

INDICATORS

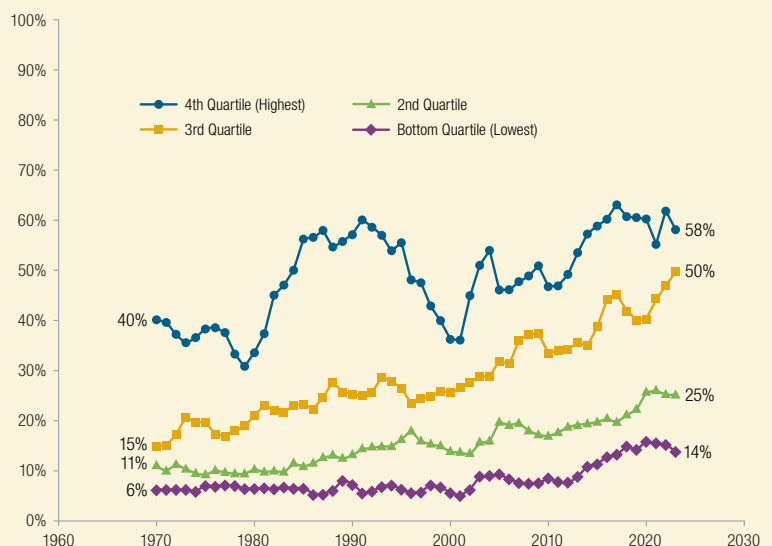
OF HIGHER EDUCATION EQUITY IN THE UNITED STATES



2026 HISTORICAL TREND REPORT

The State of Higher Education Opportunity: Examining Differences Between Equity and Equality

Indicator 5a(i) - Estimated bachelor's degree attainment by age 24 for dependent family members in the U.S. population, by family income quartile: 1970-2023



The Pell Institute
For the Study of Opportunity in Higher Education

pellinstitute.org

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The Pell Institute for the Study of Opportunity in Higher Education of the Council for Opportunity in Education (COE)

conducts and disseminates research and policy analysis to encourage policymakers, educators, and the public to support college access and success for low-income and first-generation students through unimpeachable research and statistics. The Pell Institute shares the Council's mission to advance and defend the ideal of equal opportunity in postsecondary education. As such, the Council's focus is to ensure that the least advantaged segments of the American population have a realistic chance to enter and graduate from a college or university with a bachelor's degree.

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We also acknowledge the contributions of Dr. Arnold Mitchem and Tom Mortenson, without whom this report would not have been possible. Both have dedicated their careers to creating greater equity in educational opportunity. This report is one representation of their legacy and their work to expand access to higher education and improve outcomes across the United States.

Just as important, we acknowledge the teams of U.S. government and contractor statisticians, data collectors, and data processors whose technical expertise and painstaking efforts over many years have made possible the historical and current estimates included in the *Indicators* reports. We thank the past and present staff of the Current Population Survey (CPS) and American Community Survey (ACS) at the U.S. Census Bureau, as well as the past and present government and contractor staff who supported the National Center for Education Statistics (NCES) studies, including the High School Longitudinal Studies program, National Postsecondary Student Aid Study (NPSAS), Beginning Postsecondary Students Longitudinal Study (BPS), Baccalaureate and Beyond Longitudinal Study (B&B), and Integrated Postsecondary Education Data System (IPEDS).

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EXECUTIVE SUMMARY

The 2026 edition of the *Indicators of Higher Education Equity in the United States* marks the tenth iteration of this report. As in the nine previous editions, its purpose is to gather historical statistics on expanding opportunity in the United States and to document where challenges remain. We seek to understand how to create a higher education system that provides opportunities for all while respecting the diversity of talents and gifts among us.

The key concept guiding this report is “equity.” As described in the *Setting the Stage* chapter, equity is about fairness. Equity differs from *equality*, which is defined as the distribution of the same resources and opportunities to everyone. The goal of equality is to ensure that schooling, economic success, and opportunity are “equal” for all students (de los Santos et al., 2020). Equity, on the other hand, strategically distributes resources to create a fairer system (de los Santos et al., 2020). The federal Pell Grant illustrates this distinction. If Pell Grants were distributed equally, that is, to all students, regardless of their financial need, then wealthy students would receive the same benefit as low-income students. While this is equal treatment, it fails to meet the primary objective of the Pell Grant, which is to expand higher education access for lower-income students at rates comparable to higher-income students.

This report and the ensuing indicators show three basic findings:

1. Over the past century, the United States has made great progress in expanding opportunities to students by raising higher education participation and attainment rates to historic levels.
2. These achievements have not been shared equally across the population. Gaps in participation and attainment remain, or even widened, across income, first-generation status, and race/ethnicity.
3. Recent history shows that progress in the United States has slowed or stalled, while other countries have surpassed the United States in attainment. Barriers to progress include rising higher education costs and grant aid that fails to keep pace with costs.

Summary of the findings:

1 Who enrolls in higher education?

Progress in access to higher education has been uneven and limited. Significant gaps remain in college access by income, race and ethnicity, and parental education:



32%

The income gap between the highest and lowest income quartiles in the college participation rate of 18- to 24-year olds.



51%-55%

The range in the percentage of Black, Hispanic, and White Students in the lowest income quartile that went to college, compared to **76% to 82%** in the highest quartile.

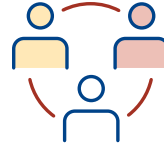
2 What types of higher education institutions do students attend?

The stratification of higher education and institutional competitiveness reinforces access gaps. The most selective institutions enroll the lowest percentage of low-income, Black, and Hispanic students. These gaps have not changed over time:



56%

of very selective institutions have a low number of Pell students compared to other institutions.

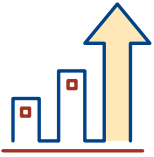


1 out of 3

Almost a third of Black and Hispanic students were unlikely to enroll in college (**29% and 30%** respectively), compared to **11%** of Asian students.

3 Is cost a barrier to higher education access and completion?

Higher education costs are increasing faster than inflation, and the Pell Grant's purchasing power is not keeping up. As a result, unmet need from the lowest income families is increasing while high income families are being subsidized above what they need to go to college:



2.5X

The increase in average college costs between 1974 and 2024, after adjusting for inflation.



\$20,000

The unmet need of low-income students compared to a **\$38,000 surplus** for high-income students in 2020.

4 How do students pay for college?

Students and families have been paying a growing share of college costs since 1975. Net prices have risen for all income groups, but low-income families have a higher share of the cost burden:



42.8 million

borrowers held **\$1.7 trillion** in student debt in 2025, down slightly from peaking in 2020.



119%

The share of the net price relative to family income for a low-income student. This is compared to **15%** for the highest income quartile.

5 Do higher education attainment rates and outcomes vary by student characteristics?

Racial and ethnic disparities in degree attainment have narrowed but not disappeared. Women earn the majority of bachelor's degrees, reflecting a historic reversal:



The racial and ethnic composition of degree recipients in 2022 **more closely reflects the U.S. population** than in 1980.

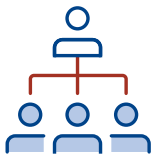


58%

The percentage of bachelor's degrees in 2024 conferred to women.

6 How do educational attainment rates in the U.S. compare with rates in other countries?

Across all countries, the proportion of tertiary degree holders with a bachelor's degree has been increasing. Across all metrics, the United States' relative standing in degree attainment has declined over time.



36%

The percentage of first-generation students (parents with an upper-secondary award, which is equivalent to a U.S. high school diploma)¹ earned a tertiary degree in the United States, compared with the OECD average of **44%**.

7 Are there differences in higher education access, attainment, and cost by state?

Higher education opportunity varies widely by state. Some states outperform international measures in attainment, while most underperform. Costs also vary widely:



25% to 70%

The range of bachelor's degree attainment by state in 2025. In 1940, it ranged from **2% to 7%**, excluding the District of Columbia.



College is the most expensive

in the Northeast. The lowest prices are found in Florida and the Mountain/Plains states.

¹ This includes students with parents who have a tertiary non-postsecondary credential. This measure excludes those with parents below an upper-secondary award. For more detailed definitions of the OECD education levels, see Indicator 6 and/or the technical appendix.

INTRODUCTION

The 2026 edition of the *Indicators of Higher Education Equity in the United States* marks the tenth iteration of this report. As in the nine previous editions, our hope is to pull together available historical statistics on where we have been successful in expanding opportunity in the United States and where significant challenges remain. The overall objective is to better understand how to foster a dynamic higher educational system that advances equity of opportunity while respecting the diversity of talents and gifts among us. Our goal is that each person has the greatest chance to learn about, thrive in, and contribute to their unique time in history.

This report comes during a turbulent time in our history. Currently, there is no shared understanding of what equity means, whether diversity should be valued in education, or what it means to be fair. Recent events highlight the need to re-examine these concepts in the current climate, evaluate them, and understand their implications for educational opportunity. The report opens with the **Setting the Stage** chapter, which addresses these issues head-on. We define equity, fairness, and diversity. We then explain why higher education, specifically the bachelor's degree, is important for improving economic mobility and society, how it relates to fairness, and how equity is a key component of fairness. We use these concepts to advance the overall purpose of this work to examine opportunity in higher education and understand how federal and state policies enable low-income and first-generation students to access and attain a bachelor's degree. This report also explores the differences among equality, equity, and fairness as they relate to higher education opportunity, and provides data to highlight successes and challenges in expanding opportunity for all citizens.

This report is divided into seven chapters, each designed to answer a research question:

1. Who enrolls in higher education?

Indicator 1 provides descriptive statistics on who enrolls in higher education. It documents the participant rates in higher education and breaks down those enrolled in higher education institutions.

2. What types of higher education institutions do students attend?

Indicator 2 examines higher education demographics from an institutional perspective and examines demographic characteristics by types of institutions (public, private nonprofit, private for-profit, 2-year, 4-year, selective, open admission, etc.). It examines if there are gaps across the types of institutions for each demographic group.

3. Is cost a barrier to higher education access and completion?

Indicator 3 documents college costs and examines whether these costs hinder a student's ability to enroll in, persist in, or graduate from higher education institutions.

4. How do students pay for college?

Indicator 4 addresses complex questions about how students pay for college. It examines grant programs, loan programs, and changes over time. It also considers differences by race and income.

5. Do higher education attainment rates and outcomes vary by student characteristics?

Indicator 5 examines outcomes and whether, as a country, we are closing gaps in opportunity and whether overall attainment rates continue to improve.

6. How do educational attainment rates in the U.S. compare with rates in other countries?

Indicator 6 examines higher education outcomes in the United States relative to those in other countries.

7. Are there differences in higher education access, attainment, and cost by state?

Indicator 7 is especially important because primary responsibility for higher education lies with the states. The indicator highlights the variation in how states manage and finance higher education.

Methodology

The report relies on secondary data analysis to answer the research questions posed. Data sources are derived from reports, journal articles, or statistics reported by federal agencies. When pre-calculated data weren't available, the authors computed their own statistics. These sources come primarily from federal statistical agencies, including, but not limited to, the U.S. Census Bureau, the Bureau of Labor Statistics, the National Center for Education Statistics, and others.

Each indicator in this report is guided by a research question, as outlined below:

1. Who enrolls in higher education?

- **Indicator 1a:** How do college participation rates for high school leavers vary by family income?
- **Indicator 1b:** How do high school graduates' college continuation rates vary by family income?
- **Indicator 1d(ii):** How do high school graduates' college continuation rates vary by race/ethnicity and family income quartile?
- **Indicator 1h(ii):** What percentage of college students are first-generation students?

2. What types of higher education institutions do students attend?

- **Indicator 2a:** How does the level of institution attended vary by federal grant receipt?
- **Indicator 2b:** How does the control of the institution attended vary by receipt of Pell or other federal grants?
- **Indicator 2c:** How does the percent of students receiving federal grants vary by institutional sector?
- **Indicator 2d:** How does the percentage distribution of students by income and socioeconomic status vary by the selectivity of the institution?
- **Indicator 2e:** How does the average percentage of students receiving federal grants vary by institutional competitiveness?
- **Indicator 2f:** How does college enrollment by the selectivity of the institution vary by socioeconomic status (SES)?
- **Indicator 2g:** How does the selectivity of institutions at which students enroll vary by race/ethnicity?

3. Is cost a barrier to higher education access and completion?

- **Indicator 3a(i):** What are the trends in average college costs?
- **Indicator 3b:** How much of college costs does the Pell Grant cover, and how has that percentage changed over time?
- **Indicators 3c(i):** What is the unmet financial need for dependent full-time undergraduates?

4. How do students pay for college?

- **Indicator 4a(i):** What are the trends in financing of higher education in the United States?
- **Indicator 4b(i):** What is the net price of attendance by family income?
- **Indicator 4b(ii):** What percentage of family income is needed to pay the average net price of attendance?
- **Indicator 4c(i):** Borrowing and debt: How much is total student debt?

- **Indicator 4c(ii):** How frequently and how much do students borrow to complete their undergraduate degrees by type of institution?
- **Indicator 4e(v):** How does borrowing and financial well-being of bachelor's degree recipients vary by race/ethnicity 10 years after graduation?

5. Do higher education attainment rates and outcomes vary by student characteristics?

- **Indicators 5a(i) and 5a(ii):** How do bachelor's degree attainment rates vary by family income?
- **Indicators 5a(iii):** How does the number of bachelor's degrees conferred differ by sex over time?
- **Indicators 5c(v) and 5c(vi):** What was the enrollment and completion status of students 4 and 6 years after first enrolling?
- **Indicator 5d(i):** What is the distribution of associate and bachelor's degrees awarded to U.S. citizens by race and ethnicity?
- **Indicator 5e(i):** What percent of bachelor's degree recipients are the first-generation to college?
- **Indicator 5f(iii):** What are the differences in post-baccalaureate employment outcomes after degree completion by family income?

6. How do educational attainment rates in the U.S. compare with rates in other countries?

- **Indicator 6a:** What percentage of 25- to 34-year-olds have completed a tertiary degree equivalent to a bachelor's degree or above?
- **Indicator 6b:** What percentage of 25- to 34-year-olds have completed a type A (bachelor's or above) or a type B (short-cycle or associate) tertiary degree?
- **Indicator 6c:** What percentage of 25- to 34-year-olds are first-generation students (both parents without a tertiary education)?

7. Are there differences in higher education access, attainment, and cost by state?

- **Indicator 7a(i):** What are the estimated college participation rates of low-income students by state?
- **Indicator 7b(i):** What are the enrollment rates of 18- to 24-year-olds by state?
- **Indicators 7d:** What are the average college costs by state?
- **Indicator 7e:** How much is state need-based aid relative to Pell Grant aid?
- **Indicators 7g:** What are the differences in educational attainment by state?

The methods used to derive the data presented in the figures are detailed in the technical appendix that accompanies this report. Many estimates in this report are computed from multiple sources or compute ratios from multiple estimates, many of which come from the Postsecondary Opportunity Data Archive (Mortenson & Brunt, 2025). Most estimates presented in this report were inflation-adjusted to 2025 dollars. All visualizations in this report are accompanied by a table listing the point estimates and standard errors, when available.

All differences mentioned in this report are associated with a statistically significant test at the $p < 0.05$ level (or equivalent). For many estimates, the authors computed their own standard errors using the technical documentation provided by the data collector. All methods used to compute standard errors, the statistical tests used, and the steps taken to control for Type 1 error are presented in the technical appendix. The data sources used for each indicator are presented in the figure notes and in the technical appendix.

Not all indicators are presented in this report, and some are reported in a specific order aligned with the narrative. Each indicator in this report, and those not presented, are associated with a dashboard or a spreadsheet available on the Pell Institute's website. To search the dashboards and the data archive, readers can access them at this URL:

www.pellinstitute.org/equity-indicators

SETTING THE STAGE

WHY DO WE STUDY EQUITY IN HIGHER EDUCATION?

Key Takeaways

- ✓ **Equity does not equal equality:** Equity is about being fair, but it doesn't necessarily mean that people are treated equally. Equally distributing resources does not achieve fairness because individuals have different needs and requirements.
- ✓ **Higher education has benefits:** Higher levels of education are correlated with positive outcomes for both individuals and the government. Targeted support for low-income and first-generation students is crucial to closing opportunity gaps and alleviating the government's burden.
- ✓ **Equity reduces costs:** Participation in social programs that are of high cost to taxpayers is correlated with education level; the higher the level of education, the lower the rates are for programs like Medicaid, food assistance, housing assistance, cash assistance, and other programs. Incarceration rates are also lower.
- ✓ **Education outcomes and persistence gaps remain:** In the latest data available, some 17% of low-income students attain a bachelor's degree within six years compared with 47% of their higher-income peers. Additionally, 23% of first-generation students attain a bachelor's degree within six years compared to 59% of non-first-generation students. When combined with income, both first-generation and low-income students have lower attainment rates compared to those in neither group (14% compared to 64%). Similar trends are observed for race/ethnicity as well.

Introduction: Higher Education Opportunity

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness (Declaration of Independence, 1776).

Life, liberty, and the pursuit of happiness are values that are embedded in the founding documents of our country. Rooted in these values is the pursuit of economic and social mobility for all Americans. This pursuit of opportunity is a core value that transcends demographic divides in this country, regardless of political ideologies, income levels, religious affiliations, racial or ethnic backgrounds, or gender. These values were reiterated in President Truman's Commission on Higher Education (1947), whose report stated:

The American people should set as their ultimate goal an educational system in which at no level—high school, college, graduate school, or professional school—will a qualified individual in any part of the country encounter an insuperable economic barrier to the attainment of the kind of education suited to his [or her] aptitudes and interests (President's Commission on Higher Education, 1947, p. 36).

Recent events highlight the need to examine our understanding of fairness and how equity is a key part of fairness. The purpose of this report is to examine opportunity in higher education to better understand how federal and state policies enable low-income and first-generation students to access and attain a bachelor's degree. It explores the differences between equality, equity, and fairness as they relate to higher education opportunity, then provides data to uncover successes and challenges in providing opportunity to all citizens.

This chapter provides context for measuring opportunity and for defining and understanding equity, which is closely related to the concept of fairness. The following research question guides the rest of the chapter:

Why do we study equity in higher education?

The next section defines equity and provides a rationale for why it is important to provide higher education opportunity to everyone in this country. The data presented demonstrates why providing opportunity benefits both the individual student and society in general. The chapter concludes by examining key domains of equity and their relationship to providing higher education opportunity, so that policymakers understand where interventions are warranted.

What is Equity?

Imagine you are in a movie theater, excited to watch the next major motion picture. When you take your seat, you realize that the person in front of you is much taller and is blocking your view of the movie screen. In this metaphor, you are not benefiting from a service or a public good (watching a movie) because of your height. Several possible interventions could help address this limitation. If the theater were to accommodate you with another seat closer to the screen, this might not be fair because you would have swapped an obscured view for a less optimal seat, having had to relinquish a seat in a more desirable part of the theater. You could use a booster on the seat, but that might not be fair because it could obscure the view for those behind you. In what ways can we deal with this problem without having to make everything equal by setting the height of the person to the same value (which is impossible)?

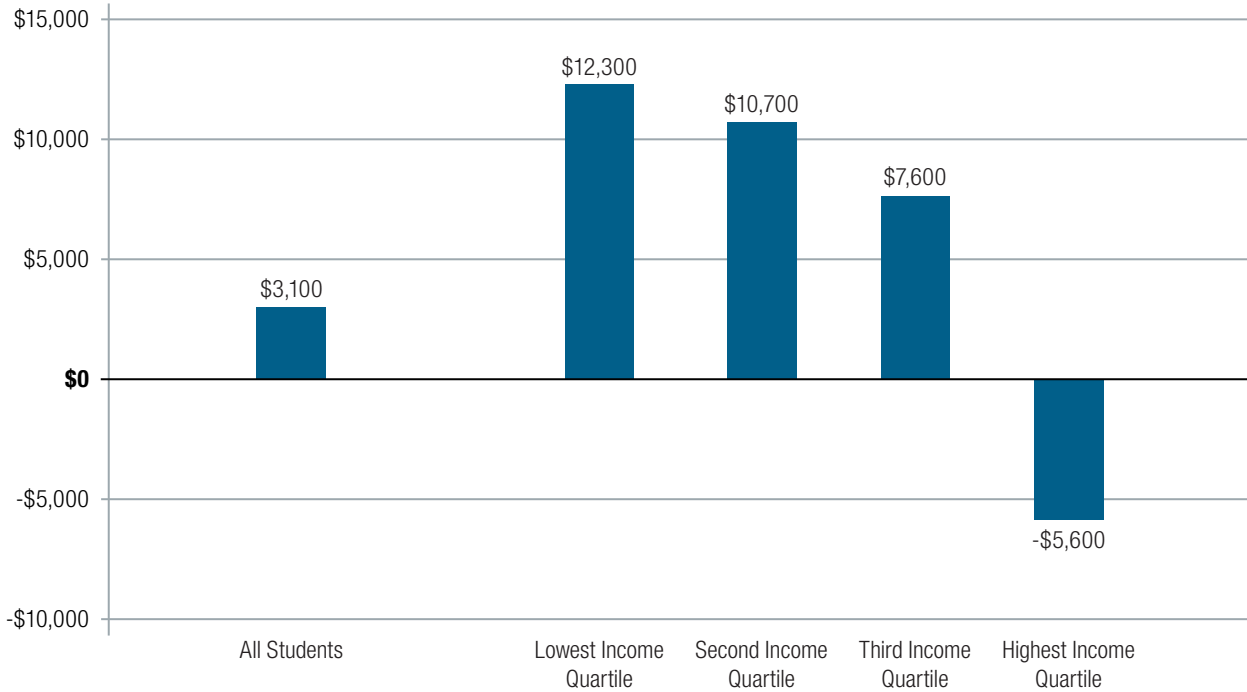
Many theaters have already developed solutions that maximize everyone's experiences while minimizing unfair practices. Some theaters developed plans for stadium seating, where seats are arranged on a sloped or elevated level, ensuring that all seats have a clear view of the screen. Other theaters stagger seats so that moviegoers have a view of the screen between seats in front of them. For children, boosters can be used to elevate them to a height similar to that of everyone else. All of these are examples of accommodations, designed to make everyone's experience the same while taking into account everyone's physical differences, such as height. In this example, theaters made these changes because it was in their economic best interest to maximize ticket sales and profits. However, not all situations align with this profit motive, which is why government intervention is sometimes required.

Equity is about being fair. It is understood that sometimes interventions are necessary, but they must be implemented in a manner that minimizes the negative impact on others. It is a different concept from equality, which is defined as the distribution of the same resources and opportunities to satisfy the needs of everyone. The goal is to ensure that schooling, economic success, and opportunity are equal for all students (de los Santos et al., 2020). Equity, on the other hand, does not distribute resources and opportunities equally. Instead, resources are distributed in a way to create a more equitable system (de los Santos et al., 2020). Think of the federal Pell Grant as an example. If Pell Grants were distributed equally, that is, to all students, regardless of their financial need, then wealthy students would receive the same subsidy as poor students. Everyone is treated equally, but this does not meet the primary objective of the Pell Grant, which is to increase access to higher education for lower-income students. In addition, it is a cost-prohibitive solution for the government.

In the Pell Grant example, equality gives resources to students who do not need them. Figure S.1, for example, illustrates the unmet needs of students attending postsecondary institutions. Unmet need refers to the gap between what a student can afford, given their income and wealth, and the cost of attending college after considering grants and scholarships, which do not need to be repaid. As shown in Figure S.1, students who are in the top income

quartile have a negative unmet need after accounting for grants and scholarships received. This means that, after accounting for family income and wealth, the aid given to high-income students exceeds what they need to cover the cost of college. In contrast, students in the lowest income quartile have unmet needs despite receiving grant-based financial aid from institutional, state, and federal sources. In short, being equal is not fair in this case. By limiting the Pell Grant program to those with low incomes, resources are more equitably distributed, thereby increasing opportunities by providing access to colleges and universities for those with the least financial means. Giving Pell Grants to high-income students, those who already have the resources to attend college, does not meet the goal of providing more opportunities in higher education.

Figure S.1: Average unmet financial need of students attending postsecondary institutions after taking into account grants and scholarships in 2020 dollars, by income quartile: 2019-2020 academic year



NOTES: Weighted estimates and standard errors have been calculated using methods that account for the complex sample design employed during data collection. See the appendix for all estimates and standard errors. A negative value for unmet financial need indicates that the student received funds despite having sufficient financial resources to cover the cost of attendance. See the technical appendix for more specific technical details about the unmet need, which is a more conservative estimate than other sources.

SOURCE: National Postsecondary Student Aid Study, 2020 (National Center for Education Statistics, 2020b). Analysis by authors.

Fairness through equity ensures that everyone in this country has the opportunity to improve their social and economic situation. The next section explains why it is in everyone’s best interest to expand opportunities to all students, not just those with the knowledge and financial resources to succeed.

Benefits of Fairness through Equity

Higher levels of education are correlated with positive outcomes throughout one’s life. For a more detailed examination of these benefits, we recommend the College Board’s *Education Pays* report series (Ma & Pender, 2023), which provides an exhaustive evaluation of the benefits of a college degree. Their report includes outcomes covering earnings, unemployment status, retirement, health insurance, poverty, public assistance, voting, civic involvement, health, and family formation.² In our report, we examine four examples: lifetime income, social safety net programs, corrections, and life expectancy.

Lifetime income

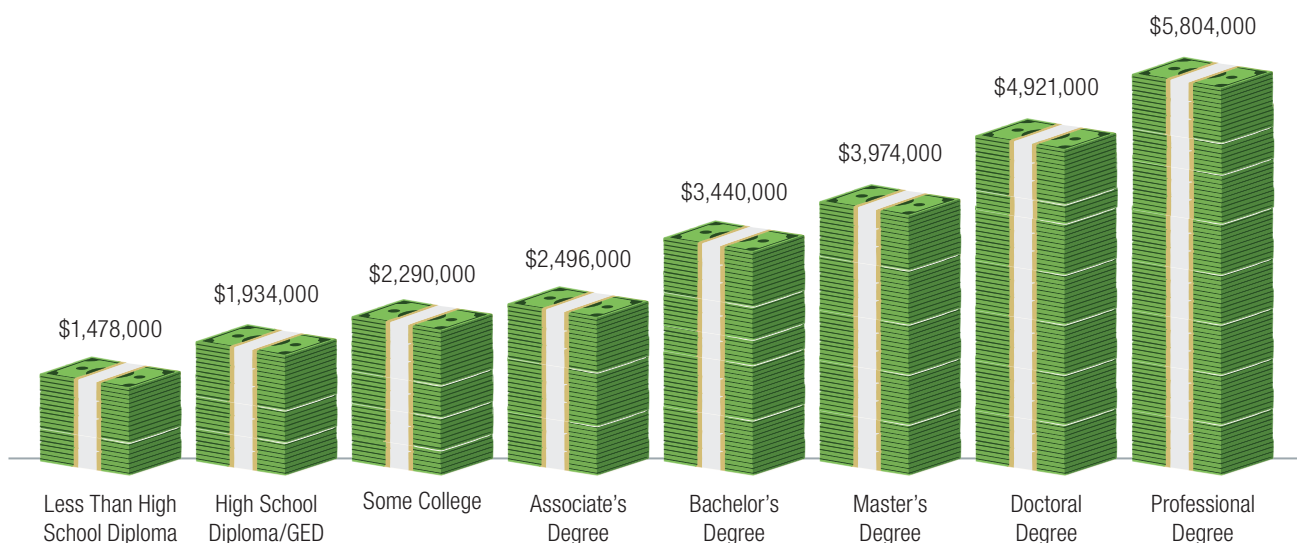
When we invest in higher education for those in our country, we greatly increase students’ lifetime incomes. As shown in Figure S.2, the higher the degree level earned, the higher the income. It is estimated that the lifetime income of a high school graduate who does not obtain further education is about \$1.9 million, compared to an associate’s degree at \$2.5 million or a bachelor’s degree at \$3.4 million (Carnevale et al., 2021). Graduate degrees have an even higher lifetime income, with doctoral degree recipients receiving \$5 million and professional degrees yielding \$5.8 million (Carnevale et al., 2021).³ On average, bachelor’s degree recipients have lifetime earnings that are 78% above those of a high school graduate. The \$1.5 million difference between high school and bachelor’s wages is still high enough to cover the cost of education.⁴ On average, this increase in wages benefits both state and federal treasuries. The estimated taxes for high school graduates are around \$9,100 per year, compared to \$16,900 for a bachelor’s degree graduate and \$30,500 for a doctoral degree graduate (Ma & Pender, 2023). Over the course of a lifetime, federal and state governments are also likely to recoup the costs of providing higher education opportunity to students when they complete their degree in the form of higher taxes being paid and a reduction in the use of social services.

2 This report is accessible on the College Board’s website at this URL: <https://research.collegeboard.org/trends/education-pays>.

3 Note that these dollar amounts were inflation-adjusted to 2024 dollars.

4 It should be noted, however, that this is an average and that not all graduates have this wage premium, which is why it is important to examine majors, their professions, the cost of higher education, and the likely debt burden that students may incur. See Carnevale et al. (2021) for a more detailed examination of this issue.

Figure S.2: Median lifetime earnings by educational attainment level in constant 2024 dollars



NOTES: Earnings are calculated and represent those who were aged 25-64, working full-time, for whom earnings data were available. Estimates from the publication are inflation-adjusted to 2024 dollars.

SOURCE: Georgetown University Center on Education and the Workforce (Carnevale et al., 2021). Updated by authors.

Social safety net programs

Another benefit to providing higher education opportunity to low-income and first-generation students is the reduced burden on means-tested social safety net programs for those with higher levels of education. Figure S.3 displays the percentage of working-aged adults between 18 and 65 years old who have used the following means-tested programs:

- Medicaid
- Supplemental Nutrition Assistance Program (SNAP)
- Women, Infants, and Children Special Supplemental Nutrition Program (WIC)
- Free or Reduced Price School Lunch
- Supplemental Security Income (SSI)
- Temporary Assistance for Needy Families (TANF)
- Energy Aid
- Rental Subsidies
- Social Security
- Medicare
- Unemployment Compensation

For all but two of these programs (Free and Reduced Price School Lunch and Unemployment Compensation), the higher the education level, the lower the participation rate. The lunch program is restricted to high school students, so individuals with a high school diploma are not eligible. Unemployment compensation is restricted to those within the workforce without a job, so the trendlines aren't linear.

Figure S.3: Percentage of working-age adults from 18 to 65 years old who participate in means-tested social safety net benefit programs, by educational attainment: 2022



*Statistically significant difference for the overall linear downward trend at higher degree levels.

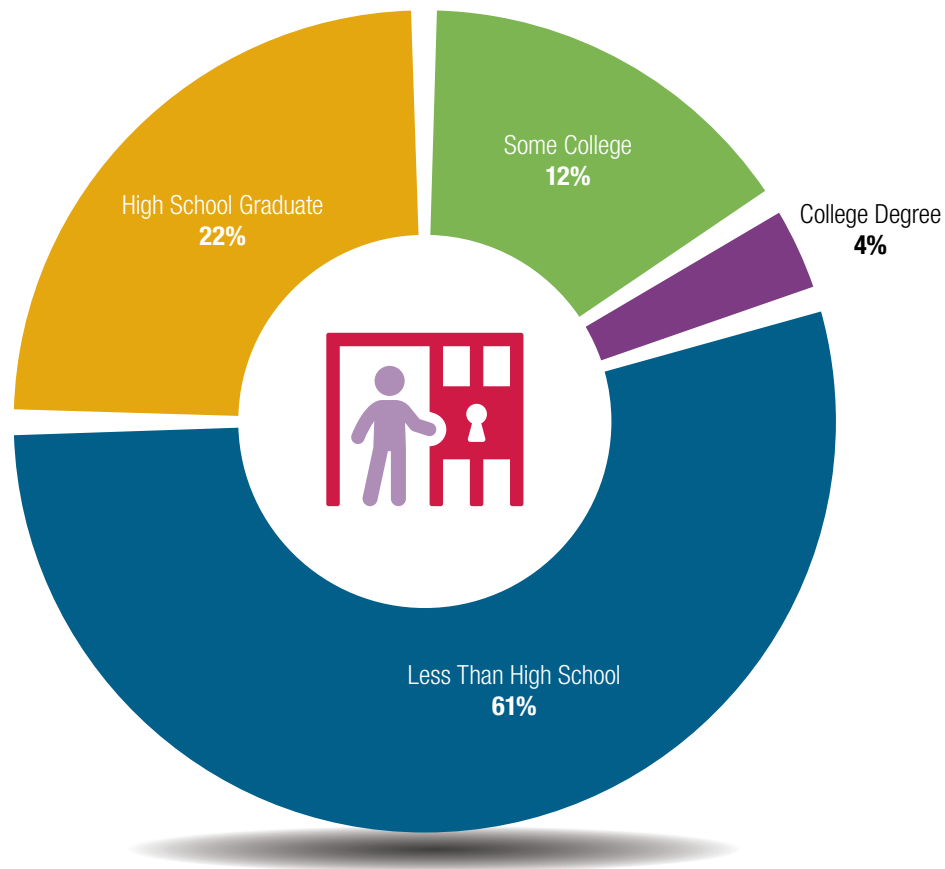
NOTES: The percentages on the x-axis have been adjusted to allow readers to view the overall trends for each program. Caution should be exercised when comparing each program, as they are on different scales, and they can range from 0% to 41%.

SOURCE: 2022 Survey of Income and Program Participation (SIPP) (U.S. Census Bureau, 2024b, 2025d).

Corrections

In addition to lifetime income and reduced use of social programs, a more educated citizenry is less burdensome to society. As shown in Figure S.4, approximately 83% of those in the corrections system hold a high school degree or less. Individuals who hold a college degree are less likely to encounter issues with the corrections system. Only 4% of those in the corrections system have a college degree, meaning that 95% of the entire corrections population have no higher education degree. Having a college degree results in significant savings to states and the federal government. The cost of housing a prisoner, for example, ranges from \$40,000 to \$44,000 per year in the federal corrections system (Annual determination, 2024).

Figure S.4: Percentage distribution of state and federal prisoners, age 25 and over, by highest level of education completed: 2016

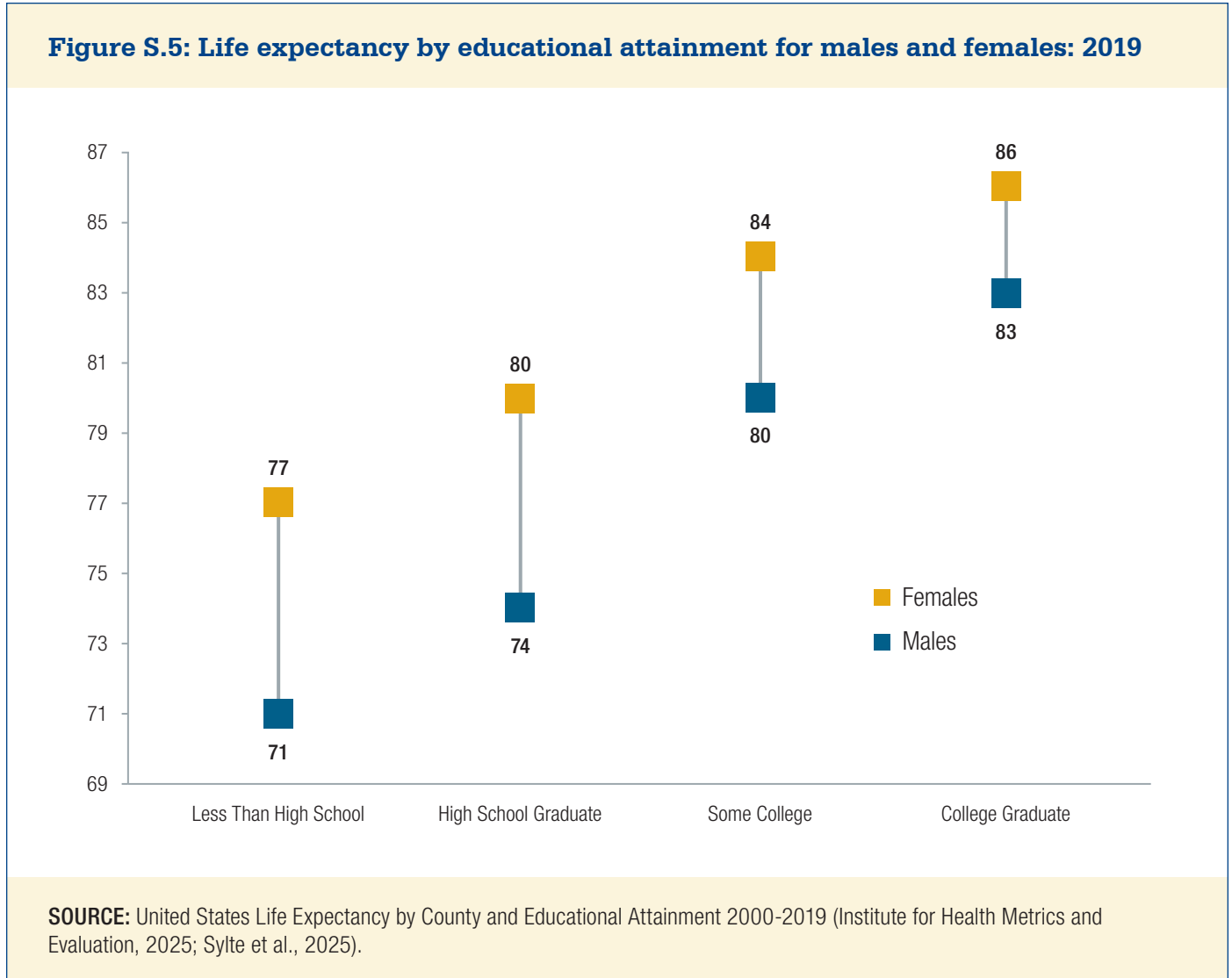


NOTES: Education completed is based on the highest level of education completed prior to admission, excluding GED attainment. Data analysis conducted using the SPI Data Analysis Tool (SPI DAT; <https://spi-data.bjs.ojp.gov/dashboard>). Retrieved October 2025. Detailed estimates do not sum to totals due to rounding.

SOURCE: 2016 Survey on Prison Inmates (Bureau of Justice Statistics, 2016a, 2016b). Analysis by authors.

Life expectancy

Life expectancy also varies by educational attainment level, with higher levels of attainment associated with longer life spans (Sylte et al., 2025). As shown in Figure S.5, in 2019, male college graduates were estimated to live to the age of 83, while those with less than a high school education were estimated to live until the age of 71. For females, those with a college degree were estimated to live until age 86, and those who did not receive a high school diploma were estimated to live to 77.



These statistics demonstrate that investing in higher education to provide equal levels of access and attainment would improve the state of this country overall, with higher salaries and associated tax revenues, lower levels of incarceration, and longer life spans. The next section illustrates the domains and demographics we use to track fairness through equity.

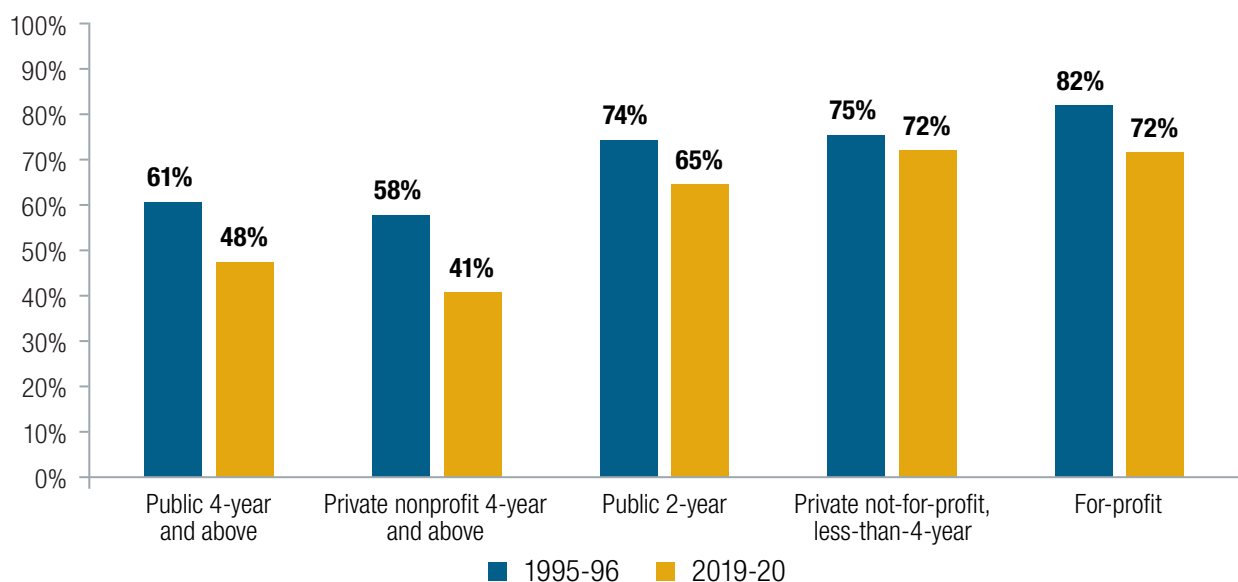
Measuring Fairness through Equity

This report tracks fairness through equity using multiple measures and demographic groups. This report covers income, first-generation student status (i.e., students whose parents did not attain a bachelor's degree), race/ethnicity, gender, and geography. This section provides examples for first-generation status, race/ethnicity, and income.

First-Generation Students. First-generation students are those whose parents do not hold a credential at or above a bachelor’s degree.⁵ The higher education outcomes for these students are typically lower because they have an information disadvantage (McDonough, 1997; Perna, 2006; Perna & Titus, 2004). For students whose parents or siblings have attended college, resources are available to assist with applying for financial aid, taking college exams, navigating the social environment, and feeling comfortable with taking out loans to cover college expenses. As a result of this information gap, measures of educational achievement (e.g., test scores, college entrance rates, and college degree attainment) are highly correlated with parental education; therefore, it is essential to examine the experiences of first-generation students.

Figure S.6 displays the percentage of students who are first-generation by institutional sector.⁶ Public 4-year and private nonprofit 4-year institutions have proportionally fewer first-generation students compared with the other sectors. In 2020, for example, 48% of students at public 4-year institutions and 41% of students at private nonprofit 4-year institutions were first-generation students, compared with 65% at public 2-year and 72% each at private not-for-profit less-than-4-year and for-profit institutions. There is an overall decline in the percentage of first-generation students between 1996 and 2020 (see Figure S.7). This is likely due to the increased number of college-educated adults in the U.S. population (Simone & Christopher, 2005).

Figure S.6: Percentage of first-generation degree-seeking students, by institutional sector: 1996 and 2020

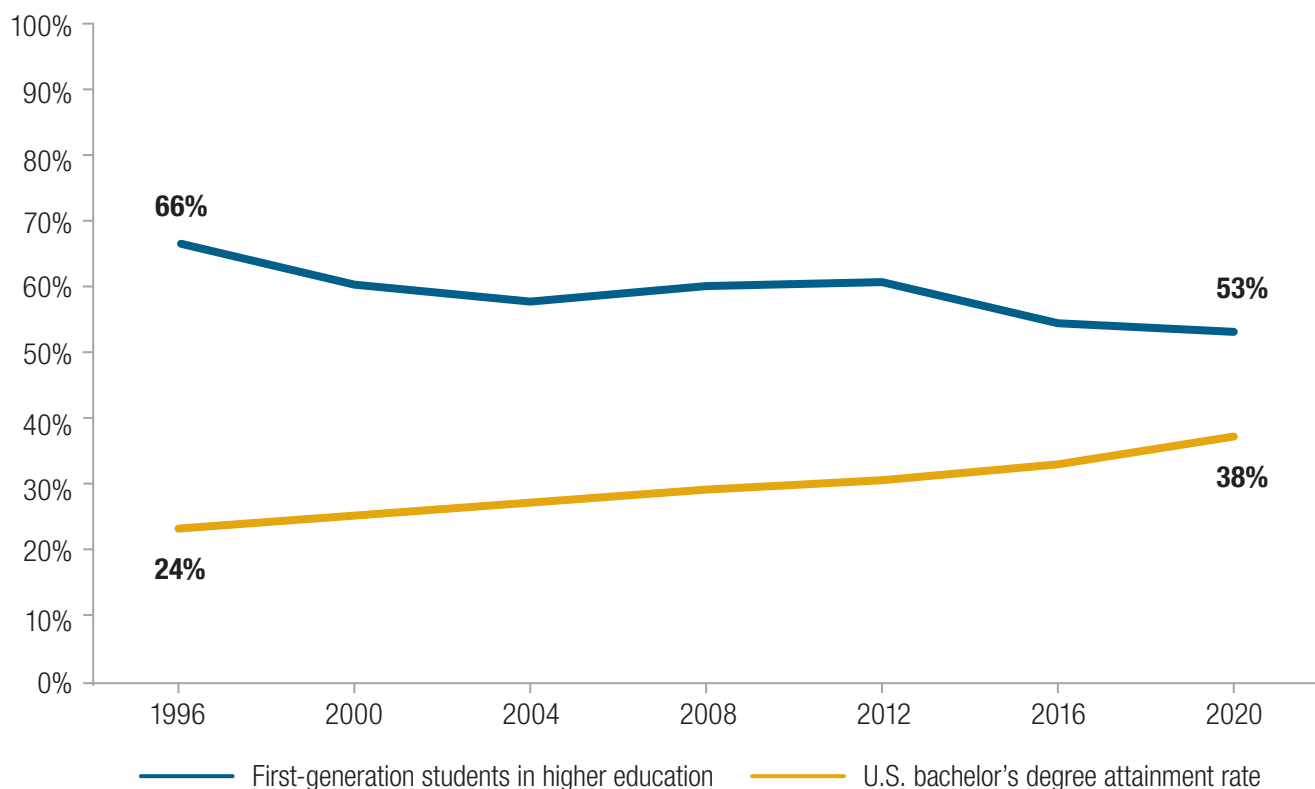


NOTES: Weighted estimates and standard errors have been calculated using methods that account for the complex sample design employed during data collection. See the appendix for all estimates and standard errors.

SOURCE: National Postsecondary Student Aid Student (1996 and 2020) (National Center for Education Statistics, 2020b).

- 5 Students whose parents have some college but no degree are considered first-generation students.
- 6 Sector is a combination of level (based on the highest degree offered at the institution) and control (or how the institution is governed, whether it is a public, private nonprofit, or a private for-profit). Due to sample size limitations in earlier years, the for-profit sector could not be divided out into institutional levels.

Figure S.7: Percentage of first-generation degree-seeking students and the U.S. bachelor's attainment rate for adults 25 years and older: 1996-2020



NOTES: Weighted estimates and standard errors have been calculated using methods that account for the complex sample design employed during data collection. See the appendix for all estimates and standard errors.

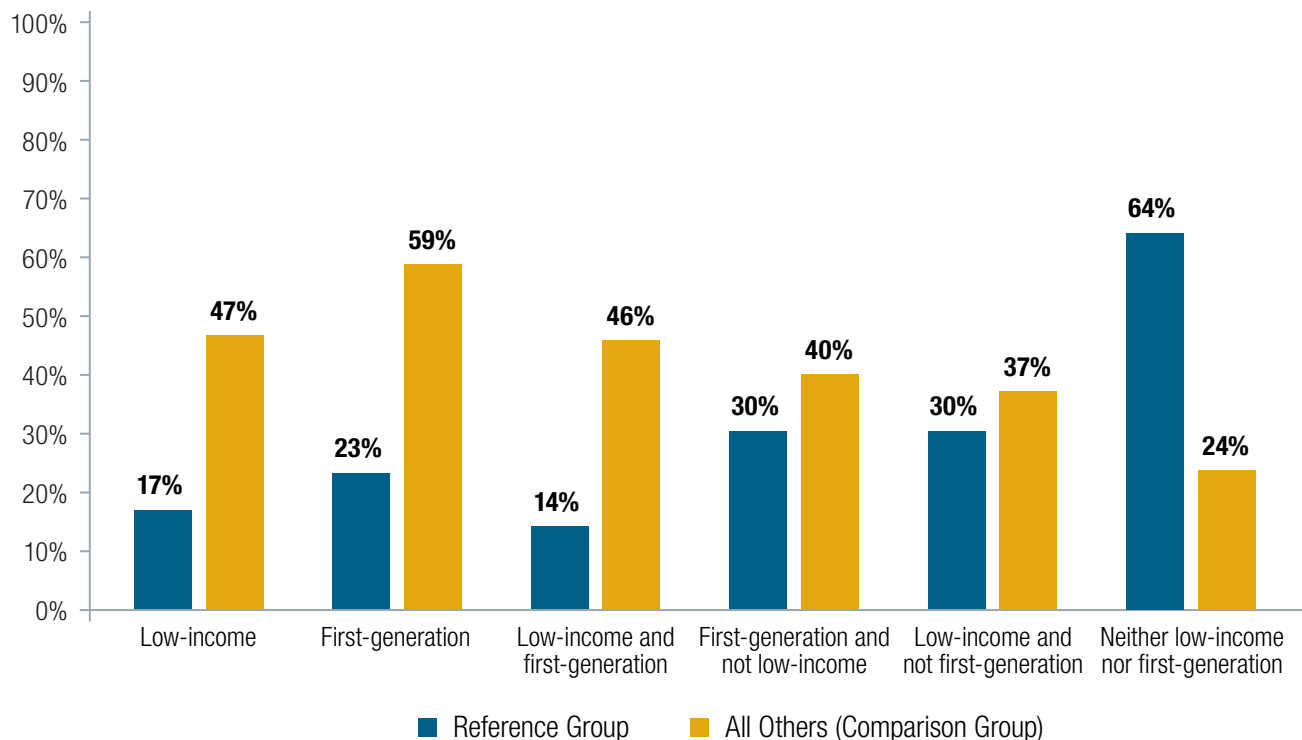
SOURCE: National Postsecondary Student Aid Student (1996, 2000, 2004, 2008, 2012, 2016, and 2020) (National Center for Education Statistics, 2020b) and the Current Population Survey, Annual Social and Economic Supplement (U.S. Census Bureau, 2025a). This figure was first published by Simone and Christopher (2005).

Income. One reason students do not advance to higher levels of education may be attributed to a lack of resources to pay for further education. Generally, lower-income students have less access to, and poorer educational outcomes compared to their higher-income peers, especially when examining income and other criteria together, such as first-generation status.⁷ As shown in Figure S.8, low-income students starting at postsecondary institutions attain bachelor's degrees at lower rates than higher-income students. Approximately 17% of low-income students attain a bachelor's degree compared with 47% of their higher-income peers.

Mixing income and first-generation status illustrates additional challenges for students in completing college. First-generation students who start at a postsecondary institution as first-time students have lower bachelor's degree attainment rates compared to students who have at least one parent with a bachelor's degree. Some 23% of first-generation students attain a bachelor's degree within six years compared to 59% of non-first-generation students. When combined with income, both first-generation/low-income and first-generation/high-income students don't fare as well as students who are not in either group, with attainment rates ranging from 14% to 30% compared to 64% of students who are neither first-generation nor low-income students.

⁷ More information related to the relationship of income and education is found in Indicator 5.

Figure S.8: Percentage of bachelor's degree recipients for first-time beginning students attending a postsecondary institution in 2012, by low-income and first-generation student status: 2017



NOTES: This figure uses the TRIO eligibility criteria in the estimates. TRIO income thresholds are established by law and are set at an adjusted income at or below 150% of the federal poverty line. First-generation is defined as neither parent nor guardian having attained a bachelor's degree.

SOURCE: 2012/17 Beginning Postsecondary Students Longitudinal Study (National Center for Education Statistics, 2017). Analysis by authors.

Race/Ethnicity. Figure S.9 documents how this information disadvantage is shared across all racial/ethnic groups for high school students. Except for Asian students, over half of all other racial/ethnic groups are considered first-generation students. Over time, the first-generation rate has fallen. Two groups (White and Asian students) have fallen below 60% whereas Black/African American and Hispanic/Latino students are above 60%.⁸ While rates have fallen for nearly all groups⁹ as the country's bachelor's degree attainment rate has risen, it has not been the same across all groups.

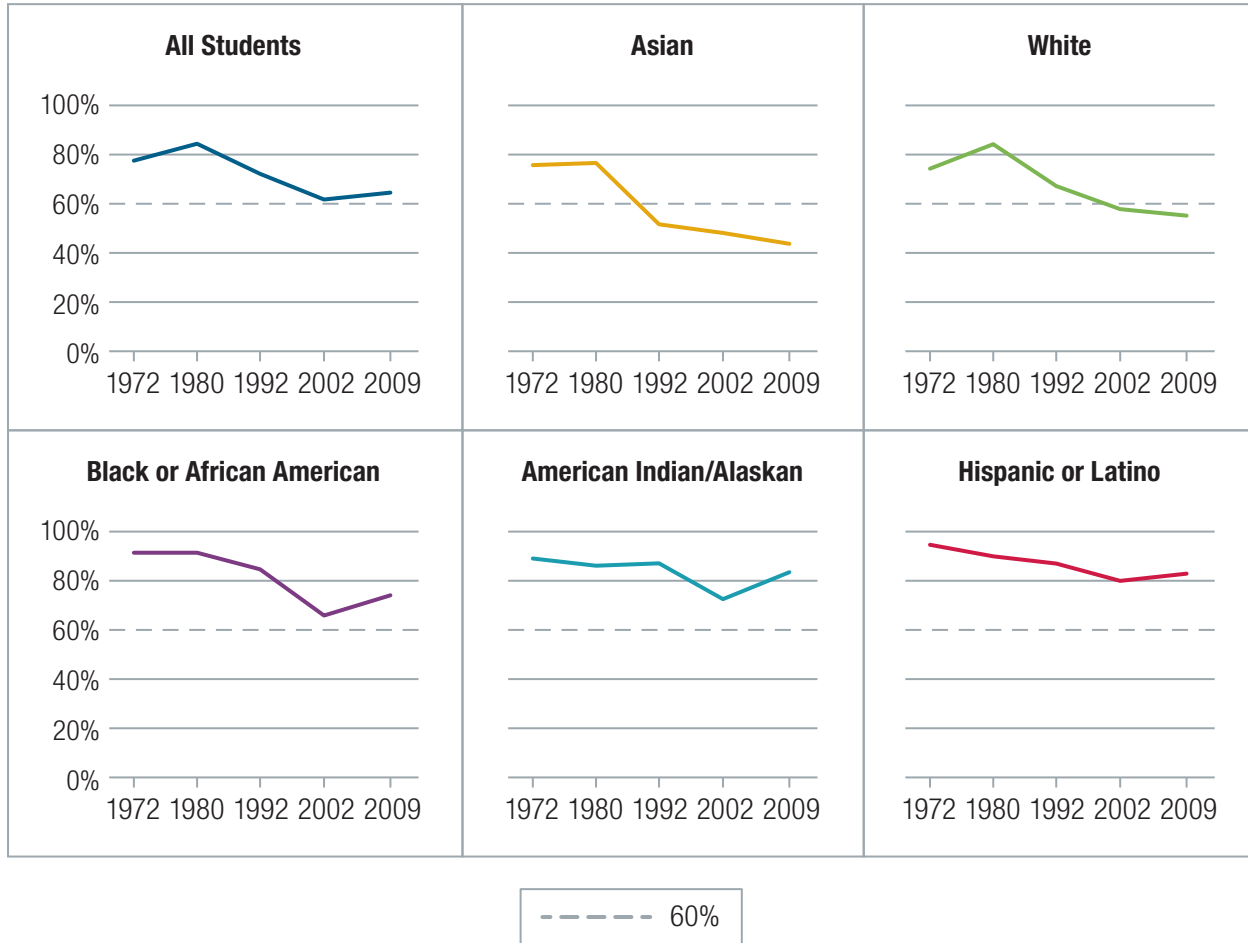
Although not directly comparable to Figure S.9, which examines only high school students versus all children under 18 years old, Figure S.10 also shows declines in the share of students who had the potential to be first-generation college students over the past decade. The data show the same differences by race/ethnicity among parent education levels, especially among some minoritized students. Figure S.10 illustrates that the overall percentage of first-generation students has decreased from 63% in 2012 to 53% in 2022. Again, White and Asian students are

⁸ Due to the smaller samples sizes for American Indian/Alaskan native students, we could not make a definitive determination for this group, but we can confirm that more than half of American Indian/Alaskan Native students are first-generation.

⁹ Again, the sample sizes for American Indian/Alaskan native were not sufficient to detect a statistically significant result in the difference between 89% and 81%.

below 50% whereas Black/African American, Pacific Islander, American Indian/Alaskan Native, and Hispanic/Latino students are all above 50%.

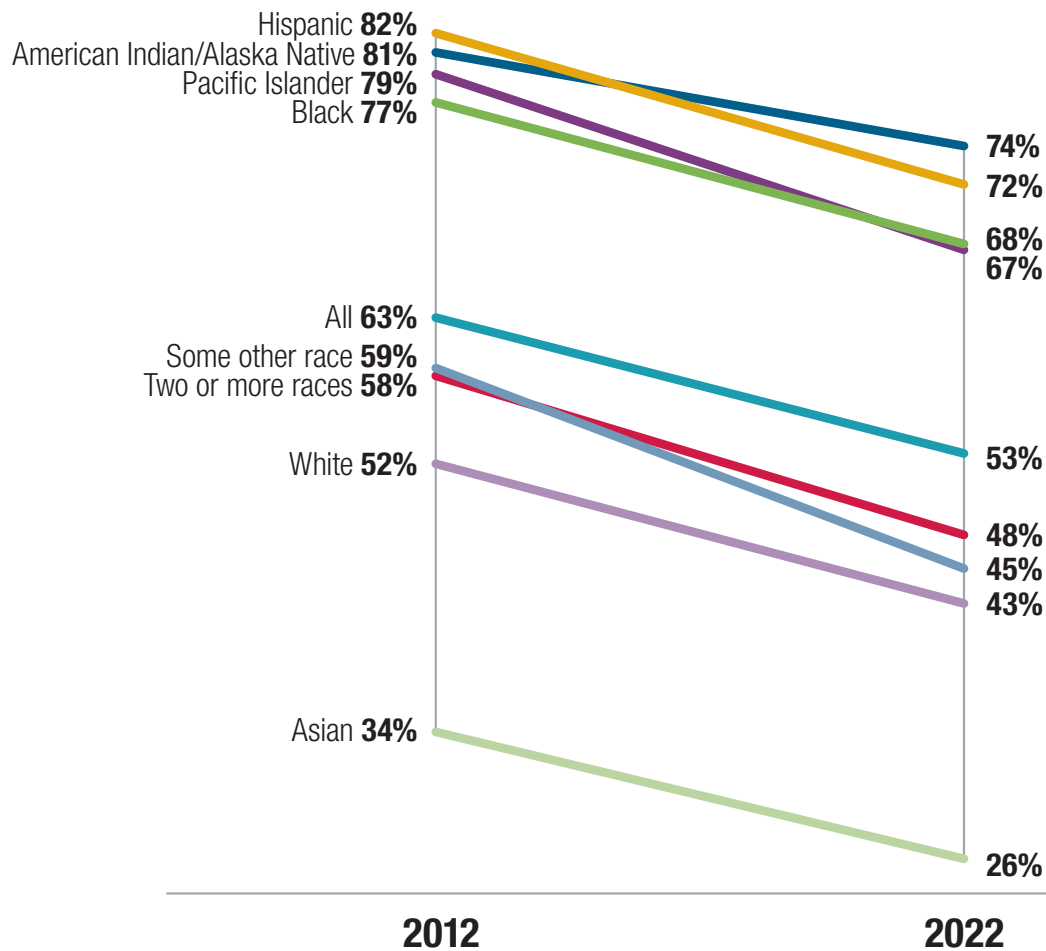
Figure S.9: Percentage of high school students who had the potential to be first-generation college students by race/ethnicity: 1972 to 2009 selected years



NOTES: First-generation is defined as no parent or guardian having attained a bachelor’s degree. Estimates and standard errors for this figure are in the technical appendix. All years represent the views of high school students, but at different times in their education, and the survey populations varied across each of the surveys. The 1972 study sampled high school seniors; the 1980 study sampled sophomores. In 1988, the sample targeted 8th graders (but the data were pulled from a high school follow-up in 1992). The 2002 study sampled sophomores, and the 2009 study sampled freshmen. Categories of race/ethnicity have also shifted over time, but groups were developed to approximate the closest race groups.

SOURCE: National Longitudinal Study of 1972 (NLS-72) (National Center for Education Statistics, 1999), High School and Beyond Longitudinal Study of 1980 (HS&B:80), National Education Longitudinal Study of 1988 (NELS:88), Education Longitudinal Study of 2002 (ELS:2002), and the High School Longitudinal Study of 2009 (HSL:09). Most estimates were generated from NCES’ DataLab application (National Center for Education Statistics, 2025a). An earlier version of this figure was included in Cahalan and Curtin (2004) report on the Upward Bound program. Analysis by authors.

Figure S.10: Percentage of children under 18 with the potential to be first-generation college by race/ethnicity: 2012 and 2022

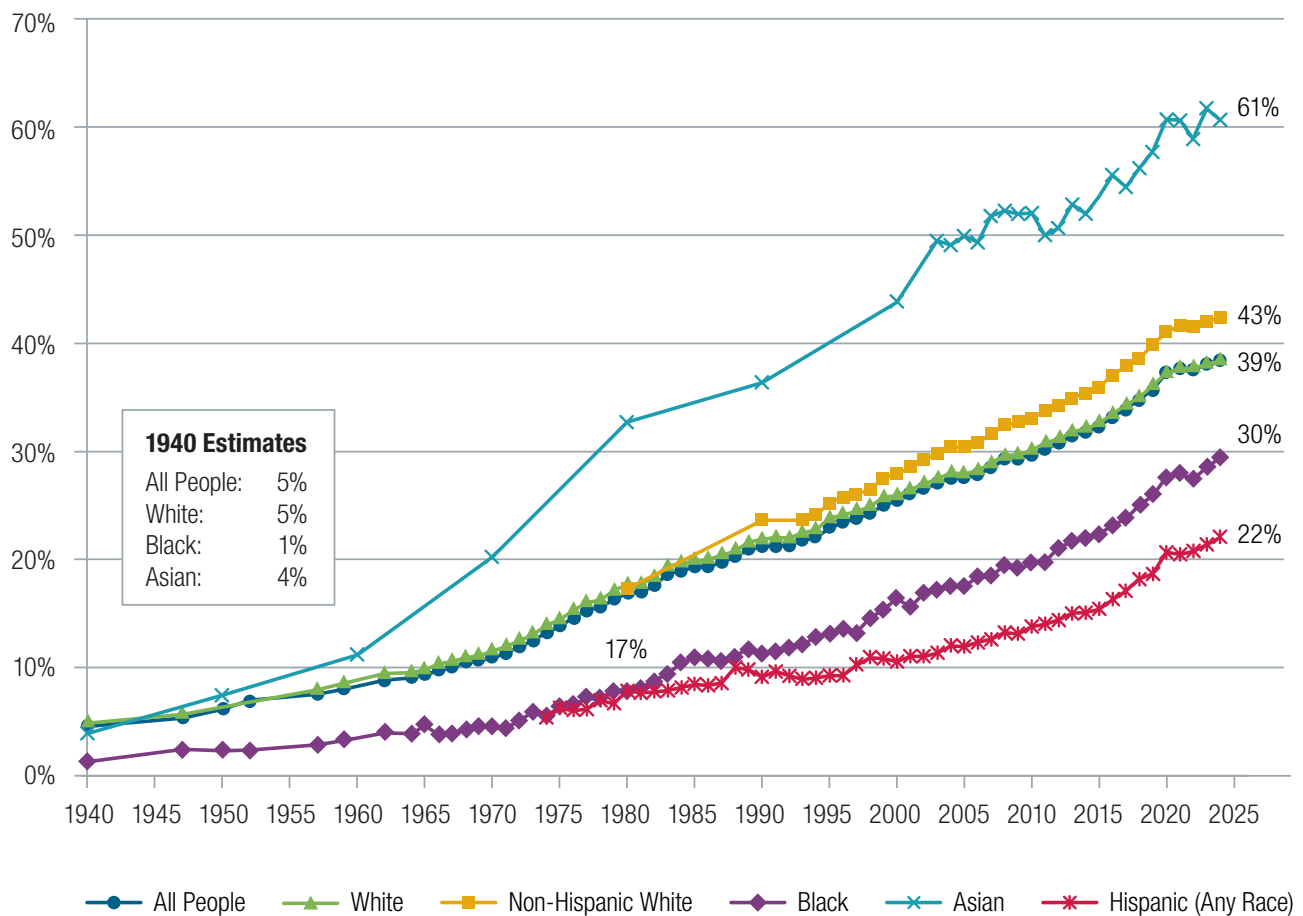


NOTES: First-generation is defined as no parent or guardian having attained a bachelor's degree. These estimates are not directly comparable to estimates in Figure S.9, as they reflect multiple children per household and are estimates based on parents of children under age 18 from the U.S. Census Bureau's American Community Survey.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, American Community Survey (ACS), 2012 and 2022 from the 2023 Digest of Education Statistics (National Center for Education Statistics, 2023b).

Although a larger portion of the U.S. population has parents with bachelor's degrees, gaps in bachelor's degree attainment persist by race/ethnicity. Figure S.11 illustrates a continued divergence in bachelor's degree attainment among the population aged 25 years and older by racial/ethnic groups, within the context of significant increases for all groups. In the 1940 Census, small percentages of both the White and Black populations aged 25 and older held bachelor's degrees (5% of the White population and 1% of the Black population). Between 1940 and 2024, there were large increases among all racial/ethnic groups; however, the gaps remain. By 2024, 61% of Asians, 43% of White non-Hispanics, 30% of Blacks, and 22% of Hispanics age 25 and over had attained a bachelor's degree or higher.

Figure S.11: Percentage of the population 25 years of age and older who attained a bachelor's degree or higher by race/ethnicity: selected years 1940-2024



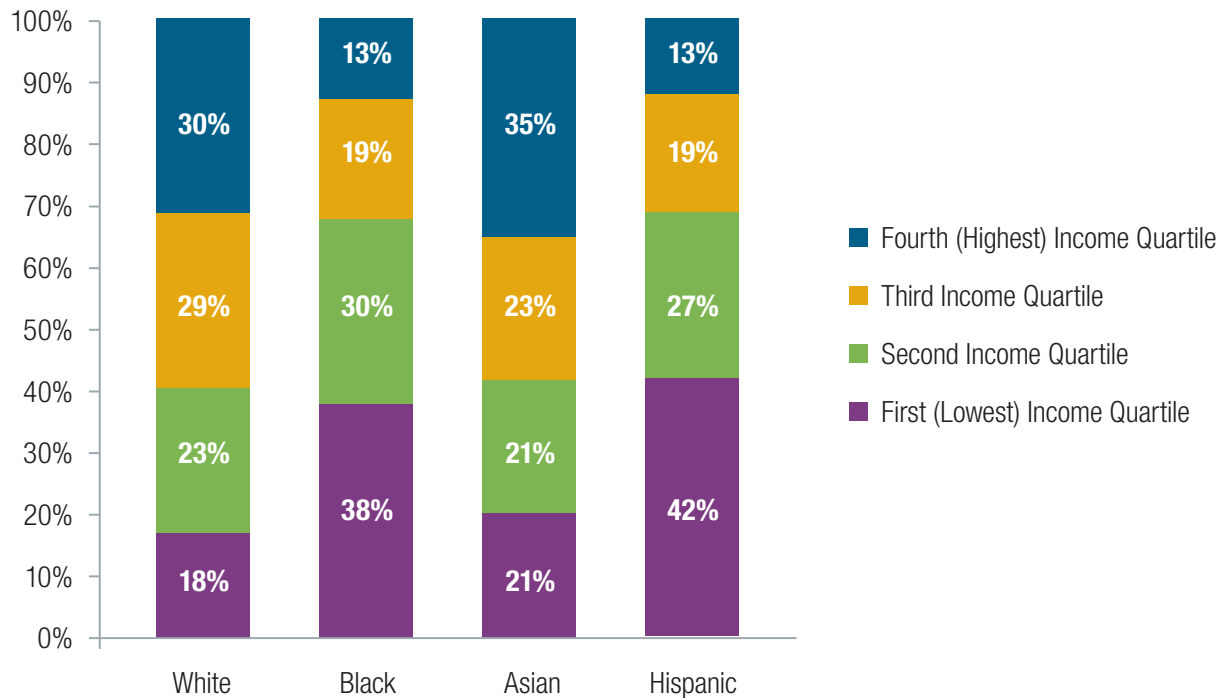
NOTES: The “White” race category is defined as “A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as ‘White’ or report entries such as Irish, German, Italian, Lebanese, Arab, Moroccan, or Caucasian.” The “White non-Hispanic” category was first reported in 1980. This category “Includes people who reported White and no other race group and did not report Hispanic origin.” White non-Hispanic excludes those persons who indicated they were of Hispanic origin. Persons of Hispanic origin may be of any race. Data classifications have evolved over time, allowing for the separate identification of Hispanic ethnicity in 1980 and the option to select more than one race starting in 2003. From 1940 to 1962, data for “Black” may include data from other races. Data from 1940 to 1970 for Asians are from the decennial census.

SOURCE: U.S. Census Bureau (2025a) and Scaniello and Day (2006). Analysis by authors.

As stated earlier, one reason students do not advance to higher levels of education is likely due to a lack of resources to pay for further education. Lower-income students have less access to, and poorer educational outcomes compared to their higher-income peers, especially when examining income and race together.¹⁰ Figure S.12 displays the percentage distribution of the family income quartiles of the traditional college-age population of 18- to 24-year-olds by race/ethnicity in 2023. These data reveal the differences in family income by race/ethnicity in the United States. In 2023, some 13% of Hispanic dependent youth and 13% of Black dependent youth were in the highest family household income quartile. This compares with 30% of White dependent youth and 35% of Asian dependent youth in the highest income quartile.

¹⁰ More information related to the relationship of income and education is found in Indicator 5.

Figure S.12: Percentage distribution of the family income quartiles of dependent 18- to 24-year-olds by race/ethnicity: 2023



NOTES: Annual data collected by the U.S. Census Bureau and reported by the Bureau of Labor Statistics yearly are from the October supplement to the Current Population Survey (CPS), a national sample of about 60,000 households. Each October, a supplement to the CPS gathers information about school enrollment.

SOURCE: Postsecondary Opportunity Data Archive (Mortenson & Brunt, 2025) using the October Current Population Survey School Enrollment Supplement dataset. Estimates generated using the U.S. Census Bureau's, online extraction tool, Microdata Access Tool (MDAT) (U.S. Census Bureau, 2025c).

Conclusion

Being fair and providing equal opportunity to everyone in society is important for ensuring that everyone has the ability to climb economic and social ladders. However, this chapter demonstrates that prosperity for everyone cannot be achieved through the equal distribution of resources. Targeting services, funds, and programs to specific groups with documented gaps in income and educational attainment will improve social mobility, reduce the burden on social programs, increase revenues to state and federal governments through taxes, and yield more positive outcomes for every person. Thus, being fair and equal is insufficient. Efforts should focus on providing fairness through equity.

INDICATOR 1

WHO ENROLLS IN HIGHER EDUCATION?

Key Takeaways

- ✓ **College participation rates have improved over time, but gaps by income remain:** There was a 32 percentage-point gap in college enrollment between the highest and lowest income quartiles in 2023, compared with a 46 percentage-point gap in 1970.
- ✓ **Race/Ethnicity differences are correlated with income:** High school graduate college continuation rates for Black, Hispanic, and White students in the lowest income quartile had lower rates, ranging from 51% to 55% in the lowest income quartile, compared to 76% to 82% in the highest income quartile.
- ✓ **First-Generation students remain in the majority of college students:** More than half (54%) of undergraduates have parents without a bachelor's degree.
- ✓ **Progress in closing access gaps has not come to fruition:** Inequities remain in college access by income, race/ethnicity, and parental education.

Introduction

Indicator 1 examines participation in higher education by family income, race/ethnicity, and parents' educational attainment. The indicator seeks to address the following research question for this chapter:

Who enrolls in higher education?

This indicator documents whether disparities in college access have changed over time. Four indicators are presented:

- **Indicator 1a:** College participation rate by income groups – the percentage of dependent high school students between the ages of 18 and 24 years old who attend college by family income quartile.
- **Indicator 1b:** High school graduate college continuation rate by income groups – the percentage of dependent high school students who attain a diploma (rather than all 18- to 24-year-olds) who continue onto college by family income quartile.
- **Indicator 1d(ii):** High school graduate college continuation rate by race/ethnicity – differences in Indicator 1b by race/ethnicity in the most current data.
- **Indicator 1h(ii):** First-generation students – the percentage of undergraduate students whose parents' education level is below the bachelor's degree.

Who Enrolls in Higher Education?

Indicator 1a: How do college participation rates of high school leavers vary by family income?

Figure 1.1 displays Indicator 1a, which shows the cohort college participation rate for recent school leavers (including individuals who did and did not complete high school) by family income quartile from 1970 to 2023. For the three lowest-income quartile groups, the college participation rate was higher in 2023 than in 1970. The highest-income quartile group remained statistically unchanged when comparing 1970 and 2023.¹¹

The college participation rate for the lowest-income quartile increased from 28% in 1970 to 42% in 2023. This compares to the highest-income quartile, with no increase in the rate at 74%. The two middle-income quartiles also increased, albeit at lower rates, with increases from 47% to 55% for the second quartile and from 57% to 66% for the highest quartile. This indicator is likely sensitive to economic conditions, which include year-to-year changes over time. The largest changes in the lowest-income quartile group appear during periods of recession.

The gap between the highest and lowest income quartile groups has decreased over time. In 1970, the gap in college participation was 46%, compared to 32% in 2023.¹² While narrowing, a significant income gap persists.

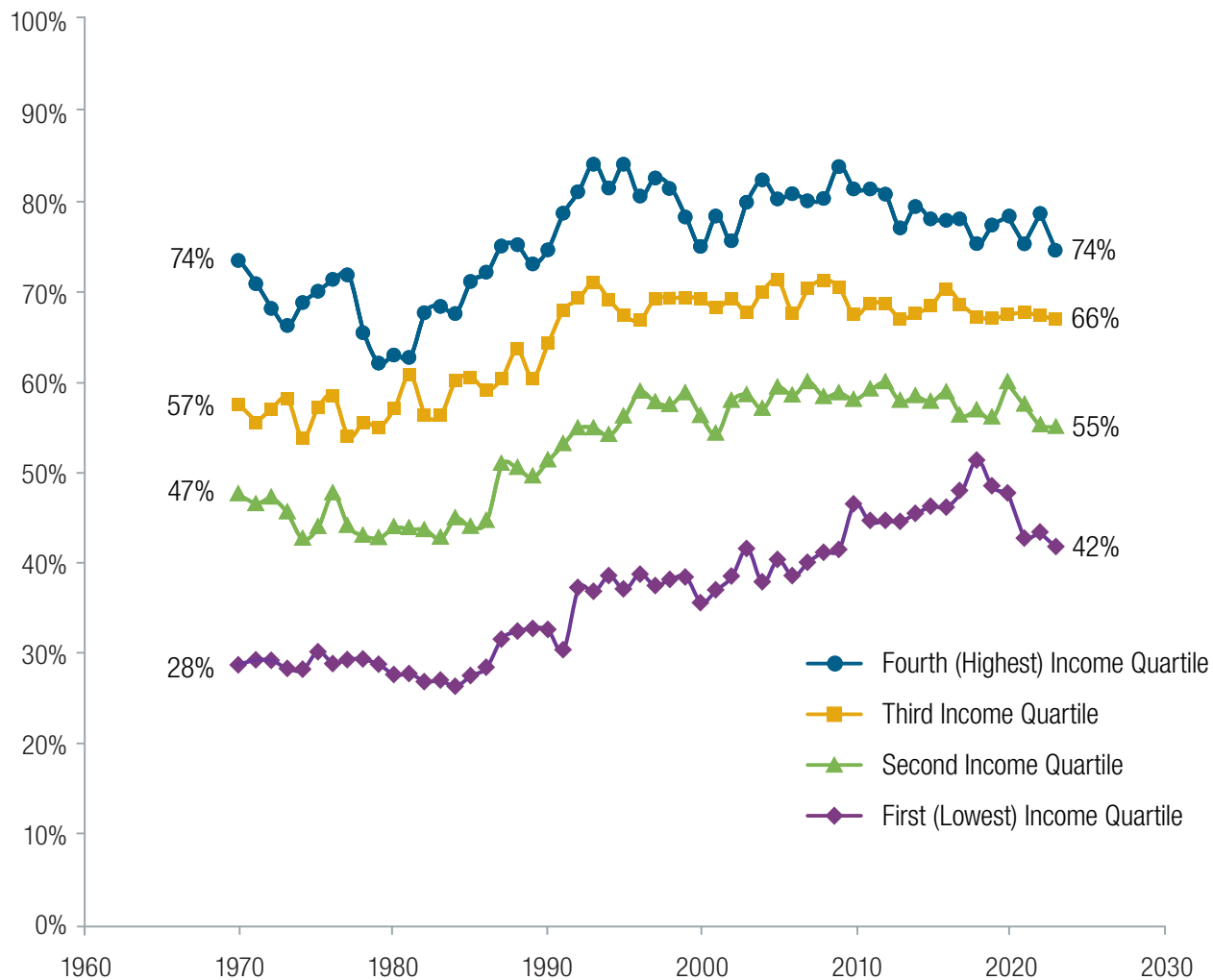
Indicator 1a Status: The gap in the college participation rate has narrowed since 1970, but it still remains.

There was a 32 percentage-point gap in college enrollment between dependent 18- to 24-year-olds in the highest and lowest income quartiles in 2023, compared with a 46 percentage-point gap in 1970.

11 This finding is documented with an equivalency test showing that the values are statistically the same versus traditional tests that document difference.

12 This is different than what is presented in Figure 1a when subtracting the two values. This deviation is due to rounding.

Figure 1.1: College participation rate: Percentage of 18- to 24-year-old dependents in the general population enrolled in college, by family income quartile: 1970-2023 (Indicator 1a)



NOTES: The College Participation Rate is tabulated based on the total number in the cohort year and includes those who have not completed high school. Information on school enrollment and work activity is collected monthly in the Current Population Survey (CPS), a national survey of about 60,000 households, which provides information on employment and unemployment. Each October, a supplement to the CPS gathers information about school enrollment.

SOURCE: Postsecondary Education Opportunity (PEO) data archive (Mortenson & Brunt, 2025), U.S. Census Bureau (U.S. Census Bureau, 2023), 1970-2023 October Current Population Survey School Enrollment Supplement. Analysis by authors.

Indicator 1b: How do high school graduates' college continuation rates vary by family income?

Indicator 1b focuses on high school graduates who have earned a diploma rather than high school leavers, which includes dropouts. Figure 1.2 displays the trends in high school graduate college continuation rates by family income quartile from 1970 to 2023. The increases in high school completion rates over the period might be expected to impact this statistic.

As Indicator 1b shows, the college continuation rates for those who have graduated from high school have increased for the lower three quartiles, with some fluctuations and some narrowing of the gaps between the quartiles over the entire period since 1970. However, a gap still exists between the lowest-income quartile and the highest-income quartile (54% high school college continuation rate for the lowest-income quartile compared to 82% for the highest-income quartile).

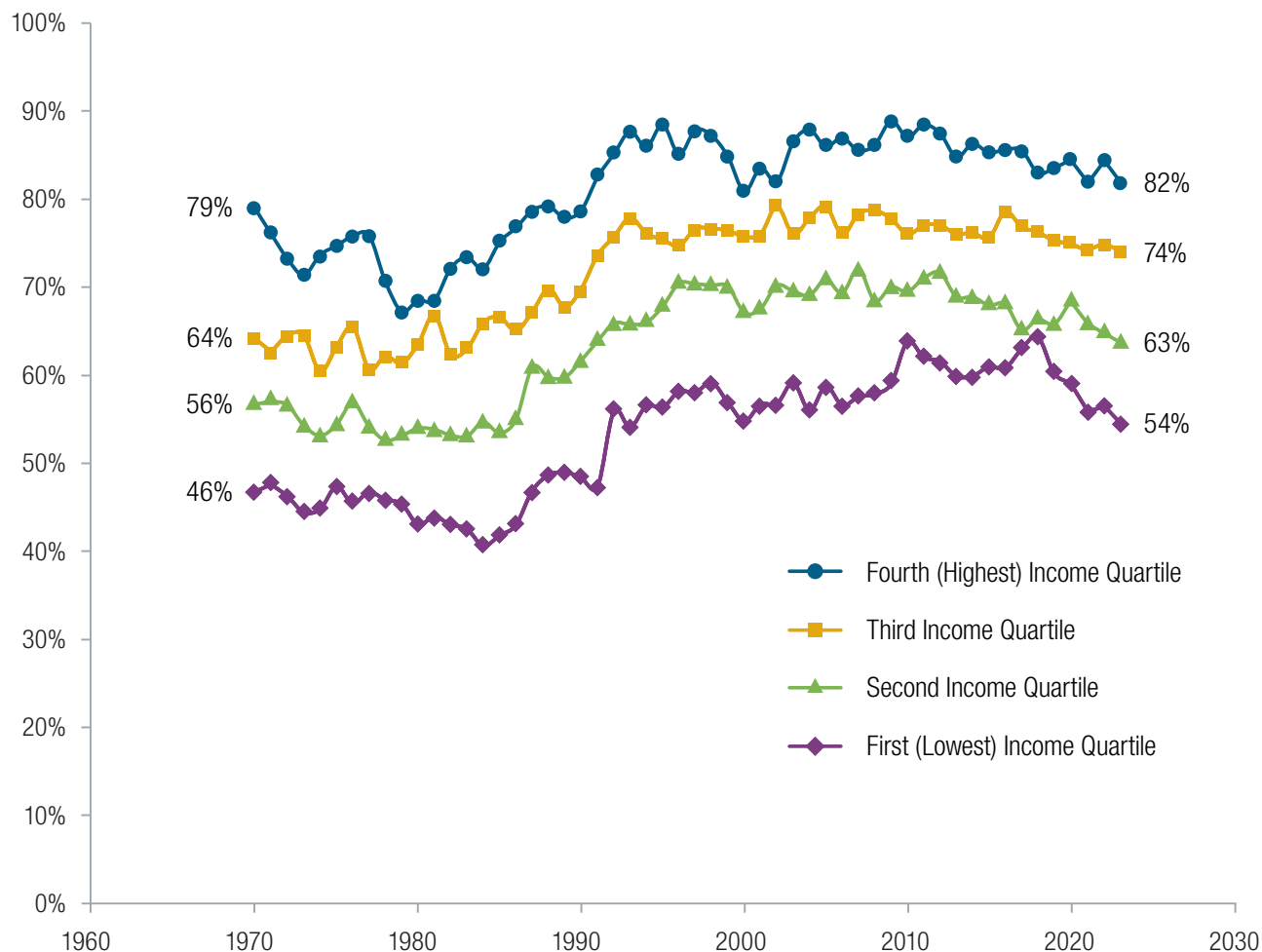
The continuation rates were different in both 1970 (46% for the lowest income quartile compared to 79% for the highest) and 2023 (54% for the lowest income quartile compared to 82% for the highest), which provides some evidence that there has been a lack of progress in narrowing the gap among high school graduates. However, the sample size was insufficient to demonstrate a reduction in the gap (i.e., the 28 percentage-point gap in 2023, compared with a 33 percentage-point gap in 1970).¹³

Indicator 1b Status: The gap in high school continuation rates into college between the lowest and highest family incomes persists over time.

In 1970, some 46% of high school graduates from the lowest income quartile continued to college, compared to 79% from the highest income quartile. In 2023, approximately 54% of high school graduates from the lowest quartile continued to college, compared to 82% from the highest quartile.

¹³ The testing shows that the difference is not statistically significant and not statistically equivalent.

Figure 1.2: High school graduate college continuation rate: Percentage of high school graduates who continue to college, by family income quartile: 1970-2023 (Indicator 1b)



NOTES: The High School Graduates College Continuation Rate is the percentage of 18- to 24-year-old high school graduates who were enrolled in a postsecondary education institution of any type.

SOURCE: Postsecondary Education Opportunity (PEO) data archive (Mortenson & Brunt, 2025), U.S. Census Bureau (U.S. Census Bureau, 2023), 1970-2023 October Current Population Survey School Enrollment Supplement. Analysis by authors.

Indicator 1d(ii): How do high school graduates' college continuation rates vary by race/ethnicity and family income quartile?

Indicator 1d(ii) examines the 2023 dependent high school graduate college continuation rate outlined in Indicator 1b by race/ethnicity disaggregated by family income quartile. As we saw in the Introduction chapter, the income distribution by race/ethnicity in the United States is unequal. For example, 38% of Black, 42% of Hispanic, 21% of Asian, and 18% of White 18- to 24-year-olds were in households in the lowest quartile of the household income distribution. In contrast, 13% of Blacks, 13% of Hispanics, 35% of Asians, and 30% of Whites were in the highest quartile (See Figure S.12).

Indicator 1d(ii) in Figure 1.3 shows that observed differences in college continuation rates by race/ethnicity among high school graduates are reduced when disaggregated by family income quartiles. Aside from Asian students, whose college continuation rates appear unrelated to income quartile, the continuation rates for all other racial/ethnic groups were lower in the lowest income quartile compared to the highest income quartile (52% compared to 82% for Black students, 51% compared to 76% for Hispanic students, and 55% compared to 82% for White students).

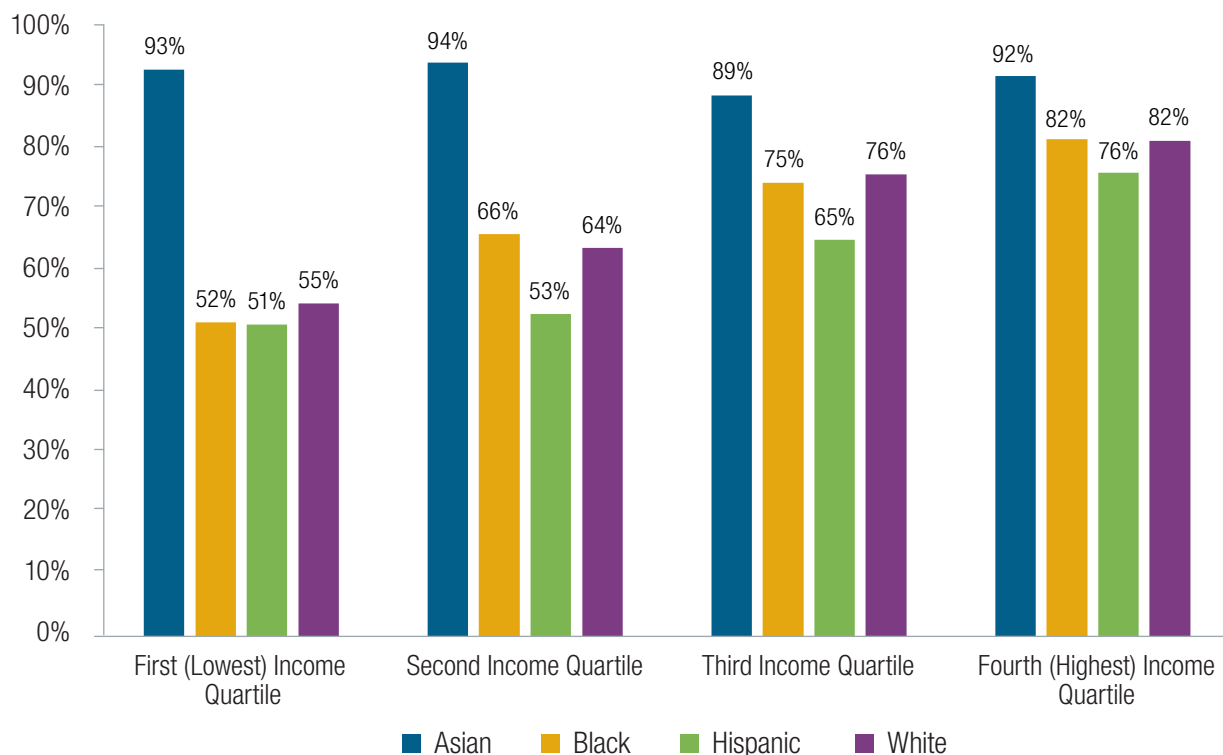
While Figure 1.3 appears to show similar rates by race/ethnicity within each income quartile, indicating that income may account for the differences in college continuation rates, statistical tests did not support this finding.¹⁴ In other words, while it may appear that income inequality is a larger barrier to opportunity than race/ethnicity when Asian students are removed, we could not make a definitive finding.

Indicator 1d(ii) Status: Differences are observed in the high school graduates' college continuation rate when comparing the lowest income quartile and the highest income quartile for Black, Hispanic, and White students.

When omitting Asian students, who had the highest college continuation rates within most quartiles,¹⁵ all other racial groups had lower rates ranging from 51% to 55% in the lowest quartile, compared to 76% to 82% in the highest quartile.

-
- 14** This is likely due to larger sampling errors for smaller race groups. Also note that equivalence tests are very conservative and will not yield an equivalence unless three separate statistical tests show findings.
- 15** Black and White students in the third quartile and Black students in the highest quartile did not show statistically significant differences. All other tests were statistically different after adjusting for multiple comparisons. See the technical appendix for more details.

Figure 1.3: High school graduate college continuation rate: Percentage of high school graduates who continue to college, by race/ethnicity and family income quartiles: 2023 (Indicator 1d(ii))



NOTES: Estimated standard errors are provided in the Technical Appendix to help understand the accuracy of these estimates. Race categories exclude persons of Hispanic ethnicity. High School Graduates College Continuation Rate is the percentage of dependent 18- to 24-year-old high school graduates who enrolled in a postsecondary educational institution of any type.

SOURCE: Postsecondary Education Opportunity (PEO) data archive (Mortenson & Brunt, 2025), U.S. Census Bureau (U.S. Census Bureau, 2023), 1970-2023 October Current Population Survey School Enrollment Supplement. Analysis by authors.

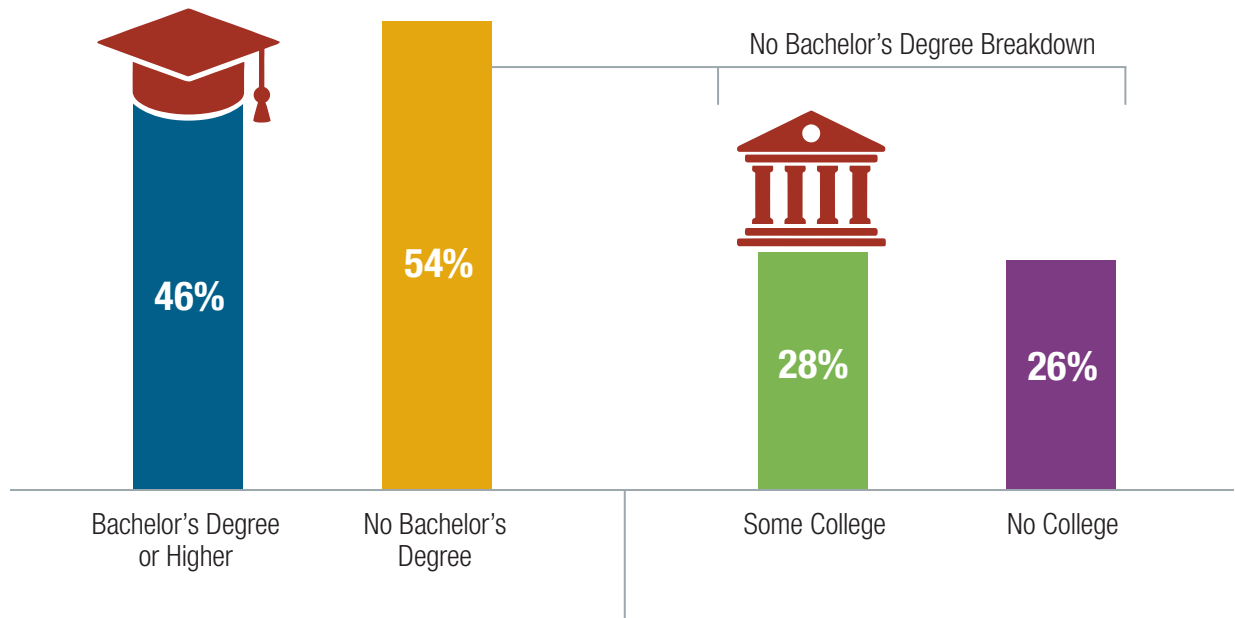
Indicator 1h(ii): What percentage of college students are first-generation students?

Using the latest data from the 2020 National Postsecondary Student Aid Study (National Center for Education Statistics, 2020b), Indicator 1h(ii) as displayed in Figure 1.4 shows the percentages of undergraduates who were first-generation students. In 2020, 54% of undergraduates were first-generation students, meaning neither of their parents had a bachelor’s degree, and 46% had at least one parent with a bachelor’s degree. Of all college students, about one-quarter (26% of the total) had parents with no college experience, and 28% of the total had parents with some college but no bachelor’s degree.

Indicator 1h(ii) Status: Over half of undergraduates enrolled in higher education are first-generation students.

Approximately 54% of students enrolled in higher education had parents with educational attainment below a bachelor’s degree.

Figure 1.4: Percentage distribution of undergraduate students by parents' educational attainment: 2020 (Indicator 1h(ii))



NOTES: A first-generation college student is defined as an undergraduate whose parents do not hold a bachelor's degree or higher. "Some college" includes students who attained associate's degrees.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:2020) (National Center for Education Statistics, 2020b). Tabulated using NCES PowerStats. Analysis by authors.

Conclusion

The four indicators presented in this chapter reveal persistent gaps in college access by income, race/ethnicity, and parental education. While some evidence suggests that gaps have decreased since the 1970s, meaningful and significant differences in access to a college education remain. There was a 32 percentage-point gap in college enrollment between dependent 18- to 24-year-olds in the highest and lowest income quartiles in 2023. When omitting those who did not graduate from high school, the gap was 28% for high school graduates. By race/ethnicity, high school continuation rates ranged from 51% to 55% in the lowest quartile for Black, Hispanic, and White students, compared to 76% to 82% in the highest quartile. Indicator 2 will examine the types of higher education institutions that students attend.

INDICATOR 2

WHAT TYPES OF HIGHER EDUCATION INSTITUTIONS DO STUDENTS ATTEND?

Key Takeaways

- ✓ **Institutional competitiveness reinforces access gaps:** The most selective institutions have the lowest percentage of low-income students across multiple measures (federal grant recipients, Pell Grant percentage, socioeconomic status). Higher-income students are more likely to attend selective colleges and universities.
- ✓ **Access gaps between selective and non-selective institutions have not changed over time:** The gap between the enrollment of low-income and high-income students at competitive and non-competitive institutions has remained stable. Selective institutions have not increased their share of low-income students.
- ✓ **Disparities by race/ethnicity exist for some groups:** Black and Hispanic students are more likely to attend non-selective colleges or not enroll at all, compared to Asian students. They are less likely to enroll in selective institutions.

Introduction

Indicator 2 examines the types of higher education institutions students attend and the differences in attendance by institution characteristics such as institutional level, control, and selectivity. This indicator seeks to address the following research question for this chapter:

What types of higher education institutions do students attend?

This indicator measures the extent to which college access varies by these institutional characteristics. Generally, they show that lower-income students do not have the same opportunities as their higher-income counterparts. Seven indicators are presented:

- **Indicator 2a:** Differences in attendance for those receiving federal grants by institutional level.
- **Indicator 2b:** Differences in attendance for those receiving federal grants by institutional control or the governance structure (public, private-nonprofit, or private-for-profit).
- **Indicator 2c:** Differences in attendance for those receiving federal grants by institutional sector, which is a combination of level and control.
- **Indicator 2d through 2f:** Differences in attendance for low-income or socioeconomic status by institutional selectivity.
- **Indicator 2g:** Differences in attendance for race/ethnicity groups by institutional selectivity.

What Types of Higher Education Institutions Do Students Attend?

Indicator 2a: How does the level of institution attended vary by federal grant receipt?

Indicator 2a in Figure 2.1 displays the percentage distribution of those who receive federal grants. It reveals a discrepancy between 2-year and 4-year institutions. A higher proportion of students who did not receive federal grants attended a 4-year college in 2023-24 (83%) compared to 2-year colleges (17%). When compared to federal grant recipients, we find that the 2-year colleges have a larger share of the distribution. For example, among full-time, first-time (FTFT) degree-seeking undergraduates who receive federal grants, some 31% attended a 2-year institution, compared to 17% of non-federal grant recipients. The trend is reversed for 4-year colleges. More than two-thirds (69%) of federal grant recipients attended a 4-year college, but a greater proportion (83%) of non-federal grant recipients attended a 4-year institution.

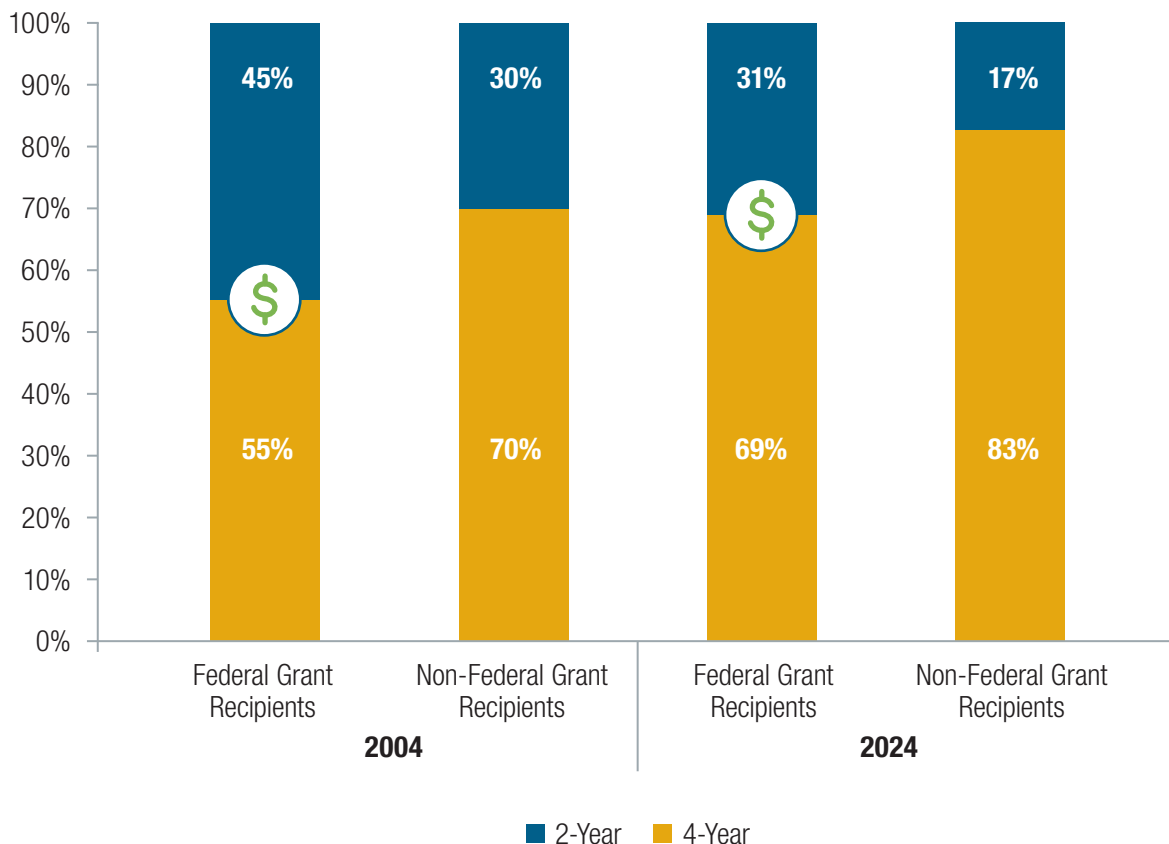
The distributions have changed over time due to shifts in enrollment.¹⁶ However, differences between 2-year and 4-year colleges have remained relatively unchanged, with 45% of federal grant recipients attending 2-year colleges in 2003-04, compared to 30% of non-grant recipients. Conversely, 55% of federal grant recipients attended 4-year colleges, compared to 70% of non-federal grant recipients.

Indicator 2a Status: A higher percentage of federal grant recipients attend 4-year colleges. However, 2-year colleges have a larger share of grant recipients compared to non-grant recipients.

Among full-time, first-time (FTFT) degree-seeking undergraduates who received federal grants, some 31% attended a 2-year institution, compared to 17% of non-federal grant recipients. The trend is reversed for 4-year colleges. More than two-thirds (69%) of federal grant recipients attended a 4-year college, but a greater proportion of non-grant recipients (83%) attended a 4-year institution.

¹⁶ For example, the overall number of 12-month unduplicated students attending degree-granting 4-year institutions increased from 13.2 million in 2003-04 to 18.3 million in 2023-24, compared to two-year institutions, which saw a decrease from 10.2 million to 6.8 million (National Center for Education Statistics, 2025b); analysis by author.

Figure 2.1: Percentage distribution of full-time, first-time degree-seeking undergraduate students who did and did not receive federal grants (including Pell Grants) by level of institution attended: 2004 and 2024 (Indicator 2a)



NOTES: Federal grant aid is comprised primarily of Pell Grants but also includes Federal Supplemental Educational Opportunity Grants (FSEOG) and grants from federal agencies other than the U.S. Department of Education, such as the Department of Veterans Affairs and the Department of Labor. Estimates may not sum to totals due to rounding.

SOURCE: Digest of Education Statistics (National Center for Education Statistics, 2023h). Data from 2023-24 were updated using the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 2b: How does the control of the institution attended vary by receipt of Pell or other federal grants?

The percentage distributions of federal grant recipients and non-recipients by control of the institutions attended (public, private non-profit, private for-profit) have been stable over time (Indicator 2b in Figure 2.2). Consistently, most federal grant recipients and non-recipients attend public institutions. The most variation occurs between the proportions attending private non-profits and private for-profits. As might be expected, federal grant recipients are more impacted by economic downturns.

Public institutions. In 2024, 73% of federal grant recipients and 72% of non-recipients attended public institutions. The percentage of federal grant recipients attending public institutions fluctuated over time, ranging from a low of 56% in 2010, during the Great Recession, to a high of 76% in 2022. Among non-recipients, the percentage attending public institutions ranged from a low of 64% in 2022 to highs of 72% in 2016, 2019, 2020, and 2024.

Private non-profits. The proportion of federal grant recipients enrolled in a private non-profit institution has ranged from a low of 13% at the height of the Great Recession to a high of 20% in 2017. Among non-recipients, the proportion attending a private non-profit institution ranged from a low of 21% in 2007, at the early stages of the Great Recession, to a high of 31% in 2022.

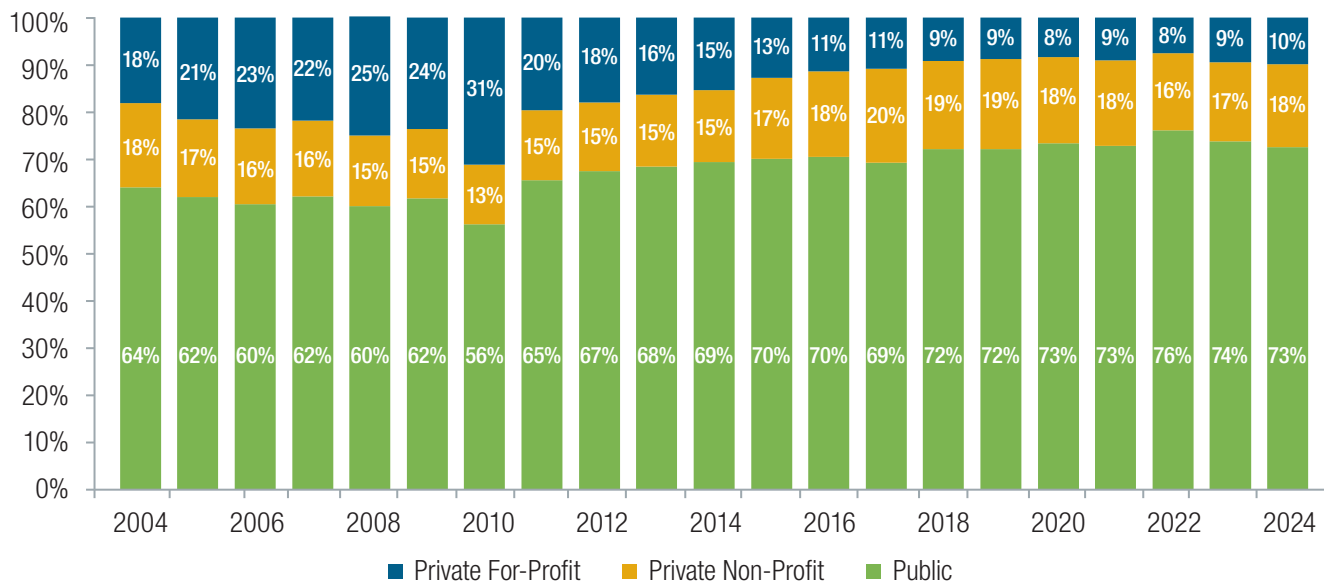
Private for-profits. The largest difference between those receiving and not receiving federal grants was in the percentage attending private for-profit institutions. Among those receiving federal grants, the proportion of FTFT undergraduates enrolled at for-profit institutions increased from 18% in 2004 to 23% in 2006, reached a high of 31% in 2010, declined to a low of 8% in 2022, and currently rests at 10%. Among non-recipients, the percentage attending private for-profit institutions ranged from lows of 3% in 2019, 2020, 2023, and 2024 to a high of 13% in 2007. The percentage of federal grant non-recipients attending private for-profit institutions in 2024 was seven percentage points lower than that of non-recipients attending for-profit institutions (3% vs. 10%).

Indicator 2b Status: The percentage of full-time, first-time student federal grant and non-grant recipients by institution control has been stable over time, aside from economic downturns. However, private non-profits consistently have a smaller share of federal grant recipients compared to non-grant recipients.

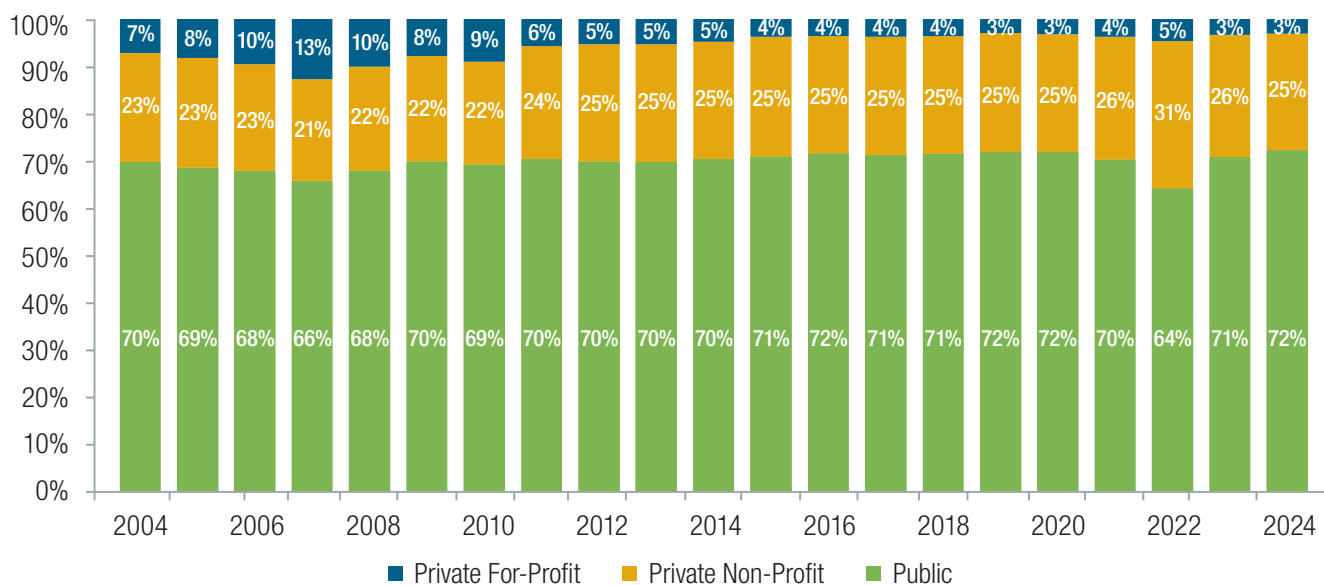
Over the last five years, the share of federal grant and non-grant recipients has been similar for public institutions. However, private non-profits consistently have a smaller share of grant recipients compared to non-grant recipients (13%-20% versus 21%-31%, respectively). The opposite is true for for-profit institutions.

Figure 2.2: Percentage distributions of full-time, first-time degree-seeking undergraduate federal grant recipients and nonrecipients, by control of institution attended: 2004-2024 (Indicator 2b)

Percentage Distribution of Pell and Other Federal Grant Recipients



Percentage Distribution of Non-Recipients



NOTES: Federal grant aid is comprised primarily of Pell Grants but also includes Federal Supplemental Educational Opportunity Grants (FSEOG) and grants from federal agencies other than the U.S. Department of Education, such as the Department of Veterans Affairs and the Department of Labor. Estimates may not sum to totals due to rounding.

SOURCE: Digest of Education Statistics (National Center for Education Statistics, 2023h). Data from 2023-24 were updated using the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 2c: How does the percent of students receiving federal grants vary by institutional sector?

Over the period represented in Indicator 2c, as shown in Figure 2.3 (2001-2024), the percentage receiving federal grants at each institutional sector¹⁷ has grown, with a pattern that 2-year and for-profit institutions generally have higher levels of federal grant recipients, and 4-year private non-profits have the lowest percentage of federal grant recipients. In 2001, the percentage of FTFT students receiving federal grants ranged from lows of 27% in private non-profit 4-year and public 4-year institutions to highs of 58% for private for-profit 2-year institutions (a gap of 31 percentage points from lowest to highest). By 2024, the percentage ranged from 33% in private non-profit 4-year institutions to 73% among private non-profit 2-year institutions (a gap of 40 percentage points).

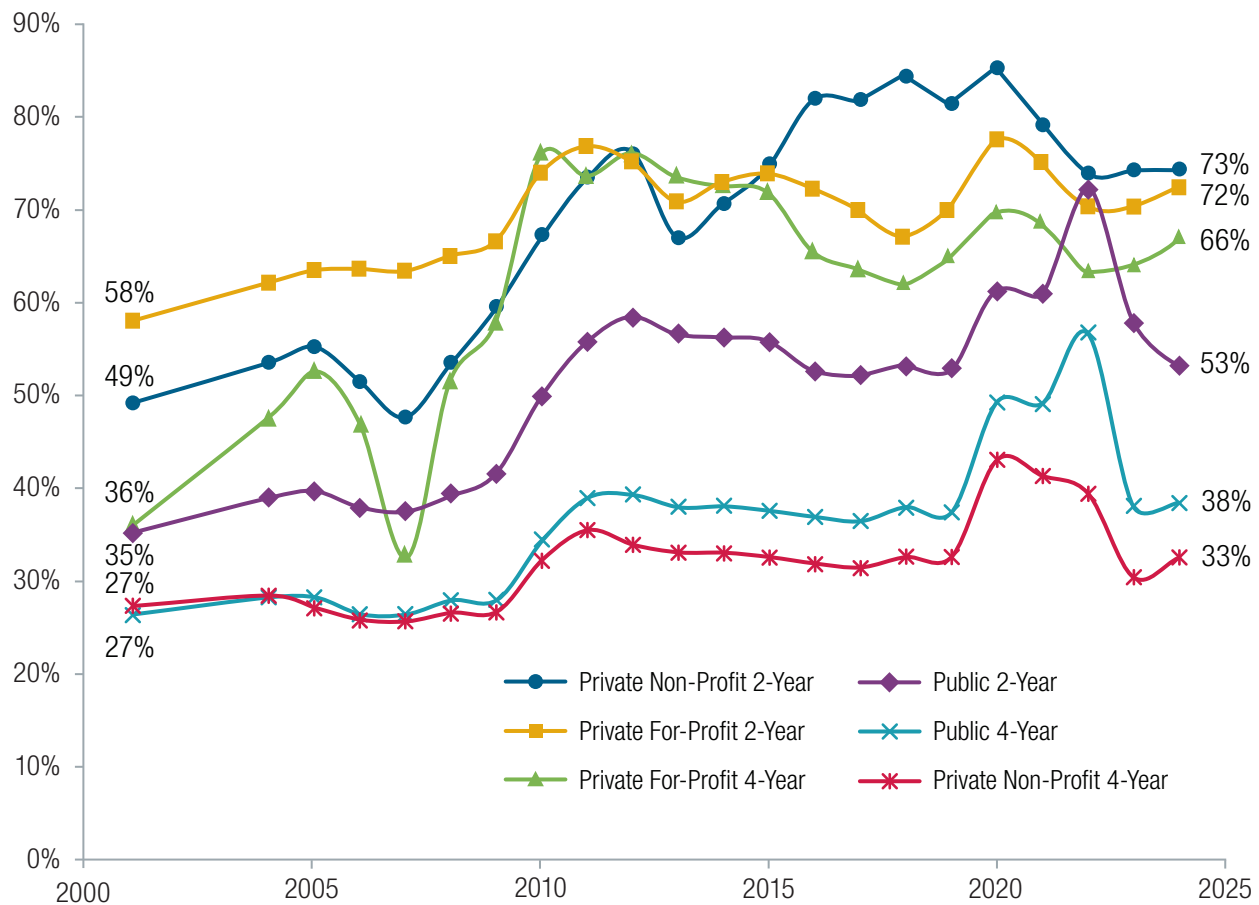
A high percentage of students at private for-profit institutions have federal grants. Although, as seen in Indicator 2b, the percentage of both recipients and non-recipients of federal grants enrolled in private for-profit institutions is relatively small, at 10% and 3%, respectively, federal grant recipients make up the largest percentage of enrollment at private for-profit institutions at each level (2-year and 4-year). Moreover, the percentage of full-time, first-time (FTFT) undergraduates who receive federal grants is substantially higher at for-profit institutions than public institutions of the same level (4-year or 2-year). In 2024, two-thirds (66%) of FTFT undergraduates attending private for-profit 4-year institutions received Pell or other federal grants, compared with less than half of FTFT undergraduates attending public 4-year (38%) and only a third at private non-profit 4-year institutions. About three-quarters (72%) of FTFT undergraduates at private for-profit 2-year institutions and 73% of those attending private non-profit 2-year institutions received federal grants in 2024, compared with 53% of FTFT undergraduates attending public 2-year institutions.

Indicator 2c Status: Federal grant recipients are not equally distributed across sectors, with for-profit and 2-year institutions having the highest proportion of recipients.

In 2001, the percentage of FTFT students receiving federal grants ranged from lows of 27% in public 4-year and private non-profit 4-year institutions to highs of 58% for private for-profit 2-year institutions (a gap of 31 percentage points from lowest to highest). By 2024, the percentage ranged from 33% in private non-profit 4-year institutions to 73% among private non-profit 2-year institutions (a gap of 40 percentage points).

¹⁷ Institution sector is a combination of level (2-year/4-year) and is defined by the highest degree offered and control or governance (public, private non-profit, and private for-profit).

Figure 2.3: Percentage of full-time, first-time degree/certificate-seeking undergraduate students receiving federal grants by sector: 2001-2024 (Indicator 2c)



NOTES: Federal grant aid is comprised primarily of Pell Grants but also includes Federal Supplemental Educational Opportunity Grants (FSEOG) and grants from federal agencies other than the U.S. Department of Education, such as the Department of Veterans Affairs and the Department of Labor. The institution sector is a combination of level (2-year/4-year) and is defined by the highest degree offered and control or governance (public, private non-profit, and private for-profit).

SOURCE: Digest of Education Statistics (National Center for Education Statistics, 2023h). Data from 2023-24 were updated using the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 2d: How does the percentage distribution of students by income and socioeconomic status vary by the selectivity of the institution?

Indicator 2d presents the distribution of students by socioeconomic status (SES) in each selectivity category of postsecondary education using Pell Grant receipt as a proxy. The previous version of this indicator cited Bastedo and Jaquette’s (2011) study on low-income students accessing a higher education system stratified by selectivity and wealth. The study used data from four rounds of the secondary longitudinal studies program¹⁸ examining the high school graduating classes of 1972, 1982, 1992, and 2004. Overall, they show gains for low-income/low-SES

¹⁸ See <https://nces.ed.gov/use-work/elementarysecondary/secondary-longitudinal-studies-program-sls>. These studies included the High School Longitudinal Study of 1972, the High School and Beyond study of 1980, the National Education Longitudinal Study of 1988, and the Education Longitudinal Study of 2002.

students but larger gains for wealthy students. They also demonstrated that the “stratification order” in terms of the percentage of SES groups attending higher education institutions was unchanged over time, with more wealthy students attending highly selective institutions and low-income students attending open admissions or institutions with low selectivity (Bastedo & Jaquette, 2011).

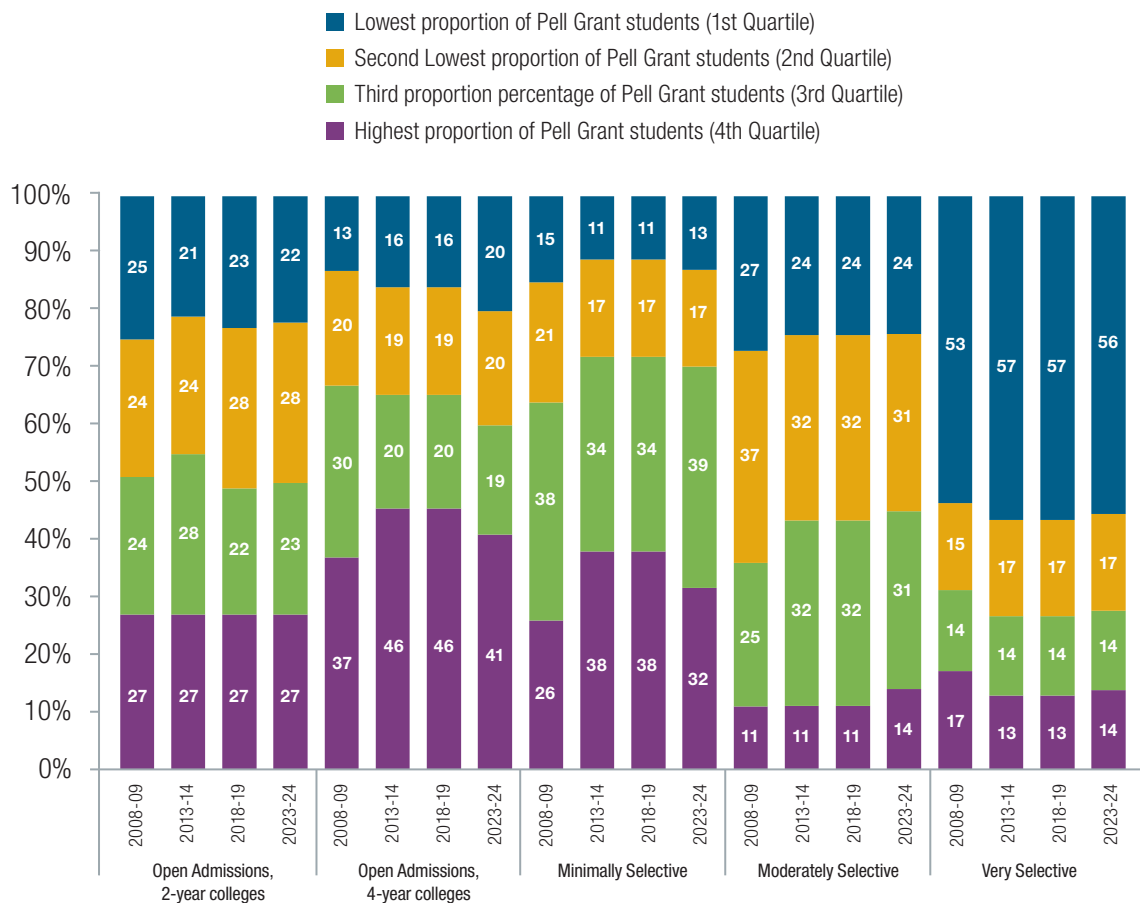
Because the data are older and the latest longitudinal study has not been released, we have derived estimates from the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b) to examine this question in the years following the completion of that study. As shown in Figure 2.4, the trend appears to be continuing. While the population of students is not the same, the figure shows that open-admission, 2-year colleges have an even mix between those institutions with a high percentage of Pell students and those with a low percentage of Pell Grant recipients, and is almost aligned with the quartiles. The very selective institutions are more likely to have a lower percentage of Pell Grant recipients, with 56% of that group having low proportions of Pell Grant recipients in the 2023-24 academic year. Moderately selective institutions also have lower overall percentages of Pell Grant recipients. As was shown in the Bastedo and Jaquette (2011) study, there are little changes in the selectivity stratification over time, with more higher-income/non-Pell Grant recipients attending selective institutions and greater income diversity in open admissions or low-selectivity institutions.

In general, community colleges are excellent resources for providing low-income students with affordable access to education. However, as Hillman (2020) notes, there are substantial differences in educational and related (E&R) spending per FTE enrollment at 2-year institutions compared to more selective institutions. Higher instructional spending per FTE enrollment is disproportionately concentrated in more selective institutions that enroll smaller percentages of Pell Grant recipients. As a result, students who need resources the most are more likely to attend colleges that have the least funding.

Indicator 2d Status: Selective institutions continue to enroll higher-income students at higher rates and have made little progress in expanding access to low-income groups.

Open-admission, 2-year colleges exhibit the most diversity in terms of income groups, with a quarter of institutions with a high percentage of Pell Grant recipients and a quarter with a low percentage of Pell Grant recipients. Very selective institutions are more likely to have lower percentages of Pell Grant recipients, with 56% of that group having low proportions of Pell Grant recipients in the 2023-24 academic year. There are little changes in the stratification of institutions over time.

Figure 2.4: Percentage distribution of the proportion of Pell Grant students attending degree-granting colleges and universities in quartiles, by selectivity level: 2008-09 to 2023-24, selected academic years (Indicator 2d(i))



NOTES: Selectivity was derived from the process outlined in the National Postsecondary Student Aid Study (National Center for Education Statistics, 2020b) selectivity indicator (SELECTV) using a combination of the acceptance rate, admissions test scores, and the open access indicator in the Integrated Postsecondary Education Data System. The measure was adapted to include open-access institutions.

SOURCE: U.S. Department of Education, Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 2e: How does the average percentage of students receiving federal grants vary by institutional competitiveness?

Indicator 2e displays the average percentage of full-time, first-time, (FTFT) undergraduates who received federal grants from 2000 to 2024, categorized by admissions selectivity. As shown in Figure 2.5, there is a consistent negative association between the selectivity of the institution and the average percentage of students who receive Pell or other federal grants. As institutional competitiveness increases, the institutional average percentage of students receiving federal grants decreases. In 2024, 18% of students enrolled at the “Most Competitive” institutions received Pell or other federal grants, compared with 59% of students enrolled at “Noncompetitive” institutions.

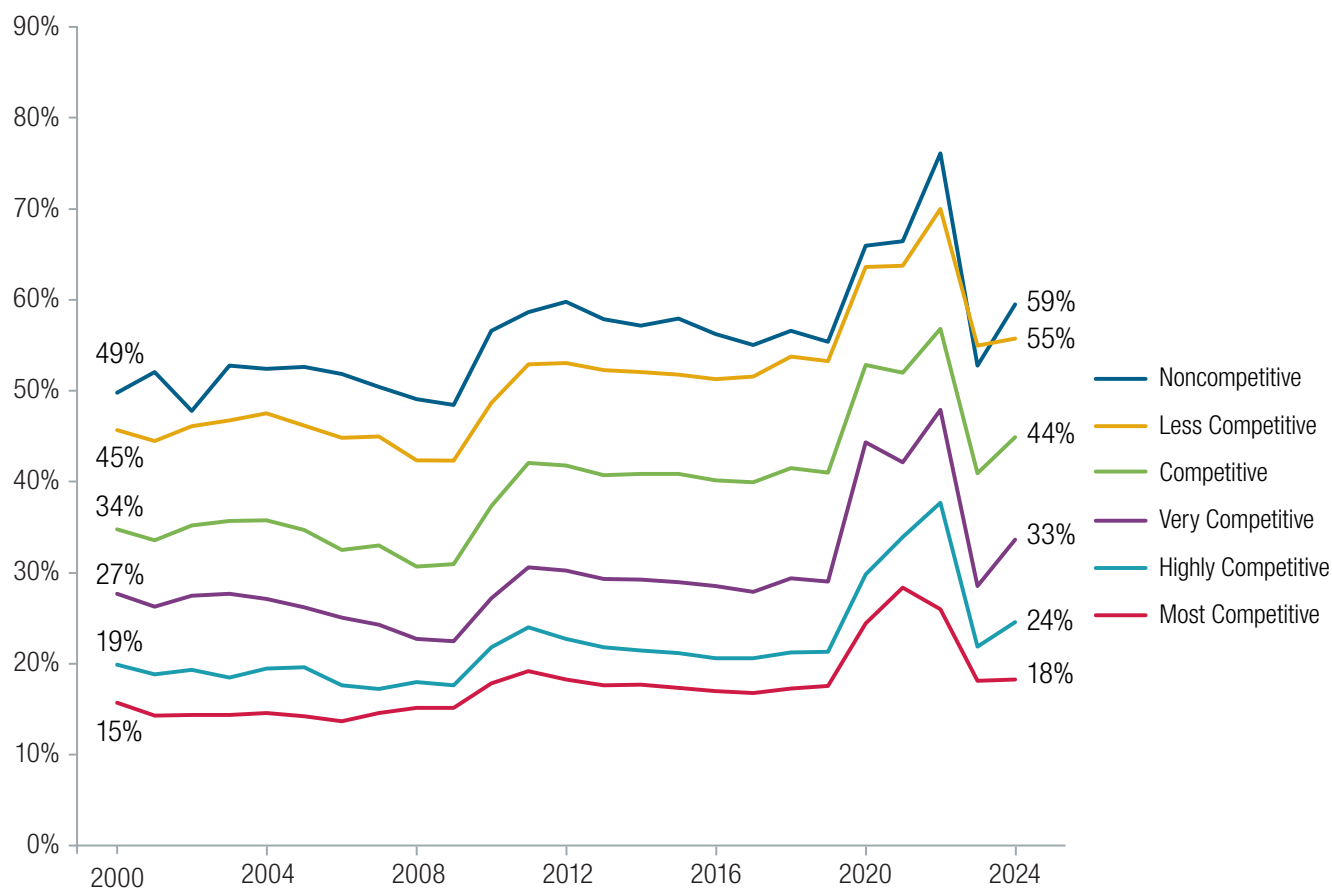
Although the percentage of students receiving federal grants was higher in 2024 than in 2000 in all institutional selectivity categories, differences in average rates of federal grant recipients by institutional selectivity also increased over this period. The average percentage of students receiving federal grants at the “Most Competitive” institutions was three percentage points higher in 2024 than in 2000 (18% versus 15%). In contrast, the share of FTFT undergraduates receiving federal grants was 17 percentage points higher in 2024 than in 2000 at 2-year public and private non-profit institutions (55% versus 39%), 10 percentage points higher at “Noncompetitive” institutions (59% versus 49%), and 14 percentage points higher at for-profit 2-year and 4-year institutions (69% versus 54%).¹⁹

Indicator 2e Status: On average, competitive institutions have the lowest percentage of students receiving federal grant aid, and the gap between competitive and non-competitive institutions in enrolling federal grant students is widening.

The representation of low-income students declines, on average, as institutional selectivity increases. The gap in the average share of undergraduates receiving Pell or other federal grants at the “most competitive” and “less competitive” institutions widened from 30 percentage points (15% versus 45%) in 2000 to 37 percentage points (18% versus 55%) in 2024.

¹⁹ We include only public and private not-for-profit institutions in the categories of Barron's rankings. A small number of for-profit institutions are ranked by Barron's (17 institutions in 2023-2024), but we include these institutions in the for-profit sector.

Figure 2.5: Average percentage of full-time, first-time degree/certificate-seeking undergraduate students who were awarded federal grants by institutional selectivity: 2000 to 2024 (Indicator 2e)



NOTES: Federal grant aid is comprised primarily of Pell Grants, but also includes Federal Supplemental Educational Opportunity Grants (FSEOG) and grants from federal agencies other than the U.S. Department of Education, such as the Departments of Veterans Affairs and Labor. The data represent institutional averages in each category. The selectivity measure excludes for-profit institutions, 2-year institutions, special institutions, and unranked 4-year institutions as defined by Barron's Admissions Competitiveness Index.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b) and Barron's Admissions Competitiveness Index (Barron's College Division, 2018). Analysis by authors.

Indicator 2f: How does college enrollment by the selectivity of the institution vary by socioeconomic status (SES)?

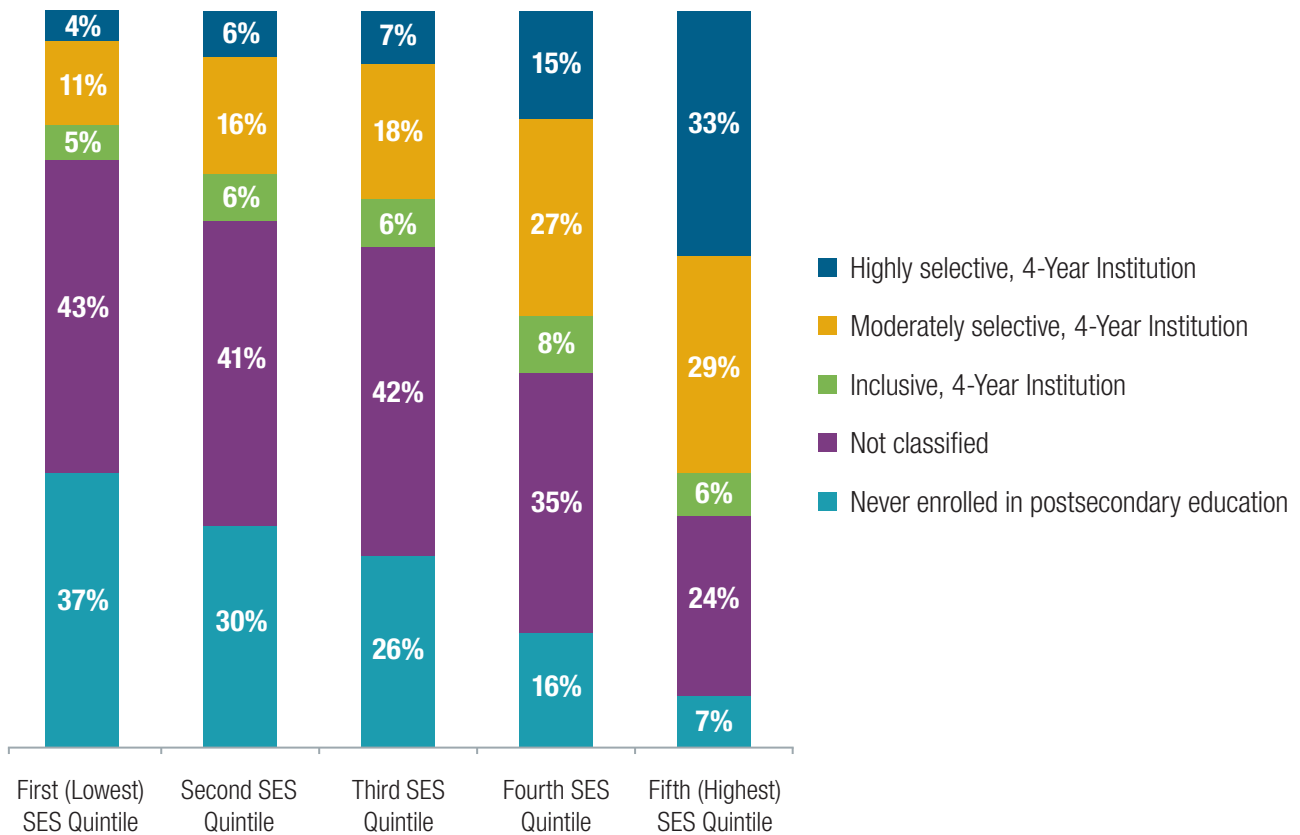
Examining SES within institutional selectivity classifications yields similar findings. While the classifications of institutional selectivity and competitiveness differ from the previous indicators,²⁰ the patterns are similar. Among 2009 9th graders who graduated from high school, those from the highest SES quintile were eight times more likely to be enrolled in a “highly” or “moderately” selective institution in the fall following their scheduled high school graduation than students from the lowest SES quintile. As shown in Figure 2.6, almost two-thirds (62%) of students from the highest SES quintile were enrolled in the “highly,” or “moderately” competitive institutions, compared with 15% of those in the lowest SES quintile. Approximately 7% of students from the highest quintile were not enrolled in postsecondary education after high school graduation, compared with 37% of students in the lowest SES quintile.

Indicator 2f Status: Students with high socioeconomic status are more likely to enroll in competitive institutions, and low-income students represent the highest percentage of those not going to college at all.

Among 2009 9th graders who graduated from high school, 4% of those from the lowest SES quintile were enrolled in a “highly” selective institution, compared with 33% of students from the highest SES quintile. Thirty-seven percent of those from the lowest SES quintile were not enrolled at all.

²⁰ For this indicator, 4-year, 2-year, and less-than-2-year institutions that were not classified (i.e., institutions with open access policies like community colleges) were grouped under the same category as “not classified.”

Figure 2.6: Percentage distribution of 2009 9th graders who graduated from high school by institutional selectivity of first postsecondary institution attended after high school graduation by SES quintile (Indicator 2f)



NOTES: This chart is based on a sample of 2009 entering high school students who graduated or attained an equivalent high school diploma after 2013. The “not classified” category includes institutions with open access enrollment policies, which is common for 2-year institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLs:2009) (National Center for Education Statistics, 2024). Tabulated using NCES PowerStats (National Center for Education Statistics, 2025a). Analysis by authors.

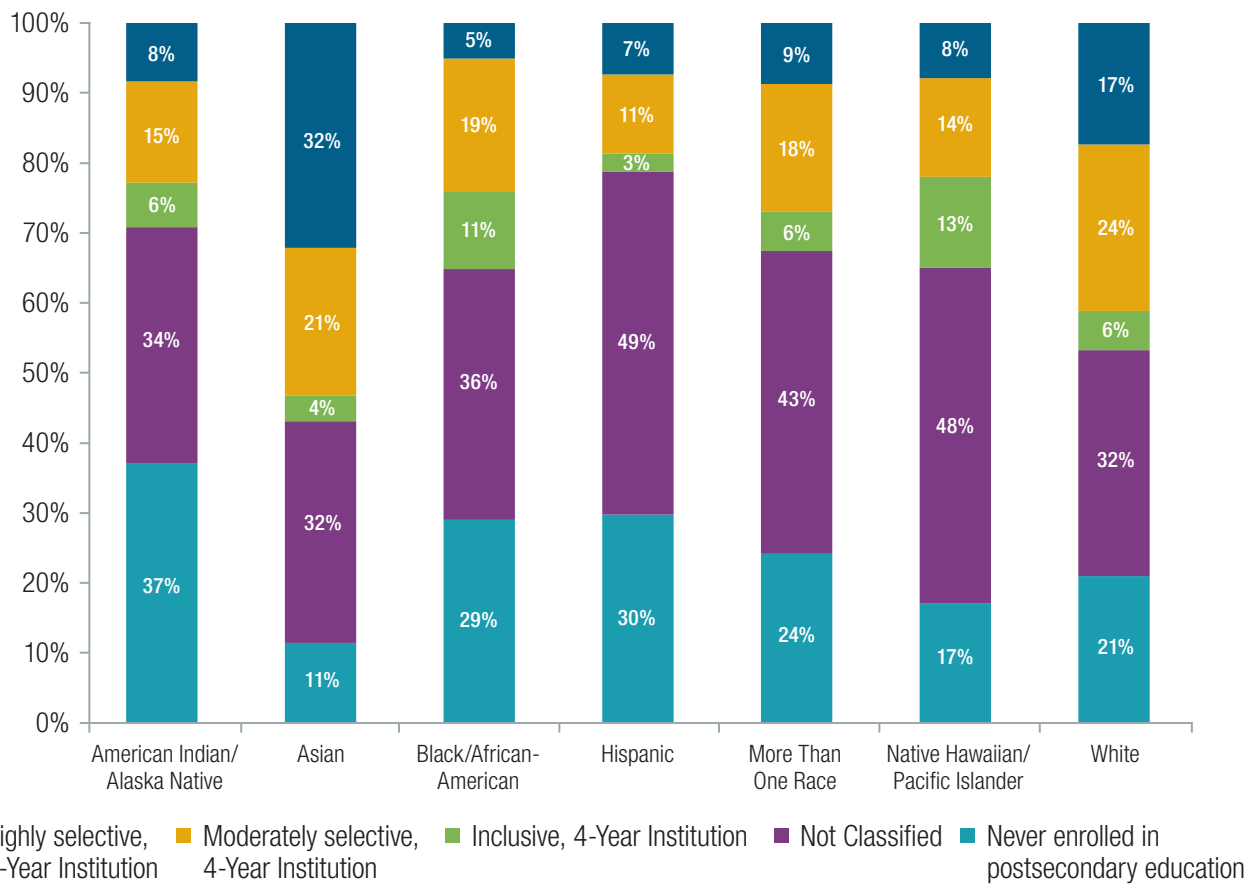
Indicator 2g: How does the selectivity of institutions at which students enroll vary by race/ethnicity?

When examining race/ethnicity distributions by institutional selectivity, Figure 3.7 shows that among 2009 9th graders who graduated from high school, almost a third of Black/African American students (29%) and Hispanic students (30%) were never enrolled in a higher education institution as of 2016, compared to 11% of Asian students. Nearly half (49%) of Hispanic students were enrolled at non-competitive institutions, compared with a third of White and Asian students (both 32%). A third (32%) of Asian students were enrolled at “highly” selective institutions, compared with 7% of Hispanic students and 5% of Black students. Seventeen percent of white students were also enrolled at selective institutions at a higher rate than Black students.

Indicator 2g Status: Some race/ethnicity groups are not accessing selective institutions and are either disproportionately attending non-selective institutions or not going to college.

Among 2009 9th graders who graduated from high school, about a third (32%) of Asian students were enrolled at “highly” selective institutions, compared with 7% of Hispanic and 5% of Black/African American students. Almost a third of Black and Hispanic students were unlikely to enroll in college (29% and 30%, respectively), compared to 11% of Asian students.

Figure 2.7: Percentage distribution of 2009 9th graders who graduated from high school by institutional selectivity of enrollment after high school graduation by race/ethnicity (Indicator 2g)



NOTES: This chart is based on a sample of 2009 entering high school students who graduated or attained an equivalent high school diploma after 2013. Caution is needed when comparing estimates with data on American Indian/Alaska Native, More than One Race, and Native Hawaiian/Pacific Islander, as the estimates have higher standard errors.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSL:2009) (National Center for Education Statistics, 2024). Tabulated using NCES PowerStats (National Center for Education Statistics, 2025a). Analysis by authors.

Conclusion

The seven indicators presented in this chapter reveal gaps across several measures. The data consistently indicate that access to desirable or selective institutions is highly correlated with income or socioeconomic status, with lower-income students less likely to attend college or are more likely to enroll in open-admissions institutions or those with low selectivity compared with their higher-income peers. Gaps were also observed for specific racial and ethnic groups. Indicator 3 will examine the extent to which cost may be a barrier for students to access or complete college.

INDICATOR 3

IS COST A BARRIER TO HIGHER EDUCATION ACCESS AND COMPLETION?

Key Takeaways

- ✓ **College costs have increased faster than inflation:** Between 1974 and 2024, college costs have gone up 145% after adjusting for inflation. Costs at public 4-year and private 4-year institutions have gone up more quickly than at 2-year colleges.
- ✓ **The value of the Pell Grant has declined over time:** Although Pell Grants have risen since the 1970s, these increases have not kept pace with college costs, even after accounting for inflation. The maximum Pell Grant covered 71% of average costs in 1979–80 but only about 25% today.
- ✓ **Grant aid subsidizes high-income students when there is greater unmet need for low- and middle-income students:** Unmet financial need for students in the lowest family-income quartile more than doubled between 1990 and 2020, after accounting for inflation. Meanwhile, high-income students continue to receive more aid than they need.

Introduction

Indicator 3 examines the following research question:

Is cost a barrier to higher education access and completion?

This indicator examines changes in higher education costs over time, the Pell Grant and its purchasing power, and the degree to which students' financing needs have been met over time. Five indicators are presented:

- **Indicator 3a(i):** Trends in college costs by type of institution over time.
- **Indicator 3b(i):** Comparison of college costs with the Federal Pell Grant amount.
- **Indicator 3b(ii):** The percentage of higher education cost of attendance covered by the maximum Pell Grant.
- **Indicator 3b(iii):** What the maximum Pell Grant would need to be to cover two-thirds of the cost of attendance.
- **Indicators 3c(i):** What is the unmet financial need for dependent full-time undergraduates.

Is Cost a Barrier to Higher Education Access and Completion?

Indicator 3a(i): What are the trends in average college costs?

After adjusting for inflation, college costs have increased across institutional control, level, and sector:

College costs have increased faster than inflation since 1980. Average college costs for all institutions were 2.5 times higher than in 1974-75 after adjusting for inflation. Figure 3.1 (Indicator 3a(i)) shows that cost increases have largely occurred since 1980. In 1980, average costs were lower (\$10,975) than in 1974-75 (\$11,867). After 1980, average costs rose steadily to \$30,780 in 2020-21. Between 2020-21 and 2024-25, overall costs declined slightly to \$29,129.

Public vs. private costs. Average costs at 4-year private non-profit and for-profit institutions were over double that of 4-year public institutions in both 1974-75 (\$20,370 vs. \$9,853) and in 2024-25 (\$51,440 vs. \$23,809). Costs were about twice as high at 2-year private institutions as at 2-year public institutions in 1974-75 (\$15,505 vs. \$8,013 in 2025 dollars) and were 2.3 times higher in 2024-25 (\$29,669 vs. \$12,874).

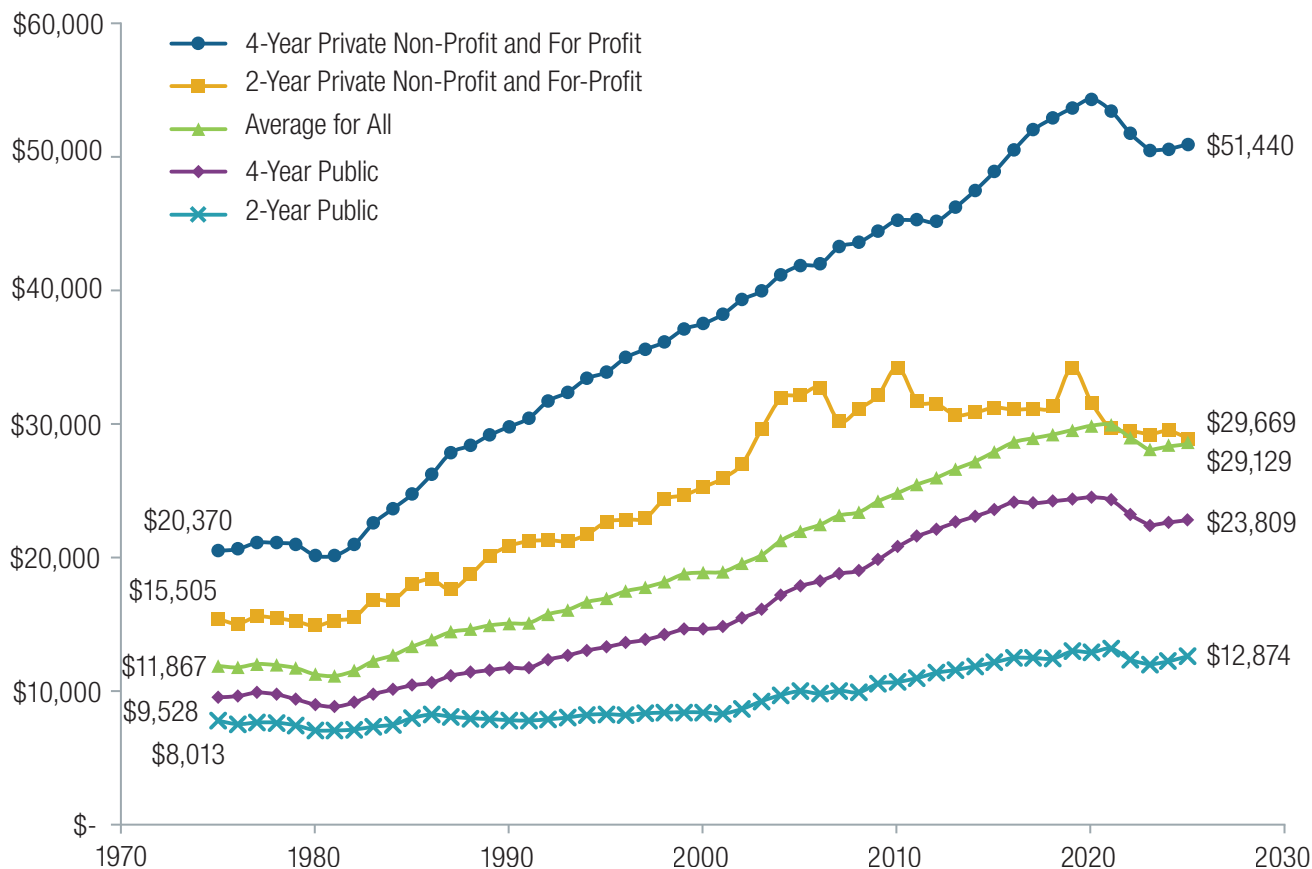
The gap between 2-year and 4-year public institution costs has increased over time. The difference in costs between 2-year and 4-year public colleges has increased since 1974-75, with most of the increase occurring after 1980. In 1974-75, the average cost at 4-year public institutions was 23% higher than at 2-year public institutions (\$9,853 vs. \$8,013); however, by 2024-25, average costs were 85% higher for 4-year public institutions than for 2-year public colleges (\$23,809 vs. \$12,874).

The price of 4-year institutions increased more than that of 2-year institutions. Among 4-year public postsecondary institutions, average costs were 142% higher in 2024-25 than in 1974-75, rising from \$9,853 to \$23,809. Over the same period, average costs for 2-year public institutions rose from \$8,013 to \$12,874 (61% higher in 2024-25 than in 1974-75). Private institutions show similar patterns. Among private 4-year institutions, costs increased from \$20,370 in 1974-75 to \$51,440 in 2024-25, a 153% increase. Over the same period, costs at 2-year private institutions rose from \$15,505 in 1974-75 to \$29,669 in 2024-25 (an increase of 91%).

Indicator 3a(i) Status: College costs have increased faster than inflation since 1980 across all institution classifications.

Even after accounting for inflation, the average costs overall in 2024-25 were 2.5 times those in 1974-75. Costs at 4-year public institutions increased by 142%; costs at 4-year private institutions increased by 153%, and costs at 2-year public institutions by 61%.

Figure 3.1: Average college costs (undergraduate tuition, fees, and room and board) charged for full-time students in degree-granting postsecondary institutions, by institutional level and control: 1974-75 to 2024-25 (in constant 2025 dollars) (Indicator 3a(i))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through the Integrated Postsecondary Data System (IPEDS) and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency. Room and board costs are based on full-time students.

SOURCE: Digest of Education Statistics (National Center for Education Statistics, 2023f). Final data for 2022-23, 2023-24 and provisional data for 2024-25 academic years were updated using IPEDS (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 3b: How much of college costs does the Pell Grant cover, and how has that percentage changed over time?

Pell Grants are the primary federal grant program and provide need-based aid that does not need to be repaid. The maximum Pell Grant is set by Congress. Figure 3.2 (Indicator 3b(i)) displays trends in the maximum and average Pell Grant awards from 1973-74 to 2024-25, adjusted for inflation. For comparison, we also include average college costs trends over the same period. Overall, the Pell Grant maximum does not keep up with college costs over time. The maximum Pell Grant award was \$6,681 in 1974-75, and \$7,395 in 2024-25 (an increase of 11%), and the average Pell Grant award increased from \$4,021 to \$5,321 (an increase of 32%). In comparison, during this same period, overall college costs in constant dollars increased by about 145%.

Overall, the value of Pell Grants has decreased over time. When comparing Pell Grant amounts with the increases in college costs over the same period, Figure 3.2 (Indicator 3b(ii)) shows the large decrease in the percentage of average costs covered by the maximum Pell Grant. After accounting for inflation, the percentage of average college costs covered by the maximum Pell Grant peaked in 1979 and has since declined. The Pell Grant maximum coverage fell from a high of 71% in 1979-80 to about 25% of average college costs in 2024-25.

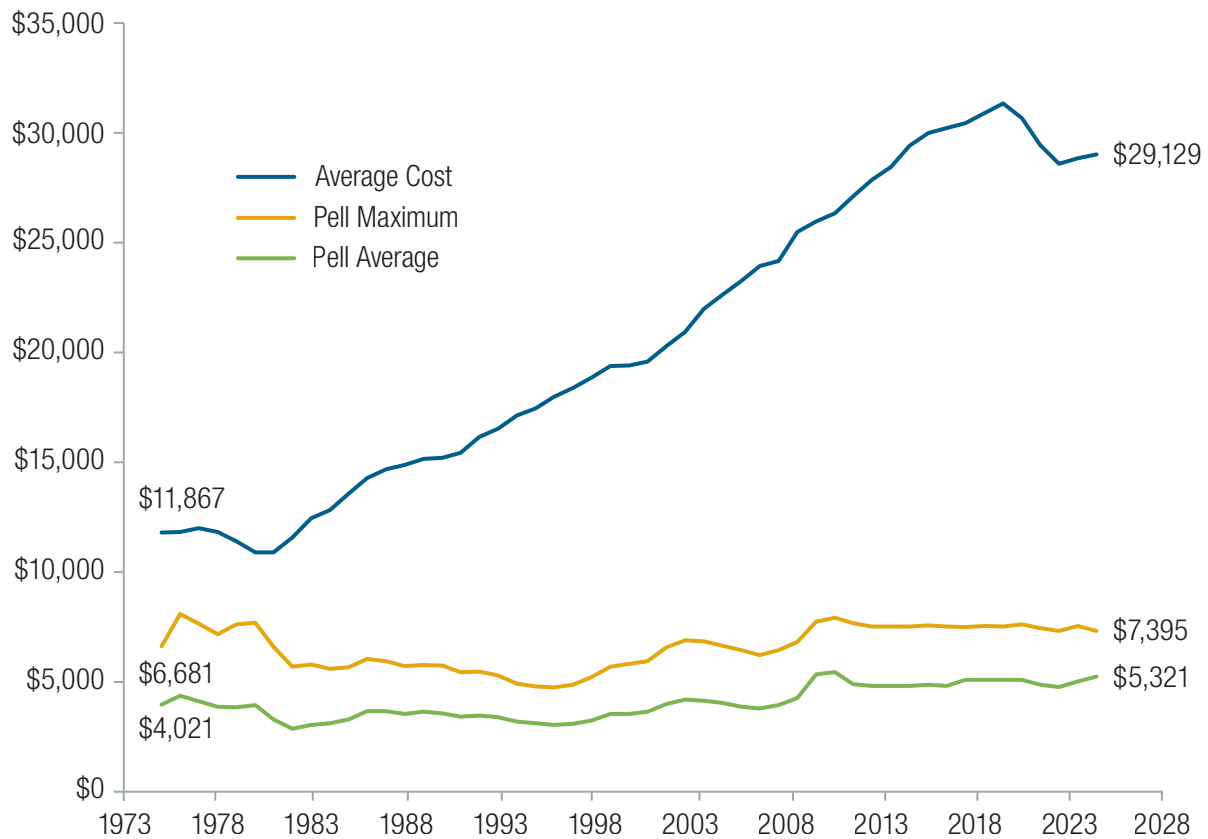
The decline in Pell Grant purchasing power was not what the program's creators envisioned. Early congressional supporters expressed hope that the Pell Grant would be funded at a level to cover close to three-fourths of the average yearly costs at public colleges (Mensel, 2013). This goal was never reached, but maximum Pell Grant awards came closer in the early years of the program than in recent years. Figure 3.4 (Indicator 3b(iii)) shows the actual maximum Pell Grant award compared with what the maximum would be if it were to cover two-thirds of average costs each year. To reach that goal in 2024-25, the maximum Pell Grant would have been \$19,685 rather than \$7,395.

Indicator 3b Status: The value of the Pell Grant has declined over time.

Excluding the first year of Pell Grants, from 1974-75, the maximum Pell Grant increased by 11%, and the average Pell Grant increased by 32%. In the same period, overall college costs in constant dollars increased by 145%. This lowered the percentage of the Pell Grant covering college costs from above two-thirds in 1979 (71%) to 25% by 2024-25.

The maximum Pell Grant in 2024-25 would be \$19,685 rather than \$7,395 if it covered about two-thirds of college costs as in 1975.

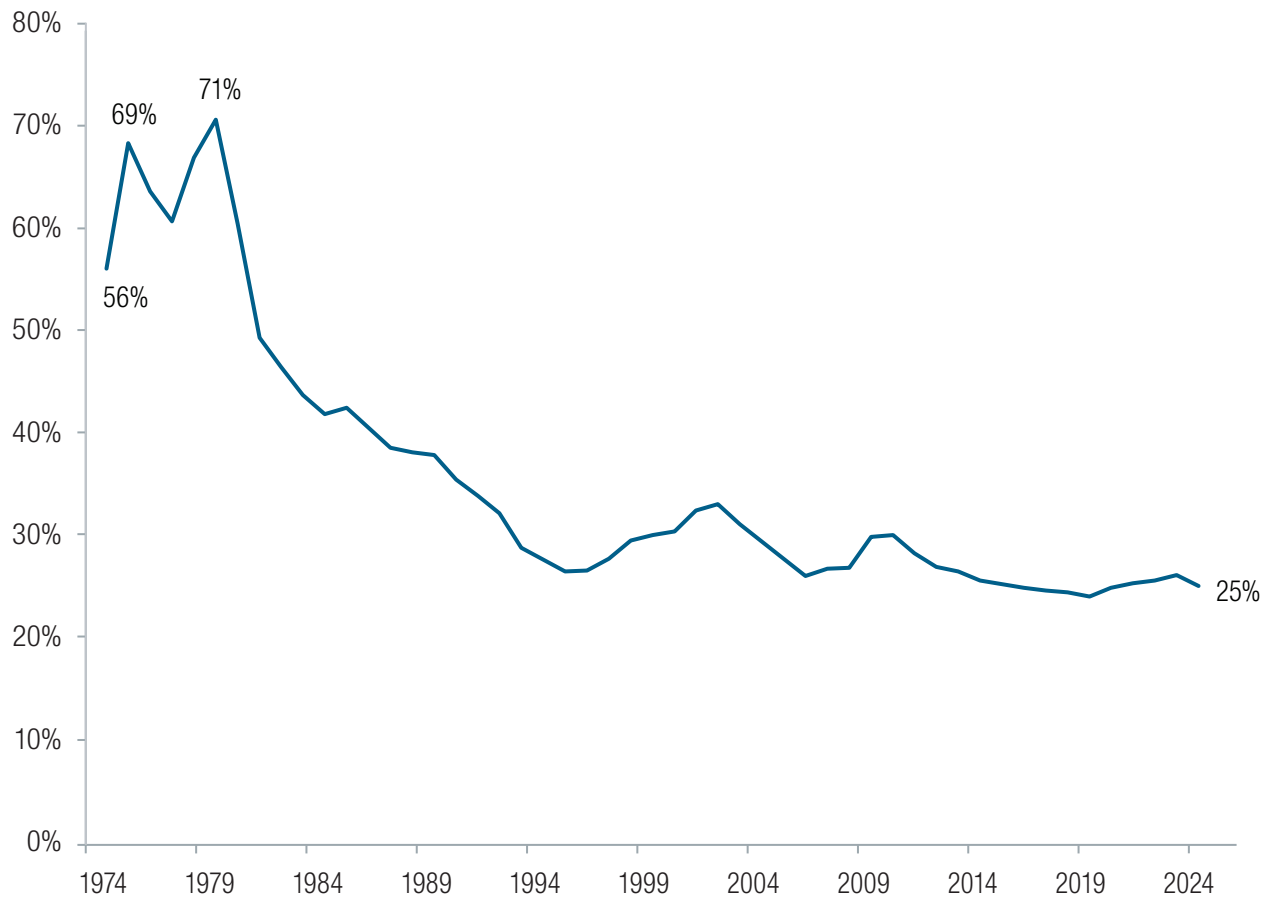
Figure 3.2: Average costs (tuition and required fees plus room and board) for full-time undergraduate enrollment and maximum and average Pell Grant awards (1973-74 to 2024-25) (in constant 2025 dollars) (Indicator 3b(i))



NOTES: College costs are weighted by undergraduate total full-time enrollment at all types of institutions, as reported by NCES. College costs include tuition, fees, and room and board. The maximum Pell Grant is the highest amount allowed by law. The average Pell Grant awarded each year is lower than the maximum, as most students do not receive the maximum.

SOURCE: *Trends in College Pricing and Student Aid* (Ma & Pender, 2025), Digest of Education Statistics (National Center for Education Statistics, 2023f), Pell Grant Program End of Year Reports (U.S. Department of Education, 2025), and Summary Pell Grant Statistics. Final data for 2022-23, 2023-24, and provisional data for 2024-25 academic years were updated using IPEDS (National Center for Education Statistics, 2025b). Analysis by authors.

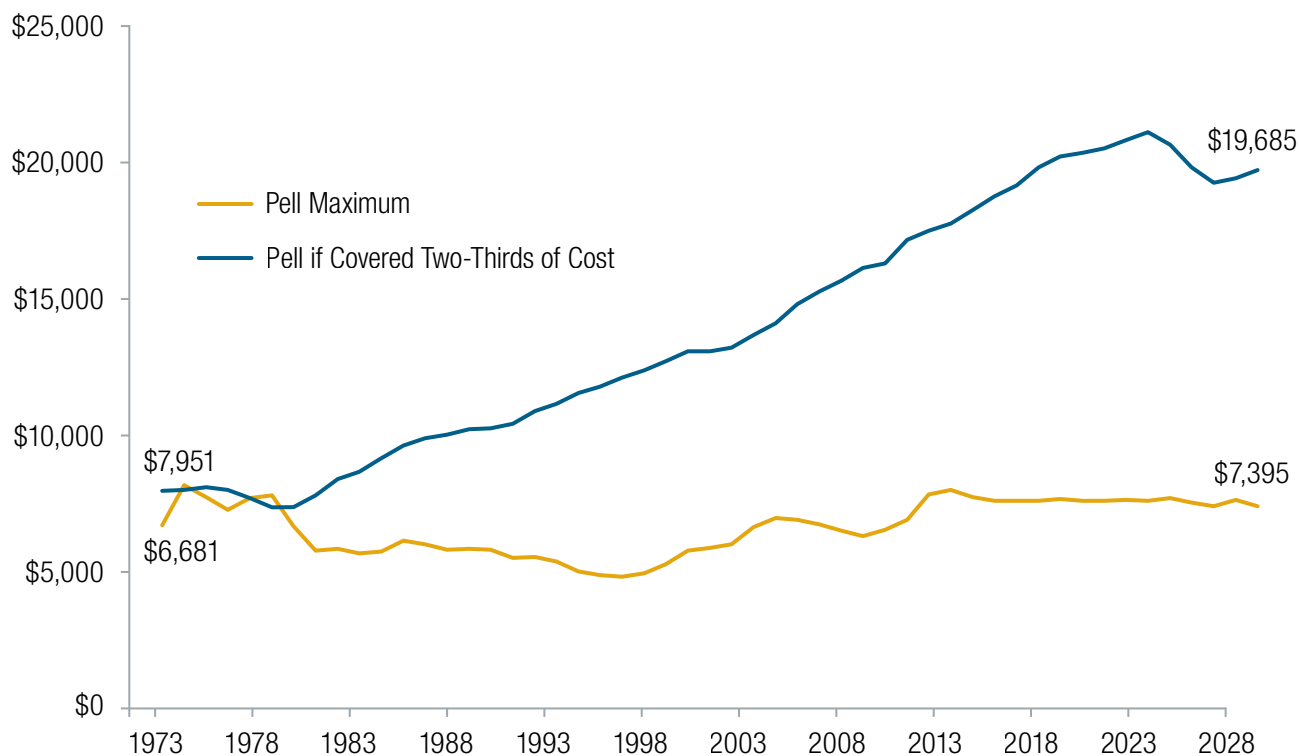
Figure 3.3: Percentage of average costs (tuition and required fees plus room and board) covered by the maximum Pell Grant: 1974-75 to 2024-25 (Indicator 3b(ii))



NOTES: This figure shows the maximum Pell Grant as a percent of average college cost weighted by full-time undergraduate enrollment, among all types of institutions.

SOURCE: *Trends in College Pricing and Student Aid* (Ma & Pender, 2025), Digest of Education Statistics (National Center for Education Statistics, 2023f), Pell Grant Program End of Year Reports (U.S. Department of Education, 2025), and Summary Pell Grant Statistics. Final data for 2022-23, 2023-24, and provisional data for 2024-25 academic years were updated using IPEDS (National Center for Education Statistics, 2025b). Analysis by authors.

Figure 3.4: Maximum Pell Grant if the Pell Grant maximum covered two-thirds of average college costs (tuition and fees; room and board): 1974-75 to 2024-25 (in constant 2025 dollars) (Indicator 3b(iii))



NOTES: This figure shows what the maximum Pell Grant would need to be to cover two-thirds of the average college costs for a given year.

SOURCE: *Trends in College Pricing and Student Aid* (Ma & Pender, 2025), Digest of Education Statistics (National Center for Education Statistics, 2023f), Pell Grant Program End of Year Reports (U.S. Department of Education, 2025), and Summary Pell Grant Statistics. Final data for 2022-23, 2023-24, and provisional data for 2024-25 academic years were updated using the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicators 3c(i): What is the unmet financial need for dependent full-time undergraduates?

Figure 3.5 (Indicator 3c(i)) shows that unmet need has increased since 1990 for dependent full-time undergraduates in the lowest three family income quartiles, while continuing to decrease for students in the highest income quartile. High-income students have negative unmet need – meaning that they are getting more financial aid than is required to meet their higher education expenses. It also shows differences in unmet need between dependent full-time undergraduates in the lowest- and highest-income quartiles. This difference exists even though students in lower-income quartiles are more likely to qualify for Pell Grants (Cameron et al., 2023) and attend institutions with lower average costs of attendance (Haynes et al., 2024), such as community colleges. Differences in average unmet need between the lowest and highest income quartiles reflect the growing inequality in the United States. In other words, the government and institutions of higher education are subsidizing students who do not need the aid instead of low-income students who need the resources to attend college (see Indicator 4).

In 2020, dependent full-time students in the lowest family income quartile averaged \$20,281 in unmet need, while dependent full-time students in the highest family income quartile had, on average, a surplus of \$37,642. Average

unmet financial need for dependent full-time undergraduates in the lowest family income quartile was 2.3 times higher in 2020 than in 1990, after accounting for inflation (\$20,281 vs. \$8,934).

Dependent full-time students in the second-lowest family income quartile also averaged high levels of unmet need. In 2020, the unmet need for the second-lowest family income quartile averaged \$19,119. Dependent full-time students in the third highest quartile averaged a smaller amount of unmet need (\$7,765), and students in the fourth/highest quartile averaged a large surplus or negative unmet need (-\$37,642).

Indicator 3c(i) Status: Scholarships and grants are being used to subsidize high-income students when there is greater unmet need for low- and middle-income students.

There are growing differences in the unmet financial need of dependent students from the lowest and highest family-income quartiles. Dependent students from the lowest family-income quartile averaged \$20,281 in unmet need in 2020, while dependent students from the highest income quartile had a surplus of \$37,642. Unmet financial need for students in the lowest family-income quartile more than doubled between 1990 and 2020, after accounting for inflation.

Figure 3.5: Unmet financial need of dependent full-time undergraduates attending one institution for a full year, by family income quartile: 1990 to 2020 (in constant 2025 dollars) (Indicator 3c(i))



NOTES: Unmet need is defined as what remains after Expected Family Contribution (EFC) and all grants and discounts that do not have to be repaid are subtracted from the average Cost of Attendance (COA). Loans are not considered a discount. In some cases, negative unmet need can exceed the cost of attendance (no adjustments were made).

SOURCE: National Postsecondary Student Aid Study (1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020) (National Center for Education Statistics, 2020b). Analysis by authors.

Conclusion

This chapter provides evidence that higher education costs are a barrier to entry for most students, especially for the lowest-income families. College prices have risen since 1980, and the Pell Grant has not kept pace with college costs. This chapter also provides evidence that the highest-income students increasingly receive more in grants and discounts than is necessary to cover their educational costs, and that the government and institutions are subsidizing these students at a time when the income of this group has been increasing faster than that of other income groups. In contrast, unmet financial need has increased for students in the three lowest income quartiles. These trends show that financial aid resources are not directed to the neediest students, reinforcing inequality. The next section examines how students address these barriers when paying for college.

INDICATOR 4

HOW DO STUDENTS PAY FOR COLLEGE?

Key Takeaways

- ✓ **Students and families are paying a higher share of college costs, and the government is paying less:** The share of higher education costs paid by state and local governments has decreased since 1975, with a corresponding increase in personal expenditures. The share of higher education expenditures paid by students and families increased from one-third (33%) in the late 1970s to 43% in 2024.
- ✓ **Net prices have risen for all income groups, but especially for low-income students:** Low-income students face higher net prices over time after accounting for grant aid, and the gap between low- and high-income students has grown since 1990.
- ✓ **Growth in student debt has slowed:** In 2025, 42.8 million borrowers held \$1.7 trillion in student debt, down slightly from peaking in 2020.
- ✓ **Low-income students and families have a higher share of the college cost burden:** In 2020, the average net price was 111% of the average family income for students in the lowest income quartile, compared with 14% for students in the highest income quartile. In 1990, the average net price was 60% of family income for students in the lowest quartile and 11% for the highest quartile.

Introduction

Indicator 4 examines the cost of college and answers the following research question:

How do students pay for college?

This indicator examines cost, net price (defined here as the total cost of education minus grants/scholarships), and differences by family income quartile when students start college and race/ethnicity. Six indicators are presented:

- **Indicator 4a(i):** The trends in financing of higher education in the United States.
- **Indicator 4b(i):** Net price of attendance by family income.
- **Indicator 4b(ii):** The percentage of family income that is needed to pay the average net price of attendance.
- **Indicator 4c(i):** Total student debt.
- **Indicators 4c(ii):** Borrowing by type of institution.

- **Indicators 4e(v):** Borrowing and financial well-being for bachelor's degree recipients by race/ethnicity 10 years after graduation.

How Do Students Pay for College?

Indicator 4a(i): What are the trends in financing of higher education in the United States?

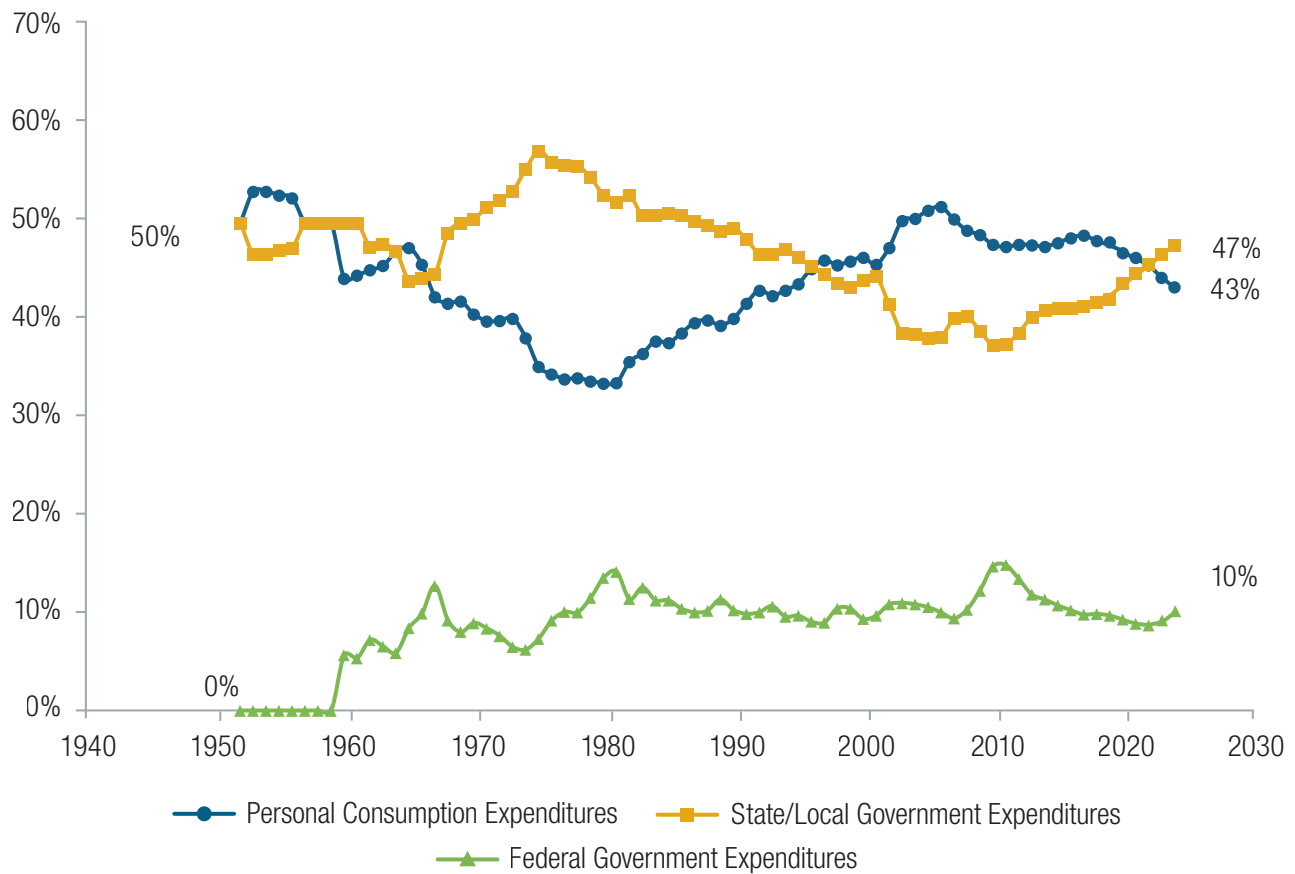
Indicator 4a(i) displays sources of funding for public and private higher education institutions, as reported in the National Income and Product Accounts (NIPA) from 1952 to 2024 (Figure 4.1). The indicator considers changes in the relative contributions of state and local public expenditures, federal expenditures, and personal consumption expenses (students and parents). In 1952, states and local governments covered 50% of higher education costs; after 1975, the percentage dropped from 58% to 37% in 2010 and 2011. After 2011, the share rose to 47% in 2024. The percentage of total costs borne by parents and students fluctuated over this same period, declining from 50% in 1952 to 33% between 1977 and 1981. After 1981, the percentage paid by families rose to 52% in 2006, then declined to 43% in 2024.

The share of higher education costs provided by the federal government was about the same in 2024 as in 1976 (10%). During the Great Recession, the federal government provided additional funding through the American Recovery and Reinvestment Act of 2009 (ARRA). This funding temporarily raised the federal government's share of costs to 15% in 2010 and 2011.

Indicator 4a(i) Status: The share of higher education costs paid by state and local governments has decreased since 1975, with a corresponding increase in personal expenditures.

The share of higher education expenditures paid by students and families increased from one-third (33%) in the late 1970s to 43% in 2024.

Figure 4.1: Percentage distribution of higher education funding responsibilities: 1952 to 2024 (Indicator 4a(i))



NOTES: National Income and Product Accounts (NIPA) data are periodically updated.

SOURCE: National Income and Product Accounts (NIPA) (Bureau of Economic Analysis, 2026) and the Postsecondary Education Opportunity (PEO) Archive (Mortenson & Brunt, 2025).

Indicator 4b(i): What is the net price of attendance by family income?

Indicator 4b(i) shows that the average net price increased for dependent full-time undergraduate students for all family-income quartiles, and that the differences between the net price for the highest income and the lowest income quartiles have also increased between 1990 and 2020 (Figure 4.2). In 1990, the average net price ranged from \$15,738 for those in the lowest family-income quartile to \$26,213 for those in the highest family-income quartile in inflation-adjusted dollars. The average net price of attendance in 1990 was 40% lower for those in the lowest family income quartile than for those in the highest. By 2020, the average net price ranged from \$21,181 for those in the lowest income quartile to \$43,148 for those in the highest income quartile. The average net price was 51% lower for students in the lowest family-income quartile than for those in the highest family-income quartile in 2020.

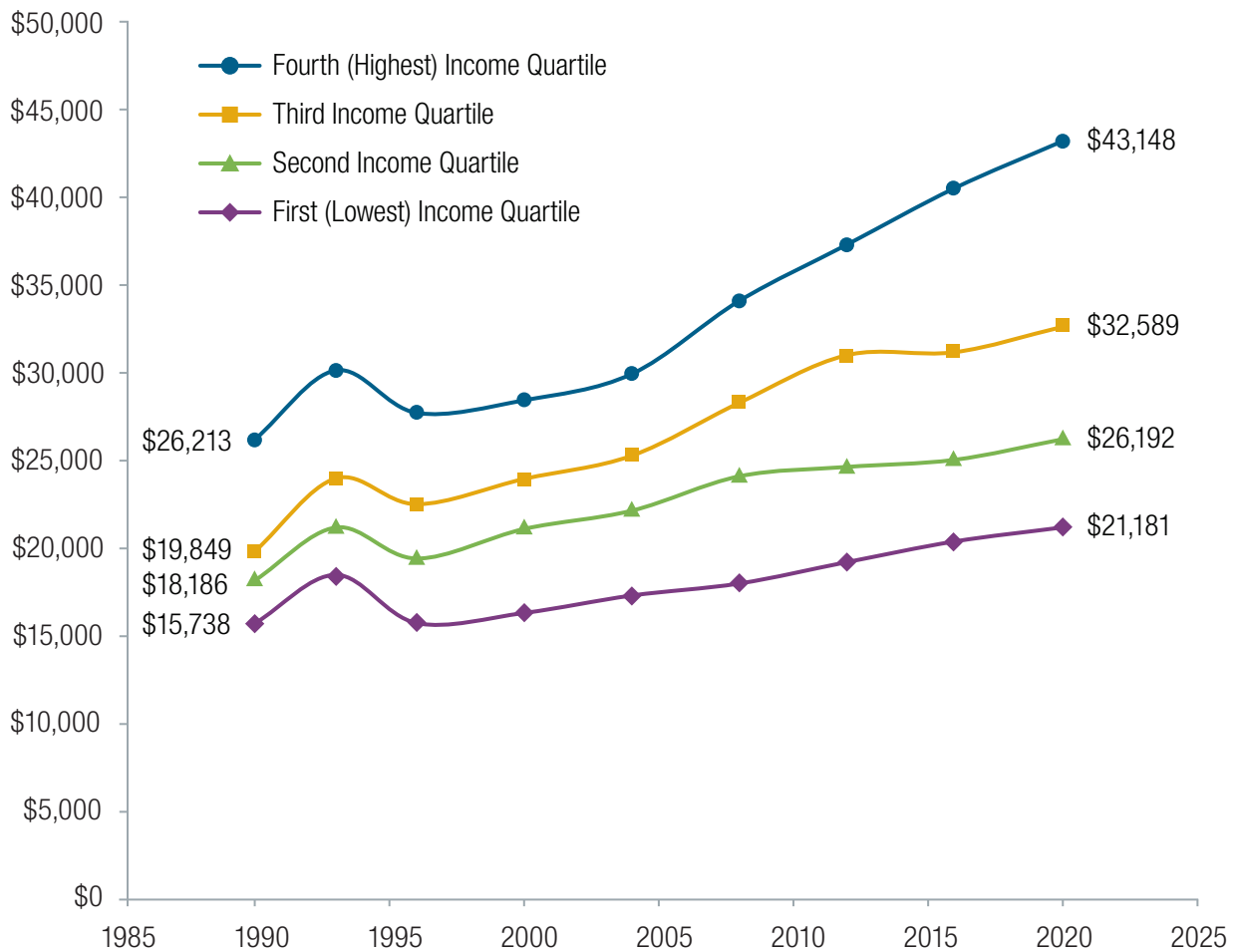
The widening gap in average net price by family income likely reflects the country's widening wealth gaps and rising higher education costs at selective institutions. Additionally, lower-income students are more likely to attend lower-cost, less selective institutions. For example, Hillman (2020) notes that there are still substantial differences in educational and related (E&R) spending per FTE enrollment. Wealth and instructional spending per FTE enrollment

are disproportionately concentrated in *highly selective* institutions that enroll relatively low percentages of Pell Grant recipients and students of color.

Indicator 4b(i) Status: Net prices for higher education continue to increase for all income groups.

In constant 2025 dollars, the average net price was 51% lower for students in the lowest family-income quartile than for students in the highest family-income quartile in 2020. In 1990, the average net price of attendance was 40% lower for those in the lowest family-income quartile than for those in the highest.

Figure 4.2: Average net price (cost of attendance minus grant/scholarship aid) for dependent full-time undergraduate students who attended one institution for a full year by family income quartile: 1990 to 2020 (in constant 2025 dollars) (Indicator 4b(i))



NOTES: Net price of attendance is defined as the cost of attendance (COA) minus all grant aid and discounts, but not loans. Family income quartiles are based on the distribution of family income in each NPSAS survey.

SOURCE: National Center for Education Statistics (2020b) National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Analysis by authors.

Indicator 4b(ii): What percentage of family income is needed to pay the average net price of attendance?

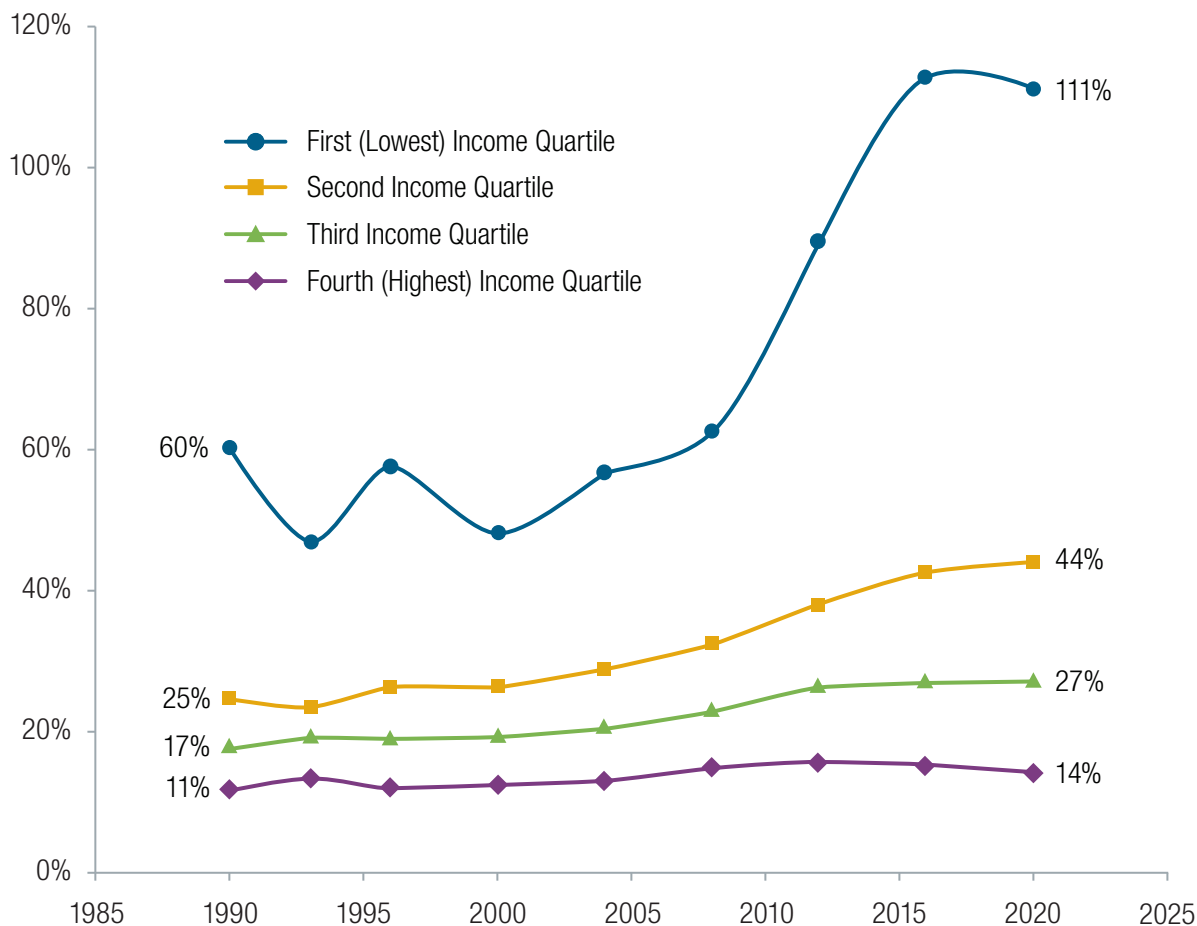
Indicator 4b(ii) in Figure 4.3 shows that the net price for dependent full-time undergraduates as a percentage of parents' family income has increased across all income groups, especially for students in the lowest income quartile. In 2020, the average net price as a percentage of average family income was 111% for students in the lowest family income quartile, compared with 44% for students in the second lowest family income quartile, 27% for students in the third highest income quartile, and 14% for students in the highest income quartile.

The cost of attendance as a percentage of family income for those in the lowest quartile increased from 60% in 1990 to 88% in 2012 and peaked at 112% in 2016. In contrast, between 2012 and 2020, the net price relative to family income increased only slightly across the other income quartiles: 11% to 16% for the highest income quartile, 17% to 27% for the third-highest income quartile, and 24% to 44% for the second-lowest income quartile.

Indicator 4b(ii) Status: The net price as a percentage of average family income has increased across all income groups, but especially for low-income students.

In 2020, the average net price was 111% of the average family income for dependent students in the lowest income quartile, compared with 14% for students in the highest income quartile. In 1990, the average net price was 60% of family income for dependent students in the lowest quartile and 11% for the highest quartile.

Figure 4.3: Average net price as a percentage of average family income by income quartile for dependent full-time undergraduate students who attended one institution for a full year: 1990 to 2020 (Indicator 4b(ii))



NOTES: Net price is tabulated based on all grants and scholarships, but does not include loans. Family income quartiles are based on the distribution of family income in each NPSAS survey.

SOURCE: National Center for Education Statistics (2020b) National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Analysis by authors.

Indicator 4c(i): Borrowing and debt: How much is total student debt?

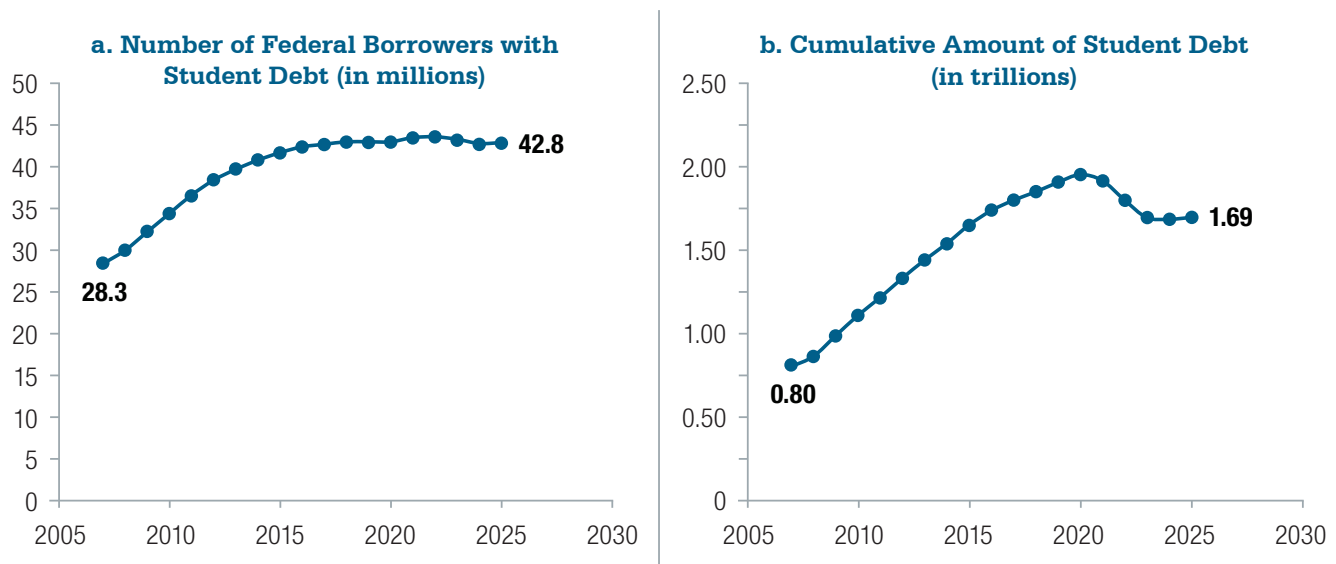
Student debt currently represents the second-highest consumer debt category, higher than both auto and credit card debt (Hanson, 2025). In 2025, 42.8 million persons had student debt, and the amount outstanding (in constant dollars) of student debt in the United States was more than 2 times what it was around the start of the 21st century (rising from \$801.2 billion in 2007 to about \$1.7 trillion in 2025).

As problematic as these numbers may seem, the story is more complex. For middle-class and wealthy individuals who are likely to repay their debt, these loans provide students with access to higher education. However, for low-income, first-generation students, or students who are reluctant to take out loans, this debt and the related risk of default are consequential (Baum, 2016). The stratification of student debt has had far-reaching consequences that ripple through students' lives and limit social mobility, especially for students who do not complete their degrees or for completers who enter low-paying occupations.

Indicator 4c(i) Status: Increasing student debt and higher college costs increase generational inequality, but more students are enrolling in college historically. The change in debt has flattened since 2020.

In 2025, about 42.8 million borrowers owed a total of \$1.7 trillion in student debt, the second largest category of consumer debt in the United States. The outstanding student debt in the federal loan portfolio is down slightly from peaking in 2020.

Figure 4.4: Number of federal borrowers, and cumulative amount of student debt (in constant 2025 dollars): 2007-2025 (Indicator 4c(i))



SOURCE: Federal Student Loan Portfolio, Office of Federal Student Aid (U.S. Department of Education, 2026).

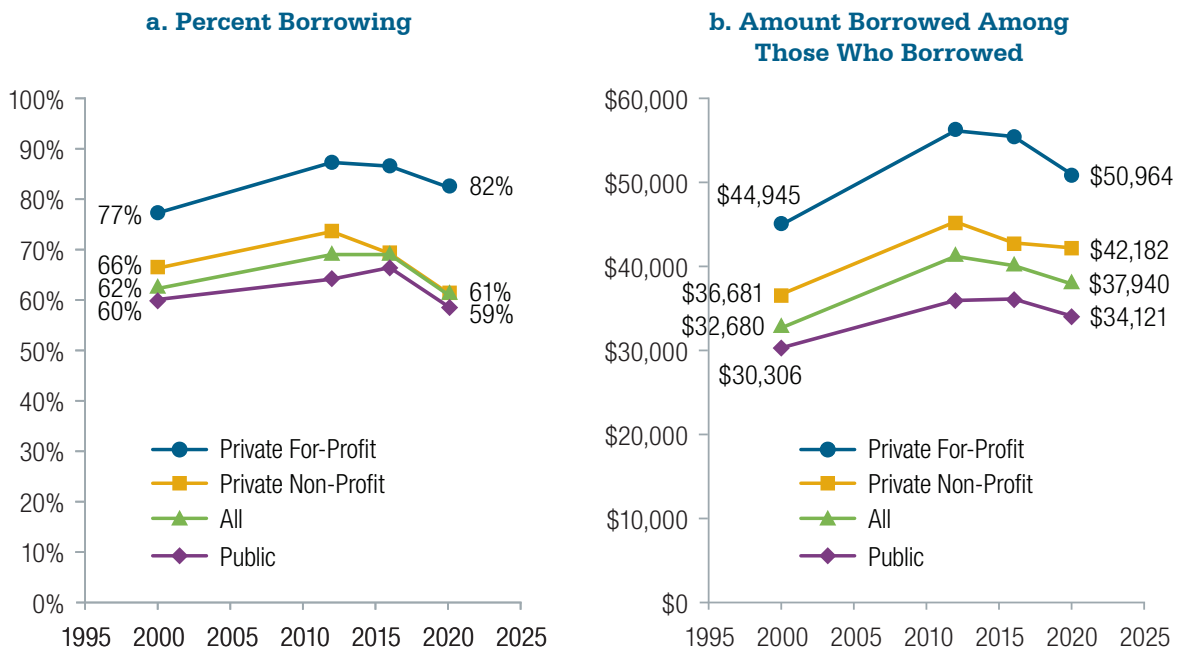
Indicator 4c(ii): How frequently and how much do students borrow to complete their undergraduate degrees by type of institution?

Indicator 4c(ii) shows overall increases but some declines between 2016 and 2020 in the percentages of bachelor’s degree completers who ever received student loans and in the cumulative amount borrowed. In 2020, the percentage of bachelor’s degree completers who had ever borrowed was 61%, down from 69% in 2016. Borrowing rates in 2020 were highest among students attending private for-profit institutions (82%). The average cumulative amount borrowed by bachelor’s degree completers who borrowed increased by 16% between 2000 and 2020 in constant 2025 dollars (from \$32,680 in 2000 to \$37,940 in 2020). In 2020, the average cumulative amount borrowed by bachelor’s degree completers who borrowed ranged from \$34,121 at public institutions to \$42,182 at private non-profit institutions to \$50,964 at private for-profit institutions in 2025 constant dollars.

Indicator 4c(ii) Status: Borrowing has leveled off and declined since 2000.

Use of loans among bachelor’s degree completers increased slightly from 62% to 69% before declining to 61% in 2020. Borrowing rates are highest for bachelor’s degree completers at private for-profit institutions (82% in 2020). Among those who borrowed, the average amount borrowed by graduation for bachelor’s degree completers increased by 16% between 2000 and 2020 in constant 2025 dollars.

Figure 4.5: Percentage of bachelor’s degree completers who ever received loans (federal and non-federal loans to students) and average amount borrowed among those who borrowed by institutional control: 1999-2000, 2011-12, 2015-16, and 2019-20 (in constant 2025 dollars) (Indicator 4c(ii))



SOURCE: National Postsecondary Student Aid Study (NPSAS: 2000, 2012, 2016, and 2020) (National Center for Education Statistics, 2020b) and the Digest of Education Statistics (National Center for Education Statistics, 2023i). Analysis by author.

Indicator 4e(v): How does borrowing and financial well-being of bachelor’s degree recipients vary by race/ethnicity 10 years after graduation?

Cominole et al. (2021) provided results from the 2018 follow-up of the 2008 cohort and shows that the gaps observed in earlier follow-ups have far-reaching ripples into the lives of bachelor’s completers, as measured by the percentage who have borrowed and amounts borrowed to finance their higher education, as well as by their financial well-being 10 years after graduation.

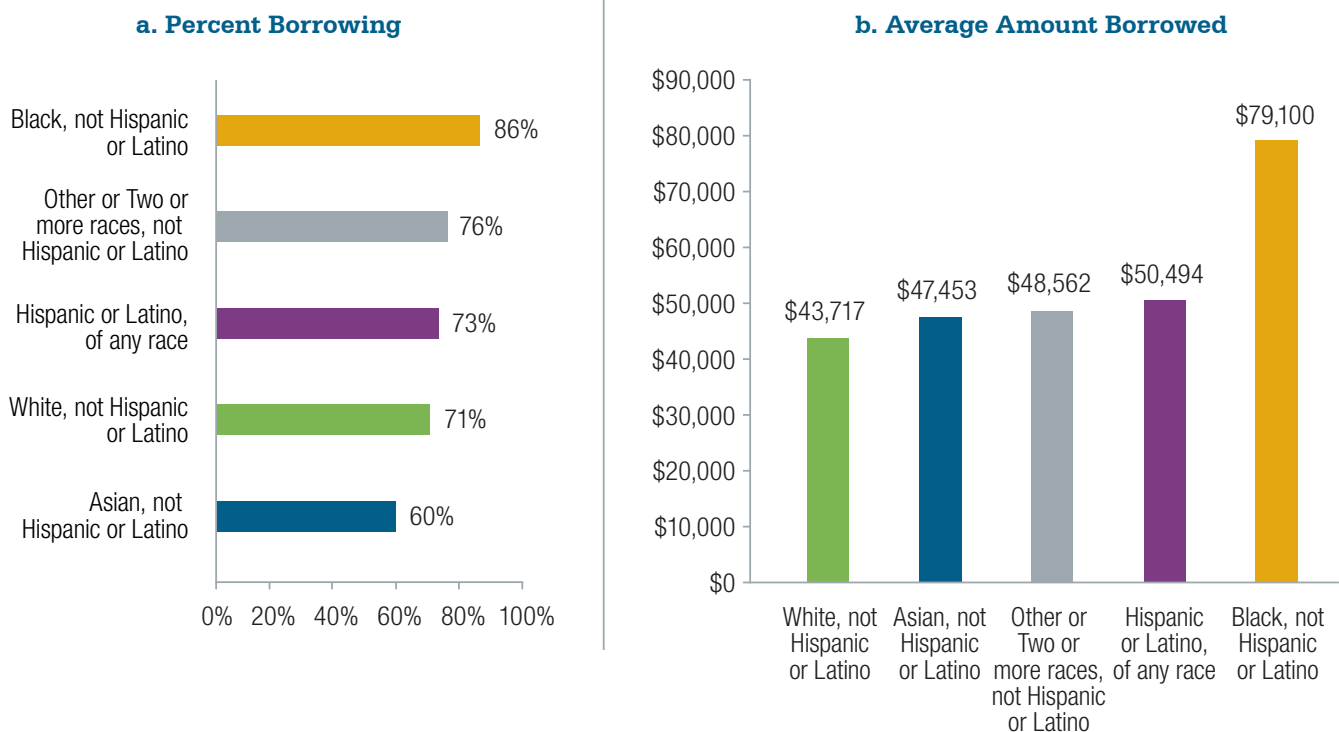
Ten years after graduation, 86% of Black bachelor’s degree recipients had borrowed at either the undergraduate or graduate level, compared with 71% of White graduates, 73% of Hispanic or Latino graduates, and 60% of Asian

graduates (Indicator 4e(v)). Including those who had never borrowed, the average amount Black bachelor's degree recipients borrowed in the 2008 cohort to finance their education (expressed in 2025 dollars) was \$79,100, and the average amount borrowed by White graduates was \$43,717. This represents a Black-White gap of \$35,383 in 2025 dollars. Black bachelor's graduates had borrowed almost twice as much (1.8 times) as White graduates by 10 years after receiving their bachelor's degree.

Indicator 4e(v) Status: More Black graduates take out loans for higher education at higher amounts than White students.

Ten years after completing their bachelor's degrees, 86% of Blacks had borrowed for undergraduate or graduate education, compared with 71% of Whites who were not Hispanic or Latino. The debt gap between Blacks and Whites (including those who did not borrow), rose to \$35,383 in 2025 dollars, with Blacks borrowing an average of \$79,100 and Whites an average of \$43,717.

Figure 4.6: Percentage of 2008 bachelor's degree recipients borrowing and the average amount (including non-borrowers) for undergraduate and graduate school in 2025 dollars, 10 years after completion, by race/ethnicity: 2018 (Indicator 4e(v))



NOTES: The authors' calculation of the amount borrowed, including non-borrowers as zero, is based on published data on the percentage who borrowed and the average amount among those who borrowed using DataLab PowerStats (National Center for Education Statistics, 2025a).

SOURCE: 2008/18 Baccalaureate and Beyond Longitudinal Study (Cominole et al., 2021; National Center for Education Statistics, 2020a)

Conclusion

The indicators presented in this chapter examine whether the cost of higher education cost is a barrier to attaining a bachelor's degree. Overall, the data show higher levels of debt and a larger number of students taking on debt. Students in the lowest income quartile are more likely to have the highest need and the highest net price. Higher-income families pay the lowest net price and benefit disproportionately from their wealth. The next chapter examines higher education attainment and workforce outcomes.

INDICATOR 5

DO HIGHER EDUCATION ATTAINMENT RATES AND OUTCOMES VARY BY STUDENT CHARACTERISTICS?

Key Takeaways

- ✓ **Graduation outcomes are closely tied to family income and Pell-Grant status:** Students from higher-income families and non-Pell recipients are more likely to complete a bachelor's degree within four or six years of enrollment. While graduation rates have improved for all students over time, gaps between Pell/low-income recipients and non-Pell/higher-income recipients have persisted.
- ✓ **Women now earn the majority of bachelor's degrees:** In 1980, men and women each made up about 50% of degrees awarded. Since 1980, bachelor's degree attainment among women has increased faster than among men. Since 1990, women have received a clear majority of bachelor's degrees, representing a shift in higher education participation that has persisted.
- ✓ **Racial and ethnic disparities in degree attainment have narrowed but still remain:** Graduates in 2022 more closely reflect the racial/ethnic makeup of the U.S. population compared to 1980, particularly at the associate degree level. However, at the bachelor's degree level, White and Asian students are overrepresented, and Hispanic students are underrepresented relative to their share of the college-age population.
- ✓ **Bachelor's degree recipients earn more than high school students, but income gaps persist after graduation:** Students in the lowest-income quartile at college entry who earned a bachelor's degree earned more than high school graduates who did not attend college. However, bachelor's degree graduates from lower-income families earn less than higher-income students even several years after degree completion.

Introduction

Indicator 5 examines student attainment rates and, when possible, workforce outcomes. This indicator seeks to address the following research question:

Do higher education attainment rates and outcomes vary by student characteristics?

This indicator measures the extent to which higher education attainment and outcomes vary by student characteristics. Generally, the findings show that lower-income and first-generation students do not achieve the same outcomes as their more affluent and established counterparts. Eight indicators are presented:

- **Indicator 5a(i):** Bachelor's degree attainment by age 24 by family income groups.

- **Indicator 5a(ii):** Percentage distribution of bachelor's degree attainment by age 24 by family income groups.
- **Indicator 5a(iii):** Number and percentage of bachelor's degrees conferred by sex.
- **Indicator 5c(v):** Percentage distribution of the degrees and certificates earned by first-time students enrolled at 4-year or 2-year institutions by family income quartile.
- **Indicator 5c(vi):** Comparison of Pell and non-Pell graduation rates over time.
- **Indicator 5d(i):** Distribution of associates and bachelor's degrees conferred by race compared to the U.S. population.
- **Indicator 5e(i):** Percentage of bachelor's degree recipients that are first-generation college students.
- **Indicator 5f(iii):** Post-baccalaureate employment outcomes by family income.

Indicators 5a(i) and 5a(ii): How do bachelor's degree attainment rates vary by family income?

Overall, bachelor's degree attainment rates increased across all family income quartiles over time, but attainment gaps between the lowest and highest income quartiles remain. As shown in Figure 5.1, an estimated 14% of dependent family members under 24 years old (young adults) in the lowest family-income quartile had attained a bachelor's degree, compared with 25% in the second quartile, 50% in the third quartile, and 58% in the highest quartile.

The gap in bachelor's degree attainment rates for young adults in the highest and lowest quartiles was 44 percentage points in 2023, compared with a 34% gap in 1970. Estimated bachelor's degree attainment rates were almost 4 times higher for young adults in the highest income quartile than for the lowest income quartile, compared to 6.7 times higher in 1970.

Improvements in the bachelor's degree attainment rate for young adults was the highest for the third quartile, which was 3.3 times higher in 2023 than in 1970 (from 15% in 1970 to 50% in 2023). The rate of increase in bachelor's degree attainment rate for the highest quartile was 1.4 times higher, from 40% to 58%. Bachelor's degree attainment rates more than doubled for the lowest and second lowest quartiles (increasing from 6% in 1970 to 14% in 2023 and from 11% to 25%, respectively).²¹

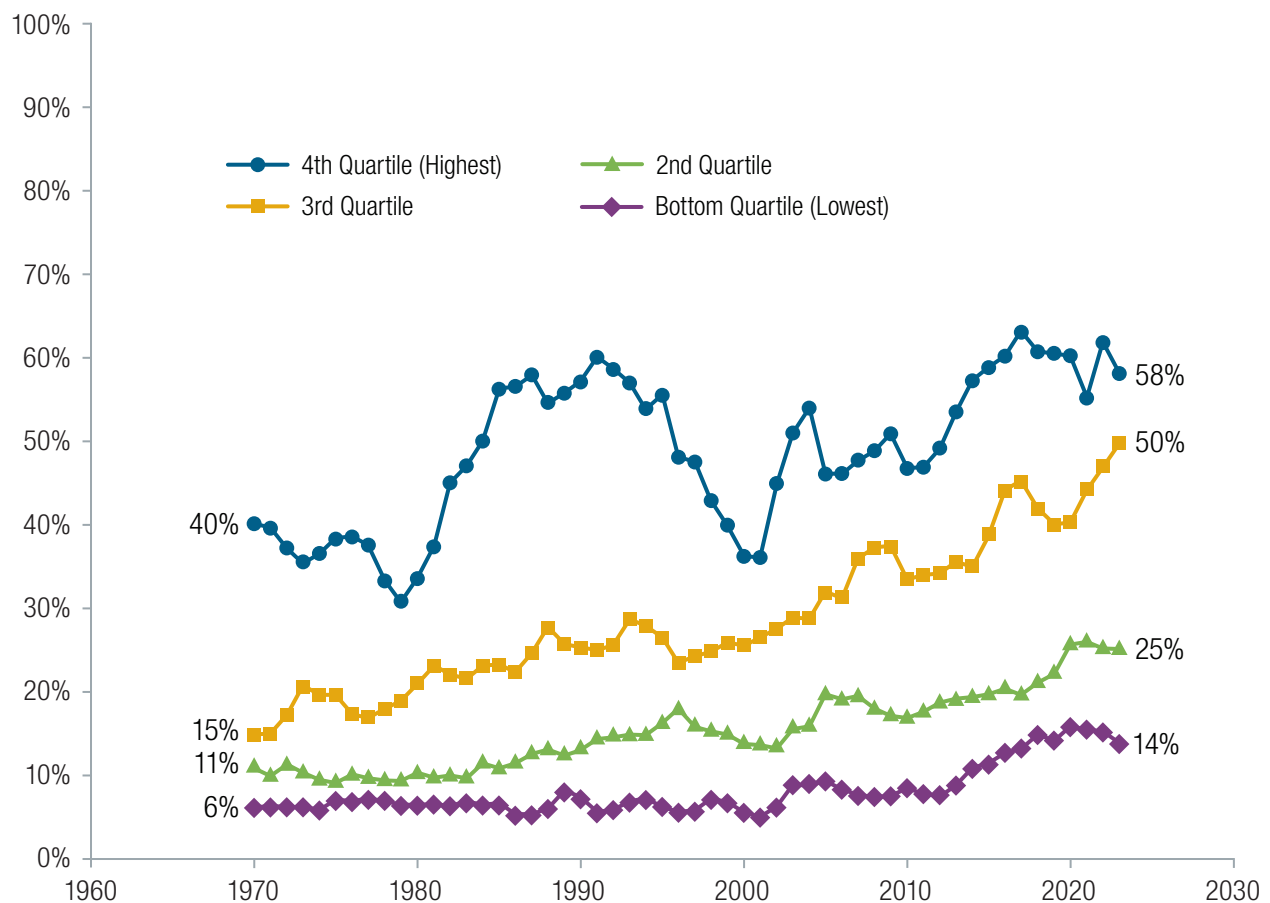
Figure 5.2 displays the percentage distribution of bachelor's degrees earned by family income quartile (Indicator 5a(ii)) and provides a different perspective. This figure shows that the upper two quartiles have accounted for around 70% of the distribution over time. The 1970 and 2023 distributions of the highest quartiles are statistically equivalent, indicating no change. In 2023, 38% of degrees went to the highest (fourth) quartile and 34% to the third quartile. In contrast, 17% of bachelor's degrees were received by the second quartile and 11% by those from the first (lowest) quartile. Ideally, each quartile would represent 25% of the distribution; however, in 2023, the two highest quartiles exceeded 25%, while the two lowest quartiles fell below 25%. In 1970, only the highest quartile exceeded 25%, reflecting progress for the middle class (third income quartile).

²¹ Note that the lower percentage attainment rates in 1970 yield higher rates of change compared to higher percentages. For example, while the rates in the lowest and second lowest quartiles doubled, their attainment rates increased by 8% and 14%, respectively. The highest quartile rate never came close to doubling because a higher percentage of the population had a bachelor's degree in 1970 with 40%. The highest quartile rate increased by 18%.

Indicator 5a(i) Status: Bachelor's degree attainment rates increased across all family income quartiles over time. Attainment gaps have improved but have not closed between the lowest and highest income quartiles.

Estimated bachelor's degree attainment rates by age 24 were almost 4 times higher for dependent family members in the highest income quartile than for those in the lowest income quartile (58% vs. 14%). In 1970, dependent family members in the highest income quartile were 6.7 times as likely as those in the lowest quartile to have a bachelor's degree by age 24 (40% vs. 6%).

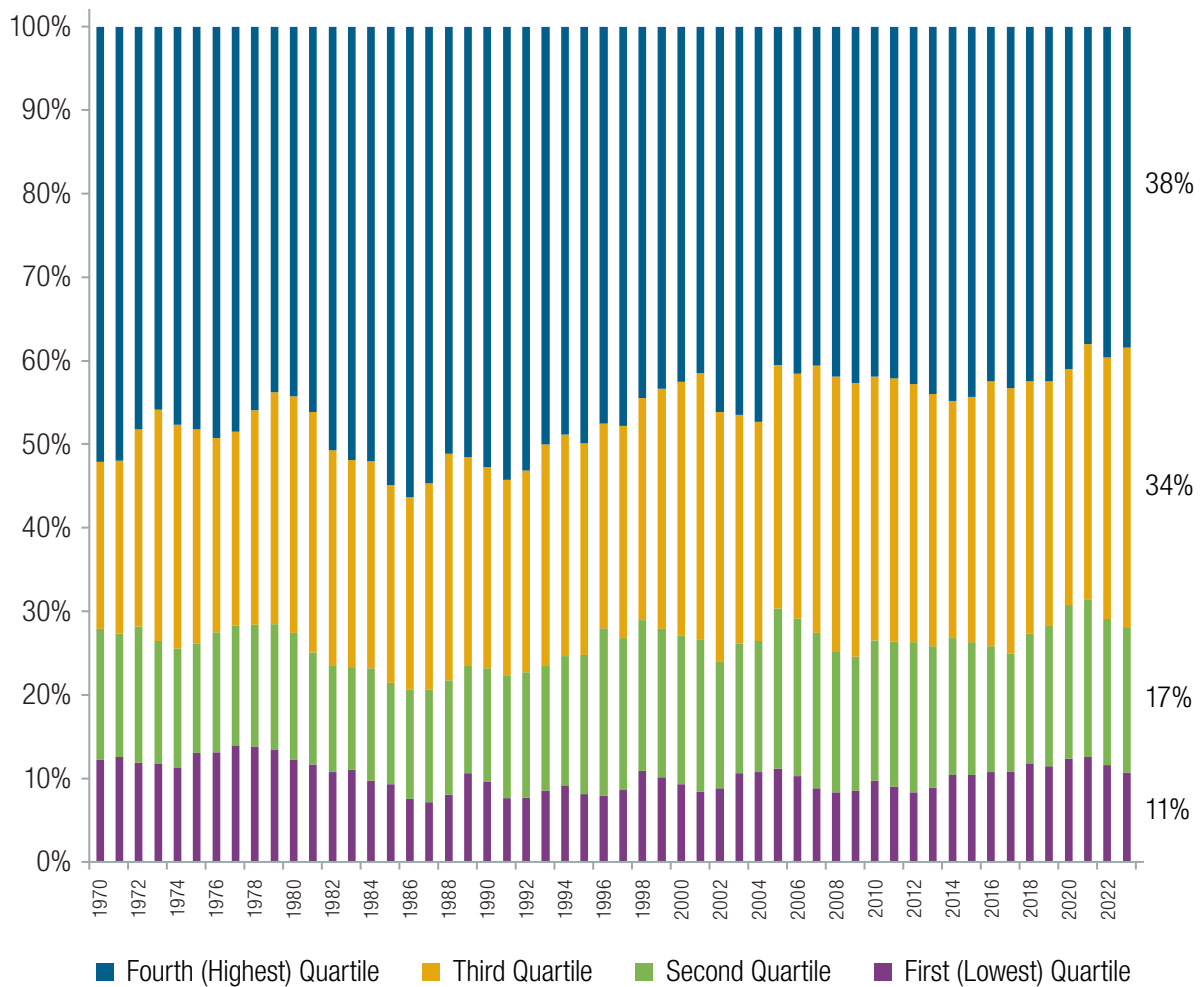
Figure 5.1: Estimated bachelor's degree attainment by age 24 for dependent family members in the U.S. population, by family income quartile: 1970-2023 (Indicator 5a(i))



NOTES: This figure presents a 3-year moving average of the estimated bachelor's degree attainment rate by age 24 for dependent family members, based on CPS data calibrated with data from the NCES high school longitudinal studies. Due to estimation assumptions and sampling error, caution is warranted when interpreting changes (especially single-year fluctuations) over time. See the Technical Appendix for further discussion of the methodology and limitations.

SOURCE: Postsecondary Education Opportunity (PEO) data archive (Mortenson & Brunt, 2025), U.S. Census Bureau (U.S. Census Bureau, 2023), 1970-2023 October Current Population Survey School Enrollment Supplement. Analysis by authors.

Figure 5.2: Percentage distribution of bachelor's degrees attained by dependent family members 18 to 24 years old by family income quartile: 1970-2023 (Indicator 5a(ii))



NOTES: This figure reports a 100% distribution of bachelor's degrees among dependent 18- to 24-year-olds, as reported in the Current Population Survey data. Details may not sum to totals due to rounding.

SOURCE: Postsecondary Education Opportunity (PEO) data archive (Mortenson & Brunt, 2025), U.S. Census Bureau (U.S. Census Bureau, 2023), 1970-2023 October Current Population Survey School Enrollment Supplement. Analysis by authors.

Indicator 5a(iii): How does the number of bachelor's degrees conferred differ by sex over time?

Figure 5.3 displays the counts (Indicator 5a(iii-a)) and percentages (Indicator 5a(iii-b)) of the bachelor's degrees conferred to males and females from 1869-70 to 2023-24 academic years. As laws, rules, and customs have evolved over the last 154 years, there has been a notable shift in who earns a bachelor's degree by sex. This chart documents the increase in the number of bachelor's degrees awarded to both males and females, as well as the higher rates of increase among females over time. It also documents the impact of historical events.

In the late 19th century, the vast majority of bachelor's degrees were earned by males. More specifically, in 1869-70, a total of about 9,371 bachelor's degrees were awarded, of which 85% (7,993) were conferred on males and 15% (1,378) on females. During the period prior to World War II, the female share rose to 40% by 1930 and to 41% in 1940. Following World War II, in 1950, with the GI Bill and returning veterans, the male share temporarily rose to 76%, and the female share declined to 24%.

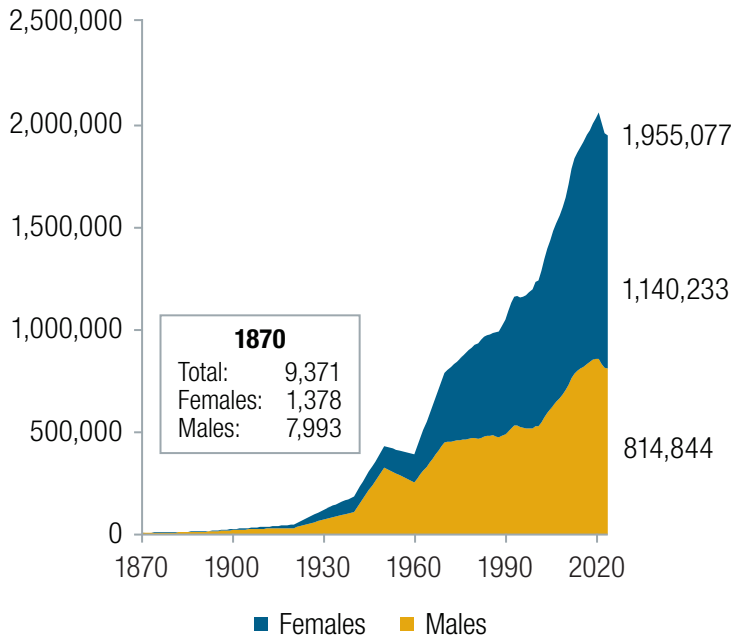
By 1970, the total number of bachelor's degrees awarded had increased to almost 800,000, of which 57% were conferred on males and 43% on females. A decade later, in 1980, the number conferred was almost equally divided between males and females. Near the end of the 20th century, women were going to college at higher rates, and the relative distribution of degrees between males and females reversed. The number of bachelor's degrees continued to grow to over 2 million by 2021 and fell slightly following the pandemic. The latest data available in 2023-24 shows little change in recent years, with 814,844 bachelor's degrees conferred to males (42%) and 1,140,233 conferred to females (58%).

Indicator 5a(iii) Status: Amid a rise in college attainment, females now make up the majority of bachelor's degree earners.

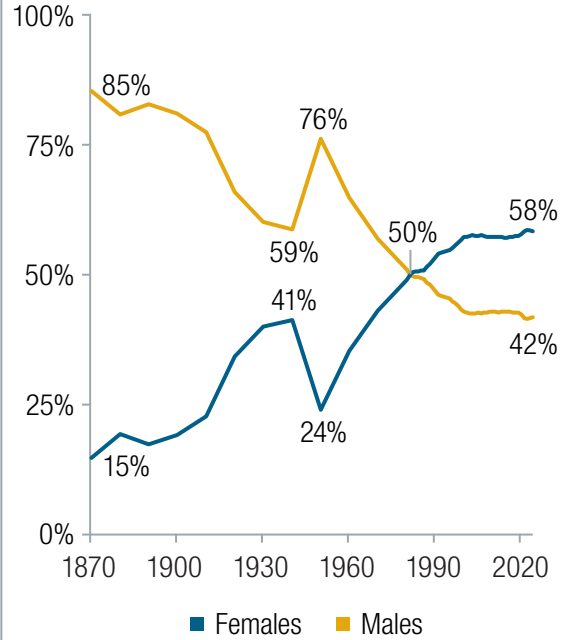
Within the context of an expansion in the number of bachelor's degrees awarded over the period to both females and males, females have gone from representing 15% of bachelor's degree recipients in 1869-70 to 58% in 2024. In 1980, males and females each made up about 50% of degrees awarded. Since 1980, bachelor's degree attainment among females has increased faster than among males.

Figure 5.3: Number and percentage of bachelor's degrees conferred by sex: 1870-2024 (Indicator 5a(iii))

a. Number of Bachelor's Degrees Conferred by Sex



b. Percentage Distribution by Sex



NOTES: The years in this table represent the end of the academic year (i.e., 2024 represents the degrees conferred in the 2023-24 academic year). Data in these charts represent the degree-granting Title IV institutions in the 50 states and the District of Columbia. Data through 1994-95 are for institutions of higher education and U.S. service academies, while later data are for degree-granting institutions and U.S. service academies. Degree counts are limited to degree-granting institutions as classified in the fall of the year following the reported data year. Prior to 1960, degree counts included professional degrees such as M.D., D.D.S., and law degrees.

SOURCE: Digest of Education Statistics Table 318.10 (National Center for Education Statistics, 2023c). Data from the 2021-22, 2022-23, and 2023-24 academic years were updated using the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b). Analysis by authors.

Indicators 5c(v) and 5c(vi): What was the enrollment and completion status of students 4 and 6 years after first enrolling?

Indicator 5c(v) examines the enrollment and degree completion status of students who first enrolled in a 2- or 4-year institution. The latest data on this indicator are from 2017 and was reported in the last Indicators report (Figure 5.4). It showed that completion rates for any credential within 6 years were strongly related to parent family income level, ranging from 48% for those in the lowest income quartile to 77% for the highest quartile. Bachelor's degree completion rates ranged from 27% for the lowest quartile to 69% for the highest quartile. The percentage of dependent students with no degree or credential and not enrolled 6 years after first enrolling was 38% for those in the lowest income quartile and 14% for those in the highest quartile.

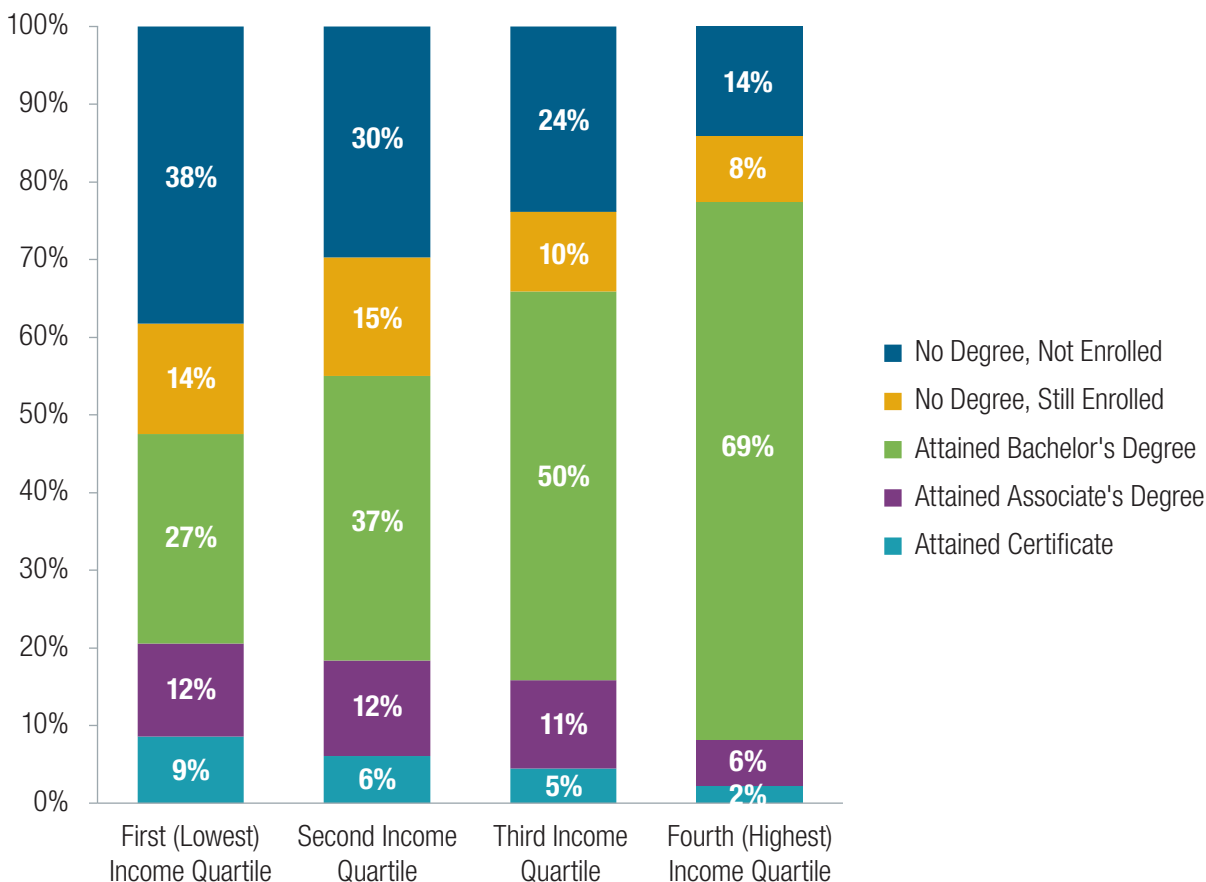
To better understand more recent developments, a newer cross-sectional survey of colleges and universities examined graduation rates for Pell Grant and non-Pell recipients between 2017 and 2024.²² As shown in Figure 5.5, four-year bachelor's degree graduation rates improved over time for both Pell and non-Pell recipients with those of Pell Grant recipients increasing from 9% to 17% and non-Pell recipients increasing from 27% to 37%. Six-year graduation rates also increased, from 16% to 25% for Pell recipients and 38% to 48% for non-Pell recipients. While there was an overall increase in graduation rates across all credential levels, the gaps between Pell and non-Pell recipients persisted during this time.

Indicator 5c(vi) Status: Graduation rates have increased for all students since 2017 (entering 2011 students), but the gap between Pell Grant and non-Pell recipients has not changed.

Six-year bachelor's degree graduation rates have improved over time for both Pell and non-Pell recipients, with rates of Pell Grant recipients increasing from 16% to 25% and rates of non-Pell recipients from 38% to 48%.

²² Note that these rates are different than in Indicator 5c(v) because the students groups are different. 5c(v) includes first-time beginning students, regardless of age. 5c(vi) is focused on first-time, full-time students following high school.

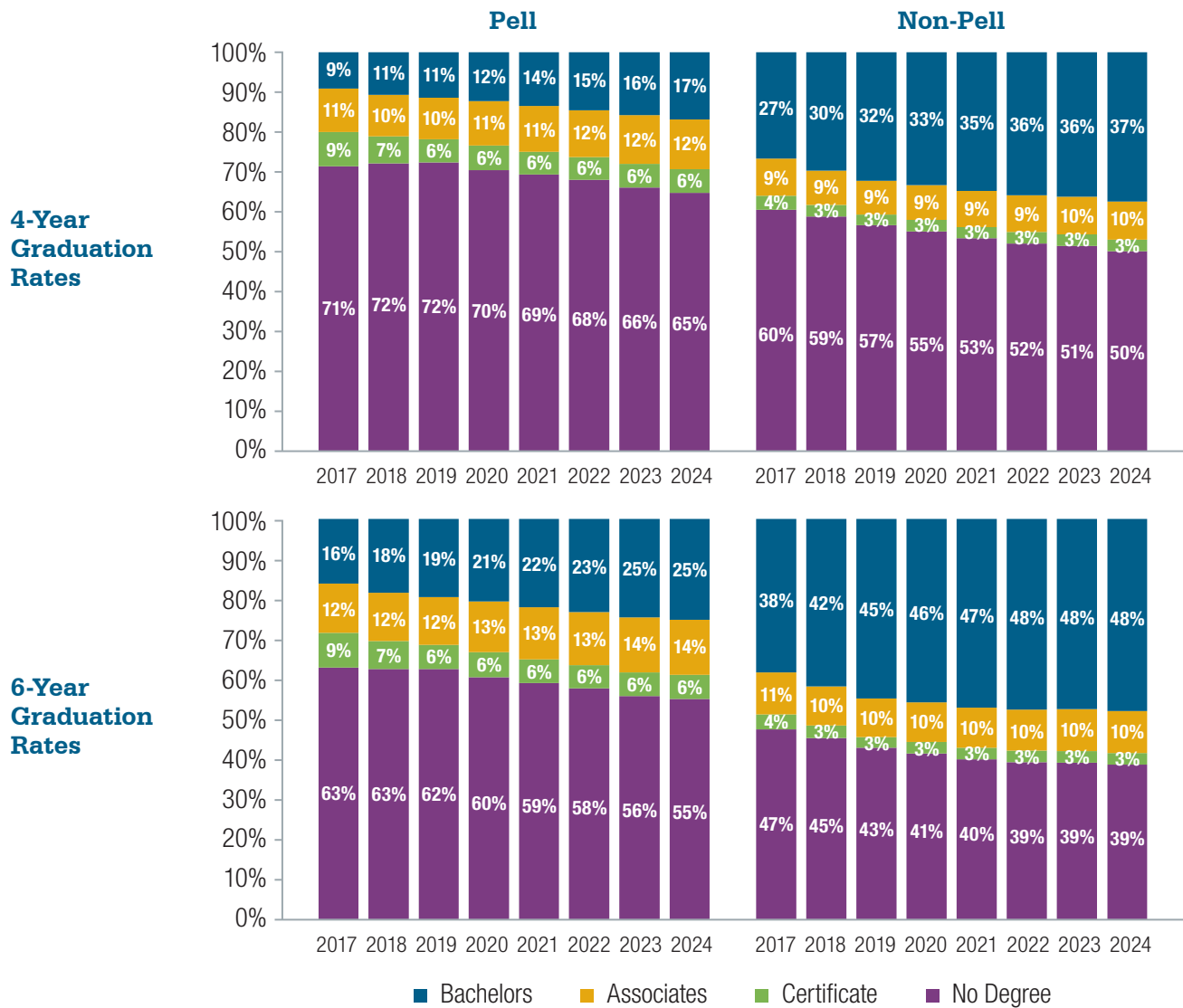
Figure 5.4: Percentage distribution of the degrees and certificates earned by first-time dependent beginning students enrolled at 4-year or 2-year institutions in 2011-12, by family income quartile: 2017 (Indicator 5c(v))



NOTES: Income quartiles are based on parents' income at the start of the National Postsecondary Student Aid Study from which the Beginning Postsecondary Students Longitudinal (BPS) sample is drawn. Dependent BPS:2012 parent income levels by quartile were as follows: Lowest, less than \$30,000; Second, \$30,000-\$63,499; Third, \$63,500-\$106,999, and Highest, \$107,000 or more.

SOURCE: 2012/17 Beginning Postsecondary Students Longitudinal Study (National Center for Education Statistics, 2017). Analysis by authors.

Figure 5.5: Percentage distribution of certificates and degrees awarded for first-time, full-time students in four and six years, by Pell-Grant status in the student's first year: 2017-2024 (Indicator 5c(vi))



NOTES: The years noted in the figure represent the end of the academic year for which the student graduated (i.e., 2024 represents the 2023-24 academic year). The cohorts of these students were formed four or eight years prior to the reporting date. For example, 2024 rates represent the cohort from 2016-17, and 2017 rates represent students in the cohort from the 2009-10 academic year. Data from 2017 to 2023 are final, while 2024 data are preliminary.

SOURCE: Integrated Postsecondary Education Data System, Outcomes Measures Survey 2017 through 2024 reporting years (National Center for Education Statistics, 2025b). Analysis by authors.

Indicator 5d(i): What is the distribution of associate and bachelor's degrees awarded to U.S. citizens by race and ethnicity?

Figure 5.6 (Indicator 5d(i)) compares annual degree production in 1980 and 2022 with U.S. population estimates to determine whether disparities by race/ethnicity exist. Race estimates are presented for the entire population and for individuals aged 18–24 for comparison purposes. This analysis focuses on the 18-24 age group because approximately 64% of bachelor's degrees were earned by graduates under 25 in 2022, with a median age of degree attainment of 23. In contrast, associate degree earners are younger.²³ Because more than a third (36%) of graduates are over 25 years old, Figure 2.4 displays all age groups as well.

The U.S. population distribution has undergone meaningful demographic changes since 1980. Younger individuals represent a higher share of the Black and Hispanic populations than of the White population.²⁴ In 1980, White people were 77% of 18- to 24-year-olds. By 2022, White people were 52% of those aged 18 to 24. This reflects corresponding increases for Hispanic people (8% to 24%) and Asian/Pacific Islander people (2% to 6%). These demographic shifts occurred within those receiving associate and bachelor's degrees as well.

In 1980, White graduates were earning degrees at higher levels than 18- to 24-year-olds in the population. While the White population accounted for 77% of the 18- to 24-year-old population, they accounted for 84% of associate degrees and 89% of bachelor's degrees. Conversely, Black and Hispanic graduates were underrepresented relative to the distribution of 18- to 24-year-olds, with Black students representing 13% of the population but only 9% of associate degrees and 7% of bachelor's degrees. Hispanic students represented 8% of the 18-to-24-year-old population but 4% of associate degrees and 2% of bachelor's degrees.

In 2022, there was greater parity in the comparison of the 18- to 24-year-old population and graduate degree production by race/ethnicity; however, disparities still existed. The racial distribution of associate degrees nearly matched the population of 18- to 24-year-olds, with each group within 1-3% of the national population. For bachelor's degrees, however, White graduates were slightly overrepresented (52% of the 18- to 24-year-old population compared to 59% of bachelor's degrees) and Hispanic graduates underrepresented (24% of the 18- to 24-year-old population, compared to 17% of bachelor's degrees).

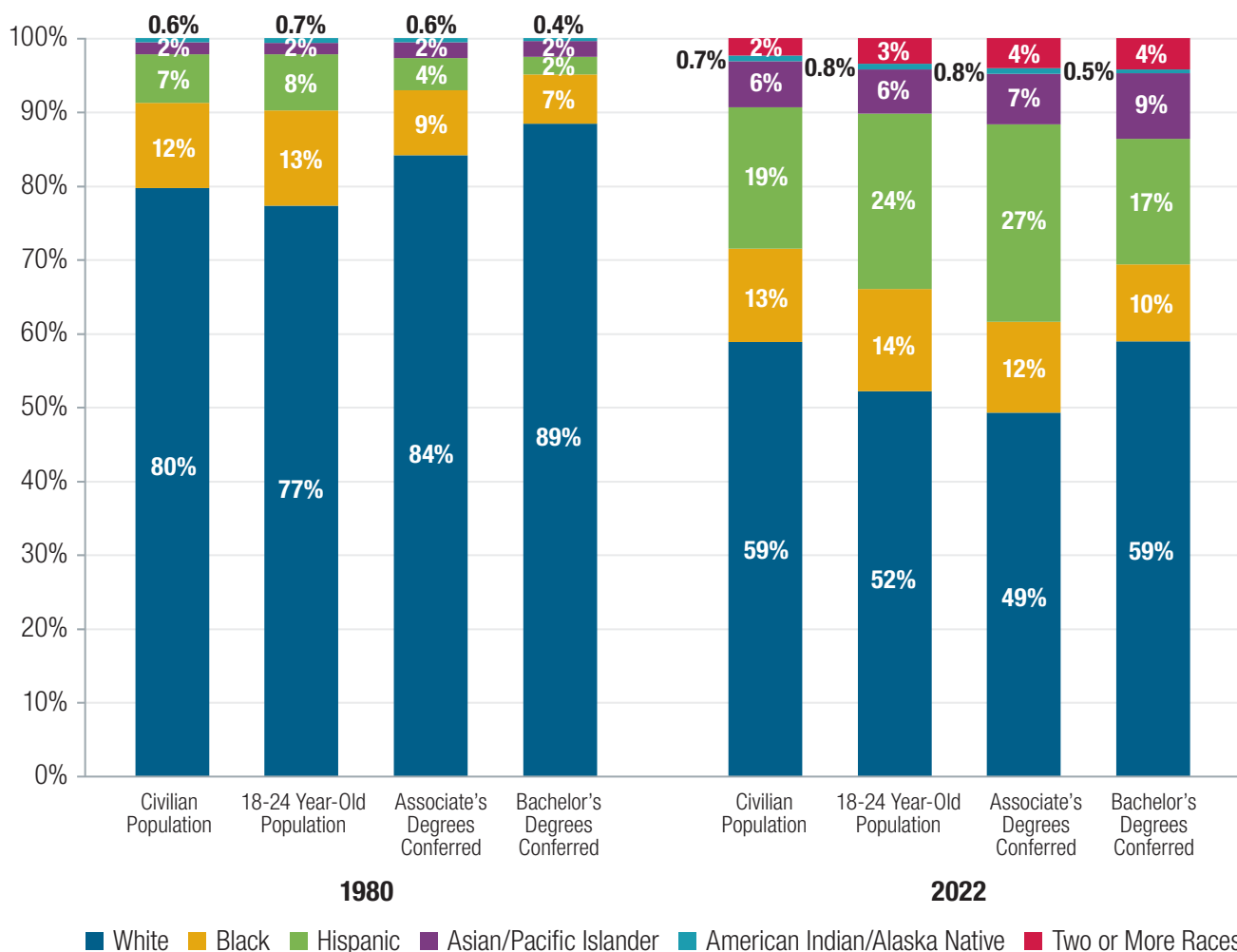
Indicator 5d(i) Status: There is more parity in race/ethnicity in 2022 compared to 1980 in those receiving bachelor's degrees compared to the general population of 18- to 24-year-olds, but there are still disparities.

The representation of Black and Hispanic degree recipients has increased since 1980. However, Blacks and Hispanics continue to be underrepresented among degree recipients relative to their representation in the 18- to 24-year-old population.

23 Estimates on the age at degree come from the 2016/20 Baccalaureate and Beyond Longitudinal Study (National Center for Education Statistics, 2020a) for bachelor's degrees and the Beginning Postsecondary Students Longitudinal Study (National Center for Education Statistics, 2017) for associate's degrees. Analysis by author.

24 Race and ethnicity are dynamic classifications, and changes in racial/ethnic classification over time should be considered when interpreting these data, especially for relatively small population categories such as American Indian/Alaska Natives and Asian and Pacific Islanders. The statistics are also impacted by the introduction of the "Two or More Races" category, a category that was not present in the 1980 classifications. Race/ethnicity classifications are self-reported using varying categories in the data collection instruments, and some change in the distribution of degrees by race/ethnicity over time may be attributable to differences in population self-identifications as well as changes in the categories used in data collection instruments.

Figure 5.6: Distributions of associate and bachelor's degrees conferred to U.S. citizens and distribution of the civilian population by race/ethnicity: 1980 and 2022 (Indicator 5d(i))



NOTES: The categories (White, Black, Asian/Pacific Islanders, American Indian/Alaska Native, and “Two or More Races”) exclude Hispanics. Race/ethnicity categories reflect the titles used at the time of reporting. Caution is warranted when interpreting this Indicator, as race and ethnicity categories have changed over time. The category “Two or More Races” was not included in 1980. In 2022, in Census Bureau population figures, Native Hawaiians and Other Pacific Islanders were classified separately from Asians and accounted for 0.2% of the U.S. population. The inclusion of the “Two or More Races” category likely reduced the percentage of persons who classified themselves as Black, American Indian/Alaska Native, or Asian.

SOURCE: Digest of Education Statistics (National Center for Education Statistics, 2023a, 2023d, 2023e) and Population and Housing Unit Estimates (U.S. Census Bureau, 2022).

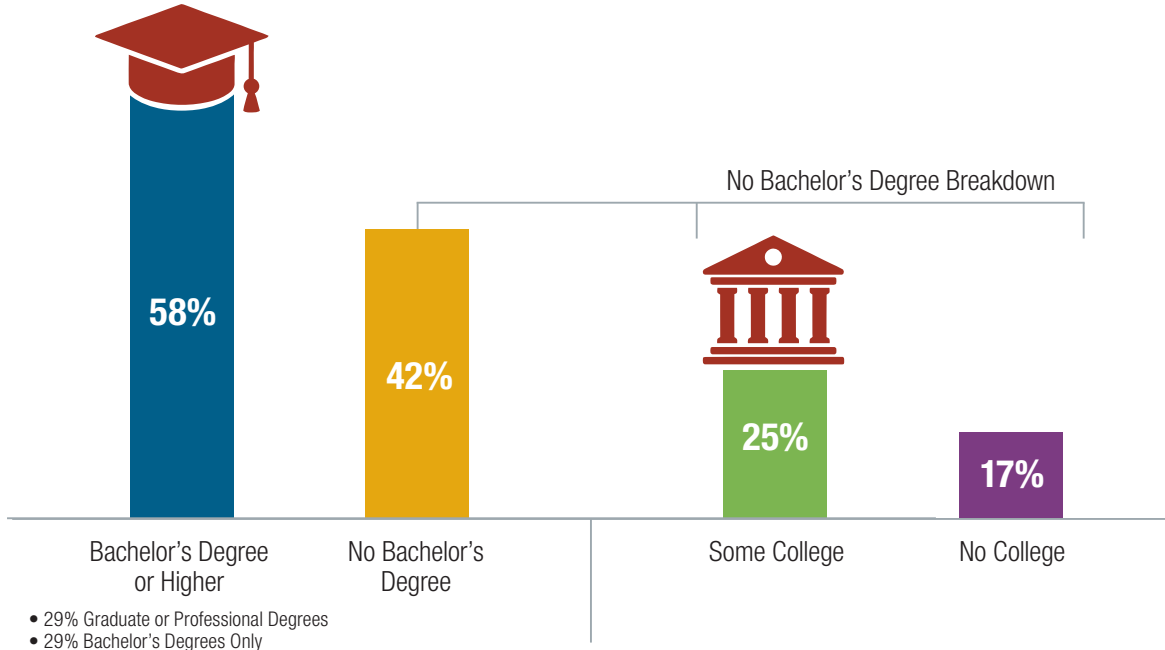
Indicator 5e(i): What percent of bachelor's degree recipients are the first-generation to college?

Indicator 5e(i) in Figure 2.5 shows the percentage of first-time bachelor's degree recipients by the highest level of education attained by either parent. In 2016, 42% of all bachelor's degrees were awarded to students who were first-generation, defined as neither parent having a bachelor's degree, and 58% were awarded to continuing generation college students. First-generation college graduates can be divided into those whose parents had some college but no bachelor's degree (25% of the total) and those whose parents had never attended college (17% of the total). This means that 83% of bachelor's degree recipients in 2016 had at least one parent with some college education. Among the total graduates in 2016, almost one-third (29%) had parents who had a graduate or professional degree. As shown in the other indicators, this finding demonstrates a continuing concentration of degree-earners among families that already have wealth/income before entering college.

Indicator 5e(i) Status: Less than half of first-time bachelor's degrees were awarded to first-generation students.

In 2016, 42% of all bachelor's degrees were awarded to first-generation students, and 58% were awarded to continuing-generation college students.

Figure 5.7: Percentage distribution of first-time bachelor's degree recipients by highest education attained by either parent: 2015-16 (Indicator 5e(i))



NOTES: A first-generation college student is defined as an undergraduate whose parents do not hold a bachelor's degree or higher. High school diploma or less includes the 0.2% of graduates who did not know either parent's highest level of education. "Some postsecondary education" means that at least one parent attended a postsecondary institution and may have earned a credential up to an associate degree. However, neither parent earned a bachelor's or advanced degree.

SOURCE: Baccalaureate and Beyond (B&B:16/17) First Look (Velez et al., 2019).

Indicator 5f(iii): What are the differences in post-baccalaureate employment outcomes by family income?²⁵

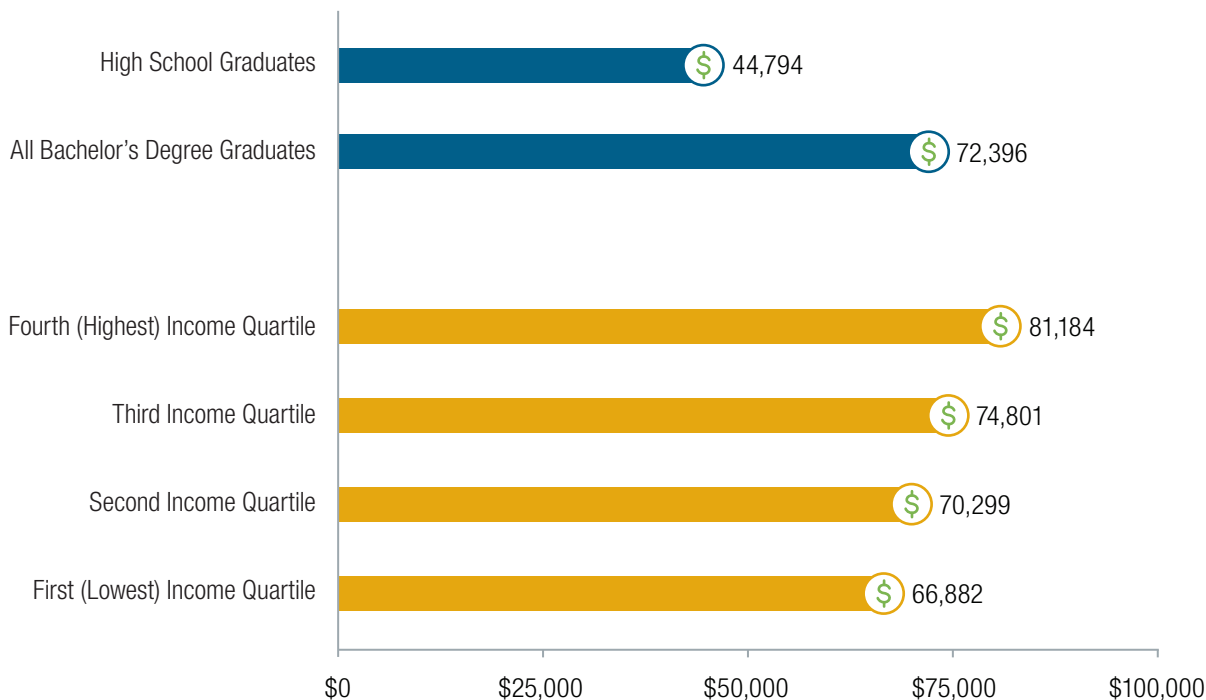
Indicator 5f(iii) in Figure 5.8 displays average annualized income in 2020 for 2016 dependent bachelor's degree recipients who were employed full-time by parents' income quartile. The average annualized income in 2024 constant dollars for dependent bachelor's degree recipients from the lowest family income quartile when they entered college was more than \$14,000 lower (18%) after graduation than that of bachelor's degree recipients from the highest family income quartile (\$66,882 versus \$81,184). Nevertheless, the average annualized income for the lowest income quartile group was higher than high school graduates in the same age range (25 to 34 years old; \$44,794 for high school graduates versus \$66,882). The average annualized income for bachelor's degree recipients from the second and third family income quartiles was \$70,299 and \$74,801, respectively. The mean annualized income for all dependent graduates 4 years after graduation was \$72,396.

Indicator 5f(iii) Status: Bachelor's degree graduates in the lowest-income quartile at college entry earned more than high school graduates who did not attend college.

When starting college, students in the lowest family-income quartile earned \$66,882 three years after attaining their bachelor's degree. This was lower than for students starting college in the highest family-income quartile (\$81,184). Although the average annualized income of the students in the lowest family-income quartile at college entry was lower after graduation than their higher-income peers, it was higher than that of high school graduates who did not attend college (\$44,794 versus \$66,882).

²⁵ This indicator presents early post-college earnings, and they do not reflect longer-term career trajectories. See Figure S.2 for information on the projected long-term incomes over a lifetime.

Figure 5.8: Average annualized income for dependent students who received bachelor’s degrees in 2016 who were not enrolled in education and who were employed full-time at the 4-year follow-up in 2020 by parents’ income quartile, compared with full-time, year-round high school graduate workers 25 to 34 years old (in 2024 constant dollars) (Indicator 5f(iii))



NOTES: Mean annualized incomes are for dependent first-time bachelor’s degree recipients who were not enrolled in any educational program at the time of the 2020 follow-up and who were employed full-time.

SOURCE: 2016/20 Baccalaureate and Beyond Longitudinal Study (National Center for Education Statistics, 2020a). Analysis by authors. High school income data comes from the Digest of Education Statistics (National Center for Education Statistics, 2023j).

Conclusion

The Indicators presented in this chapter demonstrate that higher education attainment and workforce outcomes in the United States differ by family income, race and ethnicity, sex, and first-generation status. As a whole, these indicators suggest that while higher education continues to function as a mechanism for upward mobility, it does so unevenly across student groups. For example, educational attainment has risen over time across all income groups, and low-income students who do graduate earn more than high school graduates who did not attend college. However, low-income students have slightly lower incomes after earning a bachelor’s degree than graduates from high-income families. Next, we examine higher education opportunity around the world.

INDICATOR 6

HOW DO EDUCATIONAL ATTAINMENT RATES IN THE U.S. COMPARE WITH RATES IN OTHER COUNTRIES?

Key Takeaways

- ✓ **U.S. relative standing in degree attainment has declined over time:** While the United States continues to make progress in increasing its bachelor's degree attainment rate among 25- to 34-year-olds, peer nations have experienced greater growth, and many have surpassed the U.S.
- ✓ **The United States is falling behind other countries in bachelor's degree attainment for first-generation students:** The United States' tertiary attainment rate for the two sets of first-generation students that were examined²⁶ is 22% and 36%, respectively. This is below the OECD average of 42% among 25- to 34-year-olds in 2023.

Introduction

Indicator 6 examines the educational attainment of the United States and compares it with that of other countries. The following research question guides this chapter:

How do educational attainment rates in the U.S. compare with rates in other countries?

This indicator focuses on bachelor's degree attainment rates using the OECD's definitions (a bachelor's degree or above is equivalent to OECD tertiary type A degrees). The following three indicators are tracked:

- **Indicator 6a:** Bachelor's degree attainment (tertiary type A), by country.
- **Indicator 6b:** Bachelor's degree, associate degree, and other short cycle degrees (tertiary type A and B), by country.
- **Indicator 6c:** First-generation students graduating with a tertiary degree, by country.

²⁶ As noted in greater detail in the chapter, the definition of "first-generation" at the international level excludes students earning postsecondary credentials below the bachelor's degree level due to limitations in data definitions.

How Do Educational Attainment Rates in the U.S. Compare With Rates in Other Countries?

Indicator 6a: What percentage of 25- to 34-year-olds have completed a tertiary degree equivalent to a bachelor's degree or above?

Using OECD classifications, Ireland (65%) had the highest bachelor's degree attainment rate among 25- to 34-year-olds. The U.S. ranked 2nd out of 31 OECD countries on this indicator in 2003 (with a 30% attainment rate), but 16th out of 37 OECD countries in 2015 (with a 36% attainment rate), and 19th out of 37 OECD countries in 2024 (with a 42% attainment rate).

The rate of increase in bachelor's degrees for U.S. adults aged 25 to 34 from 2015 to 2024 was 17% (increasing from 36% to 42%). The U.S. ranked 16th out of 37 countries in growth in attainment rates. During this period, the following countries had attainment rates that grew past that of the United States: New Zealand (from 36% to 43%), Sweden (from 36% to 45%), Canada (from 35% to 46%), and Norway (from 34% to 46%).²⁷ This is in addition to the 12 countries reported in the last edition of the Indicators Report, with growth in attainments from 2002 exceeding the United States' rate, which includes Portugal, Estonia, Denmark, Greece, Australia, Japan, Korea, Belgium, Switzerland, the United Kingdom, Luxembourg, the Netherlands, and Ireland. The OECD average rate in 2024 was in line with the United States rate at 43%.²⁸

Although comparisons of differences across the U.S. states are complex, and states are not countries, there is almost as much variation in the U.S. states as among the OECD countries (see Indicator 7g(ii) in the next chapter). In the U.S., the share of adults aged 25 to 34 with at least a bachelor's degree in 2025 ranged from 25% to 26% in Mississippi, West Virginia, and Louisiana to 51% in Massachusetts and New Jersey. Massachusetts and New Jersey had a bachelor's degree attainment rate for 25- to 34-year-olds that matched those of Switzerland (51%) and Korea (51%), the countries ranked 6th and 7th, respectively, below Ireland (65%) in 2024.

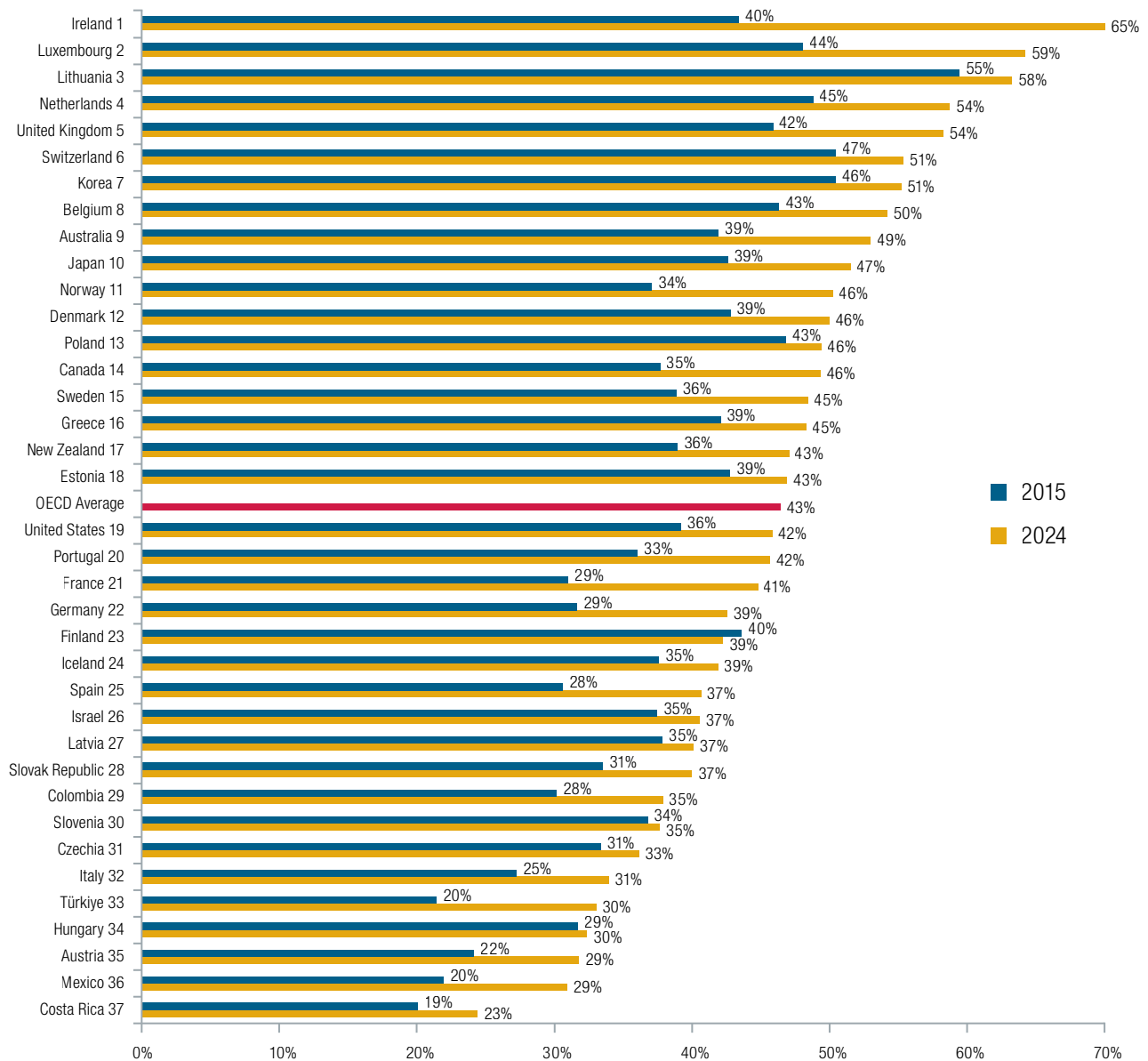
Indicator 6a Status: Many countries are outpacing the United States in the growth of bachelor's degree attainment.

Between 2015 and 2024, the percentage of U.S. adults aged 25 to 34 with a bachelor's degree grew by 17%. The U.S. ranked 16th out of 37 countries in growth in attainment rates. During this period, New Zealand, Sweden, Canada, and Norway had attainment rates that surpassed those in the United States.

²⁷ Statistical tests were conducted to validate these findings; however, standard errors were not available for Canada (all years) or New Zealand in 2014 or 2015.

²⁸ See Menzies and Torgerson (2019) for a systematic international review of widening participation efforts among countries.

Figure 6.1: Percentage of adults aged 25 to 34 with a type A (equivalent of bachelor's degree or above) tertiary degree, by country: 2015 and 2024 (Indicator 6a)



NOTES: 2024 data were missing for Japan, the United States, Iceland, Colombia, and Slovenia. For these countries, data were imputed using 2023 data. Caution is needed when making international comparisons, given differences in educational degree classifications across countries and reporting differences over time.

SOURCE: *Education at a Glance*, Adults' educational attainment distribution, by age group and gender (Table A1.3) (OECD, 2016, 2023, 2024, 2025a, 2025b). Estimates generated using the OECD Data Explorer (OECD, 2025c).

Indicator 6b: What percentage of 25- to 34-year-olds have completed a type A (bachelor's or above) or a type B (short-cycle or associate) tertiary degree?

In 2024, 52% of adults aged 25 to 34 in the U.S. had attained the equivalent of a 2-year (type B) or 4-year (type A) or higher tertiary degree.²⁹ The U.S. ranked 13th out of the 37 OECD countries on this indicator in 2024, down from 8th out of 35 countries in 2003 and 10th in 2015. The OECD average rate in the attainment of type A or type B among adults aged 25 to 34 across all OECD countries rose from 30% in 2003 to 48% in 2024, a 61% increase (no average was reported in 2015). The percentage of the 25- to 34-year-old population who had attained a type A or type B tertiary degree ranged from 29% in Mexico to 71% in Korea.

By 2024, at least half of the 25- to 34- year-old population had attained a type A or type B tertiary degree in 13 countries: United States (52%), Spain (53%), France (53%), Netherlands (56%), Sweden (56%), Australia (57%), Lithuania (58%), Norway (59%), United Kingdom (60%), Luxembourg (65%), Ireland (66%), Canada (69%), and Korea (71%).³⁰

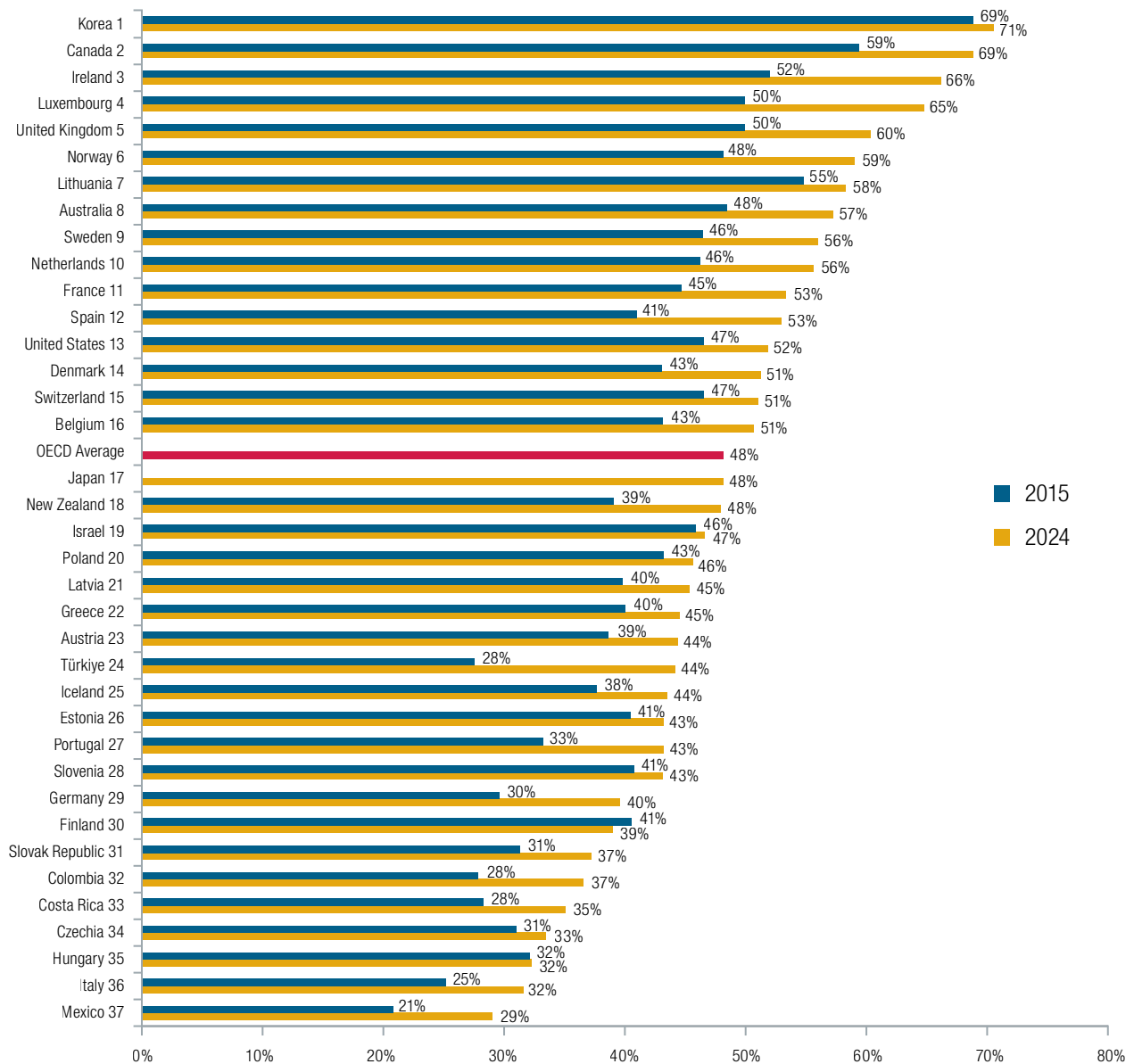
Indicator 6b Status: Many countries are outpacing the United States in the growth of postsecondary (tertiary) credentials.

The U.S. ranked 13th out of the 37 OECD countries on this indicator in 2024, down from 8th out of 35 countries in 2003 and 10th in 2015.

²⁹ Due to missing data, 2023 data was imputed for 2024 for the United States. See the technical appendix for more details.

³⁰ Denmark, Switzerland, and Belgium all had point estimates above 50%, but these were not statistically significant differences.

Figure 6.2: Percentage of adults aged 25 to 34 with a type A (bachelor's or above) or type B (short-cycle or associate) tertiary degree, by country: 2015 and 2024 (Indicator 6b)



NOTES: For some countries, including Japan, the United States, Iceland, Colombia, and Slovenia, 2024 data were missing. For these countries, the 2024 values are based on the most recent available data (i.e., 2023). Caution is needed when making international comparisons, given differences in educational degree classifications across countries and reporting differences over time.

SOURCE: *Education at a Glance*, Adults' educational attainment distribution, by age group and gender (Table A1.3) (OECD, 2016, 2023, 2024, 2025a, 2025b). Estimates generated using the OECD Data Explorer (OECD, 2025c).

Indicator 6c: What percentage of 25- to 34-year-olds are first-generation students (both parents without a tertiary education)?

As countries' educational attainment has increased over time, the percentage of parents with a college education has also increased. Considering just those who are ages 25 to 34, the percentage of those whose parents have a tertiary education³¹ ranged widely across OECD countries. For the purposes of this section, parents with an education below the upper secondary level (first-generation BUS) or parents who attained a credential at the upper secondary or postsecondary non-tertiary levels (first-generation USP) are first-generation students. In contrast, those completing a tertiary education are not first-generation students.

In 2023, some 26% of first-generation BUS and 44% of first-generation USP 25- to 34-year-old students attained a tertiary degree (OECD, 2024). This compares with 70% of non-first-generation students who attained a tertiary degree.

As shown in Figure 6.3 (Indicator 6c), similar patterns can be seen across most countries. The countries with the lowest percentages of first-generation USP students below the OECD average of 44% were Czechia (30%), Slovak Republic (31%), Germany (32%), Poland (32%), and Hungary (34%), with corresponding values below the OECD average of 26% for first-generation BUS students (3% for the Slovak Republic, 11% for Poland and 6% for Hungary).³²

The countries with the highest attainment for first-generation BUS students above the OECD average of 44% include Korea (78%), Ireland (59%), Spain (56%), and France (55%). The United States tertiary attainment rate for both sets of first-generation students (36% for USP and 22% for BUS) lags far behind the top-performing countries, despite having a 42% attainment rate for the overall 25- to 34-year-old population that is near the average (as shown in Figure 6.3).³³

Indicator 6c Status: Other countries have surpassed the United States in bachelor's degree attainment for first-generation students.

The United States tertiary attainment rate for both sets of first-generation students (36% for USP and 22% for BUS) lags far behind those of the top-performing countries, despite a 42% attainment rate for the overall 25- to 34-year-old population that is near the average.

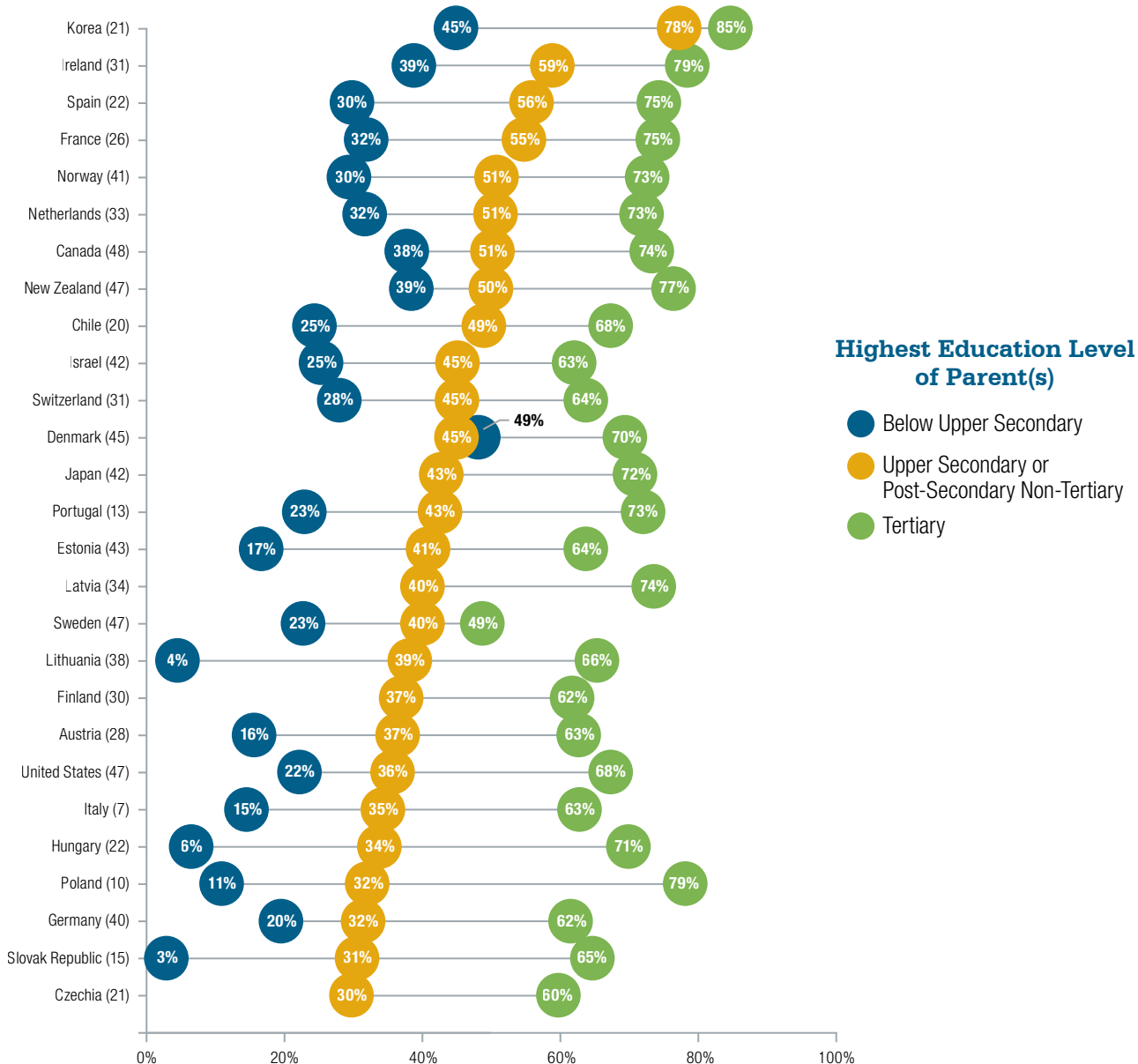
31 Due to data limitations at the international level, this definition of “first-generation” excludes students earning postsecondary credentials below the bachelor's degree level. Tertiary degree (without type A or type B breakouts) reflect shorter-term postsecondary degrees such as the U. S. associate degree.

32 Only statistically significant differences area reported.

33 The 42% rate differs from the rate reported in Indicator 6a because Indicator 6c uses data from 2023 and 6a uses data from 2024.

Figure 6.3: Percentage of 25- to 34-year-olds who earned a tertiary degree, by parents' highest educational attainment level and country: 2023 (Indicator 6c)

Country (Attain %)



NOTES: First-generation status for this Indicator is defined as at least one parent attained upper secondary or post-secondary but no tertiary education (education after high school), while for the other Indicators in this report, first-generation is defined as at least one parent having attained a bachelor's degree.

SOURCE: *Education at a Glance*, Intergenerational mobility in educational attainment, Table A1.4 (OECD, 2024).

Conclusion

While the United States continues to make steady gains in college attainment, its international peers in the OECD have expanded access and increased credential completion more rapidly among the younger population of 25- to 34-year-olds. While more than half (52%) of all 25- to 34-year-olds in the U.S. have attained a tertiary degree, our rank has decreased to close to the OECD average on most measures of educational attainment. Notwithstanding cultural differences among countries, efforts should be taken to understand the success of high-performing countries, and policies should be established to strengthen pathways to completion, especially for first-generation students. These efforts will improve both national competitiveness and equity, especially in the international job market.

INDICATOR 7

ARE THERE DIFFERENCES IN HIGHER EDUCATION ACCESS, ATTAINMENT, AND COST BY STATE?

Key Takeaways

- ✓ **College participation rates for low-income students vary widely, with inconsistent opportunity across states:** Participation rates for low-income students range between 7% and 40%. The highest rates are generally in the Northeast.
- ✓ **Higher education costs also vary widely by state:** College costs are notably highest in the Northeast and lowest in Florida and the Mountain/Plains region; meanwhile, state need-based aid ranges from no support in some states to exceeding Pell funding in others.
- ✓ **Higher education completion rates have also diverged by state:** As the national attainment rates have increased, disparities between states have also increased. Rates were comparable across states in 1940, but by 2024, there was great variation, ranging from 25% to 70%.

Introduction

Indicator 7 examines the following research question:

Are there differences in higher education access, attainment, and cost by state?

This indicator examines many of the research questions covered in this report, but at the state level. Eight indicators are presented:

- **Indicator 7a(ii):** Estimated college participation rates for low-income students.
- **Indicator 7b(i):** Postsecondary enrollment of 18- to 24-year-olds.
- **Indicator 7d(i):** Average costs charged by 4-year public colleges and universities.
- **Indicator 7d(ii):** Average costs charged by 4-year non-profit and for-profit private colleges and universities.
- **Indicator 7d(iii):** Average costs charged by 2-year institutions.
- **Indicator 7e:** State need-based grant recipients as a percentage of pell grant recipients.
- **Indicator 7g(ii):** Percentage of the population 25 and older with a bachelor's degree or higher.
- **Indicator 7g(iii):** Percentage of full-time, first-time, bachelor's degree-seeking students earning any formal award.

Are there Differences in Higher Education Access, Attainment, and Cost by State?

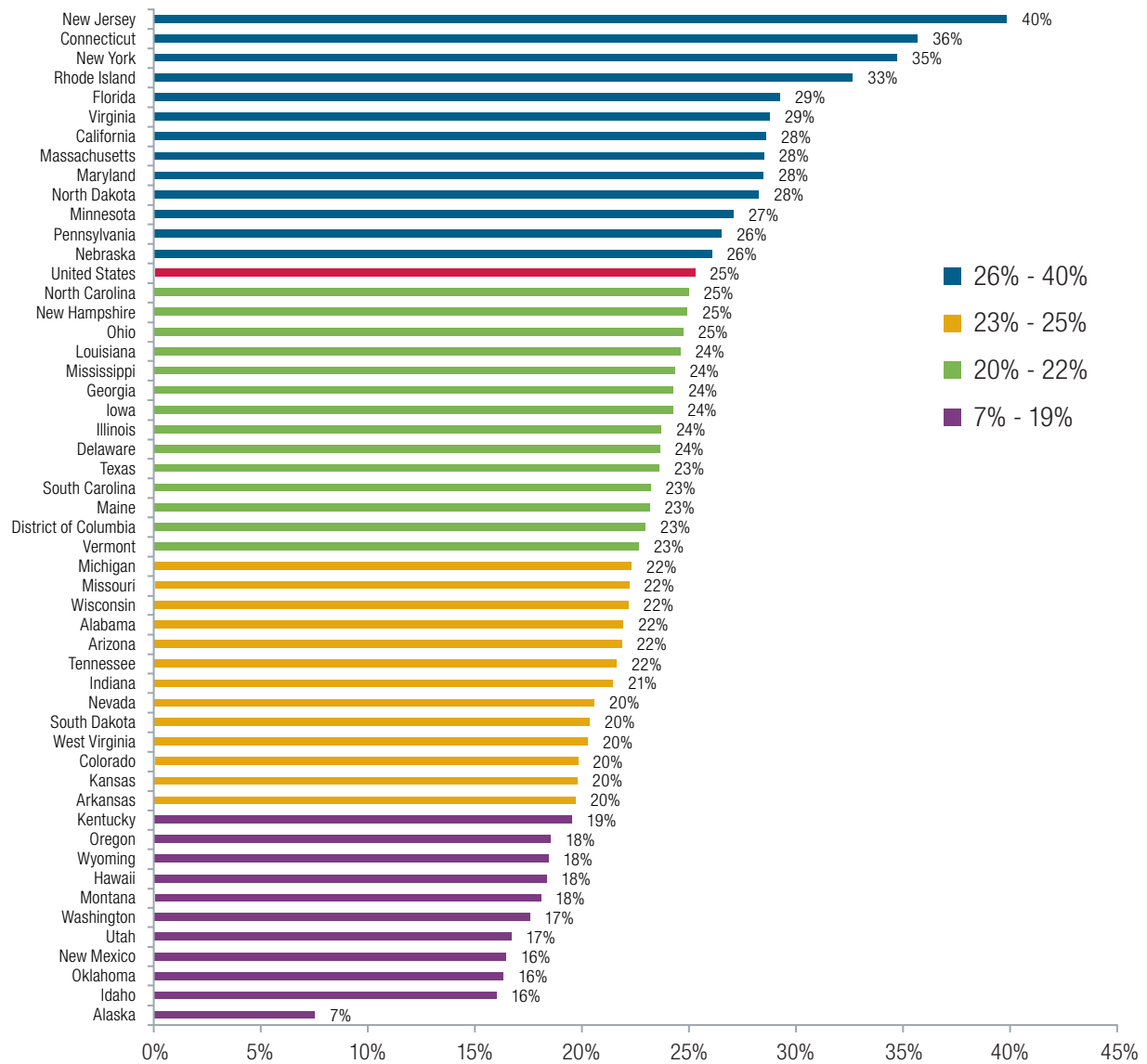
Indicator 7a(i): What are the estimated college participation rates of low-income students by state?

Using the percentages of students eligible for free and/or reduced-priced school lunch and of college students who receive Pell Grants, we can estimate the percentage of college students from low-income families by state. In 2022-23, an estimated 25% of students were from low-income families. States with the lowest participation rates (AK, ID, NM, OK, UT, and WY) are noted to have industries where higher-paying jobs may be available without a college degree (Schanzenbach et al., 2024). States in the Northeast tend to have higher low-income college participation rates. The rates ranged from 7% in Alaska, 16% in Idaho, Oklahoma, and New Mexico, to 36% in Connecticut and 40% in New Jersey.

Indicator 7a Status: College participation rates for low-income students vary widely across states, with inconsistent opportunity across states.

College participation rates vary by state and region, with higher rates in the Northeast than in other parts of the U.S. The rates ranged from 7% in Alaska, 16% in Idaho, Oklahoma, and New Mexico, to 36% in Connecticut and 40% in New Jersey.

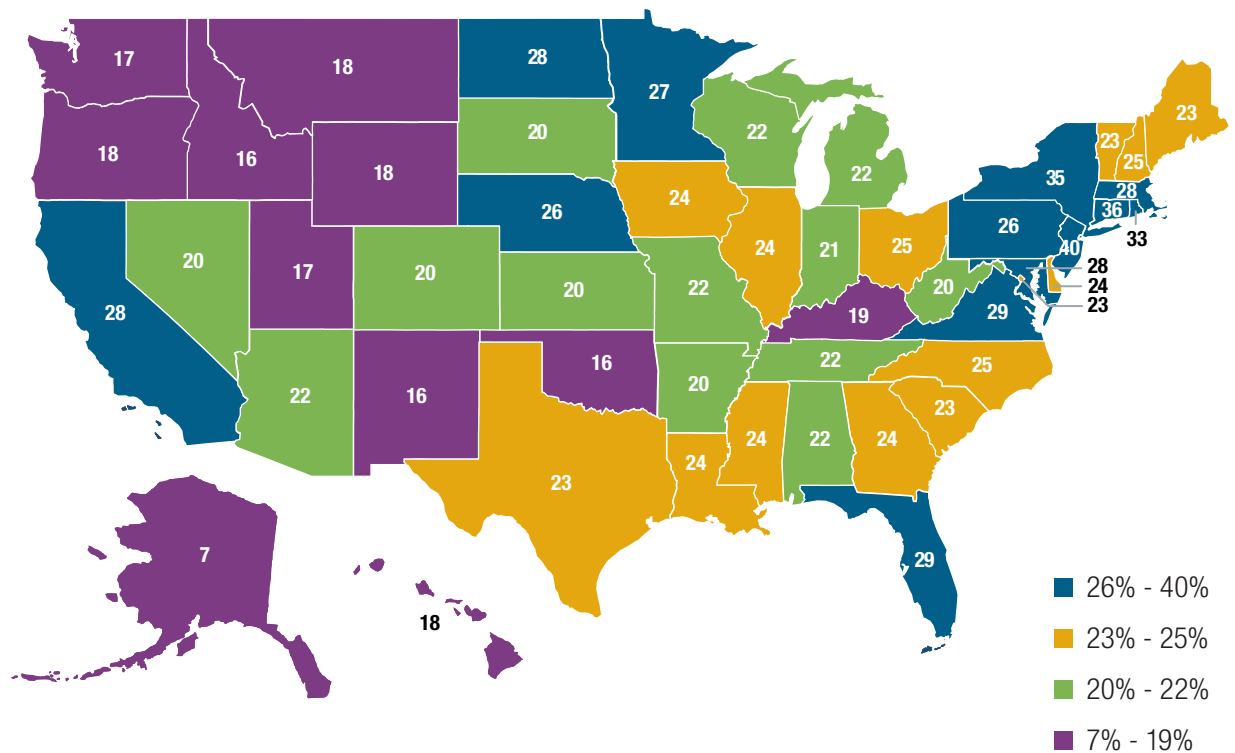
Figure 7.1: Estimated college participation rates for students from low-income families by state: 2023 (Indicator 7a(i))



NOTES: Caution is needed in reviewing these data due to differential use of Free and Reduced-Price Lunch and migrations in and out of states among Pell Grant recipients. Participation rates for low-income students are estimates based on: 1) public school enrollment; 2) the number and percentage of 4th to 9th graders who were approved for Free or Reduced-Price Lunch 9 years earlier, and 3) the number of dependent Pell Grant recipients from each state in a given year.

SOURCE: College Participation Rates for Students from Low-income Families by State: 1993 to 2023 (Mortenson & Brunt, 2025).

Figure 7.2: Estimated college participation rates for students from low-income families by state heat map: 2023 (Indicator 7a(i))



NOTES: Caution is needed in reviewing these data due to differential use of Free and Reduced-Price Lunch and migrations in and out of states among Pell Grant recipients. Participation rates for low-income students are estimates based on: 1) public school enrollment; 2) the number and percentage of 4th to 9th graders who were approved for Free or Reduced-Price Lunch 9 years earlier, and 3) the number of dependent Pell Grant recipients from each state in a given year.

SOURCE: College Participation Rates for Students from Low-income Families by State: 1993 to 2023 (Mortenson & Brunt, 2025).

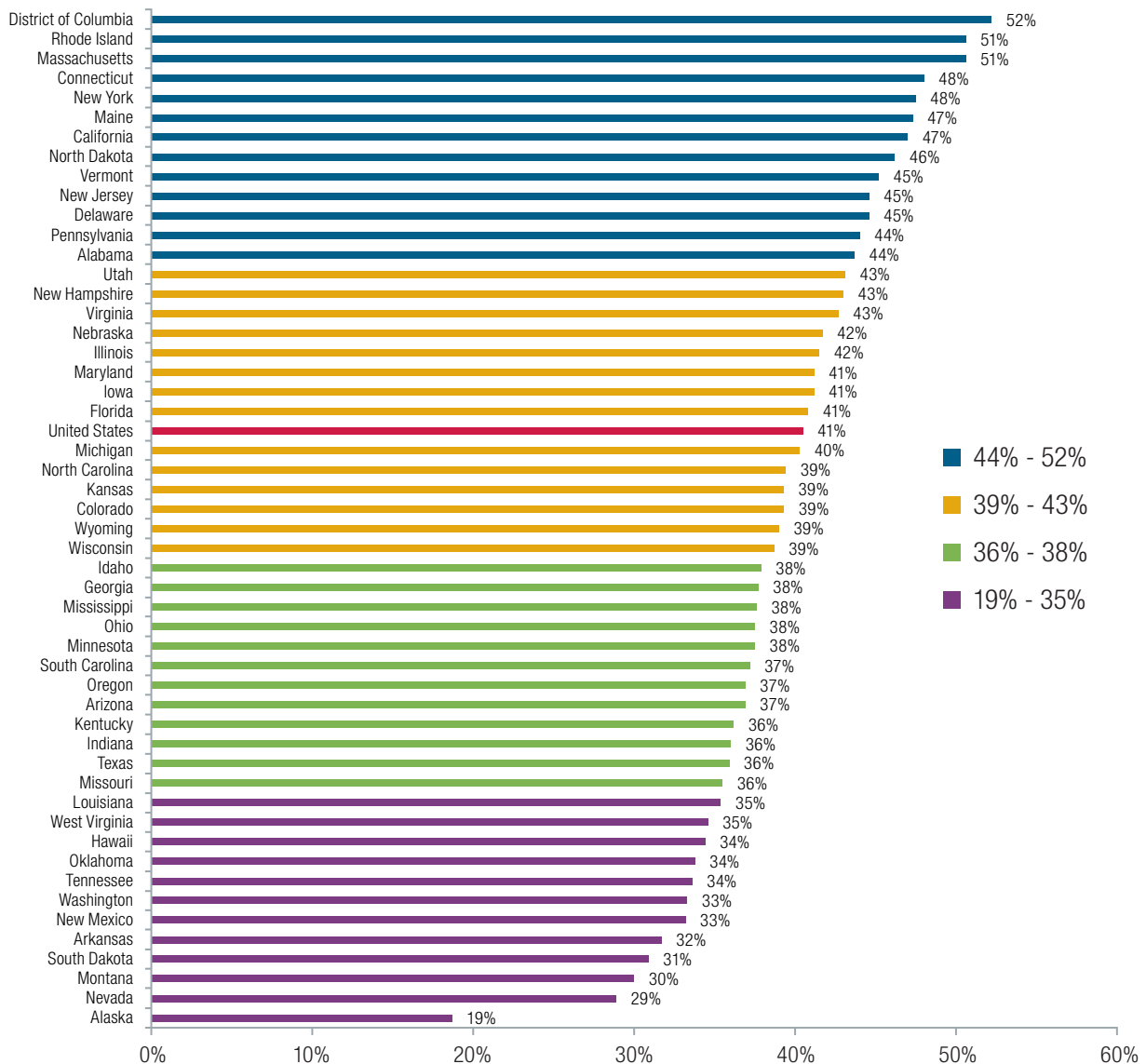
Indicator 7b(i): What are the enrollment rates of 18- to 24-year-olds by state?

Indicator 7b(i) (Figure 7.3 and Figure 7.4) measures college participation for the population as a whole rather than the estimates for low-income students in the previous figure. Similar to participation rates among low-income families, the percentage of young adults ages 18 to 24 who enroll in college varies greatly across the United States. While some states have half of their population enrolled in college, others have less than a third enrolled. In 2024, 19% of 18-to-24-year-olds in Alaska had enrolled in college, 29% in Nevada, and 30% in Montana, compared to 51% in Massachusetts and Rhode Island, and 52% in the District of Columbia.

Indicator 7b Status: College participation rates for 18- to 24-year-olds vary widely across states, with inconsistent opportunity across states.

In 2024, postsecondary enrollment rates of 18- to 24-year-olds ranged from 19% in Alaska to 52% in the District of Columbia.

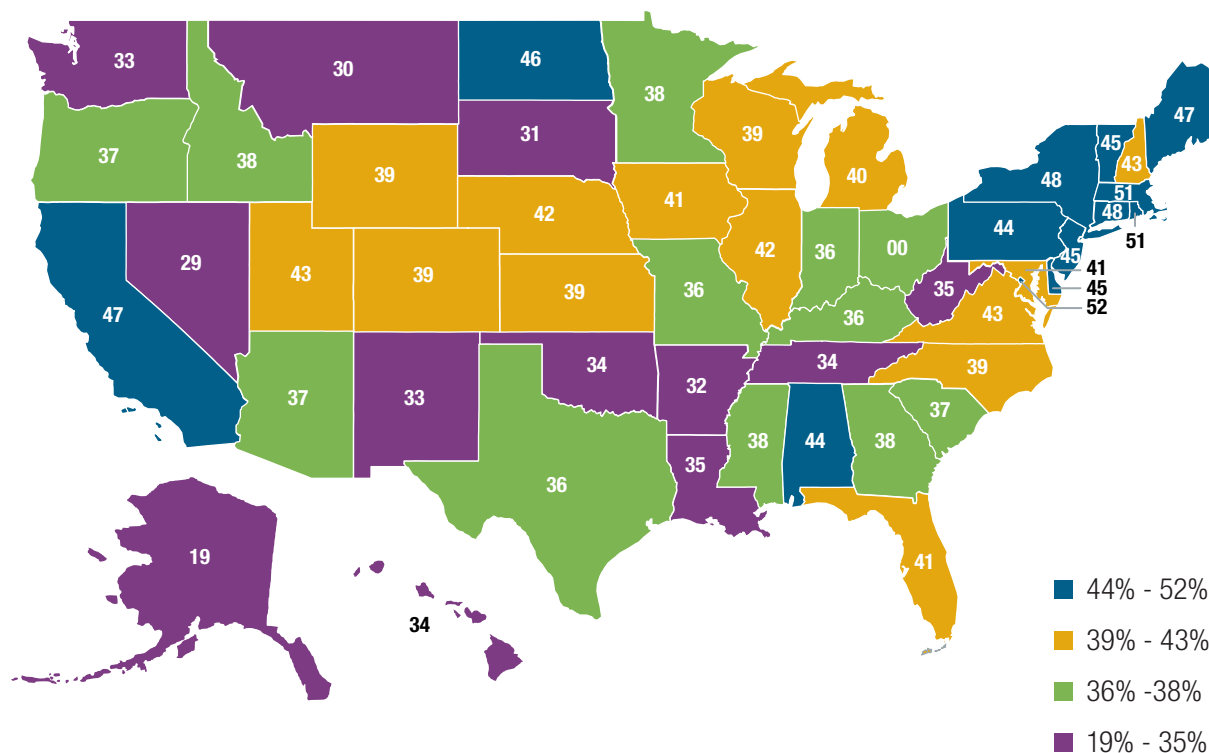
Figure 7.3: Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2024 (Indicator 7b(i))



NOTES: Data are based on sample surveys of the population 18- to 24-year-olds residing within the United States, including both noninstitutionalized persons (e.g., those living in households, college housing, or military housing located within the United States) and institutionalized persons (e.g., those living in prisons, nursing facilities, or other healthcare facilities).

SOURCE: American Community Survey (ACS), Table S1401 (U.S. Census Bureau, 2024a). Analysis by author.

Figure 7.4: Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state heat map: 2024 (Indicator 7b(i))



NOTES: Data are based on sample surveys of the population 18- to 24-year-olds residing within the United States, including both noninstitutionalized persons (e.g., those living in households, college housing, or military housing located within the United States) and institutionalized persons (e.g., those living in prisons, nursing facilities, or other healthcare facilities).

SOURCE: American Community Survey (ACS), Table S1401 (U.S. Census Bureau, 2024a). Analysis by author.

Indicator 7d: What are the average college costs by state?

States differ in the organization and structure of their higher education systems, particularly in the availability of public and private 2-year and 4-year institutions, the degree of state support for higher education, and the amount and characteristics of student financial aid. Indicators 7d(i) to 7d(iii) show the 2024-25 average college costs at 4-year public, 4-year private, and 2-year public institutions for full-time undergraduates, weighted by enrollment, by state, as reported in the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b).

Indicator 7d(i) shows that average in-state tuition and fees and room and board costs for full-time, in-state residents at 4-year public institutions in 2024-25 ranged from less than \$18,000 in Florida and Utah to more than \$33,000 in New Jersey.³⁴

Indicator 7d(ii) shows that at 4-year private (including non-profit and for-profit) institutions, average costs (tuition, fees, and room and board) for full-time students varied from \$13,000 in Idaho and \$21,000 in Utah to more than

³⁴ The rate from the District of Columbia does not include room and board because the only public 4-year university does not have residence halls.

\$70,000 in Rhode Island, New Mexico, and Vermont, and more than \$75,000 in Massachusetts. Iowa, Georgia, Maine, and Ohio were near the average for private colleges. The average for private colleges in the United States was \$51,400 in 2024-25.³⁵

For 2-year public institutions, Indicator 7d(iii) shows that the average tuition and fees (excluding room and board) for full-time, in-state residents ranged from \$1,300 in California and \$2,100 in New Mexico to \$7,400 in South Dakota.³⁶

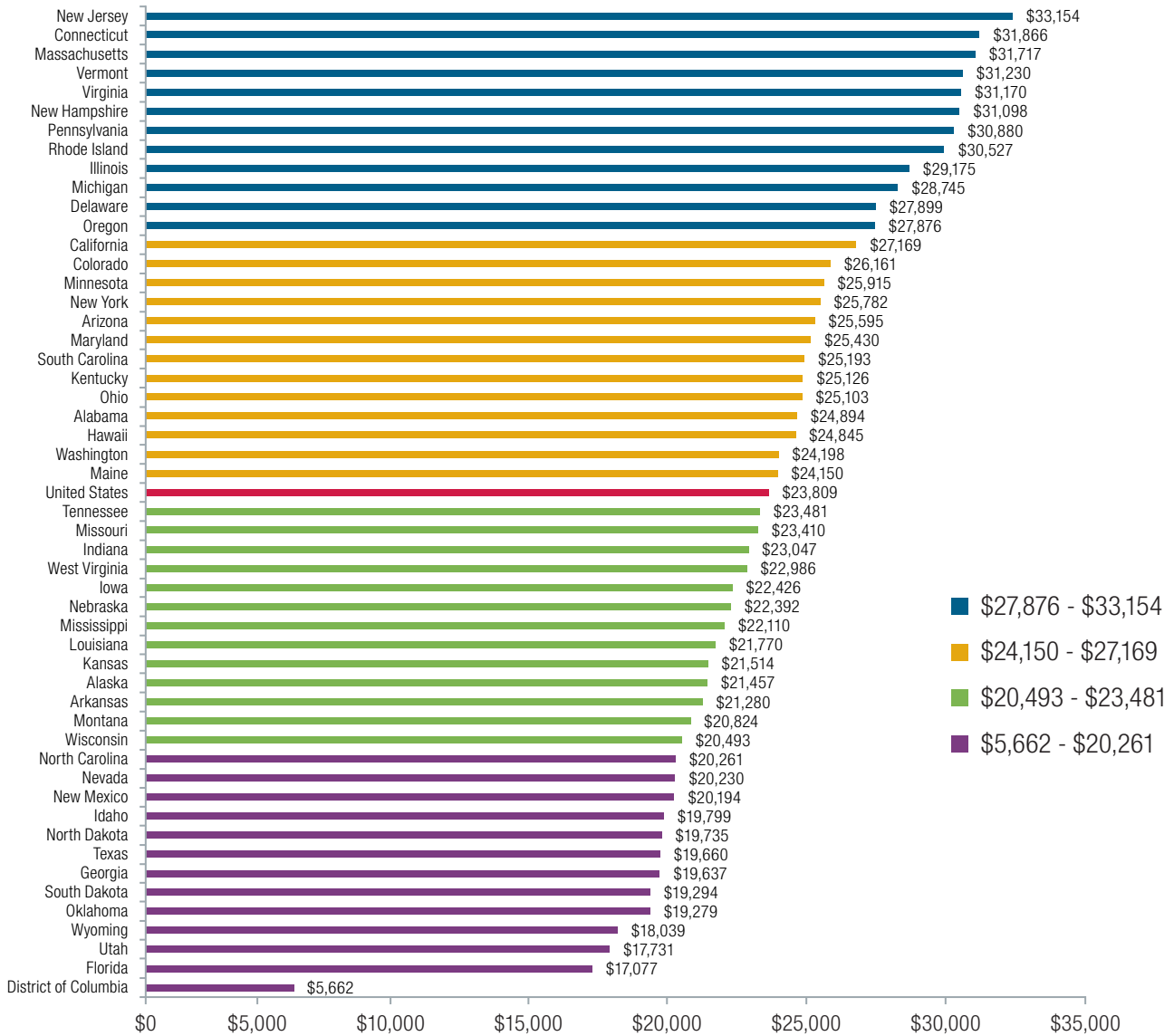
Indicator 7d Status: The average sticker price of college varies by region, with the highest costs in the northeastern states and the lowest in Florida and the mountain/great plains regions.

The states with the highest overall tuition are in the Northeast and include New Jersey (\$33,000 public / \$59,000 private), Connecticut (\$32,000 public / \$67,000 private), and Massachusetts (\$32,000 public / \$78,000 private). The lowest cost states are Florida (\$17,000 public / \$49,000 private), Wyoming (\$18,000 public), Utah (\$18,000 public / \$21,000 private), and Oklahoma (\$19,000 public / \$44,000 private).

³⁵ Note that Wyoming does not have any 4-year private schools.

³⁶ Note that Alaska, Delaware, Washington, D.C., Florida, Nevada, and Washington State do not have public 2-year institutions.

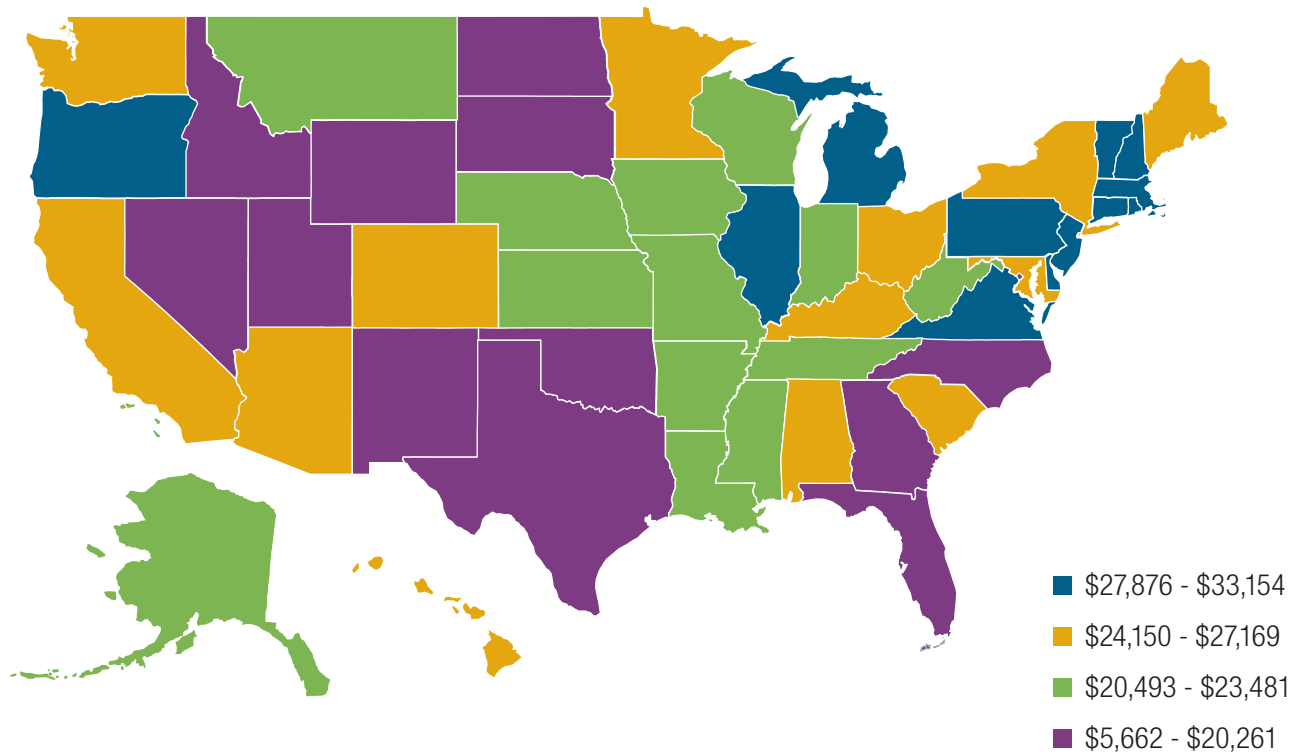
Figure 7.5: Average costs (undergraduate tuition, fees, and room and board) charged by 4-year public colleges and universities for full-time in-state students by state: 2024-25 (Indicator 7d(i))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

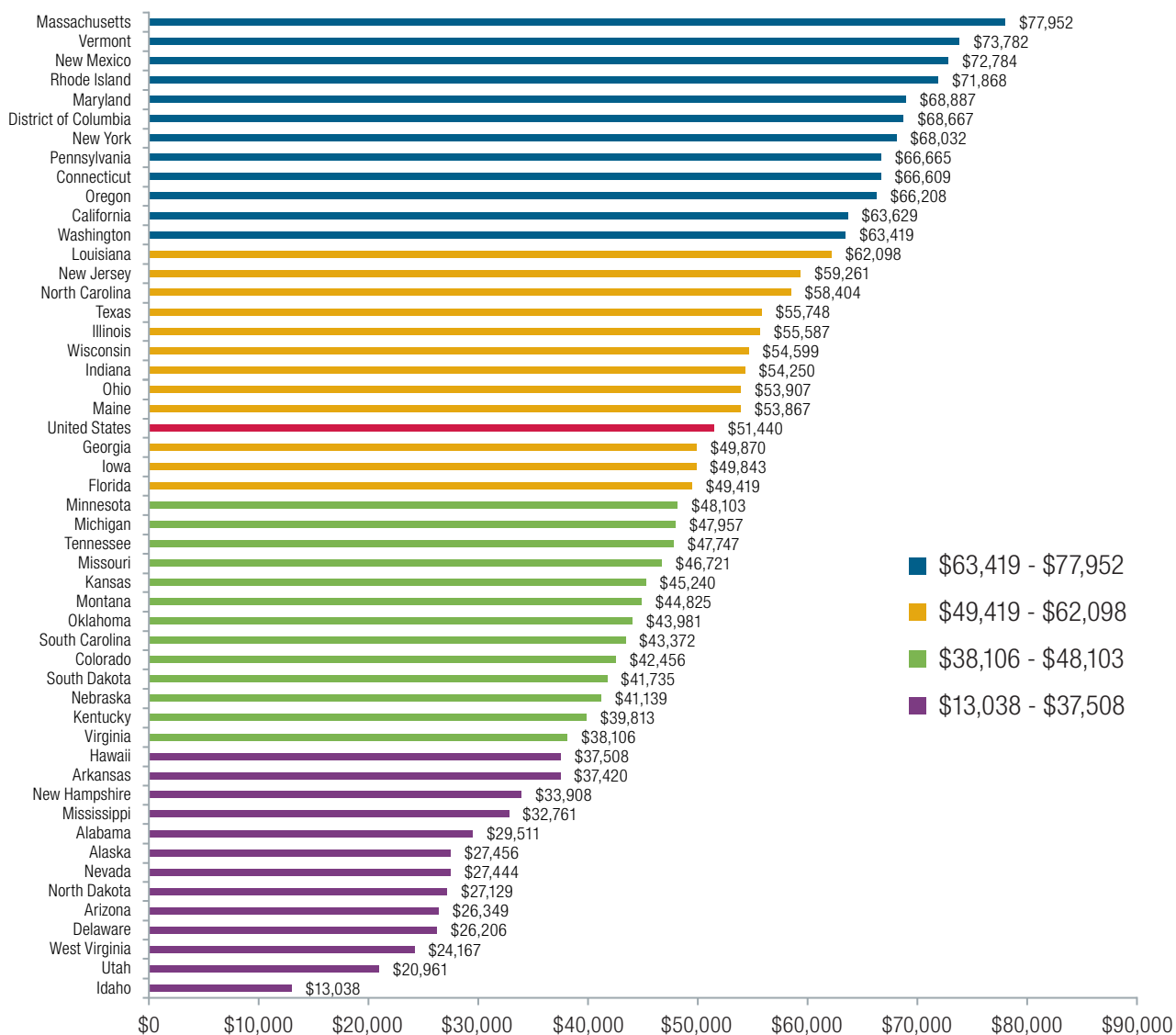
Figure 7.6: Average costs (undergraduate tuition, fees, and room and board) charged by 4-year public colleges and universities for full-time in-state students by state heat map: 2024-25 (Indicator 7d(i))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

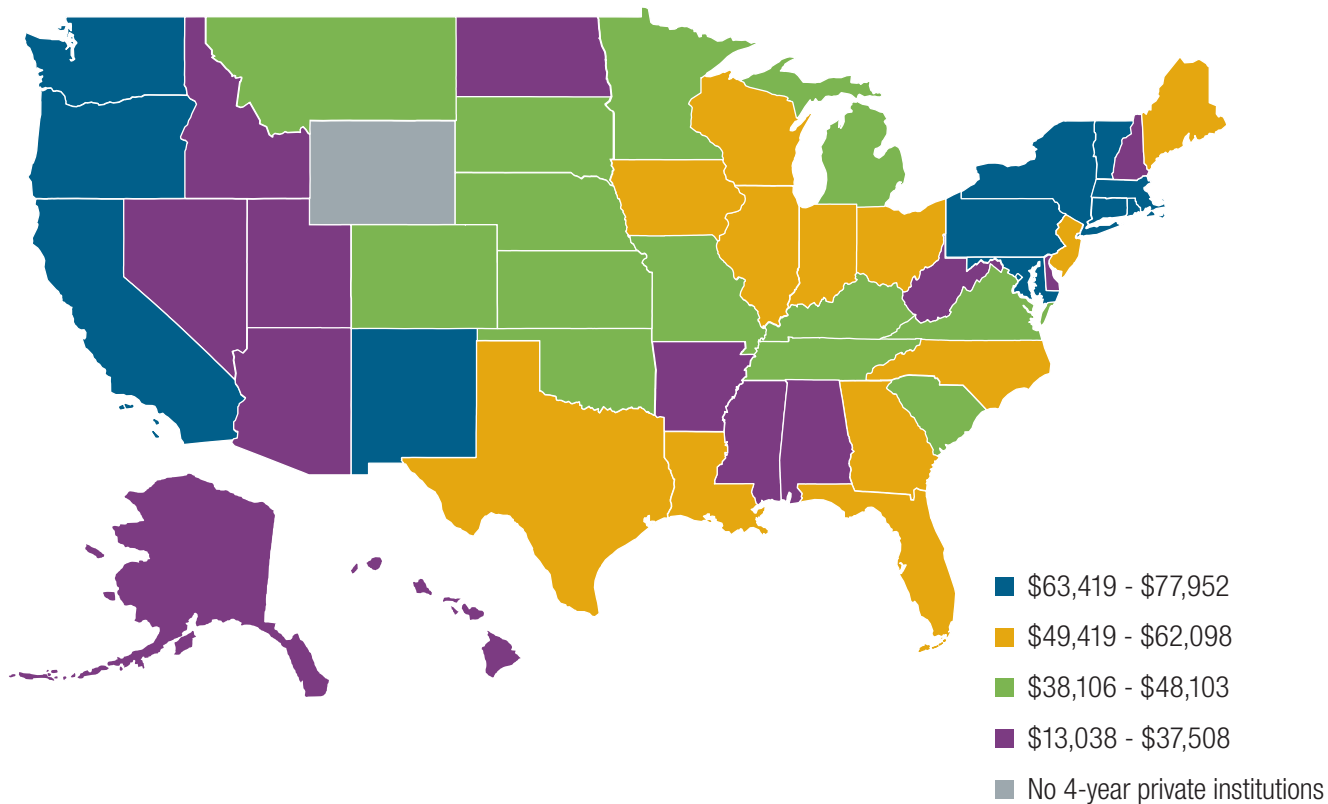
Figure 7.7: Average costs (undergraduate tuition, fees, and room and board) charged by 4-year private (non-profit and for-profit) colleges and universities for full-time students by state: 2024-25 (Indicator 7d(ii))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

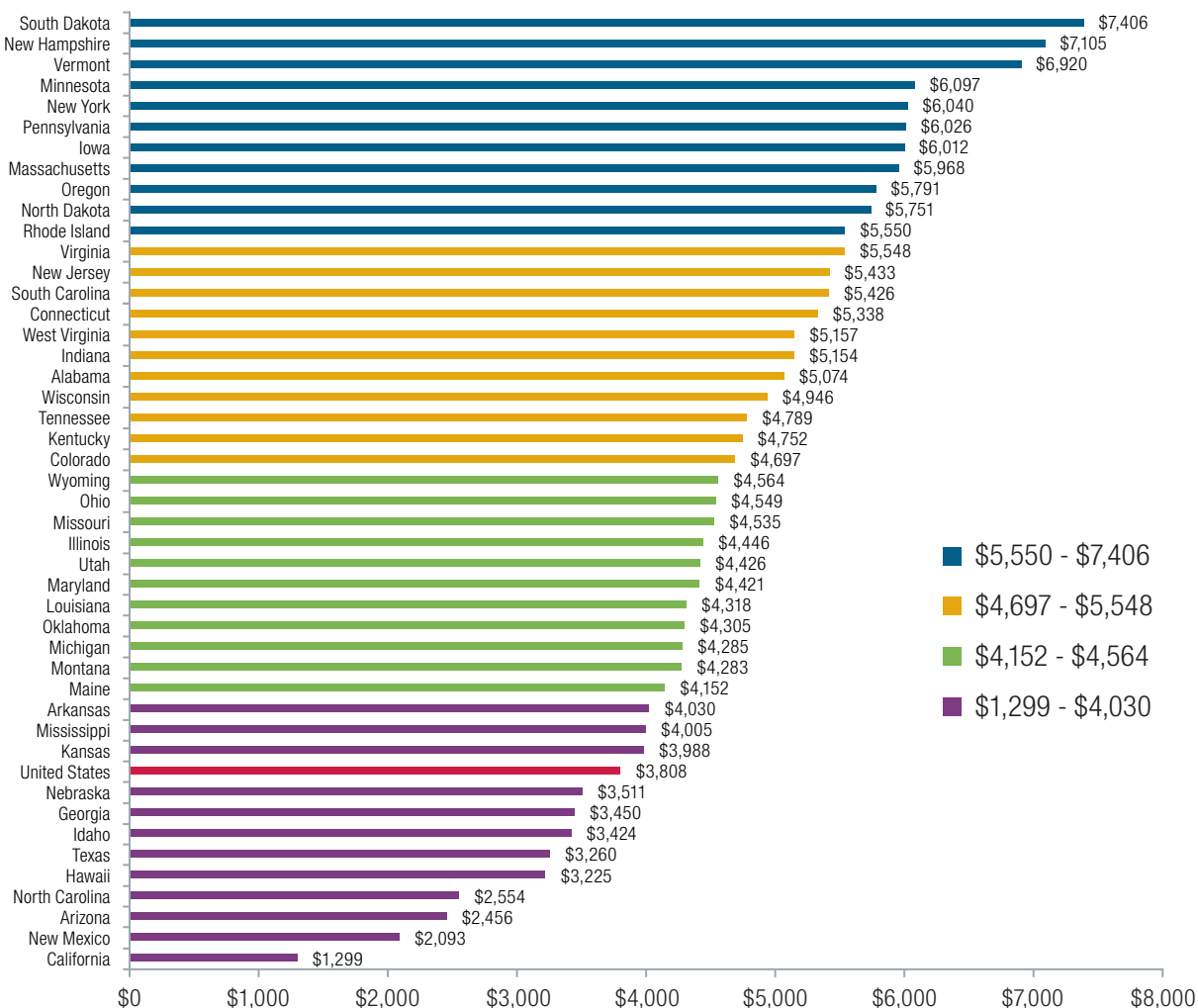
Figure 7.8: Average costs (undergraduate tuition, fees, and room and board) charged by 4-year private (non-profit and for-profit) colleges and universities for full-time students by state heat map: 2024-25 (Indicator 7d(ii))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

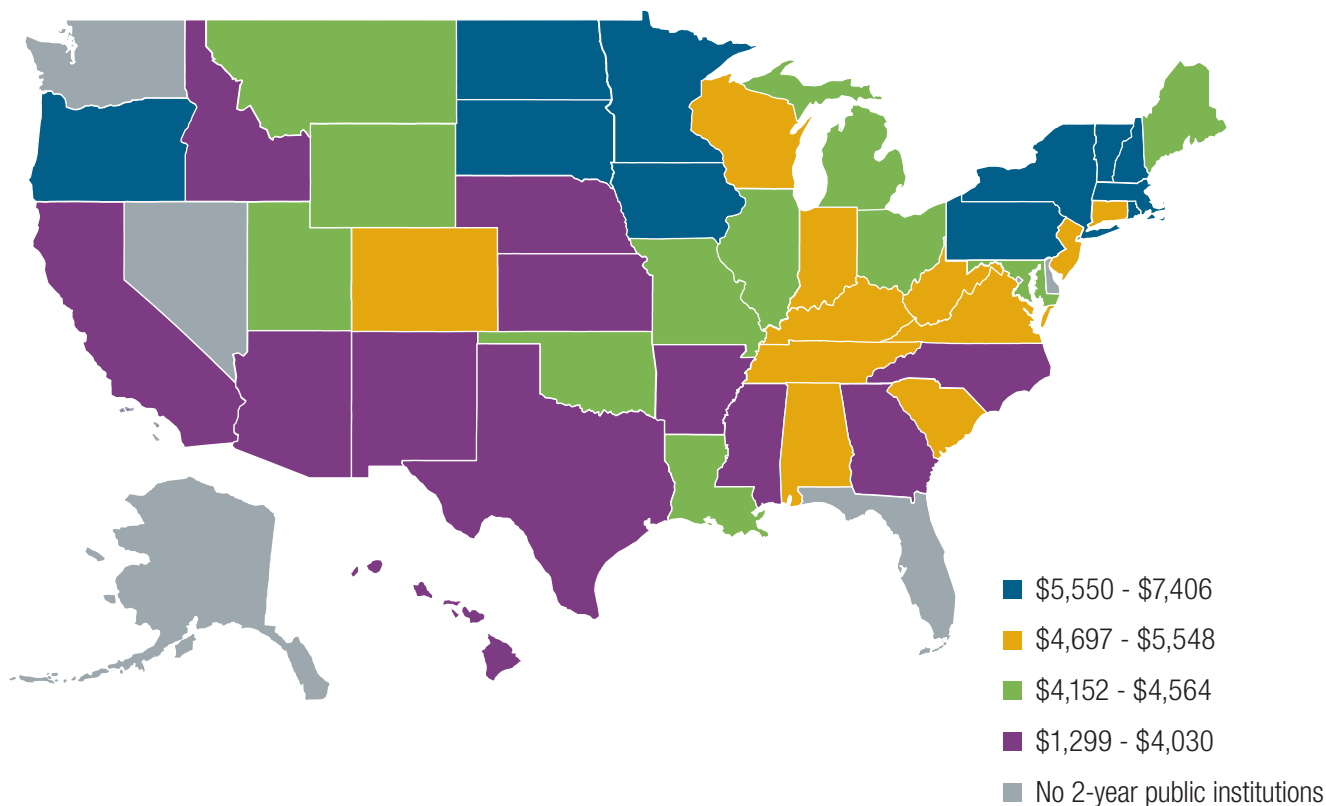
Figure 7.9: Average costs (undergraduate tuition, fees, not including room and board costs) charged by public 2-year institutions for full-time in-state students by state: 2024-25 (Indicator 7d(iii))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency. Alaska, Delaware, Washington, D.C., Florida, Nevada, and Washington State do not have public 2-year institutions.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

Figure 7.10: Average costs (undergraduate tuition, fees, not including room and board costs) charged by public 2-year institutions for full-time in-state students by state heat map: 2024-25 (Indicator 7d(iii))



NOTES: College costs are reported annually by institutions to the U.S. Department of Education through IPEDS and include tuition, fees, and room and board. Data are for the entire academic year and are average charges for full-time students. Tuition and fees are weighted by the number of full-time-equivalent undergraduates but not adjusted to reflect student residency. Alaska, Delaware, Washington, D.C., Florida, Nevada, and Washington State do not have public 2-year institutions.

SOURCE: Integrated Postsecondary Education Data System (National Center for Education Statistics, 2025b), modeled after the Digest of Education Statistics 2023 Table 330.20 (National Center for Education Statistics, 2023g). Analysis by author.

Indicator 7e: How much is state need-based aid relative to Pell Grant aid?

Award numbers. In FY2023, over 6 million undergraduate students received Federal Pell Grants, and 2.2 million undergraduates received state need-based grants (Indicator 7e). Although the number of Pell Grant recipients has declined since a peak of 9.4 million in 2012 during the Great Recession, the number of Pell Grant recipients was 259% higher in 2023 than in 1979, while the number of state need-based grant aid recipients was 79% higher.

Federal and state need-based aid. In FY2023, \$27.2 billion in Federal Pell Grants was awarded, and about \$10.6 billion in state-sponsored need-based grants was awarded nationwide. Combining federal and state need-based aid, such assistance totaled \$37.8 billion in FY2023. To put this amount in perspective, in FY2018, the federal military spending budget was \$875 billion, and by FY2024, it had increased to \$1.024 trillion in 2025 dollars (Stockholm International Peace Research Institute (SIPRI), 2025).

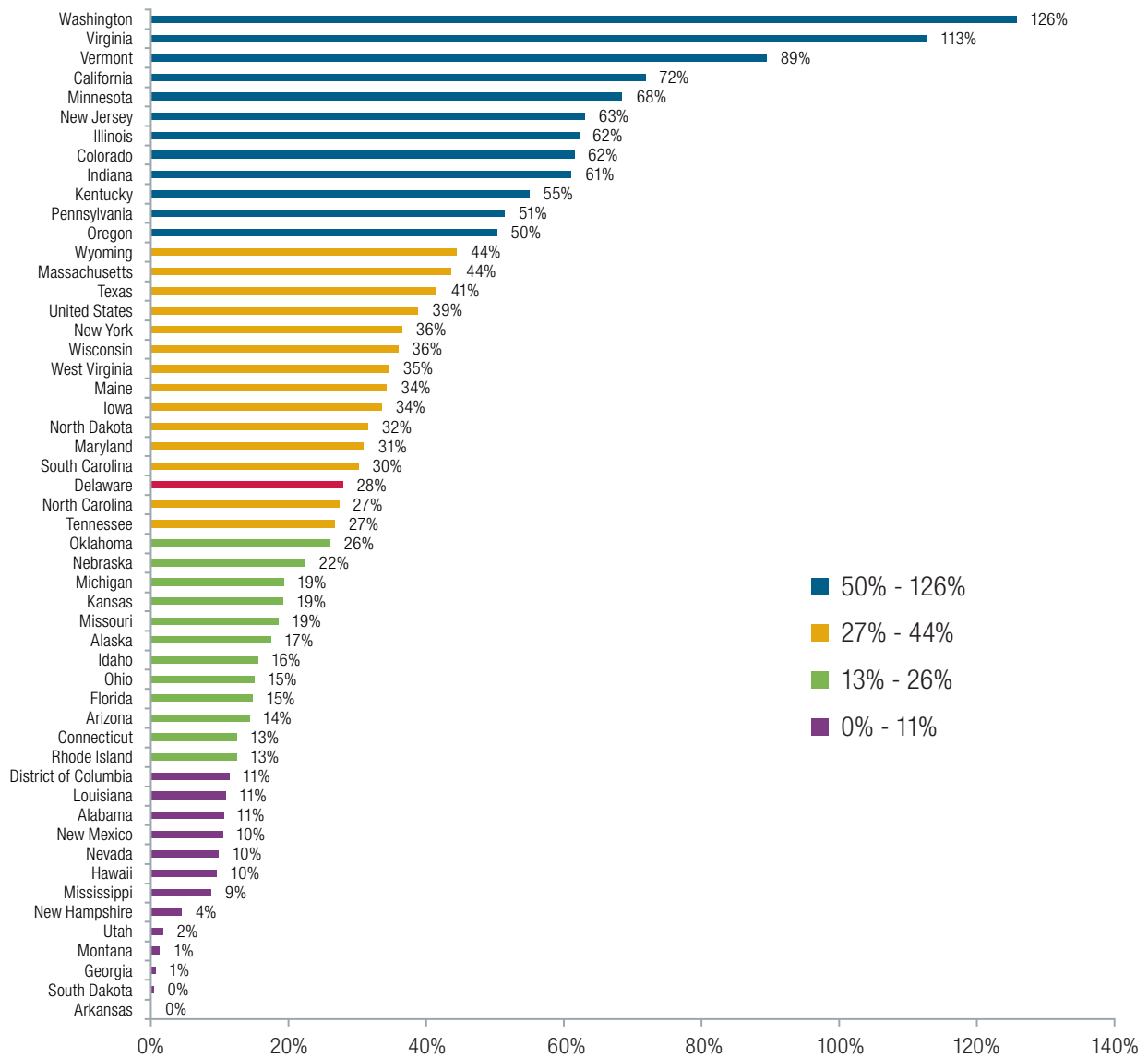
State differences. Figure 7.11 and Figure 7.12 (Indicator 7e) shows the number of state need-based grant total amounts awarded in each state as a percentage of the total Pell Grant amounts in the state in the same year (2023).

As we do not have student-level data, we do not know to what extent these figures represent the same individuals. The total of state need-based grants relative to the total Pell Grant amounts in 2023 ranged from less than 1% in Arkansas and South Dakota to over 100% in Virginia and Washington.

Indicator 7e Status: There is large variation in the state need-based grant aid compared with Pell Grant aid by state.

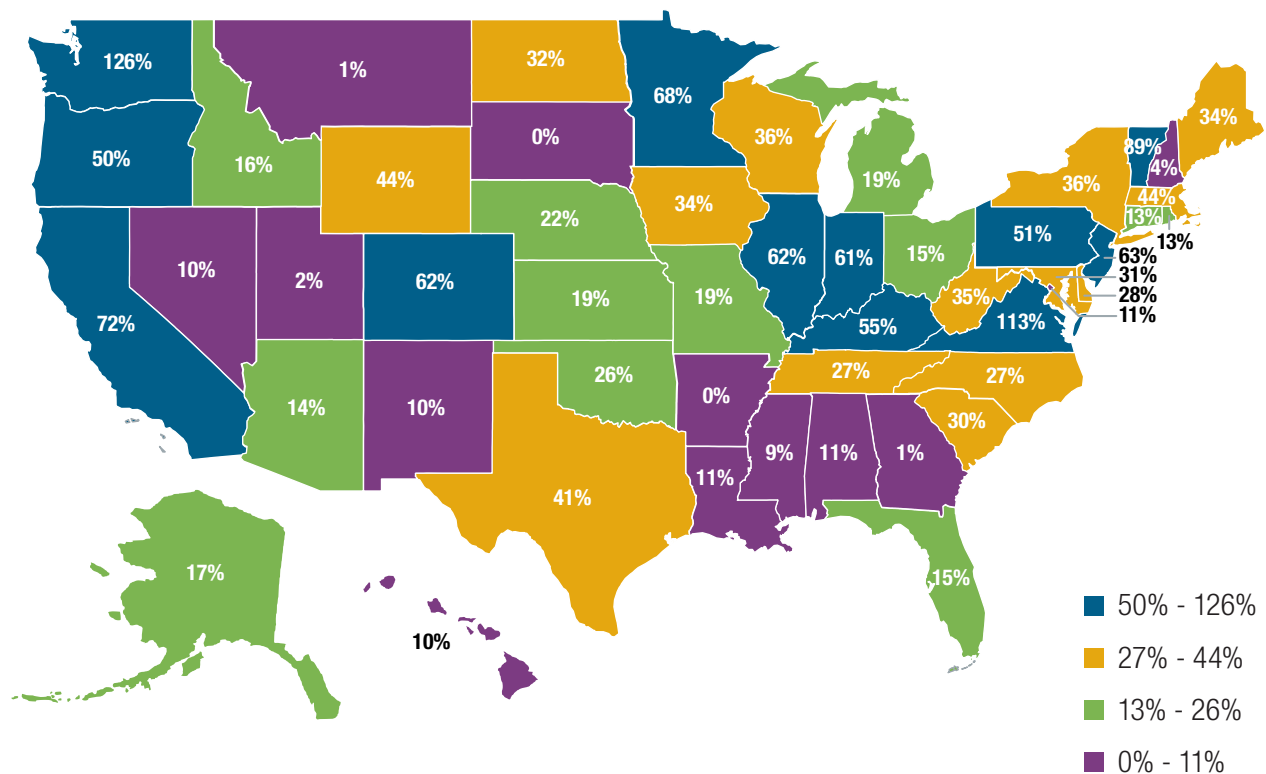
In 2023, the proportion of state need-based grant aid amounts relative to Pell Grant amounts ranged from less than 1% in Arkansas and South Dakota to over 100% in Virginia and Washington.

Figure 7.11: State need-based grant amounts as a percentage of Pell Grant amounts by state: 2023 (Indicator 7e)



SOURCE: Annual National Association of State Student Grant & Aid Programs (NASSGAP) survey (National Association of State Student Grant and Aid Programs, 2024), the Federal Pell Grants End of Year Report (Office of Federal Student Aid, 2023). The analyzed data are part of the Postsecondary Education Opportunity Archive (Mortenson & Brunt, 2025).

Figure 7.12: State need-based grant amounts as a percentage of Pell Grant amounts by state heat map: 2023 (Indicator 7e)



SOURCE: Annual National Association of State Student Grant & Aid Programs (NASSGAP) survey (National Association of State Student Grant and Aid Programs, 2024), the Federal Pell Grants End of Year Report (Office of Federal Student Aid, 2023). The analyzed data are part of the Postsecondary Education Opportunity Archive (Mortenson & Brunt, 2025).

Indicators 7g: What are the differences in educational attainment by state?

Over the 85 years from 1940 to 2025, there has been a convergence across states in the percent of the population aged 25 and older with a high school diploma or other credential. At the same time, there has been a notable divergence among states in the percentage that has attained at least a bachelor’s degree, with some states accelerating past the national average. In contrast, other states lag (Indicator 7g(ii)).

As shown in Figure 7.13 and Figure 7.14, in 1940, 5% of the U.S. population age 25 and older had attained at least a bachelor’s degree. Although 11% of the population aged 25 and older residing in the District of Columbia had attained at least a bachelor’s degree, attainment rates were lower in the 50 states. Bachelor’s degree attainment rates in 1940 ranged from 2% (Arkansas) to 7% (California and Nevada).

By 2025, almost two-fifths (39%) of the U.S. population aged 25 and older had attained at least a bachelor’s degree. Bachelor’s degree attainment rates continued to be highest for those residing in the District of Columbia (70%). Six states had bachelor’s degree attainment rates of 45% or higher. These included: New Hampshire (47%), Colorado (48%), Vermont (48%), Maryland (50%), New Jersey (51%), and Massachusetts (51%).

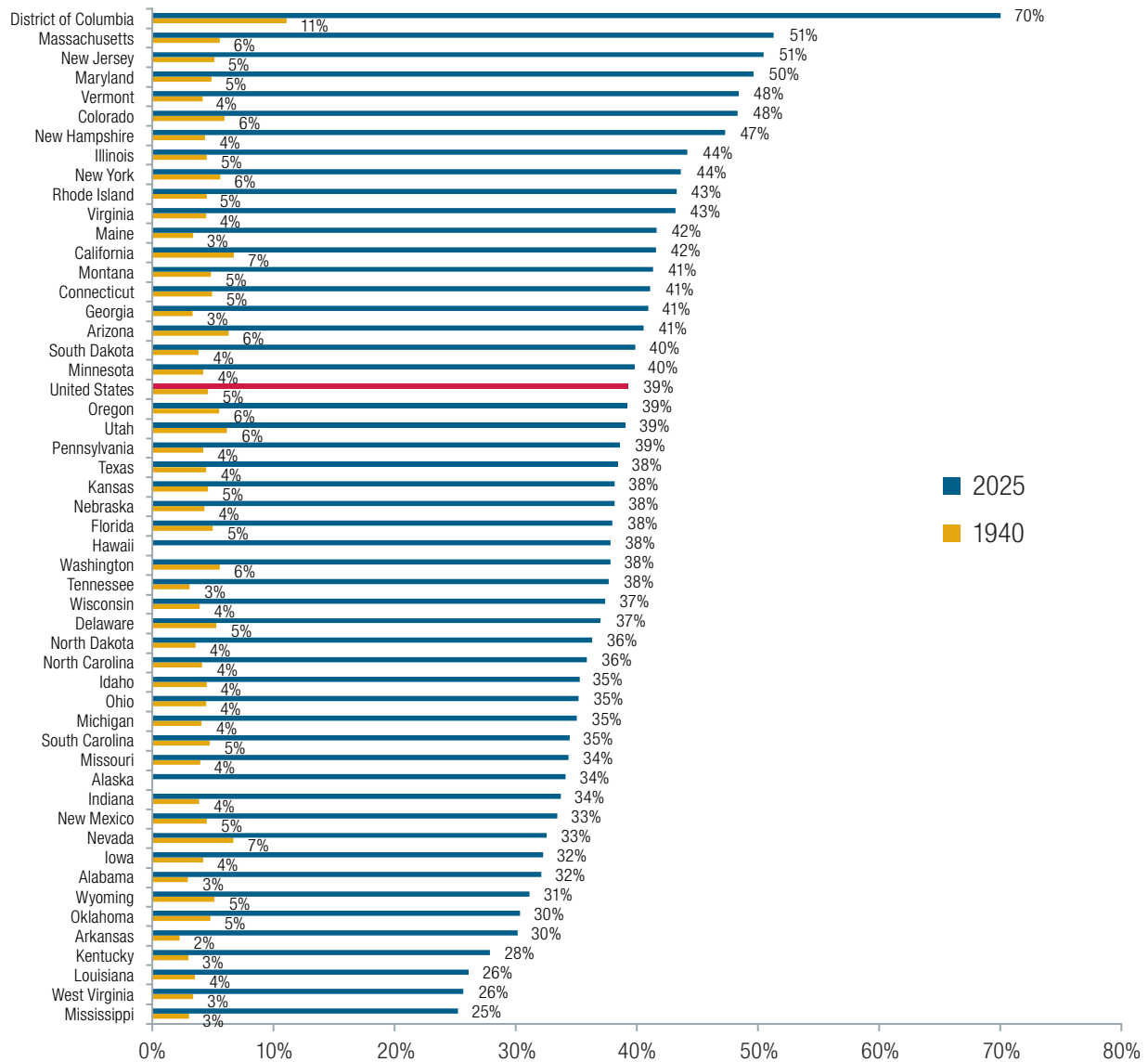
In 1997, as mandated by Congress, NCES, through IPEDS, began collecting graduation rates from institutions

participating in the federal financial aid system (Title IV). Figure 7.15 and Figure 7.16 (Indicator 7g(iii)) report the percentage of full-time bachelor's degree-seeking students earning bachelor's degrees or equivalent at 4-year institutions within 6 years by state of institution. The data are for the 2018 cohort, who were tracked to ascertain the institution's graduation rate using 150% of the time-to-degree. The national 6-year completion rate at the first institution attended by the 2018 cohort was 65%. The 6-year completion rates for bachelor's degree-seeking students who first enrolled in a 4-year institution in 2018 ranged from 31% in Alaska and 50% in New Mexico to 75% in Massachusetts and 79% in the District of Columbia.

Indicator 7g Status: There has been a large growth in bachelor's degree attainment over time, but growth within states is inconsistent.

In 1940, 5% of the U.S. population 25 and older had attained a bachelor's degree. In 2025, 39% of the U.S. population had attained a bachelor's degree. The percentage of full-time bachelor's degree-seeking students who completed a bachelor's degree at a 4-year institution within 6 years ranged from 31% in Alaska to 79% in the District of Columbia.

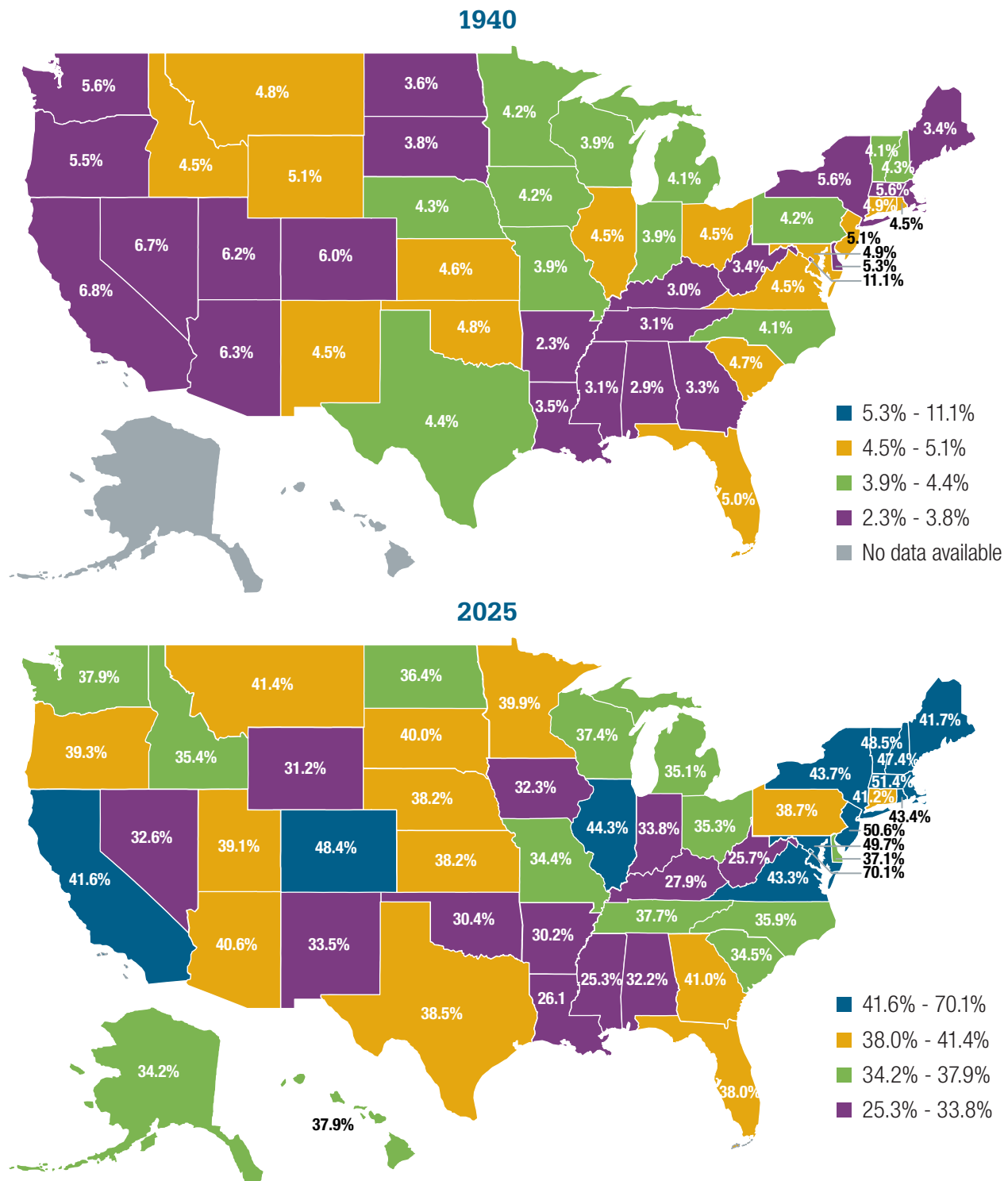
Figure 7.13: Percentage of the population age 25 and older with a bachelor's degree or higher by state: 1940 and 2025 (Indicator 7g(ii))



NOTES: Data for 1940 are from the decennial census. Data for 2025 is from the Current Population Survey.

SOURCE: A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States 1940 to 2000 (Scaniello & Day, 2006; U.S. Census Bureau, 2006) Current Population Survey, Annual Social and Economic Supplement (U.S. Census Bureau, 2025b). Retrieved from microdata access tool (U.S. Census Bureau, 2025c). Analysis by author.

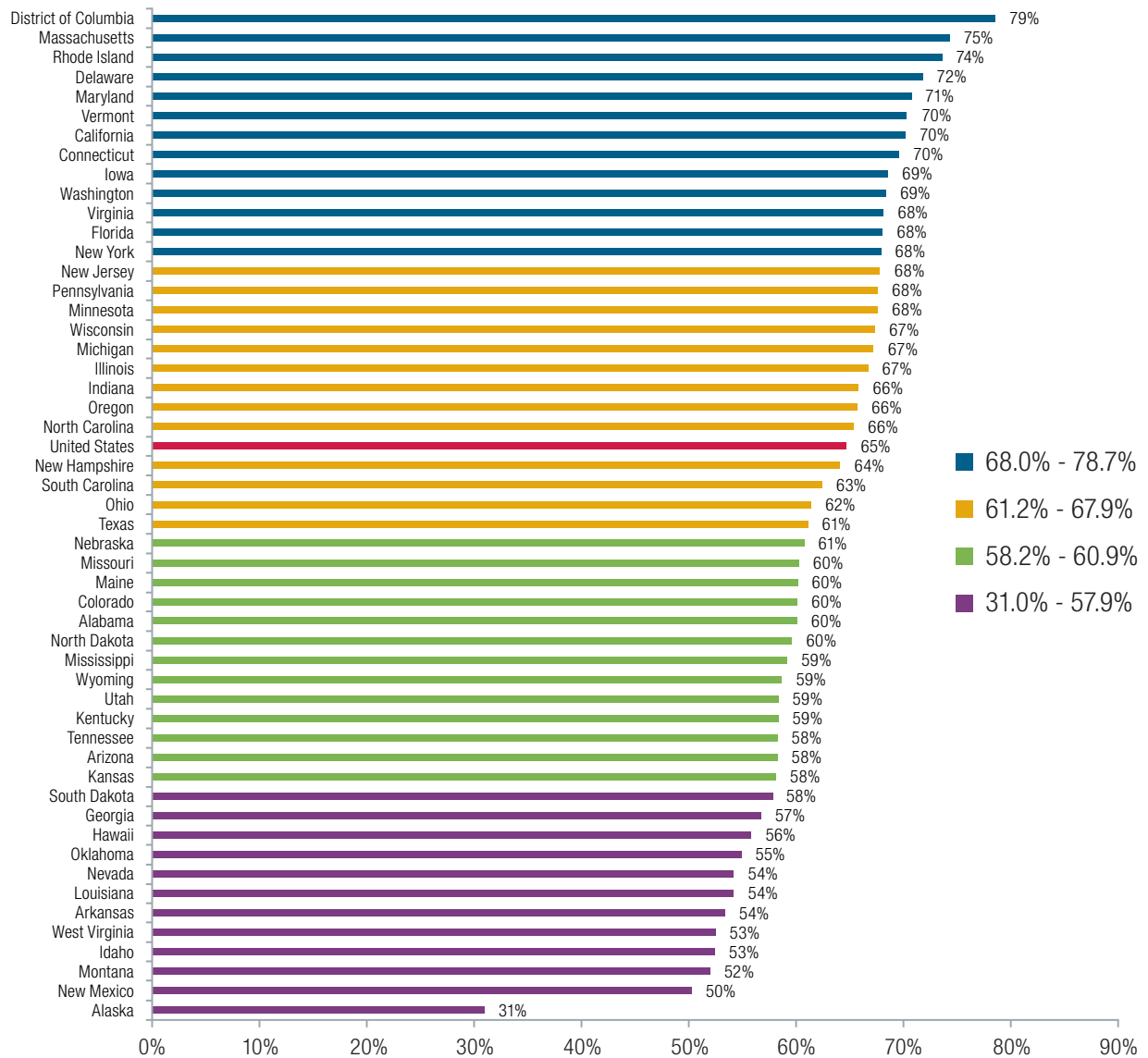
Figure 7.14: Percentage of the population age 25 and older with a bachelor's degree or higher by state heat maps: 1940 and 2025 (Indicator 7g(ii))



NOTES: Data for 1940 are from the decennial census. Data for 2025 is from the Current Population Survey.

SOURCE: A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States 1940 to 2000 (Scaniello & Day, 2006; U.S. Census Bureau, 2006) Current Population Survey, Annual Social and Economic Supplement (U.S. Census Bureau, 2025b). Retrieved from microdata access tool (U.S. Census Bureau, 2025c). Analysis by author.

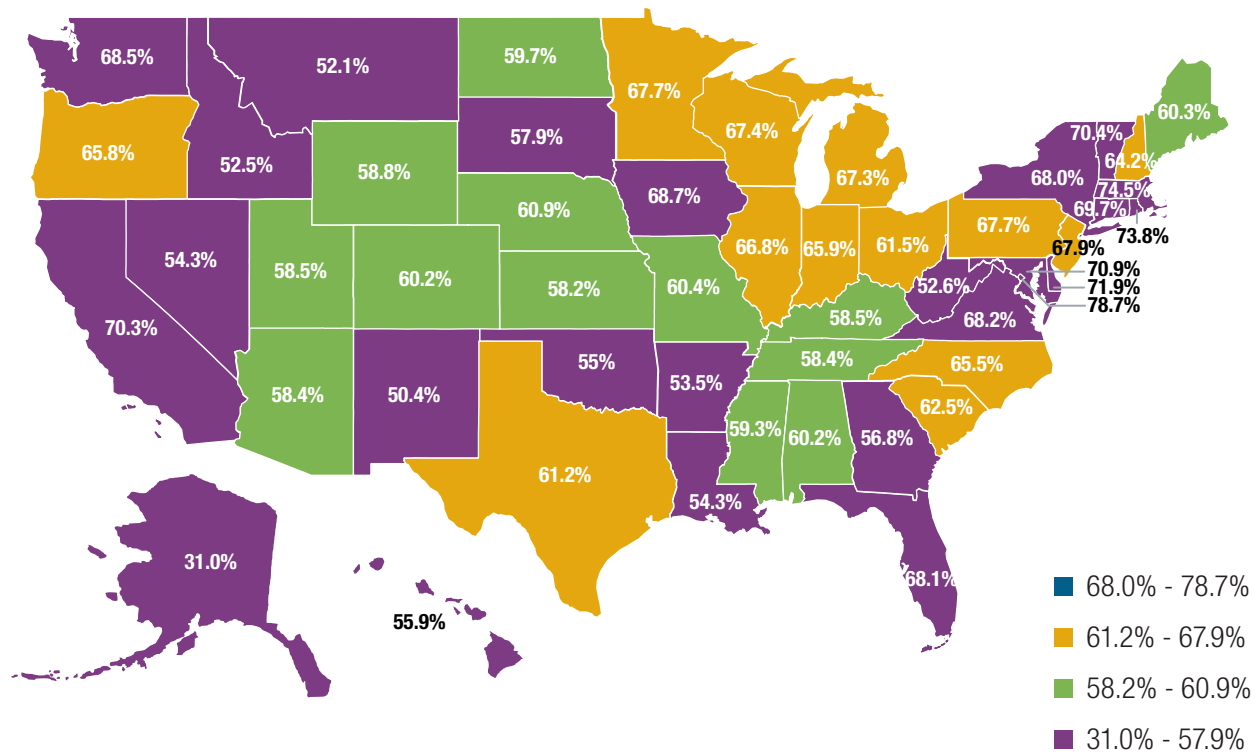
Figure 7.15: Percentage of first-time, full-time bachelor's degree-seeking students earning any formal award (certificate, associate's, or bachelor's degree) at the institution of first enrollment within 6 years by state of institution: reported in 2024 for cohort beginning in 2018 (Indicator 7g(iii))



NOTES: For 4-year institutions, 150% of normal time is equivalent to taking 6 years to complete the bachelor's degree or equivalent.

SOURCE: Integrated Postsecondary Education Data System (IPEDS), Graduation Rates component provisional data (National Center for Education Statistics, 2025b).

Figure 7.16: Percentage of first-time, full-time bachelor's degree-seeking students earning any formal award (certificate, associate's, or bachelor's degree) at the institution of first enrollment within 6 years by state of institution heat map: reported in 2024 for cohort beginning in 2018 heat map (Indicator 7g(iii))



SOURCE: For 4-year institutions, 150% of normal time is equivalent to taking 6 years to complete the bachelor's degree or equivalent.

SOURCE: Integrated Postsecondary Education Data System (IPEDS), Graduation Rates component provisional data (National Center for Education Statistics, 2025b).

Conclusion

The indicators presented in this chapter show that educational opportunity is highly dependent on the state in which a student lives. There is high variation in college participation rates, college costs, state grant aid, and attainment rates across all states in all indicators. The differences can be profound. The college participation rate, for example, ranges from 7% to 40%. Enrollment rates for younger adults 18- to 24-years old can range from 19% to 52%. Average college costs can range from \$17 thousand to \$33 thousand for public institutions and \$20 thousand to \$78 thousand for private institutions. State need-based aid can range from nearly nothing up to 126% of the value of the Pell Grant. Any long-lasting policy interventions designed to close opportunity gaps need to take into account state policy.

CONCLUSION

The purpose of this report was to gather historical statistics on expanding opportunity in the United States and to document where challenges remain. By tracking these indicators over time, we sought to understand how to build a higher education system that provides **equitable** opportunities for everyone in society. The analysis led us to three overall findings:

- 1. The United States has made great progress in providing opportunities to students over the course of the last century, increasing its higher education participation rate and attainment rate to the highest levels in history.**
- 2. These achievements have not been equally shared across the population. Gaps in participation and attainment have widened or stayed the same by income, first-generation status, and race.**
- 3. Recent history shows that progress in the United States has slowed or stalled, and other countries have overtaken the United States in higher education attainment. Barriers to progress include higher education costs and grant aid that does not keep pace with those costs.**

We also went to great lengths to clarify what equity was. We stated that it is not about equally distributing resources but prioritizing resources in a way that allows for equality (de los Santos et al., 2020) thereby ensuring that everyone has the opportunity and choice to pursue an education and succeed in the workforce.

The next step, however, is more difficult. What action or policy interventions can be enacted to address the equity gaps shown in this report? Here are popular ideas that aren't necessarily feasible or realistic in addressing equity gaps:

- **Increase funding to Pell Grants.** Increased funding for the Pell Grant is needed so students can more easily cover the higher costs of college. Increasing funding and the maximum Pell Grant amount will be able to cover a higher percentage of the unmet need of low-income students (National College Attainment Network, 2022). Some organizations have advocated doubling the Pell Grant to address the loss of Pell Grant purchasing power (National Association for Student Financial Aid Administrators, 2026; The Institute for College Access and Success, 2023).
- **Control College Costs.** Constraining the cost of college would allow for state and federal aid programs to maintain purchasing power and has been shown to reduce long-term student debt (Kelchen, 2025). Policymakers are also seeking to control college costs by limiting the amount of loans directed to colleges and universities, especially with respect to graduate/professional programs (Cooper, 2025).
- **Redirect students to shorter-term credentials or credentials of value.** There is some evidence that short-term workforce training and credentials yield increases in earnings (Bahr & Columbus, 2025). The introduction of aid for shorter-term credentials, such as Workforce Pell, provides students with the opportunity to pursue a career path with less training than a bachelor's degree, which would yield a higher income than a high school diploma.

We have seen these recommendations in reports on similar topics. While these courses of action may seem logical, in reality, they are oversimplistic and in some ways, unrealistic. Simply adding more money to address the problem is not a long-term solution, given the long-term trends of rising higher education costs, the decreasing value of the Pell Grant program, and the states' divestment in grant aid – all of which are findings in this report. Curbing

price growth is also an impossible task, given that higher education is a complex economic market dominated by nonprofits (Winston, 1999) and based on human labor, which will consistently exceed inflationary costs (Baumol, 1967) regardless of how much technology is introduced into the workforce. These financial pressures will continue to reduce the share of funds from the government to higher education, primarily due to increasing healthcare costs in state budgets (Jasemi, 2025). Furthermore, redirecting students to sub-baccalaureate credentials does not yield as much income as bachelor's degree graduates (Ishitani, 2025).

If we revisit the theme of this report – equity – this is where we find the answer. If policymakers cannot curtail costs, then they need to prioritize costs. Limited resources should be targeted to fund programs for low-income and first-generation students, rather than to those who can afford college. Narrowly targeting these resources would improve the lowest attainment rates in the country, thereby raising the overall bachelor's degree attainment rate in the U.S. as compared with our international peers (Dziesinski et al., 2025; Naim, 2025). More importantly, education is an investment in our future and provides a foundation for personal, professional, and economic growth, which benefits everyone in our society (see the Setting the Stage chapter).

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