

# THE MAJOR PAYOFF

## Evaluating Earnings and Employment Outcomes Across Bachelor's Degrees

Catherine Morris  
Ban Cheah  
Jeff Strohl

2025



GEORGETOWN  
UNIVERSITY  
McCourt School of Public Policy

CENTER ON  
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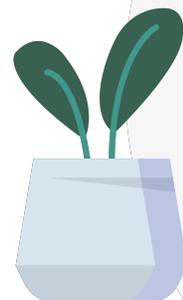
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# INTRODUCTION

What is a bachelor's degree worth? This question has taken on new urgency in light of growing skepticism about the value of postsecondary education.<sup>1</sup> Too often, the net cost of college is a burden for students and families, even with financial aid, while tuition sticker shock can deter some students from applying to four-year institutions altogether. Meanwhile, the job market has become increasingly challenging for recent graduates to navigate.<sup>2</sup> High costs, combined with uncertain job prospects for recent graduates, are undermining the perceived value of a bachelor's degree.<sup>3</sup>

Still, the evidence overwhelmingly indicates that a bachelor's degree is a worthwhile investment in the long run.<sup>4</sup> Over the course of a career, the average worker with a bachelor's degree not only earns more than the average worker with a high school diploma alone but also benefits from a lower likelihood of unemployment. Among prime-age workers with a bachelor's degree, median earnings are \$81,000—translating to a 70 percent earnings premium above the median earnings of workers with a high school diploma alone.<sup>5</sup> Meanwhile, unemployment among prime-age college graduates is 2.9 percent,

compared with 6.2 percent among prime-age workers with a high school diploma alone.<sup>6</sup>

These median statistics provide just a surface-level indication of the wide range of possible earnings outcomes that await college graduates once they enter the workforce. Ultimately, graduates' lifelong earnings potential depends on many factors—but choice of college major can be highly influential. Among prime-age workers with a bachelor's degree, median earnings range from \$58,000 for workers who majored in education and public service fields to \$98,000 for workers who majored in science, technology, engineering, or mathematics (STEM) fields. Median earnings by major show even larger differences, ranging from \$51,000 for early childhood education majors to \$146,000 for petroleum engineering majors.<sup>7</sup>

Choice of major can also affect employment outcomes, particularly at the start of graduates' careers.<sup>8</sup> Graduates with a bachelor's degree in the humanities and the arts or in the social sciences face the highest rates of unemployment—4.1 percent and 3.6 percent among prime-age workers with a bachelor's degree, respectively.

1 Jones, "U.S. Confidence in Higher Education Now Closely Divided," 2024.

2 Hanowell, "Finding a Job Has Gotten Harder, Especially for Jobs That Require a Bachelor's Degree," 2024; Levine, "College Costs Aren't Skyrocketing—But They're Still Too High for Some," 2023; Smith, "The Hot Labor Market Has Melted Away," 2024; Smith and Adedoyin, "The Class of 2025 Tries to Crack a Chilly Job Market for College Grads," 2025.

3 *Economist*, "Why Today's Graduates Are Screwed," 2025.

4 Abel and Deitz, "Is College Still Worth It?," 2025.

5 The median earnings of all workers ages 25–54 with a college degree (comprising those with a bachelor's degree alone and those who also hold both a bachelor's and a graduate degree) are \$88,000. Median earnings are \$103,000 for those with both a bachelor's degree and a graduate degree. For a more detailed evaluation of postsecondary earnings and their associated earnings premiums relative to those of high school workers, see Table B1 in Appendix B.

6 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled). These values reflect the unemployment rate among prime-age workers (ages 25–54).

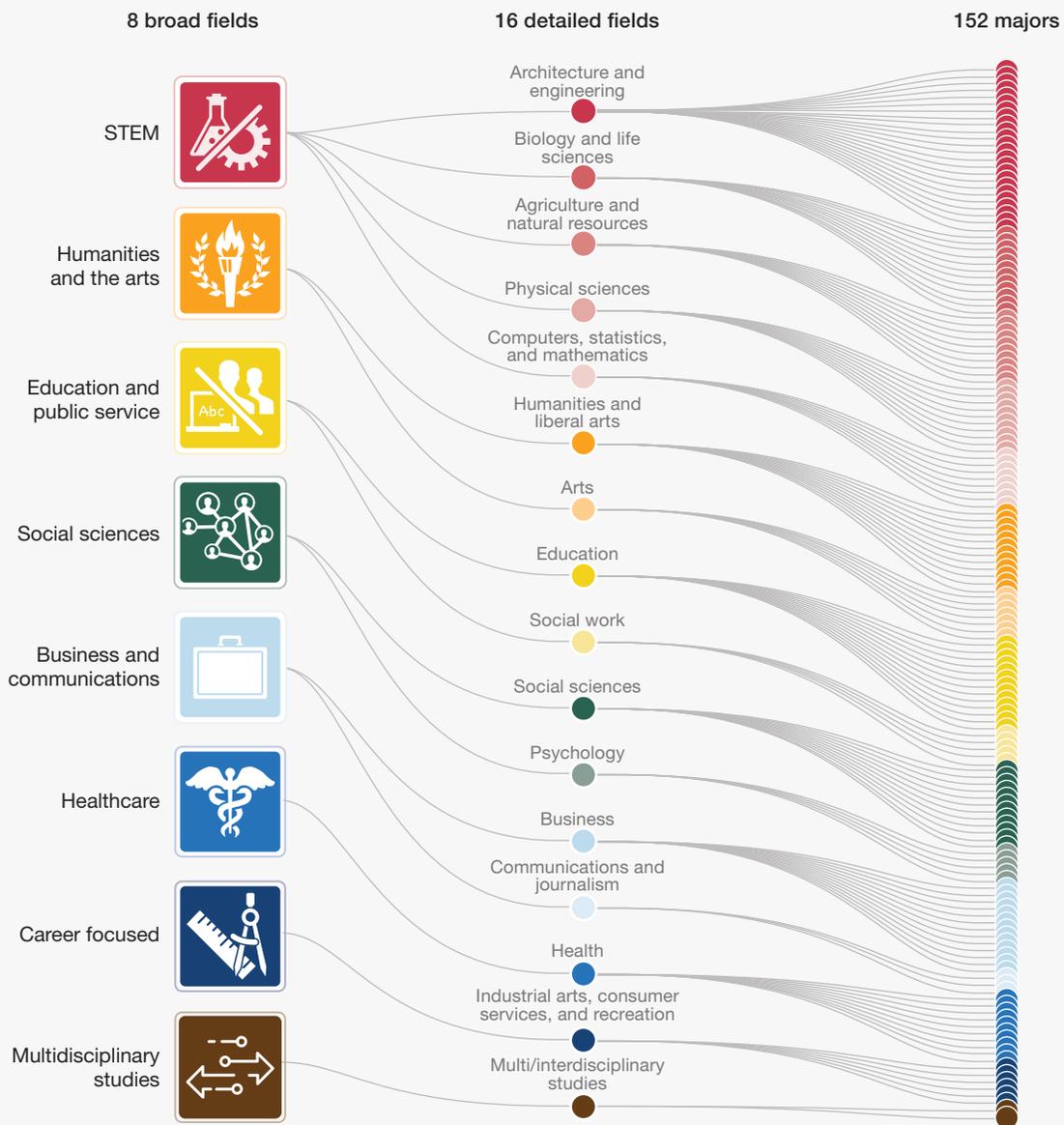
7 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled). These values reflect earnings for full-time, full-year workers with a bachelor's degree alone.

8 Our analysis of the unemployment rate among bachelor's degree holders is aggregated at the detailed field level due to small sample sizes within some majors.

## Categorizing bachelor's degree majors

The American Community Survey identifies 174 bachelor's degree majors. While majors may cover similar subject material, they may go by different names across institutions. To simplify this information for readers, we have aggregated these majors into 152 major categories, organized within 16 detailed fields and 8 broad fields.

**FIGURE 1. This report categorizes 152 majors across 8 broad fields and 16 detailed fields.**



Source: Georgetown University Center on Education and the Workforce analysis of code lists from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled), and College Board, “College Majors,” 2025. For more detail, see Table A1 in Appendix A.

Note: STEM = science, technology, engineering, and mathematics.

In contrast, those who majored in education and public service or healthcare have the lowest unemployment rates, at 2.1 percent and 1.9 percent.<sup>9</sup>

Recent college graduates face a higher rate of unemployment compared to the full prime-age population (the overall unemployment rate among workers ages 22–26 with a bachelor's degree is 5.3 percent, compared with 2.9 percent among prime-age workers with a bachelor's degree). This is the case even for some majors that, until recently, were generally seen as both in demand and high paying. For instance, recent college graduates who majored in computer science, statistics, and mathematics face an unemployment rate of 6.8 percent. In contrast, majors that lead to work in occupations with critical skills shortages, including those in education and health,<sup>10</sup> lead to low levels of unemployment for recent graduates.

Over the past several decades, a steady stream of messaging has emphasized the value of majoring in STEM, healthcare, or business and communications.<sup>11</sup> Trends in bachelor's degree major choice and degree production—characterized by rapid growth in fields such as computer science and healthcare—suggest that many students perceive such majors and fields to be reliable pathways to both high pay and abundant job opportunities. Meanwhile, institutions are producing fewer bachelor's degrees in

the less lucrative fields of humanities and the arts and education and public service.<sup>12</sup>

Although bachelor's degree attainment has risen across all racial and ethnic groups—and women now make up a majority of workers with a bachelor's degree<sup>13</sup>—these gains have not been evenly distributed.<sup>14</sup> Additionally, certain long-standing disparities are still present: Notably, men are overrepresented among workers with a bachelor's degree in STEM, while women are overrepresented among workers with a bachelor's degree in healthcare or education and public service. These patterns largely hold for recent graduates entering the workforce, as Part 5 of this report explores in greater detail.

The unusually difficult labor market for recent graduates is something of a historical anomaly: Until recently, newly minted college graduates fared better than the general population in employment. As of 2022, however, recent graduates now face higher-than-average levels of unemployment.<sup>15</sup> Observers point to low worker turnover and scattered layoffs in white-collar occupations as some of the reasons why recent college graduates are struggling to break into competitive industries.<sup>16</sup> Some attribute these changes to advances in artificial intelligence (AI),<sup>17</sup> while others argue that the general slowdown in hiring across multiple occupations and

9 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23. These values reflect the unemployment rate among prime-age workers (ages 25–54).

10 Smith et al., *Falling Behind*, 2025.

11 Among numerous other sources, multiple Georgetown University Center on Education and the Workforce reports emphasize the higher returns to STEM, healthcare, and business majors. Carnevale et al., *The Economic Value of College Majors*, 2015; Carnevale et al., *What's It Worth?*, 2011.

12 Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), “Completions Survey,” 2009 and 2023; Heller, “The End of the English Major,” 2023.

13 Fry, “Women Now Outnumber Men in the U.S. College-Educated Labor Force,” 2022.

14 American Council on Education, *Race and Ethnicity in Higher Education*, 2024.

15 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1990–2024.

16 Hanowell, “Finding a Job Has Gotten Harder, Especially for Jobs That Require a Bachelor's Degree,” 2024; Karma, “The Job Market Is Frozen,” 2025; Lahart and Chen, “Young Graduates Are Facing an Employment Crisis,” 2025.

17 Deming et al., “Technological Disruption in the Labor Market,” 2025; Scheiber, “Which Workers Will AI Hurt Most,” 2025; Thompson, “Something Alarming Is Happening to the Job Market,” 2025.

sectors that typically account for much of the hiring of recent college graduates is primarily to blame.<sup>18</sup> Whatever the root cause, these dynamics put added weight on students' college major choices.

Selecting a major in the face of current uncertainties requires students to balance their personal interests and aptitudes against their earnings potential in a dynamic and unpredictable labor market. Choosing a major in light of these critical but occasionally contradictory considerations is no easy task, and students need good information to make sense of where each major might lead them. This report—which provides insight into the outcomes associated with various majors, including the median earnings, the graduate degree earnings premium, and the unemployment rate associated with each major—is intended to help students and their families make better-informed decisions about one of the most important investments they can make for their careers and futures.



18 Eckhardt and Goldschlag, "AI and Jobs," 2025; Rinehart, "Are Software Jobs Collapsing?," 2025; Wynne and Derr, "Will AI Replace Your Job?," 2025.

# PART 1

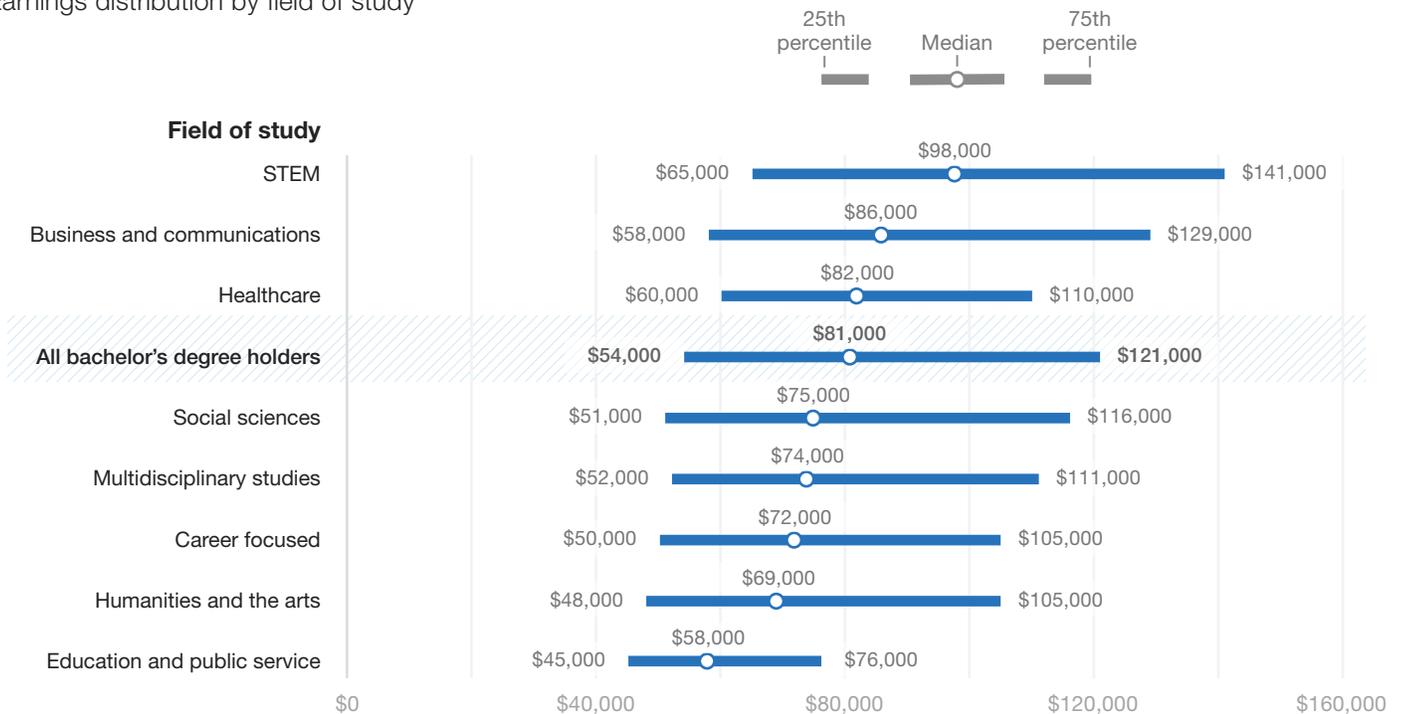
## STEM, Healthcare, and Business Majors Have the Highest Earnings After Graduation, with Considerable Variation by Field of Study.

Median earnings vary significantly by field of study and major, with bachelor's degrees in STEM, business and communications, and healthcare leading to the highest median earnings for all prime-age workers with a bachelor's degree. Meanwhile, the median earnings

among workers with bachelor's degrees in education and public service, humanities and the arts, career-focused fields, multidisciplinary studies, and the social sciences are below the overall median of \$81,000 (Figure 2).<sup>19</sup>

**FIGURE 2. Prime-age workers with bachelor's degrees in STEM, business and communications, and healthcare experience the highest median earnings.**

Earnings distribution by field of study



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Values reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

<sup>19</sup> See Table A1 in Appendix A for a list of the majors associated with each field.

However, a bachelor's degree in a high-paying field is not a blanket guarantee of high earnings. First, half of all workers will earn less than the median. Second, there can be a significant spread in the within-field earnings distribution. For instance, while workers with bachelor's degrees in STEM earn \$98,000 at the median, 25 percent of these workers earn less than \$65,000 and 25 percent earn more than \$141,000. Similarly, the median earnings associated with individual majors can range widely within broader field groups. As just one example, within the 65 STEM majors, median earnings range from \$146,000 for workers with a bachelor's degree in petroleum engineering to \$64,000 for workers with a bachelor's degree in miscellaneous agriculture.

As a result of the broad range in possible earnings by major across fields, some graduates who majored in humanities and the arts have higher median earnings than graduates who majored in STEM. The range of the median earnings across the 19 distinct humanities and arts majors is relatively narrow (\$58,000 to \$73,000), but of these 19 humanities and arts majors, 14 lead to median earnings above \$65,000. This leaves just five humanities and arts majors—studio arts (\$58,000), visual and performing arts (\$60,000), drama and theater arts (\$62,000), composition and speech (\$63,000), and music (\$64,000)—for which median earnings fall below the 25th percentile of earnings among workers with a bachelor's degree in STEM.

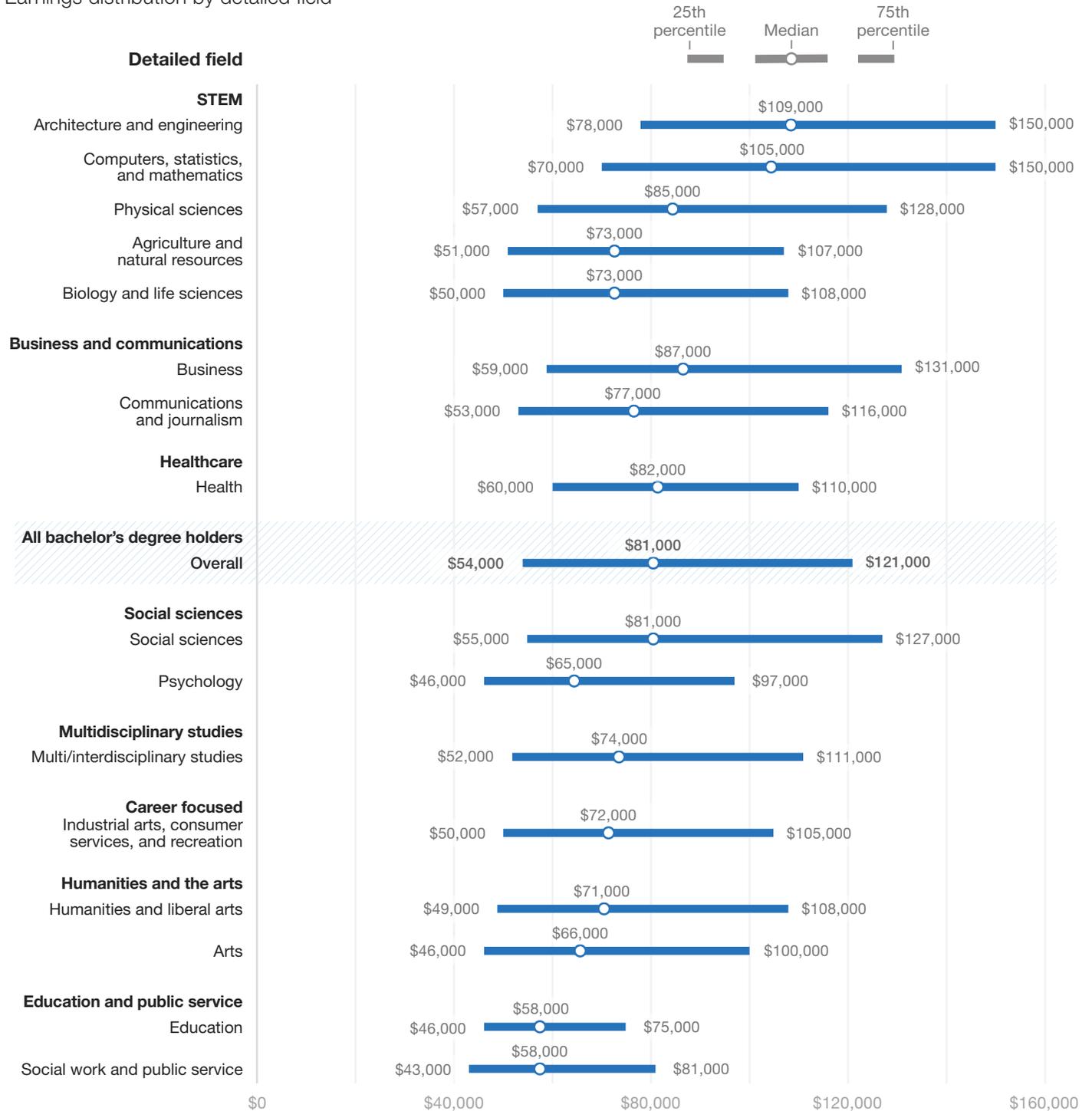
When categorizing majors by detailed field, we find that the highest median earnings among STEM graduates go to workers who majored in architecture and engineering; computers, statistics, and mathematics; and physical sciences. Workers who majored in business or health also earn above the median among all prime-age workers with a bachelor's degree. Agriculture and natural resources and biology and life sciences are the only two STEM majors that yield lower median earnings for bachelor's degree–holding workers than the overall median. Workers with bachelor's degrees in social work and public service, education, arts, psychology, and humanities and liberal arts majors experience the lowest median earnings (Figure 3).

At the individual major level, architecture and engineering degrees yield the highest earnings, led by petroleum engineering, metallurgical engineering, and nuclear engineering majors. Three computers, statistics, and mathematics majors—specifically, computer engineering, computer science, and applied mathematics—are also among the 20 most lucrative majors. Just three non-STEM bachelor's degree majors—pharmacy and pharmaceutical sciences and administration,<sup>20</sup> actuarial science, and management information systems and statistics—are among the top 20 (Table 1).

20 While the median earnings of prime-age workers with a bachelor's degree in pharmacy and pharmaceutical sciences and administration are among the highest of all majors (\$145,000), earnings among recent graduates with a bachelor's degree in this major are significantly lower (\$50,000). Until the 1990s, many pharmacists could practice with a five-year bachelor of science in pharmacy degree. Today, practicing as a pharmacist requires a graduate degree. This suggests that the higher earnings among prime-age workers with a bachelor's degree in pharmacy and pharmaceutical sciences and administration are driven by older workers who earned a five-year bachelor's degree in prior decades. Fink, "Pharmacy," 2012; US Bureau of Labor Statistics, "Pharmacists," 2025.

**FIGURE 3. Workers with bachelor's degrees in architecture and engineering; business; computers, statistics, and mathematics; health; and physical sciences have the highest median earnings.**

Earnings distribution by detailed field



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Values reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

**TABLE 1. STEM majors account for 17 of the 20 bachelor's degree majors that lead to the highest median earnings for prime-age workers.**

Field	Detailed field	Major	Median earnings
STEM	Architecture and engineering	Petroleum engineering	\$146,000
Healthcare	Health	Pharmacy and pharmaceutical sciences and administration	\$145,000
STEM	Architecture and engineering	Metallurgical engineering	\$125,000
STEM	Architecture and engineering	Nuclear engineering	\$125,000
STEM	Architecture and engineering	Electrical engineering	\$123,000
STEM	Architecture and engineering	Naval architecture and marine engineering	\$123,000
STEM	Architecture and engineering	Mining and mineral engineering	\$121,000
STEM	Computers, statistics, and mathematics	Computer engineering	\$121,000
STEM	Architecture and engineering	Chemical engineering	\$121,000
Business and communications	Business	Actuarial science	\$118,000
STEM	Architecture and engineering	Aerospace engineering	\$116,000
STEM	Computers, statistics, and mathematics	Computer science	\$116,000
STEM	Architecture and engineering	Mechanical engineering	\$113,000
STEM	Architecture and engineering	Industrial and manufacturing engineering	\$108,000
Business and communications	Business	Management information systems and statistics	\$108,000
STEM	Architecture and engineering	Architectural engineering	\$107,000
STEM	Architecture and engineering	Civil engineering	\$107,000
STEM	Architecture and engineering	Materials engineering and materials science	\$107,000
STEM	Physical sciences	Materials science	\$106,000
STEM	Computers, statistics, and mathematics	Applied mathematics	\$105,000

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Values reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

The most lucrative majors are not always the most common. Workers who majored in petroleum engineering, metallurgical engineering, and nuclear engineering make up less than half of a percent (per major) of all workers with a bachelor's degree. Colleges and universities are more likely to offer majors such as chemical engineering (the bachelor's degree major leading to the ninth-highest pay), opening doors to a more diverse array of job opportunities. As an occupation, petroleum engineering offers high earnings but relatively few jobs and limited employment growth over the next decade.<sup>21</sup> Similarly, there are a relatively small number of nuclear engineering jobs available, and employment opportunities in this occupation are projected to decline over the next decade.<sup>22</sup>

At the other end of the spectrum, majors in education and public service are most prevalent among the 20 majors that lead to the lowest earnings for workers with bachelor's degrees. Many of these majors prepare graduates for careers in teaching, social work, or the arts. The three majors associated with the lowest earnings are early childhood education (\$51,000); counseling psychology (\$55,000); and teacher education: multiple levels (\$55,000). Just one healthcare major—communications disorders sciences and services, which prepares graduates to work as speech-language pathologists—appears among the 20 majors that yield the lowest earnings (Table 2).

**TABLE 2. Education and public service majors make up 14 of the 20 least lucrative majors, with early childhood education leading to the lowest median earnings among all prime-age workers with bachelor's degrees.**

Field	Detailed field	Major	Median earnings
Education and public service	Education	Science and computer teacher education	\$62,000
Education and public service	Education	Secondary teacher education	\$62,000
Humanities and the arts	Arts	Drama and theater arts	\$62,000
Education and public service	Education	Mathematics teacher education	\$62,000
Education and public service	Education	Social science or history teacher education	\$61,000
Healthcare	Health	Communication disorders sciences and services	\$61,000
Humanities and the arts	Arts	Visual and performing arts	\$60,000
Career focused	Industrial arts, consumer services, and recreation	Family and consumer sciences	\$59,000

21 US Bureau of Labor Statistics, "Petroleum Engineers," 2025.

22 US Bureau of Labor Statistics, "Nuclear Engineers," 2025.

Field	Detailed field	Major	Median earnings
Education and public service	Education	General education	\$59,000
Education and public service	Education	Language and drama education	\$59,000
Education and public service	Education	Special needs education	\$58,000
Education and public service	Education	Art and music education	\$58,000
Education and public service	Social work and public service	Theology and religious vocations	\$58,000
Humanities and the arts	Arts	Studio arts	\$58,000
Education and public service	Education	Elementary education	\$56,000
Education and public service	Social work and public service	Social work	\$56,000
Education and public service	Social work and public service	Human services and community organization	\$56,000
Education and public service	Education	Teacher education: multiple levels	\$55,000
Social sciences	Psychology	Counseling psychology	\$55,000
Education and public service	Education	Early childhood education	\$51,000

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Note: Values reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

### Exploring college earnings

For a complete overview of the earnings outcomes associated with all 152 majors for prime-age and early-career bachelor's degree holders, [visit our online data tool](#). This tool provides detailed information about the median earnings associated with each major, as well as earnings for workers at the 25th and 75th percentiles. It also provides an overview of the popularity of each major and the earnings and graduate-to-bachelor's degree earnings premiums that bachelor's degree holders experience after obtaining a graduate degree.

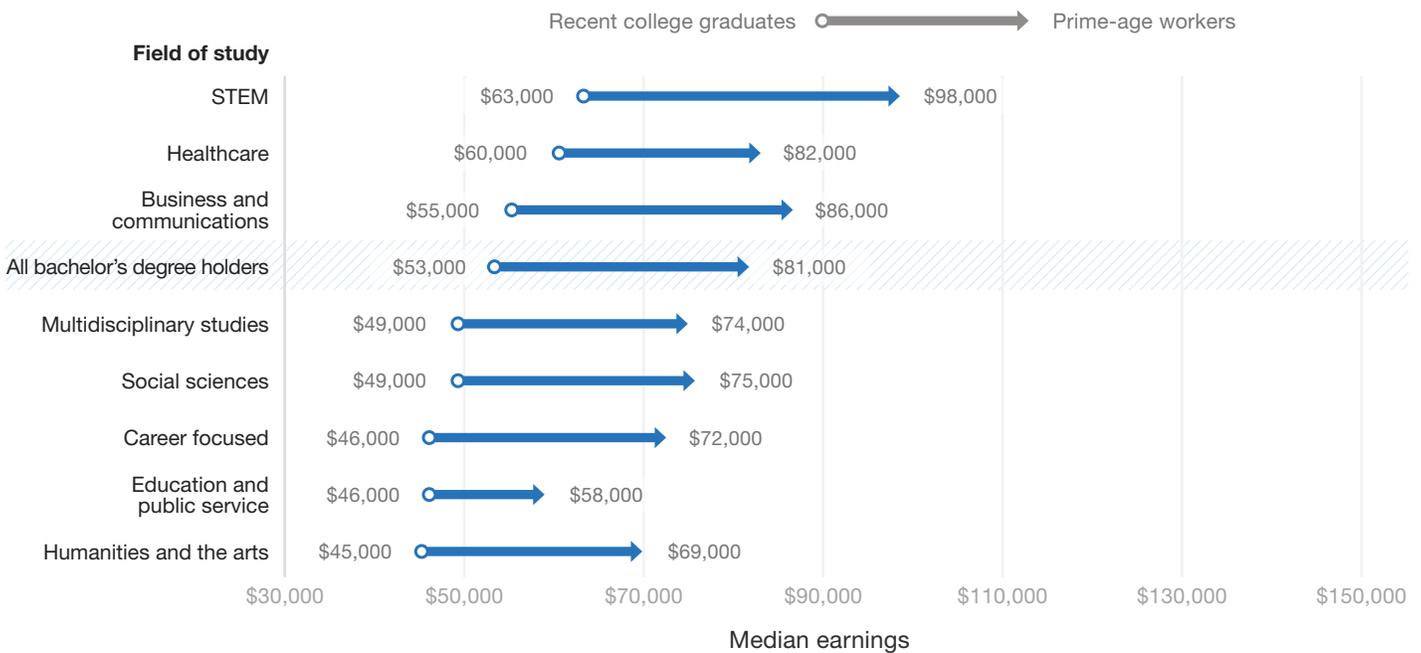


## Earnings are lower for recent graduates but grow over time.

Early-career earnings are not always indicative of how much graduates might expect to earn once they reach mid or late career. Still, early-career earnings can be meaningful, in some cases setting the tone for the rest of graduates' careers and affecting their lifelong earnings potential. At the broad field level, the same basic patterns play out for recent graduates

as for all prime-age workers with a bachelor's degree. STEM, healthcare, and business and communications are the most lucrative majors for recent college graduates, while humanities and the arts, career-focused fields, and education and public service are the least lucrative majors for those who have just completed their degree (Figure 4).

**FIGURE 4. Majors in the STEM, healthcare, and business and communications fields lead to earnings that are above the median for recent college graduates.**



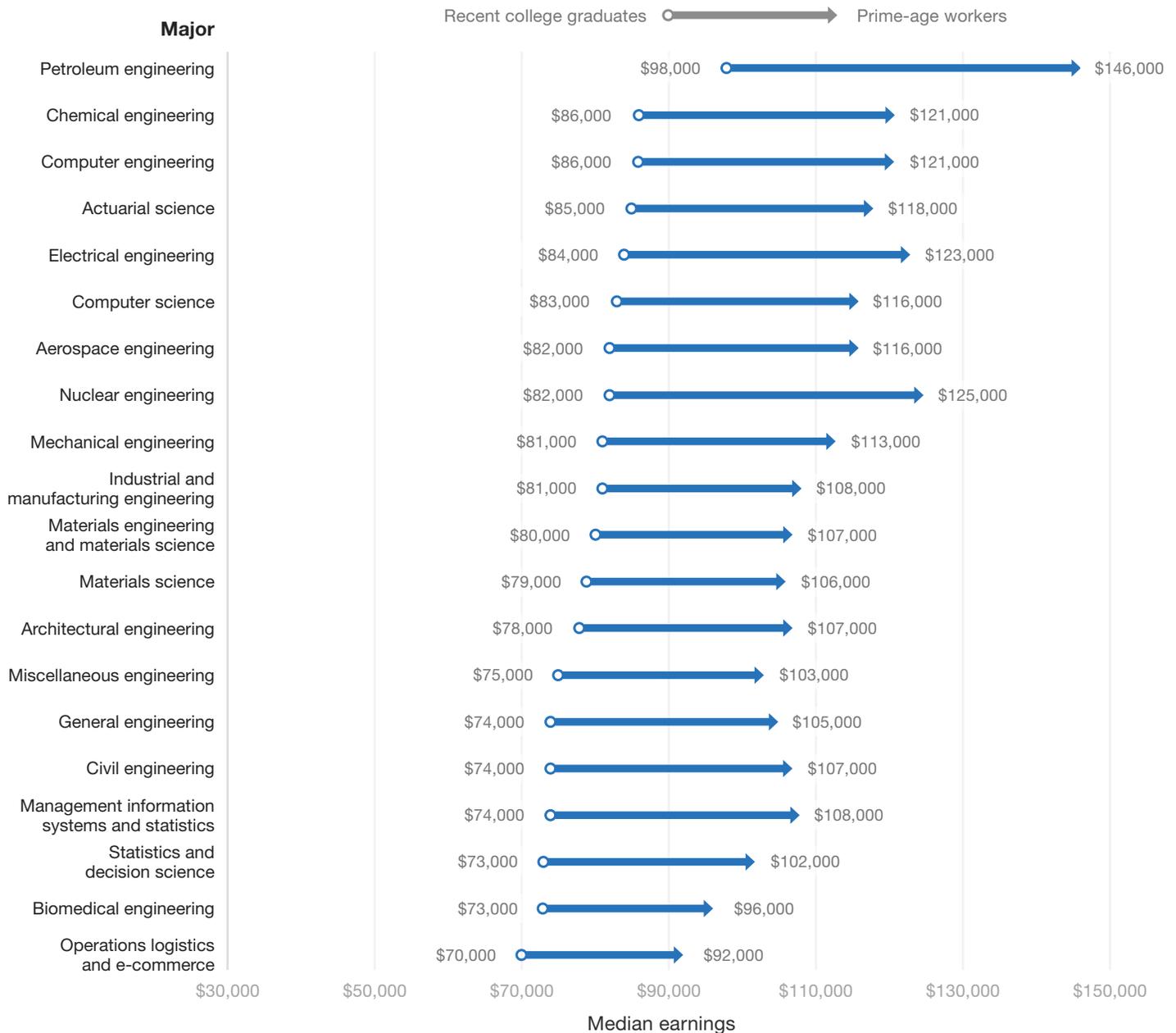
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Median earnings associated with recent college graduates reflect earnings among full-time, full-year workers ages 22–26 with bachelor's degrees only. Median earnings associated with prime-age workers reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

The 20 majors leading to the highest pay among recent college graduates closely resemble the 20 most lucrative majors for all prime-age, college-educated workers. Engineering majors such as petroleum engineering,

chemical engineering, and computer engineering are well represented among the majors yielding the highest pay for recent graduates (Figure 5).

**FIGURE 5. Petroleum engineering, chemical engineering, and computer engineering are the three most lucrative majors for recent college graduates.**



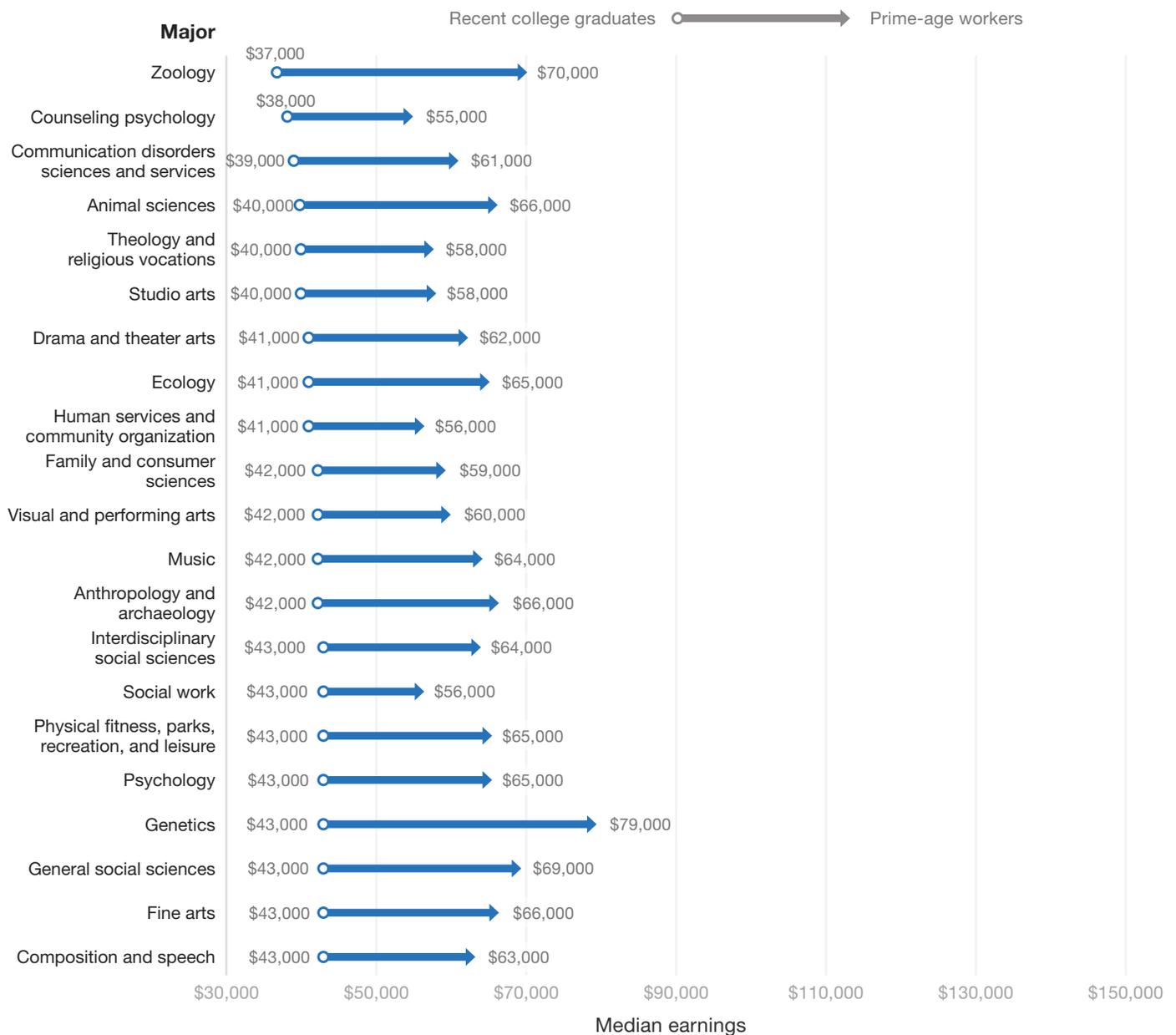
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: Median earnings for recent college graduates reflect earnings among full-time, full-year workers ages 22–26 with bachelor's degrees only. Median earnings for prime-age workers reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

The least lucrative majors for recent college graduates, by contrast, differ from the least lucrative majors for all prime-age workers with a bachelor's degree. In place of education and public service majors, the list of the least lucrative majors for recent graduates features a more diverse mix of fields, with greater representation of the arts, social

sciences, and biology and life sciences (Figure 6). The earnings associated with some of these majors are low at the outset of a career but grow with time, most notably for genetics and zoology. Earning a graduate degree can boost earnings further, as Part 3 explores in more detail.

**FIGURE 6. Zoology, counseling psychology, and communications disorders sciences and services majors lead to the lowest entry-level median earnings for recent college graduates.**



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: Median earnings associated with recent college graduates reflect earnings among full-time, full-year workers ages 22–26 with bachelor's degrees only. Median earnings associated with prime-age workers reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

## PART 2

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### More Students Are Opting for Degrees in STEM and Moving Away from Lower-Paying Fields Such as Humanities and the Arts.

Since the Great Recession, the US economy has undergone a series of transformations driven by new technologies and modes of work; these shifts only accelerated during and after the COVID-19 pandemic.<sup>23</sup> Over the past 15 years, the job market has rewarded STEM and healthcare majors with higher earnings and strong demand, as this report and previous reports from the Georgetown University Center on Education and the Workforce have found.<sup>24</sup> In response, more students have opted to major in fields that are perceived as high paying and in demand among employers, while less lucrative disciplines, such as the humanities and the arts, have seen declining enrollments and degree production.<sup>25</sup>

Today, business, health, humanities and the arts, social sciences, and architecture and engineering are the most popular bachelor's degree fields.<sup>26</sup> The fastest-growing field between 2009 and 2023, meanwhile, was computers, statistics, and mathematics, followed by health. Degree production in both of these detailed field

groups has more than doubled since 2009. Other STEM-related detailed fields—including agriculture and natural resources, biology and life sciences, and architecture and engineering—have also seen an uptick in degree production (Figure 7).<sup>27</sup>

In contrast, there has been a notable decline in the number of degrees conferred in the humanities and liberal arts (-33 percent) since 2009, with smaller drops in the fields of education (-14 percent) and the social sciences (-6 percent). The decline in the number of degrees in humanities and the arts likely reflects fears that a four-year humanities degree may not lead to a sufficiently lucrative career for graduates to recoup their investment.<sup>28</sup> As noted earlier, however, these perceptions are not necessarily borne out by the data: Just five humanities and arts majors (out of 19 total) lead to median earnings below \$65,000—the 25th percentile earnings threshold among workers with bachelor's degrees in STEM.<sup>29</sup>

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23 Liu et al., “Up in STEM, Down in Business,” 2019.

24 Carnevale et al., *The Economic Value of College Majors*, 2015; Carnevale et al., *What's It Worth?*, 2011.

25 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

26 Georgetown University Center on Education and the Workforce analysis of data from the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), “Completions Survey,” 2009–23. The majors identified in the IPEDS completions survey have been matched to the detailed field labels used throughout this report. For the underlying numbers, see Table C1 in Appendix C.

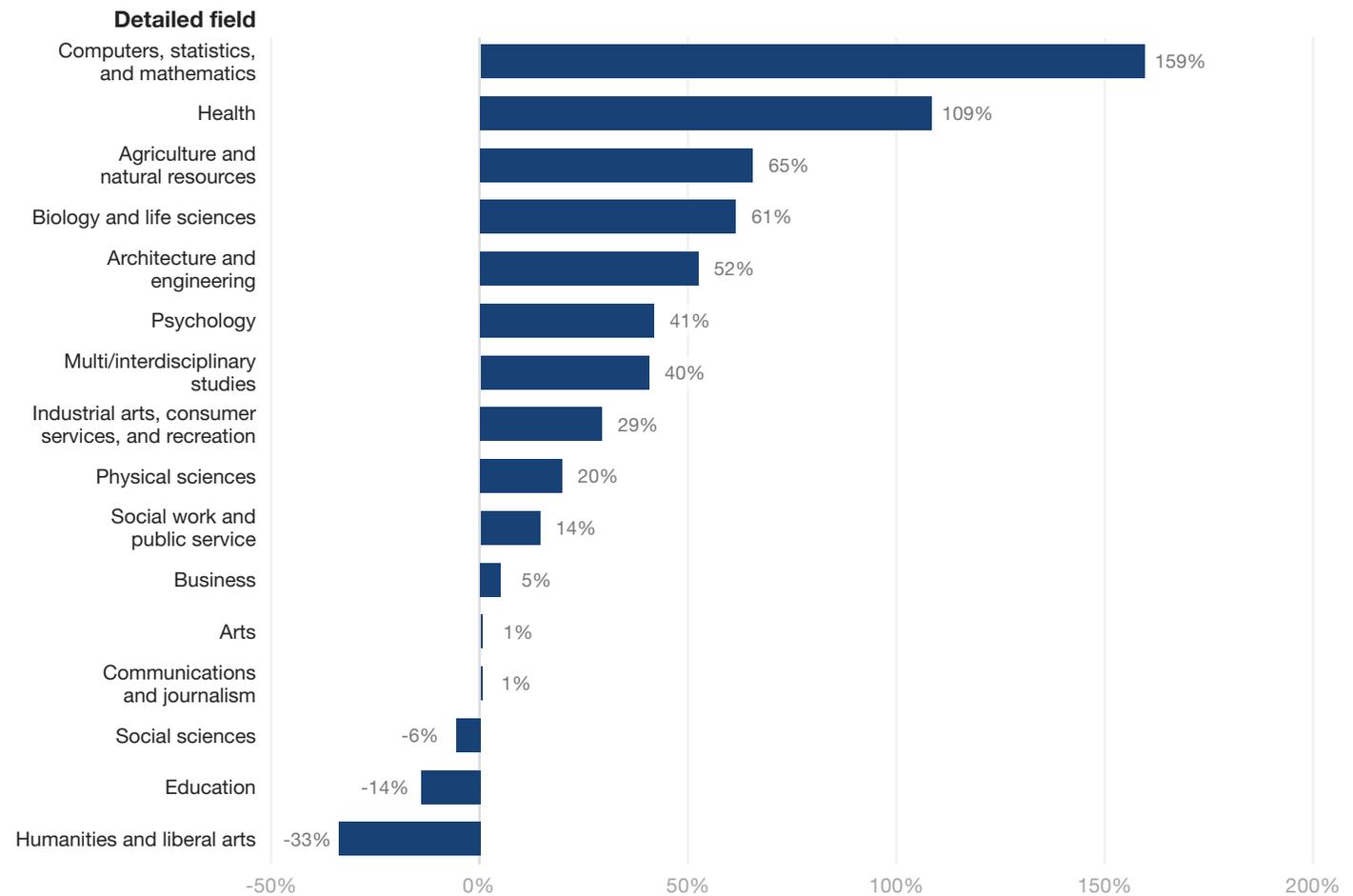
27 For the underlying numbers, see Table C1 in Appendix C.

28 Heller, “The End of the English Major,” 2023; Schmidt, “The Humanities Are in Crisis,” 2018.

29 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

**FIGURE 7. The number of students graduating with degrees in computers, statistics, and mathematics increased by 159 percent between 2009 and 2023.**

Percent change in degree completion by detailed field, 2009–23



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), “Completions Survey,” 2009 and 2023.

Note: The majors identified in the IPEDS completions survey have been matched to the detailed field labels used throughout this report. See Appendix C for more detail.

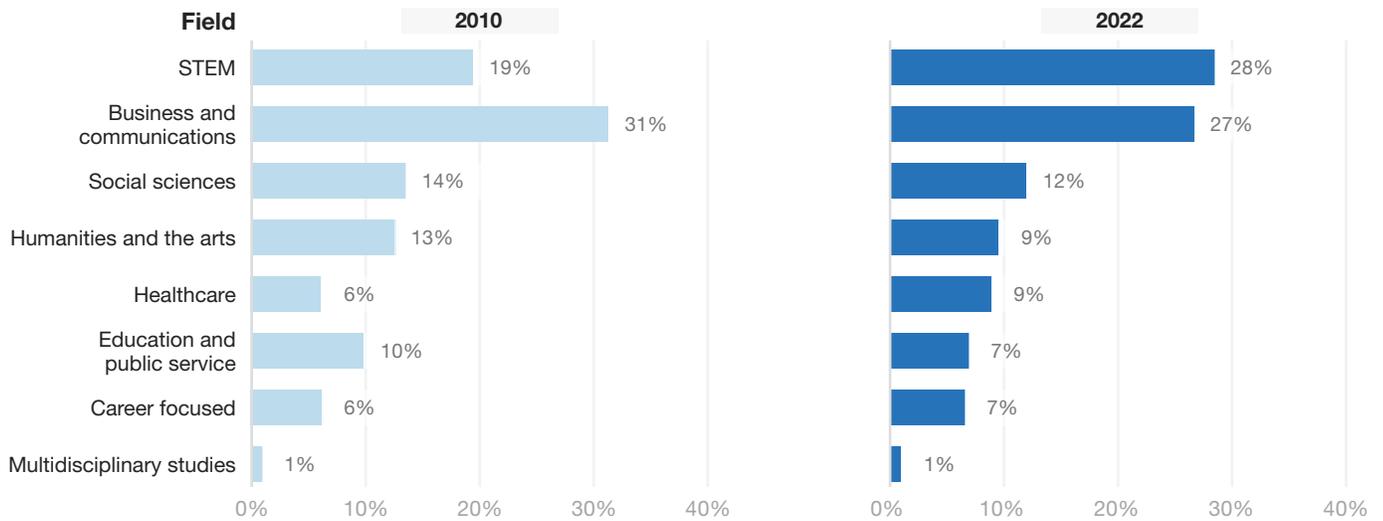
These changing incentives and preferences are reflected in the distribution of college majors among young workers with bachelor's degrees. In 2022, 28 percent of all workers ages 22–26 with a bachelor's degree majored in STEM, up from 19 percent in 2010. Meanwhile, the share of early-career workers with a bachelor's degree in humanities and the arts had fallen from 13 percent to 9 percent, and the share with a degree in business and

communications had decreased from 31 percent to 27 percent (Figure 8).

A closer look at the distribution of the early-career workforce with a bachelor's degree by detailed field shows that certain disciplines are key drivers of some of these gains and losses. Within the shrinking field of humanities and the arts, students are primarily shifting

**FIGURE 8. In 2022, nearly one-third of workers ages 22–26 with a bachelor's degree had majored in STEM fields, and only a slightly smaller share had majored in business and communications fields.**

Share of the recent college graduate workforce holding a bachelor's degree in the stated field



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2010 and 2022.

Note: STEM = science, technology, engineering, and mathematics. Values represent the workforce distribution of full-time, full-year workers ages 22–26 with a bachelor's degree in the specified field. The graphic for 2010 reflects the pooled three-year average across years 2009–11, and the graphic for 2022 reflects the pooled three-year average across years 2021–23. Workers with both a bachelor's degree and a graduate degree are not included in this analysis.

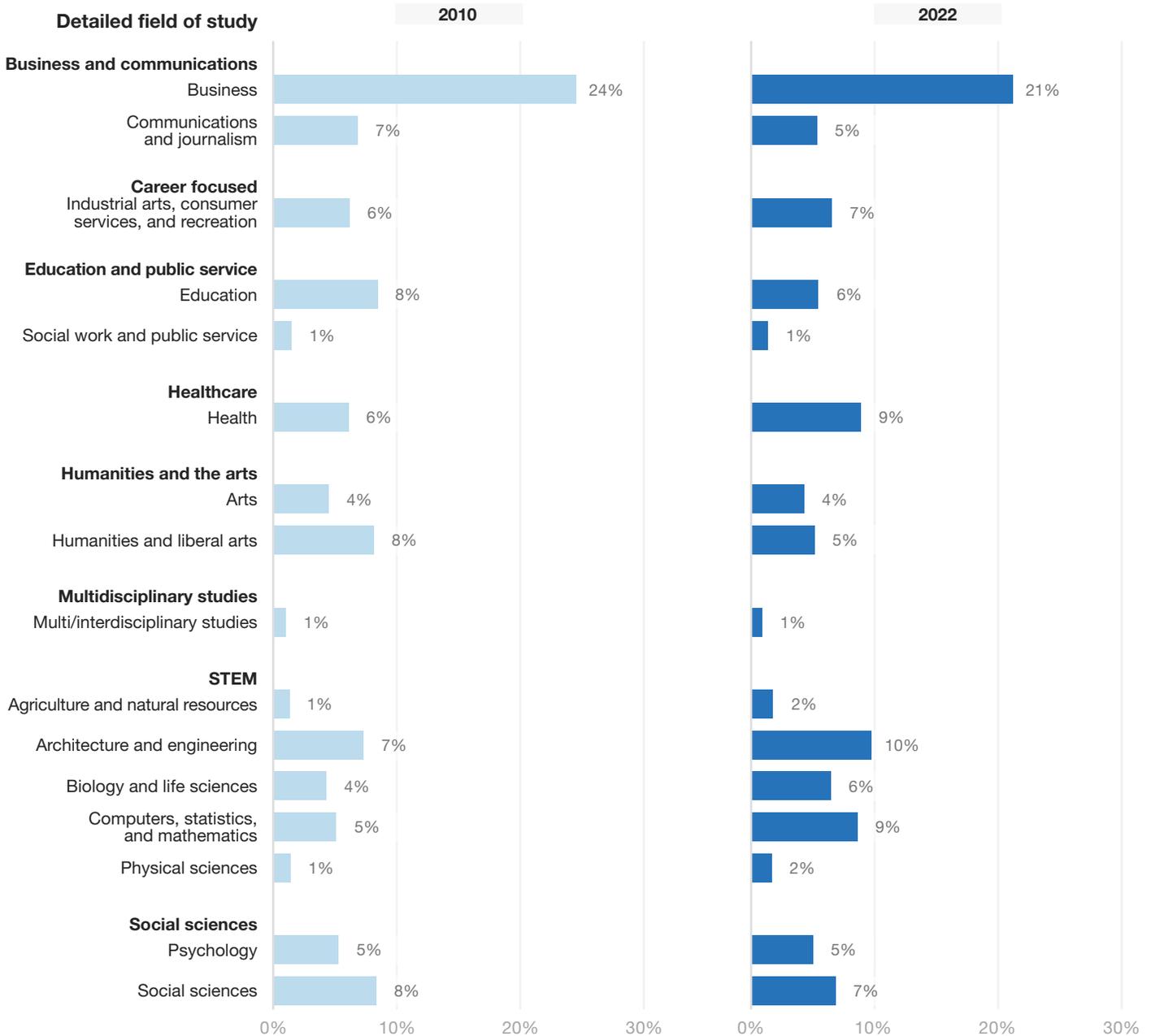
away from humanities and the liberal arts; a similar share holds a bachelor's degree in an arts field as did in 2010 (4 percent).<sup>30</sup> In education and public service, education majors dropped the most in popularity from 2010 to 2022 (falling from 8 percent to 6 percent), while social work and public service majors still account for just 1 percent of all young workers with a bachelor's degree. Within the

growing field of STEM, recent graduates with bachelor's degrees in computers, statistics, and mathematics (5 percent to 9 percent); architecture and engineering (7 percent to 10 percent); and biology and life sciences (4 percent to 6 percent) have seen the largest percentage-point growth (Figure 9).

30 For more detail on the distinction between humanities and liberal arts and arts majors, see Table A1 in Appendix A.

**FIGURE 9. STEM majors make up a growing share of young workers with a bachelor's degree, a shift largely driven by those majoring in architecture and engineering; computers, statistics, and mathematics; and biology and life sciences.**

Share of the recent college graduate workforce holding a bachelor's degree in the stated detailed field



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2010 and 2022.

Notes: STEM = science, technology, engineering, and mathematics. Values represent the workforce distribution of full-time, full-year workers ages 22–26 with a bachelor's degree in the specified detailed field (or major group). The graphics for 2010 reflect the pooled three-year average across years 2009–11, and the graphics for 2022 reflect the pooled three-year average across years 2021–23. Workers with both a bachelor's degree and a graduate degree are not included in this analysis. Values may not sum to 100 percent due to rounding.

The earnings associated with the fastest-growing detailed field within STEM—computers, statistics, and mathematics—tend to be higher than the overall median earnings for both recent college graduates and prime-age workers. Within computers, statistics, and mathematics, recent college graduates who majored in computer engineering and computer science have the highest median earnings (\$86,000 and \$83,000, respectively).

Median earnings for workers with these degrees increase with age and additional work experience, rising to \$121,000 and \$116,000, respectively, for prime-age workers with a bachelor's degree. Computer science is a particularly popular major: 42 percent of recent graduates with a bachelor's degree in computers, statistics, and mathematics chose this major (Table 3).

**TABLE 3. Computer science is both the most lucrative and most popular major within the computers, statistics, and mathematics detailed field group.**

Majors within computers, statistics, and mathematics	Median earnings (recent college graduates)	Median earnings (prime-age workers)	Distribution by detailed major of recent college graduates with a bachelor's degree in computers, statistics, and mathematics
Computer engineering	\$86,000	\$121,000	13%
Computer science	\$83,000	\$116,000	42%
Statistics and decision science	\$73,000	\$102,000	2%
Applied mathematics	\$70,000	\$105,000	2%
Information sciences	\$68,000	\$103,000	4%
Computer and information systems	\$63,000	\$96,000	12%
Mathematics	\$61,000	\$93,000	14%
Computers, statistics, and mathematics: other	\$54,000	\$81,000	11%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: Earnings associated with recent college graduates reflect earnings among full-time, full-year workers ages 22–26 with bachelor's degrees only. Earnings associated with prime-age workers reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

Meanwhile, among recent college graduates who majored in the second-fastest-growing detailed field—health—six in 10 hold a bachelor's degree in nursing. This major leads to the highest median earnings for recent college graduates with a bachelor's degree in health (\$67,000), and median earnings for nursing majors rise to \$86,000 among prime-age workers with a bachelor's degree in health. Among all prime-

age workers, those with majors in pharmacy and pharmaceutical sciences and administration have the highest median earnings overall in this field (\$145,000). However, the pharmacy and pharmaceutical sciences and administration major is relatively uncommon—just 1 percent of all workers ages 22–26 who completed a bachelor's degree in the health detailed field reported this as their undergraduate major (Table 4).<sup>31</sup>

**TABLE 4. Nursing is both the highest-paying and most common health major among recent graduates.**

Majors within health	Median earnings (recent college graduates)	Median earnings (prime-age workers)	Distribution by detailed major of recent college graduates with a bachelor's degree in health
Nursing	\$67,000	\$86,000	60%
Miscellaneous health medical professions	\$54,000	\$75,000	7%
Pharmacy and pharmaceutical sciences and administration	\$50,000	\$145,000	1%
Health and medical administrative services	\$48,000	\$68,000	5%
Nutrition sciences	\$47,000	\$67,000	3%
Community and public health	\$47,000	\$65,000	6%
Treatment therapy professions	\$45,000	\$81,000	6%
General medical and health services	\$44,000	\$66,000	8%
Health and medical preparatory programs	\$44,000	\$70,000	1%
Communication disorders sciences and services	\$39,000	\$61,000	3%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: Earnings associated with recent college graduates reflect earnings among full-time, full-year workers ages 22–26 with bachelor's degrees only. Earnings associated with prime-age workers reflect earnings among full-time, full-year workers ages 25–54 with bachelor's degrees only. Earnings have been rounded to the nearest thousand and are in 2024\$.

31 Until the 1990s, many pharmacists could practice with a five-year bachelor of science in pharmacy degree. Today, practicing as a pharmacist requires a graduate degree. The discrepancy in earnings among recent graduates and prime-age workers with bachelor's degrees in pharmacy and pharmaceutical sciences and administration is likely driven by older workers who earned the five-year degree in prior decades. Fink, "Pharmacy," 2012; US Bureau of Labor Statistics, "Pharmacists," 2025.

Recent graduates appear to have pursued STEM and healthcare majors in response to perceived high demand and high wages.<sup>32</sup> These graduates have made rational choices to follow the demands of the job market, but the overproduction of certain majors is one potential consequence of these shifting preferences.<sup>33</sup> For instance, recent evidence suggests that hiring in computer science, one of the most popular and fastest-growing STEM majors, is slowing as the tech industry trims staff and pulls back on

entry-level hiring.<sup>34</sup> Other researchers point out that many STEM graduates actually end up working in non-STEM fields,<sup>35</sup> a trend that suggests issues with the education-to-career pipeline in certain STEM majors.<sup>36</sup> Students should be mindful of shifts in demand for specific majors, and colleges and universities can help students by investing in career counseling supports that incorporate labor-market projections into their career advising.

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32 Schmidt, "The Humanities Are in Crisis," 2018.

33 Freeman, "Overinvestment in College Training?," 1975; Berger, "Predicted Future Earnings and Choice of College Major," 1988.

34 Nezej, "The Rise—and Fall—of the Software Developer," 2024; Rinehart, "Are Software Jobs Collapsing?," 2025; Yip, "Computer Science Grads Say the Job Market Is Rough," 2024.

35 Day and Martinez, "Does Majoring in STEM Lead to a STEM Job After Graduation?," 2021; Skrentny, "Why Pushing STEM Majors Is Turning Out to Be a Terrible Investment," 2024.

36 Burdman, "Where Have All the STEM Grads Gone?," 2024.

## PART 3

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### While Graduate Degrees Offer an Earnings Premium, the Returns Vary by Field, Detailed Field, and Major.

Generally speaking, workers with graduate degrees can command higher salaries and have more room to advance in their careers than those with bachelor's degrees alone. Our research also indicates that graduate degrees confer a 119 percent earnings advantage overall relative to a high school diploma, although this premium varies by field, detailed field, and degree.<sup>37</sup> Graduate degrees lead to a 29 percent earnings premium compared with a bachelor's degree.

Certain bachelor's degree majors do not lead to high earnings on their own but can be gateways to graduate degrees that offer more lucrative job opportunities. One such example is health and medical preparatory programs. Workers with a bachelor's degree in this major earn \$70,000 at the median, but with a bachelor's degree in this major and a graduate degree in any field, workers' median earnings jump to \$152,000. Just 1 percent of workers with a bachelor's degree in healthcare have this major, but of those, 77 percent also hold a graduate degree, indicating that this major is a common step on the path to further education in the medical field.

A similar example is psychology, which offers median earnings of \$65,000 to workers with a bachelor's degree only, compared with median earnings of \$86,000 for those with a bachelor's degree and a graduate degree.<sup>38</sup> Psychology majors who want to apply their degrees as psychologists or therapists typically need a graduate degree and a license to pursue this career path.<sup>39</sup> Our analysis indicates that 48 percent of workers with a bachelor's degree in psychology also hold a graduate degree.<sup>40</sup>

At the field level, workers with bachelor's degrees in multidisciplinary studies benefit the most from earning a graduate degree, with a 40 percent increase in their earnings. After these workers, those with bachelor's degrees in social sciences have the next largest graduate degree earnings premium (34 percent), alongside workers with bachelor's degrees in education and public service and humanities and the arts, at 32 percent each. At the other end of the spectrum, workers with bachelor's degrees in the career-focused and business and communications fields see lower graduate degree earnings premiums in percentage terms than those who majored in other fields (Figure 10).

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37 See Table B1 in Appendix B. Additionally, see Gulish et al., *Graduate Degrees*, 2024.

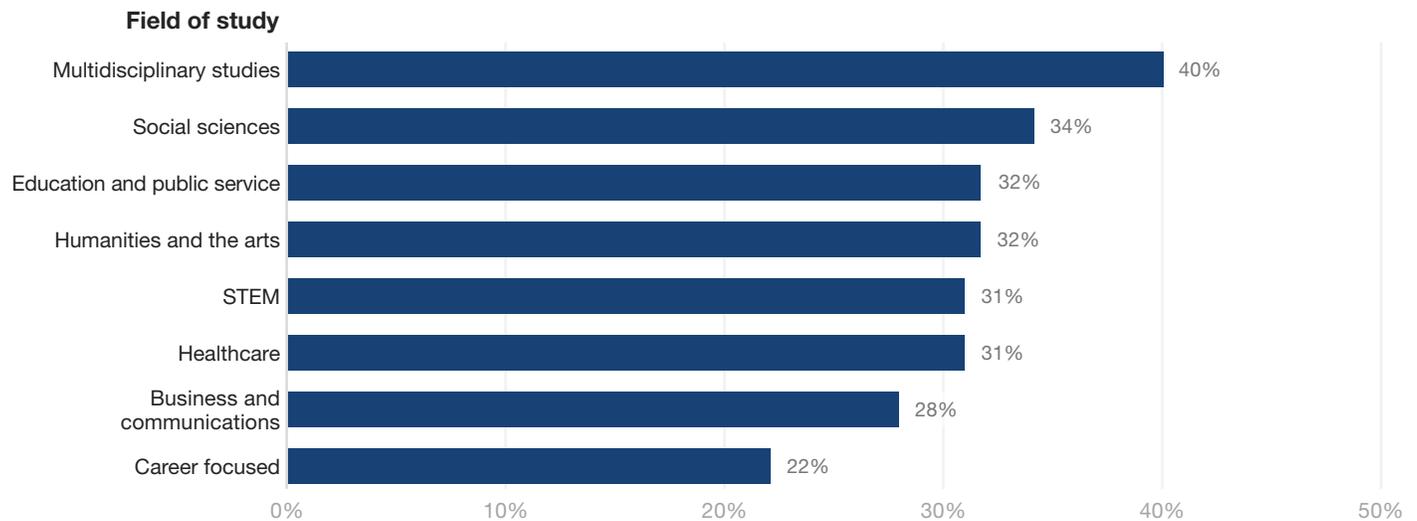
38 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

39 US Bureau of Labor Statistics, "Psychologists," 2025.

40 For more detail on graduate degree prevalence across bachelor's degree majors, [see the data tool](#). Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

**FIGURE 10. Workers with bachelor's degrees in multidisciplinary studies, social sciences, education and public service, and humanities and the arts experience the largest graduate degree earnings premium.**

Graduate degree earnings premium by bachelor's degree field



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Percentages are based on the earnings of full-time, full-year workers ages 25–54 with a bachelor's degree in the stated field of study and a graduate degree in any field.

Earnings premiums can be misleading, however, as they are sensitive to baseline earnings. For instance, a worker with an education and public service major with median earnings of \$58,000 benefits from a 32 percent increase in earnings (+\$19,000) after receiving a graduate degree. In dollar terms, this increase is similar to the benefit that workers with a bachelor's degree in a career-focused major gain from a graduate degree (a \$16,000 increase in median earnings from a base of \$72,000, and a 22 percent earnings premium).<sup>41</sup>

As noted earlier, higher earnings are not necessarily the primary incentive for a student to earn a graduate

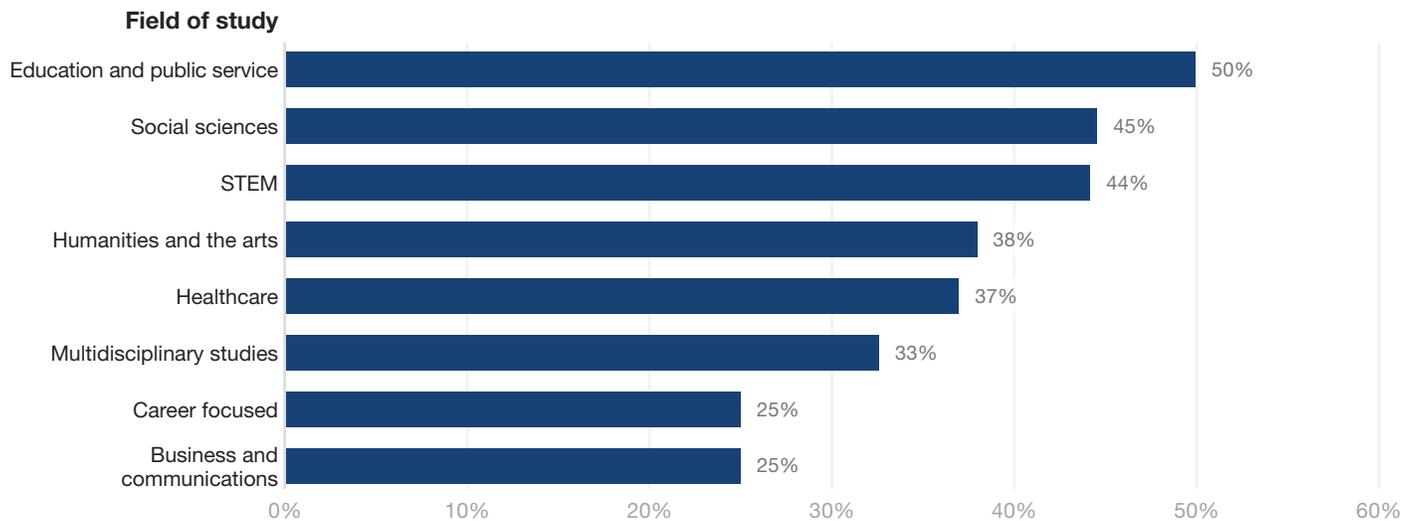
degree—in some cases, a graduate degree is required, or at least strongly incentivized, for a worker to advance on a certain professional pathway.<sup>42</sup> For instance, workers who hold a bachelor's degree in education and public service—the degree field leading to the lowest median earnings among prime-age workers with a bachelor's degree overall—are the most likely to go on to earn a graduate degree (50 percent), followed by workers with bachelor's degrees in the social sciences (45 percent) and STEM (44 percent; Figure 11).

41 Additional factors can further influence the graduate degree earnings premium. For example, graduate degree field and type of degree acquired can affect earnings potential. For more detail, see Gulish et al., *Graduate Degrees*, 2024.

42 In three states, a master's degree is a requirement to work in the public school system, while other states incentivize public school teachers to earn a master's degree through higher earnings. As a result, half of public school teachers have a master's degree. US Department of Education, National Center for Education Statistics, "Characteristics of Public School Teachers," 2023; Nittler, "You Don't Get What You Pay For," 2019.

**FIGURE 11. Workers with bachelor's degrees in education and public service, social sciences, or STEM are most likely to earn a graduate degree.**

Share of workers with a bachelor's degree in the stated field who also hold a graduate degree



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Shares are based on full-time, full-year workers ages 25–54 with a bachelor's degree in the stated field of study and a graduate degree in any field.

At the major level, workers with a bachelor's degree in STEM or healthcare fields experience the most significant benefit from earning a graduate degree. Within this group, health and medical preparatory program majors see the most substantial benefit to completing a graduate degree, with an earnings premium of 117 percent (\$70,000 versus \$152,000). The next highest graduate degree earnings premiums are for workers who majored in zoology,

biochemical sciences, biology, and chemistry, respectively. It is relatively common for workers with bachelor's degrees in these majors to obtain a graduate degree. Just over three in four workers with a bachelor's degree from a health and medical preparatory program also have a graduate degree, as is the case for 70 percent of biochemical sciences majors and 69 percent of molecular biology majors (Table 5).

### Exploring the graduate degree earnings premium

[The data tool accompanying this report](#) provides an overview of the graduate degree earnings premium by major under the tab “Graduate Degrees.”



**TABLE 5. Prime-age workers with a bachelor's degree in health and medical preparatory programs benefit from a 117 percent graduate degree earnings premium.**

Field	Detailed field	Major	Median earnings among workers with a bachelor's degree alone	Median earnings among workers with a graduate degree	Graduate degree earnings premium	Percentage of workers with a graduate degree
Healthcare	Health	Health and medical preparatory programs	\$70,000	\$152,000	117%	77%
STEM	Biology and life sciences	Zoology	\$70,000	\$129,000	86%	63%
STEM	Biology and life sciences	Biochemical sciences	\$77,000	\$129,000	67%	70%
STEM	Biology and life sciences	Biology	\$73,000	\$120,000	65%	61%
STEM	Physical sciences	Chemistry	\$81,000	\$130,000	60%	64%
STEM	Biology and life sciences	Molecular biology	\$77,000	\$122,000	58%	69%
STEM	Agriculture and natural resources	Animal sciences	\$66,000	\$103,000	57%	39%
STEM	Physical sciences	Geosciences	\$81,000	\$123,000	52%	57%
STEM	Biology and life sciences	Physiology	\$74,000	\$110,000	49%	63%
Social sciences	Social sciences	Pre-law and legal studies	\$70,000	\$104,000	47%	35%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Earnings are based on full-time, full-year workers ages 25–54. Field, detailed field, and major apply to workers' bachelor's degree majors; some graduate degree holders may have obtained a graduate degree in another field. Earnings have been rounded to the nearest thousand and are in 2024\$; the earnings premiums are based on unrounded numbers.

At the other end of the spectrum, half of the majors with the lowest graduate-to-bachelor's degree earnings premiums are in the architecture and engineering subset of the STEM fields (Table 6). Workers with a bachelor's degree in pharmacy and pharmaceutical sciences and administration appear to experience the least meaningful

graduate-to-bachelor's degree earnings premium (2 percent). However, this finding requires some additional context: While a graduate degree is required in order to practice as a pharmacist today,<sup>43</sup> until the late 1990s, most pharmacists obtained a five-year bachelor of science in pharmacy degree.<sup>44</sup> Given the discrepancy

43 US Bureau of Labor Statistics, "Pharmacists," 2025.

44 Fink, "Pharmacy," 2012.

in median earnings for recent college graduates with a bachelor's degree in pharmacy, pharmaceutical sciences, and administration (\$50,000) versus the median earnings of prime-age graduates with a bachelor's degree in this

major (\$145,000), it is possible that the relatively high earnings among prime-age bachelor's degree holders is driven by older cohorts who earned the five-year bachelor's degree in pharmacy.

**TABLE 6. Prime-age workers with bachelor's degrees in architectural engineering; industrial arts, consumer services, and recreation (other); and architecture experience among the lowest graduate-to-bachelor's degree earnings premiums.**

Field	Detailed field	Major	Median earnings among workers with a bachelor's degree alone	Median earnings among workers with a graduate degree	Graduate degree earnings premium	Percentage of workers with a graduate degree
Healthcare	Health	Pharmacy and pharmaceutical sciences and administration	\$145,000	\$147,000	2%	64%
STEM	Architecture and engineering	Architectural engineering	\$107,000	\$113,000	5%	33%
Career focused	Industrial arts, consumer services, and recreation	Industrial arts, consumer services, and recreation: other	\$87,000	\$96,000	10%	10%
STEM	Architecture and engineering	Architecture	\$88,000	\$99,000	13%	39%
Business and communications	Communications and journalism	Advertising and public relations	\$79,000	\$90,000	14%	19%
STEM	Architecture and engineering	Petroleum engineering	\$146,000	\$167,000	14%	31%
STEM	Agriculture and natural resources	Soil science	\$81,000	\$93,000	14%	39%
STEM	Architecture and engineering	Mining and mineral engineering	\$121,000	\$139,000	15%	41%
Education and public service	Social work and public service	Public administration	\$80,000	\$94,000	17%	48%
STEM	Architecture and engineering	Nuclear engineering	\$125,000	\$147,000	17%	53%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Earnings are based on full-time, full-year workers ages 25–54. Field, detailed field, and major apply to workers' bachelor's degrees; some graduate degree holders may have obtained a graduate degree in another field, detailed field, or major. Earnings have been rounded to the nearest thousand and are in 2024\$; the earnings premiums are based on unrounded numbers.

Although earning a graduate degree offers many advantages, pursuing one can be expensive, making cost a barrier to entry. Graduate student borrowing has grown in the past several decades,<sup>45</sup> and graduate student loan debt now accounts for approximately half of all outstanding federal student loan debt,<sup>46</sup> an increase in borrowing that coincided with the introduction of the Grad PLUS loan program in 2006.<sup>47</sup>

However, students have a few options to help make their debt more manageable. Those working in qualifying public sector roles can participate in the Public Service Loan Forgiveness (PSLF) program, which forgives students' remaining Direct Loan balance after 120 payments made within 10 years. Until recently, students could also participate in a variety of income-driven repayment programs that reduced their monthly payments and provided loan forgiveness after a certain number of years (typically 20 or 25 years).

However, as this report was going to publication, the student loan repayment landscape was in flux due to congressional legislation. The One Big Beautiful Bill eliminated the Grad PLUS loan program, meaning that graduate students will now rely on graduate-level Stafford loans. The Stafford loan program has a lower lifetime limit<sup>48</sup> than the Grad PLUS loan program, which did not have a specific loan limit ceiling and was instead capped at the cost of attendance, an amount determined by institutions. Students may also turn to private loans that may come with higher interest rates.<sup>49</sup> Several income-driven repayment plans will also be phased out or replaced under the bill.<sup>50</sup> Meanwhile, eligibility for the PSLF program is under review and may be more limited in the future.<sup>51</sup>

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45 Akers et al., *A Framework for Reforming Federal Graduate Student Aid Policy*, 2023.

46 Looney et al., "Who Owes All That Student Debt?," 2020.

47 Gulish et al., *Graduate Degrees*, 2024.

48 Under the Stafford loan program (also known as Direct Unsubsidized Loans), graduate student borrowing will be capped at \$20,500 a year with a lifetime graduate school loan limit of \$100,000, down from the previous lifetime cap of \$138,500. Meanwhile, borrowers participating in a professional graduate degree program will have their borrowing capped at \$50,000 a year. The lifetime loan cap for professional degree students will increase from \$138,500 to \$200,000. Professional degree students, particularly those in high-cost programs such as law and medicine, previously relied heavily on Grad PLUS loans.

49 Minsky, "Revised Bill Gutting Student Loan Programs Passes Senate," 2025.

50 The programs that will be phased out include the Saving on a Valuable Education (SAVE) plan, the Pay As You Earn (PAYE) plan, and the Income-Contingent Repayment (ICR) plan—leaving only the existing Income-Based Repayment plan for current borrowers, and the new Repayment Assistance Plan, which is expected to be available by July 2026 to new and current borrowers. Nova, "Trump's 'Big Beautiful Bill' Created a New Student Loan Repayment Plan," 2025.

51 Trump, *Restoring Public Service Loan Forgiveness*, 2025; Mehta, "Trump Signs Executive Action Targeting Public Service Loan Program," 2025.

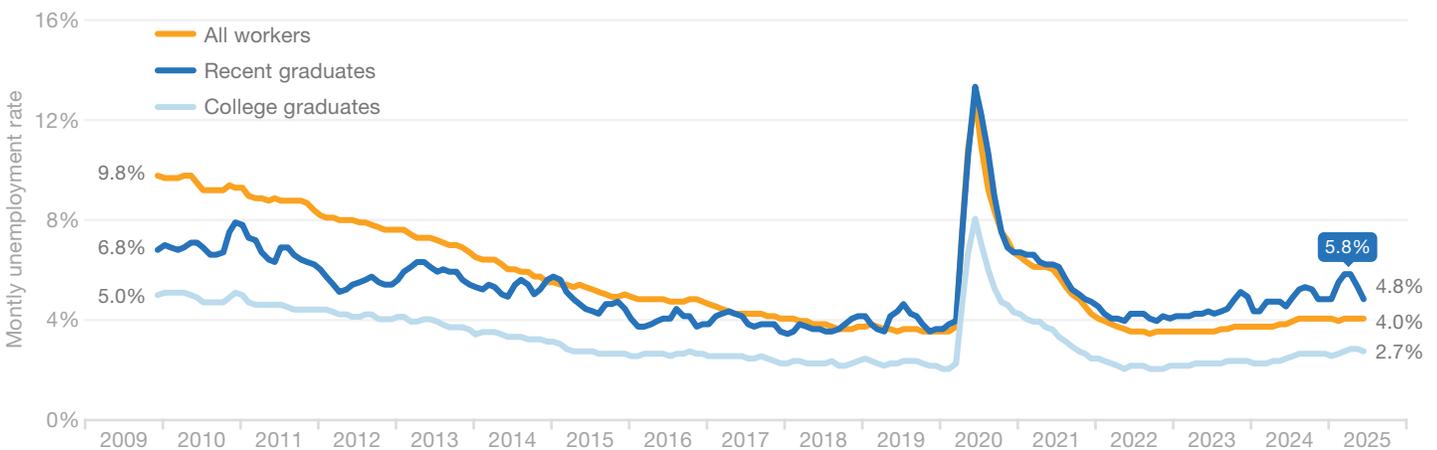
## PART 4

### Unemployment Among Recent College Graduates Is Adding to New Concerns About the Value of a Four-Year Degree.

While a bachelor's degree typically offers workers a competitive edge in the job market,<sup>52</sup> it can still take a few months or longer for graduates to settle into their careers, even in the most robust economic circumstances. Historically, recent college graduates have generally benefited from an unemployment rate that is lower than—or roughly equivalent to—the unemployment rate of workers across all education levels. However, the job market has become increasingly challenging for

recent college graduates to navigate in the aftermath of the COVID-19 pandemic.<sup>53</sup> Since May 2022, the unemployment rate among recent college graduates has consistently trended above that for all workers, including those without a four-year degree. The average unemployment rate of recent graduates reached a post-pandemic high of 5.8 percent in March 2025, above the average of 4 percent for all workers (Figure 12).<sup>54</sup>

**FIGURE 12. Recent college graduates have faced higher levels of unemployment relative to all workers since 2022.**



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 2009–25.

Note: All workers are those ages 16–55, recent graduates are those ages 22–27 with a bachelor's degree or higher, and college graduates are those ages 22–65 with a bachelor's degree or higher.

52 Carnevale et al., *After Everything*, 2023; Strohl et al., *The Future of Good Jobs*, 2024.

53 Lahart and Chen, "Young Graduates Are Facing an Employment Crisis," 2025; Thompson, "Something Alarming Is Happening to the Job Market," 2025; Smith and Adedoyin, "The Class of 2025 Tries to Crack a Chilly Job Market for Recent Grads," 2025; *Economist*, "Why Today's Graduates Are Screwed," 2025.

54 Federal Reserve Bank of New York, "The Labor Market for Recent College Graduates," 2025.

Although unemployment is still low for all college graduates (2.7 percent as of March 2025),<sup>55</sup> hiring has slowed since the pandemic,<sup>56</sup> particularly in higher-paying professional fields, such as tech, media, and finance.<sup>57</sup> These dynamics may also have left current workers wary of seeking new opportunities, which in turn may have reduced job turnover

and made breaking into the workforce more challenging for recent graduates.<sup>58</sup> Other factors—such as increased reliance on artificial intelligence (AI) to perform some entry-level tasks<sup>59</sup> and employer bias against younger workers<sup>60</sup>—may also be contributing to the stagnant job market for recent graduates.

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## Choice of bachelor's degree major influences how quickly recent four-year college graduates find employment.

Although the most recent numbers are particularly concerning, our analysis indicates that unemployment was already relatively high for recent college graduates even just a few years ago. Recent graduates who majored in the fields of humanities and the arts and the social sciences faced the highest rates of unemployment in recent years, at 7.7 percent and 6.3 percent, respectively.<sup>61</sup> In contrast, recent graduates who majored in healthcare or education and public service had some of the lowest rates of unemployment overall, at 3.4 percent and 3.2 percent, respectively. Meanwhile, across every field, unemployment was lower among prime-age workers with a bachelor's degree than among recent graduates.<sup>62</sup>

A closer look at the unemployment rates by detailed field indicates that unemployment was particularly high

among recent graduates with bachelor's degrees in the arts (8.9 percent); computers, statistics, and mathematics (6.8 percent); humanities and the liberal arts (6.7 percent); the social sciences (6.7 percent); and communications and journalism (6.3 percent).<sup>63</sup> For prime-age workers in these fields, unemployment rates were lower than for recent college graduates but remained relatively high compared with the overall rate of 2.9 percent for prime-age bachelor's degree holders. For instance, the unemployment rate was 4.7 percent among prime-age workers with a bachelor's degree in the arts; 3.7 percent among those with a bachelor's degree in humanities and the liberal arts; 3.6 percent among those with a bachelor's degree in communications and journalism; and 3.1 percent among those with a bachelor's degree in computers, statistics, and mathematics (Figure 13).

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55 Federal Reserve Bank of New York, "The Labor Market for Recent College Graduates," 2025.

56 Smith, "The Hot Labor Market Has Melted Away," 2024.

57 Grossman and Li, "Unemployed Office Workers Are Having a Harder Time Finding New Jobs," 2025.

58 Smith, "The Hot Labor Market Has Melted Away," 2024; Lahart and Chen, "Young Graduates Are Facing an Employment Crisis," 2025.

59 Scheiber, "Which Workers Will AI Hurt Most," 2025.

60 Blake, "Employers Avoid Hiring Gen Z," 2024.

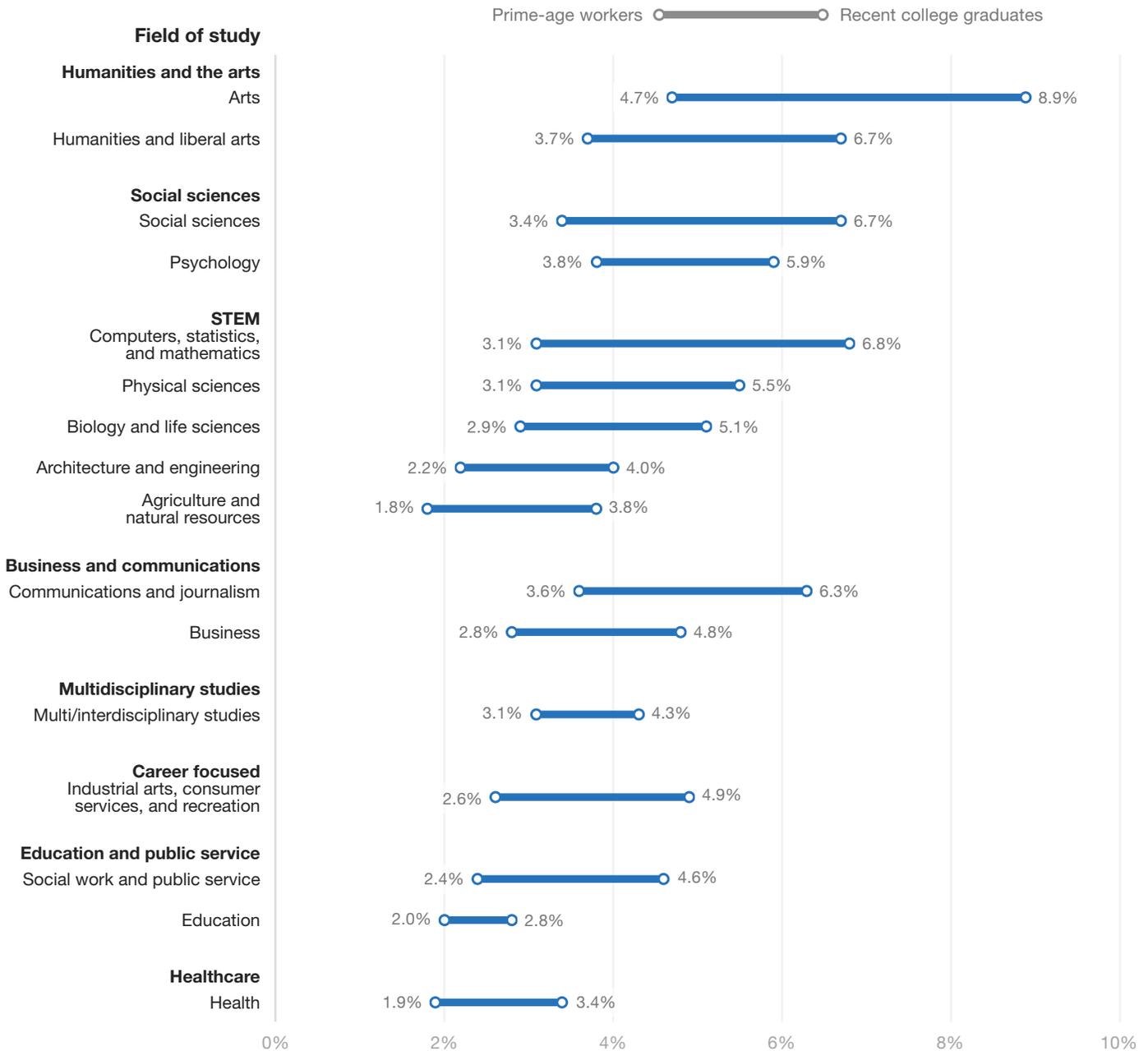
61 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23. Recent graduates are those ages 22 to 26. Years are pooled to address small sample sizes across some majors.

62 For more detail on trends in unemployment by field and detailed field since 2009, see the [data tool](#).

63 Mowreader, "Salary Projections Wobble for 2025 College Grads," 2025.

**FIGURE 13. Recent college graduates with bachelor's degrees in the arts; humanities and the liberal arts; computers, statistics and mathematics; social sciences; and communications and journalism experience the highest unemployment rates.**

Unemployment rates among prime-age workers and recent college graduates, 2022



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Values associated with prime-age workers are based on respondents ages 25–54 who are either employed or unemployed, and values associated with recent college graduates are based on respondents ages 22–26 who are either employed or unemployed, reflecting a pooled three-year average from 2021–23. Workers with both a bachelor's degree and a graduate degree are not included in this analysis.

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## Earnings and unemployment are not always related.

High unemployment rates among graduates of a particular detailed field do not necessarily mean that graduates in these disciplines will face other negative outcomes, such as low median starting earnings. For instance, although recent college graduates with a bachelor's degree in computers, statistics, and mathematics faced an unemployment rate of 6.8 percent in recent years, those who were employed full-time earned \$79,000 at the median, with earnings reaching \$107,000 at the 75th percentile. Among prime-age workers with a bachelor's degree in this detailed field, the median earnings were \$117,000, and earnings at the 75th percentile were \$174,000.<sup>64</sup>

While the detailed field of computers, statistics, and mathematics covers eight distinct majors, our analysis indicates that unemployment is high even among some of the more popular majors<sup>65</sup> within this detailed field group. For instance, unemployment among recent graduates with a bachelor's degree in computer science is 7.2 percent, up from a low of 5.3 percent in 2014.<sup>66</sup> Many observers have pointed out the notable drop in

employer demand for computer science graduates, even as colleges and universities ramp up course and program offerings in this field to meet student demand.<sup>67</sup>

Conversely, detailed fields that are in relatively high demand do not always lead to higher-than-median earnings. The teaching profession faces shortages across a variety of subject areas and geographic locations.<sup>68</sup> Our analysis shows that recent college graduates with bachelor's degrees in education experienced the lowest unemployment rate among all detailed fields (2.8 percent) in 2022; the rate among prime-age workers with a bachelor's degree in education was even lower at 2.0 percent. However, despite high demand for teachers in certain states and disciplines, teaching has remained a relatively low-paying occupation when considering earnings at a national level.<sup>69</sup> The median earnings of recent college graduates with a bachelor's degree in education were \$47,000 in 2022, rising to \$58,000 among prime-age workers with a bachelor's degree in this detailed field.<sup>70</sup>

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64 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

65 Computer science is the most popular major in the STEM field, with computer science majors making up 12 percent of the recent college graduate workforce with a bachelor's degree in the STEM fields. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

66 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2013–15 (pooled) and 2021–23 (pooled).

67 Blake, "A Popular College Major Has One of the Highest Unemployment Rates," 2025; Bogost, "Universities Have a Computer Science Problem," 2024; Neza, "The Rise—and Fall—of the Software Developer," 2024; Yip, "Computer Science Grads Say the Job Market Is Rough," 2024.

68 According to Georgetown University Center on Education and the Workforce research, the United States is projected to face a shortfall of 646,000 teachers through 2032 across multiple disciplines. Smith et al., *Falling Behind*, 2025.

69 Teacher salaries can vary substantially across states and school districts.

70 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled). While teacher compensation can vary by state and school district, the average teacher salary has failed to keep pace with inflation, meaning that the average teacher now has less spending power than 10 years ago. Walker, "Gains in Teacher Pay May Not Be Enough to Ease Shortages," 2024.

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## The employment outlook for recent college graduates may improve in the long term.

While the unemployment rate among prime-age workers with a bachelor's degree is lower than the unemployment rate for workers at all levels of educational attainment, younger college graduates have been particularly affected by slower hiring and broader economic uncertainty. If economic circumstances improve, hiring may well pick up again for recent graduates, but the implications of the status quo are concerning for those struggling to find a job today. Although it is too early to determine whether current trends represent a new normal, recent job reports have exacerbated concerns about the overall value of a bachelor's degree.<sup>71</sup> The emergence of AI and its potential impact on white-collar work is further fueling concerns—particularly for graduates with an interest in computer science and business.<sup>72</sup> In this environment, graduates may find themselves compelled to take a

position for which they are overqualified or that does not compensate them adequately. This decision can have long-term negative effects on graduates' earnings and career potential.<sup>73</sup>

In short, although no one can predict the future with perfect accuracy, the available evidence suggests that a sluggish job market will likely continue to pose challenges for recent graduates hoping to break into competitive industries, at least in the immediate future.<sup>74</sup> To stand out to employers, students should focus on acquiring specific marketable skills while in college, as well as gaining direct work experience and completing internships or other work-based learning experiences, in order to distinguish themselves in the job market.<sup>75</sup>

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71 Thompson, "Something Alarming Is Happening to the Job Market," 2025.

72 Bogost, "Universities Have a Computer-Science Problem," 2024; Karma, "The Job Market Is Frozen," 2025; Ellis and Bindley, "AI Is Wrecking an Already Fragile Job Market for College Graduates," 2025.

73 The literature on underemployment provides a wide range of estimates of underemployment among college graduates. One recent analysis suggests that underemployment is as high as 56 percent among college graduates within one year of graduation, while other research indicates that underemployment affects just 25 percent of workers with bachelor's degrees. Rose, *Mismatch*, 2017; Burning Glass Institute and Strada Institute for the Future of Work, *Talent Disrupted*, 2024; Ellis and Bindley, "AI Is Wrecking an Already Fragile Job Market for College Graduates," 2025.

74 Karma, "The Job Market Is Frozen," 2025; Klein, "The Government Knows A.G.I. Is Coming," 2025.

75 Carnevale et al., *How Limits to Educational Affordability, Work-Based Learning, and Career Counseling Impede Progress Toward Good Jobs*, 2022.

## PART 5

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### Participation in Lucrative Undergraduate Fields Does Not Reflect the Nation's Diversity.

As the racial/ethnic makeup of the US population has become increasingly diverse, so too have the student demographics of the nation's postsecondary institutions. Most notably, enrollments of Asian/Asian American and Hispanic/Latino students have grown at selective four-year institutions since 2009, while enrollments of white, Black/African American, and American Indian/Alaska Native (AI/AN) students have either stagnated or shrunk.<sup>76</sup>

However, the growing diversity of America's colleges and universities has not translated into racial/ethnic equality in the workforce. Postgraduate earnings among college-educated workers are still split along racial/ethnic and gender lines. Black/African American, Hispanic/Latino, and AI/AN workers earn substantially less than the median, while women are still disadvantaged by a gender wage gap that becomes more pronounced with higher levels of education.

As discussed throughout this report, the choice of college major has profound consequences for graduates' career trajectories and earnings potential. For decades, women—both with and without a bachelor's degree—were largely concentrated in fields such as teaching, nursing, social work, and clerical work.<sup>77</sup> Although these patterns are changing, women still remain

overrepresented in related fields of study, such as education and public service, healthcare, humanities and the arts, and social sciences. Social and cultural factors play a major role in these disparities.<sup>78</sup> Additionally, research indicates that some women avoid fields such as STEM, business, and economics because they anticipate that discrimination in these fields will affect their wages and workplace conditions.<sup>79</sup>

Today, women make up a majority of college enrollments and just over half of bachelor's degree holders in the labor force.<sup>80</sup> So, while the bachelor's degree-educated workforce has become more diverse in terms of racial/ethnic and gender representation, these demographic shifts have not translated to proportionate gender diversity or racial/ethnic diversity within fields of study. In fact, there are persistent racial/ethnic and gender divides by field of study, with some groups—including male; Asian/Asian American; multiracial, American Indian or Alaska Native, and Native Hawaiian or Pacific Islander (AI/AN/NH/PI); and white workers—more likely to hold their bachelor's degrees in fields that commonly lead to work in higher-paying occupations, such as STEM or business. Research indicates that these disparities have worsened over the past two decades: Black/African American, Hispanic/Latino, and AI/AN students are increasingly

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76 Strohl et al., *Progress Interrupted*, 2024. Despite enrollment growth at selective institutions, a majority of Hispanic/Latino students still attend open-access institutions.

77 Yellen, "The History of Women's Work and Wages and How It Has Created Success for Us All," 2020.

78 Carnevale et al., *Women Can't Win*, 2018.

79 Lepage et al., "Anticipated Discrimination and Major Choice," 2025.

80 Fry, "Women Now Outnumber Men in the U.S. College-Educated Labor Force," 2022.

less likely to pursue majors with a higher earnings premium. This is due not to a lack of interest, but rather to restrictions on enrollment in more lucrative majors, such as minimum GPA requirements, performance thresholds in introductory coursework for the major, or competitive application processes.<sup>81</sup>

To better understand which fields of study feature the sharpest disparities in representation by gender and race/ethnicity, we calculated representation ratios by gender and race/ethnicity. For each gender or racial/

ethnic demographic group, these representation ratios measure (1) the percentage of workers with bachelor's degrees in a major who are members of the demographic group **divided by** (2) the percentage of all bachelor's degree holders in the workforce who are part of that same demographic group. We contrasted the relative under- or overrepresentation of prime-age workers with that of recent college graduates, as recent college graduates provide a more accurate understanding of how the workforce may look in the future.

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## Men are overrepresented in the STEM fields of study compared with their overall share of the bachelor's degree–holding workforce, while women are overrepresented in the healthcare and education and public service fields.

An analysis of representation by field of study among prime-age workers shows that men are highly overrepresented in STEM and career-focused fields relative to their overall representation in the bachelor's degree–educated workforce. They are notably underrepresented in education and public service and in healthcare. In contrast, women are highly overrepresented in healthcare as well as in education and public service fields of study; they are slightly overrepresented in humanities and the arts, social sciences, and multidisciplinary studies.

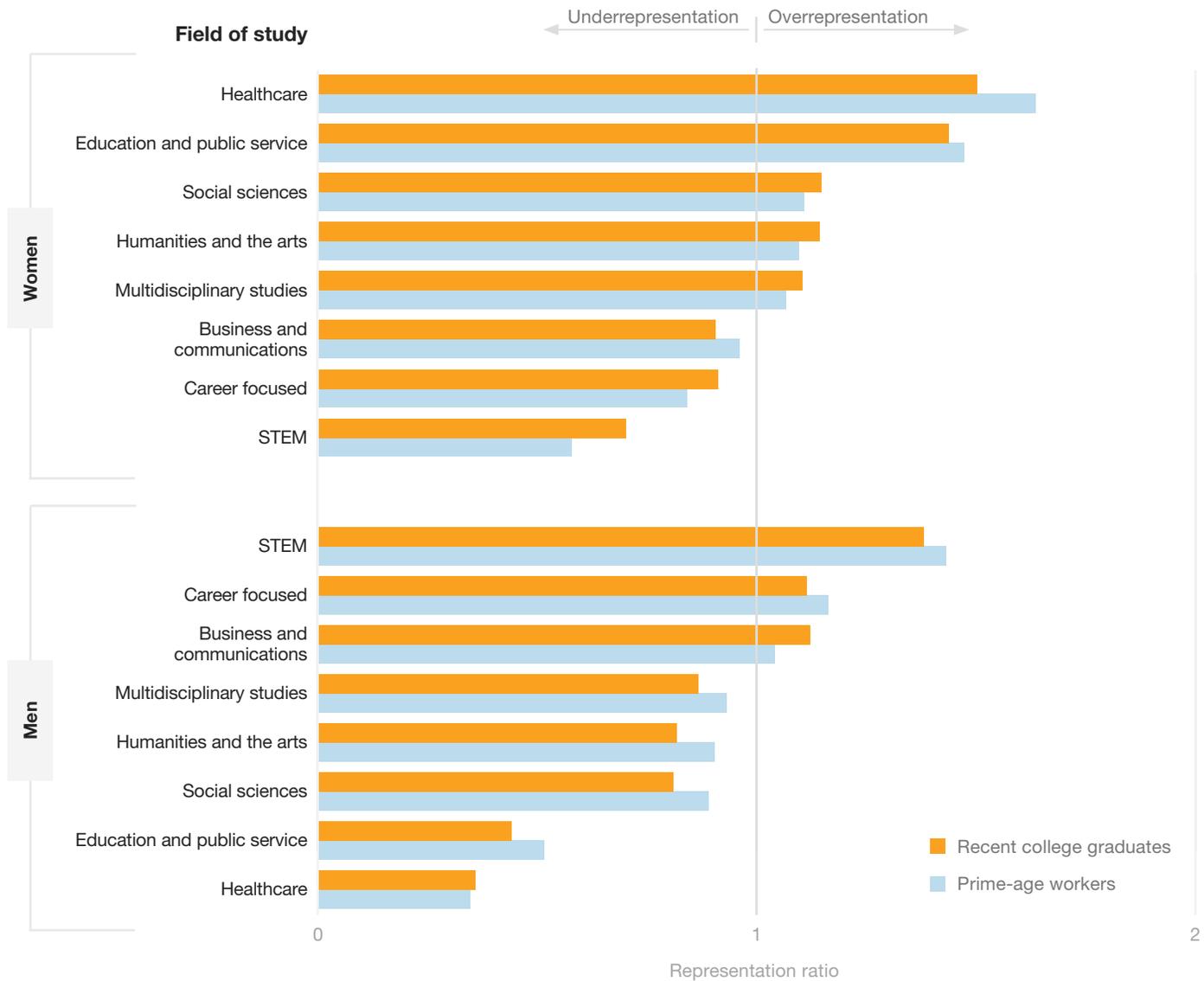
Similar patterns play out among male recent college graduates. They are overrepresented in STEM, career-

focused, and business and communications fields relative to their presence in the bachelor's degree-educated workforce. They are especially underrepresented in education and public service and healthcare. Female recent college graduates are, like their prime-age counterparts, overrepresented in healthcare and in education and public service fields. They show higher representation than prime-age women in disciplines such as social sciences, humanities and the arts, career-focused fields, and multidisciplinary studies. They remain underrepresented in business and communications, career-focused, and STEM fields of study, although their representation in STEM is higher than that of prime-age female workers (Figure 14).

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81 Bleemer et al., "Restricted Access to Lucrative College Majors Harms Underrepresented Students Most," 2023.

**FIGURE 14. Among workers with bachelor's degrees, men are overrepresented in STEM and career-focused fields of study, while women are overrepresented in healthcare and education and public service fields of study.**



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

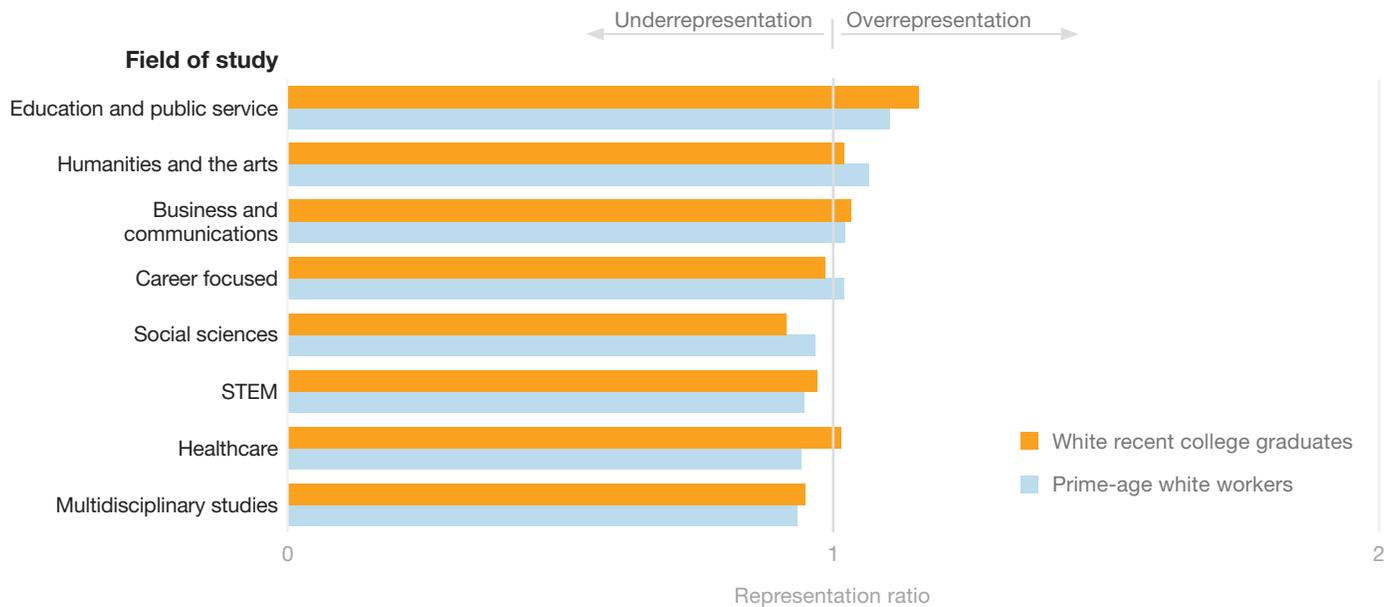
Notes: STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of male or female workers with a bachelor's degree in a specified field of study by the share of male or female workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to the gender group's representation within the same-age bachelor's degree-holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

Some racial/ethnic groups are overrepresented among workers with bachelor's degrees in the most lucrative fields of study, while others are overrepresented in the least lucrative fields.

Compared to other racial/ethnic groups, the representation of prime-age white workers by field of study tends to be closer to parity with their share of the bachelor's degree-educated workforce. White workers are only slightly overrepresented in the degree fields of education and public service and in humanities and the arts. They are slightly underrepresented in the social sciences, STEM, healthcare, and multidisciplinary

studies fields, but they are near parity in business and communications and career-focused degree fields. Similar patterns play out among white recent college graduates, although this group shows higher levels of representation in the healthcare and education and public service degree fields compared to their prime-age counterparts and slightly lower levels of representation in the social sciences (Figure 15).

**FIGURE 15. White workers with bachelor's degrees are close to parity in representation across all fields of study, but they are most overrepresented in education and public service and most underrepresented in multidisciplinary studies.**



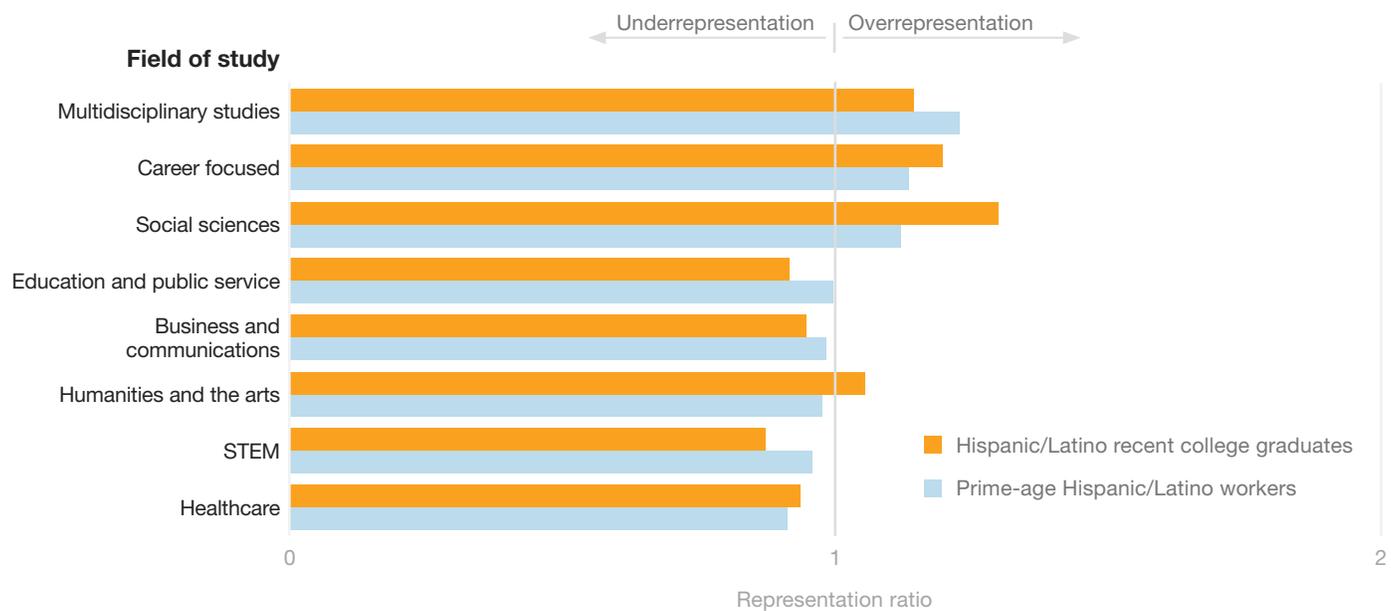
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of white workers with a bachelor's degree in a specified field of study by the share of white workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to white workers' representation within the same-age bachelor's degree-holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

Prime-age Hispanic/Latino workers are overrepresented among workers with bachelor's degrees in multidisciplinary studies, career-focused fields, and the social sciences relative to their representation among all workers with bachelor's degrees. They are highly underrepresented in healthcare and STEM degree fields, but their representation is close to parity with their share of the overall bachelor's degree-holding workforce in the education and public service, business and

communications, and humanities and the arts fields. In contrast, Hispanic/Latino recent college graduates are most overrepresented in the social sciences, career-focused fields, multidisciplinary studies, and humanities and the arts. Hispanic/Latino recent college graduates are most underrepresented in STEM, education and public service, business and communications, and healthcare (Figure 16).

**FIGURE 16. Prime-age Hispanic/Latino workers are most overrepresented among workers with bachelor's degrees in multidisciplinary studies and career-focused fields, while Hispanic/Latino recent college graduates are most overrepresented in social sciences and in career-focused fields.**



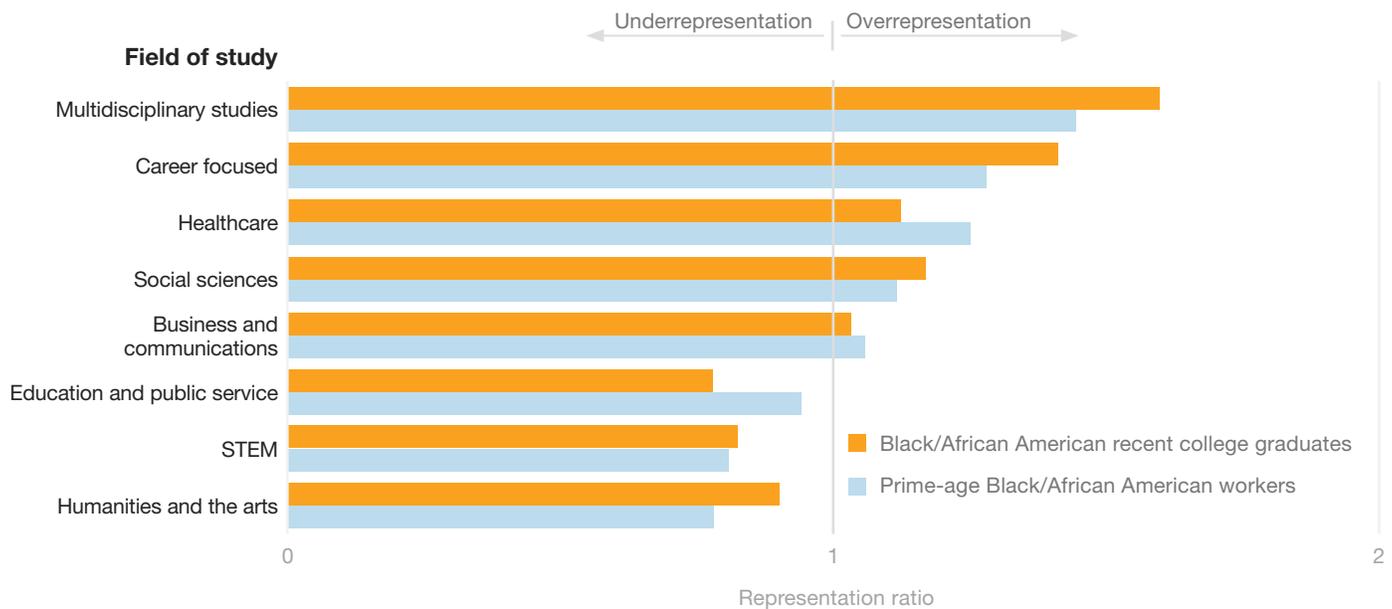
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of Hispanic/Latino workers with a bachelor's degree in a specified field of study by the share of Hispanic/Latino workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to Hispanic/Latino workers' representation within the same-age bachelor's degree-holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

Prime-age Black/African American workers with bachelor's degrees in the humanities and the arts, STEM, and education and public service are underrepresented relative to their share of the overall bachelor's degree–holding workforce. In contrast, those with a bachelor's degree in multidisciplinary studies, career-focused, or healthcare fields are overrepresented. Among Black/African American recent

college graduates, overrepresentation is even more pronounced among those with bachelor's degrees in the fields of multidisciplinary studies, career-focused, or social sciences. However, Black/African American recent college graduates are less well represented in the education and public service and healthcare fields compared with their prime-age counterparts with bachelor's degrees in the same fields (Figure 17).

**FIGURE 17. Prime-age Black/African American workers are most overrepresented among workers with degrees in multidisciplinary studies and career-focused fields and most underrepresented in humanities and the arts and STEM fields.**



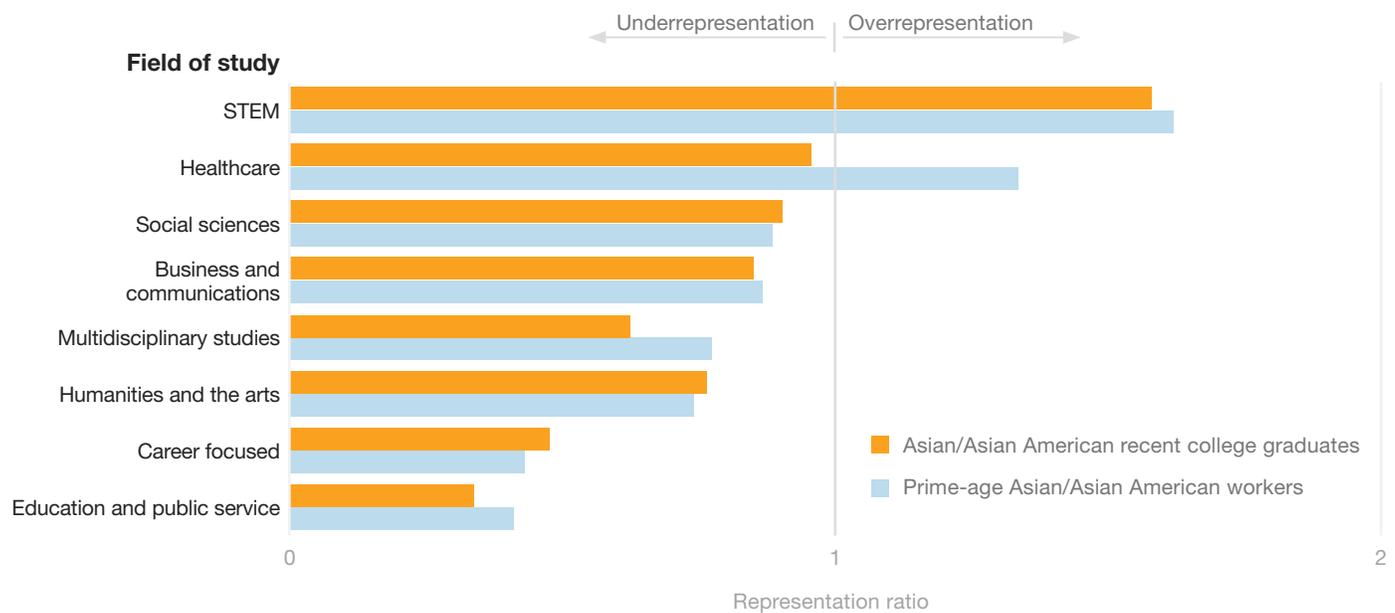
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of Black/African American workers with a bachelor's degree in a specified field of study by the share of Black/African American workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to Black/African American workers' representation within the same-age bachelor's degree–holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

Prime-age Asian/Asian American workers are highly overrepresented in the STEM and healthcare degree fields relative to their share of the bachelor's degree–holding workforce overall. Conversely, they are significantly underrepresented in the education and public service, career-focused, and humanities and the arts degree

fields. Asian/Asian American recent college graduates are underrepresented in every field of study other than STEM. They show even lower levels of representation in the education and public service and multidisciplinary studies degree fields compared with prime-age Asian/Asian American workers (Figure 18).

**FIGURE 18. Across both age groups, Asian/Asian American workers are highly overrepresented in STEM fields and highly underrepresented in education and public service fields.**



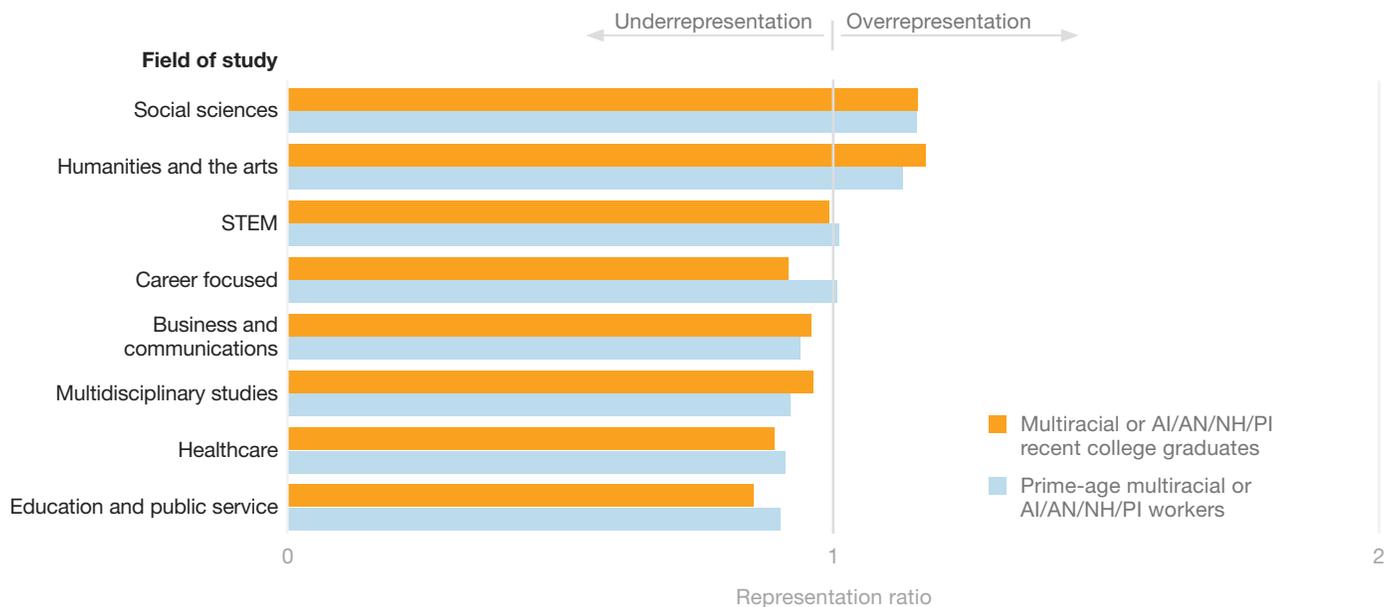
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of Asian/Asian American workers with a bachelor's degree in a specified field of study by the share of Asian/Asian American workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to Asian/Asian American workers' representation within the same-age bachelor's degree–holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

Similar to prime-age white workers, representation among prime-age multiracial or AI/AN/NH/PI workers<sup>82</sup> by field of study is close to parity with their representation in the bachelor's degree–holding workforce overall. However, they are slightly overrepresented in the humanities and the arts and social sciences degree fields, while hewing closer to parity in the STEM and career-focused

fields. They are most underrepresented in the fields of business and communications, multidisciplinary studies, healthcare, and education and public service. Multiracial or AI/AN/NH/PI recent college graduates, meanwhile, are underrepresented in every field other than social sciences and humanities and the arts (Figure 19).

**FIGURE 19. Across both age groups, multiracial or AI/AN/NH/PI workers are most overrepresented in social sciences and in humanities and the arts degree fields relative to their share of the bachelor's degree–holding workforce.**



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

Notes: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. STEM = science, technology, engineering, and mathematics. Representation ratios are calculated by dividing the share of multiracial or AI/AN/NH/PI workers with a bachelor's degree in a specified field of study by the share of multiracial or AI/AN/NH/PI workers with a bachelor's degree in any field in the workforce at large. Ratio values below one indicate underrepresentation relative to multiracial or AI/AN/NH/PI workers' representation within the same-age bachelor's degree–holding workforce overall, ratio values above one represent overrepresentation by this metric, and values equal to or close to one indicate equitable representation by this metric. Recent college graduates are defined as workers ages 22–26; prime-age college graduates are defined as workers ages 25–54. Analysis excludes workers with graduate degrees.

82 In this analysis, we combined the multiracial subgroup and the AI/AN/NH/PI subgroup due to small sample sizes. AI/AN workers represent 0.6 percent of the combined group and NH/PI workers represent 0.1 percent of the combined group. Within the multiracial subgroup, 86 percent identify as white and at least one other race, 8 percent identify as Black/African American and at least one other race, and 6 percent identify as Asian/Asian American and at least one other race. Shares may not sum to 100 percent due to rounding.

Overall, these findings show that although the bachelor's degree–holding workforce in the United States has become more demographically diverse,<sup>83</sup> representation varies widely across fields of study. Male and Asian/Asian American workers continue to be overrepresented in degree fields like STEM. Meanwhile, women are overrepresented in degree fields such as education, healthcare, and the social sciences. In some cases, these disparities are even more pronounced among recent college graduates, suggesting that pathways to more lucrative fields of study still disproportionately benefit some groups more than others.

These imbalances have significant consequences not only for individual workers and their career prospects but also for the economic health of the nation. As the country's population becomes more diverse, it is critical to address the barriers to educational pathways that limit students' chances of earning bachelor's degrees in more lucrative majors or in-demand majors—or both. Without better alignment between the needs of the labor market and degree production, the United States risks leaving potential talent untapped despite looming skills shortages in many critical areas.<sup>84</sup>

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83 For more detail, see Tables D1 and D2 in Appendix D.

84 Shortages of workers with bachelor's degrees will be particularly acute in critical occupations such as teaching and nursing. Smith et al., *Falling Behind*, 2025.

# CONCLUSION

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While graduates' long-term career outcomes depend on far more than their college major, selecting a college major remains one of the most meaningful decisions that students can make. Among prime-age workers, median earnings vary widely across majors, ranging from a low of \$51,000 to a high of \$146,000—underscoring the financial implications of students' choices. Of course, earnings potential is not the only relevant consideration: Students also must account for their personal preferences, interests, and aptitude when selecting their college major and future career path.

Certain financial realities—such as college costs and the high cost of living—also put pressure on students to think carefully about how their choice of college major will affect their future earnings and financial security. While median earnings are higher for workers with a bachelor's degree than for those with a high school diploma alone, college costs and associated student loan debt can diminish students' return on investment (ROI).<sup>85</sup> At some elite institutions, the sticker price of attending college is approaching \$100,000 per year,<sup>86</sup> a cost that is far out of reach for the average American family or student. Although net costs are often substantially lower after accounting for student aid, the expense can still be a burden, even at reduced rates—reinforcing the importance of clear, accurate information about whether a student can expect a positive ROI for a specific major.<sup>87</sup>

Broad trends in earnings by field have changed relatively little since the Georgetown University Center on Education and the Workforce last analyzed earnings by college major.<sup>88</sup> Median earnings for workers with bachelor's degrees in STEM, business, and healthcare are above the overall median, while earnings for workers with bachelor's degrees in the humanities, arts, and social sciences fall below it. However, these broad generalizations gloss over many important fine distinctions. Majoring in humanities and the arts, for instance, does not necessarily lead to lower earnings than majoring in STEM: One-quarter of prime-age workers with a bachelor's degree in STEM earn \$65,000 or less. Meanwhile, workers who majored in 14 out of the 19 humanities and arts majors experience median earnings that surpass this amount.

Students must also consider the demand for specific majors, which affects the supply of those majors in the labor market and, therefore, the competition for available jobs. The number of degrees produced in computers, statistics, and mathematics more than doubled between 2009 and 2023, reflecting the growing popularity of computer science and statistics-related majors. Yet, recent graduates in some of these fields face an increasingly challenging job market: The unemployment rate among recent computer science graduates is 7.2 percent.<sup>89</sup>

High earnings also do not always correlate with broad job availability. Petroleum engineering, for instance, is

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85 Abel and Deitz, "When College Might Not Be Worth It," 2025.

86 The "sticker price" includes costs such as tuition and fees. Moody, "Inching Toward the \$100,000 Sticker Price," 2024.

87 NACUBO, "Annual NACUBO Tuition Discounting Study Finds Financial Aid Awards and Undergraduate Enrollment on the Rise at Private Colleges and Universities," 2024; Levine et al., "Do College Applicants Respond to Changes in Sticker Prices Even When They Don't Matter?," 2023.

88 Carnevale and Cheah, *Five Rules of the College and Career Game*, 2018; Carnevale et al., *The Economic Value of College Majors*, 2015.

89 Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled).

the major leading to the highest pay overall, but there are projected to be relatively few annual job openings in the occupation of petroleum engineering over the next decade.<sup>90</sup> Conversely, while workers who majored in nursing or teaching may have lower earnings, they also generally experience low unemployment rates due to ongoing skills shortages in teaching and nursing fields.

Another important consideration is whether earning a graduate degree is necessary for students to realize the full potential of their undergraduate majors. Overall, workers with a graduate degree earn 29 percent more than those with a bachelor's degree alone,<sup>91</sup> yet the graduate degree earnings premium varies across majors. For some workers, the difference is transformative, particularly with additional years of experience in the workforce. As just one example, prime-age workers with bachelor's degrees in health and medical preparatory programs have median earnings of \$70,000. Among those who also hold a graduate degree, however, median earnings more than double to \$152,000.

Of course, earning a graduate degree comes at a cost—of time, money, and lost potential wages and work experience—meaning that it may not be the right choice for everyone. Enrolling in graduate studies can also require students to take on additional or new student loan debt. To date, some graduates who find lower-paying work have been able to defray their federal student loan debt through income-driven repayment plans and programs such as Public Service Loan Forgiveness (PSLF)—the latter being a lifeline for teachers, some lawyers, and others who opt to take on lower-paying work to serve society. However, the future of PSLF is uncertain,<sup>92</sup> and more students may have to make a

difficult choice between taking on the financial risk of student loan debt or opting against advancing in their postsecondary education. More students may also have to forgo credentials that prepare them either for beginning lower-paying careers in teaching and social work or for advancing professionally in careers in these fields—which already face significant workforce shortages—in favor of majors that prepare them for higher-paying occupations.

Despite these challenges, the data consistently show that workers with a bachelor's degree will earn more over their lifetimes than workers with only a high school diploma. The evidence also suggests that although unemployment has become more common among recent college graduates, it is generally much lower for older workers with bachelor's degrees and more work experience. When it comes to deciding on a college major, each student's individual cost-benefit analysis will be unique. However, the data consistently underline the long-term overall benefits of obtaining a bachelor's degree—not just in terms of the financial returns but also in opening up new opportunities for career development and personal growth.

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90 US Bureau of Labor Statistics, "Petroleum Engineers," 2025.

91 The median earnings of workers with a bachelor's degree alone are \$81,000, and the median earnings of workers with a bachelor's degree and a graduate degree are \$103,000.

92 Trump, *Restoring Public Service Loan Forgiveness*, 2025.

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# APPENDIX A

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## Data Sources and Methodology

The primary data source for this report is the US Census Bureau's American Community Survey (one-year files) microdata from 2009 through 2023. When this report was written, 2024 data were not yet available. This analysis provides an overview of base earnings, exclusive of bonuses, commissions, and other benefits.

### Construction of data samples

#### 1. Aggregated median earnings by major

We constructed the sample by pooling 15 years of American Community Survey (ACS) data from 2009 through 2023. We pooled the data for all analyses unless otherwise indicated. Data reflect earnings among prime-age workers (ages 25–54) and recent college graduates (ages 22–26) with positive earnings who are employed full-time, full-year.<sup>1</sup> Earnings are adjusted to 2024 dollars using the Consumer Price Index Research Series. We report a total of 152 majors for prime-age workers and 142 majors for recent college graduates at the aggregate level.

#### 2. Changes in unemployment rates by age group

This report and the accompanying data tool evaluate the unemployment rates of college graduates, grouped by age, on an annual basis from 2009 through 2023. The unemployment rate for each year represents a pooled three-year average to address sample size concerns. Therefore, in some cases, “2010” represents the pooled average of 2009–11, while “2022” represents the pooled average of 2021–23.

This analysis groups college graduates into two broad categories:

1. Those ages 22–26, identified as “recent college graduates” in the report
2. Those ages 25–54, identified as “prime-age workers” in the report

The unemployment rate excludes those who are not in the labor force. According to the ACS, people who are unemployed are defined as those “who do not currently have a job, are looking for a job, and have not yet found one.” People who are unemployed also include those “who have never worked but are actively seeking their first job (‘new workers’).”<sup>2</sup> The list of majors is limited to those with complete ACS data across all 15 years for the specified age groups (ages 22–26 and ages 25–54). We report a total of 16 detailed fields.

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1 Certain majors referenced in this report lead to work in occupations that are not full-time, full-year for all workers. One example is education-related majors, which would commonly lead to work in teaching occupations. A review of respondents who identify as teachers finds that 73 percent report working 50–52 weeks per year, making them full-time, full-year workers. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2021–23 (pooled). Note: This analysis pertains to workers ages 25–54 with positive earnings.

2 IPUMS USA, “Comparability,” 2025.

### 3. Representation ratios

To calculate the representation ratios discussed in Part 5 of this report, we first calculated the share of full-time, full-year workers ages 25–54 with a bachelor's degree (but not a graduate degree) who are from each racial/ethnic and gender group. We then calculated the shares of workers with a bachelor's degree in a given field or major who are from each racial/ethnic and gender group. Finally, for each group, we divided the second share by the first share. We repeated the same process for workers ages 22–26.

### 4. Distribution of the workforce by field and major (overall and by race/ethnicity and gender)

The distribution of the workforce by bachelor's degree field captures patterns among prime-age workers and recent college graduates. These groups include workers ages 25–54 with a bachelor's degree who are employed full-time, full-year, and workers ages 22–26 with a bachelor's degree who are employed full-time, full-year. Workers with both a bachelor's degree and a graduate degree are omitted from this analysis. We conducted a distribution analysis by race/ethnicity and gender. The distribution analysis represents a pooled three-year average from 2009 through 2023. To ensure that the shares sum to 100, we do not drop any small samples. The minimum sample size for a given major is 100 respondents. We report a total of 141 majors that meet these requirements.

## Handling of recorded majors

The data on major field of study are derived from the ACS long-form survey. They include respondents who stated that their highest level of education was “bachelor's degree,” “master's degree,” “professional degree beyond a bachelor's degree,” or “doctorate degree.”

The ACS also records the self-reported bachelor's degree major. Respondents may describe undergraduate majors using varying names, so the Census Bureau aggregates responses into common categories.<sup>3</sup> The ACS does not ask respondents to identify their graduate degrees by major.

We reviewed the college majors reported in the ACS and adjusted them to better correspond to majors that are offered by institutions at the bachelor's degree level, as reported by the College Board and institutions' websites.<sup>4</sup> When the majors specified in the ACS did not appear as bachelor's degree majors named in the comparison sources, we collapsed the majors (as we describe next).

In some cases, the Census Bureau has combined majors at the data collection level, which does not allow us to separately identify the earnings for each major. The majors affected include, but are not limited to, philosophy and religious studies; pharmacy and pharmaceutical sciences and pharmaceutical administration; and French, German, Latin, and other common foreign languages.

In some cases, majors that are combined are usually offered at different levels. For example, cosmetology services and culinary arts are combined in the survey. However, cosmetology is usually offered at the associate's degree level,

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3 The full list is [available here](#).

4 College Board, “College Majors,” 2025.

while culinary arts is also offered at the bachelor's degree level. Unfortunately, the earnings of these majors cannot be separately identified.

## Sample size and representativeness

The minimum sample size to be considered for inclusion is 100. While the ACS can be considered a representative sample of individuals in the United States, the sample is not necessarily representative of those who choose those majors in their undergraduate education.

Educational attainment for bachelor's degree holders is not further differentiated among those who received a bachelor of science, bachelor of arts, or other specialized bachelor's degree.

**TABLE A1. Classification of major groups and subgroups**

Field	Detailed major	Major	Other majors included in the American Community Survey
Business and communications	Business	Accounting	N/A
Business and communications	Business	Actuarial science	N/A
Business and communications	Business	Business economics	N/A
Business and communications	Business	Business management and administration	N/A
Business and communications	Business	Finance	N/A
Business and communications	Business	General business	N/A
Business and communications	Business	Hospitality management	N/A
Business and communications	Business	Human resources and personnel management	N/A
Business and communications	Business	International business	N/A
Business and communications	Business	Management information systems and statistics	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
Business and communications	Business	Marketing and marketing research	N/A
Business and communications	Business	Miscellaneous business and medical administration	N/A
Business and communications	Business	Operations logistics and e-commerce	N/A
Business and communications	Communications and journalism	Advertising and public relations	N/A
Business and communications	Communications and journalism	Communications and mass media	N/A
Business and communications	Communications and journalism	Journalism	Court reporting
Career-focused	Industrial arts, consumer services, and recreation	Criminal justice and fire protection	N/A
Career-focused	Industrial arts, consumer services, and recreation	Family and consumer sciences	N/A
Career-focused	Industrial arts, consumer services, and recreation	Military technologies	N/A
Career-focused	Industrial arts, consumer services, and recreation	Physical fitness, parks, recreation, and leisure	N/A
Career-focused	Industrial arts, consumer services, and recreation	Industrial arts, consumer services, and recreation: other	Construction services; criminal justice and fire protection; cosmetology services and culinary arts; electrical and mechanic repairs and technologies; miscellaneous industrial arts and consumer services; and precision production and industrial arts
Career-focused	Industrial arts, consumer services, and recreation	Transportation sciences and technologies	N/A
Education and public service	Education	Art and music education	N/A
Education and public service	Education	Early childhood education	N/A
Education and public service	Education	Elementary education	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
Education and public service	Education	General education	N/A
Education and public service	Education	Language and drama education	N/A
Education and public service	Education	Mathematics teacher education	N/A
Education and public service	Education	Miscellaneous education	Educational administration and supervision; library science; school student counseling
Education and public service	Education	Physical and health education teaching	N/A
Education and public service	Education	Science and computer teacher education	N/A
Education and public service	Education	Secondary teacher education	N/A
Education and public service	Education	Social science or history teacher education	N/A
Education and public service	Education	Special needs education	N/A
Education and public service	Education	Teacher education: multiple levels	N/A
Education and public service	Social work and public service	Human services and community organization	N/A
Education and public service	Social work and public service	Public administration	N/A
Education and public service	Social work and public service	Public policy	N/A
Education and public service	Social work and public service	Social work	N/A
Education and public service	Social work and public service	Theology and religious vocations	N/A
Healthcare	Health	Communication disorders sciences and services	N/A
Healthcare	Health	Community and public health	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
Healthcare	Health	General medical and health services	N/A
Healthcare	Health	Health and medical administrative services	N/A
Healthcare	Health	Health and medical preparatory programs	N/A
Healthcare	Health	Nursing	N/A
Healthcare	Health	Nutrition sciences	N/A
Healthcare	Health	Pharmacy and pharmaceutical sciences and administration	N/A
Healthcare	Health	Treatment therapy professions	N/A
Healthcare	Health	Miscellaneous health medical professions	Medical assisting services; medical technologies technicians
Humanities and the arts	Arts	Commercial art and graphic design	N/A
Humanities and the arts	Arts	Drama and theater arts	N/A
Humanities and the arts	Arts	Film, video, and photographic arts	N/A
Humanities and the arts	Arts	Fine arts	N/A
Humanities and the arts	Arts	Music	N/A
Humanities and the arts	Arts	Studio arts	N/A
Humanities and the arts	Arts	Visual and performing arts	N/A
Humanities and the arts	Humanities and liberal arts	Area ethnic and civilization studies	N/A
Humanities and the arts	Humanities and liberal arts	Art history and criticism	N/A
Humanities and the arts	Humanities and liberal arts	Composition and speech	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
Humanities and the arts	Humanities and liberal arts	English language and literature	N/A
Humanities and the arts	Humanities and liberal arts	French, German, Latin, and other common foreign language studies	N/A
Humanities and the arts	Humanities and liberal arts	History	United States history
Humanities and the arts	Humanities and liberal arts	Humanities	N/A
Humanities and the arts	Humanities and liberal arts	Intercultural and international studies	N/A
Humanities and the arts	Humanities and liberal arts	Liberal arts	N/A
Humanities and the arts	Humanities and liberal arts	Linguistics and comparative language and literature	N/A
Humanities and the arts	Humanities and liberal arts	Other foreign languages	N/A
Humanities and the arts	Humanities and liberal arts	Philosophy and religious studies	N/A
Multidisciplinary studies	Multi/interdisciplinary studies	Multi/interdisciplinary studies	N/A
Multidisciplinary studies	Multi/interdisciplinary studies	Multidisciplinary or general science	N/A
Social sciences	Psychology	Cognitive science and biopsychology	N/A
Social sciences	Psychology	Counseling psychology	N/A
Social sciences	Psychology	Industrial and organizational psychology	N/A
Social sciences	Psychology	Psychology	Clinical psychology; educational psychology; miscellaneous psychology
Social sciences	Psychology	Social psychology	N/A
Social sciences	Social sciences	Anthropology and archaeology	N/A
Social sciences	Social sciences	Criminology	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
Social sciences	Social sciences	Economics	N/A
Social sciences	Social sciences	General social sciences	N/A
Social sciences	Social sciences	Geography	N/A
Social sciences	Social sciences	Interdisciplinary social sciences	N/A
Social sciences	Social sciences	International relations	N/A
Social sciences	Social sciences	Miscellaneous social sciences	N/A
Social sciences	Social sciences	Political science and government	N/A
Social sciences	Social sciences	Pre-law and legal studies	N/A
Social sciences	Social sciences	Sociology	N/A
STEM	Agriculture and natural resources	Agricultural economics	N/A
STEM	Agriculture and natural resources	Agriculture production and management	N/A
STEM	Agriculture and natural resources	Animal sciences	Veterinary medicine
STEM	Agriculture and natural resources	Food science	N/A
STEM	Agriculture and natural resources	Forestry	N/A
STEM	Agriculture and natural resources	General agriculture	N/A
STEM	Agriculture and natural resources	Miscellaneous agriculture	N/A
STEM	Agriculture and natural resources	Natural resources management	N/A
STEM	Agriculture and natural resources	Plant science and agronomy	N/A
STEM	Agriculture and natural resources	Soil science	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
STEM	Architecture and engineering	Aerospace engineering	N/A
STEM	Architecture and engineering	Architectural engineering	N/A
STEM	Architecture and engineering	Architecture	N/A
STEM	Architecture and engineering	Biomedical engineering	Biological engineering
STEM	Architecture and engineering	Chemical engineering	N/A
STEM	Architecture and engineering	Civil engineering	N/A
STEM	Architecture and engineering	Electrical engineering	N/A
STEM	Architecture and engineering	Engineering and industrial management	N/A
STEM	Architecture and engineering	Engineering mechanics, physics, and science	N/A
STEM	Architecture and engineering	Engineering technologies	N/A
STEM	Architecture and engineering	Environmental engineering	N/A
STEM	Architecture and engineering	General engineering	N/A
STEM	Architecture and engineering	Geological and geophysical engineering	N/A
STEM	Architecture and engineering	Industrial and manufacturing engineering	N/A
STEM	Architecture and engineering	Industrial production technologies	N/A
STEM	Architecture and engineering	Materials engineering and materials science	N/A
STEM	Architecture and engineering	Mechanical engineering	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
STEM	Architecture and engineering	Mechanical engineering related technologies	N/A
STEM	Architecture and engineering	Metallurgical engineering	N/A
STEM	Architecture and engineering	Mining and mineral engineering	N/A
STEM	Architecture and engineering	Miscellaneous engineering	N/A
STEM	Architecture and engineering	Miscellaneous engineering technologies	Electrical engineering technology
STEM	Architecture and engineering	Naval architecture and marine engineering	N/A
STEM	Architecture and engineering	Nuclear engineering	N/A
STEM	Architecture and engineering	Petroleum engineering	N/A
STEM	Biology and life sciences	Biochemical sciences	N/A
STEM	Biology and life sciences	Biology	N/A
STEM	Biology and life sciences	Botany	N/A
STEM	Biology and life sciences	Ecology	N/A
STEM	Biology and life sciences	Environmental science	N/A
STEM	Biology and life sciences	Genetics	N/A
STEM	Biology and life sciences	Microbiology	N/A
STEM	Biology and life sciences	Miscellaneous biology	Pharmacology
STEM	Biology and life sciences	Molecular biology	N/A
STEM	Biology and life sciences	Neuroscience	N/A
STEM	Biology and life sciences	Physiology	N/A
STEM	Biology and life sciences	Zoology	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

Field	Detailed major	Major	Other majors included in the American Community Survey
STEM	Computers, statistics, and mathematics	Applied mathematics	N/A
STEM	Computers, statistics, and mathematics	Computer and information systems	N/A
STEM	Computers, statistics, and mathematics	Computer engineering	N/A
STEM	Computers, statistics, and mathematics	Computer science	Mathematics and computer science
STEM	Computers, statistics, and mathematics	Information sciences	N/A
STEM	Computers, statistics, and mathematics	Mathematics	N/A
STEM	Computers, statistics, and mathematics	Statistics and decision science	Data science and data analytics
STEM	Computers, statistics, and mathematics	Computers, statistics, and mathematics: other	Communication technologies; computer administration management and security; computer networking and telecommunications; computer programming and data processing; miscellaneous computer
STEM	Physical sciences	Astronomy and astrophysics	N/A
STEM	Physical sciences	Atmospheric sciences and meteorology	N/A
STEM	Physical sciences	Chemistry	N/A
STEM	Physical sciences	Geology and Earth science	N/A
STEM	Physical sciences	Geosciences	N/A
STEM	Physical sciences	Materials science	N/A
STEM	Physical sciences	Nuclear, industrial radiology, and biological technologies	N/A
STEM	Physical sciences	Oceanography	N/A
STEM	Physical sciences	Other physical sciences	N/A
STEM	Physical sciences	Physics	N/A

Source: Georgetown University Center on Education and the Workforce analysis of code lists provided by the [US Census Bureau](#) and the [College Board](#).

Note: STEM = science, technology, engineering, and mathematics.

# APPENDIX B

## Bachelor's-to-High School and Graduate-to-High School Earnings Premiums

Table B1 shows the median earnings among workers with bachelor's degrees and/or graduate degrees compared with the median earnings for workers with a high school diploma or GED alone, as well as the associated earnings premiums.

**TABLE B1. The bachelor's-to-high school and graduate-to-high school earnings premiums**

Highest level of education	Median earnings	Earnings premium over workers with a high school diploma or GED only	Earnings premium over workers with a bachelor's degree only
High school or GED	\$47,000	N/A	N/A
Bachelor's degree	\$81,000	70%	N/A
Graduate degree	\$103,000	119%	29%
Bachelor's degree and/or graduate degree	\$88,000	86%	10%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: Earnings are based on full-time, full-year workers ages 25–54. Earnings have been rounded to the nearest thousand and are in 2024\$; the earnings premiums are based on unrounded numbers.

# APPENDIX C

## Change in Degree Production

The number of four-year degrees produced annually within any given field is changing. The numbers of computer, statistics, and mathematics degrees and health degrees produced more than doubled between 2009 and 2023, while the number of humanities and liberal arts and education degrees have seen the greatest declines in production (Table C1).

**TABLE C1. Annual number of bachelor's degrees produced in the stated detailed field**

Detailed field	2009	2023	Percentage change
Agriculture and natural resources	24,982	41,326	65%
Architecture and engineering	99,767	152,090	52%
Arts	89,143	89,805	1%
Biology and life sciences	80,759	130,327	61%
Business	347,043	364,628	5%
Communications and journalism	77,984	78,396	1%
Computers, statistics, and mathematics	53,499	138,755	159%
Education	101,794	87,391	-14%
Health	120,420	251,097	109%
Humanities and liberal arts	179,662	119,492	-33%
Industrial arts, consumer services, and recreation	101,999	131,870	29%
Multi/interdisciplinary studies	37,445	52,610	40%
Physical sciences	22,156	26,566	20%
Psychology	94,273	132,990	41%
Social sciences	137,626	129,085	-6%
Social work and public service	32,792	37,299	14%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Completions Survey," 2009 and 2023.

Note: The majors identified in the Integrated Postsecondary Education Data System (IPEDS) completions survey have been matched to the detailed field labels used throughout this report.

# APPENDIX D

## Racial/Ethnic and Gender Composition of the Workforce, by Field of Study

The racial/ethnic and gender composition of workers with bachelor's degrees is changing. In this appendix, we outline the racial/ethnic and gender distribution among workers with bachelor's degrees in each broad field of study, with shares constructed by pooling three overlapping years of ACS data from 2009–11 and 2021–23, referenced here as “2010” and “2022,” respectively.

In this analysis, we combined the multiracial subgroup and the American Indian/Alaska Native/Native Hawaiian/Pacific Islander (AI/AN/NH/PI) subgroup due to small sample sizes. AI/AN workers represent 0.6 percent of the combined group, and NH/PI workers represent 0.1 percent of the combined group. Within the multiracial subgroup, 86 percent identify as white and at least one other race, 8 percent identify as Black/African American and at least one other race, and 6 percent identify as Asian/Asian American and at least one other race. Shares may not sum to 100 percent due to rounding; percentage point change values are based on the unrounded 2010 and 2022 values.

**TABLE D1. Gender distribution of workers with a bachelor's degree in the stated field**

Field	Gender	2010	2022
Business and communications	Women	48.1%	48.6%
	Men	51.9%	51.4%
Career focused	Women	44.5%	42.6%
	Men	55.5%	57.4%
Education and public service	Women	74.0%	74.5%
	Men	26.0%	25.5%
Healthcare	Women	84.9%	82.8%
	Men	15.1%	17.2%
Humanities and the arts	Women	55.8%	55.4%
	Men	44.2%	44.6%
Multidisciplinary studies	Women	51.1%	54.0%
	Men	48.9%	46.0%

Field	Gender	2010	2022
STEM	Women	27.5%	29.4%
	Men	72.5%	70.6%
Social sciences	Women	54.8%	56.1%
	Men	45.2%	43.9%
All	Women	50.8%	50.6%
	Men	49.2%	49.4%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: STEM = science, technology, engineering, and mathematics. Shares are based on full-time, full-year workers ages 25–54 with a bachelor's degree only. Values may not sum due to rounding; percentage point change values are based on the unrounded 2010 and 2022 values.

**Table D2. Racial/ethnic distribution of workers with a bachelor's degree in the stated field**

Field	Race/ethnicity	2010	2022
Business and communications	White	74.1%	65.5%
	Black/African American	9.2%	9.5%
	Hispanic/Latino	7.9%	12.2%
	Asian/Asian American	7.1%	8.1%
	Multiracial or AI/AN/NH/PI	1.7%	4.7%
Career focused	White	74.5%	65.4%
	Black/African American	11.1%	11.5%
	Hispanic/Latino	9.0%	14.1%
	Asian/Asian American	3.3%	4.0%
	Multiracial or AI/AN/NH/PI	2.0%	5.1%

Field	Race/ethnicity	2010	2022
Education and public service	White	77.6%	70.8%
	Black/African American	8.9%	8.4%
	Hispanic/Latino	8.6%	12.4%
	Asian/Asian American	2.9%	3.8%
	Multiracial or AI/AN/NH/PI	1.9%	4.5%
Healthcare	White	69.4%	60.5%
	Black/African American	9.8%	11.2%
	Hispanic/Latino	6.0%	11.4%
	Asian/Asian American	12.9%	12.4%
	Multiracial or AI/AN/NH/PI	1.9%	4.6%
Humanities and the arts	White	77.4%	68.3%
	Black/African American	6.0%	7.0%
	Hispanic/Latino	7.9%	12.1%
	Asian/Asian American	6.3%	6.9%
	Multiracial or AI/AN/NH/PI	2.4%	5.6%
Multidisciplinary studies	White	69.3%	60.0%
	Black/African American	11.4%	12.9%
	Hispanic/Latino	9.6%	15.3%
	Asian/Asian American	7.8%	7.2%
	Multiracial or AI/AN/NH/PI	1.9%	4.6%

Field	Race/ethnicity	2010	2022
STEM	White	69.7%	60.7%
	Black/African American	6.7%	7.2%
	Hispanic/Latino	7.8%	11.9%
	Asian/Asian American	13.8%	15.1%
	Multiracial or AI/AN/NH/PI	2.0%	5.1%
Social sciences	White	72.2%	62.1%
	Black/African American	10.0%	10.0%
	Hispanic/Latino	8.5%	13.9%
	Asian/Asian American	6.9%	8.2%
	Multiracial or AI/AN/NH/PI	2.4%	5.8%
All	White	73.3%	64.3%
	Black/African American	8.5%	8.9%
	Hispanic/Latino	8.0%	12.4%
	Asian/Asian American	8.2%	9.3%
	Multiracial or AI/AN/NH/PI	2.0%	5.0%

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–23 (pooled).

Notes: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. STEM = science, technology, engineering, and mathematics. Shares are based on full-time, full-year workers ages 25–54 with a bachelor's degree only. Values may not sum due to rounding; percentage point change values are based on the unrounded 2010 and 2022 values.



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