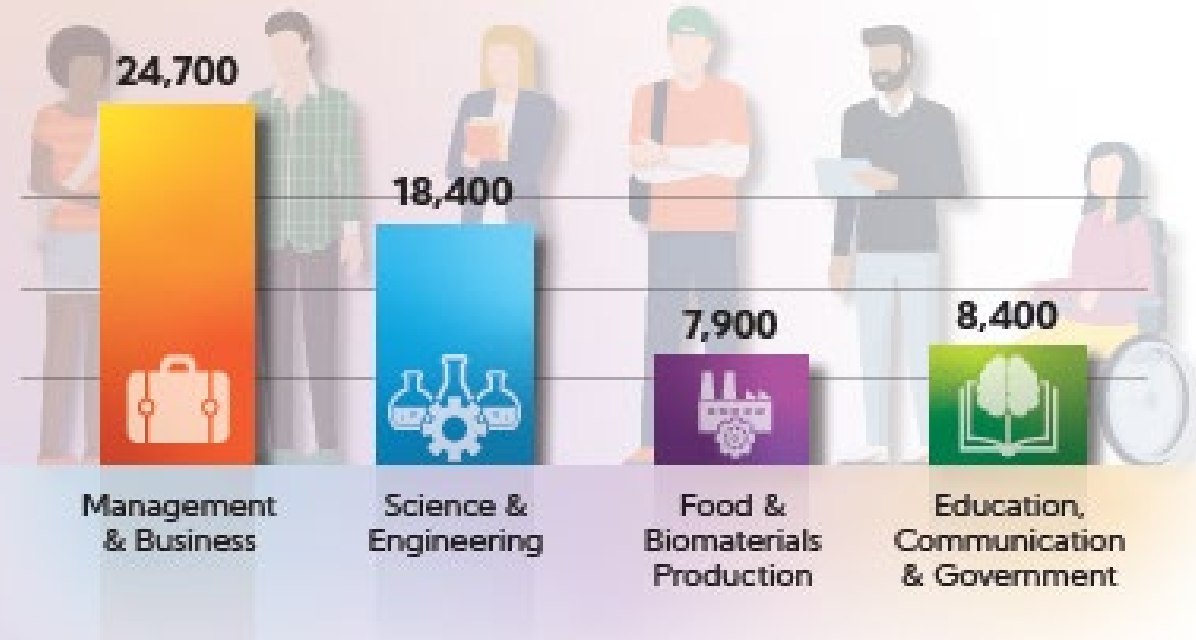
Indiana: Jobs forecast for 2031 by education level

Education level	2031 Jobs	Share of jobs	Rank by share among states
Less than high school	265,000	8%	17
High school diploma	968,000	30%	5
Some college, no degree	705,000	22%	31
Associate's degree	354,000	11%	19
Bachelor's degree	671,000	20%	38
Graduate degree	308,000	9%	42
Total	3,271,000	100%	

Forecast: 62% of Indiana's jobs in 2031 will require education beyond high school

Food and Agriculture College Graduates and Jobs...

On an Annual Basis, Expect 59,400 Job Opportunities for New College Graduates



About 61% of these positions will be filled by graduates from Colleges of Agriculture

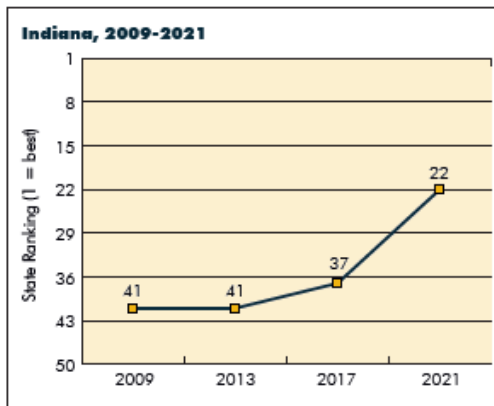


Workforce Development: Priority in Indiana...

WORKFORCE – BUILDING A TALENT PIPELINE TO MEET WORKFORCE NEEDS

GOAL: Increase to 70% the proportion of Hoosiers having earned a high-quality credential, certification and/or degree. Indiana will improve to be in the top half of states.

Population With at Least an Associate Degree or a High-Quality Credential (population 25 to 64)



State	Percentage	State	Percentage
1. Massachusetts	62.1%	46. Arkansas	46.8%
2. Utah	61.1%	47. Kentucky	46.6%
3. Colorado	60.5%	48. Alabama	44.8%
4. Minnesota	60.2%	49. West Virginia	44.2%
5. New Jersey	59.7%	50. Nevada	43.9%
22. Indiana	54.0%	United States	53.7%

Data includes individuals with at least an associate degree and/or a high-quality credential.

Source: Lumina Foundation

Source: Indiana Prosperity 2035 Report Card, Indiana Chamber Foundation, December 2023.

Mission41K Organizational Support

More than 100 organizations have pledged support for Mission41K and this shared goal:

Inclusively add 41,000 net new tech workers to the Indiana workforce by the year 2030.

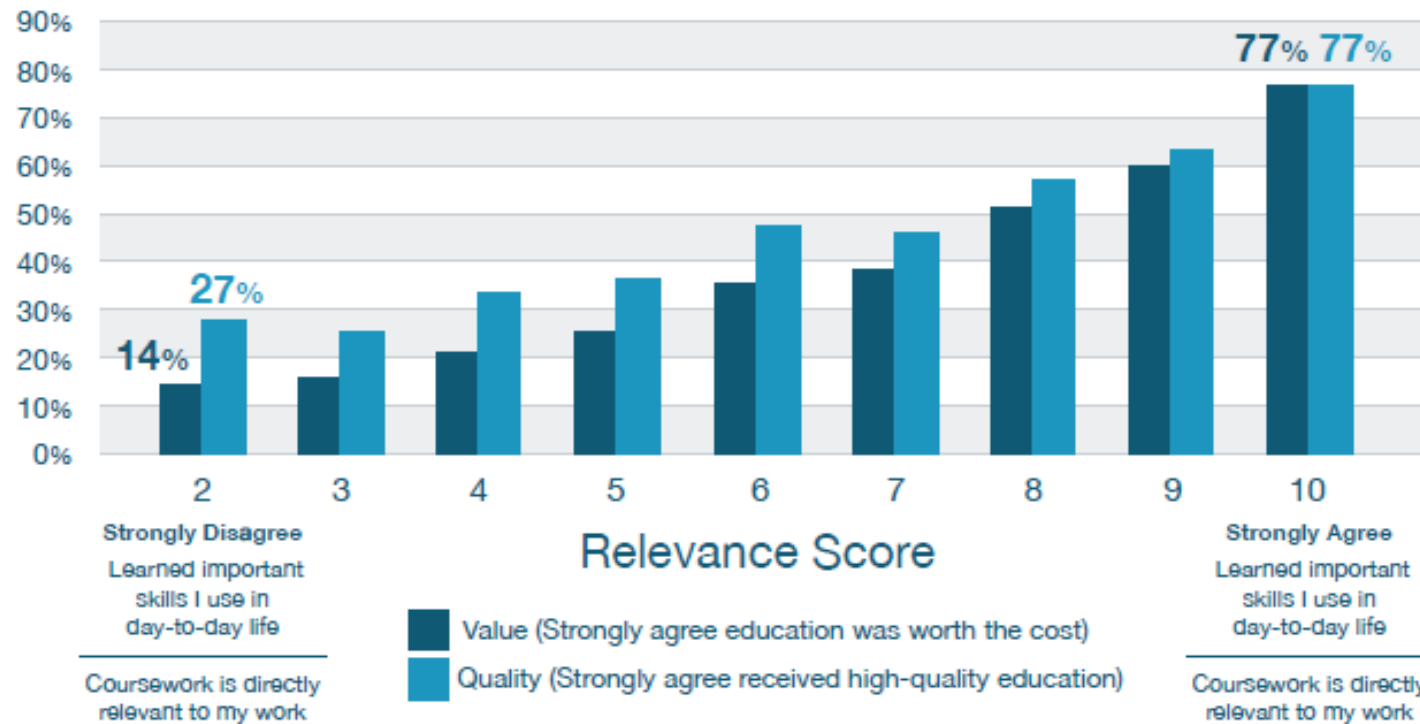
They are working to open up more pathways into tech for individuals from traditionally underrepresented groups via one or more of the following methods:

- championing skills-based hiring,
- re-evaluating job requirements,
- employing adult apprentices,
- strengthening diversity, equity and inclusion practices embedded within talent development and succession planning programs; and,
- identifying new and innovative solutions for attracting, developing and retaining talent for Indiana companies and organizations.

Many, many groups focused on this general goal...

Perceived Relevance Correlated with Value and Quality

Relevance Influences Value and Quality



Perceived relevance of coursework/experience strongly correlated with value and quality...

Our Land-Grant Foundation...

**“... the design comprehended not only instruction for those who may hold the plow or follow a trade, but such instruction as any person might need – with ‘the world all before them to choose’
....”**

**Senator Justin Smith Morrill
Speech to Massachusetts
Agricultural College, 1887**



Courtesy Purdue University Libraries, Archives and Special Collections

A Blueprint: The Institution

- **Engagement/Extension as the Foundation**
 - Fully embrace the idea of building reciprocal relationships with the communities we serve
- **Adopt an Outside-In Perspective**
 - Bring stakeholders inside through creative, intentional listening
- **Lever our Land-Grant Mission in Every Appropriate Way**
 - Establishing relevance: take full advantage of linkages between research, Extension, and teaching missions
- **Be an Authentic Storyteller**
 - Communicate on stakeholder terms, what does it mean to the stakeholder, why does it matter, how do they want to communicate?

A Blueprint: Undergraduate Programs

- **Elevate the Teaching Mission**
 - Innovate, reward, celebrate, publicize teaching and learning
- **Rethink Access and Completion**
 - Simplifying communication of costs and benefits of college
 - *Persistent barriers/gaps across race/ethnicity, income, geography, etc. must be addressed*
- **Career-Ready Focus**
 - Deep look at what is needed to prepare students for careers in a dynamic work world: not skill preparation for first-job
 - Employer engagement a must

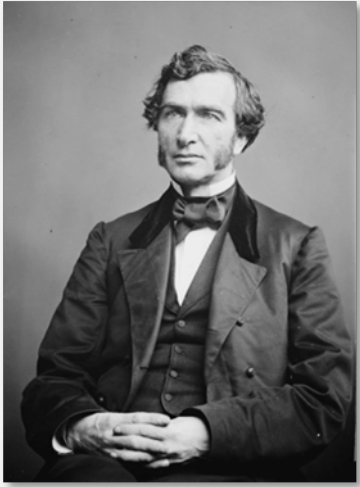
A Blueprint: Undergraduate Programs

- **Residential Must Be Experiential**
 - *Fundamental question: why should students come to a physical campus?*
- **Create and Deliver a Comprehensive Student Experience**
 - Myriad of professional and personal growth experiences are offered: aligned with career and life? Are students taking advantage?

Future of Higher Education???

- **Decline in 4-year enrollment will continue**...demographics, workforce realities, alternative credentials, funding...
- **Intense pressure on regional publics and non-elite privates** to adapt – will bring intense competition
- **Much more focus on workforce development** – how big an opportunity? How to capitalize?
- **More blending of work and school**...getting the education you need when you need it.
- **Number of colleges will decline**...but colleges die slowly...politics...alumni...
- **Equity gaps may widen**: low-income, first-gen, etc.
- **AI...???**

Our Land-Grant Foundation

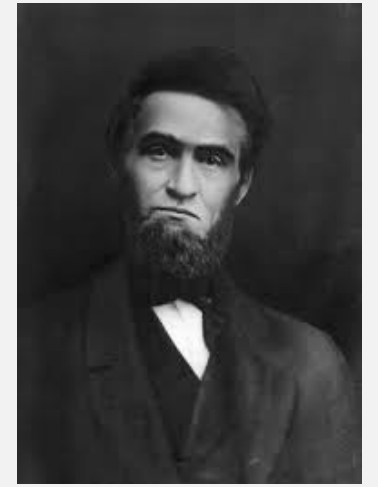


Senator Justin Morrill
The Morrill Act, 1862

Learning

“...the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.”

(Act of July 1, 1862, First Morrill Act)



Jonathan Baldwin Turner
“University for the Industrial Classes”

Discovery

“to conduct original and other researches, investigations, and experiments on and contributing to the establishment and maintenance of ... The agricultural industry in the United States, including researches basic to the problems of agriculture in its broadest aspects, and investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer...”

(Hatch Act of 1887)

Engagement

“Cooperative agricultural extension work shall consist of the development of and practical applications of research knowledge and giving of instruction and practical demonstration of existing or improved practices or technologies ...to persons not attending or resident in said colleges in the several communities and imparting information on said subjects through demonstrations, publications, and otherwise...”

(Smith-Lever Act of 1914)

THANK YOU!

Higher Education Provisions of Big Beautiful Bill

A Higher Ed Overhaul

The measures related to colleges and universities amount to the most significant changes to higher ed policy in decades.

Key Provisions	What the Bill Does
Accountability	Cuts college programs, except certificates, off from federal student loans if they fail an earnings test
Grad student loan caps	Graduate students can only borrow \$100,000 while professional students such as those in law or medical school can borrow up to \$200,000
Parent PLUS Loans	Caps Parent PLUS loans at \$65,000 per student
Regulatory relief	Delays 2022 borrower defense and closed school discharge rules until 2035
Pell Grant eligibility	Expands the grant program to shorter-term but accredited programs; excludes students who get a full ride from Pell
Pell Grant shortfall	Puts \$10.5 billion in all at once
Funding for FSA	An extra \$1 billion
Repayment plan	Starting in July 2026, new borrowers can enroll in a new income-driven repayment plan. Under the plan, borrowers will pay back their loan over 30 years. Some low-income borrowers could see payments as low as \$10. Previously borrowers could have paid \$0.

- Accountability for student earnings
- Caps on student loans
- Expansion of Pell grants to short-term career prep programs
- Simplifying loan repayment plans
- Increase in endowment tax

Research Funding at Risk...

Federal policy changes exacerbate portfolio risks

After Nearly a Decade of Steady Research Funding Growth...



...Every Source Is Under New Pressure, Threatening the Entire Model's Viability

▶ Fastest-growing source since 2015, but enrollment and market pressures will limit the ability to self-fund growth (or even sustain current activities)

▶ Despite strong historic growth, highly vulnerable to this administration's policy changes and volatility

▶ Resurgence in recent years, but the current economic climate and administration are growth constraints

▶ Relatively small source of dollars so not a viable substitute for federal support; broader economic conditions will force industry to tighten belts too

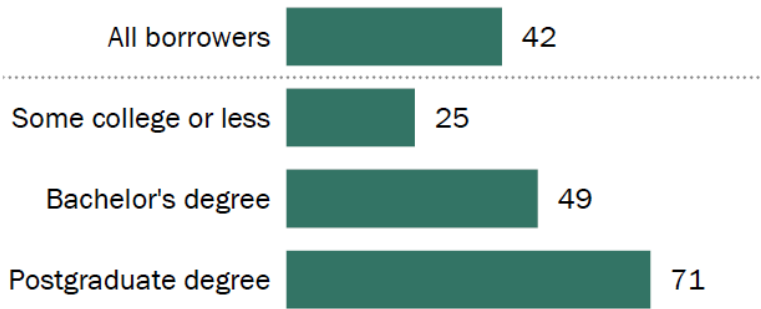
▶ Some affluent states may try to counteract federal reductions, but rising healthcare, retirement, and infrastructure costs will constrain their budgets

1) This combines funds from nonprofits, international organizations, and donor gifts.

Student Debt...

Amount of outstanding student loan debt varies widely by education level

Among borrowers with outstanding student loan debt, % who owed **at least \$25,000** in 2023

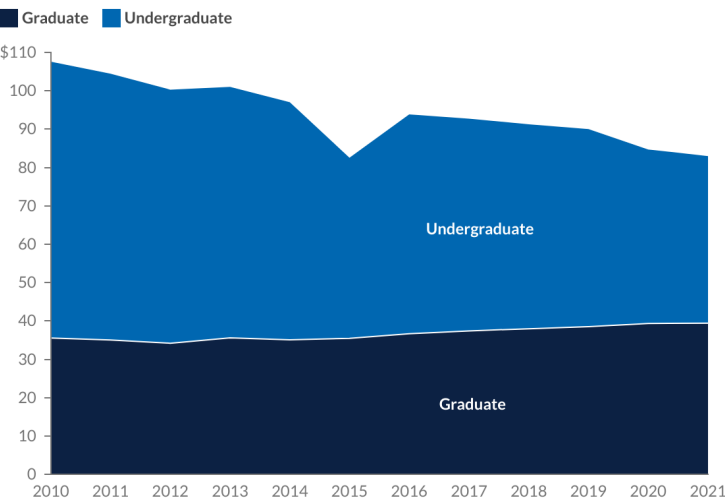


Note: "Some college or less" includes those with an associate degree, those who attended college but did not obtain a degree, and those who have not completed high school.
Source: Pew Research Center analysis of Federal Reserve Board's 2023 Survey of Household Economics and Decisionmaking.

PEW RESEARCH CENTER

Loans for graduate degrees are accounting for a greater share of student debt issued annually

Student Debt Issued Annually, By Educational Attainment (Billions of \$)



Source: U.S. Department of Education
Notes: Data are for the school year, which starts in the fall of the year shown on the horizontal axis.



Average Student Loan Debt Among Graduate Degree Holders

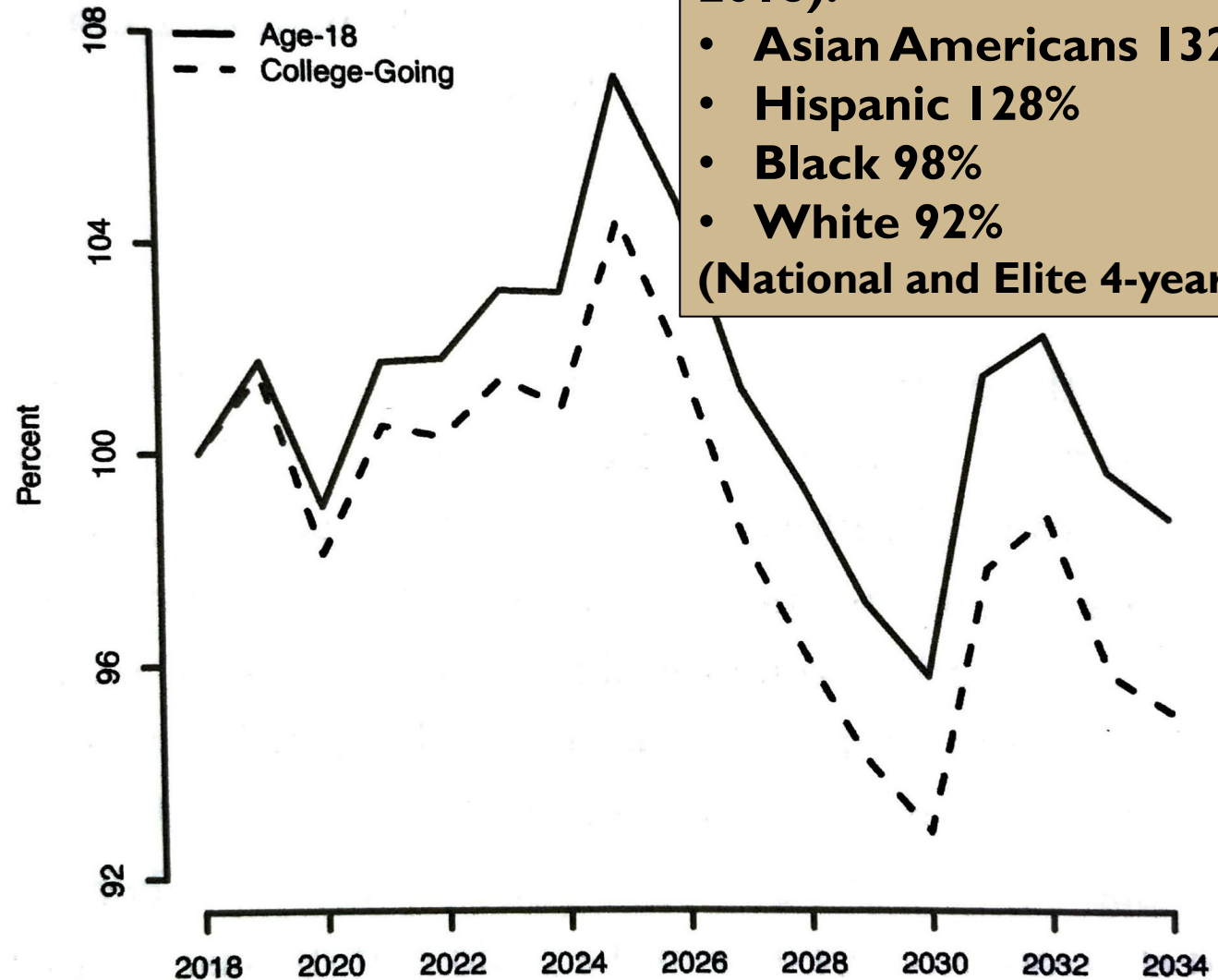
Degree	Total Student Loan Debt	Graduate Debt Only
Postbaccalaureate Certificate	\$60,990	\$50,620
Master's	\$69,140	\$53,920
Master of Arts	\$80,540	\$61,060
Master of Business Administration	\$66,740	\$51,850
Master of Education	\$57,360	\$38,310
Master of Science	\$64,780	\$52,690
Doctorate, Research	\$72,560	\$73,510
Doctorate, Professional	\$178,800	\$169,730
Doctor of Education	\$68,490	\$57,260
Medical Degree	\$199,220	\$191,950
Law Degree	\$140,870	\$132,740

Hanson, Melanie. "Average Student Loan Debt." EducationData.org, August 16, 2024, <https://educationdata.org/average-student-loan-debt>

Demographics and Enrollment...

Post-Great Recession declines in birthrates will lead to a drop in college-going population:

- **2030: 93% of 2018**
- **2030: down 9 percentage points from 2025 peak**

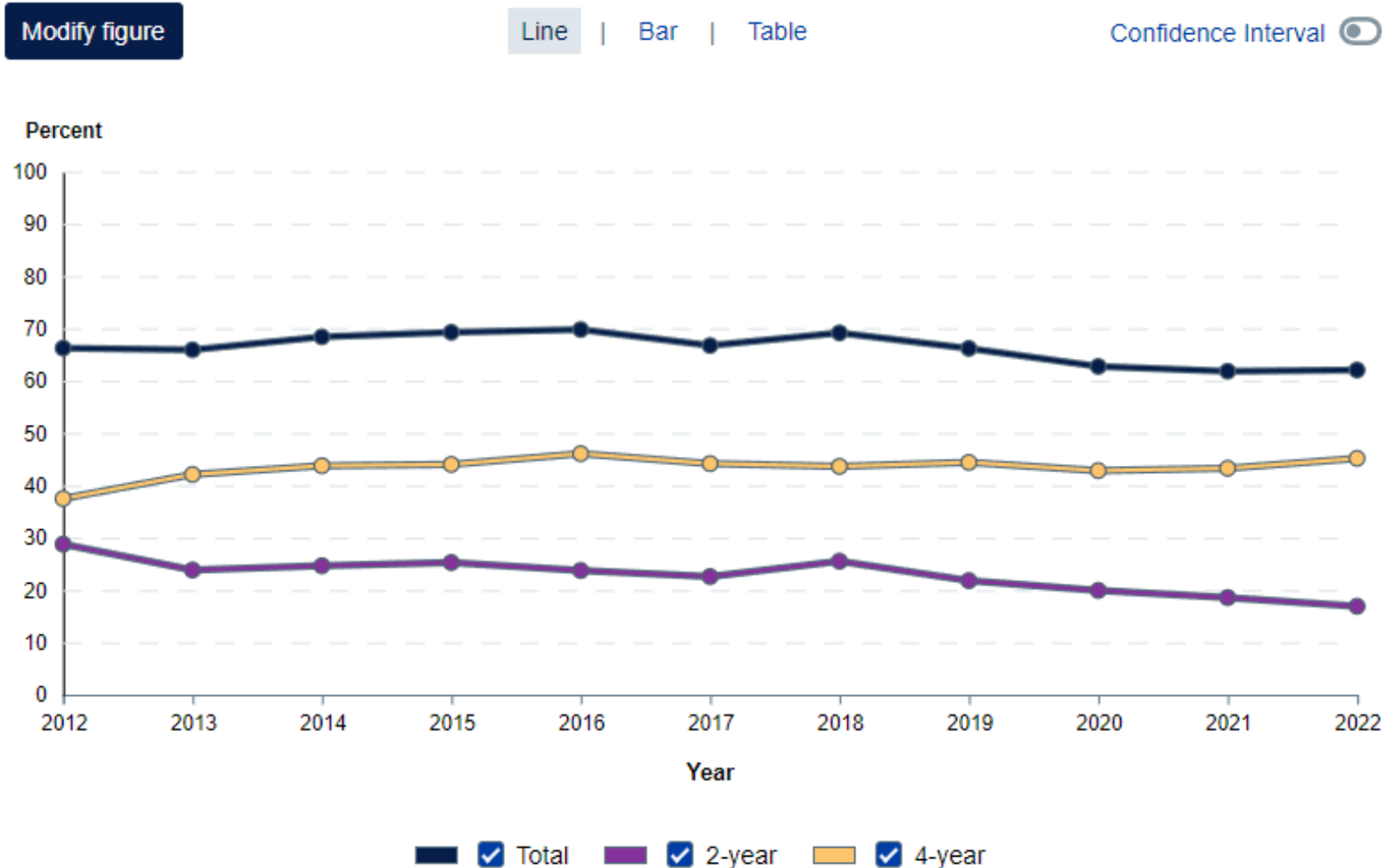


Student Population will become more diverse by 2034 (relative to 2018):

- **Asian Americans 132%**
 - **Hispanic 128%**
 - **Black 98%**
 - **White 92%**
- (National and Elite 4-year Institutions)**

College Going Rate

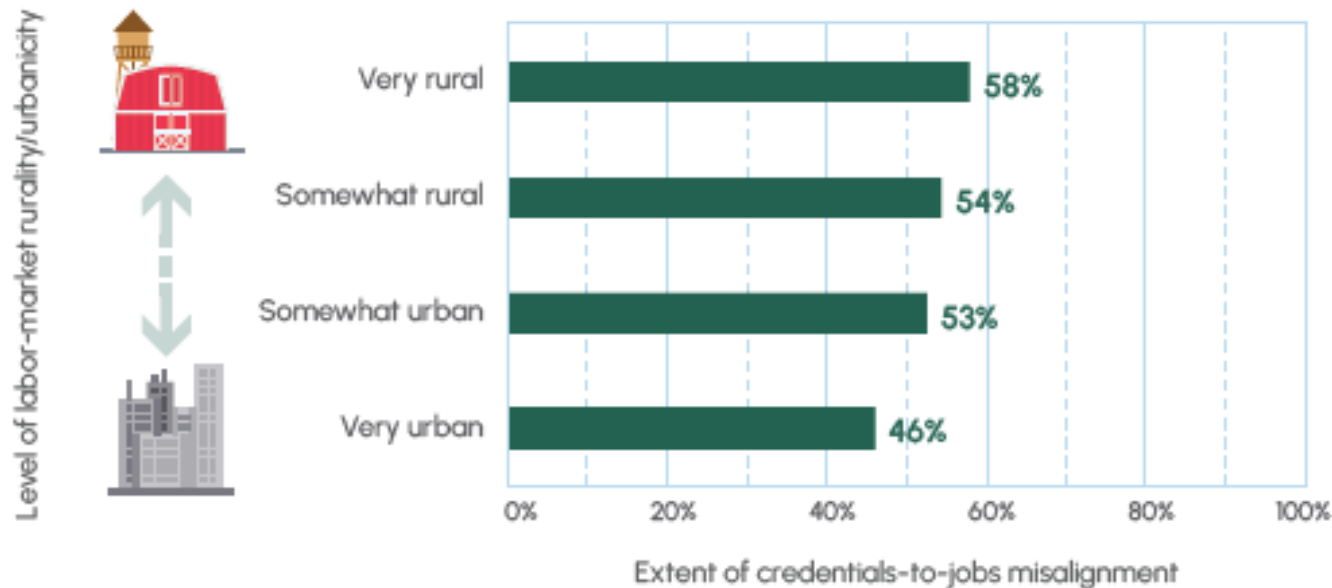
Figure 1. Immediate college enrollment rate of high school completers, by level of institution: 2012 through 2022



Immediate college enrollment rate dropped from 69% in 2018 to 62% in 2022; 4-year rate stable at 45%

Credentials – Jobs Alignment?

Figure 4. The average level of credentials-to-jobs misalignment nationwide is 12 percentage points greater in very rural labor markets than in very urban labor markets.



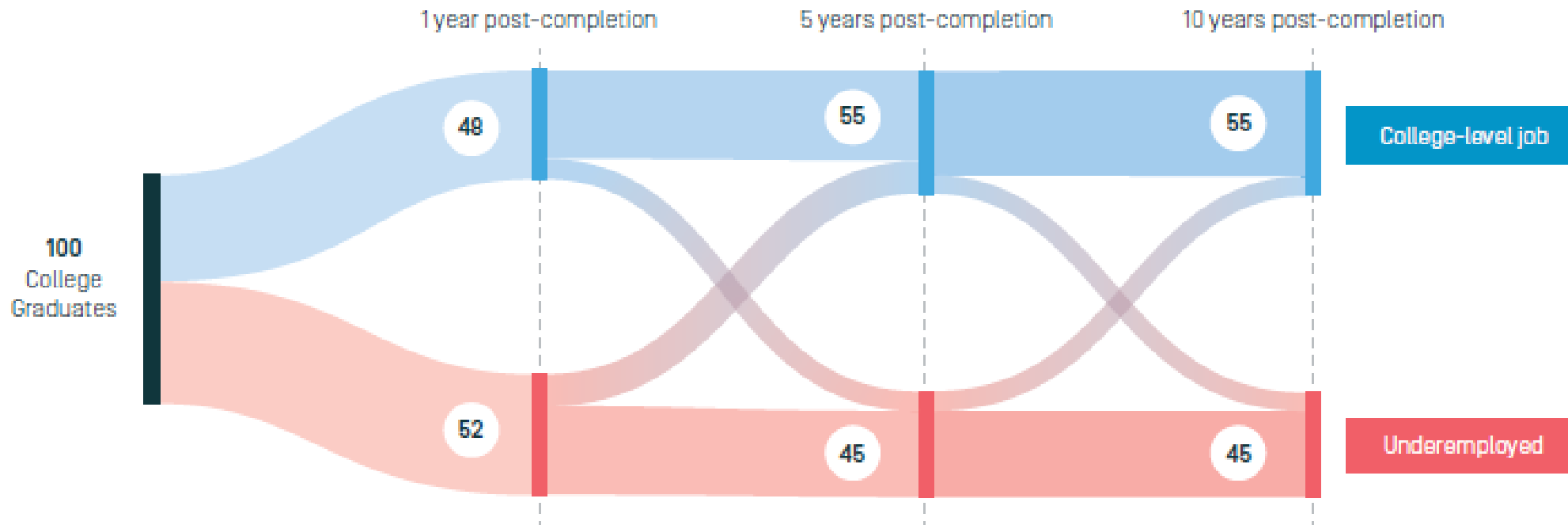
Much misalignment between credentials job market demands and credentials students earn...

Source: Georgetown University Center on Education and the Workforce (GUCEW) analysis of data from the US Census Bureau, American Community Survey (ACS), 2012–21; US Department of Agriculture, Commuting Zones and Labor Market Areas, 2012; US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21; and GUCEW State Job Projections data set, 2023.

Note: Very rural = at least 75 percent of residents live in rural parts of the local labor market; somewhat rural = at least half, but less than 75 percent of residents live in rural areas; somewhat urban = at least half, but less than 75 percent of residents live in urban areas; very urban = at least 75 percent of residents live in urban parts of the local labor market.

Underemployment...

Figure 1.1 Employment outcomes by years after graduation



Source: Burning Glass Institute analysis of Lightcast Career Histories Database, 2022.
Calculated for workers with a terminal bachelor's degree.

Source: Talent Disrupted: College Graduates, Underemployment, and the Way Forward, Strada Education Foundation and The Burning Glass Institute, 2024.

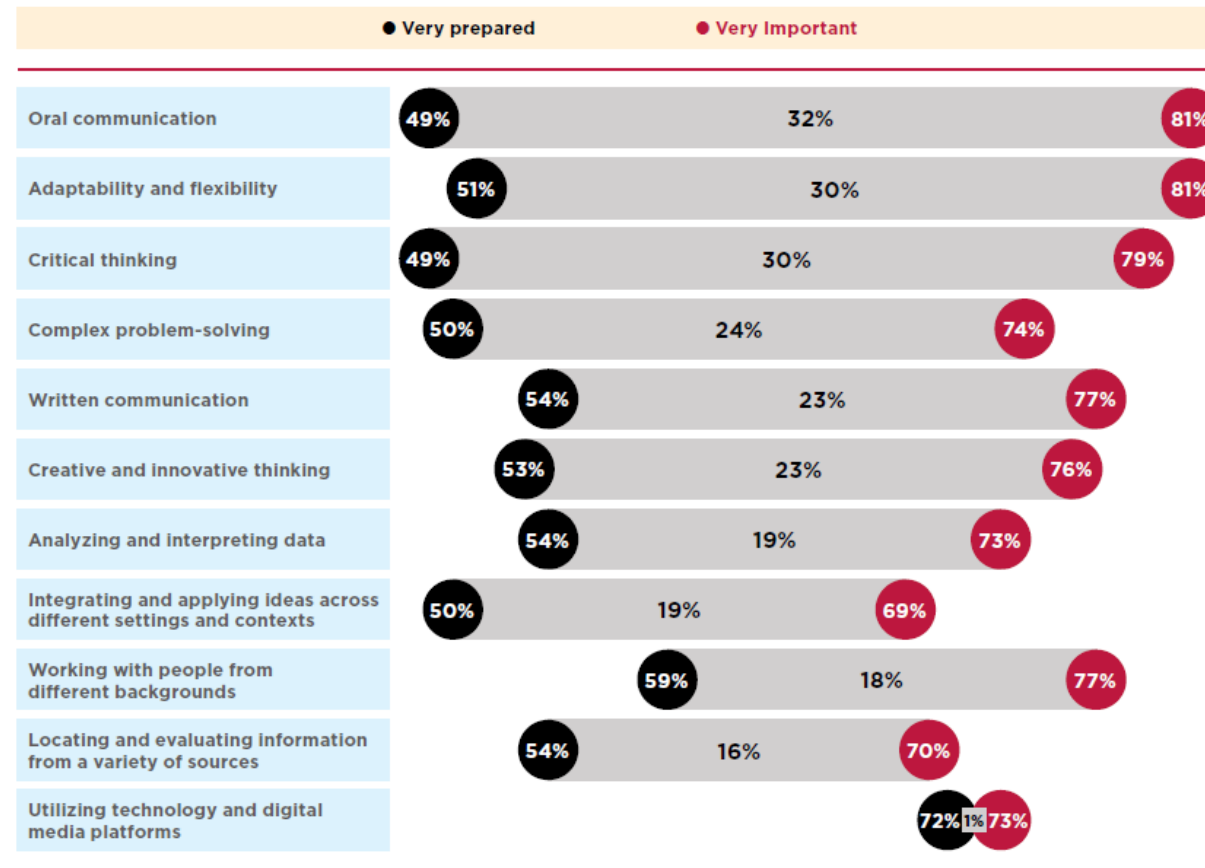
**45% of college graduates
employed in jobs that
don't require a degree?**

Preparation...

Employers don't believe students are adequately prepared for the work world

FIGURE 19

Percentages of employers who indicated a skill was “very important” relative to perceptions that students are “very prepared” in that skill¹⁷



Perceived Value of Credentials...

CHART 1
Change in Perceived Value of a College Degree or Credential (2023-2024)
Among adults without a college degree or credential

In general, how valuable are each of the following types of degrees and credentials?

(% Extremely valuable + % Very valuable)

● 2023 ● 2024

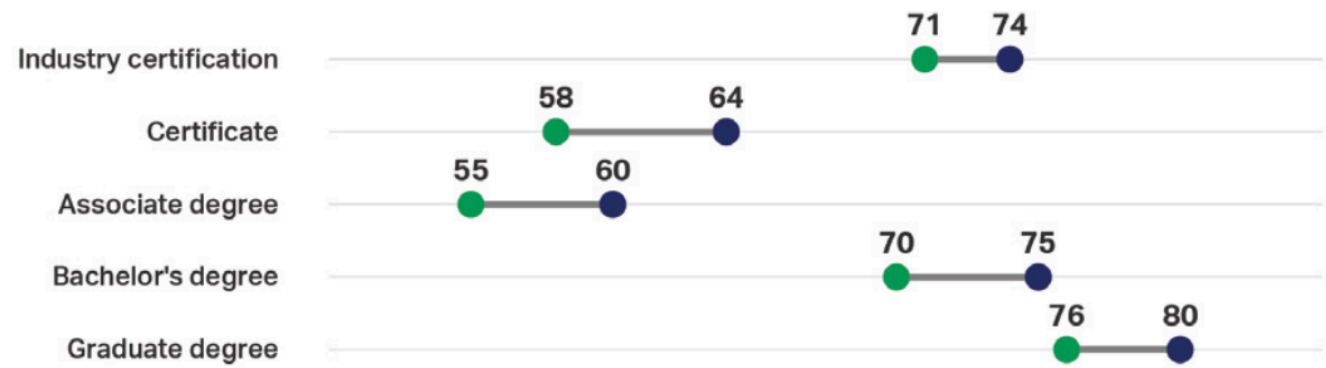
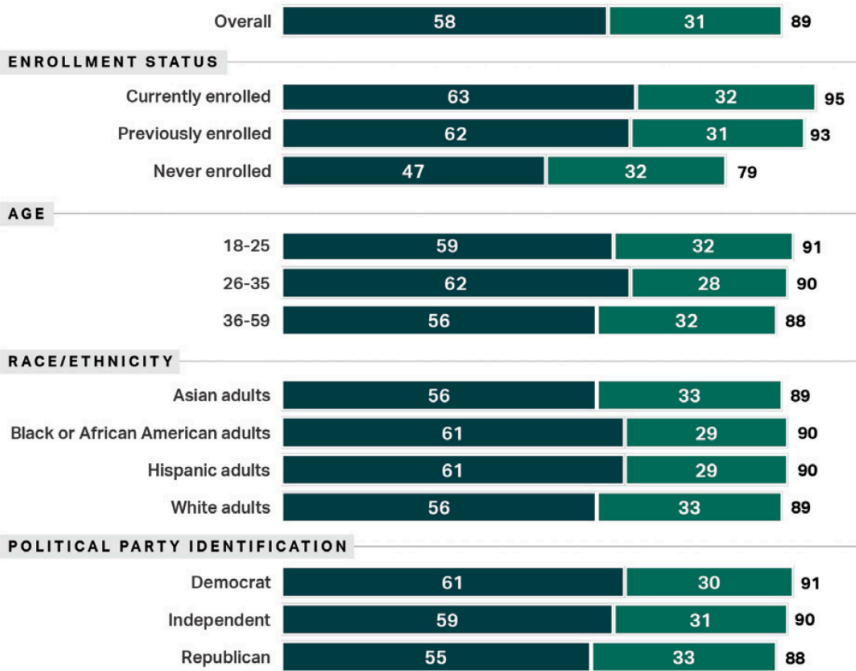


CHART 2
Perceived Value of Having at Least One Degree or Credential by Enrollment Status and Demographic Groups
Among adults without a college degree or credential

In general, how valuable are each of the following types of degrees and credentials?

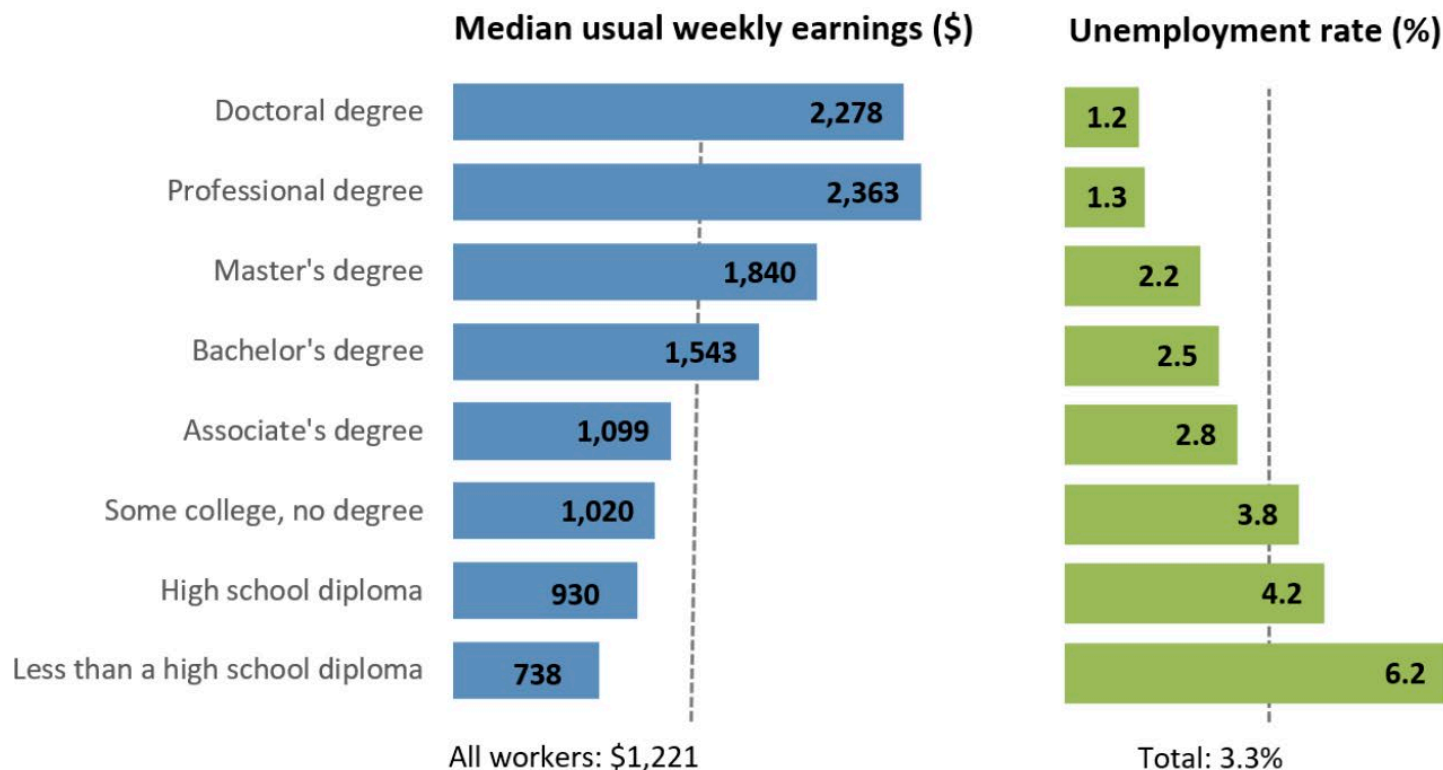
■ % At least one credential extremely valuable ■ % At least one credential very valuable



Note: Due to rounding, percentages may sum to ±1 pct. pt.

Value...

Earnings and unemployment rates by educational attainment, 2024

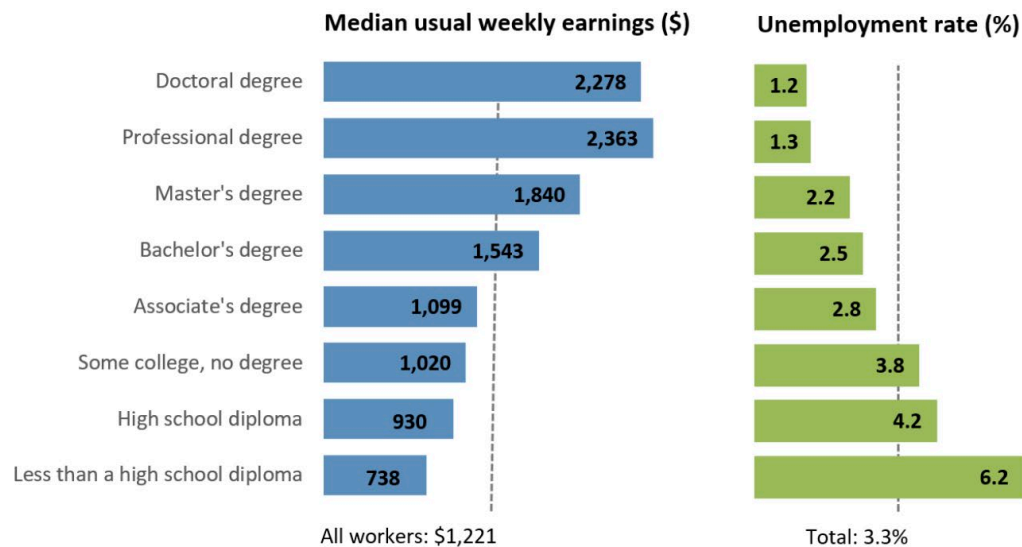


Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey.

- **College degree holders: higher wages, lower unemployment**
- **\$1.2 million lifetime earnings premium Bachelor's degree relative to high school diploma**

Unemployment and Earnings...

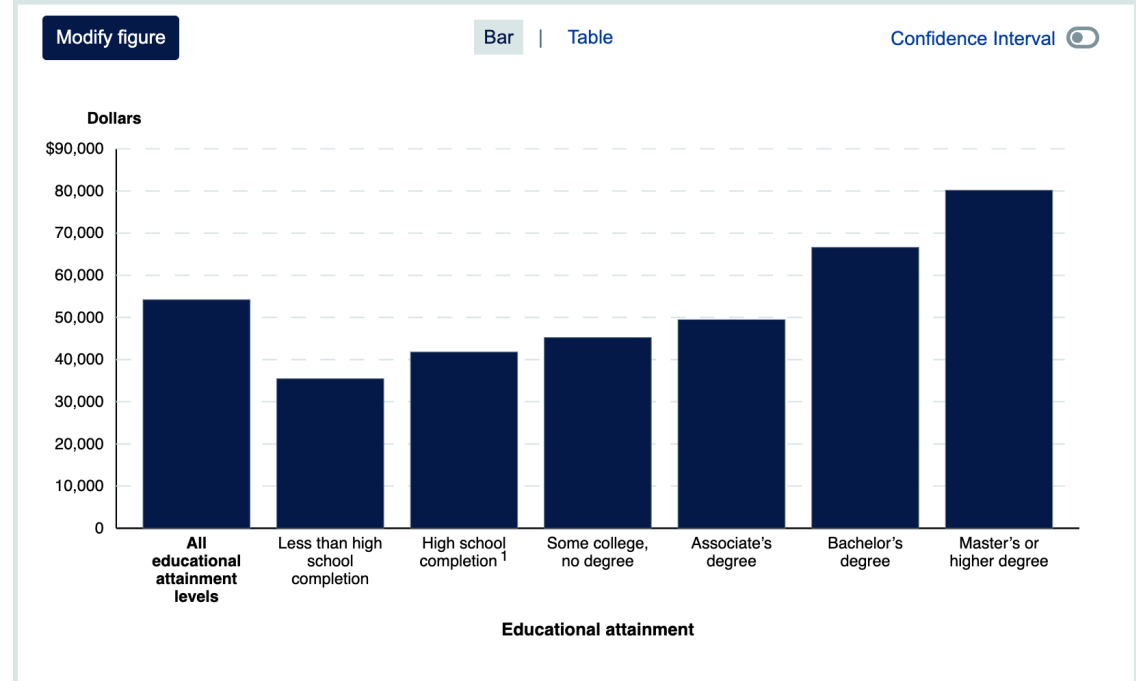
Earnings and unemployment rates by educational attainment, 2024



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

Figure 2. Median annual earnings of full-time, year-round workers ages 25–34, by educational attainment: 2022



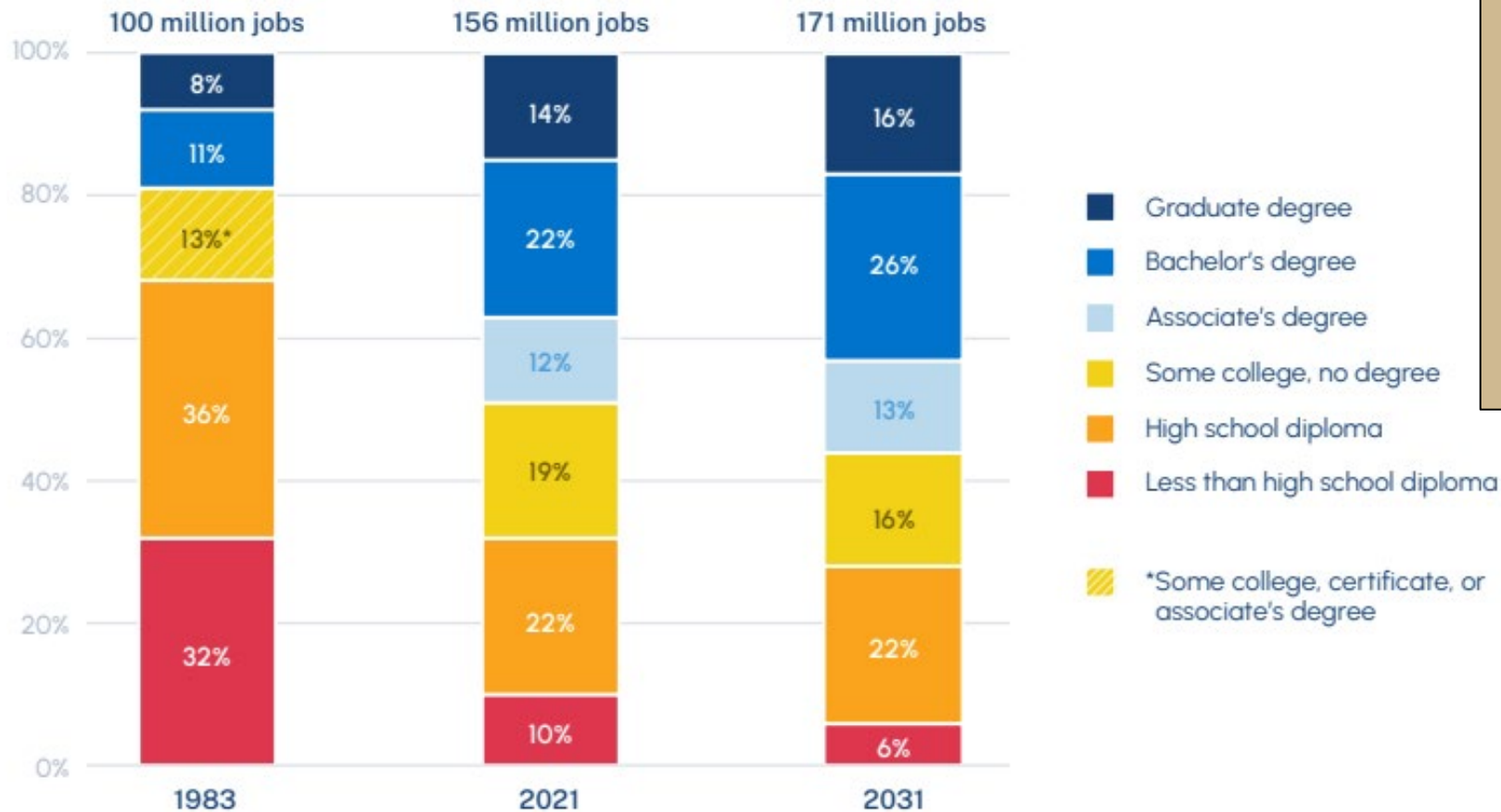
¹ Includes equivalency credentials, such as the GED.

NOTE: Data are based on sample surveys of the noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities) and military barracks. Full-time, year-round workers are those who worked 35 or more hours per week for 50 or more weeks per year. For information about the impact of the coronavirus pandemic on the Current Population Survey Annual Social and Economic Supplement data collection, please see <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar23.pdf>. Figures are plotted based on unrounded data.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2023. See *Digest of Education Statistics* 2023, table 502.30.

US Jobs – 2031...

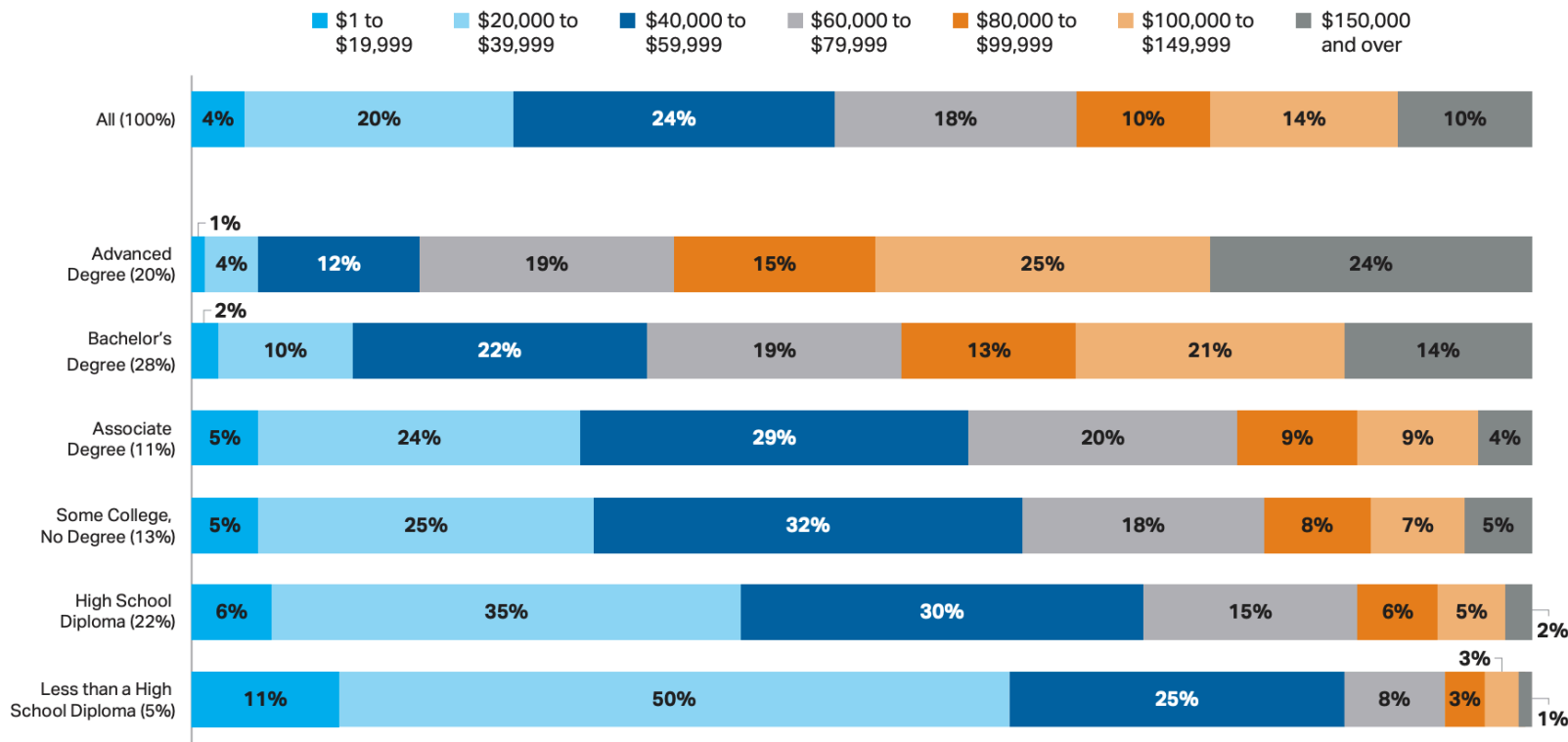
FIGURE 2. Forty-two percent of jobs in 2031 will require at least a bachelor's degree, while only 28 percent will go to workers with a high school diploma or less.



Forecast: 55% of all U.S. jobs in 2031 will require an associate's degree or higher

Earnings Distribution...

FIGURE 2.3 Earnings Distribution of Full-Time Year-Round Workers Age 35 to 44, by Education Level, 2021



NOTE: The percentages shown in parentheses on the vertical axis represent shares of full-time year-round workers age 35 to 44 with each education level. Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2022; calculations by the authors.

College Enrollment By Income Level...

Figure 6. Immediate Fall Enrollment Rates: 2022 Graduates

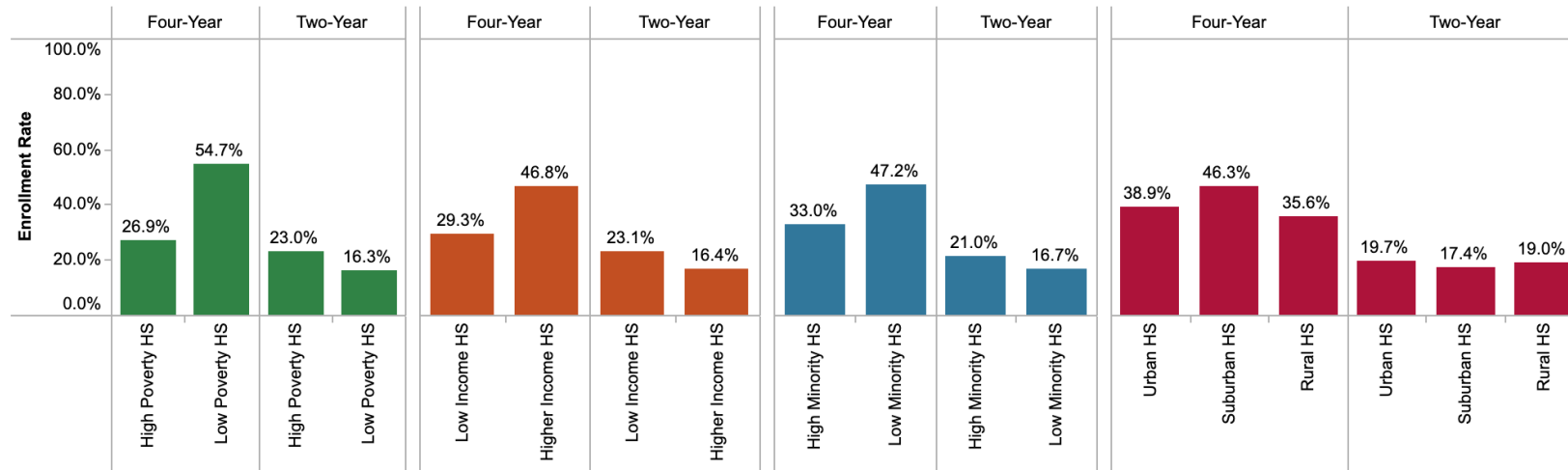
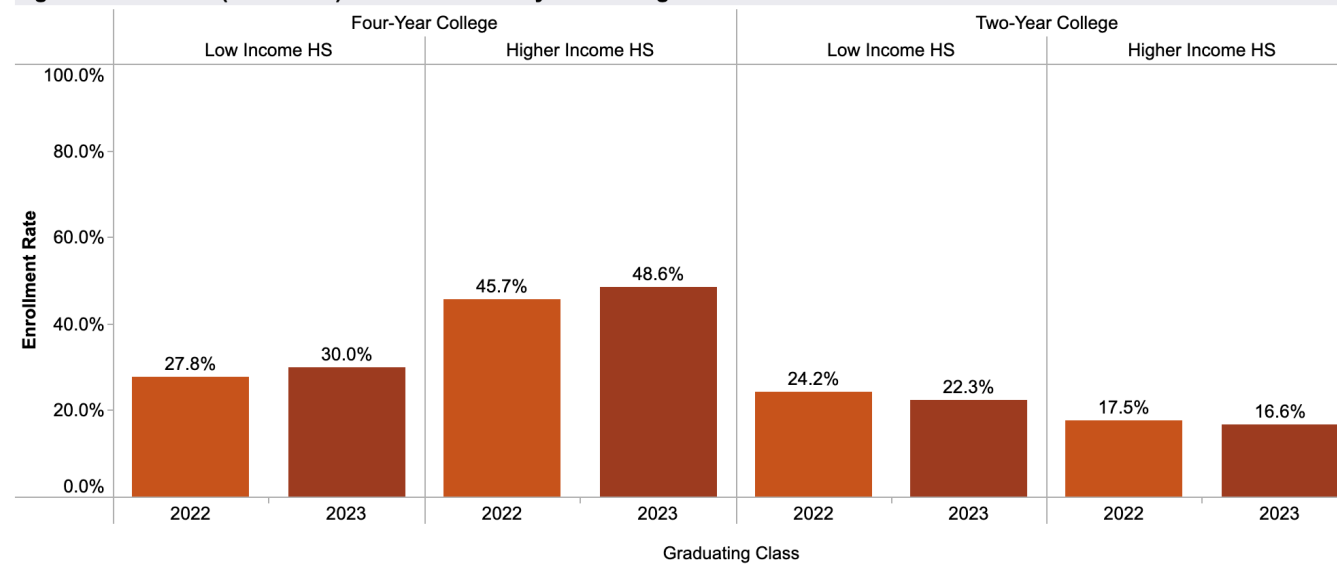


Figure 2.1 First Fall (Immediate) Enrollment Rate by Graduating Class



Creating A Blueprint...

“If you ask me what are the characteristics of the new education, I reply that they are the characteristics of the ages in which we live.”

*James H. Smart
4th Purdue President
Lehigh University Club of Chicago
January 4, 1896*

