INDICATORS

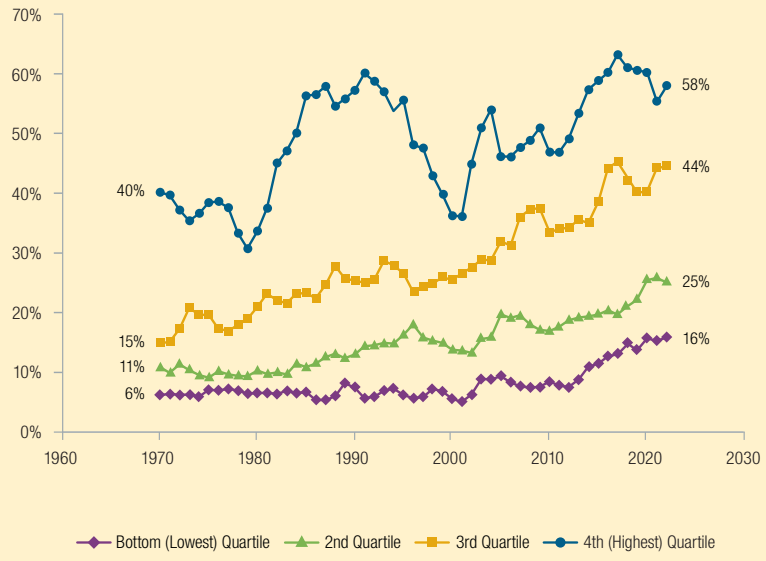
OF HIGHER EDUCATION EQUITY IN THE UNITED STATES

2024

50-YEAR HISTORICAL TREND REPORT

The Paradox of U.S. Higher Education: Confronting Realities, Exploring Solutions

Equity Indicator 5a(i): Estimated bachelor's degree attainment by age 24 for dependent family members by family income quartile: 1970 to 2022



The Pell Institute
Research for Equity in Higher Education

PennAHEAD
Alliance for Higher Education and Democracy

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 improve educational opportunities and outcomes of low-income, first-generation students, and students with disabilities. The Pell Institute is sponsored by the Council for Opportunity in Education (COE). The Pell Institute shares the mission of the Council to advance and defend the ideal of equal opportunity in postsecondary education. As such, the focus of the Council is to ensure that the least advantaged segments of the American population have a realistic chance to enter and graduate from a postsecondary institution.

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is dedicated to advancing higher education policy and practices that foster open, equitable, and democratic societies. Drawing on the intellectual resources of the University of Pennsylvania and a global alliance of higher education and academic leaders, Penn AHEAD achieves its mission by creating knowledge, improving practice, and building capacity. Through engagement with policymakers, institutional leaders, scholars, and practitioners, AHEAD produces research and applies research-based knowledge to address the most pressing issues pertaining to the public purposes of higher education in the U.S. and across the globe.

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DEDICATION & SPONSORS

SPECIAL DEDICATION
ARNOLD MITCHEM & TOM MORTENSON

The *Indicators of Higher Education Equity in the United States 2024: 50-Year Historical Trend Report* is once again dedicated to Arnold Mitchem and Tom Mortenson. Without the work of these two individuals, the report would not have been possible. Both have dedicated their careers to creating greater equity in educational opportunity. By producing this 2024 volume and continuing the Search for Solutions Shared Dialogues, we honor the legacy of their work and the seeds they have sown for increasing equity in higher education opportunity and outcomes in the United States.

SPECIAL THANKS FOR SUPPORT FROM PAST AND CURRENT SPONSORS:

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TRAVELERS

The Pell Institute and PennAHEAD thank the sponsors for their financial support of the *Equity Indicators* project over the years since 2015. While we heartily acknowledge their support, any errors of omission or interpretation and the opinions expressed in the report are the sole responsibility of the authors.

ACKNOWLEDGEMENTS

This report represents an ongoing collaboration between The Pell Institute for the Study of Opportunity in Higher Education of the Council for Opportunity in Education (COE) and the Alliance for Higher Education and Democracy at the University of Pennsylvania (PennAHEAD). We are most grateful for the contributions of many people and organizations. We acknowledge first the teams of the U.S. government and contractor statisticians, data collectors, and data processors who have painstakingly used their technical expertise over many years to produce the historical and current estimates included in the *Equity Indicators* reports. We thank the past and present staff from the Current Population Survey (CPS) and American Community Survey (ACS) from the U.S. Census Bureau and past and present government and contractor staff from the National Center for Education Statistics (NCES) studies including: 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). We also thank Tara Spain of Travelers, Susan Johnson and Wendy Sedlak of the Lumina Foundation, and Jamey Rorison and Tafaya Ransom of the Bill and Melinda Gates Foundation for their advisory guidance over the years since this series was begun and the financial support of the organizations they represented. We also heartily acknowledge the feedback, technical assistance, and suggestions for future reports provided by the Improving Equity in Higher Education Advisory Panel from 2017 to 2021. This report series owes much to Colleen O'Brien, former Director of The Pell Institute, and author of the 2004 and 2005 *Indicators* report. Several COE staff have contributed to various aspects of this 2024 report. We especially thank Maureen Hoyler, President Emeritus of COE and Kim Jones, President of COE. We also thank Holly Hexter, and Terrance Hamm of COE for their assistance, feedback, and production support.

Suggested Citation: Cahalan, Margaret W., Brunt, Nicole, Vaughan III, Terry, Montenegro, Erick, Breen Stephanie, Ruffin Esosa, & Perna, Laura W. (2024). *Indicators of Higher Education Equity in the United States 2024: 50-Year Historical Trend Report*. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education, Council for Opportunity in Education (COE) and Alliance for Higher Education and Democracy of the University of Pennsylvania (Penn AHEAD).

FOREWORD

In 2004 and 2005, the Pell Institute for the Study of Opportunity in Higher Education (Pell Institute), sponsored by the Council for Opportunity in Education (COE), published two editions of *Indicators of Opportunity in Higher Education*. In 2015, we renewed the commitment to documenting trends in higher education equity by publishing an expanded historical trend report and initiating the Search for Solutions Shared Dialogues. The *Indicators of Higher Education Equity in the United States, 2024: 50- Year Historical Trend Report* directly follows on these earlier efforts. This publication brings together again in partnership the Pell Institute with the Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD). Both organizations have a core mission to promote a more open, equitable, and democratic system of higher education. The Pell Institute, with its historical and ongoing ties to the federal TRIO programs, has a special mission to promote more equitable opportunity for low-income and first-generation students, and students with disabilities. These reports draw from multiple sources of existing data to provide, in one place, indicators that describe trends in equity in postsecondary enrollment, choice, and degree attainment, as well as indicators of college affordability.

Purposes of the Indicators Project. The purposes of this equity indicators project are to:

- Report the status of higher education equity in the United States and identify changes over time in measures of equity.
- Hold Shared Solutions Dialogues that identify policies and practices that promote and hinder progress, and
- Illustrate the need for and act in support of policies, programs, and practices that not only improve overall attainment in higher education but also create greater equity in higher education opportunity and outcomes.

Focus on Inequities by Interrelated Demographics. The first *Equity Indicators* report in 2015 focused on equity in higher education primarily based on measures of family income. Recognizing the need to address inequity based on other interrelated demographic characteristics, reports since 2016 include indicators that highlight differences by race/ethnicity and socioeconomic status (SES). In these reports, SES is primarily measured by an index composed of family income, parents' education, and parents' occupation developed by the National Center for Education Statistics (NCES).

Inclusion of State Data. The 2018 *Indicators* report added data describing higher education equity by U.S. state. The 2024 *Equity Indicators* report continues and expands the inclusion of state data, and in this 2024 report we provide special attention to increasing our understanding of these differences. Considering indicators of equity by state is essential given the many differences across the 50 states in historical, demographic, economic, and political characteristics, as well as the characteristics of their K-12 and higher education systems.

Inclusion of Dependency Status. *Indicators* reports from 2015 to 2019 presented a number of indicators for all students and for dependent students. Since 2020, we have added disaggregation by dependency status (dependent, independent without dependents, and independent with dependents) where data are available.

Inclusion of TRIO Data. The 2021 *Indicators* report for the first time included historical data on the Federal TRIO programs and this continues in the 2024 report. Data are presented for each of the programs on numbers served, percent of eligible students served, funding levels, and characteristics of students served. Data presented also include, as they are released, the results of the most recent evaluations on program outcomes.

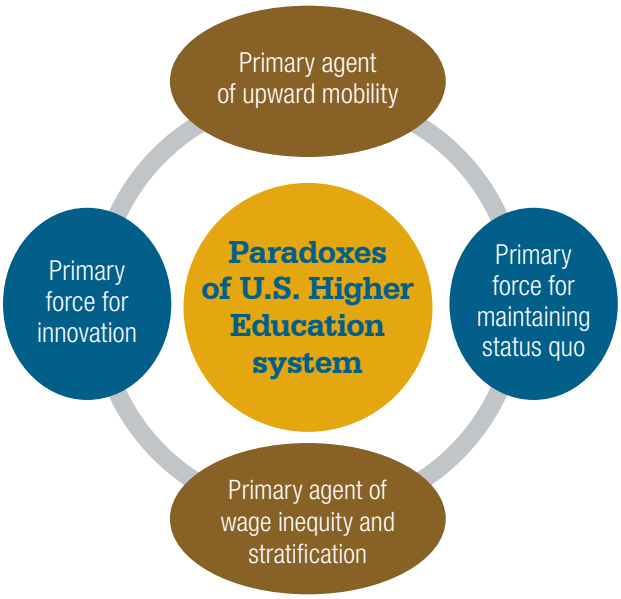
Methodological Issues of Historical Trend Reports. The *Equity Indicators* report series endeavors to present data as far back as comparable data are available. Appendix A provides additional notes, tables, and figures that help illuminate the trend data in the body of the report. Throughout the report, we include methodological notes concerning qualifications and limitations of the data over time.

The Search for Solutions Shared Dialogues, Essays. In addition to providing longitudinal indicators of equity, the *Equity Indicators* project is also intended to advance productive conversation about effective policies and practices for improving equity in higher education opportunity and outcomes. To this end, the *Equity Indicators* reports periodically include essays intended to discuss the meaning of the data mapped in the historical trend reports.

Online Tools. To download the Excel files used to produce the figures in this report, and access to the Search for Solutions Shared Dialogues Essays that periodically accompany the *Indicators* reports, please visit the *Equity Indicators* website hosted by the Pell Institute: https://www.pellinstitute.org/equity-indicators.

INTRODUCTION

As we begin the 2024 *Equity Indicators* report, the 9th in the series, we renew our original purpose for these reports. Our hope was and remains that by pulling together available historical statistics on the sober reality of where we are and where we have been, we can better understand how to foster the evolution of a dynamic higher educational system that will lead to the attainment of our goal of 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.



The Paradoxes of the United States Higher Education System. The theme of the *Equity Indicators* for 2024 is confronting the realities and exploring feasible solutions related to our paradoxical and unequal higher education system. As the figure shows, higher education in the United States is increasingly the major agent of overcoming poverty and of attaining upward mobility toward the so-called "American Dream." At the same time, the higher education system functions to sort and stratify our society, leading to increased geo-political divides and the legitimization of large differences in wages and salaries, such that many non-college jobs increasingly do not pay a living wage. The higher education system functions, paradoxically, as a source for innovation and problem solving at the same time it serves as a primary force to maintain the status quo. Further, higher education often functions to legitimize economic practices that increasingly pose an existential threat to environmental sustainability. Our sober look at the historical trends in this *Equity Indicators* report suggests that overcoming these paradoxes is a major challenge.

As adopted under President Jimmy Carter in the late 1970s, the original stated mission of the U.S. Department of Education reflected clear civil rights focus to "ensure equal access to education."[1] This historical trend report series and the associated dialogue essays continue to draw inspiration from this original mission statement and from other historical statements concerning equal access to education. In this introduction, we briefly review these articulations to highlight the current challenges and opportunities pertaining to equity in higher education in the United States.

1 The current U.S. Department of Education's mission statement, adopted in 2005 under President Bush, is to "promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access." It can be found at: https://www2.ed.gov/about/overview/mission/mission.html.

The Dangers of a Higher Educational System that Functions to Sort Students and Legitimizes Intergenerational Wage and Wealth Inequality. In the first *Equity Indicators* report, we included a quote from the foreword to President Truman's 1947 Commission on Higher Education report that called attention to the dangers of a higher education system that functioned not to provide opportunity but to sort students:

> *If the ladder of educational opportunity rises high at the doors of some youth and scarcely rises at the doors of others, while at the same time formal education is made a prerequisite to occupational and social advance, then education may become the means, not of eliminating race and class distinctions, but of deepening and solidifying them.*[2]

As in previous Indicators reports, the data in the 2024 *Indicators* show persisting inequality in higher education opportunity based on family income, race/ethnicity, parent education, location of residence, and dependency status. Although there has been an increase in postsecondary attainment since these words were articulated in the late 1940s, new forms of inequity and stratification have evolved, as education becomes one of the chief ways of differentiating wages and salaries and quality of life indicators.[3]

The Truman Commission report foreshadows more recent arguments that question the validity, justice, and utility for a democracy of our education system's focus on measuring merit, ranking, and competition in almost every aspect of the system. In the wake of increasingly apparent difficulties in fairly implementing the so-called "merit" system of admissions, these policies are receiving more critical interest. Issues are also being raised as to the negative impact of the competitive paradigm on educational excellence and learning. Lani Guinier (2016) argued in the *Tyranny of the Meritocracy, Democratizing Higher Education in America*, that:

> *"The merit systems that dictate and justify the college admissions are functioning to select and privilege elite individuals" and exclude others rather than "creating learning communities geared to advance democratic societies."*[4]

The Global Perspective Higher Education as Human Right. Article 13 of the International Covenant on Economic, Social, and Cultural Rights of the United Nations formulated in 1966 and subsequently signed and ratified by over 166 countries declares:

> *Higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education.*[5]

In 2022, UNESCO began a Right to Higher Education (RTHE) Project that promotes the principle of *Universal Access to Higher Education*. A major goal of the project is to educate stakeholders about existing articulations and to develop a set of principles that have global applicability.[6] The UNESCO publication, *The Right to Higher Education a Social Justice Perspective*, outlines a new evolving social justice and lifelong learning framework. The paradigm calls for a non-zero-sum game in which gains for one individual, gender, race/ethnicity, SES group, state, or country do not mean less opportunity for the other person, community, or state. The report calls for a

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2 Truman, H.S. "Statement by the President making public a report of the Commission on Higher Education," December 15, 1947. Retrieved from https://www.presidency.ucsb.edu/documents/statement-the-president-making-public-report-the-commission-higher-education.

3 Data from the Bureau of Labor Statistics document this trend and the increase in the gap in earnings by education level. https://www.bls.gov/cps/earnings.htm#demographics.

4 Guinier, L. (2016). *Tyranny of the Meritocracy, Democratizing Higher Education in America.* Boston: Beacon Press.

5 Tomaševski, K. (2001). *Special Rapporteur Report on the Right to Education Mission to the United States of America*, United Nations Commission on Human Rights, Economic, Social, and Cultural Rights. Retrieved from https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx. President Carter signed the U.N. Covenant in 1977, but thus far no President, Democrat or Republican, has presented the Covenant for ratification by the U.S. Senate. The U.N. Covenant has been ratified by 166 countries worldwide, but the United States is one of a handful of countries that has not become a binding party to the Covenant.

6 The UNESCO Right to Higher Education (RTHE) project is being undertaken in partnership with the Open Society Foundations. The UNESCO RTHE project website is https://www.iesalc.unesco.org/en/the-right-to-higher-education.

higher education system that redefines merit, and a conceptual framework of *Inclusive Excellence* with a focus on *"equity deserving students"* who have been systematically excluded from equal access to higher education.[7]

Despite having high levels of inequality relative to most other developed countries, the U.S. has a core commitment to equality of opportunity for all citizens, and citizens are increasingly aware of the negative consequences of such high levels of inequality for the health and wellbeing of all citizens.[8] After years of operating under a paradigm that viewed higher education in terms of human capital development and as an "investment" commodity, scholars and politicians alike have begun again to speak of high-quality higher education as a basic human right.[9]

Reimagining the U.S. Higher Education System as One Ecosystem. Considering historical data summarized in the Equity Indicators reports, we ask these questions:

- ***Is it possible to transform the highly competitive U.S. higher education system into a more co-operative diverse system that is not a zero-sum game?*** Can we evolve into a system in which gains for one individual, gender, race/ethnicity, SES group, state, or country do not de facto mean less opportunity for another person, community, or state?
- ***What are the elements of the current system that already represent an evolution to foster achieving a "win-win, non-zero-sum game"?*** What strategies are needed to further develop a diverse system in which the educational needs and talents of each person, community, and state are equally addressed?

Can We Evolve Toward a More Mature and Complex Higher Education Ecosystem, One More Capable of Addressing the Current Issues of Our Times? Lessons from our own bodies and from nature tell us that diversity is needed for healthy system functioning. Monocultures that select for only one quality make the whole system vulnerable. As forest ecosystems develop into mature forests, they are characterized by diversity, co-operation, and symbiosis rather than the intense competition for light and energy apparent in early systems. In the figure below, we juxtapose the dominant paradigm of U.S. higher education as an individual and societal competitive investment consumer commodity with a paradigm of higher education as a basic human right. We imagine what the system might look like if higher education were recognized as a basic human right equally accessible to all. We ask, to what extent is the current consumer market driven model standing in the way of higher education's ability to lead in addressing the key equity and environmental issues of our times?

7 Sabzalieva, E., Gallegos, D., Yerovi, C., Chacon, E., Mutize, T., Morales, D., & Cuadros, J. (2022). *The right to higher education: A social justice perspective*. UNESCO https://unesdoc.unesco.org/ark:/48223/pf0000381750.

8 Major, L.E., & Manchin, S. (2018). *Social Mobility: And Its Enemies*. Pelican Books. With a focus on England, Lee Elliot Major and Stephan Manchin advocate a lottery system for students meeting transparent entrance requirements. Pickett, K.E. & Wilkinson, R. (2009). *The Spirit Level: Why More Equal Societies Almost Always Do Better*. See also, Kerry, B., Pickett, K.E., & Wilkinson, R. (2010). *Why Greater Equality Makes Societies Stronger.* Child Poverty Insights, Social and Economic Policy, UNICEF Policy and Practice; See also Wilkinson Richard. Pickett, Kate (2010). The Spirit Level: Why Greater Equality Makes Societies Stronger. Poverty & Race, Volume 19, Number 3. Poverty and Race Research Action Council. https://www.prrac.org/newsletters/mayjun2010.pdf.

9 Beiter, K.D. (2005). *The Protection of the Right to Education by International Law*. Martinus Nijhoff Publishers. ISBN 9789004147041. Cahalan, M., Franklin, K., & Yamashita, M. (2016). "Is Higher Education a Human Right or a Competitive Investment Commodity?" Washington, DC.: Pell Institute for the Study of Opportunity in Higher Education. https://www.pellinstitute.org/indicators/downloads/dialogues-2016_essays_Cahalan_Franklin_Yamashita.pdf.

Hopeful Vision for Mature Ecosystem of Higher Education in the United States	
New Right to Higher Education (RTHE) System	**Current Higher Education Commodity System**
1. **HE as human right** in which each person has right and a responsibility to prepare for full participation in the society	1. **HE is an investment consumer commodity** with expected return on investment (ROI)
2. **Co-operation** and lifelong learning drives excellence	2. **Competition** for achievement and rank drives excellence
3. **Intentional equalization of institutional funding per student** is necessary for healthy and just system	3. **Intentional cost differentiation is necessary** with lower cost and spending options available
4. **Open Broad Admissions** promotes excellence, strength, resilience, diversity, and complexity	4. **"Merit-Based" Selective Admissions** is needed for excellence: Grouping by achievement levels promotes excellence
5. **Education agenda is driven by talent development and public common good** with a focus on innovative problem solving for equity and environmental sustainability	5. **Education agenda is driven by consumer market and extractive system needs** with focus on system maintenance and growth

Whether or not we believe that higher education is a civil right, an essential element of a full democratic society, a fundamental requirement for achieving the American dream, or a consumer commodity with ROI accountability requirements, the *Equity Indicators* report series continues to show that higher education opportunity and outcomes remain highly inequitable across family income, socioeconomic status (SES), and racial and ethnic groups. On many indicators, gaps are even larger now than in the past. The disinvestment of state funds for public colleges and universities since the 1980s, the declining value of federal student grant aid relative to costs, and corresponding increasing levels of student debt have aided in the creation of a higher education system that is stained with inequality. Once known for wide accessibility to and excellence within its higher education system, the U.S. now has an educational system that sorts students in ways that have profound implications for later life chances. Youth and non-traditional older learners in the United States are faced with heavy challenges in 2024. We renew our firm belief that each person should have the opportunity to learn about, thrive in, and contribute to their unique time in history.

A Question of Will, Not Resources. In 1967, in a talk entitled *"Where Do We Go from Here?"* Reverend Martin Luther King, Jr. argued that: *"There is no deficit in human resources, the deficit is in human will."*[10] Over 50 years later, these words could be applied to many problems we face, including persisting inequality in higher education opportunity and outcomes. More serious, fundamental work is required to ensure that all youth have opportunity to use their creative potential to realize the many benefits of higher education and advance the wellbeing and progress of the nation.[11]

10 Especially in the final years of his life, Dr. King increasingly spoke of the interrelationships between civil rights and education, the economic system, poverty, militarism, and racism. https://kairoscenter.org/wp-content/uploads/2014/11/King-quotes-2-page.pdf.

11 Jeanna Smialek examines the business arguments for a more equitable system in "Inequality is Holding Economies Back. Education Could be One Solution in Countries Where Lack of Opportunity Mixed with High Inequality See Slower Growth." *Bloomberg*, March 20, 2019. Retrieved from https://www.bloomberg.com/news/articles/2019-03-20/if-america-can-t-fix-education-it-won-t-beat-inequality.

The equity indicators tracked in this report include the following fundamental questions:

1. ***Equity Indicator 1: Who enrolls in postsecondary education?***
    - How do college participation rates of high school leavers vary by family income?
    - How do college participation rates of high school graduates vary by family income?
    - How do rates of postsecondary enrollment differ by race/ethnicity?
    - How do rates of postsecondary enrollment differ by race/ethnicity and family income?
    - How do the percentages of young adults that have not enrolled in postsecondary education within 8 to 10 years of expected high school graduation vary by parents' socioeconomic status (SES)?
    - How do the rates of enrollment vary by parent education or first-generation status?
    - What are the differences by state in estimated participation of low-income students in college?
    - How do rates of postsecondary enrollment differ by state?
    - What is the dependency status of those enrolled in postsecondary education, and how do dependent and independent students differ in demographic characteristics and completion risk factors?
    - What have been short term impacts of the COVID pandemic on enrollment?
2. ***Equity Indicator 2: What types of postsecondary educational institutions do students attend?***
    - How does the level of institution attended vary by Pell Grant receipt?
    - How does the control of institution attended vary by Pell Federal Grant Receipt?
    - How does Pell or other Federal Grant receipt and dependency status vary by institutional level and control?
    - How does the selectivity of institution attended vary by family income?
    - How does the representation of low-income students vary by institutional selectivity?
    - How does selectivity of institution attended vary by dependency status?
    - How has the COVID-19 pandemic impacted the types of institutions students attend?
3. ***Equity Indicator 3: Does Financial Aid and Differences in College Cost Eliminate the Barriers to College Equity?***
    - What are the trends in cost of attendance nationally and by state?
    - What is the maximum Pell Grant relative to average college costs?
    - What level of Pell Grant would be necessary to meet college costs?
    - How much would this cost each year?
    - What is the total number of dependent and independent Pell Grant Recipients?
    - What is the unmet need by family income for dependent and independent students?
    - What is the extent of differences between Education and Related (E&R) spending per FTE Enrollment by institutional selectivity and for Pell Grant recipients?
4. ***Equity Indicator 4: How do students in the United States pay for college?***
    - What share of higher education costs is paid by students and their families?
    - What is the net price of attendance by family income?
    - What is the percentage of family income needed to pay for college for dependent, and independent students?
    - What percent of students borrow, and how much do they borrow nationally and by state?
    - What is the level of state need-based aid?

5. ***Equity Indicator 5: How do educational attainment rates and early outcomes vary by student characteristics?***
    - How does dependent individuals' bachelor's degree attainment by age 24 vary by family income?
    - What percentages of high school graduating cohorts and entering postsecondary cohorts complete a degree?
    - How do the relative numbers of bachelor's degrees differ by sex and how has this changed?
    - How do students' degree completion rates vary by characteristics such as family income, dependency status, and Pell Grant receipt status?
    - How does the distribution of associate's, bachelor's, master's and doctoral degrees relative to the population differ by race/ethnicity?
    - Are there differences in post-baccalaureate enrollment and average income for recent graduates by family income and dependency status?
    - What are the longer term 10-year outcomes for bachelor's degree completers?
    - How do degree attainment rates vary by state?
6. ***Equity Indicator 6: How does educational attainment in the U.S. compare with other countries?***
    - What percentage of 25- to 34-year-olds has completed a type A (bachelor's or above) tertiary degree?
    - What percentage of 25- to 34-year-olds has completed a type A (bachelor's or above) or a type B (short cycle or associate's) tertiary degree?
7. ***Equity Indicator 7: The Federal TRIO Programs: Who, What, Why, Where, When, and How Does TRIO work?***
    - What is the overall mission and context for TRIO?
    - When was each program initiated, and what is the special focus of each of the TRIO programs?
    - What are the trends in number of participants and projects for each of the TRIO programs?
    - What are past and current funding levels by program?
    - What are the eligibility requirements, and who are the TRIO Participants?
    - What proportion of eligible students are covered by TRIO programs?
    - What are the educational outcomes of the Federal TRIO programs?

SETTING THE STAGE

Before presenting the Equity Indicators, we first present data on the structure and context of postsecondary education in the United States.[12] This chapter has grown since the first editions of the Equity Indicators reports in 2015, reflecting our own awareness that we cannot understand the postsecondary education system in the U.S. without contextual information. This includes contextual information about the structure of the higher education system and its relationship to wider issues of economic and social equity within the U.S. In this section, we review the number and percentage distribution of institutions and enrollment by institution level (2-year and 4-year), control (public, private non-profit, and private for-profit), and selectivity. We then move to a wider context and report the percentage of youth that were eligible for the Federal Free or Reduced-Price Lunch program and the receipt of Pell or other Federal Grants. We observe changes in the percentage of students that are potentially first-generation to attend college. We also describe trends in the distribution of income and wealth within the United States, as these trends are critical to understanding educational equity issues. Throughout, we include attention to differences by state. In this 2024 edition of the Equity Indicators report, we continue to include charts specifically related to the COVID-19 pandemic, as this event continues to impact the statistics of higher education. We continue to include other COVID-19 related data as applicable in the subsequent Equity Indicators chapters.

Institutional Type and Control. In 2021-22, there were 3,899 2-year and 4-year undergraduate degree-granting institutions in the United States; 33 percent were 2-year institutions, and 67 percent were 4-year institutions.[13] There were also about 2,000 non-degree granting institutions not represented in STS Figure 1, of which about 79 percent (n = about 1,600) were private for-profit.

STS Figure 1 illustrates trends in the numbers of 2- and 4-year degree-granting institutions in the United States from 1974-75 to 2021-22. Overall, the total number of 2- and 4-year degree-granting institutions has increased since 1974-75 with a peak of 4,726 in 2012-13.

However, 2021-22 is the ninth consecutive year since 2012-13 in which the number of degree-granting institutions has declined (4,726 peak to 3,899, a 17 percent decrease between 2012-13 and 2021-22). This is the longest consecutive decrease since we began the time series in 1974-75.[14]

12 To distinguish the Setting the Stage (STS) figures from those of the Equity Indicators Figures, we use STS in front of each of the figures in this section.

13 These totals also exclude institutions that are not undergraduate degree-granting institutions but are specialized and graduate schools. IPEDS, "Institutional Characteristics" component.

14 The increase from 3,706 in 1995-96 to 4,009 in 1996-97 occurred following a change in reporting from "Institutions of Higher Education" (1995-96) to "Degree-Granting Institutions" (1996-97). Following this change, almost 300 more 2-year colleges were included in the newer classification (an increase from 1,462 to 1,742).

STS Figure 2 uses data from the Integrated Postsecondary Education Data System (IPEDS) to show trends in the number of institutions by control.[15] In 2021-22, 40.6 percent of institutions were public, 41.7 percent were private non-profit, and 17.7 percent were private for-profit.

Although we report data prior to 1984-85, it is not regarded as comprehensive, particularly for private for-profit institutions. For this reason, in this discussion, we take 1985 as a starting point. Between 1984-85 and 2021-22, the number of public institutions increased by 5 percent and the number of private non-profit institutions increased by 1 percent. During the same period, starting from a much lower reported base, the number of private for-profit institutions increased by 223 percent, rising from 214 to 691.[16] The number of private for-profit institutions reached a peak of 1,451 in 2013 and then declined by 52 percent to 691 institutions by 2021-22. This level is roughly that of the early 2000s, before the period of large increases during the Great Recession. The decline in private for-profit institutions is in part attributable to the closing or consolidation of for-profit institutions, as well as the conversion of some for-profit institutions to non-profit status.

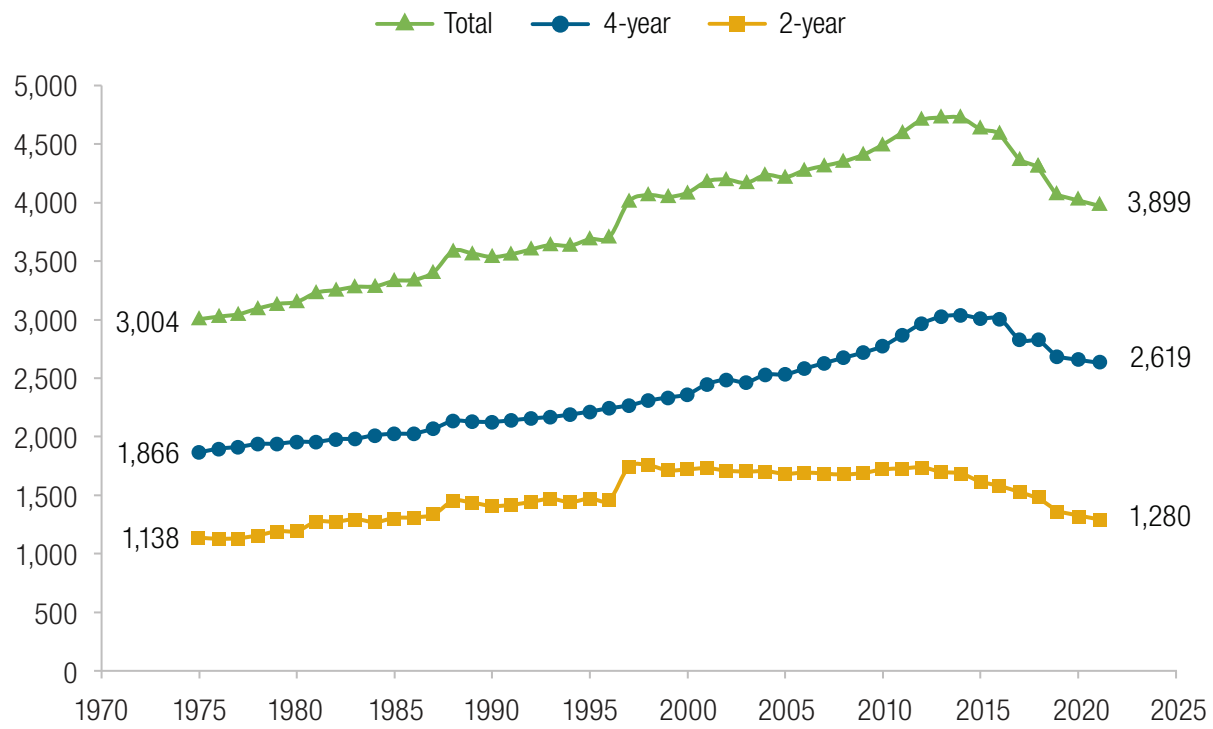
Enrollment Trends. In fall 2022, the National Center for Education Statistics (NCES) estimates that approximately 16.7 million undergraduates will be enrolled in U.S. degree-granting higher education institutions (STS Figure 3). Enrollment since the 1970s shows an overall upward trend over time, with some periods of decline or no growth.[17] Trends in enrollment are linked, at least in part, to trends in employment opportunities (e.g., the Great Recession between 2008 and 2010). Pre-COVID, in periods of fewer job opportunities and higher unemployment, college enrollment increased. Undergraduate enrollment increased sharply during the Great Recession, rising from 15.6 million in fall 2007 to a peak of 18.1 million in fall 2010, and then declined by 2 percent between fall 2011 and fall 2012 and by 2 percent between fall 2012 and fall 2014. Enrollment declined again between 2014 and 2021, reaching 16.9 million in 2016 and 15.5 million in 2021. NCES projections for 2024 are slightly higher at 16.1 million, with another marginal increase in 2025 at 16.4 million.

15 IPEDS data prior to 1984-85 are not comprehensive, particularly for private for-profit institutions. For this reason, we take 1985 as a starting point in our discussion of STS Figure 2.

16 It is unknown how much of the early increase is related to more coverage in reporting and participation in Title IV aid programs on the part of private for-profit institutions and how much reflects actual growth. Title IV institutions are eligible to participate in Title IV federal student financial assistance programs. Before 1995-96, NCES counted "institutions of higher education." Beginning in 1995-96, the numbers reflect "degree-granting institutions," defined by NCES as "institutions that grant associate's or higher degrees and participate in Title IV federal financial aid programs." *Digest of Education Statistics 2022*.

17 In the most recently published estimates, NCES does not project undergraduate enrollment to reach the level of 2010 (18,082,427) by 2031. The projection now is 16,822,728 for 2031—the last year for which projections were made. NCES (2022). *Digest of Education Statistics 2022* [Table 303.70]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_303.70.asp.

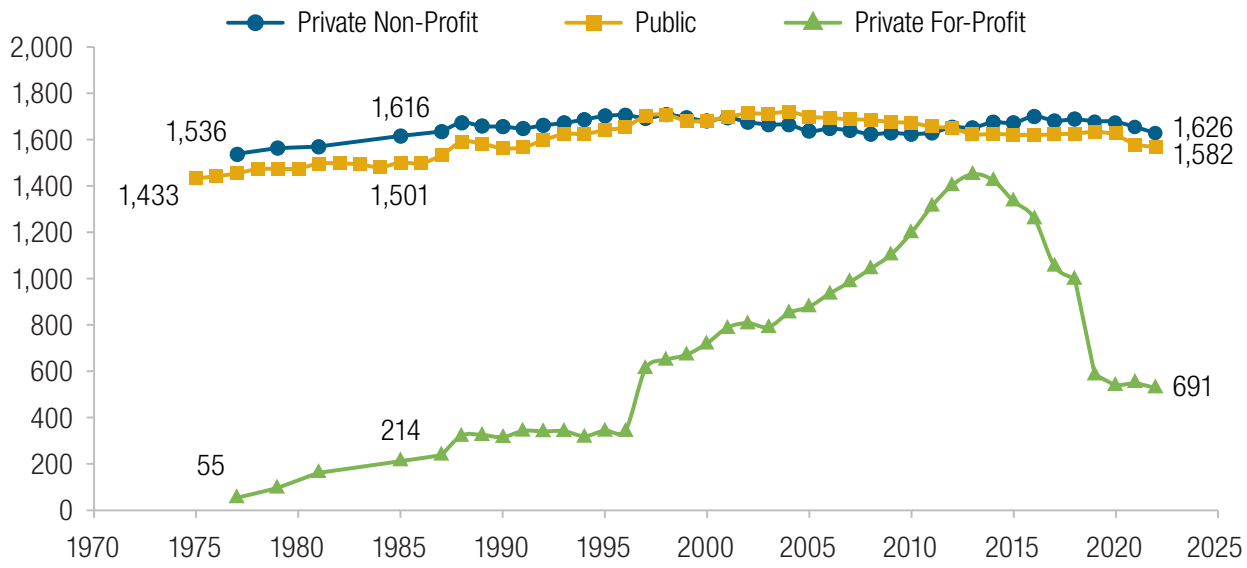
STS Figure 1: Number of degree-granting Title IV institutions in the United States by level: 1974-75 to 2021-22



NOTE: Data represent 1974-75 to 2021-22 academic years. Data begin with 1975 due to lack of reporting coverage prior to 1975. Data through 1995-96 are for institutions of higher education, while later data are for degree-granting institutions. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Changes in the counts of institutions over time are partly affected by changes in the numbers of institutions submitting separate data for branch campuses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Education Directory, Colleges and Universities, 1949-50 through 1965-66*; Higher Education General Information Survey (HEGIS), "Institutional Characteristics of Colleges and Universities" surveys, 1966-67 through 1985-86; Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey"(IPEDS-IC:86-99); and IPEDS Fall 2000 through Fall 2021, Institutional Characteristics component as included in *Digest of Education Statistics 2022*, [Table 317.10]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_317.10.asp.

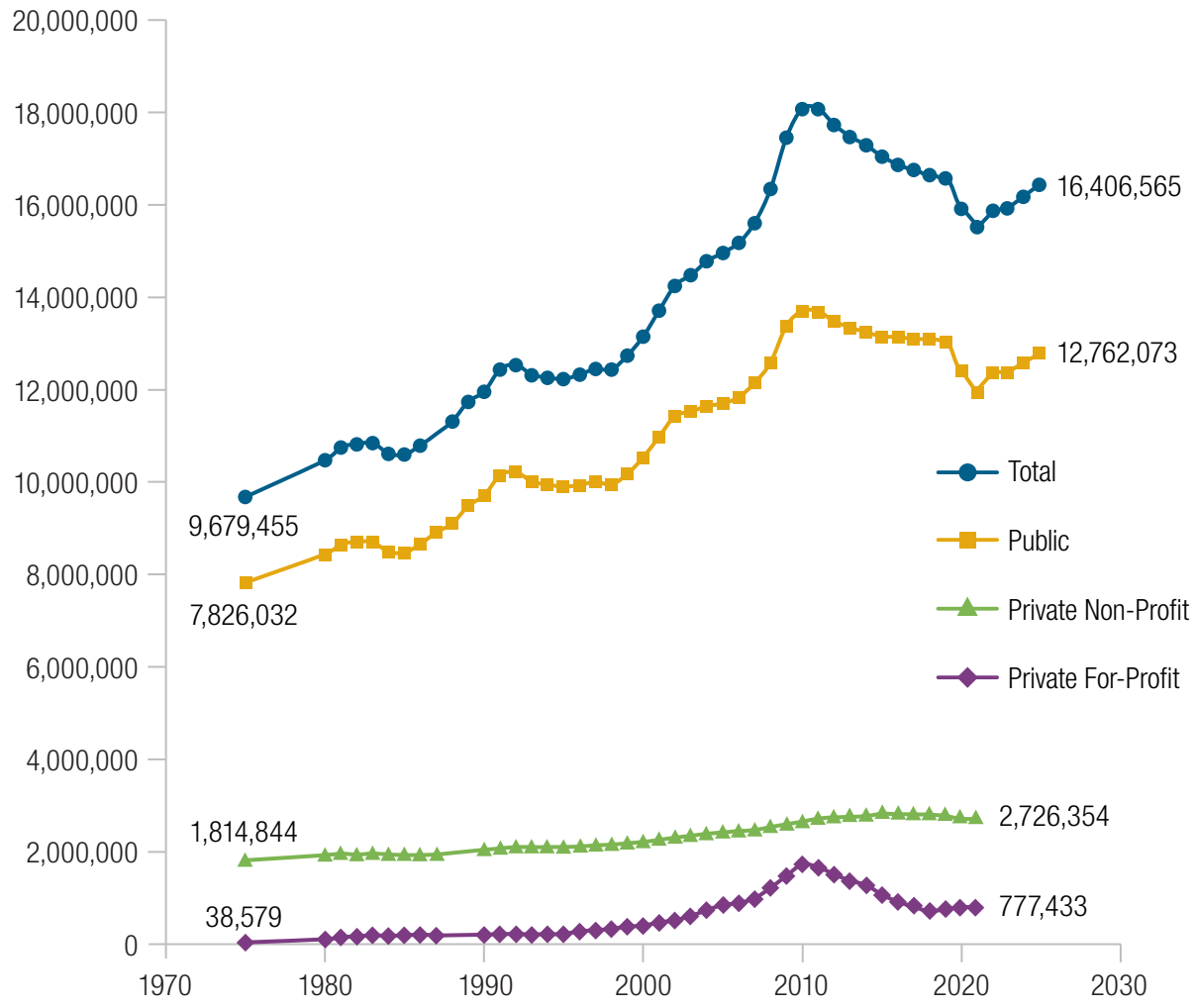
STS Figure 2: Number of degree-granting Title IV institutions in the United States by control: 1974-75 to 2021-22



NOTE: Data for private for-profit institutions are subject to coverage issues, especially prior to 1985. Data through 1995-96 are for institutions of higher education, while later data are for degree-granting institutions. This change accounts for the increase in private for-profit institutions between 1995 and 1996. Changes in counts of institutions over time are also affected by changes in the number of institutions submitting separate data for branch campuses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Education Directory, Colleges and Universities, 1949-50 through 1965-66*; Higher Education General Information Survey (HEGIS), "Institutional Characteristics of Colleges and Universities" surveys, 1966-67 through 1985-86; Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey"(IPEDS-IC:86-99); and IPEDS Fall 2000 through Fall 2021, Institutional Characteristics component as included in *Digest of Education Statistics 2022*. [Table 317.10] Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_317.10.asp.

STS Figure 3: Undergraduate fall enrollment in degree-granting institutions by institutional control: Fall 1975 to projected 2025



NOTE: Total and public enrollment data for 2022 to 2025 are projected estimates. Estimates for 2022 to 2025 are not available for private non-profit or private for-profit institutions. For these groups, the last year displayed is 2021. Data includes unclassified undergraduate students. Data through 1995 are for institutions of higher education, while later data are for degree-granting institutions. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. The degree-granting classification is very similar to the earlier higher education classification, but it includes more 2-year colleges and excludes a few higher education institutions that did not grant degrees. Some data have been revised from previously published figures.

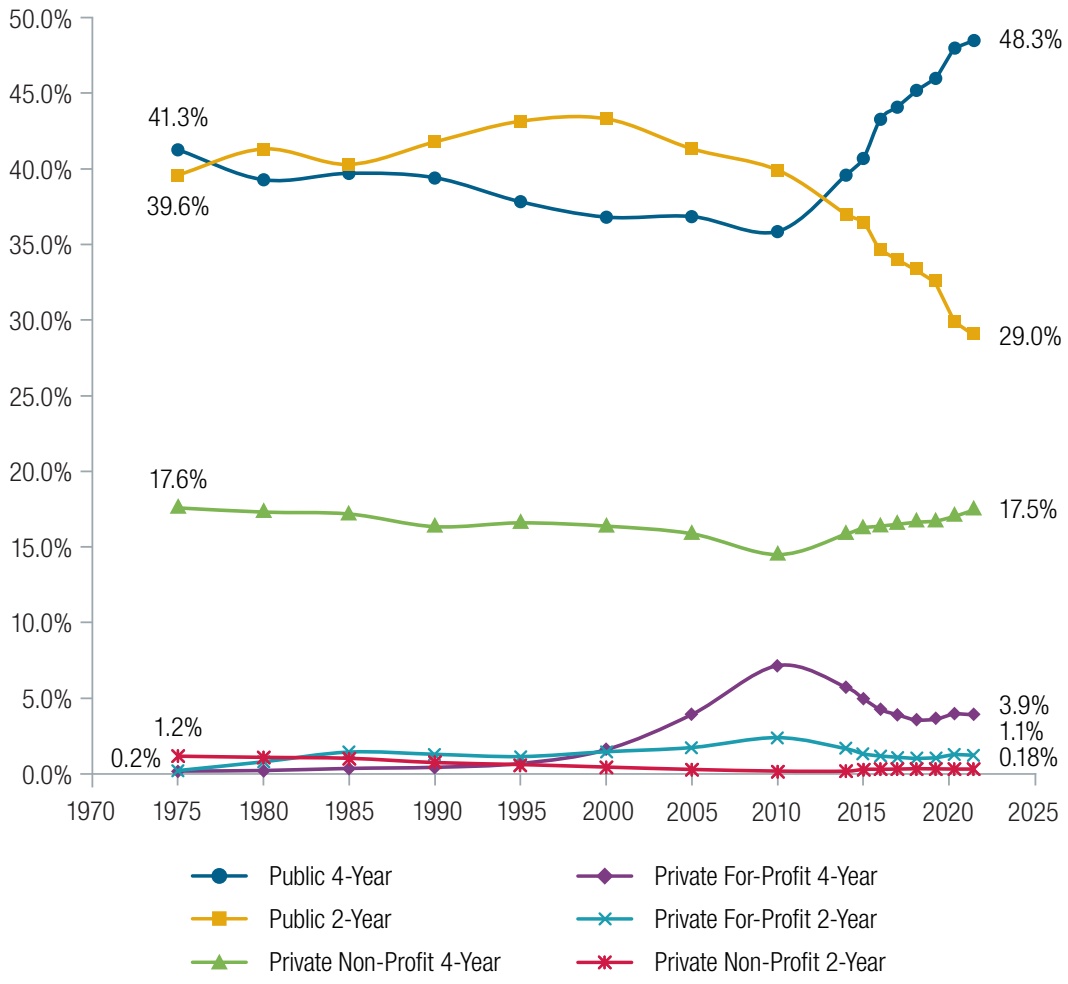
SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys, 1970 through 1985; Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey" (IPEDS-EF:86-99); IPEDS Spring 2001 through Spring 2022, Fall Enrollment component; and Enrollment in Degree-Granting Institutions Projection Model, 2000 through 2031, as included in *Digest of Education Statistics 2022*, [Table 303.70]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_303.70.asp.

Enrollment by Institutional Control and Level. In fall 2021, public institutions accounted for 77 percent of undergraduate enrollment, private non-profit institutions accounted for 17.6 percent, and private for-profit institutions accounted for 5 percent (STS Figures 3 and 4).[18] Because public institutions, on average, enroll larger numbers of students than private non-profit and private for-profit institutions, the distribution of enrollment by control is substantially different than the distribution of institutions.

Although there have been some fluctuations in the share of enrollments in public institutions since 1975, public institutions have consistently enrolled well over 70 percent of undergraduates. In 1975, 81 percent of undergraduates were enrolled in public institutions. The public share declined to 76 percent by fall 2010 and was 77 percent in 2014 and 2015. In 2016, the public share rose again to 78 percent, and in 2021 the share was again 77 percent. The share of undergraduates enrolled in private non-profit institutions fluctuated between 19 percent in 1975 and 15 percent in 2010. In 2021, 17.6 percent of undergraduates were enrolled in private non-profit institutions (17.5 percent in 4-year and 0.2 percent in 2-year private non-profits). During the 1990s, approximately 2 percent of undergraduates were enrolled in private for-profit 2-year and 4-year institutions. The private for-profit share of 2-year and 4-year undergraduate enrollment increased during the 2000s, reaching a high of 10 percent in 2010 and then declining to 5 percent in fall 2021.

18 Total and public enrollment data for 2022 to 2025 are estimates from NCES. Estimates for 2022 and beyond are not available for private non-profit or private for-profit institutions. For these groups, the last years displayed in STS Figure 3 are 2021.

STS Figure 4: Percentage distribution of undergraduate fall enrollment in degree-granting institutions by institution control and level: 1975 to 2021



NOTE: See notes for STS Figure 3.

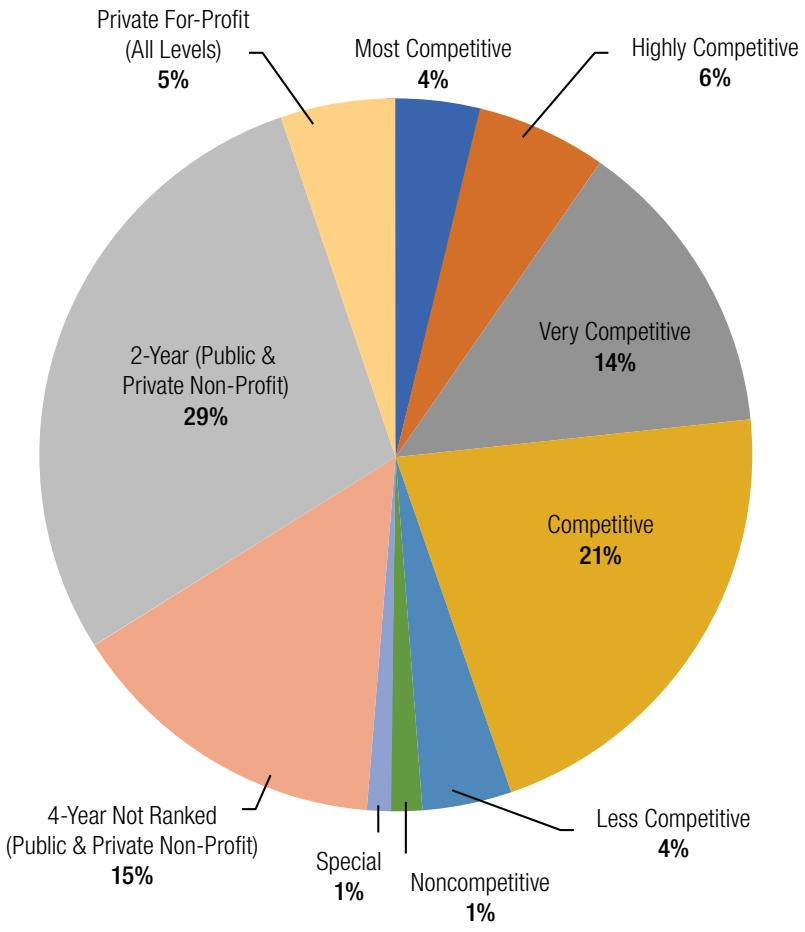
SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS), *Digest of Education Statistics 2022*, [Table 303.70]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_303.70.asp.

Enrollment by Institutional Competitiveness Index. STS Figure 5a presents the distribution of undergraduates enrolled (both full-time and part-time) at degree-granting institutions by institutional competitiveness, and STS Figure 5b presents the distribution of degree-granting institutions by institutional competitiveness. Selectivity is defined using Barron's Admissions Competitiveness Index for 2019. Using IPEDS fall enrollment data, in fall of 2021, a majority (55 percent) of undergraduate students were enrolled at 2-year or 4-year institutions that were not classified as competitive, and 45 percent of undergraduate students were enrolled in 4-year institutions classified as "Competitive or Higher." Under 5 percent (4 percent) of students were enrolled in the nation's "Most Competitive" institutions.

Not quite a third of students (29 percent) were attending 2-year institutions. The remaining students attended for-profit institutions (5 percent) or non-ranked 4-year public and non-profits (15 percent), or institutions designated by Barron's as "Special" (1 percent), "Noncompetitive" (1 percent), or "Less Competitive" (4 percent) 4-year institutions.

Number of Institutions by Competitiveness Index. STS Figure 5b, also using Barron's 2019 competitiveness index, shows the percentage distribution of degree-granting institutions in each category in 2021. The differences in the distributions in STS Figures 5a and 5b reflect differences in average enrollment among institutions of different competitiveness. For example, 2-year public and private non-profit institutions enroll 29 percent of undergraduate students (see STS Figure 5a) but comprise only 23 percent of all degree-granting institutions (STS Figure 5b). Non-ranked 4-year institutions enroll 15 percent of students but comprise 26 percent of institutions.

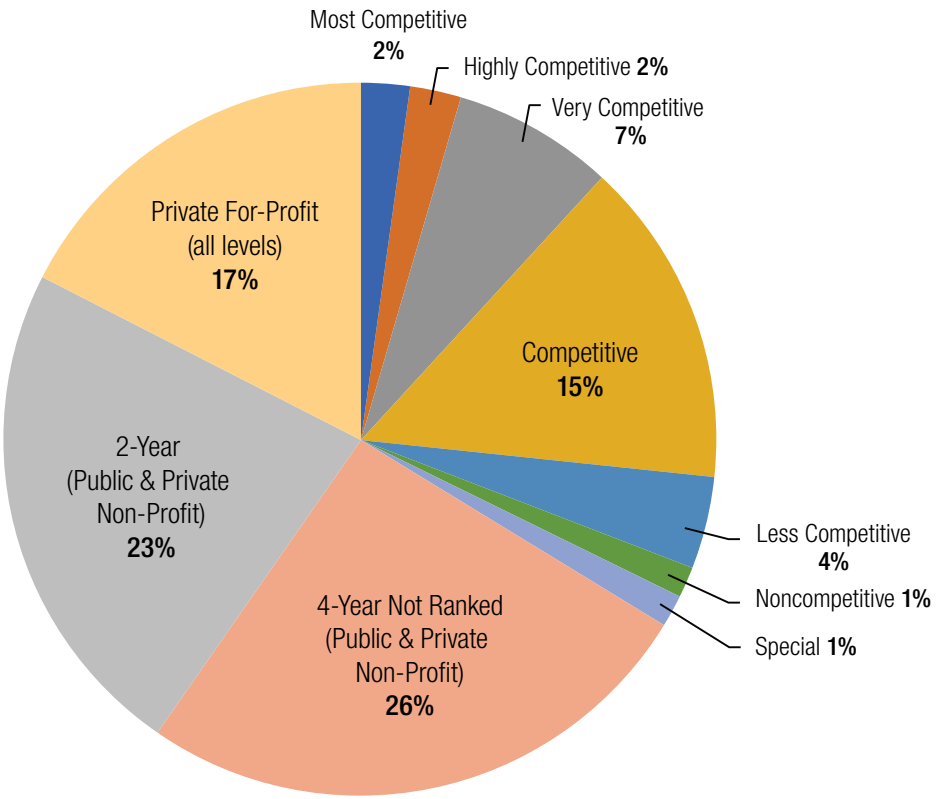
STS Figure 5a: Percentage distribution of total undergraduate enrollment by institutional competitiveness index: 2021



NOTE: This figure uses Barron's Admissions Competitiveness Index for 2019 and IPEDS fall 2021 enrollment data (full-and part-time enrollment captured by the "EFTOTLT" variable). Students attending institutions not ranked by Barron's are classified by institutional level and control. 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, but we include these institutions in the for-profit sector.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS) (2021), and *Barron's Profiles of American Colleges* 35th Edition (2019).

STS Figure 5b: Distribution of institutions by institutional competitiveness index: 2021



NOTE: This figure uses Barron's Competitiveness index for 2019 and IPEDS. 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, but we include these institutions in the for-profit sector.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS) (2021) and *Barron's Profiles of American Colleges*, 35th Edition (2019).

Growth of Students Classified as Eligible for Free or Reduced-Price Lunch and Growth of Federal Grants (Pell and Other Grants). STS Figure 6a shows trends in the percentages of youth that are approved as eligible for Free or Reduced-Price Lunches from 1989 to 2020 and the percent of full-time, first-time degree/certificate-seeking undergraduate students enrolled in degree-granting postsecondary institutions who have Pell or Other Federal Grants from 2000-01 to 2020-21, and the percentage of full-time, first-time degree/certificate-seeking undergraduate students enrolled in degree-granting postsecondary institutions who have Pell Grants from 2007-08 to 2020-21.

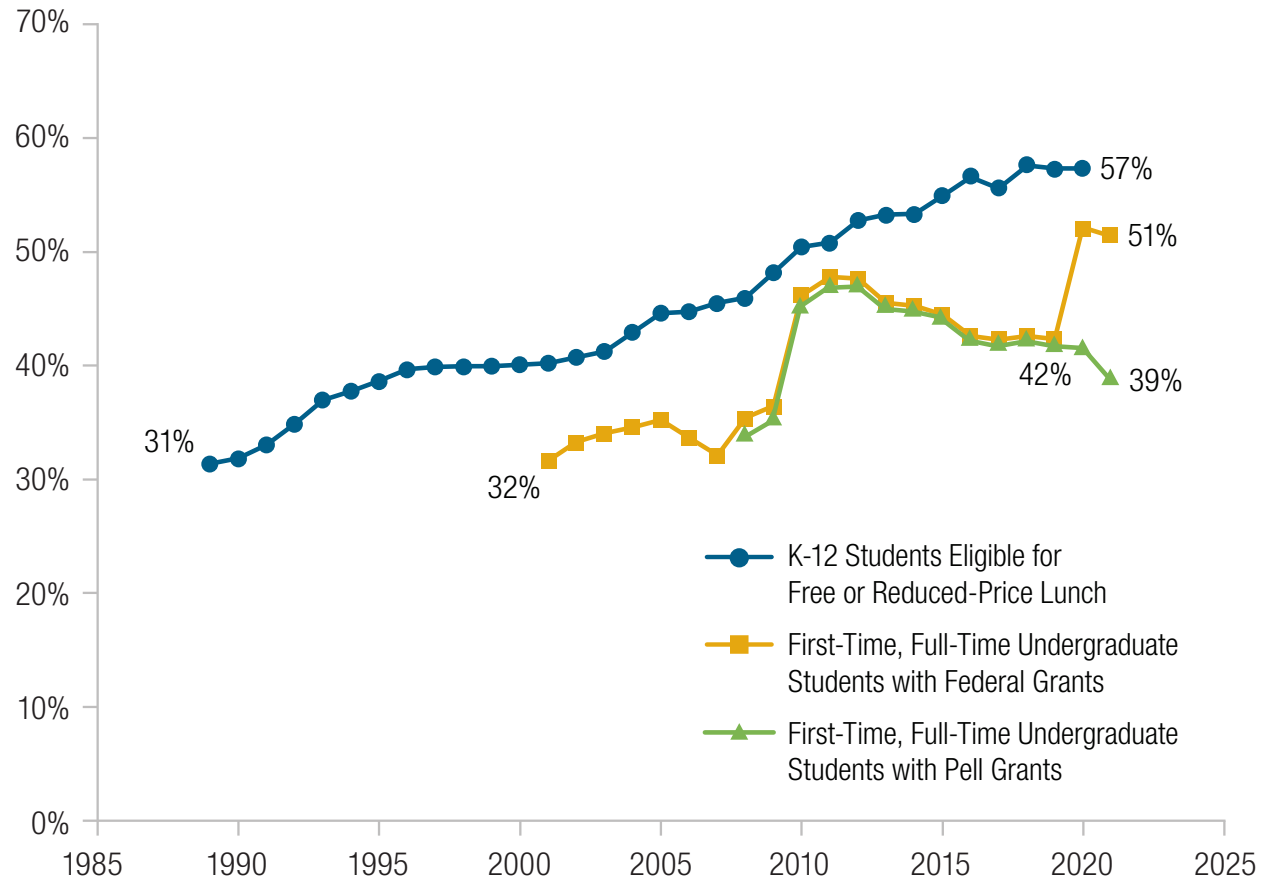
These measures show an increase in the share of students enrolled in our nation's educational systems who are from low-income families. The percentage of K-12 students eligible for Free or Reduced-Price Lunches has almost doubled, increasing from 31 percent in 1989 to 57 percent in 2020. Increases over time may reflect changes in policy across school districts (e.g., schools with more than a certain percentage of low-income students enrolling in the entire school), as well as the lingering impact of the Great Recession.

Changes over time in participation in Federal Grants (typically awarded based on financial need) reflect changes in the economic cycle, income eligibility levels, the stagnation of family incomes and special emergencies such as the COVID pandemic. In 2001, almost one-third (32 percent) of first-time, full-time degree-seeking undergraduates received Pell or other Federal Grants. This percentage fluctuated between 32 percent in 2001 and 36 percent in 2009.[19] After 2009 (with the Great Recession), the share of first-time, full-time undergraduates receiving Pell or other Federal Grants increased to a peak of 48 percent in 2011. This percentage declined to 42 percent in 2019. As Equity Indicator 6a shows, the percentage receiving Pell Grants and the percentage receiving Federal Grants are quite similar. This is because, up to the COVID pandemic, there were few Federal Grants for undergraduates other than Pell Grants. With the advent of the COVID-19 pandemic and the subsequent economic changes affecting the United States, there was a significant increase in the percentage of those receiving Federal Grants, rising to a high of 52 percent. Increases in the Federal Grants may be attributed to the Coronavirus Aid, Relief, and Economic Security Act (CARES) which has financially supported the Higher Education Emergency Relief Fund (HEERF) helping institutions of higher education and students financially during the COVID-19 pandemic. During COVID, however, the percentage of those receiving Pell Grants fell to 39 percent. The total percentage of those receiving Pell or other Federal Grants has remained high at 51% through 2021.

Growth of Students Classified as Eligible for Free or Reduced-Price Lunch by State. STS Figure 6b compares the percent of students approved as eligible for the Federal Free or Reduced-Price Lunch program by state. The figure shows the increase in the percent of students approved as eligible since 1990 as well as the wide variation by state.

19 The Federal Pell Grant Annual Report data https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv shows that the percentage of total (full-time and part-time undergraduates with Pell Grants rose from 13 percent in 1975 at the start of the Pell Grant program to 32 percent by 1992. The rates shown in STS Figure 6(a) for 2000 to 2021 are for full-time, first-time undergraduates and is higher than the percentage of all undergraduates receiving Pell Grants.

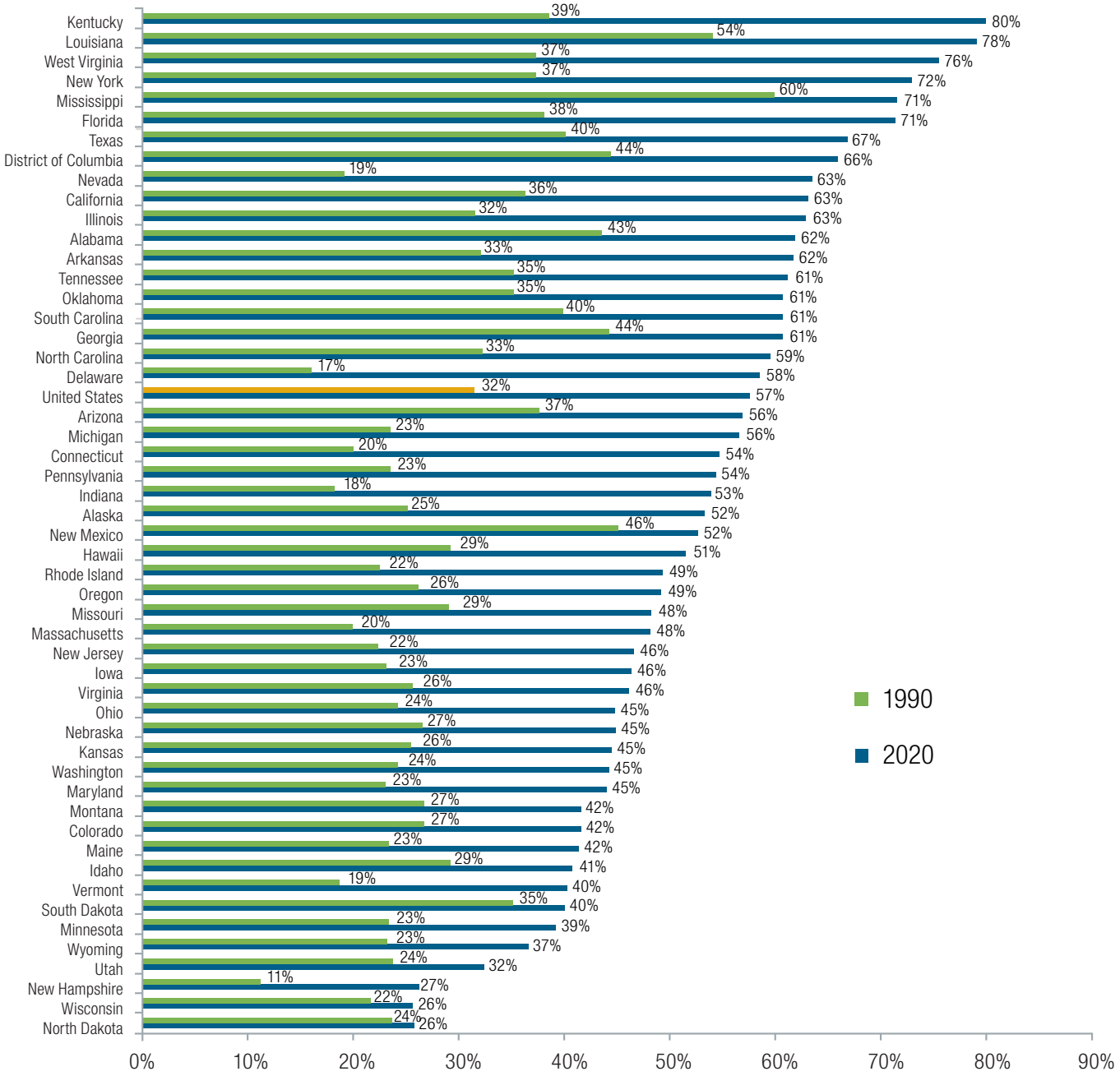
STS Figure 6a: Percentage of K-12 students approved for Free or Reduced-Price Lunch (1989 to 2020), percentage of first-time, full-time degree-seeking undergraduates with Federal Grants, (2001 to 2021), and first-time, full-time degree-seeking undergraduates with Pell Grants (2008 to 2021)



NOTE: Federal Grants include Pell Grants and other aid that does not have to be repaid by the student. Totals for approved Free or Reduced-Price Lunch include the 50 states, District of Columbia, Guam, Virgin Islands, Puerto Rico, and Department of Defense schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Student Financial Aid component final data (2001-02 to 2019-20) and provisional data (2020-21). Retrieved from https://nces.ed.gov/ipeds/TrendGenerator/app/trend-table/8/34?trending=column&f=2%3D1&rid=51; U.S. Department of Agriculture, Food and Nutrition Services, Free and Reduced-Price Lunch data various years, 1989 to 2020.

STS Figure 6b: Percentage of K-12 students approved for Free or Reduced-Price Lunch by state: 1990 and 2020



NOTE: The total for the United States includes the 50 states, District of Columbia, Guam, Virgin Islands, Puerto Rico, and Department of Defense schools.

SOURCE: U.S. Department of Agriculture, Food and Nutrition Services, Free and Reduced-Price Lunch data 1990 and 2020, as compiled by Tom Mortenson and Nicole Brunt.

Percentage of Youth Who Are the First-Generation in their Family to Go to College. Measures of educational achievement (e.g., test scores, college entrance rates, and college degree attainment) are highly correlated with parental education. STS Figure 7a uses data from three NCES High School Longitudinal Studies to provide a comparison over time. In Figure 7a, First-Generation is defined as no parent or guardian having attained a bachelor's degree. Caution is needed in using this data, especially observing slight differences in estimates over time. The three surveys each sampled high school students in different grades. The National Longitudinal Study (NLS) of High School Class of 1972 sampled high school seniors. The Educational Longitudinal Study (ELS:2002) sampled high school sophomores and the High School Longitudinal Study (HSLS:09) sampled high school freshmen in 2009. These differences may impact the comparison between the three estimates as the NLS is limited to individuals who persisted to the senior year of high school while the ELS and HSLS sample includes students who may leave high school before their senior years. Given the relationship between parent education and high school completion, within the context of a trend for there to be reduced percentages of first-generation students, the HSLS of 9th graders might be expected to have an increased number of first-generation students. Categories of race/ethnicity have also shifted over time. The HSLS study added a separate category of Native Hawaiian/Pacific Islander, non-Hispanic formerly included under Asian.

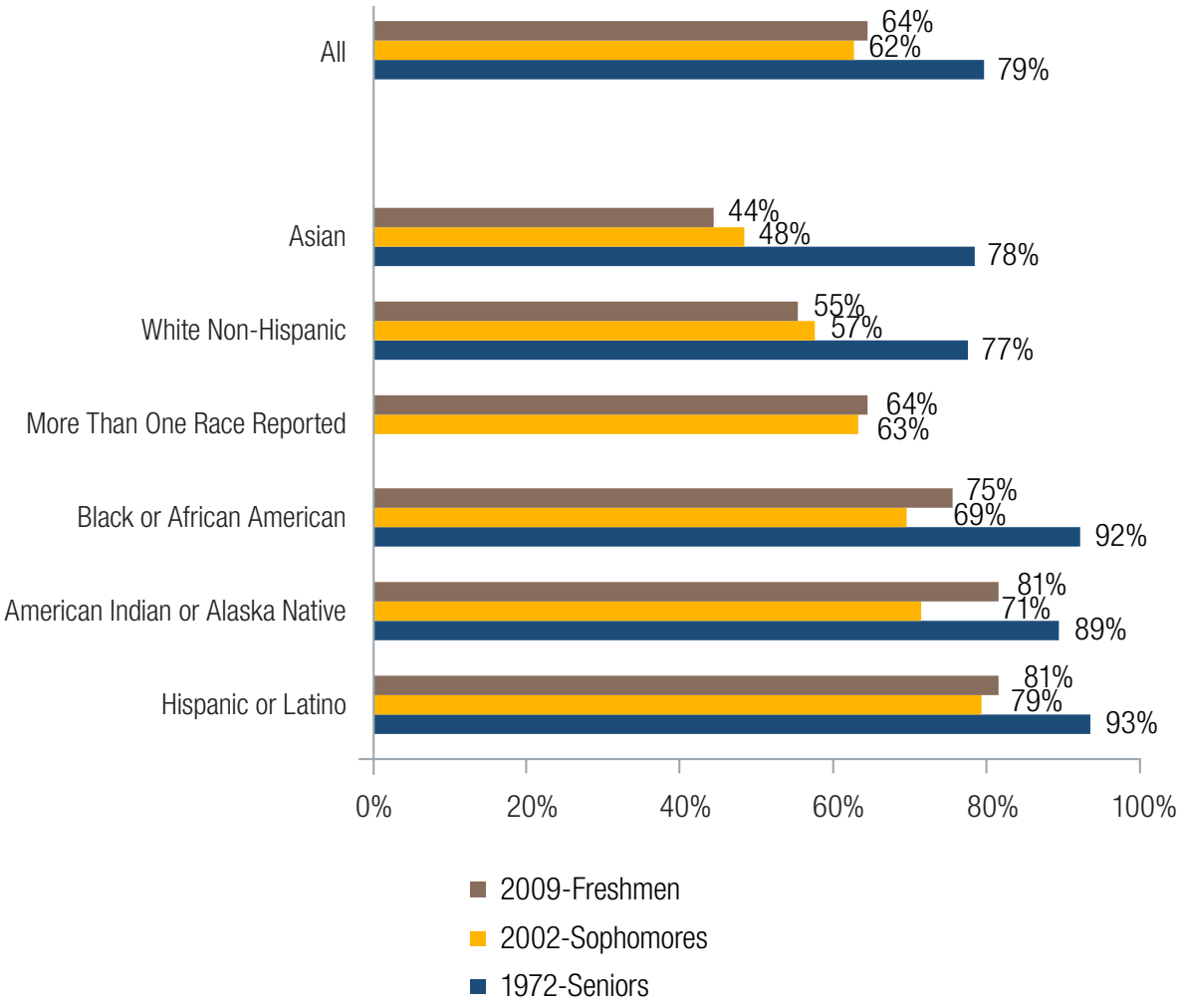
Comparing the senior class of 1972 and the freshman class of 2009 shows large declines in the percentages of high school students who would be first-generation to college (defined as no parent has a bachelor's degree). In 1972, among the high school seniors, 79 percent would be first generation if they attended college, compared with 64 percent among the 2009 freshmen sample that included students with more years to leave high school prior to their senior year.

For both time periods, there are significant differences by race/ethnicity, with higher shares of Hispanics, Blacks, and American Indian or Alaska Natives who are potential first-generation to college compared to Whites and Asians. In 1972, 93 percent of Hispanic or Latino students, 92 percent of Black students, 89 percent of American Indian or Alaska Native students, 78 percent of Asian students, and 77 percent of White students had the potential to be first-generation to college. About 37 years later, by the freshman class of 2009, the percentages of high school students who had the potential to be first-generation to college had declined substantially for each race/ethnicity group: to 81 percent for Hispanics or Latinos, 81 percent for American Indian and Alaska Native, 75 percent for Blacks, 55 percent for Whites, and 44 percent for Asian students. Note the increase in estimates for first-generation college between ELS and HSLS can be attributed to the differences in samples: The ELS sample was high school sophomores and the HSLS sample was high school freshmen. The relatively large increase reported for American Indian and Alaska Native over the ELS estimate (71 percent) may be due to sampling error or to the fact that this was a 9th grade rather than 10th grade sample.

Data from the American Community Survey (ACS), as displayed in STS Figure 7b, give estimates for the percentages of parents of children under 18 who had not completed a bachelor's degree in 2010 and 2021 by race/ethnicity. We note that these estimates are not directly comparable to those in Figure 7a which use data from the NCES high school longitudinal studies. The ACS is a household survey, and the estimates are for the percentage of all children under 18 years old living in the household sampled. In addition, the ACS classifications reflect newer, more complex race/ethnicity categories.

Although not directly comparable to the NCES high school studies, the ACS data also demonstrate the large declines in the share of students who had the potential to be first-generation to college over the past decade. The data show the same differences by race/ethnicity among parent education levels, especially among traditionally underrepresented minorities. In 2021, 76 percent of American Indian/Alaska Native children, 74 percent of Hispanic children, 75 percent of Pacific Islander children, 70 percent of Black children, 48 percent of children of "Some Other Race," and 49 percent of children of "Two or More Races" had the potential to be first-generation to college. In contrast, less than half of Whites (44 percent) and less than a third of Asians (29 percent) were potentially first-generation college students in 2021. These data may overestimate potential first-generation status, as some of the parents may complete a bachelor's degree or higher by the time their children reach college age.

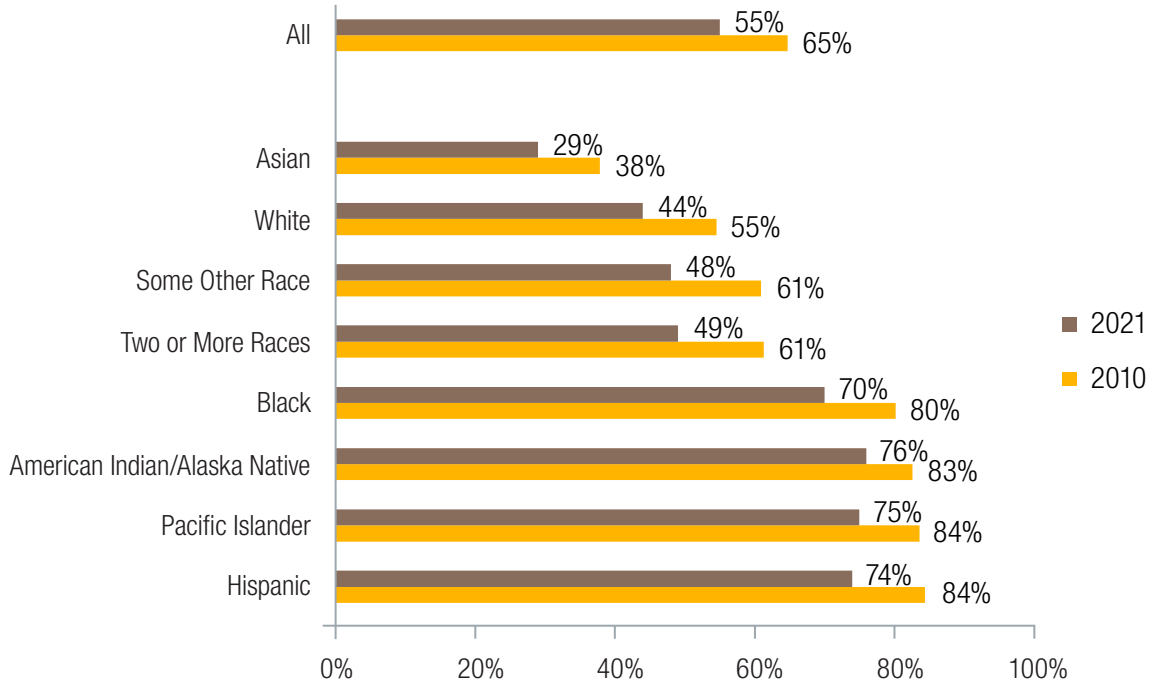
STS Figure 7a: Percentage of high school students who had the potential to be first-generation college by race/ethnicity: 1972 (National Longitudinal Study: NLS:1972); 2002 (Education Longitudinal Study: ELS:2002); and 2009 (High School Longitudinal Study: HSLS:2009)



NOTE: First-generation is defined as no parent or guardian having attained a bachelor's degree. Caution is needed in using this data, especially observing small differences. The three surveys each sampled high school students in different grades. The National Longitudinal Study (NLS) of High School Class of 1972 sampled high school seniors. The Educational Longitudinal Study (ELS:2002) sampled high school sophomores and the High School Longitudinal Study (HSLS:2009) sampled high school freshmen. These differences may impact the comparison between the three estimates, as the NLS is limited to individuals who persisted to the senior year of high school, and the ELS and HSLS sample includes students who may leave high school before their senior years. Given the relationship between parent education and high school completion, within the context of a trend for reduced percentages of first-generation students, the HSLS of 9th graders might be expected to have an increased number of first-generation students than ELS which samples high school 10th graders. Categories of race/ethnicity have also shifted over time. HSLS study had an additional separate category of Native Hawaiian/Pacific Islander, non-Hispanic formerly included under Asian, and 71 percent of these students were first-generation.

SOURCE: Cahalan, M. & Curtin, T. (2004). *A Profile of the Upward Bound Program 2000-2001*. U.S. Department of Education, Office of Federal TRIO Programs, Figure 9. Retrieved from https://www2.ed.gov/programs/trioupbound/ubprofile-00-01.pdf. Tabulated from the National Longitudinal Study of 1972 (NLS-72) and Educational Longitudinal Study of Youth (ELS:2002). Data from the HSLS:09 tabulated by authors using NCES power stats, November 2023.

STS Figure 7b: Percentage of children under 18 with the potential to be first-generation college by race/ethnicity: 2010 and 2021



NOTE: First-generation is defined as no parent or guardian having attained a bachelor's degree. These estimates are not directly comparable to estimates in STS Figure 7a as they reflect multiple children per household and are estimates based on parents of children under age 18 from the Census household survey.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, American Community Survey (ACS), 2010 and 2021 as included in U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022*, [Table 104.70]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_104.70.asp?current=yes.

Educational Attainment of the Population Age 25 and Older by Race/Ethnicity. Setting the Stage Figures 7c and 7d use data sources from the Decennial Census, and the Current Population Survey (CPS) to present data by race/ethnicity on high school and bachelor's degree attainment from 1940 to 2022. Educational attainment of the adult population is a strong positive predictor of educational achievement of youth, as measured by such indicators as scores on the National Assessment of Educational Progress (NAEP), high school completion, and college entrance and completion.[20]

High School Diploma Attainment. Between 1940 and 2022, all groups depicted in STS 7c experienced substantial growth in the rate of attainment of a high school diploma or equivalent by persons 25 years of age and older. Black high school attainment rates had the highest rate of change, increasing over tenfold, rising from 8 percent in 1940 to 90 percent in 2022 (a rate that is not statistically different than that of the White population 25 years of age and older). Among the White population, high school attainment rose from 26 percent in 1940 to 91 percent in 2022 (95 percent for White non-Hispanics). Hispanic high school completion for the population 25 years of age and older increased from 44 percent in 1980 (the first year for which data is available) to 75 percent in 2022. The Asian completion rate rose from 62 percent in 1970, the first year that estimates are available, to 92 percent in 2022.

Bachelor's Degree Attainment. Although STS Figure 7c displays a closing of the gap in the differences in the percentage of the population 25 years of age and older who attained a high school diploma or equivalent, STS Figure 7d shows a continued divergence in bachelor's degree attainment among the groups, within the context of large increases for all groups. In the 1940 Census, small percentages of both the White and Black population 25 years and older held bachelor's degrees (5 percent of the White population and 1 percent of the Black population). Between 1940 and 2022, there were large increases among all race/ethnicity groups; however, the gaps remain. By 2022, 59 percent of Asians, 42 percent of White Non-Hispanics,[21] 28 percent of Blacks, and 21 percent of Hispanics age 25 and over had attained a bachelor's degree or higher. Please remember to use caution when interpreting figures 7c and 7d over the period since 1940, as classifications used for race/ethnicity have changed over the 80-year period.

Differences in Educational Attainment by States. STS Figure 7e uses data from the Census Bureau ACS and the CPS to show the percentage of the population age 25 and over with a bachelor's degree or higher by state in 2000 and 2022. These data show significant differences by state, with rates in the highest attainment states being twice the rates in the lowest attainment states. In 2022, the percentage of the population age 25 and older with at least a bachelor's degree ranged from 23 percent in West Virginia, 25 percent in Mississippi, 27 percent in Arkansas, 28 percent in Indiana, Kentucky, Louisiana and Alabama, to 49 percent in Maryland, 51 percent in Massachusetts, and was highest at 68 percent in the District of Columbia.

Overall, between 2000 and 2022, the United States saw a 55 percent increase in the percentage of the population with at least a bachelor's degree, increasing from 24 percent to 38 percent. The states with the largest percentage increase during this period were Tennessee (82 percent), District of Columbia (75 percent), and Rhode Island (70 percent). The states with the lowest percent increase were Wyoming, Connecticut, Alaska, and New Mexico, all with under a 40 percent increase.

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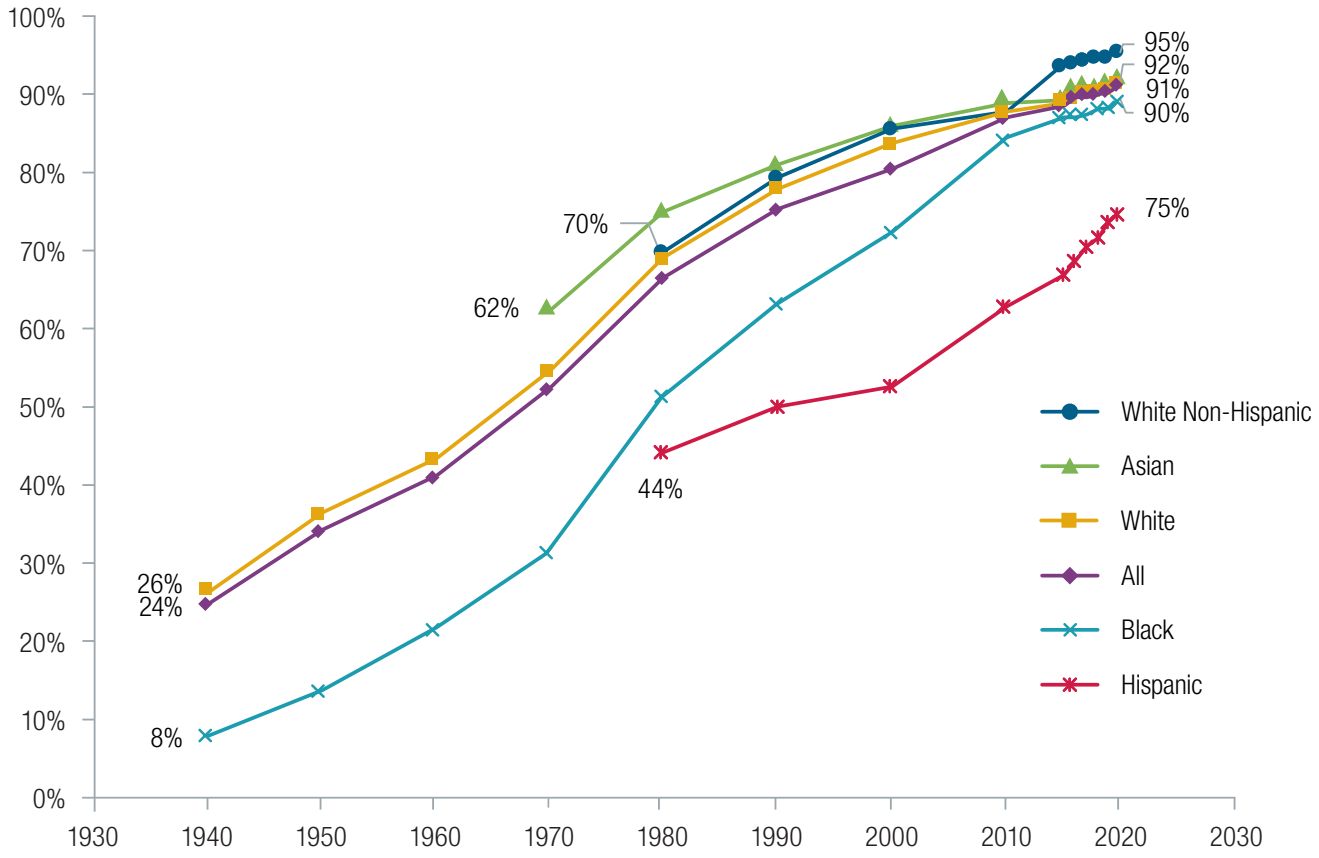
20 Cahalan, M., & Maxwell, J. (2007). *Exploring Demographic and Selected State Policy Correlates of State Level Educational Attainment and Achievement Indicators.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. Retrieved from https://chears.org/publications/fulltext/StateDiffEDAttainmentAERA2007Cahalan.pdf; Cahalan, M., Brunt, N., (2023). *Using the Pell Indicators to Understand College Opportunity in Your State: Strategies for Reducing Equity Gaps in Educational Attainment In and Among the 50 U.S. States, COE 42 Annual Conference, COE-ED Talk.* Retrieved from https://chears.org/publications/fulltext/CahalanBruntStateDiffSeptCOEEDTalk2023.pdf.

21 The "White non-Hispanic" category began to be 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 changed over time, providing for separate Hispanic ethnicity identification in 1980 and choice of more than one race after 2003.

Differences in Percentage of Population Employed in Occupations Requiring a Bachelor's or Higher Degree for Entry by State. Using data from the Bureau of Labor Statistics on employment for the state, combined with Census data on educational attainment, STS Figure 7f(i) displays 2021 data on the percentage of the population with a bachelor's degree compared with the percentage of persons employed in occupations requiring a bachelor's degree or higher for entry. In general, the higher the educational attainment within the state, the greater the percentage of persons employed in occupations that require a BA or higher for entry. However, the range in percentage of persons employed in occupations requiring a bachelor's degree or higher is less than the range of attainment by state. The percentage of the population employed in occupations requiring a bachelor's or higher for entry ranged from highs of 61 percent in the District of Columbia (an outlier), 37 percent in Massachusetts, 34 percent in Maryland, and 33 percent in Virginia to lows of 22 percent in Mississippi and Nevada, and 23 percent in South Carolina, Wyoming, Kentucky, and Indiana. Figure 7f(ii) displays the percentage point gap between the percentage of the population with a bachelor's degree and the percentage of persons employed in jobs requiring a BA or higher for entry. In general, states with higher attainment also had larger gaps, ranging from a high of 19 percentage points in New Jersey, and 18 percentage points in Rhode Island and Colorado to lows of -.1 percentage points in West Virginia, and 2 percentage points in Louisiana, Alaska, and Mississippi.

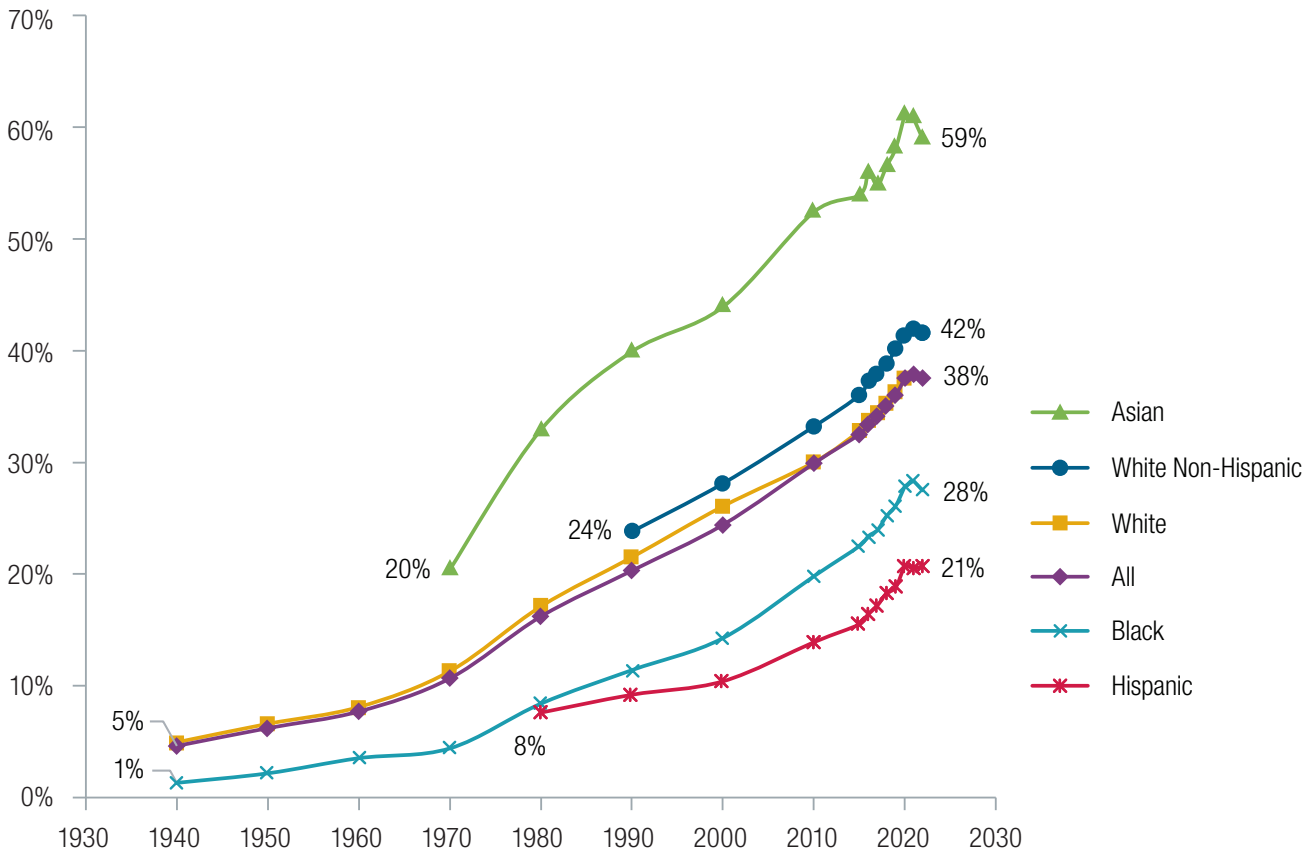
STS Figure 7c: Percentage of the population 25 years of age and older who attained a high school diploma or equivalent by race/ethnicity: selected years 1940-2022



NOTE: 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 began to be 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 changed over time, providing for separate Hispanic ethnicity identification in 1980 and choice of more than one race after 2003. Data from 1940 to 2010 are from the Decennial Census. Data from 2010 to 2022 are from the Current Population Survey.

SOURCE: U.S. Census Population Division Census 2000 PHC-T-41. (2015). *A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000*. Census data after 2000 retrieved from: https://www.census.gov/data/tables/time-series/demo/educational-attainment/cps-historical-time-series.html.

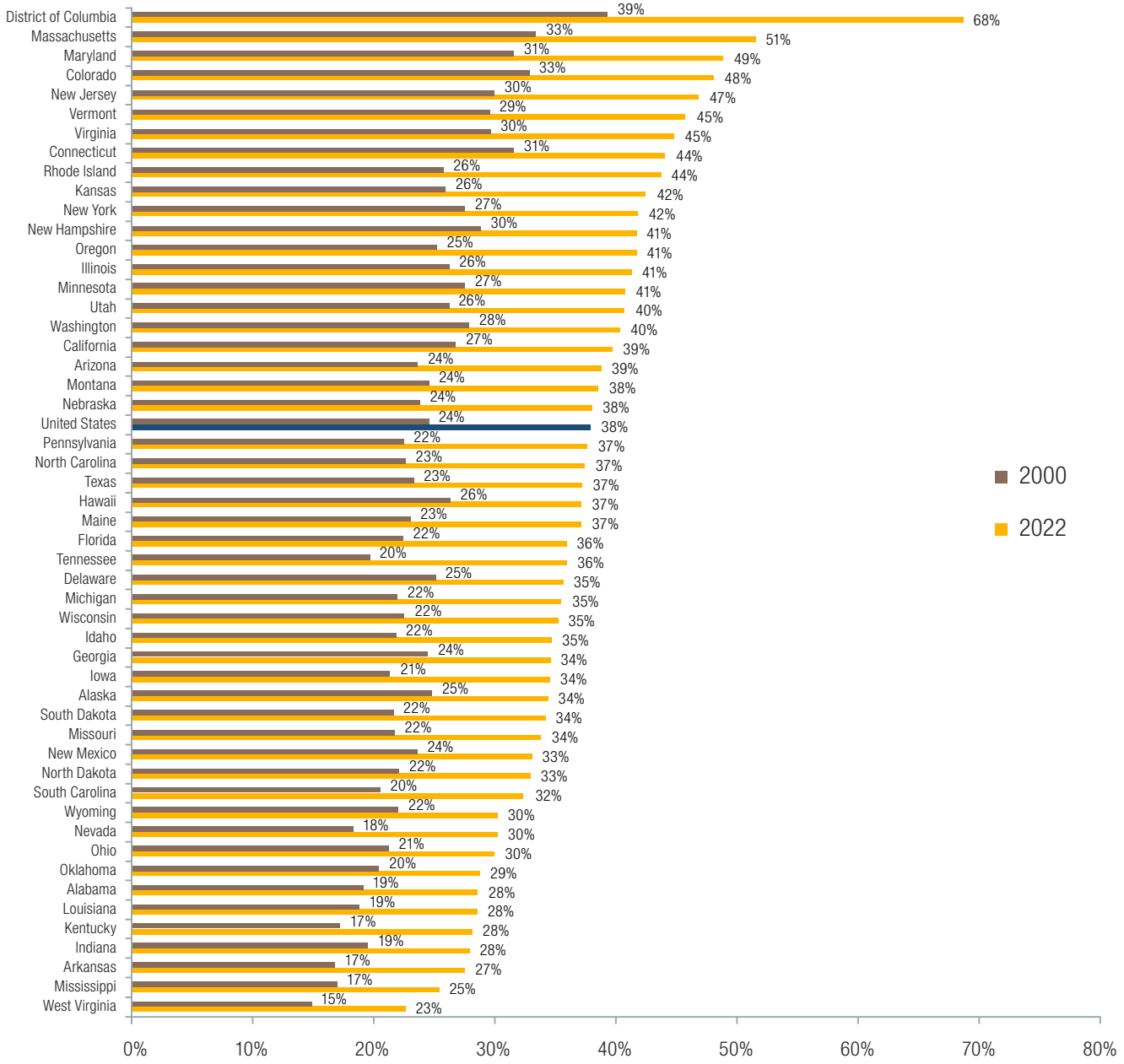
STS Figure 7d: Percentage of the population 25 years of age and older who attained a bachelor's degree or higher by race/ethnicity: selected years 1940-2022



NOTE: 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 began to be 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 changed over time, providing for separate Hispanic ethnicity identification in 1980 and choice of more than one race after 2003. Data from 1940 to 2010 are from the decennial census. Data from 2010 to 2020 are from the Current Population Survey.

SOURCE: U.S. Census Population Division Census 2000 PHC-T-41. (2015). *A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000*. Census data after 2000 retrieved from https://www.census.gov/data/tables/time-series/demo/educational-attainment/cps-historical-time-series.html.

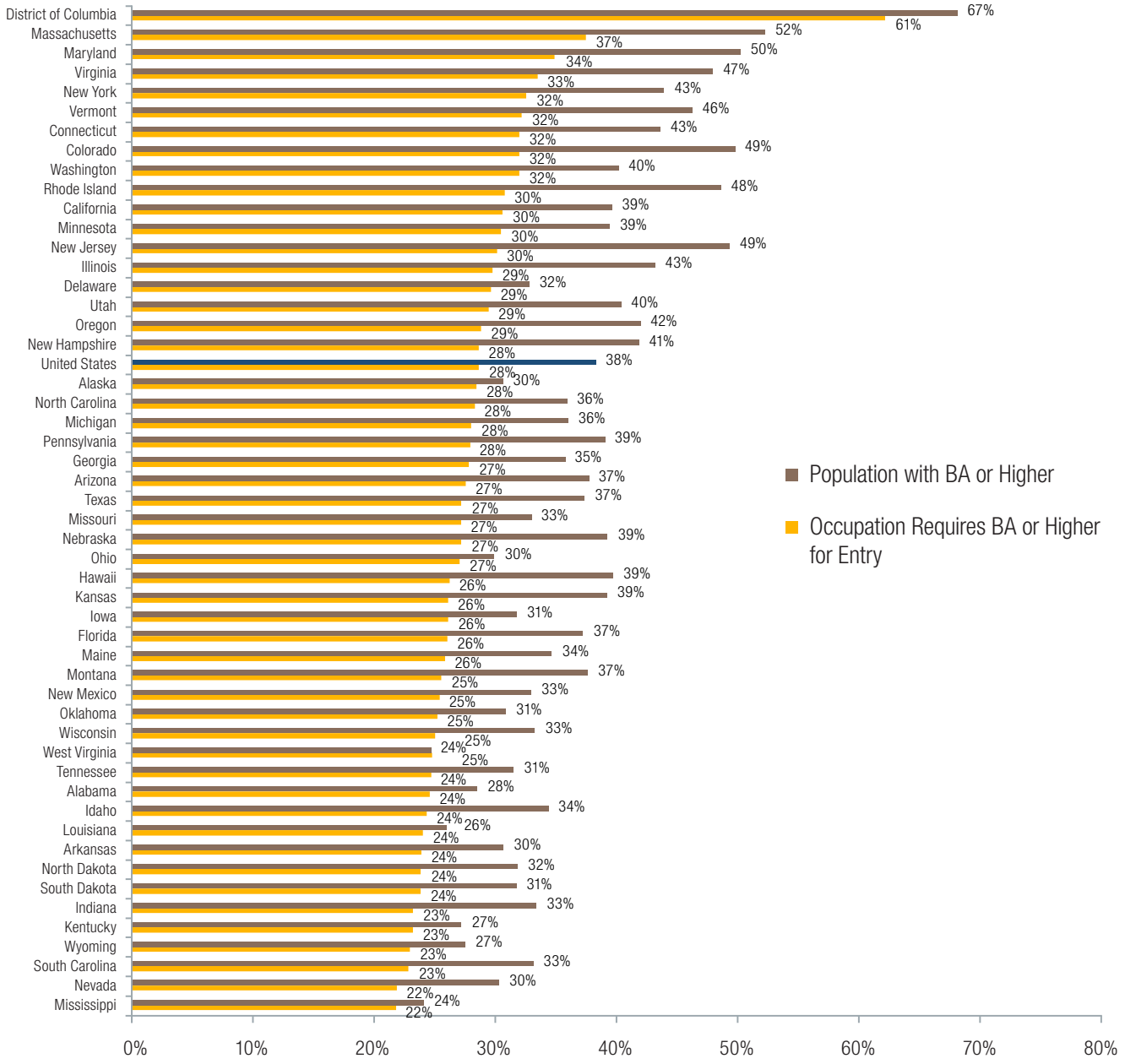
STS Figure 7e: Percentage of the population age 25 and over with a bachelor's degree or higher by state: 2000 and 2022



NOTE: Data are based on sample surveys of the entire population in the given age range 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). Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, American Community Survey (ACS), 2000 as included in U.S. Department of Education, National Center for Education Statistics (2007). *Digest of Education Statistics 2007*, [Table 11]. https://nces.ed.gov/programs/digest/d07/tables/dt07_011.asp; and U.S. Census Bureau, Current Population Survey (CPS), tabulated using the online data retrieval tool, MDAT, https://data.census.gov/mdat/#/.

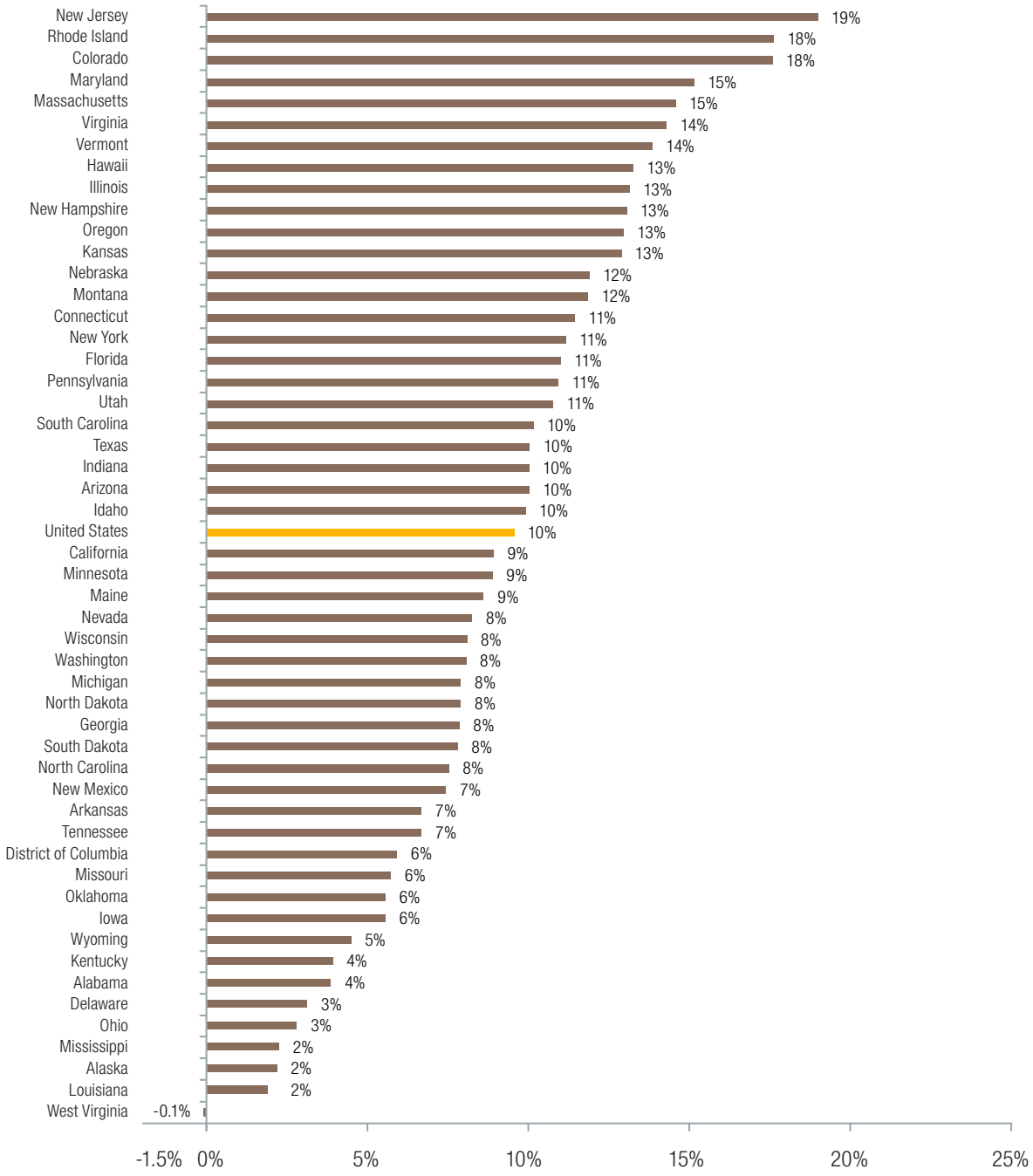
STS Figure 7f(i): Percentage of persons 25 and older with a bachelor's degree or higher and percentage of persons employed in occupations requiring a bachelor's degree or higher for entry by state: 2021



NOTE: Data are tabulated from BLS employment and detailed occupation training assignment data and education data from the US Census Bureau as cited below.

SOURCE: United States Bureau of Labor Statistics, May 2021 National and State Occupation Employment and Wage Estimate, https://www.bls.gov/oes/current/oessrcst.htm and https://www.bls.gov/oes/current/oes_nat.htm. BLS, Office of Employment and Unemployment Statistics, Education and Training Pay, Data Table: 5.4 Education and training assignments by detailed occupation, 2021, https://www.bls.gov/emp/documentation/education-training-system.htm, Education Data were calculated using the US Census Bureau's MDAT system: https://data.census.gov/mdat/#/.

STS Figure 7f(ii): Percentage point gap between percent of persons 25 and older with a bachelor's' s degree and percentage of persons employed in occupations requiring a bachelor's degree or higher for entry by state: 2021



NOTE: Data are tabulated from data by subtracting the percent of population with a bachelor's degree from the percent employed in occupations requiring a BA for entry.

SOURCE: United States Bureau of Labor Statistics, May 2021 National and State Occupation Employment and Wage Estimate, https://www.bls.gov/oes/current/oessrcst.htm and https://www.bls.gov/oes/current/oes_nat.htm. BLS, Office of Employment and Unemployment Statistics, Education and Training Pay, Data Table: 5.4 Education and training assignments by detailed occupation, 2021, https://www.bls.gov/emp/documentation/education-training-system.htm, Education Data were calculated using the US Census Bureau's MDAT system: https://data.census.gov/mdat/#/.

Income and Wealth Inequality in the United States

Early editions of the Equity *Indicators* report documented the differences in college enrollment, completion, and attainment rate by income levels and other demographic characteristics. Beginning with the 2018 edition, we began to look more closely at income and wealth equity distribution levels, as they are closely related to educational attainment. STS Figures 8a to 8f present information on the distribution of income and wealth in the United States.[22] The data come from the Census Bureau's Current Population Survey (CPS),[23] the Internal Revenue Services' (IRS) Statistics of Income (SOI) data compiled from a large sample of individual income tax returns,[24] and the Federal Reserve's triennial Survey of Consumer Finance.[25] The Congressional Budget Office (CBO) has developed a model that combines CPS and SOI data to estimate household income both before and after taxes, as well as average taxes paid by income groups back to 1979.[26]

The Rise in Income Inequality as Measured by the Gini Index. STS Figure 8a(i) displays trends in the Gini index from 1979 to 2020 as published by the Congressional Budget Office. The Gini index is a measure of income inequality that ranges from zero (the most equal distribution) to 1.0 (the least equal distribution). CBO reports Gini indexes based on four different income measures: market income, income before transfers and taxes, income after transfers but before taxes, and income after transfers and taxes. The larger the Gini index, the higher the inequality. **Market income** consists of labor income, business income, capital gains (profits realized from the sale of assets), capital income excluding capital gains, income received in retirement for past services, and other sources of income. **Income before transfers and taxes** consists of market income plus social insurance benefits. **Income after transfers but before taxes** is calculated after factoring cash payments and in-kind services provided through federal, state, and local government assistance programs such as housing assistance programs. **Income after transfers and taxes** is income before transfers and taxes plus means-tested transfers minus federal taxes (individual income taxes, payroll or social insurance taxes, corporate income taxes, and excise taxes).

STS Figure 8a(i) shows that for all reported measures, the Gini coefficient was substantially higher in 2020 than in 1979. For example, the Market Income Gini Index was 0.62 in 2020, up from 0.47 in 1979 and the income after transfers and taxes Gini Index increased from 0.35 in 1979 to 0.42 in 2020.

STS Figure 8a(ii) displays the Gini Index (After Transfers but Before Taxes) by state for 2022. The Gini index rates ranged from .43 in Utah and Alaska to .50 in California, Massachusetts, and Connecticut and to .51 in the District of Columbia and .52 in New York. The overall Gini index for the United States was .49.

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22 An excellent guide to data on income inequality is provided in *A Guide to Statistics on Historical Trends in Income Inequity* by Chad Stone, Danilo Trisi, Arlo Shermand and Jennifer Beltran (2020) published by the Center on Budget and Policy Priorities https://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality.

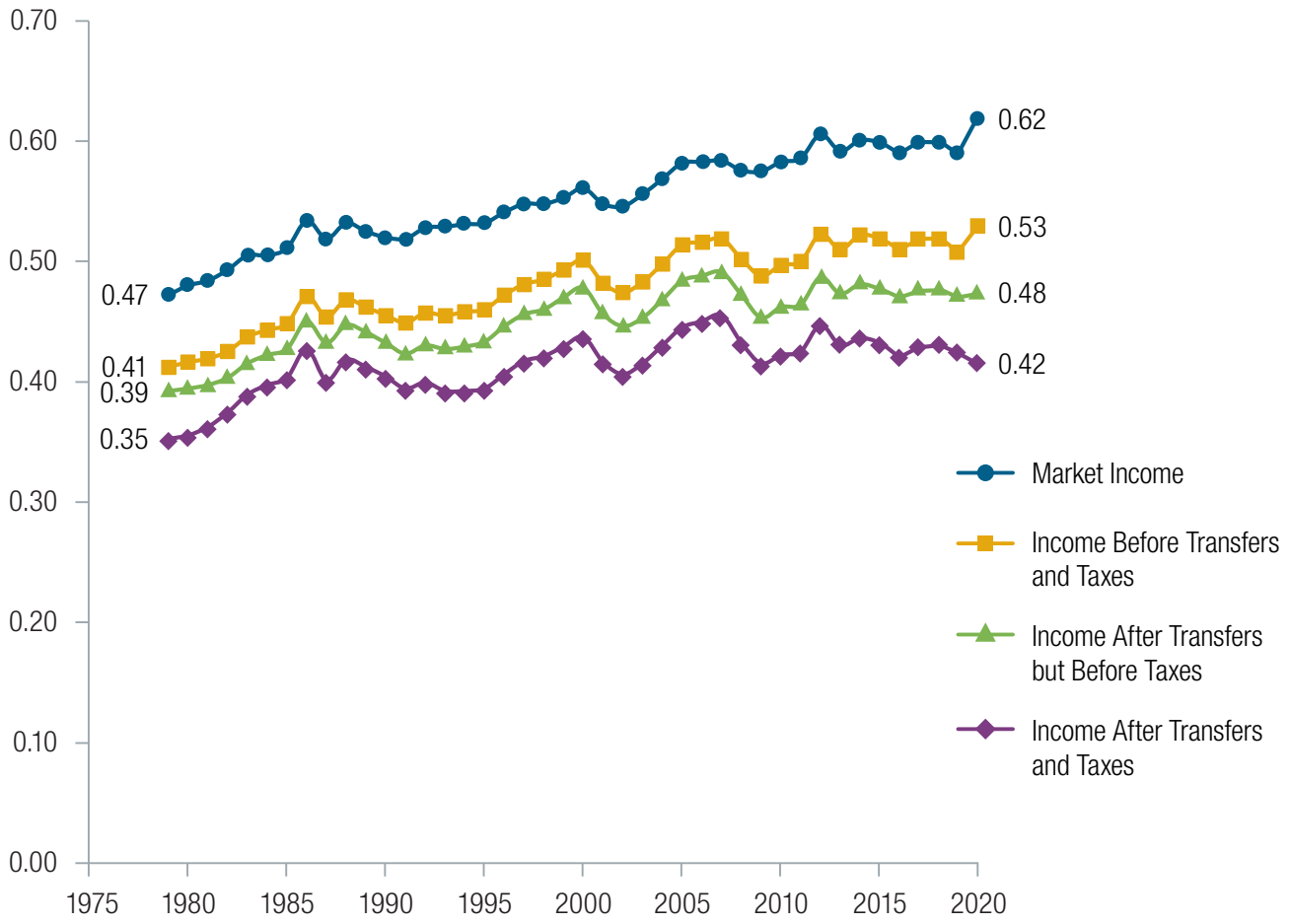
23 The Census Bureau publishes annual reports on income, poverty, and health insurance coverage in the U.S. based on the CPS data http://www.census.gov/topics/income-poverty/income.html.

24 IRS publishes an annual report on individual income tax returns based on the SOI Internal Revenue Service, "SOI Tax Stats—Individual Income Tax Returns Publication 1304," multiple years available.

25 The Federal Reserve collects income and wealth data in its triennial sample Survey of Consumer Finances (SCF). The last SCF was conducted in 2019 and covered information for 2016 to 2019. Neil Bhutta et al. (2020, September). "Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin, 106*(5). Retrieved from https://www.federalreserve.gov/publications/files/scf20.pdf.

26 Congressional Budget Office (November 2023). *Trends in the Distribution of Household Income, From 1979 to 2020*. Retrieved from https://www.cbo.gov/publication/59510.

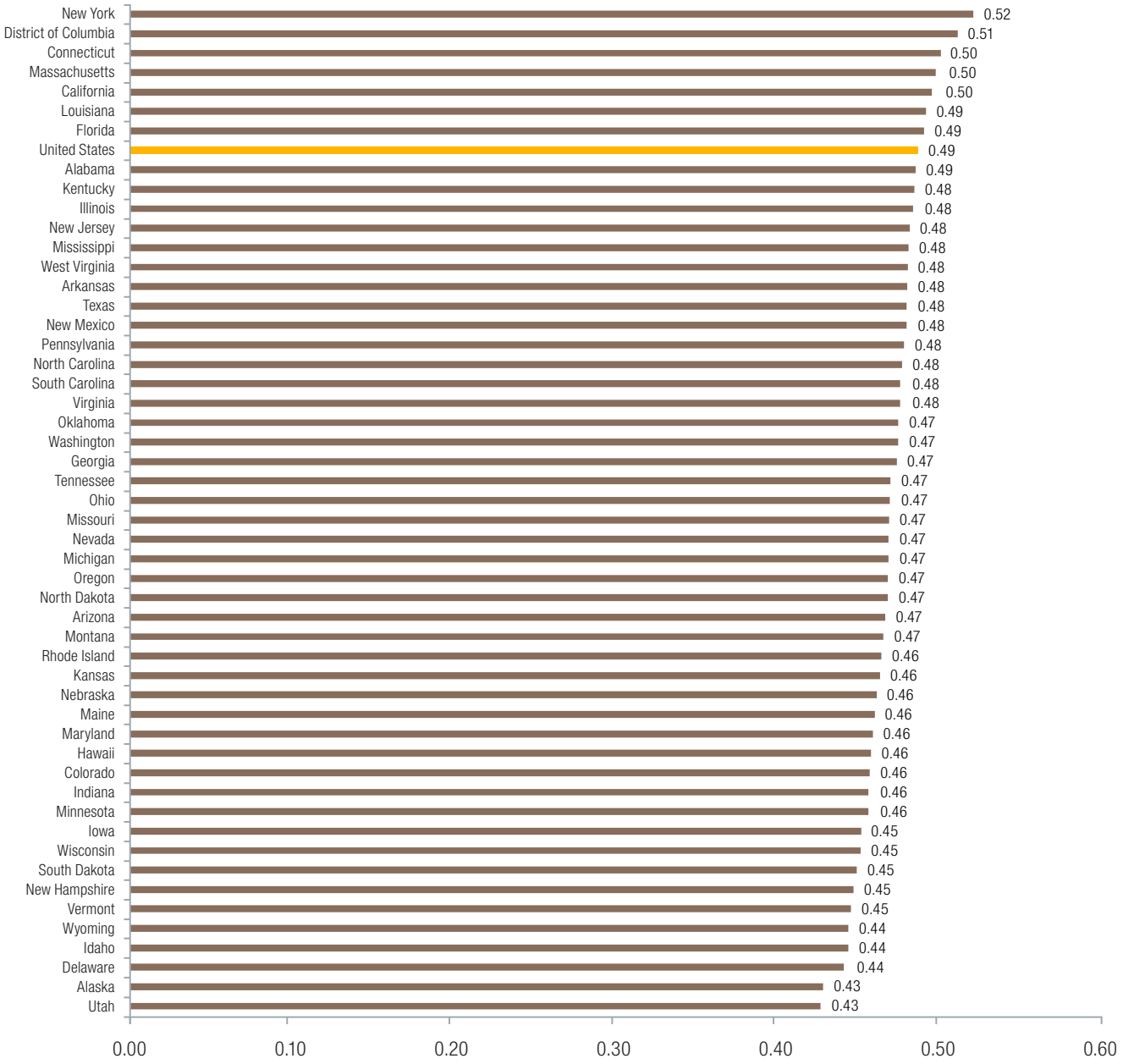
STS Figure 8a(i): Gini index based on market, before-tax, and after-tax income: 1979 to 2020



NOTE: The Gini index is a measure of income inequality that ranges from zero (the most equal distribution) to 1.0 (the least equal distribution). Gini indexes are calculated using income measures adjusted for household size. The larger the Gini index, the higher the inequality level. **Market income** consists of labor income, business income, capital gains (profits realized from the sale of assets), capital income (including capital gains), income received in retirement for past services, and other sources of income. **Income before transfers and taxes** consists of market income plus social insurance benefits. **Income after transfer but before taxes** are cash payments and in-kind benefits from social insurance and other government assistance programs divided by income before transfers and taxes. **Income after transfers and taxes** is income before transfers and taxes plus means-tested transfers minus federal taxes.

SOURCE: Congressional Budget Office (November 2023). *Trends in the Distribution of Household Income, From 1979 to 2020.* Retrieved from https://www.cbo.gov/publication/59510.

STS Figure 8a(ii): Gini index by State: 2022



NOTE: The Gini index is a measure of income inequality that ranges from zero (the most equal distribution) to 1.0 (the least equal distribution). The larger the Gini index, the higher the inequality level. The 2022 Gini index for the U.S was 0.49. Equity Indicator 8a(ii) is the Gini index after government transfers but before taxes.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, American Community Survey, Retrieved from: https://data.census.gov/table/ACSDT1Y2022.B19083?q=B19083:%20Gini%20Index%20of%20Income%20Inequality.

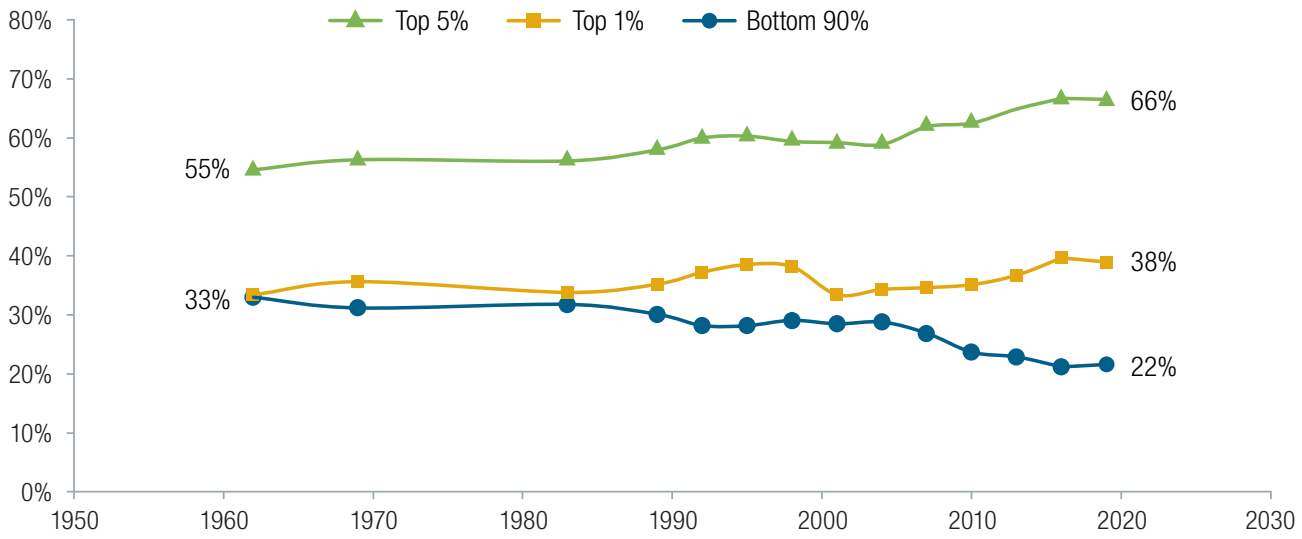
Rise in Share of Wealth Held by Top 1 Percent. STS Figure 8b(i), using data from the National Bureau of Economic Research, presents data on the percent of wealth held by the top 1 percent, the top 5 percent, and the bottom 90 percent from 1962 to 2019. This data shows the rise in wealth inequality. In 2019, the top 5 percent held two-thirds of the nation's wealth, the top 1 percent held close to 40 percent, and the bottom 90 percent had just 22 percent.

Analysis by Emmanuel Saez and Gabriel Zucman (2016)[27] of the share of wealth held by the top 1 percent of families in the U.S. from 1913 to 2012 shows that the 2012 concentration of wealth was approaching the high rates observed during the Great Depression in the late 1920s. After World War II until the late 1970s, the concentration of wealth declined. During the 1980s, this trend reversed and has accelerated in the last two decades. The top 1 percent and top 5 percent now hold the same share of the nation's wealth as they did in the 1920s (38 percent and 66 percent, respectively).[28]

27 Saez, E., & Zucman, G. (2016). Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data. *Quarterly Journal of Economics, 131*(2), 519-578. Retrieved from http://eml.berkeley.edu/~saez/SaezZucman2016QJE.pdf.

28 Wolf, E. N. (2021). *Household Wealth Trends in the United States, 1962 to 2019: Median Wealth Rebounds... But Not Enough, NBER Working Papers 28383.* National Bureau of Economic Research, Inc. Retrieved from https://www.nber.org/system/files/working_papers/w28383/w28383.pdf.

STS Figure 8b(i): Share of wealth held by top 5 percent, top 1 percent, and bottom 90 percent in the United States: Selected Years: 1962 to 2019



NOTE: Over the past century, the share of America's wealth held by the nation's wealthiest has changed markedly. The share peaked in the late 1920s, right before the Great Depression, then fell by more than half over the next three decades. The equalizing trends of the mid-20th century have now been almost completely undone. The wealthiest in the nation now hold as large a share of the wealth as they did in the 1920s.

SOURCE: Wolff, E.N. (2021). *Household wealth trends in the United States, 1962 to 2019*: Median wealth rebounds... but not enough. NBER Working Papers 28383, National Bureau of Economic Research, Inc. Retrieved from https://www.nber.org/system/files/working_papers/w28383/w28383.pdf.

Wealth and Race/Ethnicity. STS Figure 8b(ii) shows median family wealth and the percentage of families with negative wealth by race/ethnicity in 1983 and 2019 in constant 2022 dollars. These are among the most unequal data reported in this *Equity Indicators* report and have profound implications for issues of higher educational equity and justice in the United States.

Overall median family wealth rose by 23 percent in constant 2022 dollars between 1983 and 2019, rising from $93,523 to $115,388. But the overall medians mask the stark contrast between the high median family wealth of White families and the low median wealth of Black and Hispanic families. Moreover, disparities in median family wealth increased between 1983 and 2019.

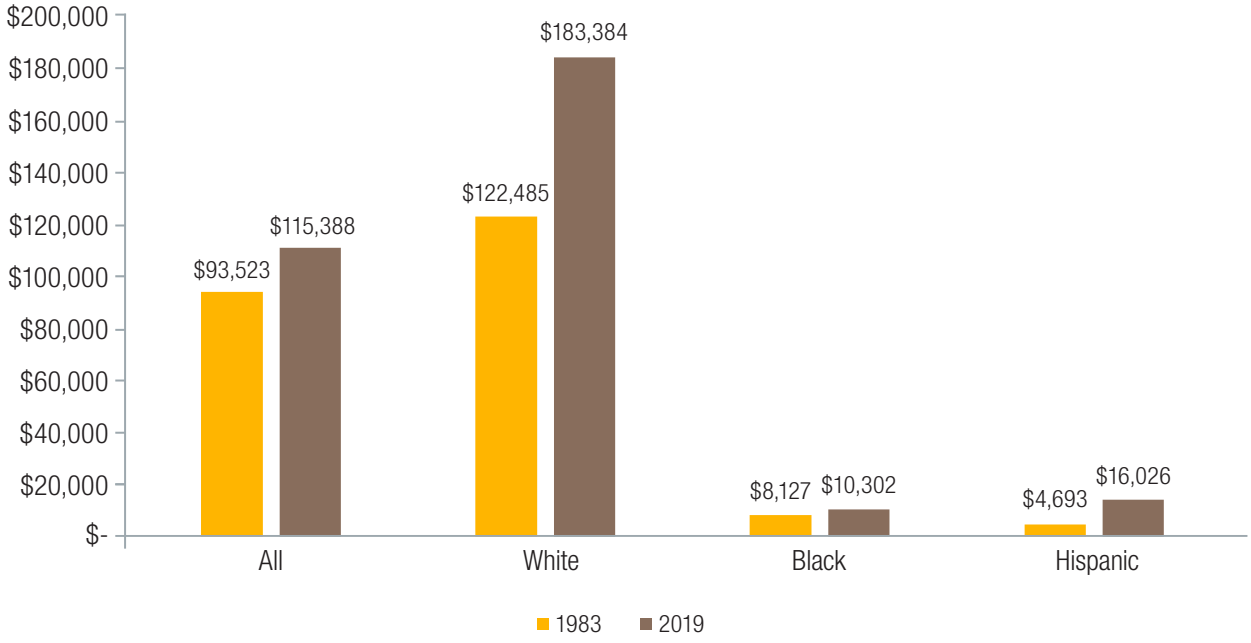
Between 1983 and 2019, White median family wealth increased by 50 percent in constant 2022 dollars, rising from $122,485 to $183,384. At the same time, Black median family wealth rose by 27 percent, rising from $8,127 to $10,302. In 1983, White median family wealth was 15 times higher than Black median family wealth; in 2019, it was 18 times higher. In 2022 dollars, Hispanic median family wealth increased markedly by 241 percent, increasing from $4,693 in 1983 to $16,026 in 2019. But White median family wealth was 26 times higher than Hispanic family wealth in 1983 and 11 times higher in 2019.

Negative Family Wealth. Among the most disturbing of the wealth data by race/ethnicity is the percent of families with negative wealth, meaning that they owe more than they have in assets. The percentage of all families with negative wealth was 20 percent in 2019, up from 16 percent in 1983. One-third (33 percent) of Black families and 31 percent of Hispanic families had negative wealth in 2019. The proportion of Black families with negative wealth changed very slightly from 34 percent in 1983 to 33 percent in 2019, while the percent of Hispanic families with negative family wealth declined from 40 percent in 1983 to 31 percent in 2019.

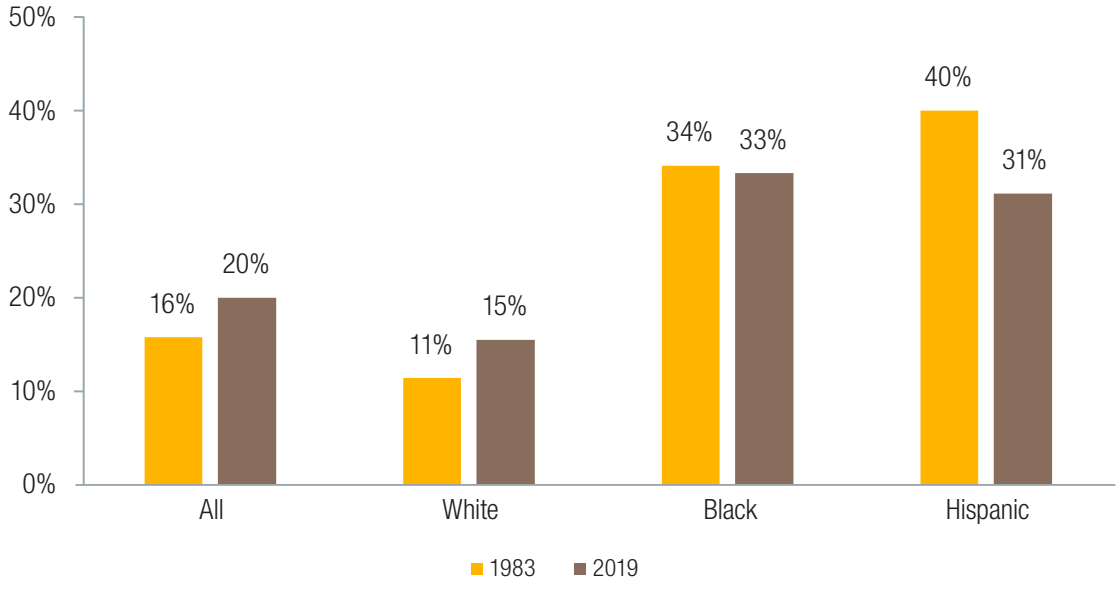
Household Income Disaggregated by Race and Ethnicity for Dependent 18- to 24-year-olds. Using data from the Current Population Survey (CPS) data on household income, STS Figure 8b(iii) displays the percentage distribution of the family income quartiles of the traditional college-age population of 18- to 24-year-olds by race/ethnicity in 2022. These data further reveal the stark differences in the family income by race/ethnicity in the United States. In 2022, only 8 percent of Hispanic dependent youth and 14 percent of Black dependent youth were in the highest family household income quartile. This compares with 32 percent of White dependent youth and 36 percent of Asian dependent youth who were in the highest income quartile.

STS Figure 8b(ii): Median family wealth and percent of families with negative wealth by race/ethnicity: 1983 and 2019 (in 2022 Constant Dollars)

Median Wealth in 2022 Constant Dollars



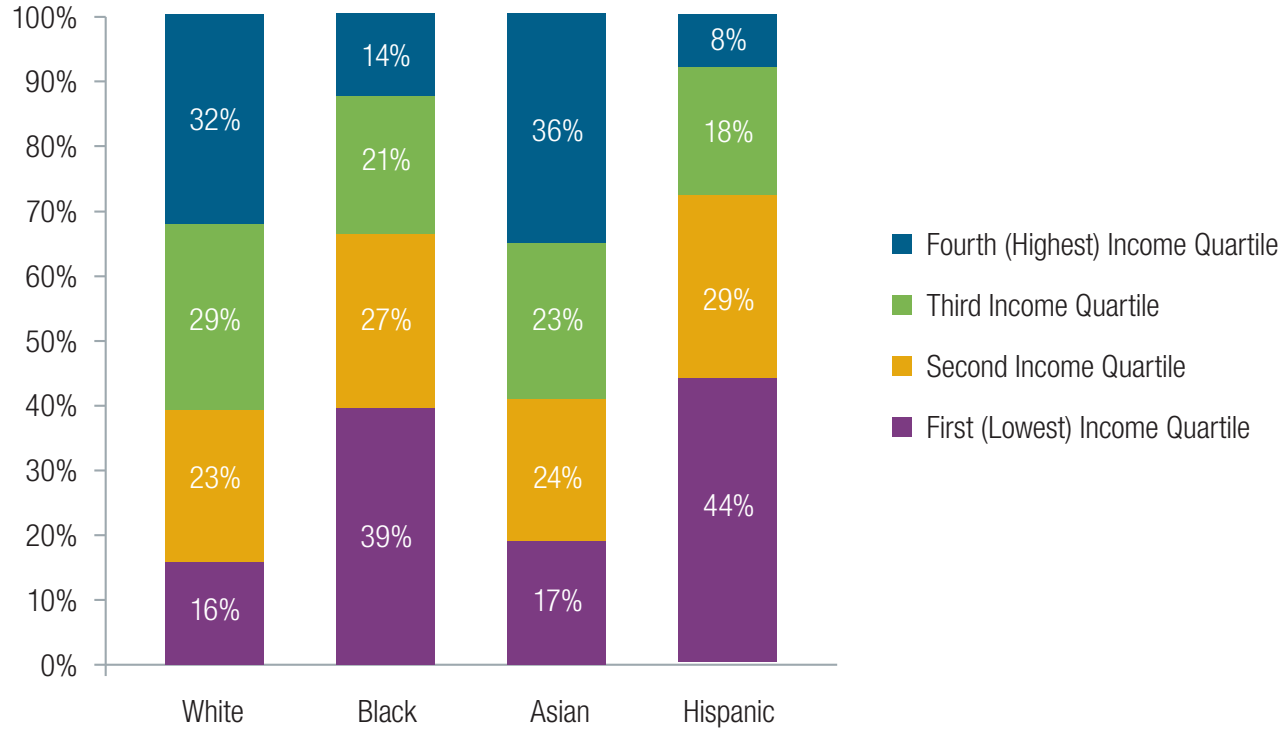
Percent with Negative Wealth



NOTE: This figure presents data on the median wealth of families by race/ethnicity in 2022 constant dollars. Also given is the percentage of families that have zero or "negative" wealth (meaning the value of their debts exceeds the value of their assets).

SOURCE: Wolff, E. N. (2021, January 25). *Household wealth trends in the United States, 1962 to 2019: Median wealth rebounds... but not enough.* NBER. Retrieved February 11, 2022, from https://www.nber.org/papers/w28383.

STS Figure 8b(iii): Percentage distribution of the family income quartiles of dependent 18- to 24-year-olds by race/ethnicity: 2022



NOTE: Caution is needed in interpreting these data, as CPS sample survey data disaggregated by income quartile and race/ethnicity are subject to large sampling errors. Race categories exclude persons of Hispanic ethnicity. Annual data collected by Census and reported by BLS 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: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Household Income Distribution by Quintile. The CPS data on household income by income quintiles from 1967 to 2022 also show growing inequality (STS Figure 8c). The highest 20 percent of the nation's households had 52 percent of the income in 2022, up from 44 percent in 1967. The bottom 20 percent of households had 3 percent of the nation's household income in 2022, down from 4 percent in 1967.

Range of Income. The CBO analyzes the distribution of income in the United States by household based on income groups.[29] Each quintile in STS 8d displays the distribution of income for each household before transfers and taxes, means-tested transfers, federal taxes, and after transfers and taxes.[30] In 2020, the highest household quintile income before transfers and taxes was 16 times higher than the lowest quintile ($357,800 versus $21,900). Moreover, households in the highest quintile had an income that was 6 times higher than a household of the lowest quintile after transfers and taxes ($275,700 versus $45,800). The disparity in household income between the top and bottom quintiles in the U.S. is among the largest level of inequality in the world.[31]

Median Household Income by State. STS Figure 8e displays median household income by state in 1990 and 2022. The data on median income by state are from the Census and include all households. Median household income varies widely across states, and in 2022 ranged from less than $49,000 in Mississippi ($48,610), to more than $95,000 in Utah ($95,800), the District of Columbia ($101,700), and Maryland ($108,200).[32]

Poverty by State. STS Figure 8f displays the 3-year average from 2020 to 2022 of the percent in poverty by state. The average poverty rates ranged from 7 percent in New Hampshire and Utah and 11 percent in states like Pennsylvania, Indiana, and California to 18 percent in Mississippi and New Mexico. The average for the U.S. in 2020-2022 was 12 percent.

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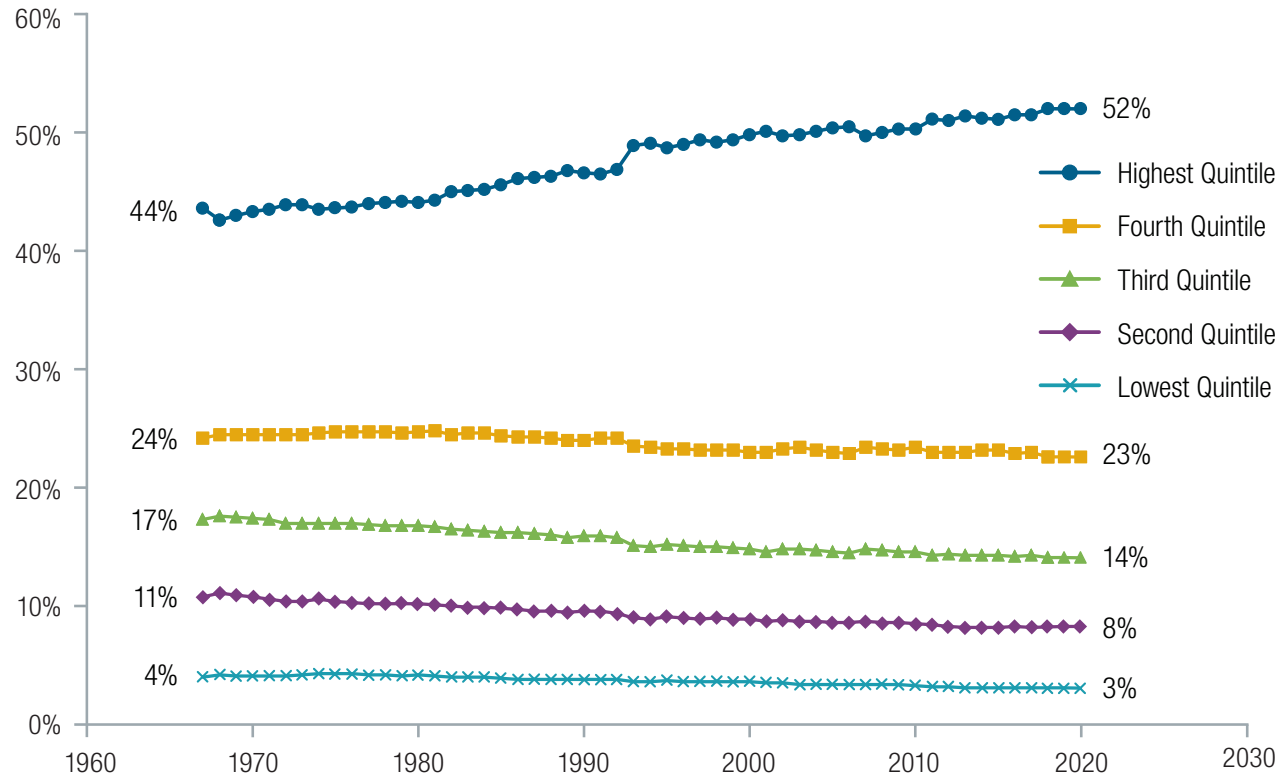
29 Income groups are created by ranking households by before-tax income, adjusted for household size. Quintiles (fifths) contain equal numbers of people.

30 **Income before transfers and taxes** refers to the gross household income. **Means-tested transfers** are cash payments and in-kind benefits from federal, state, and local governments that are designed to assist individuals and families who have low income and few assets. **Federal taxes** include individual taxes, payroll taxes, corporate income taxes, and excise taxes.

31 Pickett, K.E. & Wilkinson, R.G. (2015). Income Inequality and Health: A Causal Review. *Social Science & Medicine, 128*, 316-326; Wilkinson, R.G. & Pickett, K.E. (2006). Income Inequality and Population Health: A Review and Explanation of the Evidence. *Social Science & Medicine, 62*(7), 1768-1784; Dorling, D. (2014). *Inequality and the 1%*. London: Verso.

32 Tom Mortenson has explored the relationship between state median income and educational attainment and has found that the correlation between per capita average income and education levels within the state is increasing. He found that by 2016, the correlation was .79, up from .43 in 1989. Mortenson T. (2017). State Correlates of Educational Attainment. *Postsecondary Education Opportunity, 293*. Washington, DC: Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

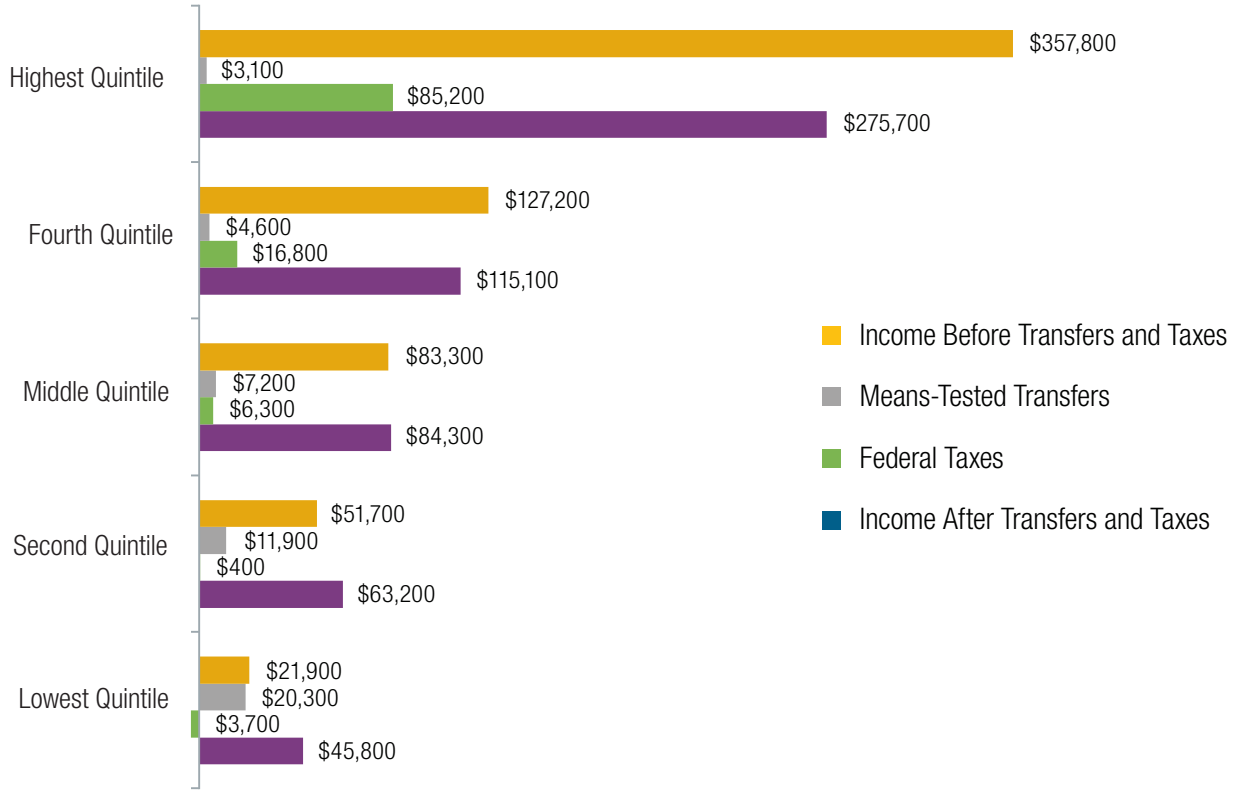
STS Figure 8c: Shares of United States household income by quintiles: 1967-2022



NOTE: Income in 2022 reflects the implementation of 2022 Census-based population controls and CPI-U-RS adjusted dollars. Beginning with 2010, standard errors are calculated using replicate weights. For further explanation of income inequality measures, see "The Changing Shape of the Nation's Income Distribution: 1947-1998," Current Population Reports, Series P60-204.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey (CPS) Table A-4 Selected Measures of Household Income Dispersion: 1967-2023. Retrieved from https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-inequality.html.

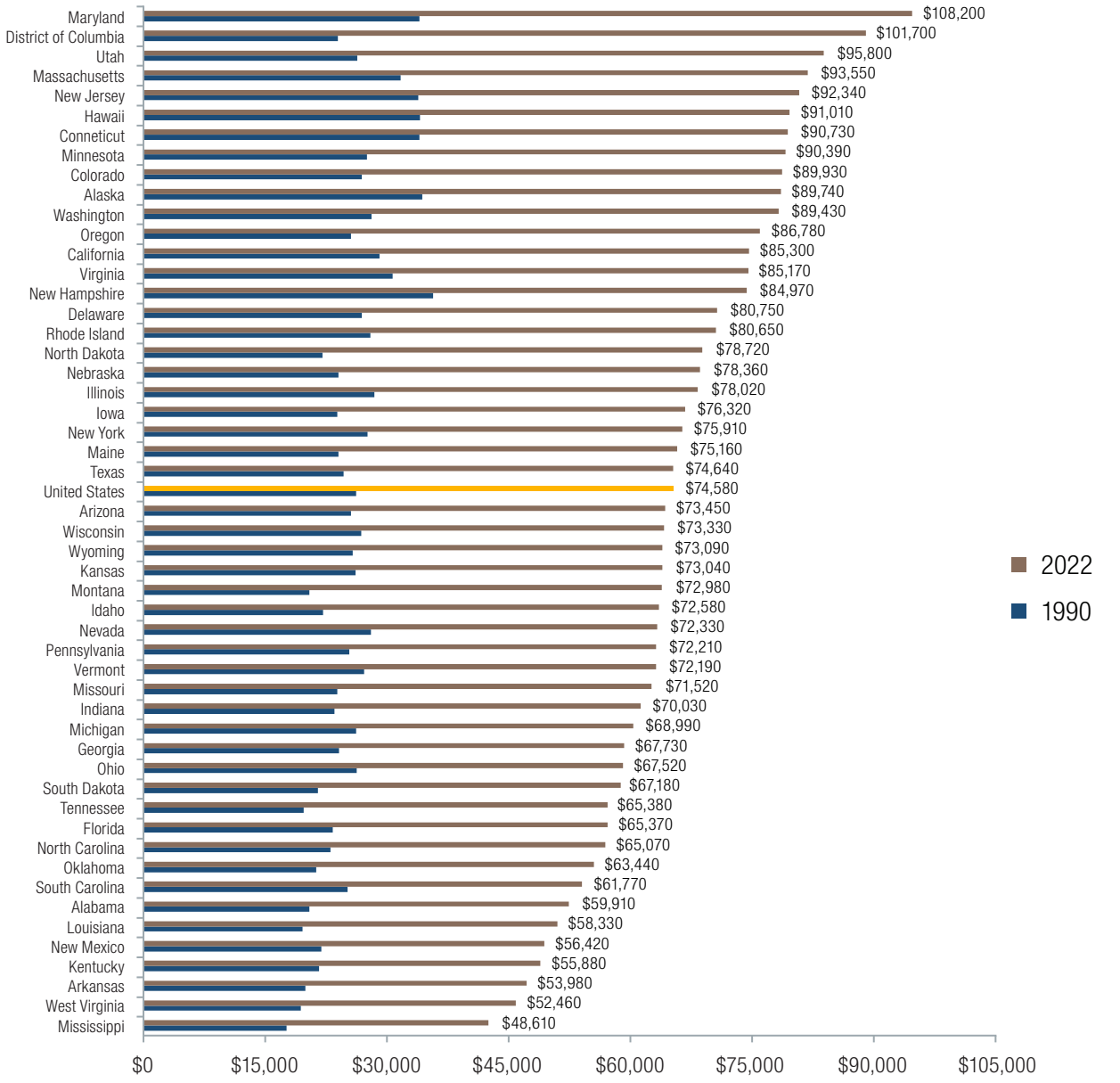
STS Figure 8d: Average household income and income sources by before-tax income quintiles: 2020



NOTE: Income before transfers and taxes consists of market income plus social insurance benefits. Means-tested transfers are cash payments and in-kind benefits from social insurance and other government assistance programs. Those transfers include payments and benefits from federal, state, and local governments. Federal taxes include individual income taxes, payroll taxes, corporate income taxes, and excise taxes. Income after transfers and taxes is income minus transfers and taxes. Income groups are created by ranking households by before-tax income, adjusted for household size. Quintiles (fifths) contain equal numbers of people.

SOURCE: Congressional Budget Office (2023). *The Distribution of Household Income, 2020*. Retrieved from https://www.cbo.gov/publication/59509.

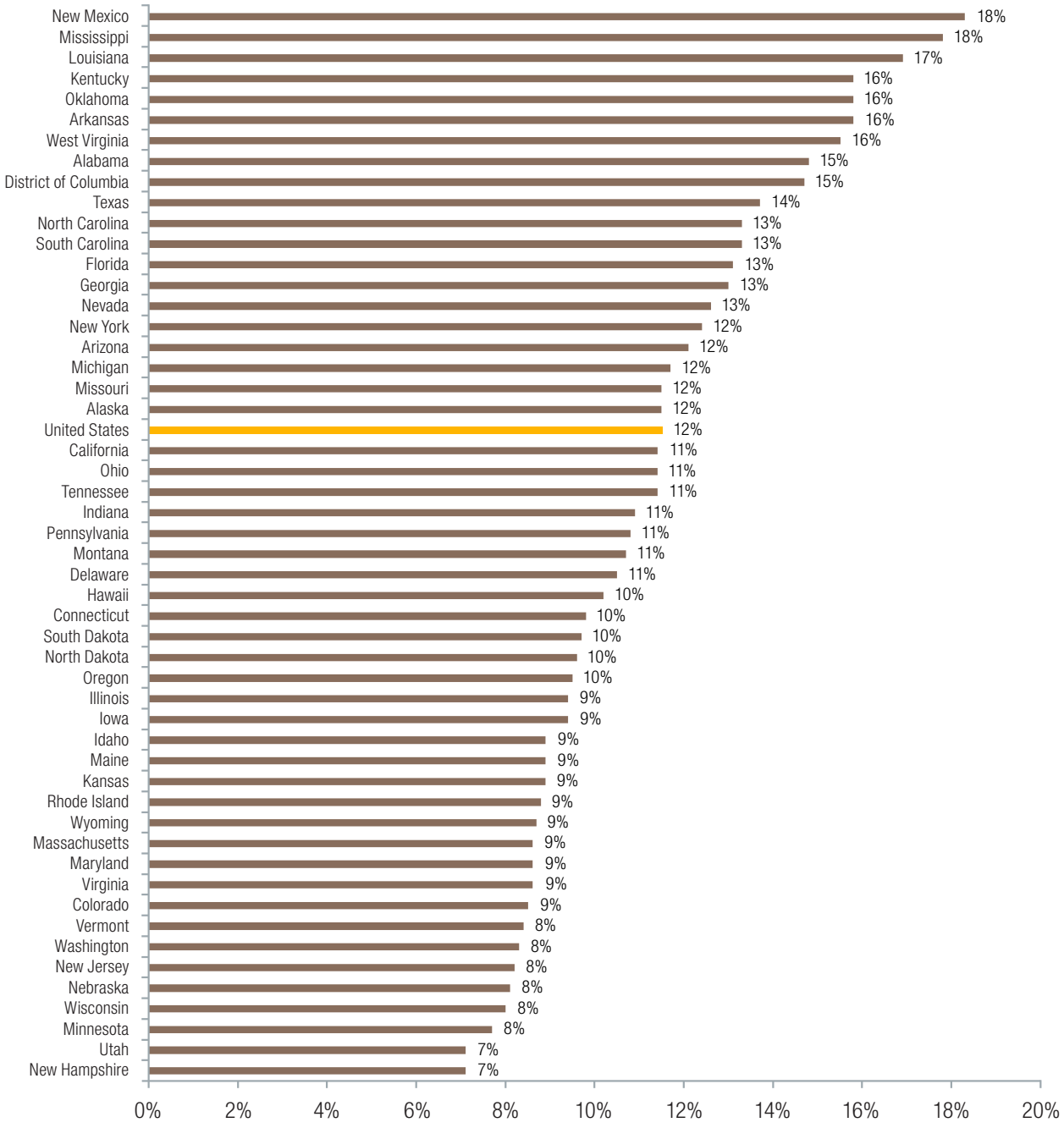
STS Figure 8e: Median household income by state: 1990 and 2022



NOTE: Constant dollars adjusted by the Consumer Price Index research series using 2022 C-CPI-U (2000-2022) and R-CPI-U-RS (pre-2000) adjusted dollars.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey (CPS) Table H-8 Median Household Income by State (2023). Retrieved from https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-households.html.

STS Figure 8f: Poverty rates by state: 3-year average 2020-2022



NOTE: Poverty rates represent 3-year averages for 2020-2022.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey (CPS), Table Interrelationships of 3-Year Average State Poverty Rates: 2020-2022, Retrieved from https://www.census.gov/library/publications/2023/demo/p60-280.html.

Inequality and Intergenerational Mobility. The concept of mobility is discussed in the economic literature both relative and absolute terms. Relative mobility is about how the ranking of adults (for example, social class quartile) against their peers is (or is not) tied to the ranking of their parents against their peers. Absolute mobility ignores rankings and simply considers whether adults tend to have higher, adjusted incomes than their parents did at the same age, after considering increases in the cost of living. In a review of research,[33] Elisabeth Jacobs and Liz Hipple concluded that relative to many other developed countries, the United States has both higher levels of inequality and lower levels of intergenerational mobility.[34] The relationship between a parent and child's economic outcomes is strongest in countries with high inequality (such as the United States) and lower in countries with less inequality (such as Finland, Norway, and Denmark).[35] Economist Raj Chetty identified dramatic geographic variation in mobility across the United States and by race/ethnicity.

In the United States, there has been an inflation-adjusted decline in absolute mobility for each successive birth cohort since 1940.[36] STS Figure 9 uses national and state data provided on the *Opportunity Insights* website to document the decline in the percent of children who at age 30 earn more than their parents as also measured at that age, for cohorts born from 1940 to 1984.[37] As Chetty and colleagues conclude:

> *The rates of absolute mobility have fallen from approximately 90% for children born in 1940 to 50% for children born in the 1980s. Absolute income mobility has fallen across the entire income distribution, with the largest declines for families in the middle class.*[38]

33 Jacobs, E. & Hipple, L. (2018). *Are Today's Inequalities Limiting Tomorrow's Opportunities? A Review of the Social Sciences Literature on Economic Inequality and Intergenerational Mobility.* Washington, DC: Washington Center for Equitable Growth. Retrieved from: https://equitablegrowth.org/research-paper/are-todays-inequalities-limiting-tomorrows-opportunities.

34 Jantti, M., Bratsberg, B., Røed, K., Raaum, O., Naylor, R., Österbacka, E., Björklund, A., & Eriksson, T. (2006). *American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom, and the United States.* Bonn: Institute for the Study of Labor. Retrieved from http://ftp.iza.org/dp1938.pdf.

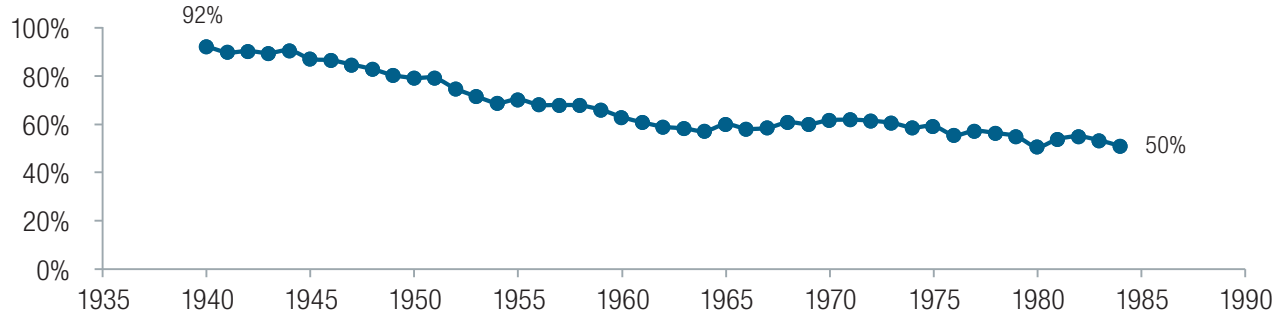
35 Corak, M. (2013). Income Inequality, Equality of Opportunity and Intergenerational Mobility. *Journal of Economic Perspectives, 27*(3), 79–102.

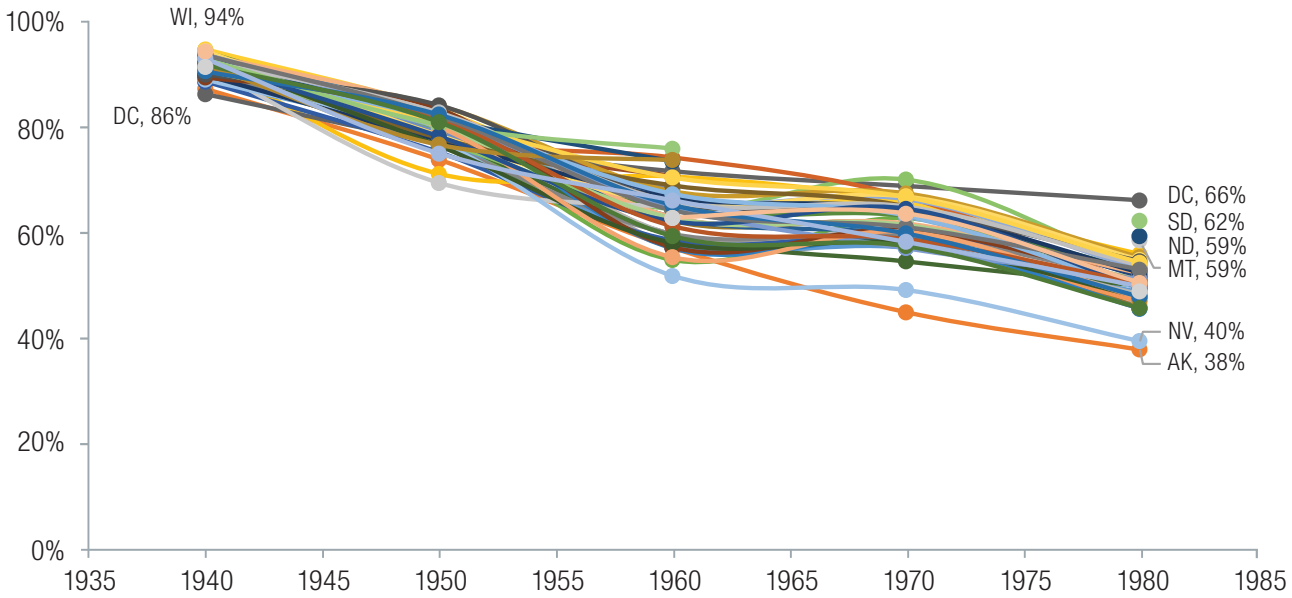
36 Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Nrang, J. (2017). The Fading American Dream: Trends in Absolute Income Mobility since 1940. *Science, 356*(6336), 398–406. Retrieved from http://science.sciencemag.org/content/356/6336/398/tab-pdf; Chetty, R., Friedman, J. N., Saez, E., Turner, N., & Yagan, D. (2017). *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility.* Cambridge, MA: National Bureau of Economic Research. NBER Working Paper No.23618. Retrieved from https://www.nber.org/papers/w23618; Chetty, R., Hendren, N., Jones, M.R., Porter, S.R. (2018). *Race and Economic Opportunity in the United States: An Intergenerational Perspective.* Cambridge, MA: National Bureau of Economic Research. NBER Working Paper No. 24441. Retrieved from https://www.nber.org/papers/w24441.

37 *Opportunity Insights* (https://opportunityinsights.org) is a non-partisan, not-for-profit organization based at Harvard University.

38 Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Nrang, J. (2017). The Fading American Dream: Trends in Absolute Income Mobility since 1940. *Science, 356*(6336), 398–406. Retrieved from http://science.sciencemag.org/content/356/6336/398/tab-pdf.

STS Figure 9: Percent of cohorts of children who at age 30 have a higher inflation-adjusted income than their parents at age 30, for the U.S. and states: 1940-1984 birth cohorts





NOTE: Absolute mobility considers whether adults tend to have higher, adjusted incomes than their parents did at the same age, after considering increases in the cost of living." Absolute mobility is measured by comparing children's household incomes at age 30 (CPI adjusted) with their parents' household incomes at age 30. Rates of absolute mobility declined from about 90 percent for children born in the 1940s to 50 percent to those born in the 1980s. Absolute mobility declined across the entire distribution, with the largest declines in the middle-income groups.

SOURCE: Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Nrang, J. (2017). The Fading American Dream: Trends in Absolute Income Mobility since 1940. *Science, 356*(6336), 398–406. Retrieved from http://science.sciencemag.org/content/356/6336/398/tab-pdf; Opportunity Insights website, The Fading American Dream: Trends in Absolute Income Mobility since 1940 [Data file]. Retrieved from https://opportunityinsights.org/data/?geographic_level=0&topic=0&paper_id=546#resource-listing.

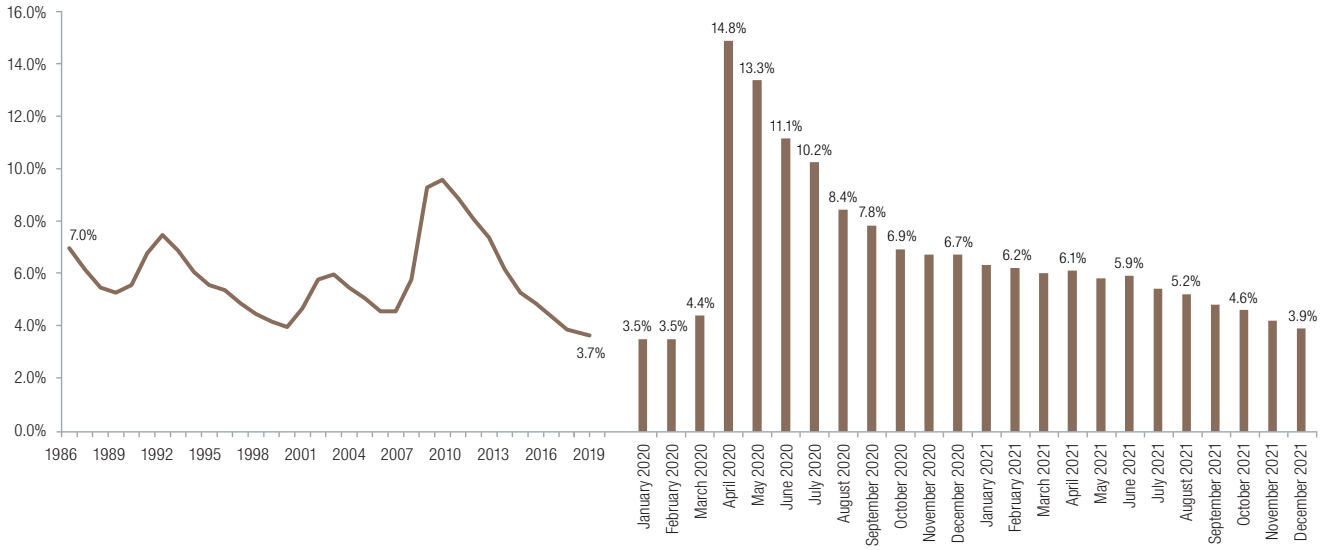
COVID-19 and Its Impact

The COVID-19 pandemic unmasked the vulnerabilities and inequities across the globe in our interrelated economic, health care, and educational systems. These inequities have co-existed with interrelated challenges in the United States over generations, but for a period, the pandemic forced these inequities to the forefront. During the pandemic, we had renewed discussion of the rebuilding of a more equitable education system for all students, including low-income, first-generation students, and students with disabilities. In this section of the Setting the Stage (STS) background chapter, we include selected data related to the COVID-19 pandemic, including statistics on unemployment rates, computer access and Internet connectivity, and life expectancy. Throughout this report, in subsequent Equity Indicator chapters, we include other statistics related to COVID as applicable to the particular report section.

Unemployment Rates. STS Figure 10a shows the unemployment rates for the United States from 1986 through 2021, with a breakdown of monthly data during the 2020 and 2021 years, 2021 being the year in which universities reopened in person during COVID-19. Unemployment rates (persons looking for work who do not have work) have fluctuated over the past decades but were noticeably higher during the recession in the early 1990s and during the Great Recession of 2008. In 2020 at the start of the pandemic, the monthly unemployment rate reached a recent high in April (14.8 percent), bringing the average for 2020 to 8.1 percent. The unemployment rate gradually decreased in 2021, starting at 6.3 percent in January and concluding at 3.9 percent in December.

The 2020 national unemployment epidemic also had a dramatic impact on working college students and had lingering effects in 2021, as seen in Figure STS 10b. Figure 10b includes the rate of change in unemployment and employment considering the 2-year period of September 2019 to September 2021. The data reflects the fact that by September 2021, there had been a partial recovery from the stark 2020 figures. Despite this recovery by September 2021, compared to September 2019, unemployment rates among working college students were up 20 percent overall, and up 90 percent among Black students, 105 percent among Hispanic students, and 81 percent among Asian students. White college students did not register an increase in unemployment (the rate for this group dropped 1 percent). Conversely, employment rates declined, especially for minority college students, with an overall decline of 17 percent. Employment rate declines were largest among Asian students (-39 percent), -23 percent among Black students, -15 percent among White students, and -3 percent among Hispanic students.

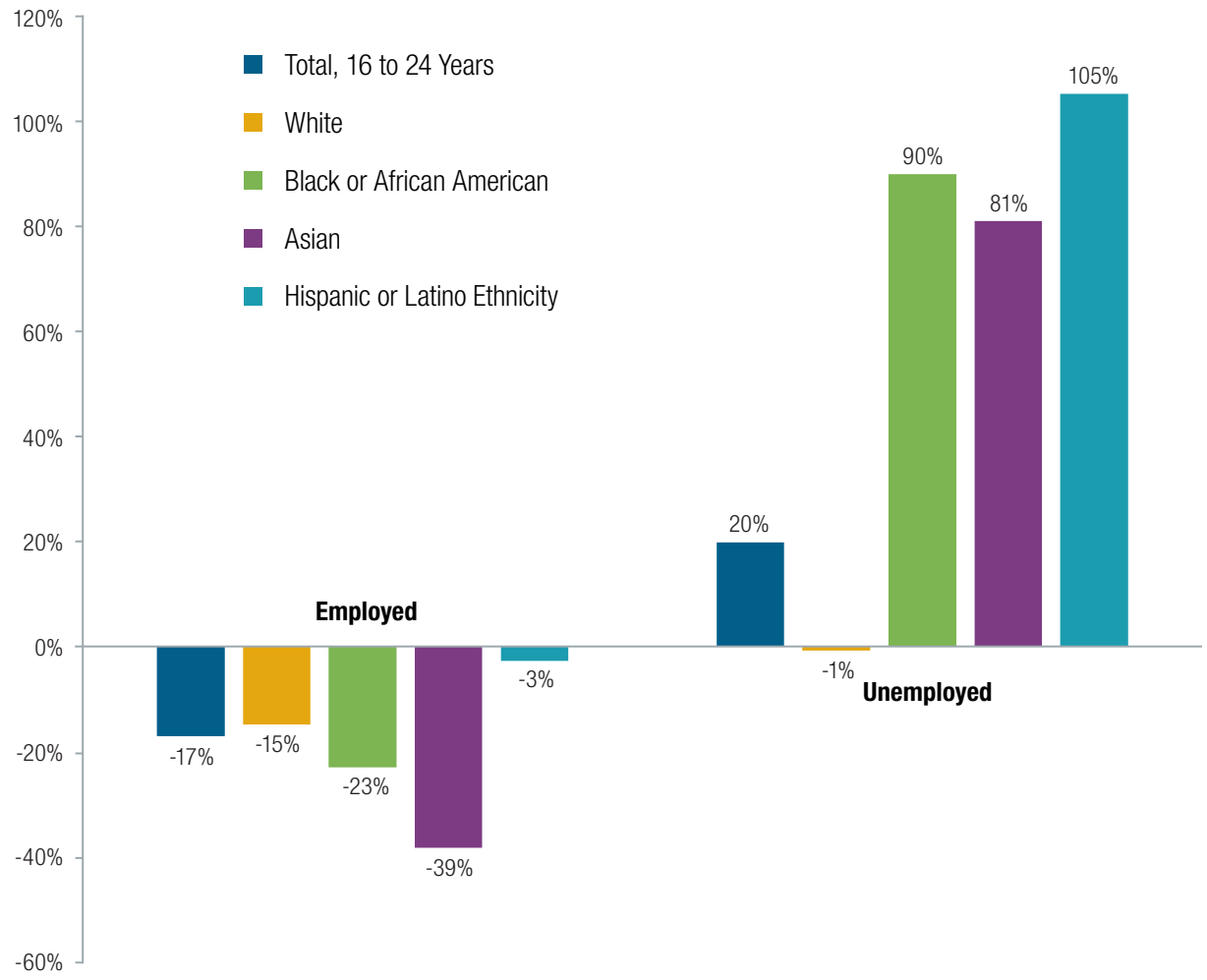
STS Figure 10a: Percentage of the civilian labor force, age 16 years and over, that is unemployed: 1986 to 2019 and by month for 2020 and 2021



NOTE: Revisions to population controls and other changes can affect the comparability of labor force levels over time. In recent years, updated population controls have been introduced annually with the release of January data.

SOURCE: United States Bureau of Labor Statistics, Current Population Survey, 1986 to 2021. Retrieved from https://www.bls.gov/web/empsit/cpseea01.htm.

STS Figure 10b: Percentage change in employment and unemployment among college enrolled 16-to-24-year-olds by race/ethnicity between September 2019 and September 2021



NOTE: The coronavirus hit college students hard in the job market, especially among minority students. Despite some recovery in 2021, between September 2019 and September 2021, unemployment rates were up 20 percent overall, but up 90 percent among Black students, 105 percent among Hispanic students, and 81 percent among Asian students.

SOURCE: United States Bureau of Labor Statistics, Current Population Survey, 2019-2021.

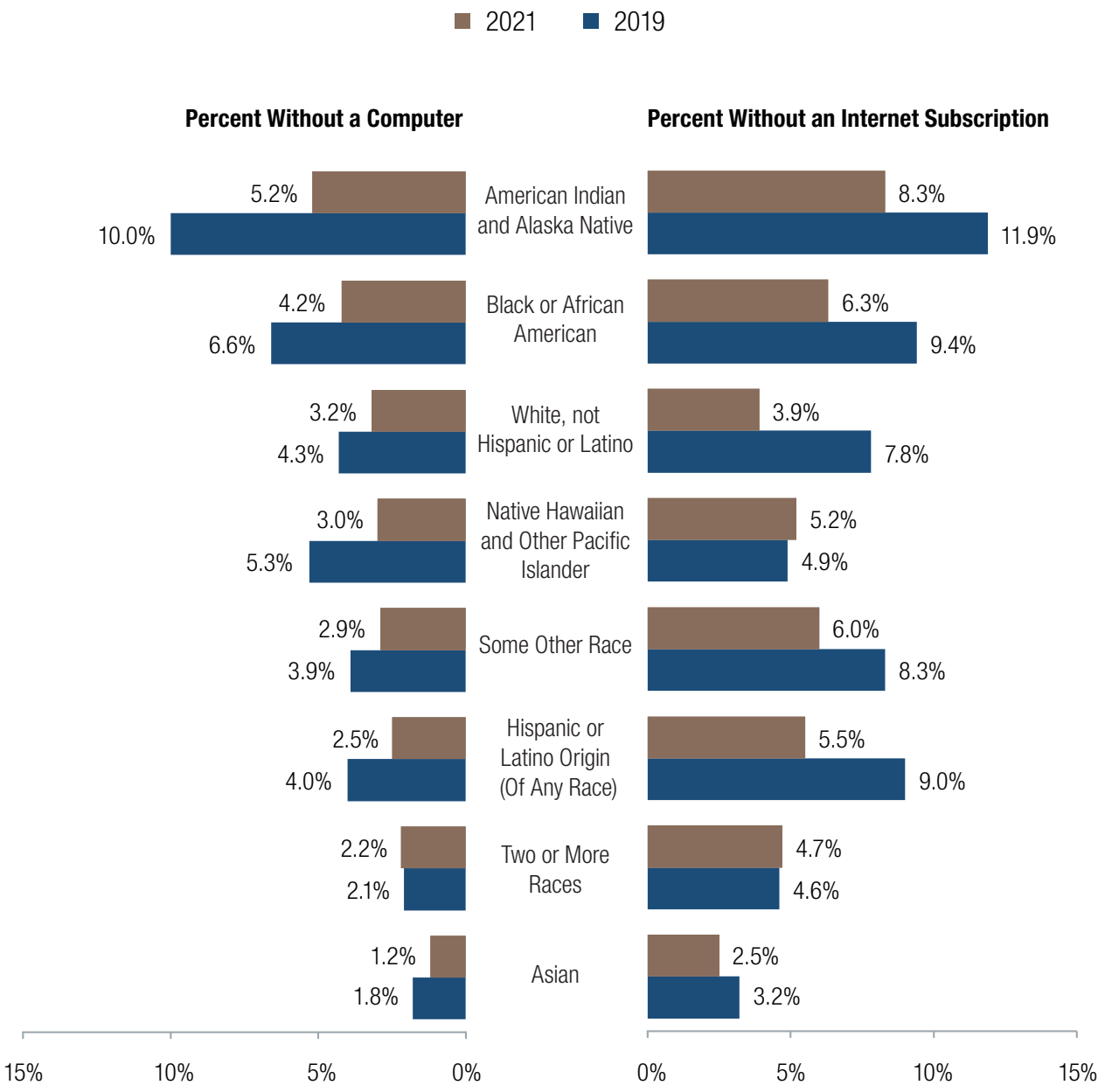
Computer Access and Internet Connectivity by Race/ethnicity. Starting in spring 2020, computers and Internet access became a necessity for most households but especially for those with persons enrolled in school. Remote learning requires the use of computers and/or smart devices with access to the Internet, but the digital divide reveals sizable differences across race/ethnicity and incomes.

STS Figure 11a highlights the differences by race and ethnicity that existed as of 2019 through 2021 in the percentage of households with no computer access and no Internet connectivity. The percentage of households with no computer ranged from 1.8 percent for Asian households to 10 percent for American Indian and Alaska Natives and 6.6 percent for Black or African Americans. For Internet connectivity, American Indians and Alaska Natives were least likely (12 percent) to have Internet access. By 2021, the percentages of those without a computer decreased for all groups except for those of "Two or More Races" (from 2.1 percent to 2.2 percent). Similarly, by 2021, the percentage of those without an Internet subscription decreased for all except for those of "Two or More Races." Caution is needed in interpreting these small apparent increases. The difference between estimates for those identifying as "Two or More Races" may be due to sampling error for a small group, or differences in the composition of those identifying as "Two or More Races" between 2019 and 2021.

Household Income. In 2019, 87 percent of United States households had an Internet subscription; by 2021, this figure rose to 90 percent. As STS Figure 11b conveys, however, this varied by household income. In 2019, the percentage of households with a broadband Internet subscription ranged from 64 percent among those households with incomes below $20,000 to 96 percent of households with incomes above $75,000. By 2021, the percentage of those with a broadband Internet subscription ranged from 74 percent for those with incomes below $20,000 to 97 percent for those with incomes above $75,000.

State Differences. In 2019, 13 percent of United States households had no Internet subscription. Southern states were more likely to have households without Internet. In comparison, states where technology industries have a large presence, such as Washington, Colorado, and Utah, were more likely to have a lower percentage of households without Internet subscriptions. Two years later in 2021, there were fewer households without an Internet subscription (10 percent); although this rate still varied by state. The percent without an Internet subscription in 2021 ranged from highs of 18 percent in Mississippi and 15 percent in New Mexico to lows of 6 percent in Utah and Washington.

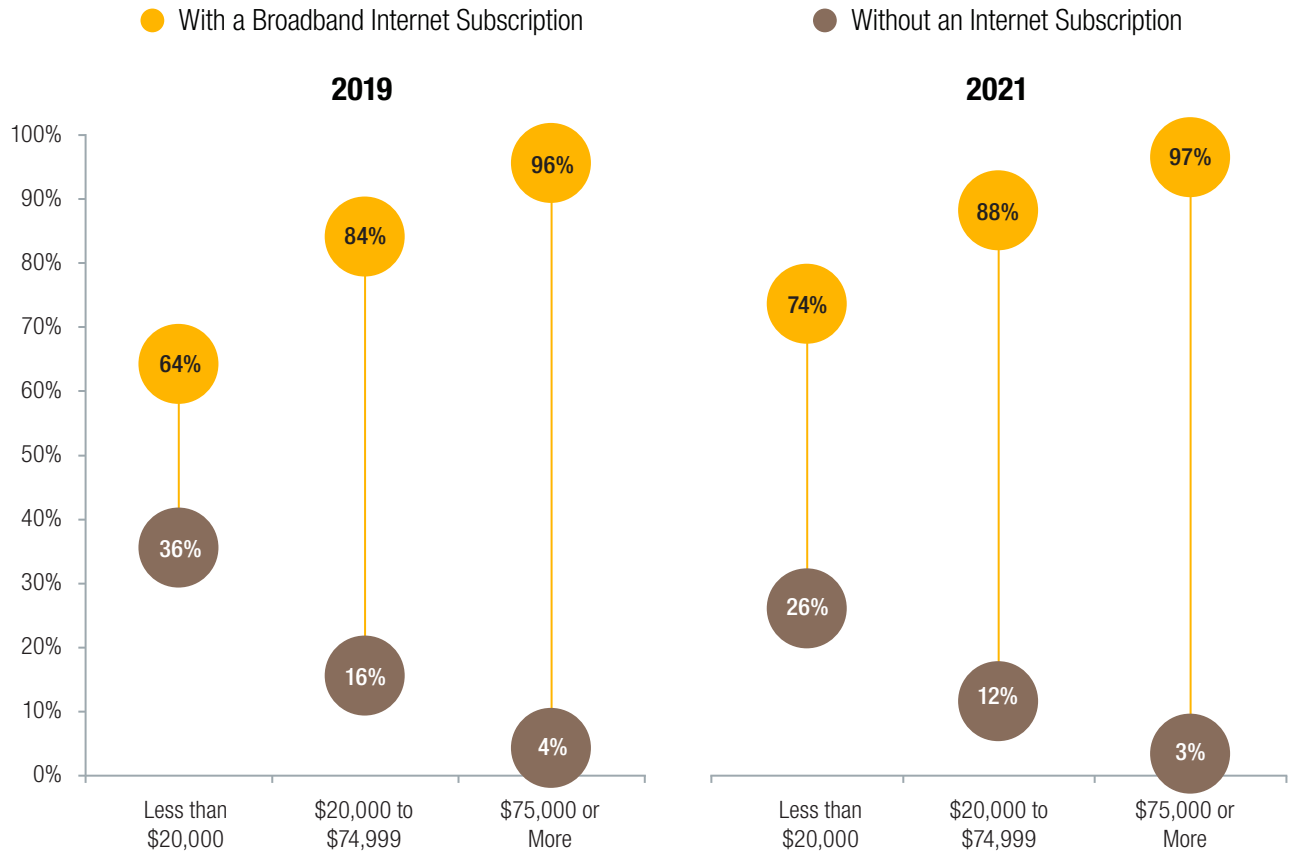
STS Figure 11a: Percentage of the United States population with no computer in household and no Internet subscription by race/ethnicity in 2019 and 2021



NOTE: Having "No computer in household" consists of those who said "No" to all of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; and some other type of computer. The category "Without an Internet subscription" includes those who accessed the Internet without a subscription and also those with no Internet access at all.

SOURCE: United States Census Bureau, American Community Survey, 2019 and 2021. Retrieved from https://data.census.gov/cedsci/table?q=S28&d=ACS%201-Year%20Estimates%20Subject%20Tables&tid=ACSST1Y2019.S2802&hidePreview=true.

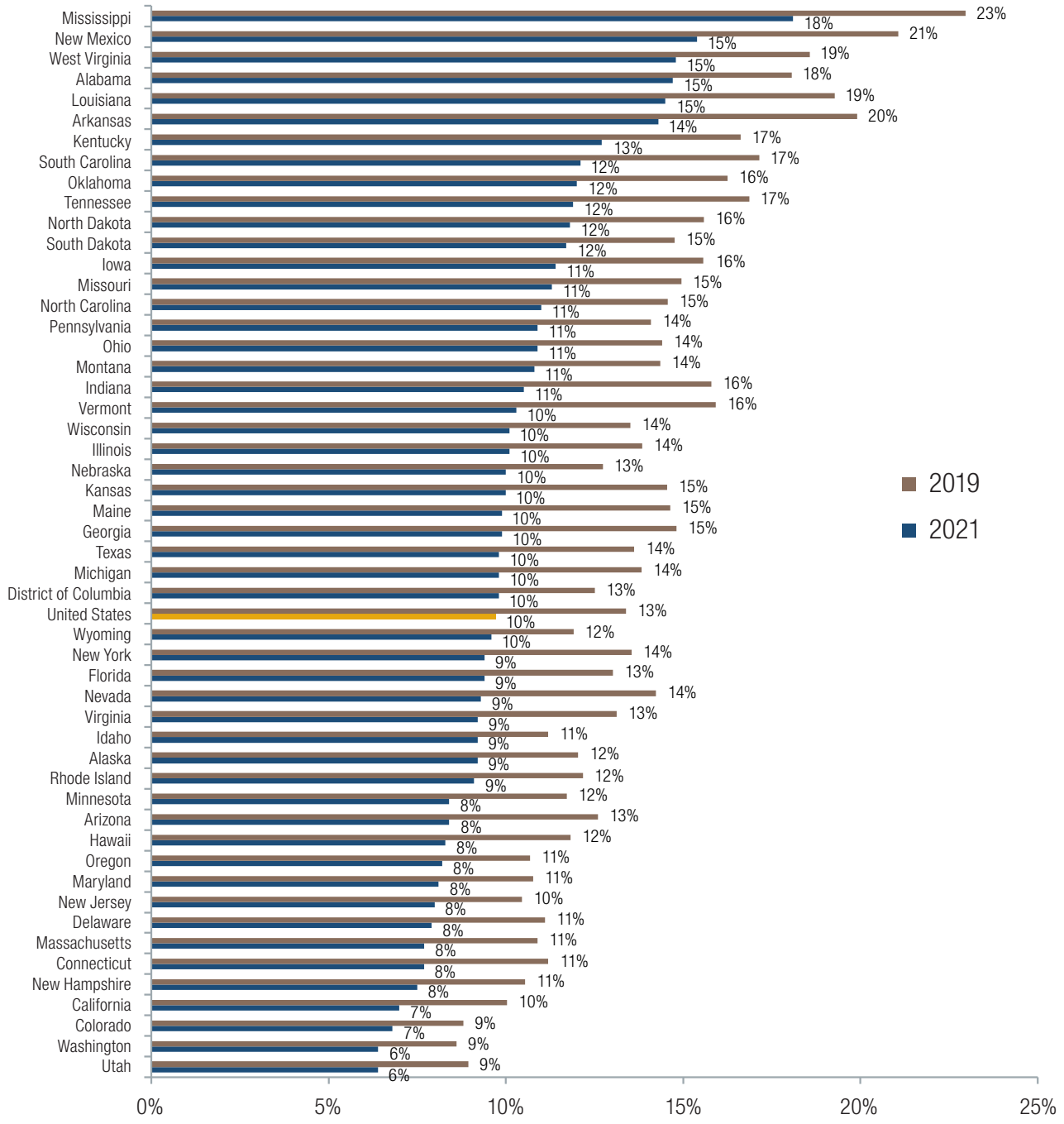
STS Figure 11b: Percentage of the United States population with and without a Broadband Internet subscription by household income in the past 12 months (inflation-adjusted dollars): 2019 and 2021



NOTE: An Internet "subscription" refers to a type of service that someone pays for to access the Internet, such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This normally refers to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

SOURCE: United States Census Bureau, American Community Survey, 2019 and 2021. Retrieved from https://data.census.gov/table/ACSST1Y2021.S2801?q=S28&d=ACS+1-Year+Estimates+Subject+Tables.

STS Figure 11c: Percentage of households without an Internet subscription by state: 2019 and 2021



NOTE: The category "Without an Internet subscription" includes those who accessed the Internet without a subscription and also those with no Internet access at all.

SOURCE: United States Census Bureau, American Community Survey, 2019 and 2021. Retrieved from https://data.census.gov/table?q=S28&g=0100000US$0400000&d=ACS+1-Year+Estimates+Subject+Tables&tid=ACSST1Y2021.S2801.

Life Expectancy in the United States

STS Figures 12a-b summarize the National Center for Health Statistics (NCHS) Division of Vital Statistics data on the United States life expectancy at birth overall and by race/ethnicity, and by U.S. state.

Recent Declines Overall Due to COVID and Accidental Drug Overdoses. Life expectancy at birth for the total U.S. population in 2021 was 76.4 years, a decline of 1.7 years from 78.8 in 2019. The life expectancy in 2021 of 76.4 years is slightly lower than in the year 2000 (76.8). The life expectancy declines between 2019 and 2021 are related to the increase in COVID-19 mortality but also to increases in unintentional accidental deaths due to drug overdoses.[39]

Differences by Sex. Historic data on life expectancy persistently show females have higher life expectancy than males in the U.S. In the first decade of the 21st century, these differences narrowed from 5.2 years in 2000 to their lowest level of 4.8 years in 2010. The difference in life expectancy between the sexes was 5.9 years in 2021, increasing from 5.7 in 2020. The recent increases approached the difference in 1996, when the difference was 6 years (data not shown in chart).

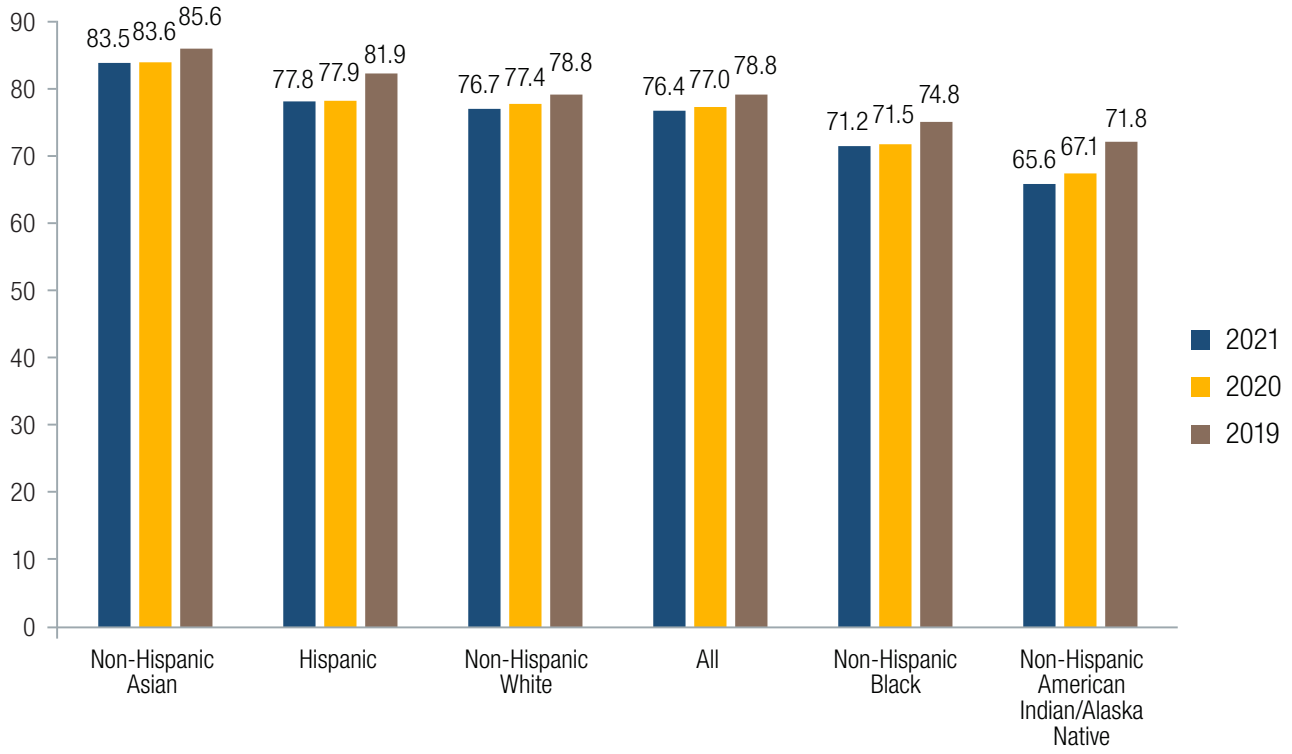
Differences by Race/Ethnicity. COVID-19 impacted everyone, but the pandemic disproportionately affected communities of color (STS Figures 12a). Hispanic life expectancy at birth declined from 81.9 in 2019 to 77.8 in 2021 (a decline of 4.1 years), and Black life expectancy at birth declined from 74.8 to 71.2 years in 2021 (a decline of 3.6 years). American Indian/Alaska Native life expectancy at birth experienced the largest decline from 71.8 to 65.6 (a decline of 6.2 years).

Differences by State. STS Figure 12b presents state-specific life expectancy at birth as tabulated by the Division of Vital Statistics of NCHS.[40] Among the U.S. states, Hawaii had the highest life expectancy at birth, 80.7 years in 2020, and Mississippi had the lowest, 71.9 years. From 2019 to 2020, life expectancy declined in all U.S. states, from 0.2 years for Hawaii to 3.0 years for New York. STS Figure 12b shows that states with the lowest life expectancy at birth were mostly southern states (Alabama, Arkansas, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, and West Virginia) but also included Indiana, Missouri, New Mexico, Ohio, and Oklahoma. States with the highest life expectancy at birth were Western (California, Hawaii, Idaho, Oregon, and Washington) and Northeastern states (Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont) but also included Colorado, Minnesota, and Utah.

39 Arias, E., Kochanek, K., Xu, J., & Tejada-Vera, B. (2023). Provisional Life Expectancy Estimates for 2022. *Vital Statistics Rapid Release, 31,* Centers for Disease Control and Prevention, National Center for Health Statistics, Table 1-21. Retrieved from https://www.cdc.gov/nchs/data/vsrr/vsrr031.pdf and https://www.cdc.gov/nchs/data/vsrr/vsrr031-tables.pdf.

40 Arias, E., Xu, J., Tejada-Vera, B., Murphy, S.L., & Bastian, B. (2022, August 23). U.S. State Life Tables, 2020. *National Vital Statistics Reports, 71*(2). Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr71/nvsr71-02.pdf.

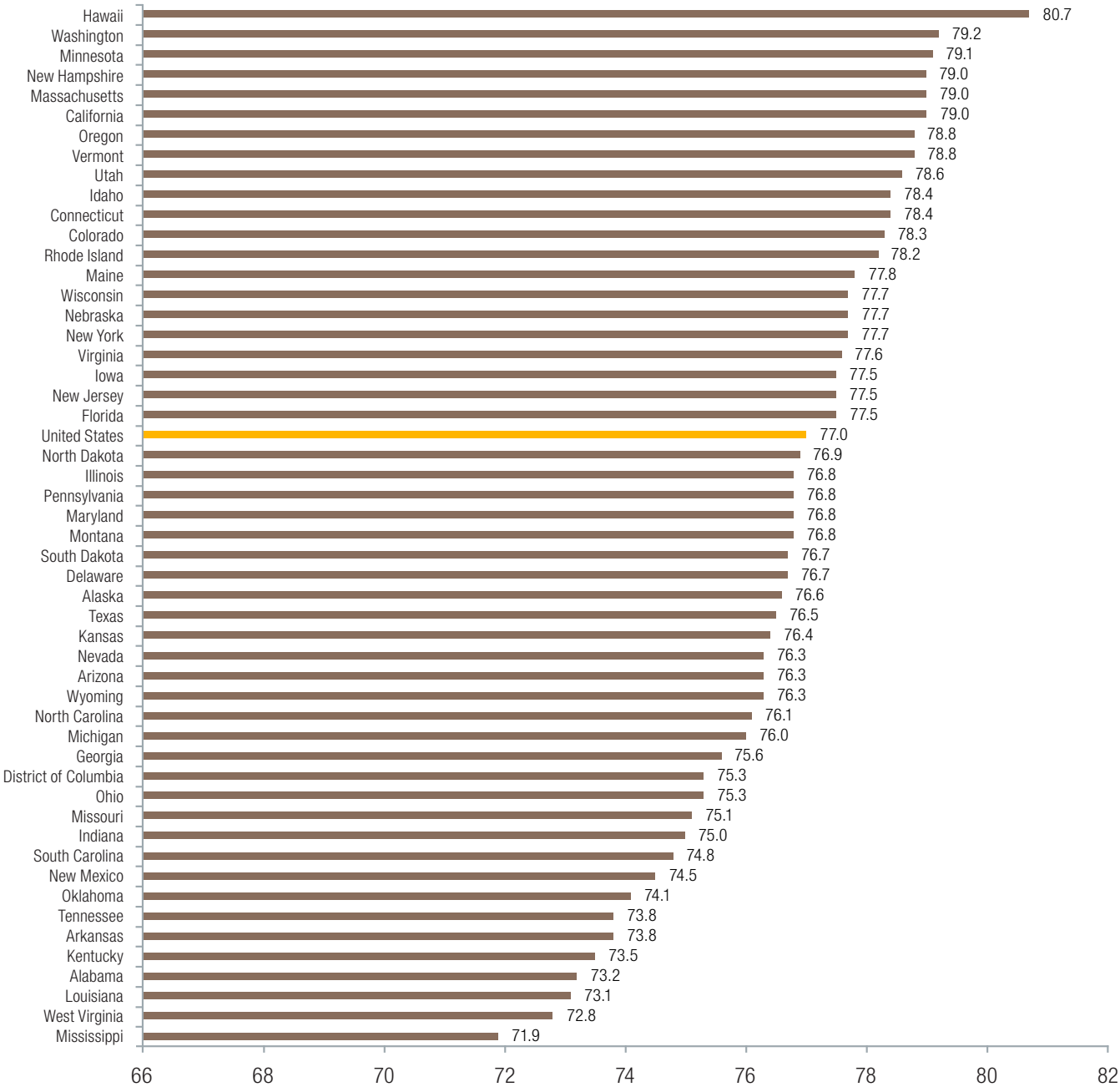
STS Figure 12a: Life expectancy at birth, in years, by race/ethnicity: 2019-2021



NOTE: NH is Non-Hispanic, AI/AN is American Indian or Alaska Native. Estimates are based on provisional data for 2021. Provisional data are subject to change as additional data is received. Estimates for 2019 and 2020 are based on final data. Life tables by race and Hispanic origin are based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates.

SOURCE: Arias, E., Kochanek, K., Xu, J., & Tejada-Vera, B. (2023). Provisional Life Expectancy Estimates for 2022. *Vital Statistics Rapid Release, 31*, Centers for Disease Control and Prevention, National Center for Health Statistics, Table 1-21. Retrieved from https://www.cdc.gov/nchs/data/vsrr/vsrr031.pdf and https://www.cdc.gov/nchs/data/vsrr/vsrr031-tables.pdf.

STS Figure 12b: Life expectancy at birth by state: 2020



NOTE: Data used to prepare the 2020 state-specific life tables include: 2020 final mortality statistics; July 1, 2020, population estimates based on the 2010 decennial census, and 2020 Medicare data for people aged 66–99.

SOURCE: Arias, E., Xu, J., Tejada-Vera, B., Murphy, S.L., & Bastian, B. (2022, August 23). U.S. State Life Tables, 2020. *National Vital Statistics Reports, 71*(2). Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr71/nvsr71-02.pdf.

EQUITY INDICATOR 1

WHO ENROLLS IN POSTSECONDARY EDUCATION?

In 2022, an estimated 79 percent of 18- to 24-year-olds from the highest family income quartile enrolled in postsecondary education, compared with 44 percent of those in the lowest quartile. Among those who graduated from high school, college enrollment rates were 85 percent for those in the highest family income quartile and 56 percent for those in the lowest quartile.

Equity Indicators 1(a-k): Sources and Definitions

Indicator 1 examines participation in postsecondary education by family income, race/ethnicity, parents' socioeconomic status, state, and student dependency status. Major data sources and definitions are described below.

U.S. Census Bureau, Current Population Survey (CPS) and American Community Survey (ACS). CPS and ACS provide yearly household-based national estimates and include data on enrollment in postsecondary education by family income and race/ethnicity.

National Center for Education Statistics (NCES) High School Longitudinal Studies. NCES has conducted high school longitudinal studies on cohorts of nationally representative samples of high school students at about 10-year intervals over the last 45 years. These studies are the High School Longitudinal Study (HSLS) of 9th graders in 2009; the Education Longitudinal Study of 10th graders in 2002 (ELS:2002); the National Education Longitudinal Study of 8th graders in 1988 (NELS:88), and the High School and Beyond Study of 1980 10th graders (HS&B:1980). For those studies for which sufficient time has elapsed, we report data from the follow-ups 8 or 10 years after expected high school graduation (2012, 2000, and 1992, respectively).[41] The more recent NCES High School Longitudinal Study (HSLS:2009) began in 2009 with 9th graders and had an 11th grade survey in 2012. An update of HSLS in 2013 collected information on high school completion and college enrollment in the fall after the expected on-time high school graduation. A second follow-up in 2016 provides data on students approximately 3 years after expected high school graduation.

National Center for Education Statistics (NCES) National Postsecondary Student Aid Study (NPSAS). NCES has conducted NPSAS at 4-year intervals since 1990; however, in 2018, a NPSAS Administrative Records only study was conducted. For the regular NPSAS, 2020 is the most recent year for which a study was conducted, and data files released. In 2024, another round of NPSAS is being conducted. We also include information from

41 NCES also sponsored a study of the High School Class of 1972. Because this study started with the senior class and had follow-up limitations, we do not include data from this study for college continuation rates. We use information from this study to observe trends in parents' education in the Setting the Stage section and in Indicator 2 describing selectivity of intended institutions among high school seniors.

the 2020 NPSAS on the COVID supplement that was released earlier than the regular NPSAS:20 data.[42] We use NPSAS throughout the 2024 *Indicators* report as a major source of information on student financial aid for both independent and dependent students, as well as the characteristics of enrolled students.

Other Sources of Data. We also draw on federal administrative data from the Free and Reduced-Price Lunch program of the U.S. Department of Agriculture, and the Pell Grant award data from the U.S. Department of Education to estimate enrollment of low-income students by state.[43]

Key Definitions Used in Equity Indicator 1

Definitions of the indicators and information about classifications are noted below.

- **The Cohort College Participation Rate** is defined (for this series of Equity Indicators reports) as the percent of dependent 18- to 24-year-olds who are not still enrolled in high school and are enrolled in any type of postsecondary education, as measured by the Current Population Survey (CPS). The data reported in the Equity Indicators report is tabulated using the Census MDAT system.
- **The High School Graduates College Continuation Rate** is defined (for this series of Equity Indicators reports) as the percentage of dependent 18- to 24-year-old high school graduates who are enrolled in college, as measured by the CPS. The High School Graduates College Continuation Rate is higher than the Cohort College Participation Rate because it is contingent upon high school graduation.
- **Enrolled in Postsecondary Education Within 8 or 10 Years of Expected High School Graduation** is defined as the percent of students who, in nationally representative NCES school-based longitudinal studies, self-reported having ever enrolled in any type of postsecondary educational institution, regardless of degree-granting status of the institution or the student's degree or certificate attainment status.
- **Income** is most frequently reported in this report in quartiles (4 equal-sized groups). Reflecting the different approaches of a given data source, we also report divisions of family income in 3 categories (high, medium, or low) and 5 groups (quintiles). Using income quartiles or quintiles facilitates comparisons of changes over time, as they reflect the distribution in the year of the study. In 2022, family income quartiles for dependent 18- to 24-year-olds identified by the distribution of family income data in the CPS were estimated to be:
    - *Lowest quartile*: Less than $51,283
    - *Second quartile*: $51,284 to $94,613
    - *Third quartile*: $94,614 to $150,000[44]
    - *Highest quartile*: Above $150,000

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42 A COVID-19 supplement report of 2021 was the first data released from NPSAS:20 . Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). 2019–20 *National Postsecondary Student Aid Study (NPSAS:20): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* (NCES 2021-456). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456. In 2023, with the release of the NPSAS:20 data files, a second report covering the major financial aid data was released. Cameron, M., Johnson, R., Lacy, A., Wu, J., Siegel, P., Holley, J., & Wine, J. (2023, July). *2019–20 National Postsecondary Student Aid Study (NPSAS:20) First Look at Student Financial Aid Estimates for 2019–20* (NCES 2023-466). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2023/2023466.pdf.

43 Mortenson, T. (2023). *College Participation Rates for Students from Low-income Families by State: 1993 to 2022*. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

44 The upper limit for the third quartile was estimated based on the observed distribution of grouped data.

In 2022, the maximum income for the lowest quartile ($51,283) was less than one-third (33 percent) of the minimum income level of the highest quartile ($150,000). Reflecting growing income inequality in the United States, the difference between the highest and lowest family income quartiles has increased since 1987.

- **Race/Ethnicity.** We use the race and ethnicity categories and titles (for example, "Black," "Black or African American") in the charts and text as reported by each data source. As race/ethnicity categories have changed over time and vary by study, race/ethnicity categories and titles used in this report also vary based on the original data sources. The more recent studies use race and ethnicity variables that reflect federal requirements for collecting race separately from ethnicity and allow respondents to mark more than one choice for race. In instances in which the labeling for race/ethnicity has changed over time for the same data source, we report the current labels. See notes below figures for more detail.
- **Socioeconomic Status (SES)** is measured using the socioeconomic status (SES) composite included in the NCES longitudinal studies. NCES created the SES composite based on data from the parent questionnaires or data imputed from the student questionnaires. For the NCES high school longitudinal studies, SES was derived using 5 equal-weighted components: father's/guardian's education, mother's/guardian's education, family income, father's/guardian's occupational prestige score, and mother's/guardian's occupational prestige score.[45]
- **Dependency Status.** All applicants for federal student aid are considered either "independent" or "dependent." To determine dependency status, applicants for federal aid answer a series of questions. Depending on the answers to the questions, a student is classified as either dependent or independent. Dependent students must submit their parents' financial information as reported to the IRS, and this information is used to calculate the dependent students' Expected Family Contribution (EFC). Independent students submit their own financial records in completing the FAFSA forms. Although not reflected in the data reported in this 2024 Equity Indicators report, methods of establishing eligibility and expected contribution are changing for 2024 (see the Office of Student Aid for detailed description of the changes).[46]
    - **FAFSA Independent Student**. According to the Department of Education, an independent student must answer "yes" to at least one of the following questions. Students who answer "yes" to one of the following questions are further classified as "independent students with dependents" or "independent students without dependents." Depending on the responses to items in this series, students may be also entitled to other federal aid benefits.
        1. Will you be 24 or older by January 1st of the school year for which you are applying for financial aid? For example, if you plan to start school in August 2021 for the 2022–23 school year, will you be 24 by January 1st, 2022 (i.e., were you born before Jan. 1, 1999)?
        2. Are you married or separated but not divorced?
        3. Will you be working toward a master's or doctorate degree (such as M.A., MBA, M.D., J.D., Ph.D., Ed.D., etc.)?
        4. Do you have children who receive more than half of their support from you?
        5. Do you have dependents (other than children or a spouse) who live with you and receive more than half of their support from you?

45 Cahalan, M., Ingles, S., Burns, L., & Planty, M. (2006). *United States High School Sophomores: A Twenty-Two Year Comparison, 1980-2002*, Statistical Analysis Report (NCES 2006-327). Washington, DC: U.S. Department of Education. Retrieved from https://nces.ed.gov/pubs2006/2006327.pdf.

46 https://studentaid.gov/h/apply-for-aid/fafsa.

6. Are you currently serving on active duty in the U.S. armed forces for purposes other than training?
7. Are you a veteran of the U.S. armed forces?
8. At any time since you turned age 13, were both of your parents deceased, were you in foster care, or were you a ward or dependent of the court?
9. Are you an emancipated minor or are you in a legal guardianship as determined by a court?
10. Are you an unaccompanied youth who is homeless or self-supporting and at risk of being homeless?[47]

- **FAFSA Dependent Student**. All students under 24 and who do not answer "yes" to one of the above questions are considered dependent students for the purposes of federal financial aid. The directions state: "If you don't answer "yes" to any of the questions above, you're still considered a dependent student for purposes of applying for federal student aid even if you don't live with your parents, are not claimed by your parents on their tax forms, or you are paying for your own bills and educational expenses."

Cautions and Limitations. This report relies on data compiled over long periods of time to observe trends. As noted throughout, data from sample surveys such as the CPS and NCES longitudinal studies are subject to sampling error and changes in definitions and study designs. For example, the income and race/ethnicity data for small populations as reported in the CPS suffer from small sample sizes and larger sampling errors than the estimates for the whole population. To address these limitations, in some cases we use 3-year moving averages. As noted above, definitions of race/ethnicity have also changed over time. The NCES high school longitudinal studies have complex multi-level school and student sample designs and have cohorts starting in different grade levels, ranging from 8th to 12th grade. Caution is needed in drawing conclusions about the trend data, especially when changes are small.

Equity Indicator 1a: How Do Cohort College Participation Rates Vary by Family Income?

Equity Indicator 1a 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 2022. For all income groups, the cohort college participation rate was higher in 2022 than in 1970; however, the highest rates of increase have occurred among the lowest income quartile, and the lowest rates of increase have occurred among the highest income quartiles. Among the highest quartile, the rates of participation have remained within 10 percentage points of that of 1970 when they were at 74 percent and reached highs of 84 percent in 1993, 1995, and 2009. In 2022, college cohort participation rates were at 79 percent.

The college participation rate for the lowest income quartile was relatively stable from 1970 to 1990, with most of the increase occurring since 1990. College participation rates for high school leavers from the lowest quartile increased by 36 percent over the period of 1990 to 2022, (from 32 percent in 1990 to 44 percent in 2022). Over the same period, the share of high school leavers from the highest income quartile who enrolled in college increased by 6 percent, from 75 percent in 1990 to 79 percent in 2022. Because of differential rates of increase over this period, the gap in postsecondary education enrollment between those in the lowest and highest family income quartiles is smaller in 2022 (35 percentage points) than in 1990 (42 percentage points) and 1970 (45 percentage points).

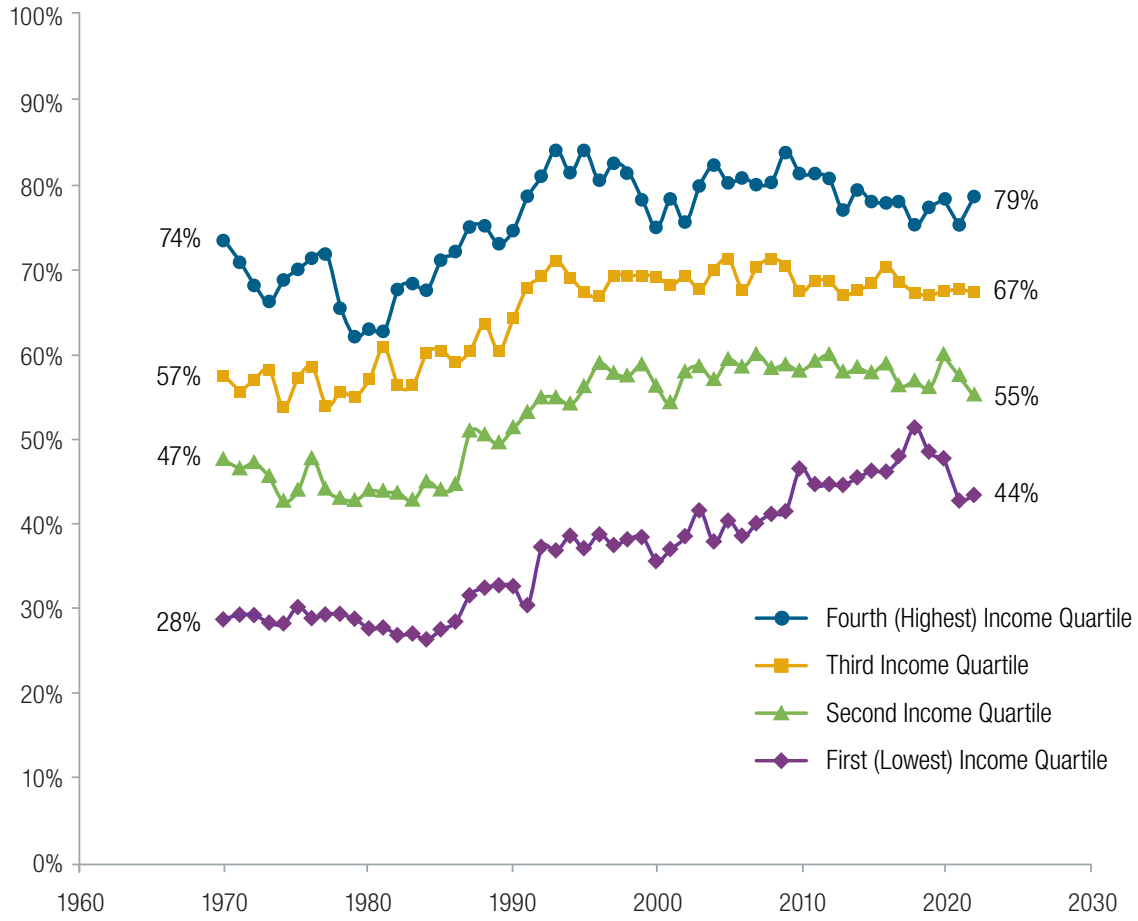
47 Office of Federal Student Aid, US Department of Education, https://studentaid.gov/resources/dependency-status-text.

Recent Changes in Cohort College Participation. As discussed above, the period between 1970 and 2022 registered increases in all quartiles, especially for the lowest two quartiles. However, the last 12 years have seen some notable increases and declines related to the economic situation and the COVID pandemic. Although caution is needed in interpreting year to year small changes that may reflect sampling and non-sampling measurement errors, these changes have also been noted in the total enrollment figures included in the Setting the Stage section of this report.

As seen in Equity Indicator 1a, in 2010 at the time of the Great Recession, the cohort college participation for the bottom quartile reached a high up to that point of 46 percent. Following a concerted effort to encourage college participation among middle and lower-income high school students, the cohort college participation in the lowest family income quartile increased to a new high of 51 percent by 2018. However, the availability of non-college work in the economic recovery and the lack of immediate employment in "college level jobs" for recent graduates especially in states with traditionally lower college attainment levels, led to a questioning of the value of a higher education that came with such a high debt laden price tag.

The declines began before the COVID pandemic but were accelerated by COVID. Among the lowest family income quartiles, there was a decline from 48 percent in 2019 to a rate of 43 percent in 2021. There was a small rebound to 44 percent in 2022. Among the second quartile, cohort college participation peaked at 60 percent in 2020 and fell to 55 percent in 2022. Among the third quartile, the cohort college participation rate shows some fluctuation but little change since 1990, ranging from a high of 71 percent in 1993 to 67 percent where it has remained between 2018 and 2022. Among the highest quartile the impact of COVID can be seen but was followed by a quick rebound. There was a decline from 79 percent in 2020 to 75 percent in 2021, but a rebound to 79 percent by 2022.

Equity Indicator 1a: Cohort College Participation Rates by family income quartile for dependent 18- to 24-year-olds: 1970 to 2022



Indicator Status: High Inequality but Narrowing Gap

There was a 35 percentage-point gap in college enrollment between dependent 18- to 24-year-olds in the highest and lowest income quartiles in 2022, compared with a 42 percentage-point gap in 1990 and a 45 percentage-point gap in 1970.

NOTE: The Cohort 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.

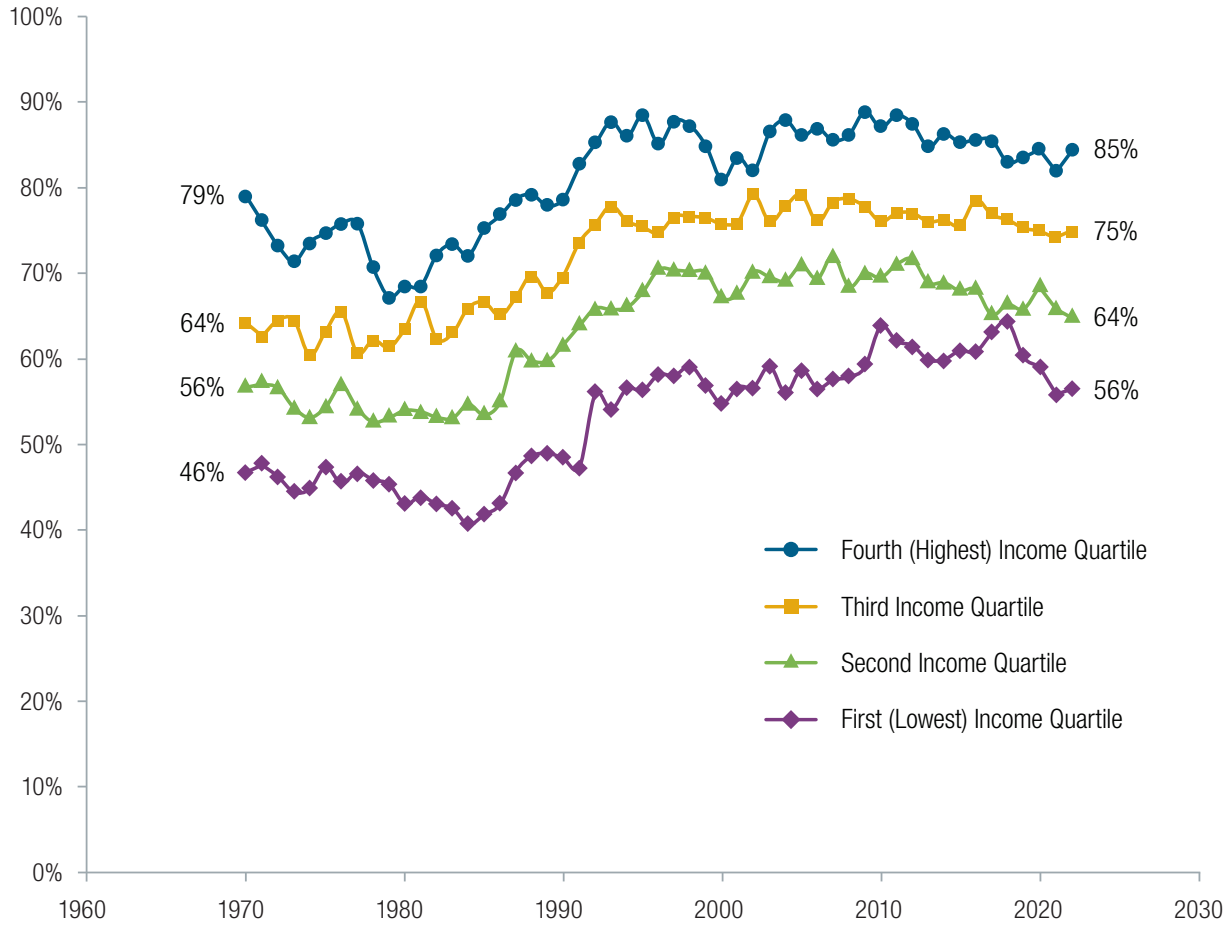
SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1b: How Do High School Graduates College Continuation Rates Vary by Family Income?

Equity Indicator 1b shows trends in High School Graduates College Continuation Rates by family income quartile from 1970 to 2022. This statistic differs from the college continuation rate (Indicator 1a) in that it only includes students who have a high school credential. The increases in high school completion rates over the period might be expected to impact this statistic.

As Equity Indicator 1b shows, the college continuation rates for those who have graduated high school have increased with some fluctuations and some narrowing of the gaps between the quartiles over the entire period since 1970. However, considering the period only since the mid-1990s, they have remained relatively stable among the upper-three quartiles and have increased only slightly for the lowest quartile. There was a 29 percentage-point gap in college continuation rates between high school graduates in the highest and lowest income quartiles in 2022, compared with a 32 percentage-point gap in 1990 and a 33 percentage-point gap in 1970. For high school graduates in the highest family income quartile, the college continuation rate was 85 percent in 2022, up from 79 percent in both 1990 and 1970. For high school graduates in the lowest quartile, the college continuation rate was 56 percent in 2022, up from 48 percent in 1990 and 46 percent in 1970.

Equity Indicator 1b: High School Graduates College Continuation Rates by family income quartile: 1970 to 2022



Indicator Status: High Inequality but Narrowing Gap

College continuation rates have fluctuated with an increase and some narrowing of the gaps between the quartiles since 1970, but since the mid-1990s have remained relatively stable among the upper-three quartiles and have increased only slightly for the lowest quartile. There was a 29 percentage-point gap in college continuation rates between high school graduates in the highest and lowest income quartiles in 2022, compared with a 32 percentage-point gap in 1990 and a 33 percentage-point gap in 1970.

NOTE: 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: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1c(i): How Do Cohort College Participation Rates of High School Leavers Vary by Race/Ethnicity?

Equity Indicator 1c(i) uses Current Population Survey (CPS) data to examine Cohort College Participation Rates for dependent 18- to 24-year-olds who are not enrolled in high school (high school graduates and non-graduates) by race/ethnicity from 1974 to 2022. Categories used for race/ethnicity in government statistics have changed over time. Data for Asians were not available until 1989. For Indicator 1c(i), the race categories (White, Black, and Asian) exclude those of Hispanic ethnic origin. Estimates by race/ethnicity have larger sampling errors than estimates for the total population due to smaller population and sample sizes. Estimates are also impacted by changes in the age composition of the group and income distribution by race/ethnicity.[48] Year-to-year fluctuations may be related to sampling error or differences in how respondents chose to classify themselves. Readers are cautioned about drawing conclusions about small changes in point estimates.

Indicator 1c(i) shows that, in 2022, 83 percent of Asian, and 64 percent of White recent high school leavers enrolled in college, compared with 52 percent of Hispanics and 59 percent of Blacks. In 1974, about 49 percent of White high school leavers enrolled in college, compared with 30 percent of Blacks and 33 percent of Hispanics.

Equity Indicator 1c(ii): How Do Cohort College Participation Rates of High School Leavers by Race/Ethnicity Vary by Family Income Quartiles?

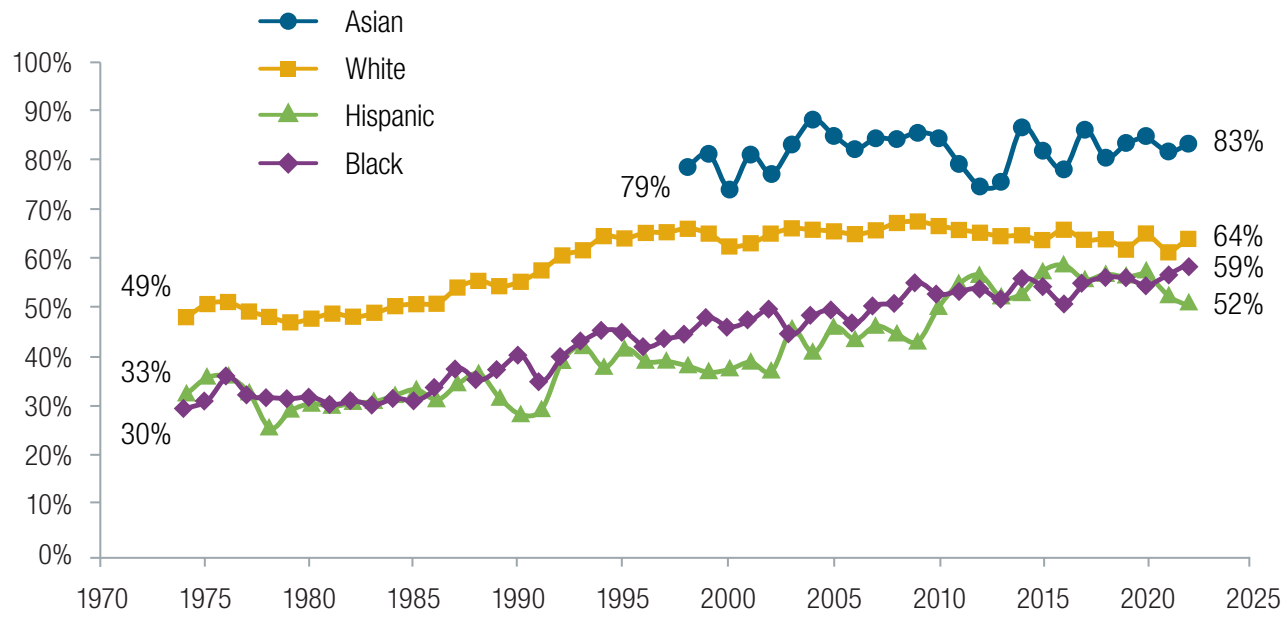
Equity Indicator 1c(ii) displays Cohort College Participation Rates for 2022 by race/ethnicity, disaggregated by family income quartile. Because the data are disaggregated by both income quartile and race/ethnicity, the cautions about interpreting differences across groups, that are articulated above, are even more important. Income quartiles reflect the distribution of income for the entire total population of households, not the income quartiles of the race/ethnicity group. As seen in STS Figure 8b(iii), there are large differences in the distribution of income by race/ethnicity. For example, only 8 percent of Hispanics and 14 percent of Blacks aged 18 to 24 were in the highest parent family income quartile households, in comparison with 32 percent of Whites and 36 percent of Asians.

Indicator 1c(ii) shows that disaggregating by family income quartile reduces the differences by race/ethnicity observed in Indicator 1c(i).[49] Blacks, Hispanics, and Whites' cohort participation rates are more similar for those in the same quartile groupings. For example, for those in the first (lowest) income quartile, 2022 Cohort College Participation Rates were 40 percent for Blacks, 46 percent for Hispanics, and 43 percent for Whites. For those in the highest income quartile, the 2022 Cohort College Participation Rate was 80 percent for the 14 percent of Blacks in the highest income Quartile, 69 percent for the 8 percent of Hispanics in the highest income quartile, and 80 percent for the 32 percent of Whites in the highest income quartile. Cohort participation rates for Asians (as a group, ignoring differences within this aggregated category) show a less clear pattern by family income quartile.

48 Pfeffer, F. T., Danziger, S., & Schoeni, R. (2013). Wealth Disparities before and after the Great Recession. *Annals of the American Academy of Political and Social Science, 650*(1), 98–123. Retrieved from https://journals.sagepub.com/doi/10.1177/0002716213497452. This paper reports that between 2007 and 2011, one-fourth of American families lost at least 75 percent of their wealth, and more than half of all families lost at least 25 percent of their wealth. The analysis also shows that the large relative losses were disproportionally concentrated among lower-income, less educated, and minority households.

49 Given sampling error due to smaller sample sizes, caution is needed in interpreting these results, especially for small groups such as Asians.

Equity Indicator 1c(i): Cohort College Participation Rates of recent high school leavers (those who have graduated and those who have not graduated) by race/ethnicity: 1974 to 2022



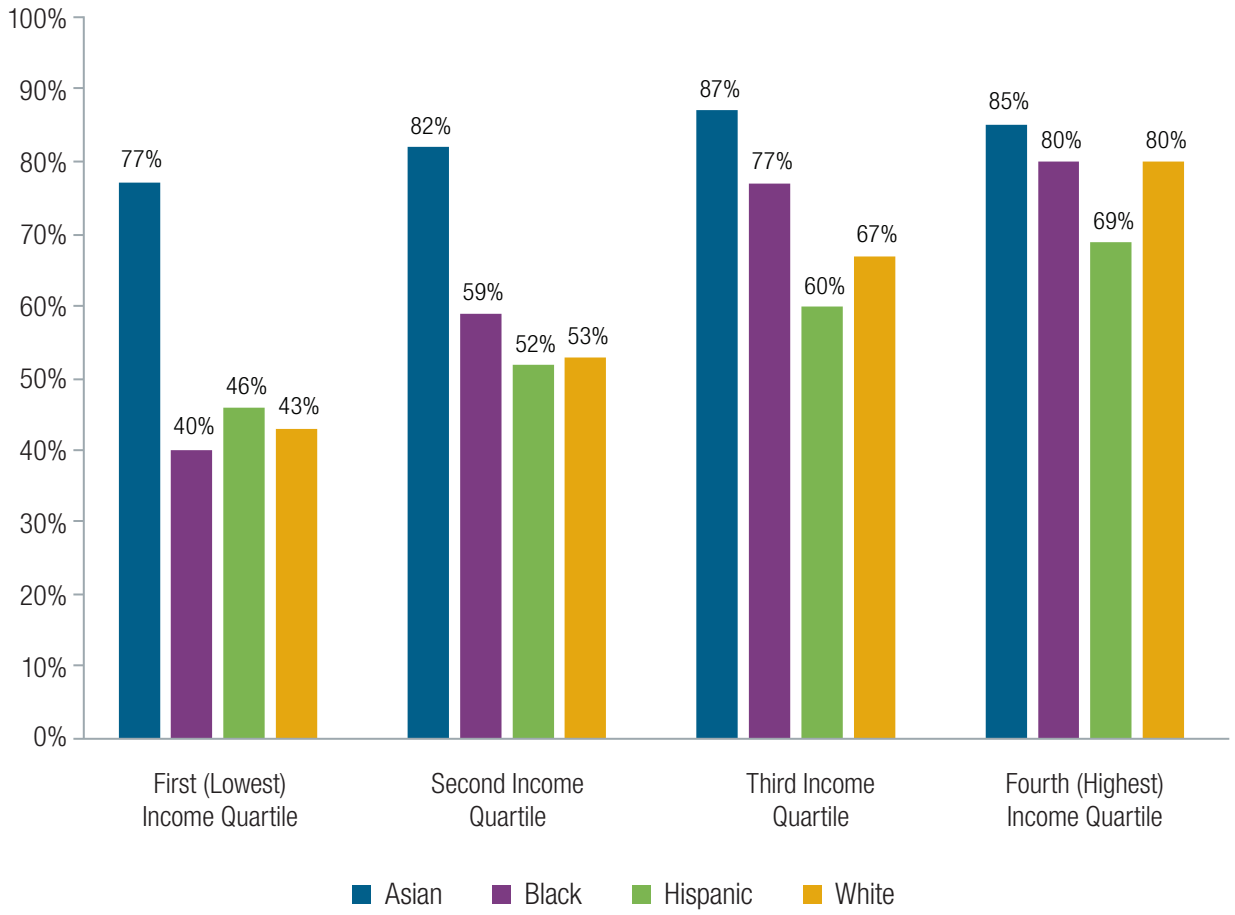
Indicator Status: Narrowing but Gaps Persist by Race/Ethnicity

Among dependent 18- to 24-year-olds who are not enrolled in high school, Cohort College Participation Rates in 2022 were 12 percentage points higher for Whites than for Hispanics and 5 percentage points higher than for Blacks. In 1974, college participation rates were 19 percentage points higher for White high school leavers than for Blacks and 16 percentage points higher than for Hispanics.

NOTE: Caution is needed in interpreting these data due to small sample sizes for different racial/ethnic groups and changing categorization and self-reporting patterns over time. Race categories exclude persons of Hispanic ethnicity except where otherwise noted. The Cohort College Participation Rate is tabulated based on the total number in the cohort year and includes those who have not completed high school. Data for Asian students were reported beginning in 1998. Annual data collected by Census and reported by BLS are from the October supplement to the Current Population Survey (CPS), a nationwide survey of about 60,000 households. Numbers are revised slightly from those reported previously.

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1c(ii): Cohort College Participation Rates of dependent 18- to 24-year-olds who are not enrolled in high school by race/ethnicity and family income quartile: 2022



Indicator Status:

Estimated differences in college participation rates by race/ethnicity are reduced when race/ethnicity is disaggregated by family income quartiles.

NOTE: Race categories exclude persons of Hispanic ethnicity. The Cohort College Participation Rate is tabulated based on the total number of dependent individuals ages 18 to 24 and includes those who have not completed high school and are not enrolled in high school. Annual data collected by Census and reported by BLS are from the October supplement to the Current Population Survey (CPS), a nationwide survey of about 60,000 households. Caution is needed in using these data and comparing small differences in estimates across race/ethnicity categories. Due to small sample sizes, estimates for disaggregated data have larger sampling errors than estimates for the total. Income quartiles are based on the distribution of the total number of households. Reflecting the unequal household income distribution by race/ethnicity in the United States, for example, 39 percent of Black, 44 percent of Hispanic, 17 percent of Asian, and 16 percent of White 18- to 24-year-olds were in households in the lowest quartile of the household income distribution. See STS Figure 8b(iii).

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1d(i): How Do High School Graduates College Continuation Rates Vary by Race/Ethnicity?

Indicator 1d(i) uses CPS data to show variations by race/ethnicity in college continuation rates for recent high school graduates. This Indicator differs from Indicator 1c(i) in that high school completers with a regular diploma or a GED are the denominator rather than the entire age cohort of students. Therefore, High School Graduates College Continuation Rates are higher than the Cohort College Participation Rates displayed in Indicators 1c(i) and 1c(ii).[50] As with Indicators 1c(i) and 1c(ii), caution is needed in interpreting Indicators 1d(i) and 1d(ii) due to larger sampling errors with disaggregated data, and changes over time in the race/ethnicity definitions and inclusions. Race categories exclude persons of Hispanic ethnicity. Prior to 2003, the Asian category included Pacific Islanders, and after 2002, White, Black, and Asian data exclude persons of "Two or More Races." These rates, as with the rates reported for Indicator 1c(i), are also likely influenced by economic and political events and immigration patterns and policies.

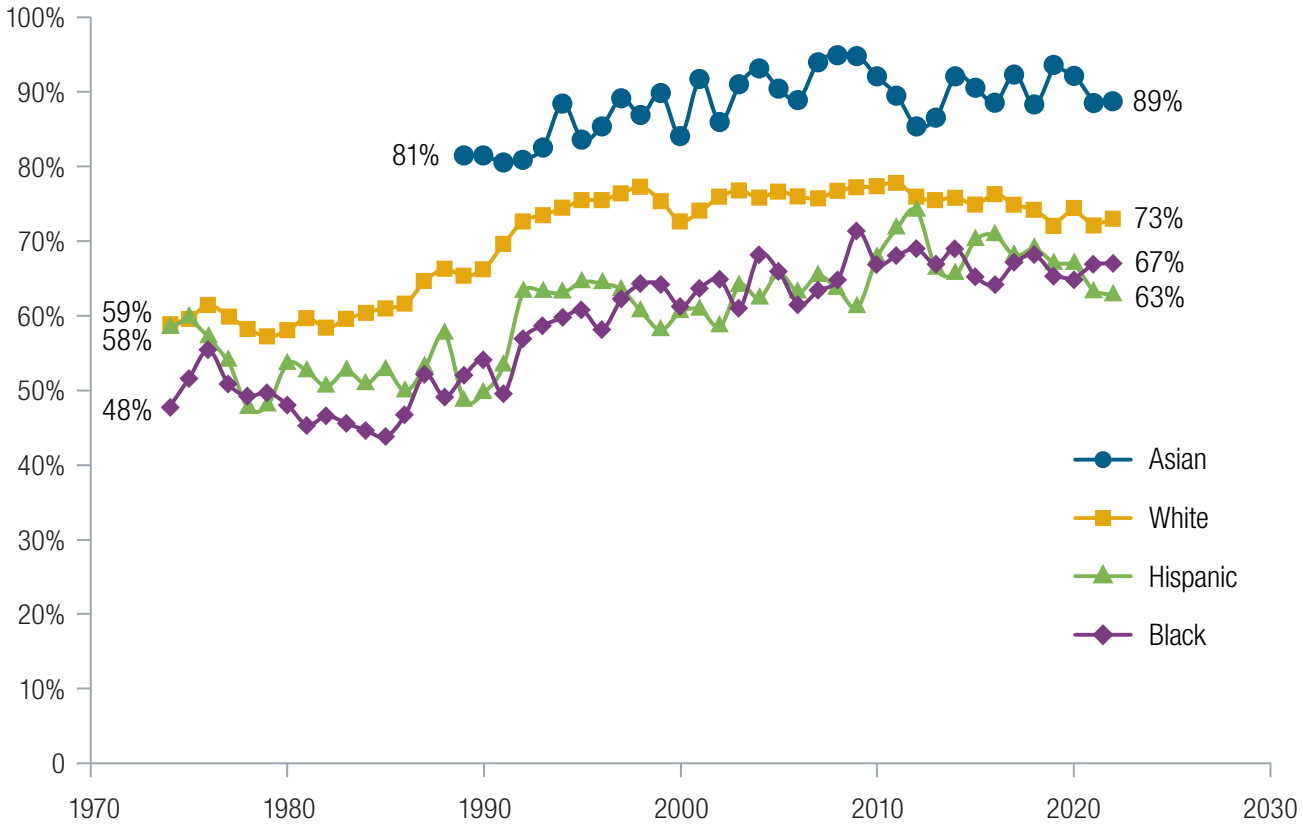
For all groups, college continuation rates for high school graduates were substantially higher in 2022 than in 1974. Although there are some fluctuations in rates over this period, college continuation rates increased by 25 percent between 1974 and 2022 for Whites (rising from 59 percent to 73 percent), by 8 percent for Hispanics (rising from 59 percent to 63 percent), by 42 percent for Blacks (rising from 48 percent to 67 percent), and by 9 percent for Asians (rising from 81 percent in 1989 to 89 percent) in 2022.

While caution is needed in interpreting these data, Indicator 1d(i) illustrates the gains that Hispanic recent high school graduates have made in college enrollment, especially since 2006.[51]

50 Increases in the percent of high school completers may in the short run depress the percentages of high school graduates who enter college by race/ethnicity.

51 Musu-Gillette, L., Robinson, J., McFarland, J., Kewalramani, A., Zhang, A., & Wilkinson-Flicker, S. (2016). *Status and Trends in the Education of Racial and Ethnic Groups 2016* (NCES 2016-007). U.S. Department of Education, National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2016/2016007.pdf; Ramos, D., & Taylor, M. (2017). *Aligning Demographic Shifts and College Participation: Increasing Latino Degree Attainment*. Retrieved from https://www.higheredtoday.org/2017/01/25/aligning-demographic-shifts-college-participation-increasing-latino-degree-attainment.

Equity Indicator 1d(i): High School Graduates College Continuation Rates by race/ethnicity: 1974 to 2022



Indicator Status: Some Closing and Some Widening of the Gaps by Race/Ethnicity

Asians have the highest rates of college entrance among dependent 18- to 24-year-olds who have completed high school. Attention to the overall average for Asians masks variations among Asian ethnic groups. Rates among the other race/ethnicity categories show a fluctuating trend toward convergence. Caution is needed in interpreting these data due to sampling error and changes over time in race/ethnicity definitions and inclusions.

NOTE: Prior to 2003, Asian data include Pacific Islanders. After 2002, White, Black, and Asian data exclude persons of "Two or More Races." Race categories exclude persons of Hispanic ethnicity. The High School Graduates College Continuation Rate is the percentage of dependent 18- to 24-year-old high school graduates who entered a postsecondary educational institution of any type. Annual data are from the October supplement to the Current Population Survey (CPS), a nationwide survey of about 60,000 households. Each October, a supplement to the CPS gathers information about school enrollment.

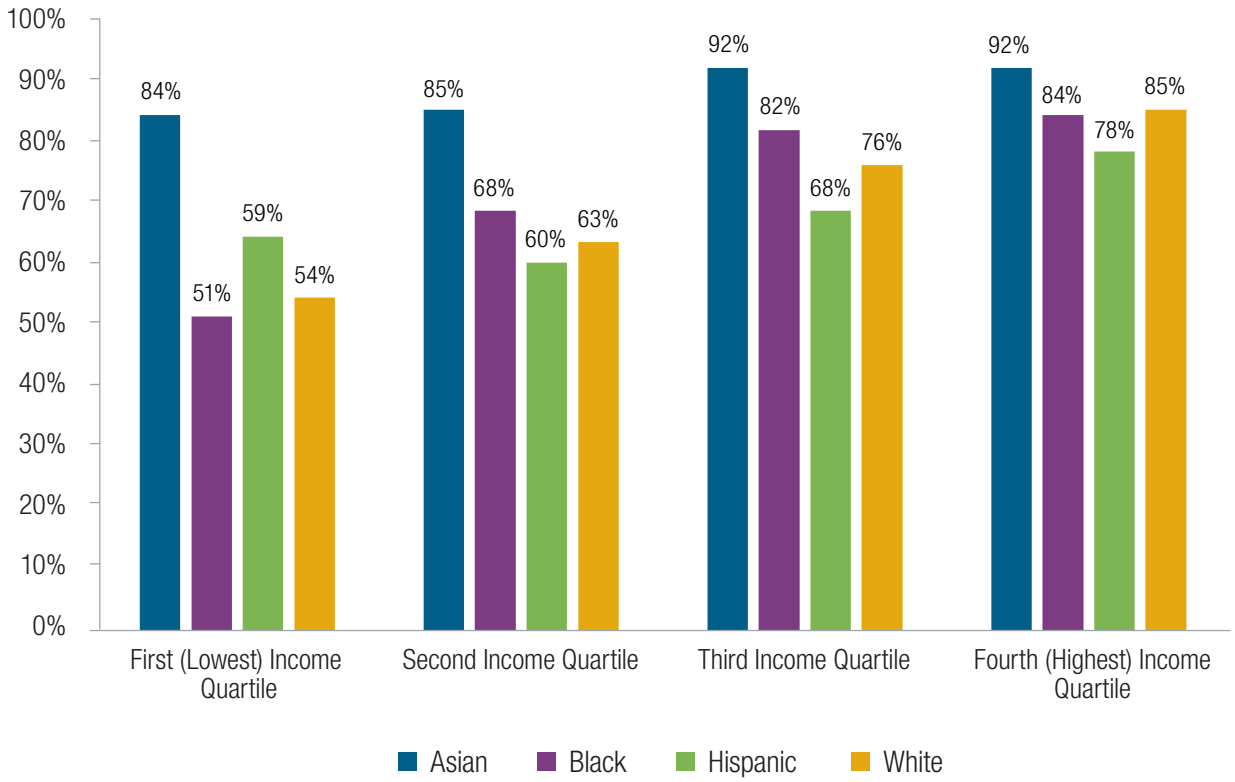
SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1d(ii): How Do the High School Graduates College Continuation Rates Vary by Race/Ethnicity and Family Income Quartile?

Equity Indicator 1d(ii) displays the High School Graduates College Continuation Rate in 2022 by race/ethnicity disaggregated by family income quartile. Differences across groups should be interpreted with caution, due to small sample sizes and the increase in standard errors for data disaggregated by both race/ethnicity and family income quartiles. As with Indicator 1c(ii), we need to keep in mind that the income quartiles are based on the distribution of the total number of households and reflect the unequal household income distribution by race/ethnicity in the United States. For example, 39 percent of Black, 44 percent of Hispanic, 17 percent of Asian, and 16 percent of White 18- to 24-year-olds were in households in the lowest quartile of the household income distribution. In contrast, 14 percent of Blacks, 8 percent of Hispanics, 36 percent of Asians, and 32 percent of Whites were in the highest quartile. See STS Figure 8b(iii).

As with Indicator 1c(ii), Indicator 1d(ii) shows that observed differences by race/ethnicity in college continuation rates of high school graduates are reduced when disaggregated by family income quartiles. Among Black high school graduates, College Continuation Rates ranged from 51 percent for those in the lowest family income quartile to 84 percent for those in the highest income quartile. Among White high school graduates, College Continuation Rates ranged from 54 percent for those in the lowest quartile to 85 percent in the highest quartile. Among Hispanic high school graduates, rates ranged from 59 percent in the lowest income quartile to 78 percent in the highest quartile. There is less variation in college continuation rates among Asians, ranging from 84 percent in the lowest quartile to 92 percent in the highest quartile.

Equity Indicator 1d(ii): High School Graduates College Continuation Rates by race/ethnicity and family income quartiles: 2022



Indicator Status:

Observed differences in college continuation by race/ethnicity are reduced when the data are disaggregated by family income quartile.

NOTE: Caution is needed in interpreting these data, as CPS sample survey data disaggregated by income quartile and race/ethnicity are subject to large sampling errors. Race categories exclude persons of Hispanic ethnicity. High School Graduates College Continuation Rate is the percentage of 18- to 24-year-old high school graduates who enrolled in a postsecondary educational institution of any type. Annual data collected by Census and reported by BLS 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. Due to small sample sizes, estimates for disaggregated data have larger sampling errors than estimates for the total.

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 1e: How Do Rates of Enrolling in College Within 8 or 10 Years of Scheduled High School Graduation Vary by Race/ Ethnicity?

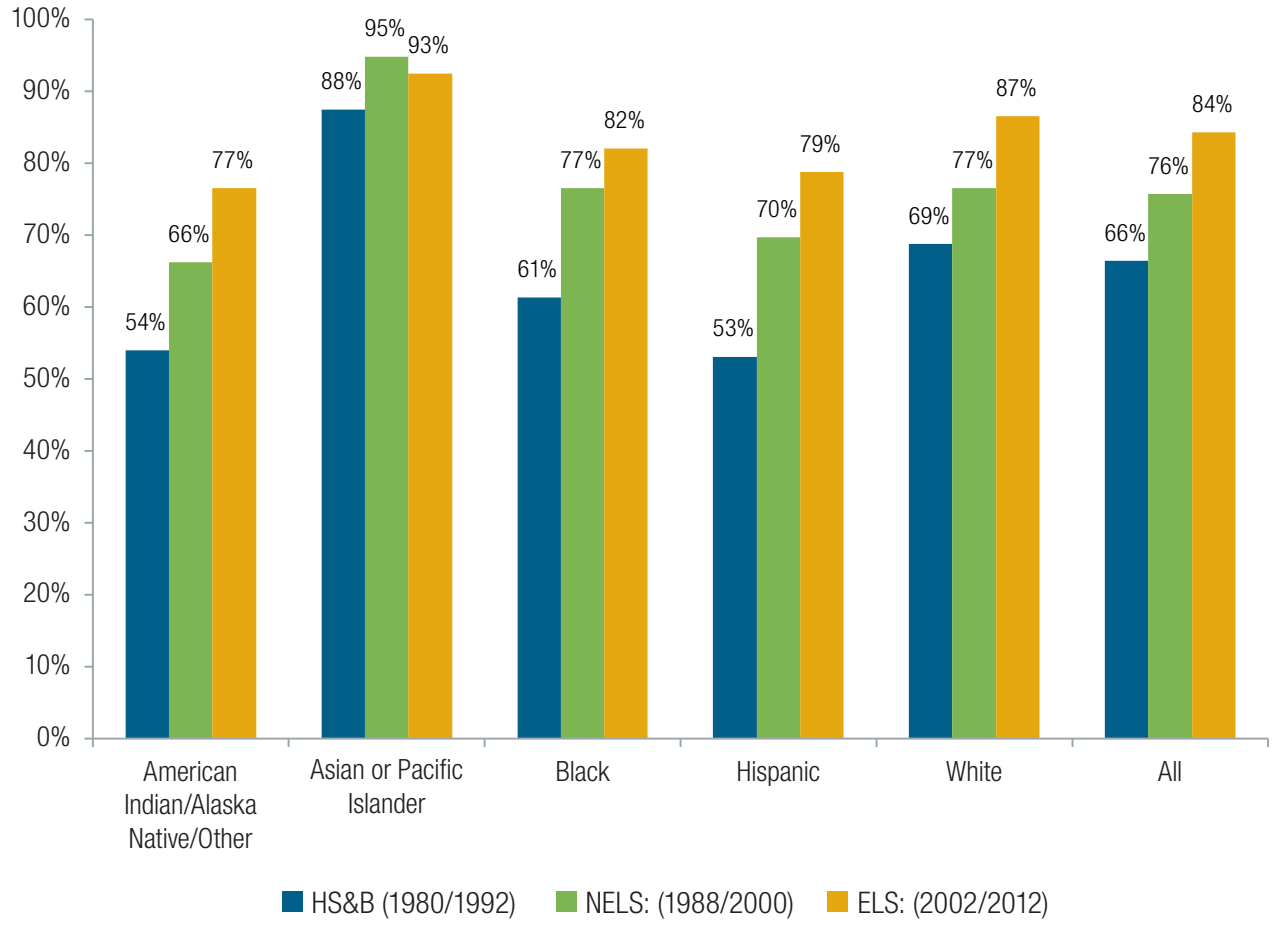
The high school longitudinal studies conducted by the National Center for Education Statistics (NCES) approximately every 10 years shed light on longitudinal trends in college enrollment within 8 or 10 years of expected high school graduation. Because college enrollment is measured within 8 or 10 years of expected high school graduation, the high school longitudinal studies report higher rates of college enrollment than the CPS/ BLS data for recent school leavers.

Some caution is needed when using these 3 studies to observe trends over time. The High School and Beyond (HS&B:1980) and Educational Longitudinal Study (ELS:2002) sampled high school 10th graders, while the National Educational Longitudinal Study (NELS:1988) sampled 8th graders. Unlike the NELS, the HS&B and ELS do not account for youth who left high school prior to the spring of the sophomore year.[52]

Considering data across the 3 national high school longitudinal studies shows a narrowing of the racial/ethnic gap in college enrollment. Among 1980 high school 10th graders (HS&B:1980/1992), 61 percent of Blacks and 53 percent of Hispanics reported attending a postsecondary educational institution within 10 years of scheduled high school completion, compared with 69 percent of Whites. Twenty-two years later, among 2002 10th graders (ELS:2002/2012), 82 percent of Blacks and 79 percent of Hispanics enrolled in postsecondary education within 8 years of expected high school graduation, compared with 87 percent of Whites.

52 Because the National Longitudinal Study (NLS) of the class of 1972 began with high school seniors, we do not include these data in the trend analyses for Indicator 1.

Equity Indicator 1e: Percentage of young adults who reported enrolling in postsecondary education within 8 or 10 years of expected high school graduation by race/ethnicity: High School Longitudinal Studies (HS&B:1980/1992; NELS:1988/2000; ELS:2002/2012)



Indicator Status: Persisting but Narrowing Gap

The gap in postsecondary enrollment between Black and White youth narrowed from 8 percentage points for 1980 10th graders to 5 percentage points for 2002 10th graders. Over the same period, the gap in postsecondary enrollment between Hispanic and White youth declined from 16 to 8 percentage points.

NOTE: Race categories exclude persons of Hispanic ethnicity. Because the sample size for American Indian/Alaska Natives alone was too small for reliable estimates for ELS, the "American Indian/Alaska Native/Other" category includes college enrollment rates for students of "other" racial/ethnic groups, including American Indians/Alaska Natives. ELS and HS&B began tracking students when they were in the 10th grade in high school. NELS:88 began with 8th grade.

SOURCE: Lauff, E. & Ingels, S. J. (2014). *Education Longitudinal Study of 2002 (ELS:2002): A First Look at 2002 High School Sophomores 10 Years Later* (NCES 2014-363). U.S. Department of Education; Ingels, S. J., Kaufman, P., Curtin, T. R., Alt, M. N. & Chen, X. (2002). *Initial Results from the Fourth Follow-up to the National Education Longitudinal Study of 1988: Coming of Age in the 1990s: The Eighth-grade Class of 1988 12 Years Later* (NCES 2002-321). U.S. Department of Education, Office of Educational Research and Improvement; Tuma, J., Geis, S., & Carroll, C.D. (1995). *High School and Beyond Educational Attainment of 1980 High School Sophomores by 1992: 1992 Descriptive Summary of 1980 High School Sophomores 12 Years Later* (NCES 95-304). U.S. Department of Education, National Center for Education Statistics.

Equity Indicator 1f: How Do Rates of Not Enrolling in Postsecondary Education within 8 or 10 Years of Expected High School Graduation Vary by Parents' Socioeconomic Status (SES)?

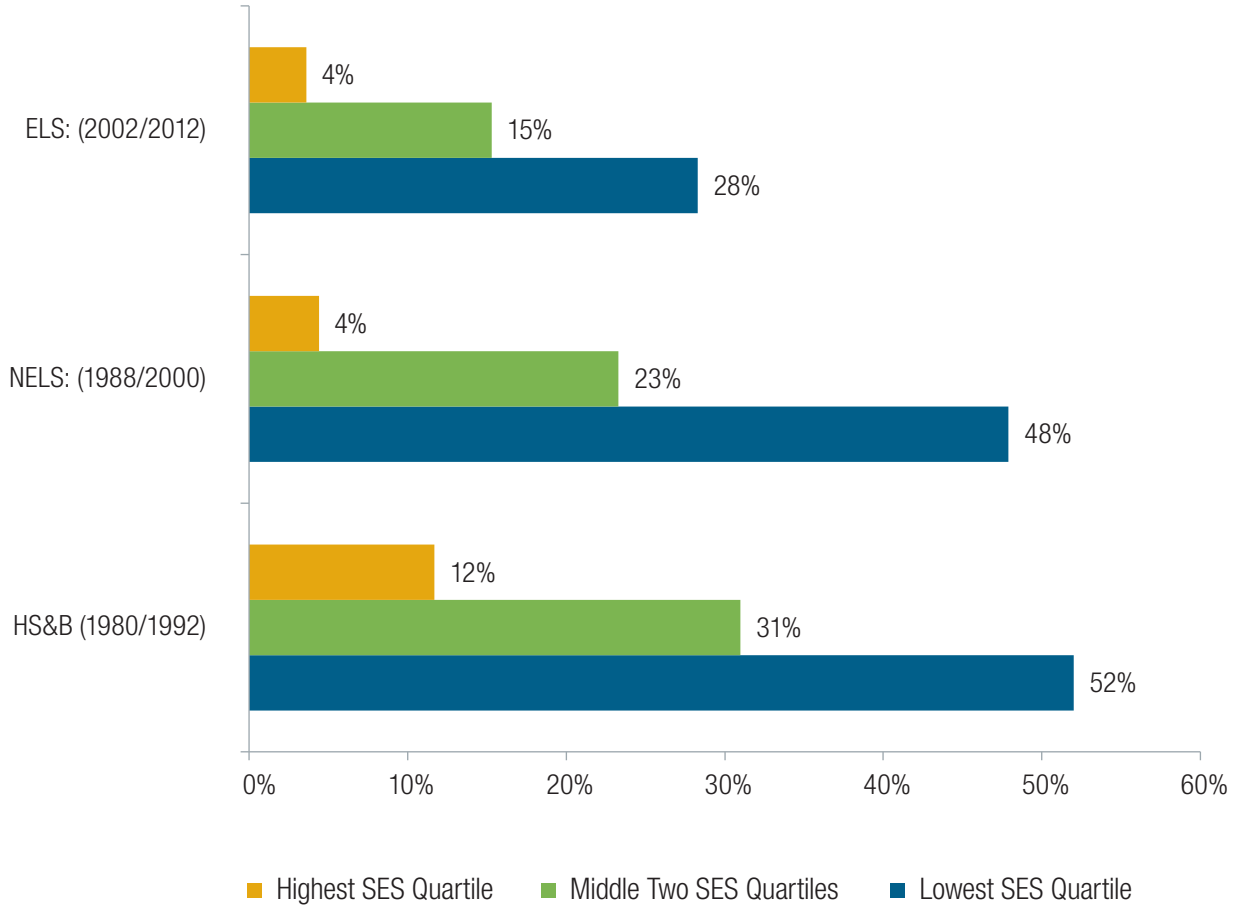
Indicator 1f documents the percent of young adults who reported that they had not enrolled in postsecondary education within 8 or 10 years of their scheduled high school graduation by parents' socioeconomic status (SES), using data from the three NCES-sponsored high school longitudinal studies. SES is a composite that reflects parents' and guardians' highest level of education, occupation, and income. This composite is measured consistently across the three NCES longitudinal studies.[53]

Across these three longitudinal studies, the percent of youth who reported no participation in postsecondary education declined for all levels of SES, including those in the lowest SES quartile. Despite this progress, differences in rates of non-enrollment based on SES persist. The percentage of youth in the lowest SES quartile reporting no postsecondary educational enrollment within 8 or 10 years of scheduled high school graduation declined substantially over the period. In the 1980 10th grade HS&B cohort just over half (52 percent) of students in the lowest family SES quartile reported not enrolling in postsecondary within 8 or 10 years; however, by the time of the ELS representing the 2002 10th grade cohort, the percent not enrolling in postsecondary education in the lowest SES quartile had declined to 28 percent.

In all three studies, young adults from the highest SES quartile average lower rates of non-enrollment than those in the lowest SES quartile. Only 4 percent of those in the highest SES quartile in both ELS:2002 (sampled as 10th graders) and NELS:88 (sampled as 8th graders) reported no postsecondary enrollment within 8 or 10 years of high school graduation, down from 12 percent of 1980 10th graders (HS&B).

53 SES is a composite measure that NCES derived in a comparable manner for the three high school longitudinal studies. NCES imputed SES for all sample members, including those with missing data for the parent income variable. We use the SES composite rather than family income, as SES is considered more reliable than a single measure like family income. The latter tends to have a high rate of missing data and is subject to reporting error.

Equity Indicator 1f: Percentage of young adults who reported no postsecondary enrollment within 8 or 10 years of expected high school graduation by parents' socioeconomic status (SES): High School Longitudinal Studies (HS&B:1980/1992; NELS:1988/2000; ELS:2002/2012)



Indicator Status: High Inequality but Narrowing Gap

The gap in the percentage of youth in the highest and lowest SES quartiles who reported no postsecondary enrollment within 8 or 10 years of scheduled high school graduation was 24 percentage points for 10th graders in 2002, down from 44 percentage points for 1988 8th graders and 40 percentage points for 1980 10th graders.

NOTE: ELS and HS&B sampled students when they were in the 10th grade (high school sophomores). NELS:88 sampled 8th graders. Some differences in findings across longitudinal studies are expected due to the longer time period for dropping out of high school for students sampled in 8th grade rather than 10th grade.

SOURCE: Lauff, E. & Ingels, S. J. (2014). *Education Longitudinal Study of 2002 (ELS:2002): A First Look at 2002 High School Sophomores 10 Years Later* (NCES 2014-363). U.S. Department of Education; Ingels, S. J., Kaufman, P., Curtin, T. R., Alt, M. N., & Chen, X. (2002). *Initial Results from the Fourth Follow-up to the National Education Longitudinal Study of 1988: Coming of Age in the 1990s: The Eighth-Grade Class of 1988 12 Years Later* (NCES 2002-321). U.S. Department of Education, Office of Educational Research and Improvement; Tuma, J, Geis, S., & Carroll (1995). *High School and Beyond Educational Attainment of 1980 High School Sophomores by 1992: 1992 Descriptive Summary of 1980 High School Sophomores 12 Years Later* (NCES 95-304). U.S. Department of Education, National Center for Education Statistics.

Equity Indicators 1g(i) and 1g(ii): What Does the More Recent NCES High School Longitudinal Study Tell Us About College Entrance?

Indicators 1g(i) and 1g(ii) examine data from the High School Longitudinal Study (HSLS:2009), high school cohort study sponsored by the National Center for Education Statistics. This study began in 2009 with a nationally representative sample of 9th graders and followed up in 2012 (when most were in 11th grade), 2013 (the fall after scheduled high school graduation), and in 2016 (approximately 3 years after scheduled high school graduation).

Enrollment in College in the Fall After Scheduled High School Graduation. Indicator 1g(i) uses parents' socioeconomic status (SES) quintiles (five equal-sized groups) and shows 2-year and 4-year enrollment and non-enrollment in 2013, the fall after scheduled high school graduation. The findings from these data are consistent with the previous NCES high school studies and with Census data reported earlier in this report, despite the methodological differences between the studies.

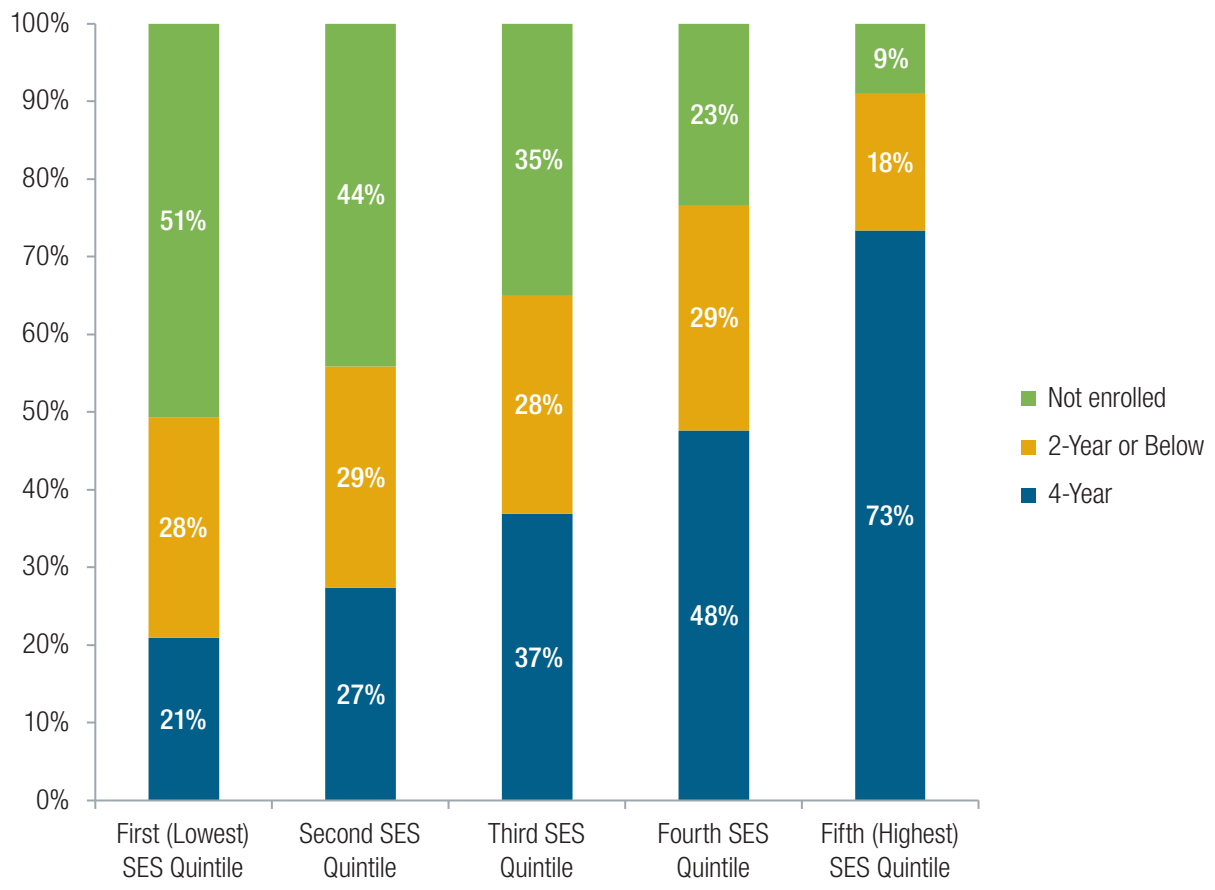
Half (51 percent) of 2009 9th graders from the lowest SES quintile were not enrolled in college the fall after their 2013 scheduled high school graduation, compared with 9 percent of those in the highest SES family quintile. Youth in the highest SES quintile were more than 3 times as likely as those in the lowest quintile to be enrolled in a 4-year institution (73 percent for the highest quintile and 21 percent for the lowest). A higher share of 2009 9th graders in the lowest SES quintile than in the highest SES quintile enrolled in 2-year colleges (28 percent versus 18 percent).

Enrollment in College Within 3 Years of Scheduled High School Graduation. Indicator 1g(ii) presents the percentage of the 2009 9th grade cohort who attended college by February 2016 (approximately 3 years after scheduled high school graduation) by race/ethnicity and SES quintiles.

Among 2009 9th graders, rates of attending college within 3 years of scheduled high school graduation were: 47 percent for American Indian/Alaska Natives, 62 percent for Black/African-Americans, 64 percent for Native Hawaiian/Pacific Islanders, 66 percent for Hispanics, 70 percent for "More than One Race," 73 percent for Whites, and 84 percent for Asians.

Just over half (53 percent) of 2009 9th graders from the lowest SES quintile had attended college within three years of scheduled high school graduation, compared with 92 percent of those in the highest SES quintile.

Equity Indicator 1g(i): Percentage distribution of 2009 9th graders by enrollment status in the fall after scheduled high school graduation by parents' socioeconomic status (SES): High School Longitudinal Study (HSLS:2009/2013)



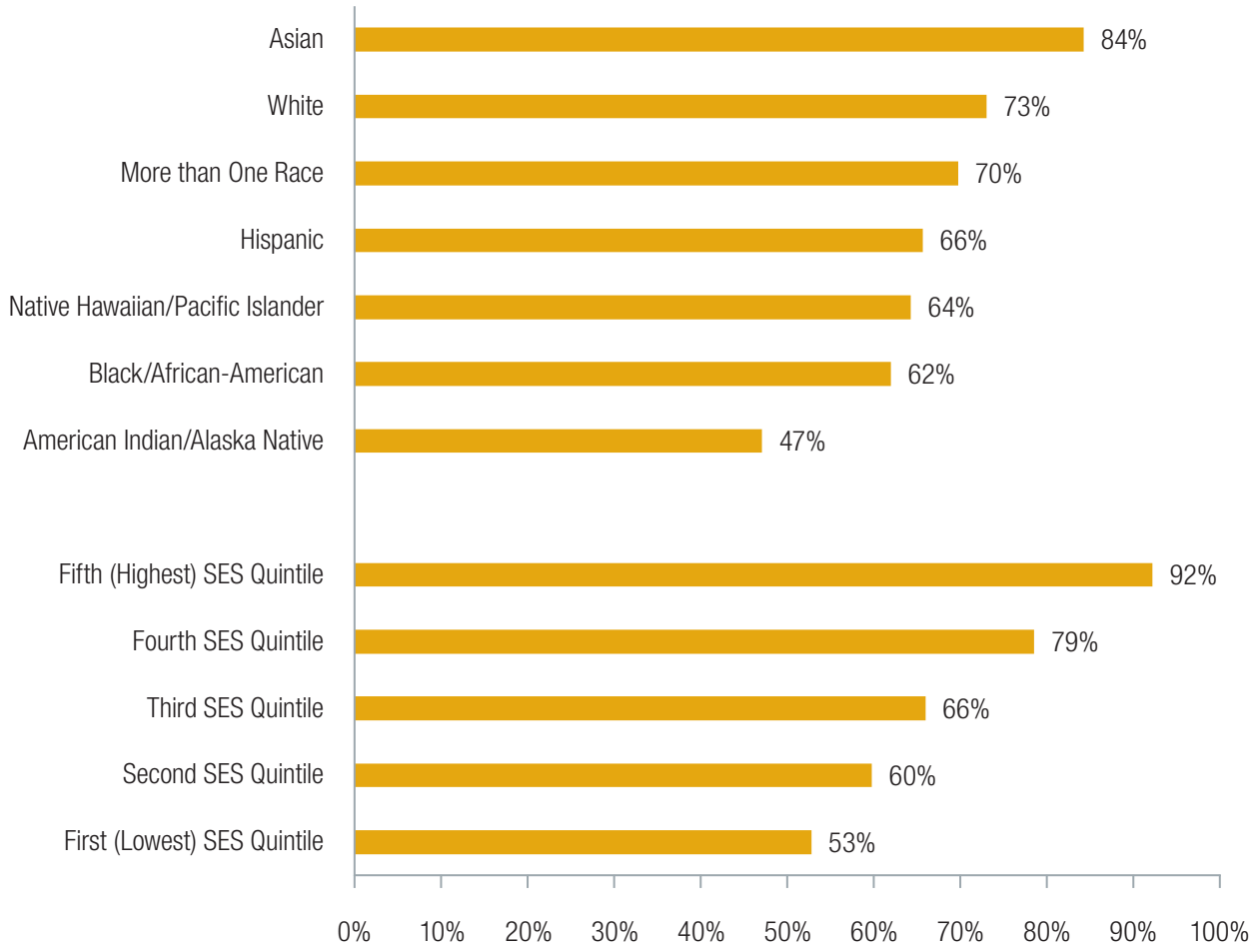
Indicator Status: High Inequality

Half (51 percent) of 2009 9th graders from the lowest SES quintile were not in college in the fall after their scheduled high school graduation, compared with 9 percent of those from the highest SES quintile.

NOTE: The High School Longitudinal Study (HSLS:2009) began with a nationally representative sample of 9th graders in 2009 and included follow-ups in 2012 (typically the 11th grade), 2013 (the fall after scheduled high school graduation), and 2016 (about 3 years after scheduled high school graduation). This indicator uses data from the 2013 follow-up.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLS:2009/2013). Tabulated using NCES PowerStats.

Equity Indicator 1g(ii): Percent of 2009 9th graders who ever attended college within 3 years after scheduled high school graduation by race/ethnicity and by parents' socioeconomic status (SES): High School Longitudinal Study (HSLS:2009/2016)



Indicator Status: High Inequality

Rates of attending college within three years of high school graduation ranged from 47 percent for American Indian/Alaska Natives to 84 percent for Asians. About half (53 percent) of 2009 9th graders in the lowest SES quintile enrolled in college within 3 years of scheduled high school graduation, compared with 92 percent of those in the highest quintile.

NOTE: The High School Longitudinal Study (HSLS:2009) began with a nationally representative sample of 9th graders in 2009. Data in this chart are from the 2016 follow-up, approximately three years after scheduled high school graduation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLS:2009/2016). Tabulated using NCES PowerStats.

Equity Indicator 1h(i): What Are the Differences in High School Completion and College Entrance by Parents' Educational Attainment?

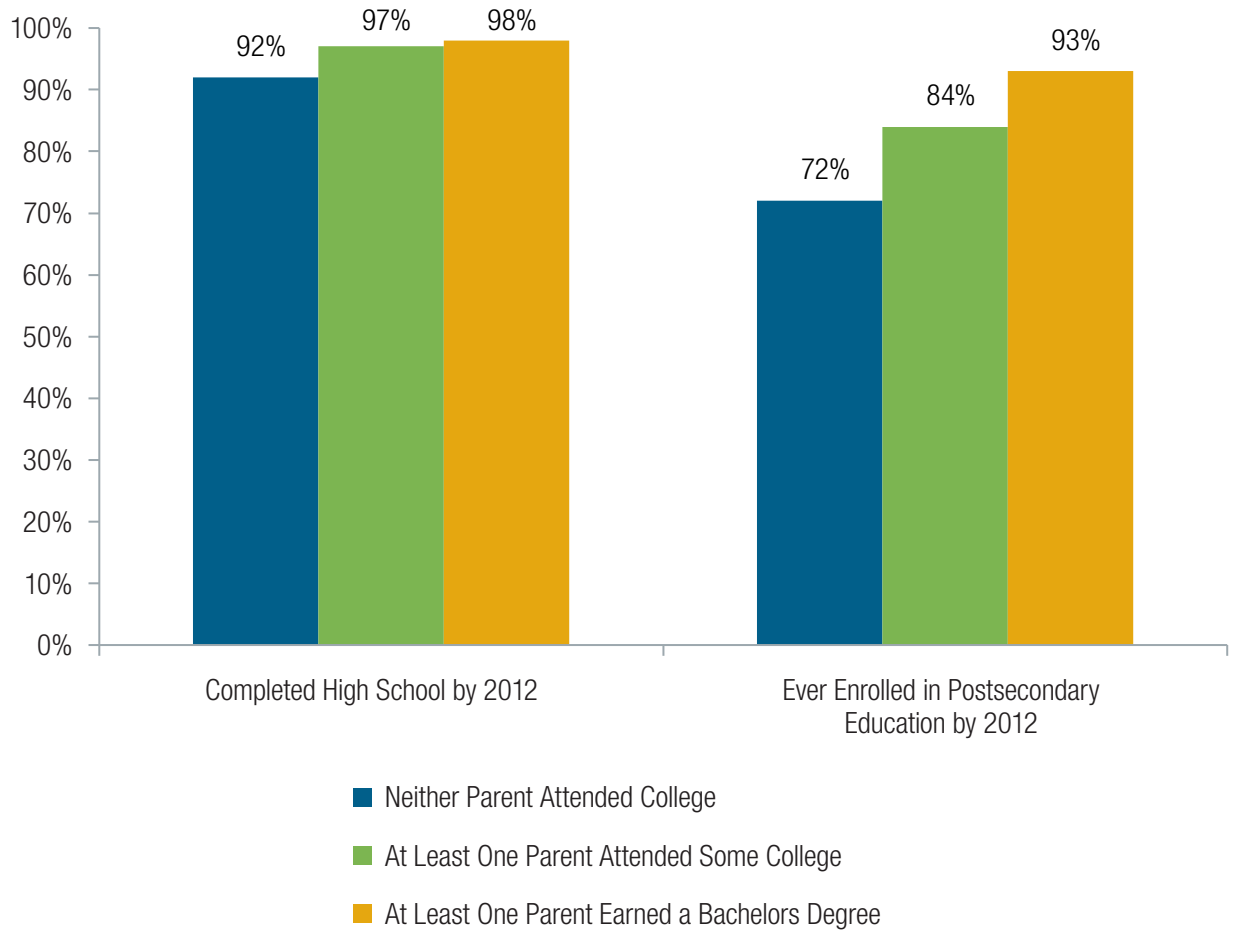
Indicator 1h(i) uses the ELS:2002/2012 data to examine differences in high school completion and college entrance by first-generation college status. First-generation college status can be defined in different ways. The Higher Education Opportunity Act (HEOA), which defines eligibility for many Federal Programs (including the TRIO programs), specifies first-generation as neither parent having a bachelor's degree. Others define first-generation college as neither parent having gone to college. A recently published analysis by NCES in 2018 examines college outcomes for students who meet various definitions.[54]

High School Diploma. Indicator 1h(i) shows that, by 8 years after scheduled high school graduation, virtually all youth whose parents had a bachelor's degree (98 percent) or some college (97 percent) and 92 percent of those whose parents who had not attended college had attained at least a high school diploma.

College Enrollment. Rates of enrolling in college within 8 years after high school graduation increased with parents' education. Indicator 1h(i) also shows that 72 percent of youth with neither parent having attended college had enrolled in college, compared with 84 percent of youth with at least one parent who attended some college, and 93 percent of youth with at least one parent who had attained a bachelor's degree or higher.

54 Cataldi, E. F., Bennett, C.T., & Chen X. (2018). *First-Generation Students College Access, Persistence, and Postbachelor's Outcomes* (NCES 2018-421). Washington, DC: U.S. Department of Education. Retrieved from https://nces.ed.gov/pubs2018/2018421.pdf.

Equity Indicator 1h(i): Percentages of 10th grade students who completed high school and enrolled in postsecondary education within 8 years of their scheduled high school graduation by highest level of education of either parent (ELS:2002/2012)



Indicator Status: High Inequality

There is a 21 percentage-point gap in the rate of enrolling in college within 8 years of scheduled high school graduation between 2002 10th graders who have at least one parent with a bachelor's degree and 2002 10th graders for whom neither parent has attended college.

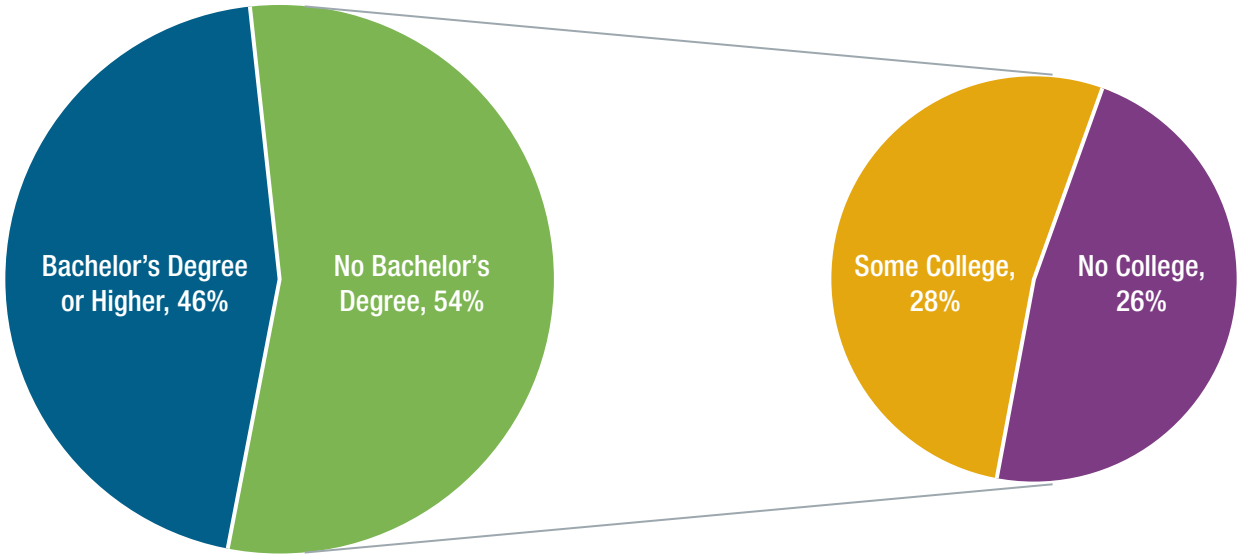
NOTE: The "Completed High School by 2012" group includes students who earned a regular high school diploma, a General Education Development (GED) certificate, or other high school equivalency such as a certificate of attendance.

SOURCE: Table C-2a and C-4a in Chen, X., Lauff, E., Arbeit, C., Henke, R., Skomsvold, P., & Hufford, J. (2017). *Early Millennials: The Sophomore Class of 2002 a Decade Later* (NCES 2017-437), U.S. Department of Education. Washington, DC: National Center for Education Statistics, as included in Cataldi, E. F., Bennett, C.T., & Chen, X. (2018). *First-Generation Students College Access, Persistence, and Postbachelor's Outcomes* (NCES 2018-421) [Figure 2]. Washington, DC: U.S. Department of Education. Retrieved from https://nces.ed.gov/pubs2017/2017437.pdf.

Equity Indicator 1h(ii): What Percentage of College Students are First-generation Students?

Using data from the 2020 NCES National Postsecondary Student Aid Study, Equity Indicator 1h(ii) shows the percentages of undergraduates who were first-generation students. In 2020, 54 percent of undergraduates were first-generation students, meaning that neither parent had a bachelor's degree, and 46 percent had at least one parent with a bachelor's degree. Of all college students, about one-quarter (26 percent of the total) had parents with no college experience and 28 percent of the total had parents with some college but no bachelor's degree.

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



Indicator Status: High Inequality

A large portion of undergraduate students are first-generation.

NOTE: First-generation college student is defined as an undergraduate whose parents do not have a bachelor's or higher degree.

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

Equity Indicators 1i(i) and 1i(ii): What Are the Estimated College Participation Rates of Low-Income Students by State?

The Office of Postsecondary Education (OPE) reports the numbers and amount of Pell Grants awarded each year for dependent and independent students by state.[55] This information does not provide direct estimates of the percent of low-income youth within the state that are enrolled in college.[56] These participation rates may be estimated using annual data from the U.S. Department of Education on public school enrollment by state and annual data from the U.S. Department of Agriculture on the percent of enrollment approved for Free or Reduced-Price Lunches in the applicable time period by state. Tom Mortenson has used these three sources (Pell Grants awarded, school enrollment, and Free and Reduced-Price Lunch enrollment) to estimate an indicator of college participation rates for low-income students by state for the years 1998 to 2022. These comparisons are limited due to the differential use of Free and Reduced-Price Lunch among states and migration of Pell Grant recipients into and out of states. As such, we urge caution in interpreting this Indicator.[57] Indicator 1i(i) presents the estimates by state for 2022, and Indicator 1i(ii) plots the state data from 1998 to 2022.

Using this method of estimation, Indicator 1i(i) shows that the national estimated college participation rate for low-income students was 26 percent in 2022. This rate ranged from 8 percent in Alaska, 16 in Idaho and New Mexico, and 17 percent in Oklahoma, Utah, and Wyoming, to 36 percent in Connecticut, 37 percent in New York, and 40 percent in New Jersey. States with the highest estimated participation rates tended to be in the Northeast (MA, CT, NY, and NJ). States with the lowest participation rates were observed by Mortenson to have strong energy-related industries (AK, ID, NM, OK, UT and WY), where higher-paying jobs may be available without a college degree.

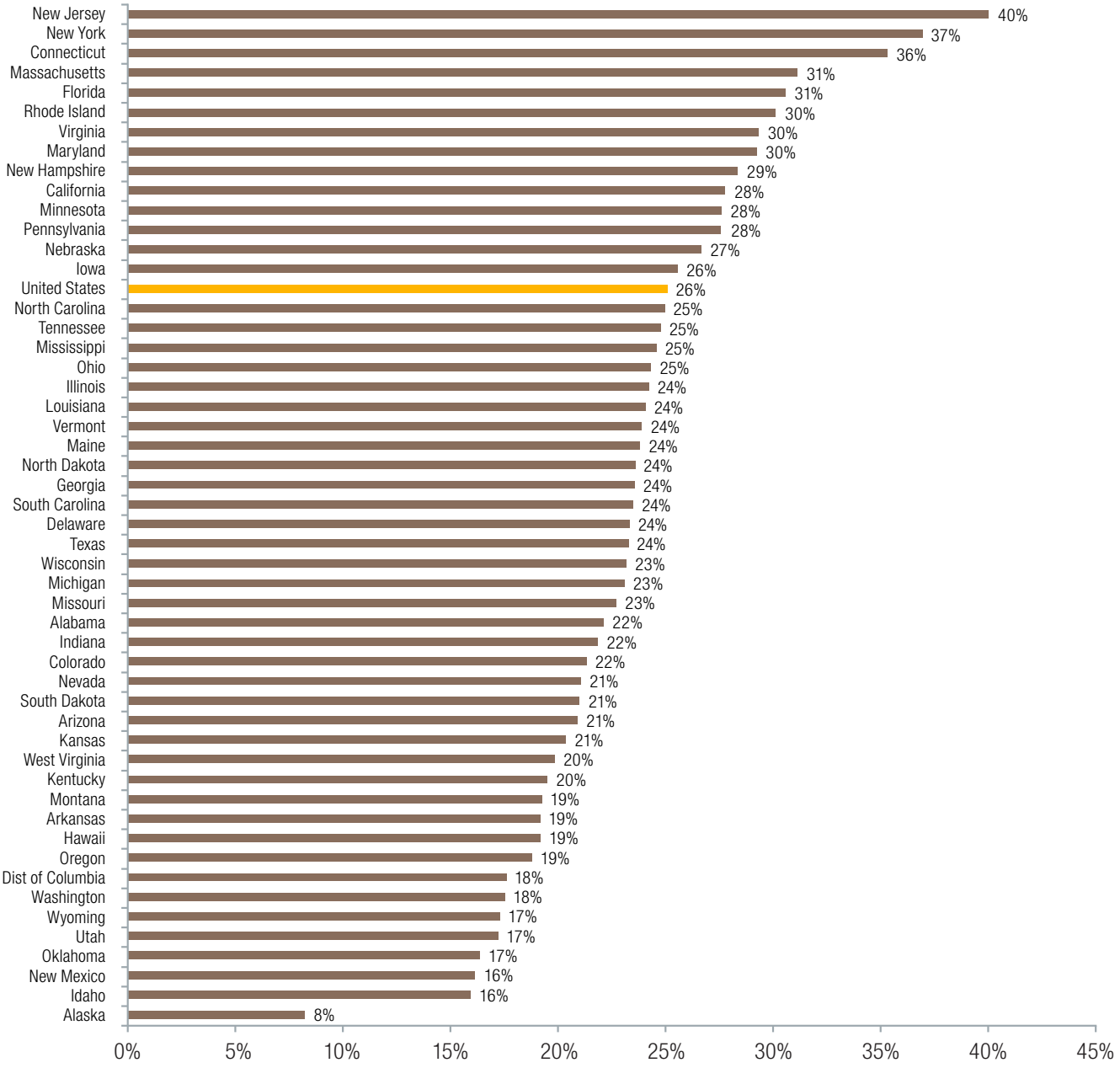
Indicator 1i(ii) shows variation over time in college participation rates by state. For virtually all states, college participation rates increased during the Great Recession and then declined in the recovery period. The national average college participation rate for low-income students was 26 percent in 2008, rose to 39 percent in 2011 and 2012, and declined to 26 percent in 2022.

55 U.S. Department of Education, Office of Postsecondary Education, Office of Student Financial Aid, Federal Pell Grant Program Annual Data Reports, https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv.

56 Mortenson, T. (2023). *College Participation Rates for Students from Low-income Families by State: 1993 to 2022*, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

57 While caution is needed due to variation in state use of the federal school lunch program, estimates tabulated in the same manner over time provide a consistent indicator of change and some indication of differences by state.

Equity Indicator 1i(i): Estimated college participation rates for students from low-income families by state: 2022



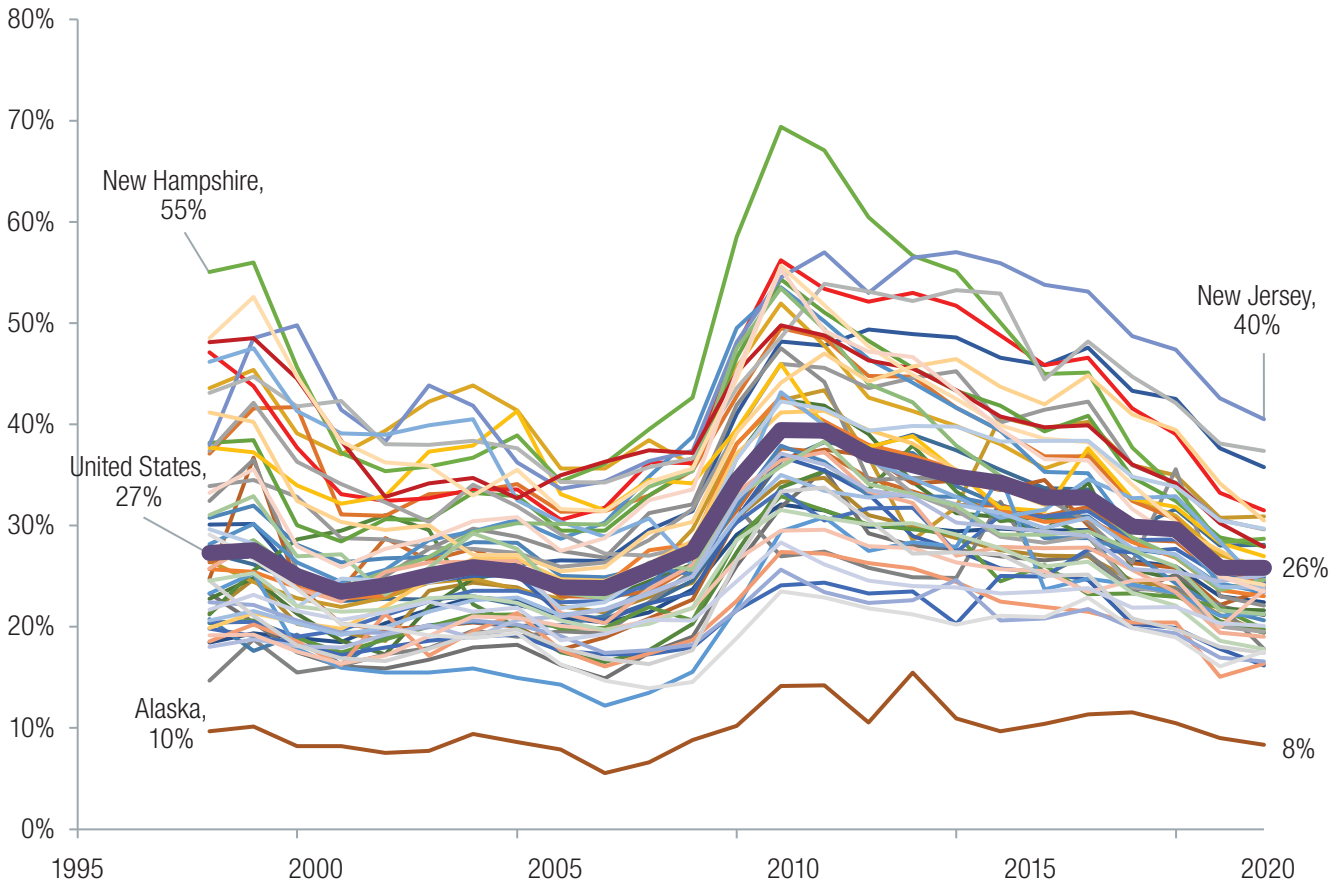
Indicator Status: High Levels of Inequality

College participation rates vary by state and region, with higher rates in the Northeast than in other parts of the U.S.

NOTE: 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) number and percent of 4th to 9th graders that were approved for Free or Reduced-Price Lunch 9 years earlier, and 3) number of dependent Pell Grant recipients from each state in a given year.

SOURCE: Mortenson, T. (2023). *College Participation Rates for Students from Low-income Families by State: 1993 to 2022*. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 1i(ii): Trends in estimated college participation rates for students from low-income families by state: 1998 to 2022



Indicator Status: High Levels of Inequality

While the 50 lines show variation in enrollment rates by state, virtually all states show an increase in postsecondary enrollment during the Great Recession followed by some decline in the recovery period.

NOTE: 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 estimated based on: 1) public school enrollment; 2) percent of 4th to 9th graders approved for a Free or Reduced-Price Lunch 9 years earlier, and 3) number of dependent Pell Grant recipients from each state in a given year.

SOURCE: Mortenson, T. (2023). *College Participation Rates for Students from Low-income Families by State: 1993 to 2022.* Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicators 1j(i to iv): What Are the Trends in Enrollment Rates of 18- to 24-Year-Olds by Sex, Race/Ethnicity and State?

Since 1970, the Census Bureau's CPS and the American Community Survey (ACS) collect postsecondary enrollment data for 18- to 24-year-olds, with sample sizes that are large enough to estimate data by sex, race/ethnicity and following the introduction of the ACS, by state. Data are based on sample surveys of the population residing in the United States, including 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). Race categories exclude persons of Hispanic ethnicity.

Trends in Enrollment of 18- to 24-year-olds by Sex. Indicator 1j(ia) shows trend data from 1970 to 2022. In 1970, postsecondary enrollment rates overall were at 26 percent, and in 2022, the enrollment rate was 39 percent (an increase of 52 percent over the period). In 1970, at a time of student military deferments, which ended in 1971, the male enrollment rate was 12 percentage points higher than the female rate (32 percent compared to 20 percent). In the period of the late 1970s through the 1980s, the gap disappeared as enrollment rates for females grew and were roughly equal to those of males into the 1980s. For example, in 1986, 28 percent of both males and females 18 to 24 were enrolled in postsecondary education. However, by the 1990s, female enrollment rates became consistently higher than males (36 percent for females in 1992, compared with 33 percent for males). In the 2000s, male 18-to-24 enrollment rates peaked at 39 percent in the Great Recession in 2011. In the same year (2011), the female rate was 45 percent, which combined for an overall rate of 42 percent. In 2022, the male enrollment rate for those 18 to 24 was 34 percent and that of females was 44 percent.

Trends in Enrollment of 18- to 24-year-olds by Race/Ethnicity. Indicator 1j(ib) shows national trend data from 1970 to 2022 by race/ethnicity for those groups with sufficient sample sizes to make estimates. All groups in the chart show a fluctuating trend of increases between 1970 and 2022, and there has been some narrowing of the gap between White enrollment and Black and Hispanic enrollment rates. For example, the gap in Black-White enrollment rates declined from 12 percentage points in 1970 (15 percent for Blacks and 27 percent for Whites) to a 5-percentage point gap in 2022 (41 percent for Whites and 36 percent for Blacks). The gap between Hispanics and Whites has also narrowed. Between 1972 and 2022, the gap decreased from 14 percentage points to 8 percentage points. The Hispanic enrollment rate of 18-to 24-year-olds rose from 13 percent in 1972 to 33 percent in 2022.

Small population sizes and larger sampling errors make interpretation difficult, but American Indian/Alaska Native (AI/AN) enrollment rates have increased from 16 percent enrollment of 18- to 24-year-olds in 1989, the first date when AI/AN national estimates become available, to 26 percent in 2022. American Indian/Alaska Native enrollment rates peaked in the Great Recession at 41 percent in 2010, at which time the gap between AI/AN enrollment and White enrollment was at a low of 2 percentage points; the White enrollment rate that year was 43 percent. In 2022, there was a gap of 15 percentage points between White and AI/AN enrollment rates.

State Differences in Enrollment of 18- to 24-year-olds. Equity Indicator 1j(iia) shows enrollment rates for the total state population in 2021. In 2021, enrollment rates of 18- to 24-year-olds exceeded 50 percent in Rhode Island (57 percent), the District of Columbia (53 percent), Vermont (53 percent) Massachusetts (52 percent) and Connecticut (50 percent). The lowest enrollment rates were in Alaska (21 percent), New Mexico (28 percent), and Montana (29 percent).

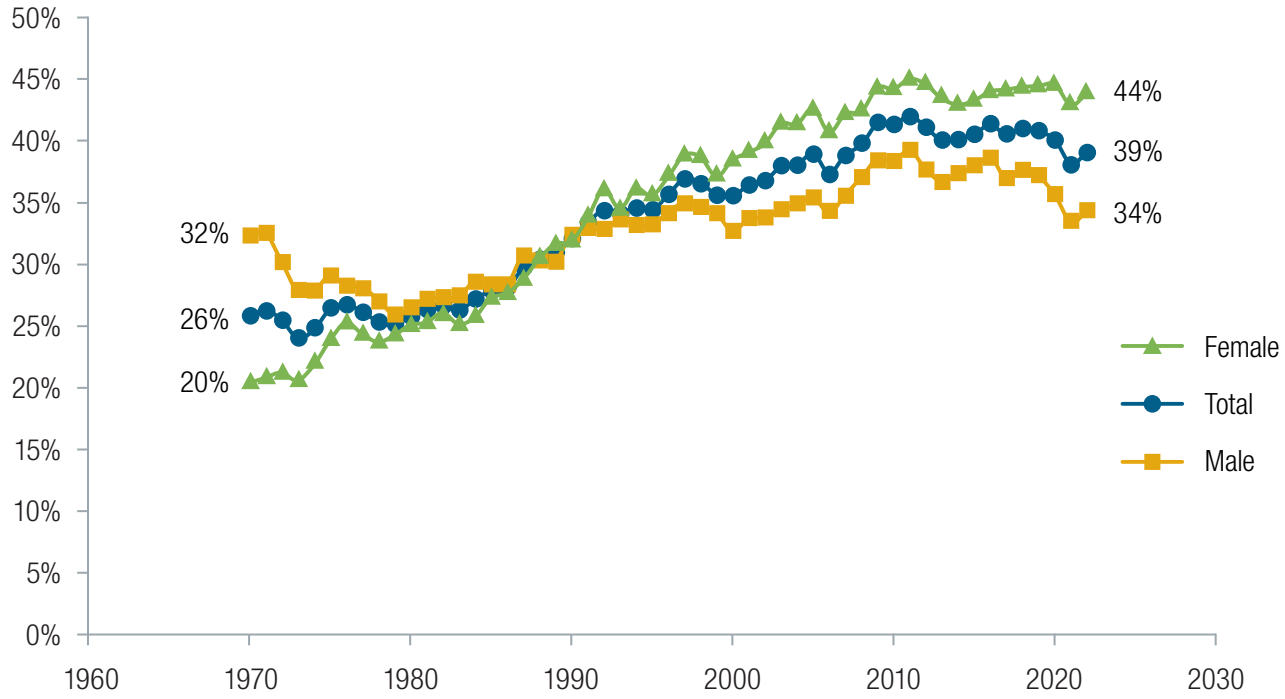
Indicator 1j(iib) presents the percentage point change from 2007 to 2021. Overall, the United States saw little change over the period (40.8 in 2007, compared to 40.9 in 2021). Percentage point changes ranged from -10.4 percent to +12 percent in the states. States with enrollment rate increases of 4 percentage points or higher were DC, Vermont, California, and Hawaii. States with declines of 4 percentage points or more were Montana, New Mexico, New Hampshire, Oklahoma, Michigan, Indiana, Kansas, and Pennsylvania.

State Differences by Race/Ethnicity. Equity Indicators 1j(iiia) and 1j(iva) show 2021 data by state on the percentage of Whites enrolled compared to Blacks and Hispanics, respectively. Indicators 1j(iiib) and 1j(ivb) show the percentage point difference in enrollment rates between White and Black and Hispanic students. In 2021, for most states, the percentages of Black and Hispanic 18- to 24-year-olds enrolled in degree-granting postsecondary institutions is substantially lower than the percentage of Whites; however, there are notable differences by state.

Black enrollment overall was 36 percent in 2021 but ranged from 73 percent in Maine and 60 percent in West Virginia to 23 percent in Wisconsin and Nevada. White enrollment rates were 15 percentage points or higher than Blacks in the District of Columbia, Wisconsin, Rhode Island, Nebraska, Louisiana, Michigan, and Illinois. Black enrollment rates were higher than White enrollment rates in Massachusetts, New Mexico, Oregon, West Virginia, Maine, Maryland, and Delaware, and there was 1 percentage points or less difference in Washington, Arizona, and Mississippi.

Hispanic enrollment overall was 34 percent in 2021 and ranged from highs of 66 percent in Maine, 63 in the District of Columbia, and 47 percent in West Virginia and Rhode Island to lows of 21 percent in Oklahoma, 22 percent in Alaska, 23 percent in Idaho, and 24 percent in South Carolina. Considering Hispanic enrollment compared to White enrollment, differences were largest in South Carolina, Massachusetts, Iowa, Kansas, Minnesota, Pennsylvania, and Tennessee. Maine, Wyoming, West Virginia, Montana, Mississippi, and Alaska had higher rates of Hispanic enrollment than White enrollment.

Equity Indicator 1j(ia): Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by sex: 1970-2022



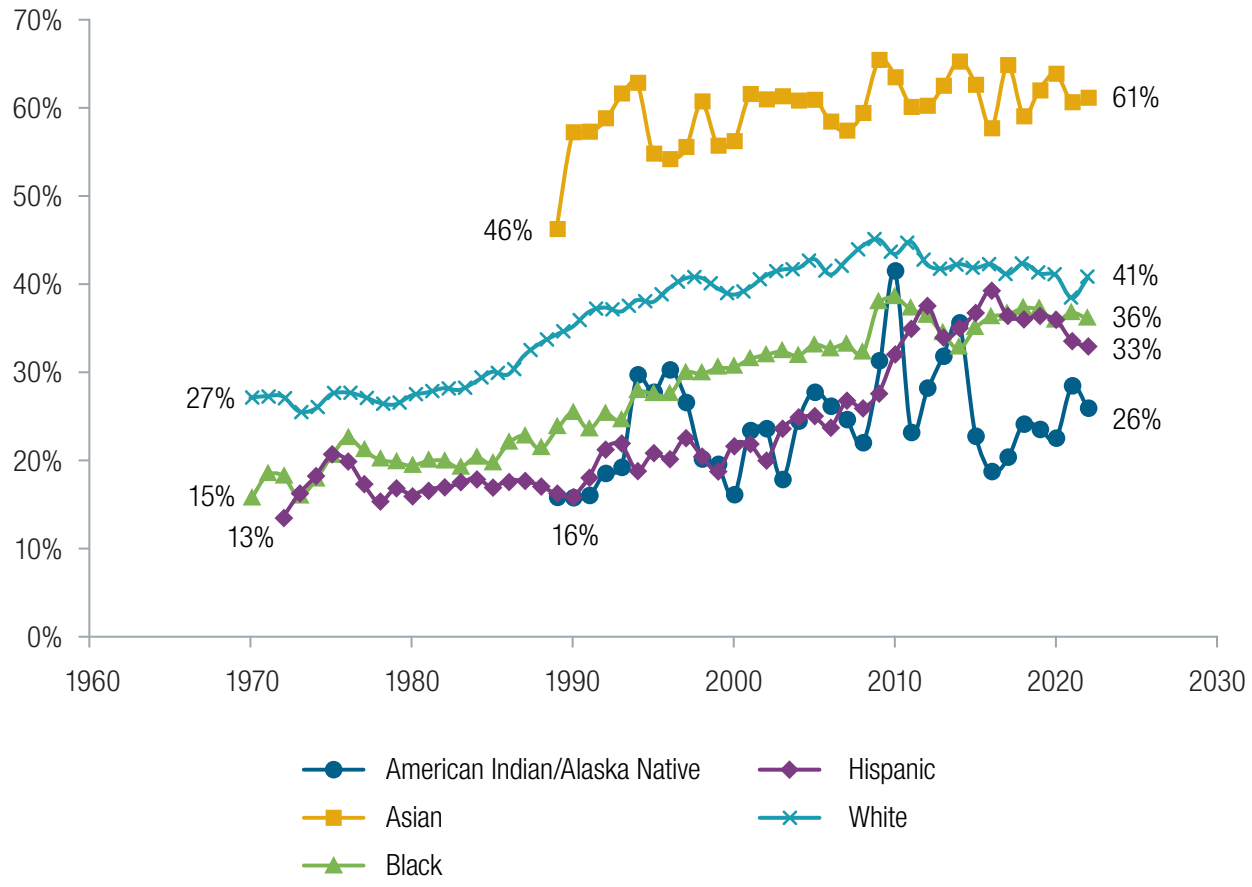
Indicator Status: A Flipping and Widening of the Gap

In 1970, the male enrollment rate was 12 percentage points higher than the female rate (32 percent compared to 20 percent). After a period of a more rapid increase for females than males, rates were roughly equal into the mid-1980s. After 1986, females began to enroll at consistently higher rates than males. In 2011, in the Great Recession, male rates peaked at 39 percent, and female rates peaked at 45 percent. In 2022, the male enrollment rate was 34 percent and that of females was 44 percent.

NOTE: 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: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS) and American Community Survey (ACS), included in *Digest of Education Statistics 2023*, [Table 302.60]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_302.60.asp?current=yes.

Equity Indicator 1j(ib): Percentage of 18- to 24-year-olds enrolled in degree-granting institutions by race/ethnicity of students: 1970-2022



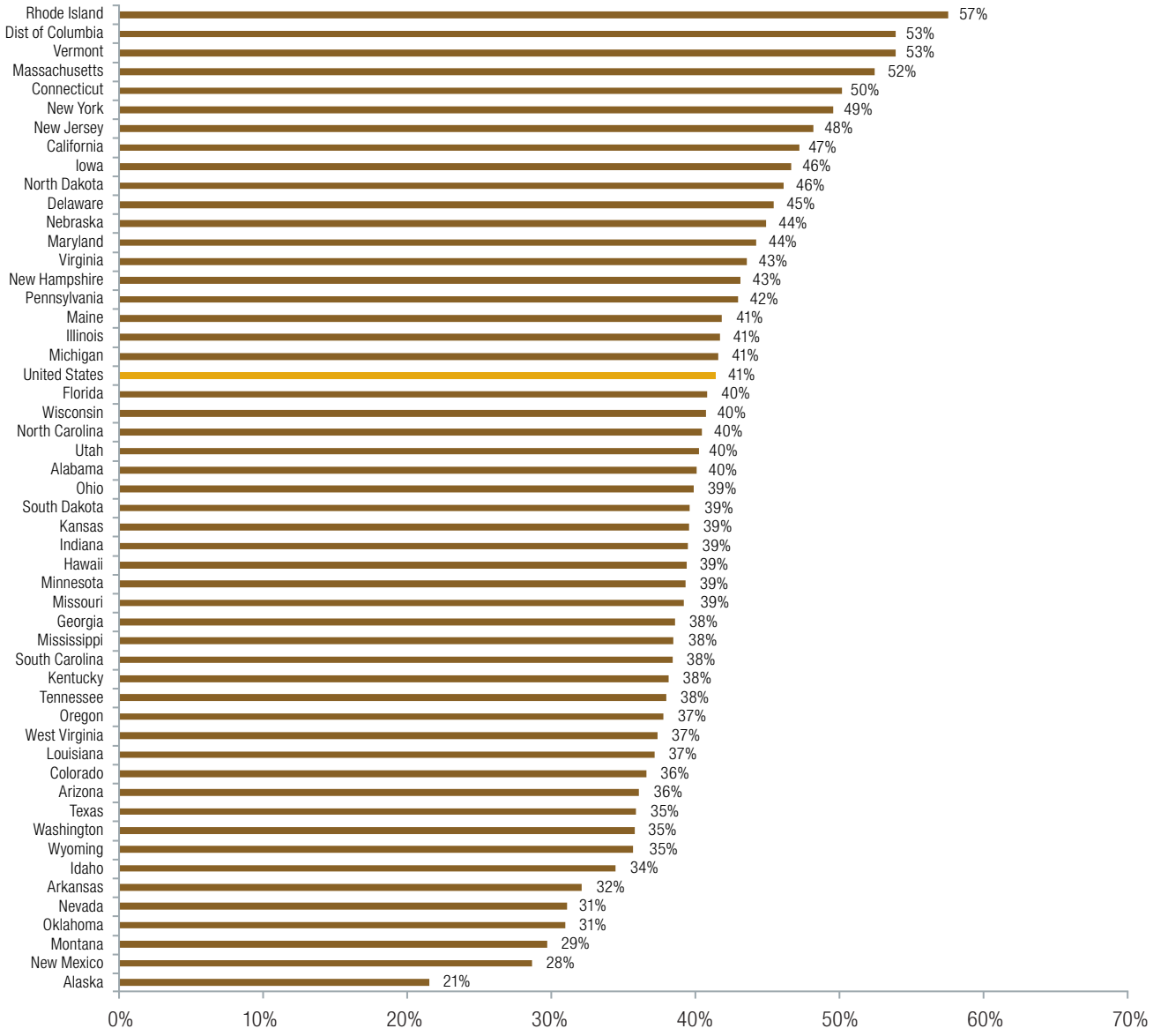
Indicator Status: Some Narrowing of the Gaps

All groups show a fluctuating trend of increases in postsecondary enrollment between 1970 and 2022. There has been some narrowing of the gap between White enrollment and minority enrollment rates. For example, the gap in Black-White enrollment rates was 12 percentage points in 1970 (15 percent for Blacks and 27 percent for Whites). By 2022, that gap had declined to 5 percentage points (41 percent for Whites and 36 percent for Blacks).

NOTE: 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). Estimates for smaller populations are subject to increased sampling error and year to year fluctuations may reflect sampling error rather than actual changes in the group.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS) and American Community Survey (ACS), included in *Digest of Education Statistics 2023*, [Table 302.60]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_302.60.asp?current=yes.

Equity Indicator 1j(iia): Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2021



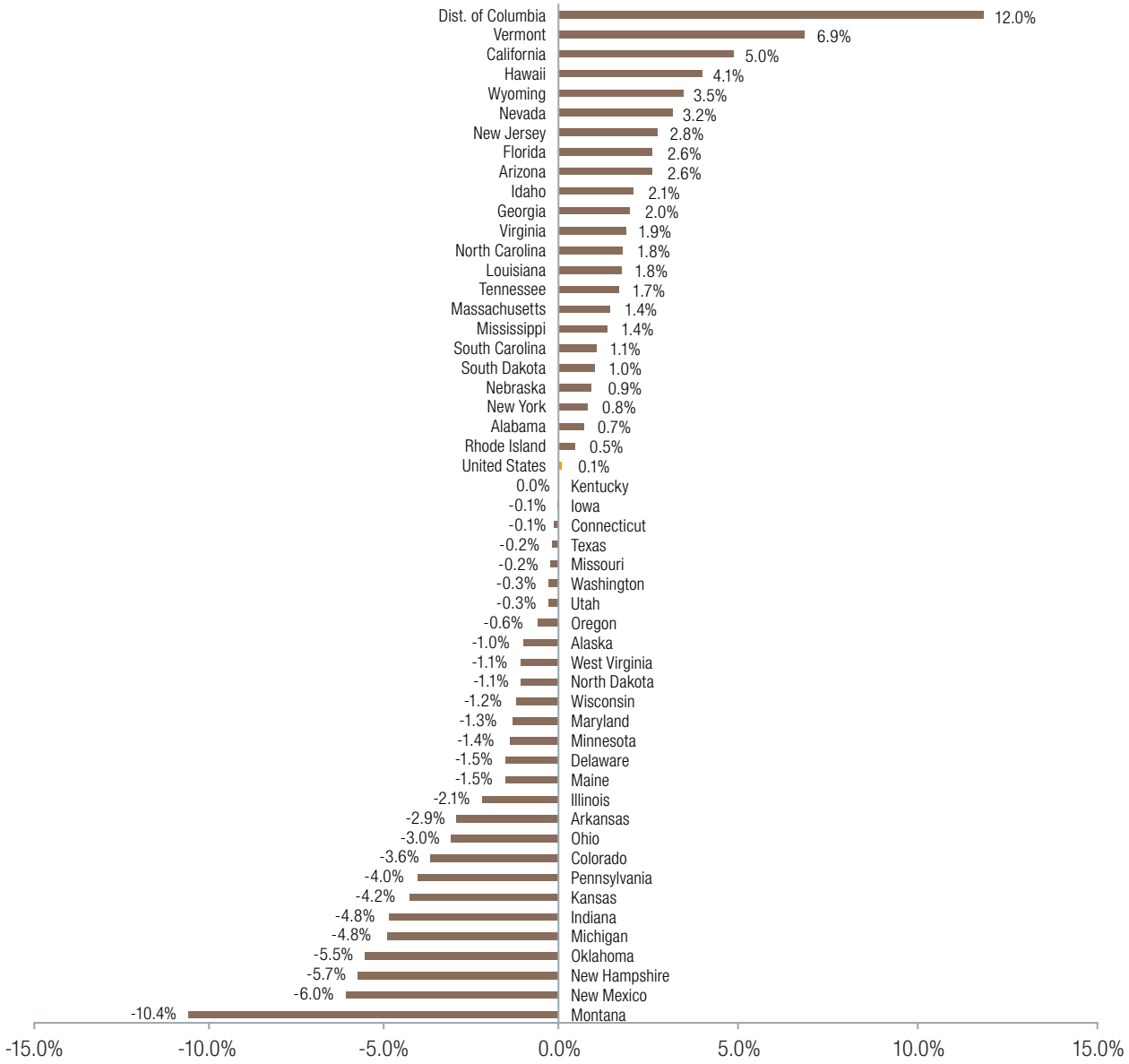
Indicator Status: Wide Variation by State

In 2021, postsecondary enrollment rates of 18- to 24-year-olds ranged from 57 percent in Rhode Island to 21 percent in Alaska. Five states had enrollment rates of 50 percent or higher (Rhode Island, DC, Vermont, Massachusetts, and Connecticut).

NOTE: 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). Note estimates for overall U.S. rates for 2021 vary slightly from those in Equity Indicator 1j(ia & ib) due to slight differences in the cases included in the totals.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2023*, [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_302.65.asp?current=yes.

Equity Indicator 1j(iib): Percentage point change in enrollment of 18- to 24-year-olds in degree-granting institutions: 2007-2021



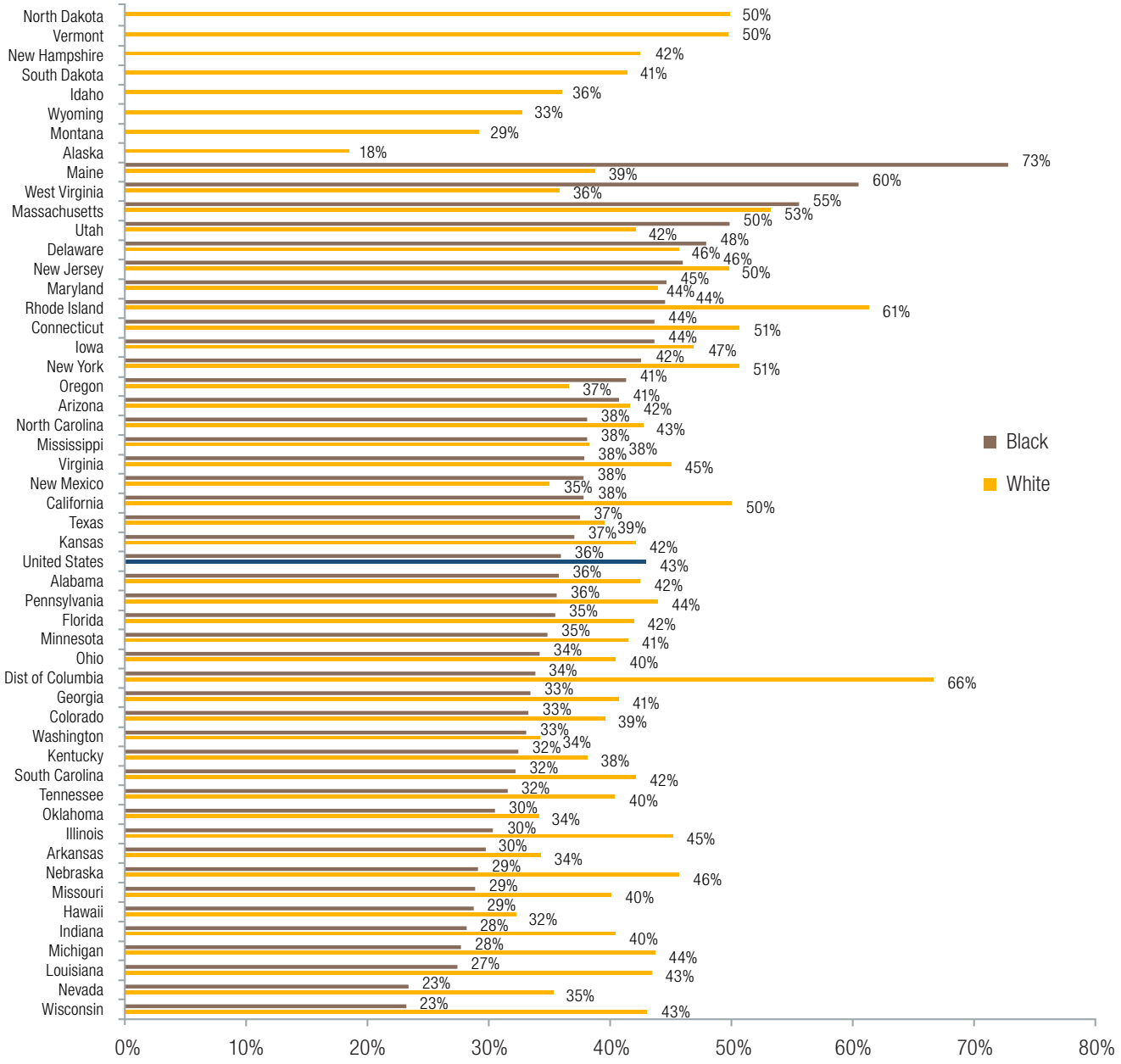
Indicator Status: Little Change Overall Masks Large Changes by State

Overall, the rate of postsecondary enrollment for 18- to 24-year-olds did not increase between 2007 and 2021 (40.8 percent in 2007 and 40.9 percent in 2021), but this masks some substantial changes by state. Among the states, the percentage point changes ranged from -10.4% to +12.0%. States with enrollment increases of 4 percentage points or more were DC, Vermont, California, and Hawaii. States with enrollment declines of 4 percentage points or more were Montana, New Mexico, New Hampshire, Oklahoma, Michigan, Indiana, Kansas, and Pennsylvania.

NOTE: Cautions of measurement error apply when viewing small changes over the period. Note estimates for overall U.S. for 2021 rates vary slightly from those in Equity Indicator 1j(ia & ib) due to slight differences in the cases included in the totals.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2023* [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_302.65.asp?current=yes and https://nces.ed.gov/programs/digest/d18/tables/dt18_302.70.asp.

Equity Indicator 1j(iiia): Percentage of Black and White 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2021



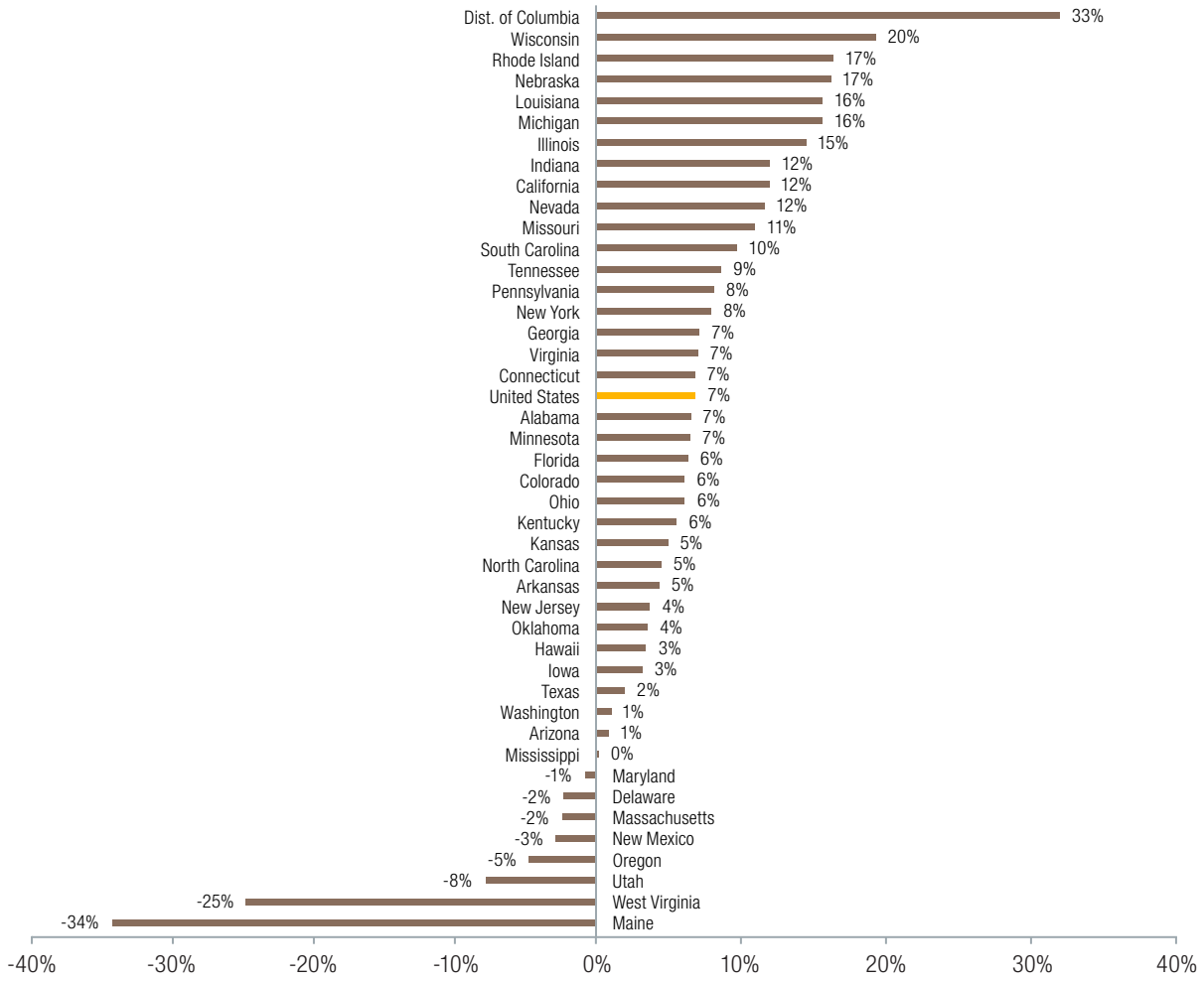
Indicator Status:

Black enrollment overall was 36 percent in 2021, ranging from 73 percent in Maine and 60 percent in West Virginia to 23 percent in Wisconsin and Nevada.

NOTE: Cautions of measurement error apply when viewing small changes over the period. States with only the White enrollment rate did not have sufficient Black sample size to make a reliable estimate.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2023* [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_302.65.asp?current=yes.

Equity Indicator 1j(iiib): Percentage point differences between White and Black 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2021



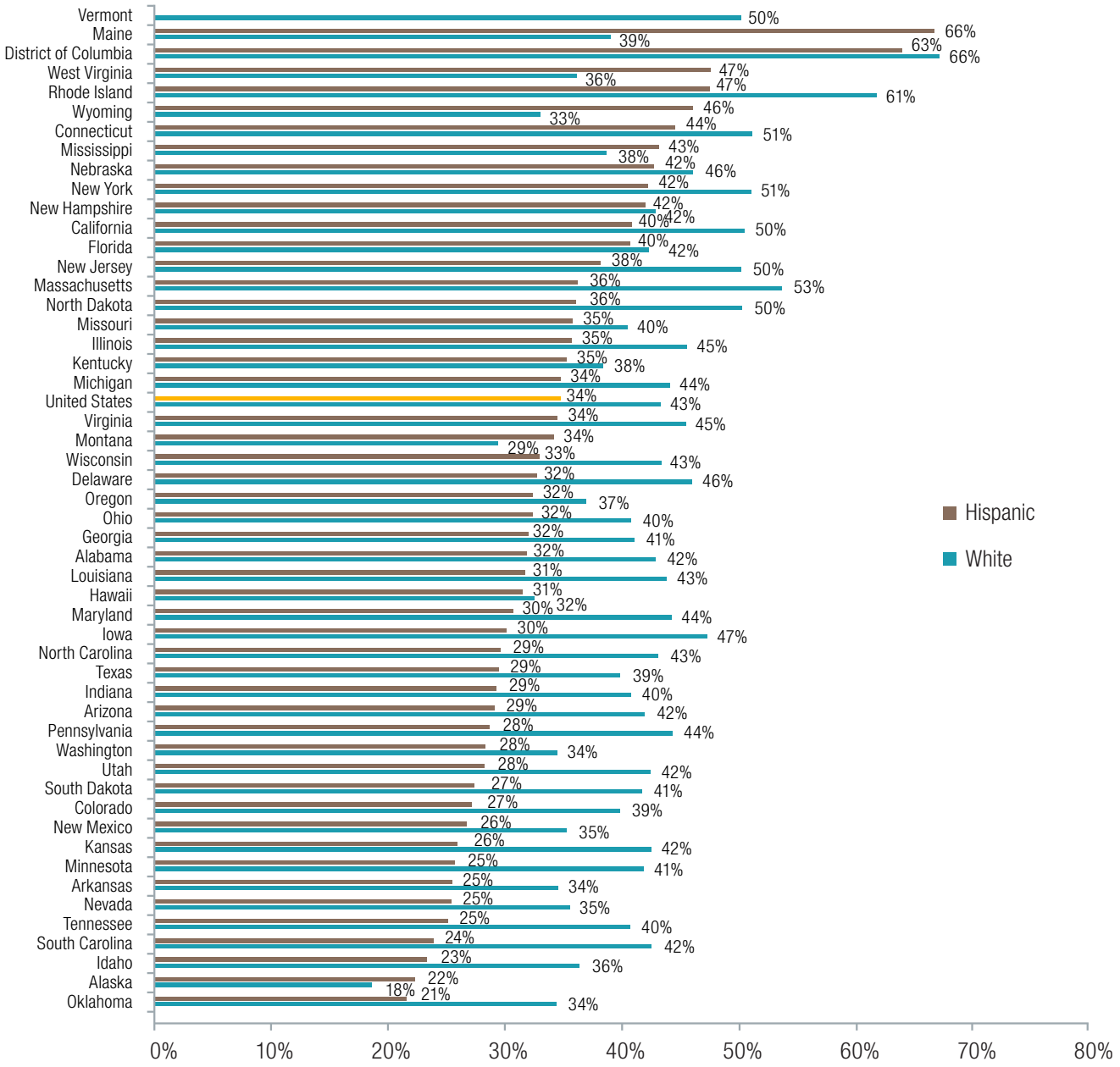
Indicator Status: Wide Differences by State

Differences were 15 percentage points or higher in the District of Columbia, Wisconsin, Rhode Island, Nebraska, Louisiana, Michigan, and Illinois. Black enrollment rates were higher than White enrollment rates in Massachusetts, New Mexico, Oregon, West Virginia, Maine, Maryland, and Delaware, and there was 1 percentage points or less difference in Washington, Arizona, and Mississippi.

NOTE: Differences are not tabulated when the population is too small to make reliable estimates. Cautions of measurement error apply when viewing small differences.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2023* [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_302.65.asp?current=yes.

Equity Indicator 1j(iva): Percentage of Hispanic and White 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2021



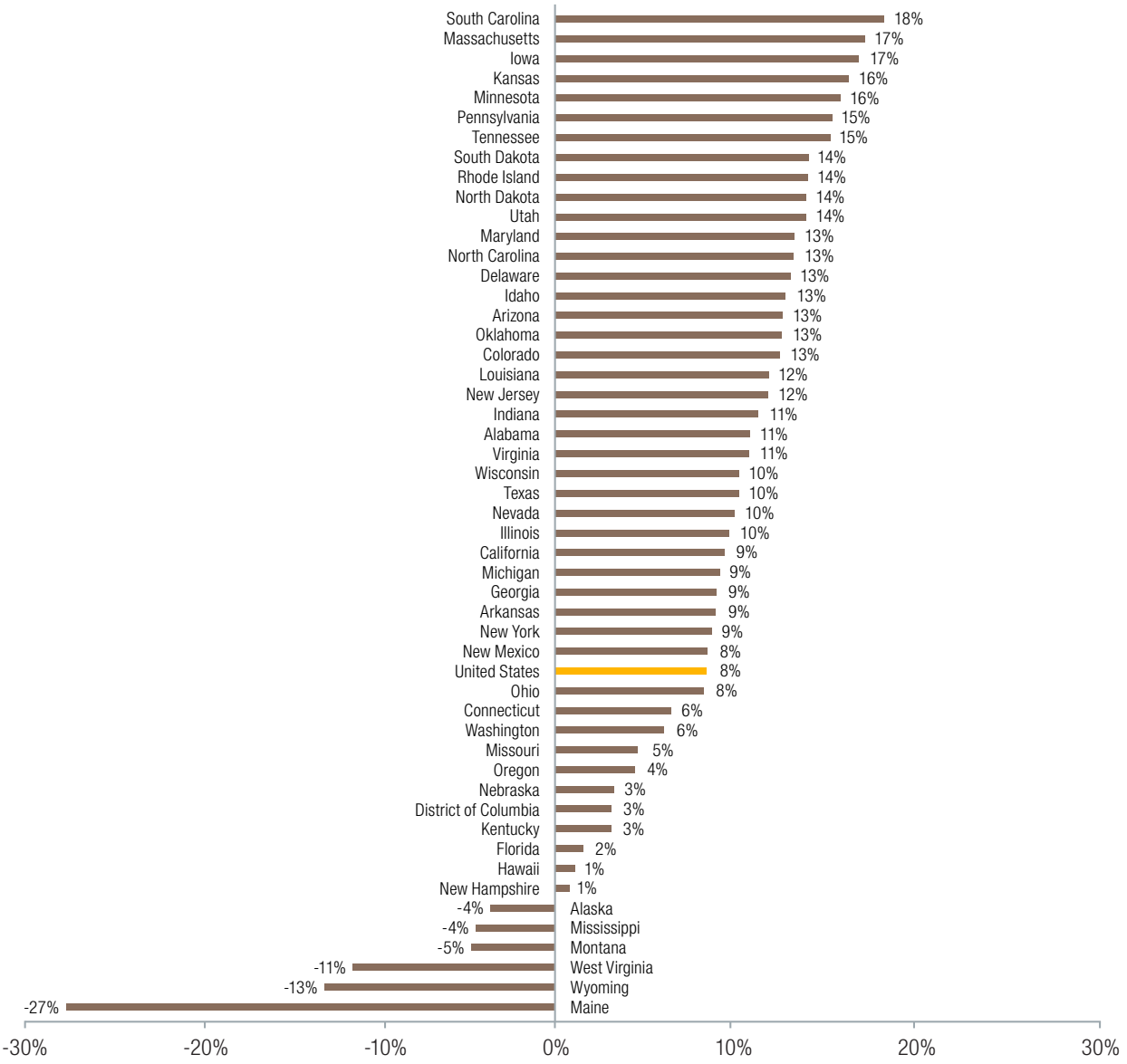
Indicator Status: Wide Differences by State

Hispanic enrollment overall was 34 percent in 2021, ranging from 21 percent in Oklahoma to 66 percent in Maine, 63 percent in the District of Columbia, and 47 percent in West Virginia and Rhode Island.

NOTE: Differences are not tabulated when the population is too small to make reliable estimates. Cautions of measurement error apply when viewing small differences.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2023* [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_302.65.asp?current=yes.

Equity Indicator 1j(ivb): Percentage point differences between White and Hispanic 18- to 24-year-olds enrolled in degree-granting postsecondary institutions by state: 2021



Indicator Status: Wide Differences by State

Differences were 15 percentage points or more in South Carolina, Massachusetts, Iowa, Kansas, Minnesota, Pennsylvania, and Tennessee. Alaska, Mississippi, Montana, West Virginia, Wyoming, and Maine had higher rates of Hispanic enrollment than White enrollment.

NOTE: Cautions of measurement error apply when viewing small changes over the period.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), included in *Digest of Education Statistics 2022* [Table 302.65]. Retrieved from https://nces.ed.gov/programs/digest/d21/tables/dt21_302.65.asp?current=yes.

Equity Indicators 1k(i to vi): What is the Dependency Status of Enrolled Students and How Do Dependent and Independent Students Differ From Each Other on Demographic and "Risk" Characteristics?

Indicator 1k(i to vi) uses available data from the National Postsecondary Student Aid Study (NPSAS) for the period of 1990 to 2020 to report the characteristics of students by dependency status. We report on enrolled students by dependency status, race/ethnicity, age, Pell Grant receipt, and identified "risk" for completion characteristics.

How Has the Percentage Distribution of Undergraduate Students by Dependency Status Changed Since 1990? Indicator 1k(i) shows that, between 1990 and 2016, about half of all undergraduate students were consistently classified as financially independent and half as dependent. In the 2020 study, however, there was an increase in percentage who were dependent from 51 percent in 2016 to 57 percent in 2020, and a corresponding decrease in the percentage who were independent (from 49 percent in 2016 to 43 percent in 2020). Nineteen percent of all students were independent and had dependents, and 24 percent of the total were independent students without dependents.

Age Distribution. Indicator 1k(ii) shows the age distribution of dependent and independent students by age in 2000 and 2020. Consistent with the federal definition of dependency status, 100 percent of dependent undergraduate students were under age 24 in 2000 and 2020. Among independent students, 16 percent in 2000 and 12 percent in 2020 were under age 24. Per the federal definition, independent students who are under age 24 are married or meet one of the other exceptions (e.g., foster care, active military, emancipated minor, both parents deceased, homeless, and/or in danger of being homeless). Between 2000 and 2020, the percentage of independent undergraduates aged 24 to 29 increased (from 33 percent to 40 percent) and the percentage of those 40 and older declined (from 24 percent to 19 percent).

Race/Ethnicity by Dependency Status. Equity Indicator 1k(iii) shows the distributions of independent and dependent students in 2000 and in 2020 by race/ethnicity. Indicator 1k(iv) shows the percentage of each racial/ethnic group that is classified as independent. Caution is needed in interpreting these data, especially in changes over time. Estimates disaggregated by race/ethnicity, especially for the smaller race/ethnicity groups, typically have larger sampling errors than estimates for the total population or for larger groups. There have also been changes in self-identification options available over time. For example, the use of the More Than One Race category has increased over time for both dependent and independent students.

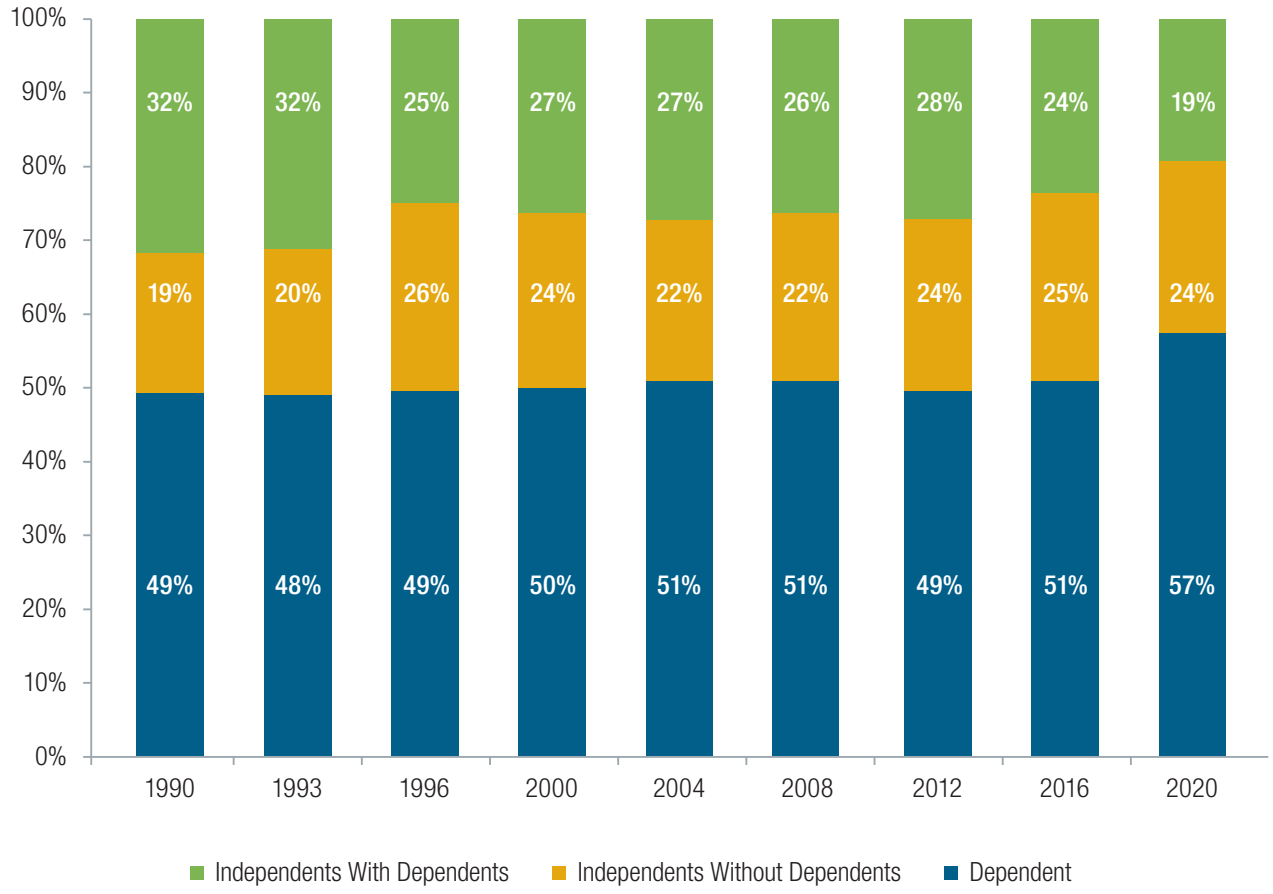
As shown in Indicator 1k(iii), among dependent students, the largest changes over the 20-year period from 2000 to 2020 were increases in the percentage of the students who were: Hispanic (an increase from 11 to 21 percent), More Than One Race (an increase from 2 to 8 percent), and Asian (an increase from 6 to 9 percent). The percentage of dependent students who were Black increased slightly from 9 percent to 10 percent. Correspondingly, the percentage of dependent students who were White declined from 71 percent to 50 percent. Similar changes were observed among independent students, with the percentage that were White declining from 64 percent to 46 percent. Among independent students, the percentage of Hispanics rose from 12 percent to 21 percent; the percentage of More Than One Race from 2 to 8 percent; percentage of Blacks from 15 percent to 17 percent, and the percentage of Asians from 5 to 6 percent. The percentages of American Indian/Alaska Natives and Native Hawaiian/Other Pacific Islanders remained at about 1 to 1.5 percent.

Equity Indicator 1k(iv) shows that, among undergraduate students, 63 percent of American Indian or Alaska Natives, 60 percent of Native Hawaiian/other Pacific Islanders, and 55 percent of Blacks were independent in 2020, compared to 42 percent of Whites, 43 percent of Hispanics, 32 percent Asians, and 43 percent of those reporting more than one race.

Pell Grant Receipt by Dependency Status. Indicator 1k(v) shows that independent students were more likely to have Pell Grants than dependent students in both 1990 and 2020, but there has been a large increase in the

percent of both independent and dependent students receiving Pell Grants since 1990. In 2020, the percentage of students receiving Pell Grants ranged from 36 percent for dependent students (rising from 18 percent in 1990) to 56 percent for independent students with dependents (rising from 23 percent in 1990). Thirty-seven percent of independent students without dependents had Pell Grants (an increase from 25 percent in 1990).

Equity Indicator 1k(i): Percentage distribution of undergraduate students by dependency status: 1990 to 2020



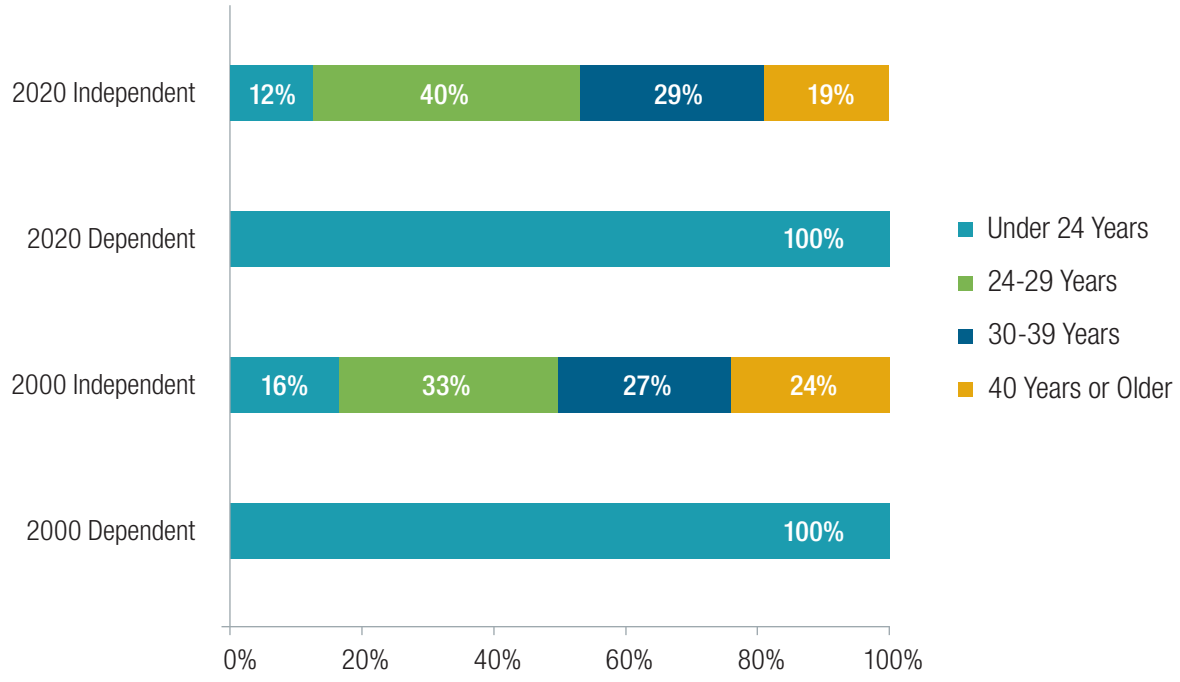
Indicator Status:

Between 1990 and 2016, about half of all undergraduate students have consistently been classified as financially independent. The NPSAS:2020 study found a higher percentage of dependent students (57 percent) and lower percentage of independent students (43 percent) than in the previous years.

NOTE: Dependency status follows the classifications used for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent unless they are married or otherwise have exceptional circumstances in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, & 2020). Tabulated using NCES PowerStats.

Equity Indicator 1k(ii): Percentage distribution of undergraduate students in age brackets by dependency status: 2000 and 2020



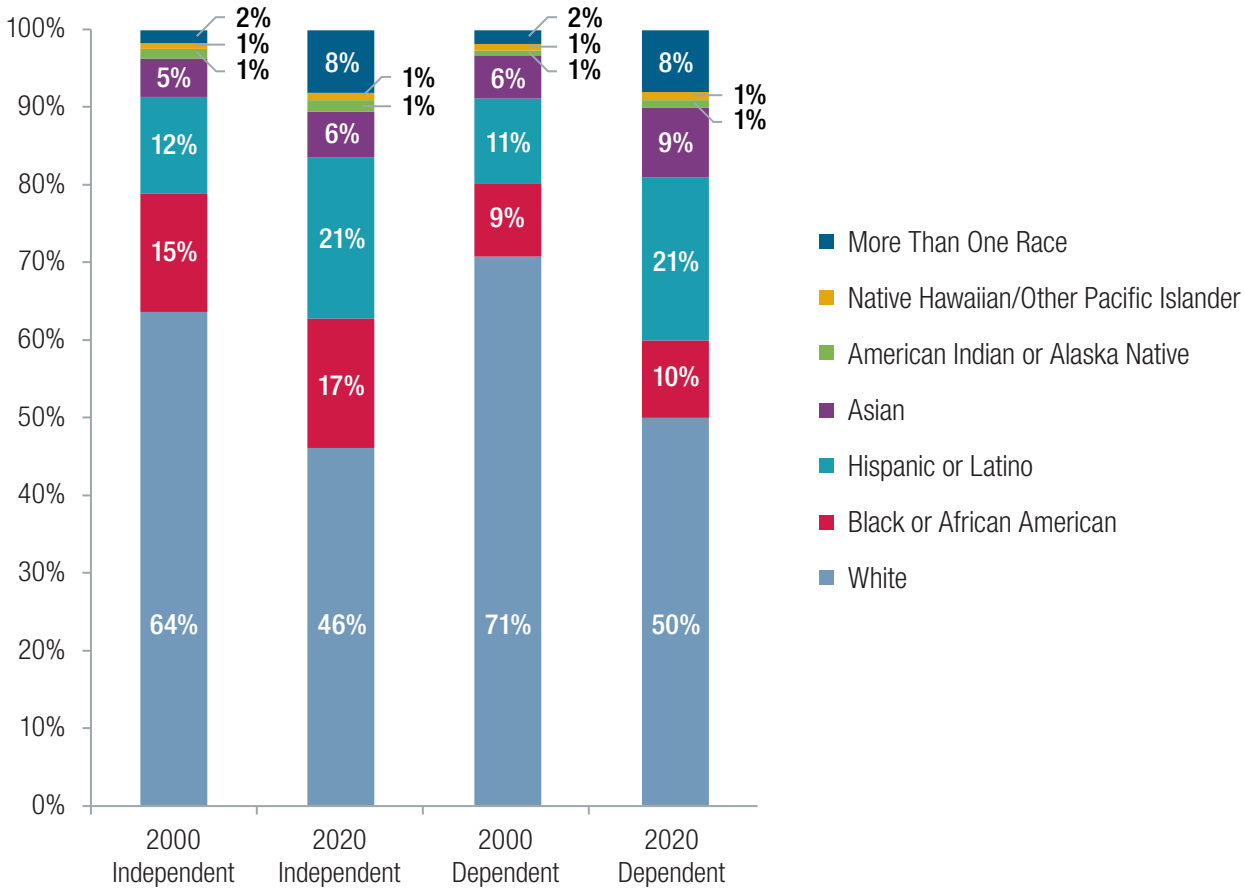
Indicator Status:

The percentage of independent students who were 40 and older declined from 24 percent in 2000 to 19 percent in 2020. Over the same period, the percent of independent students who were ages 24 to 29 increased from 33 percent in 2000 to 40 percent in 2020.

NOTE: Dependency status follows the classifications used for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent, unless they are married or otherwise have exceptional circumstances, in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:2000; 2020). Tabulated using NCES PowerStats.

Equity Indicator 1k(iii): Percentage distribution of race/ethnicity of undergraduate students by dependency status: 2000 and 2020



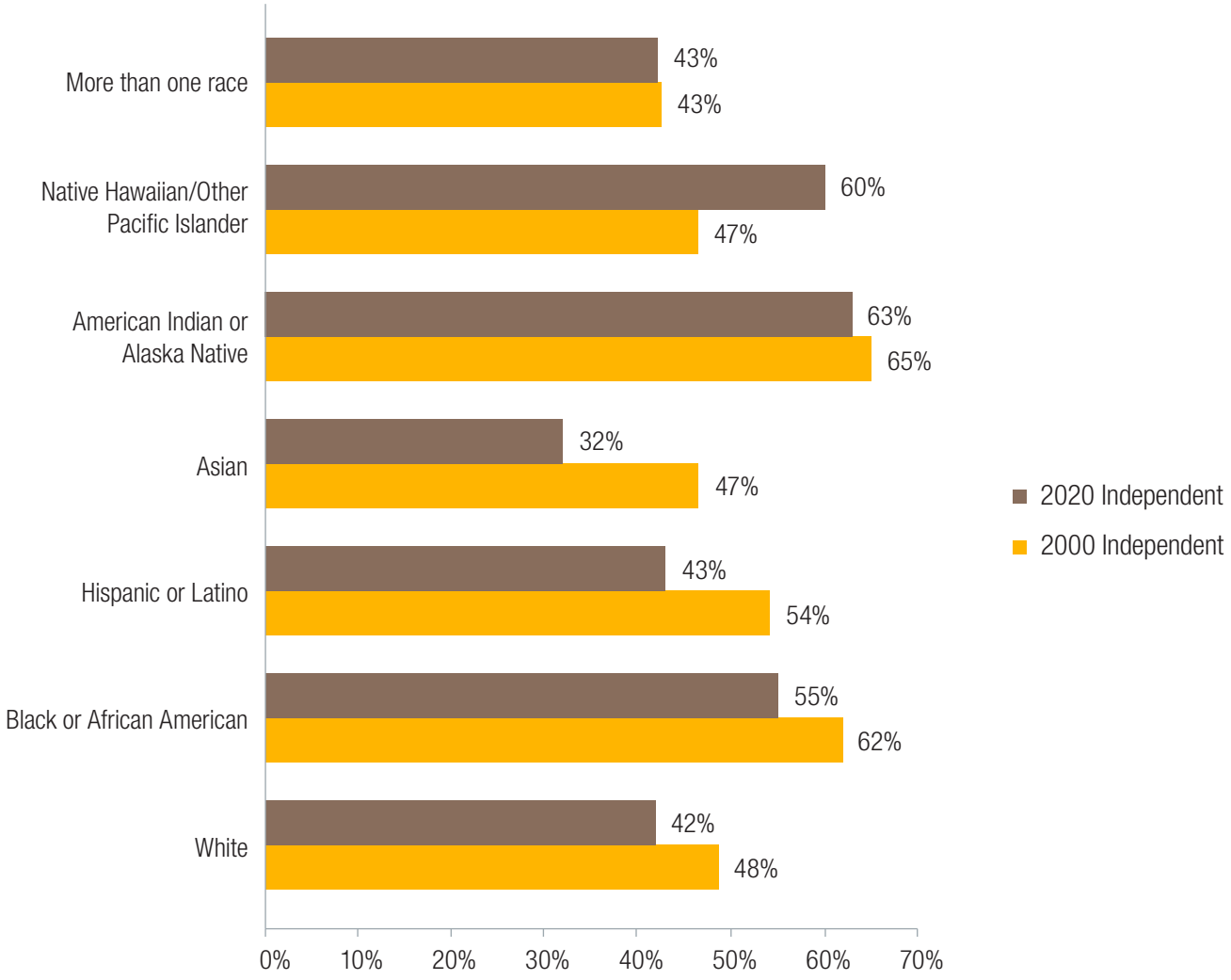
Indicator Status:

Among dependent students, the largest changes from 2000 to 2020 were increases in the percentage of the total students who were: Hispanic (an increase from 11 to 21 percent), More Than One Race (an increase from 2 to 8 percent), and Asian (an increase from 6 to 9 percent). Correspondingly, the percentage of dependent students who were White declined from 71 percent to 50 percent. Similar changes were observed among independent students, with the percentage that were White declining from 64 percent to 46 percent.

NOTE: Dependency status follows the classifications used for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent, unless they are married or otherwise have exceptional circumstances, in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study* (NPSAS:2000; 2020). Tabulated using NCES PowerStats.

Equity Indicator 1k(iv): Percentage of undergraduate students who were independent by race/ethnicity: 2000 and 2020



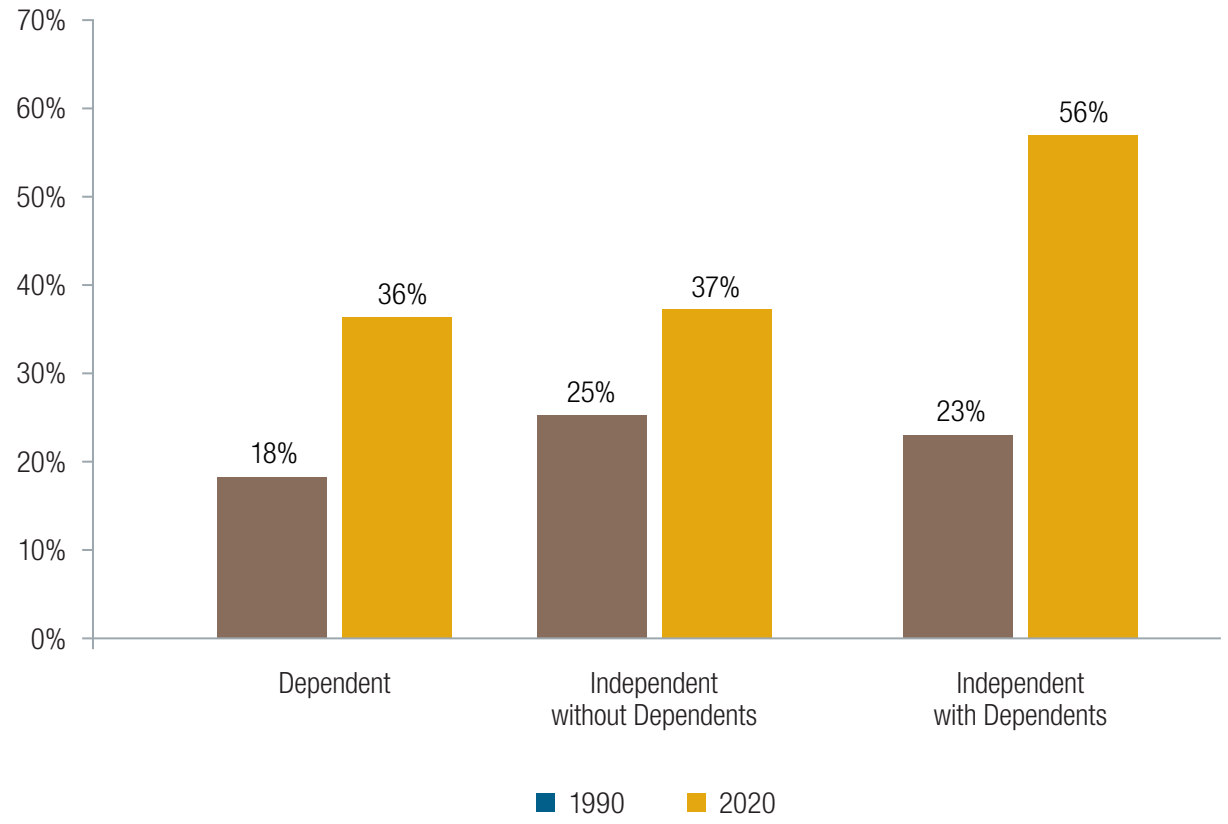
Indicator Status:

In 2020, 55 percent or more of American Indian or Alaska Natives (63 percent), Native Hawaiian/Other Pacific Islanders (60 percent), and Blacks (55 percent) were independent students, compared with less than half of Whites (42 percent), Hispanics (43 percent), and Asians (32 percent).

NOTE: Dependency status follows the classifications used for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent, unless they are married or otherwise have exceptional circumstances, in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study* (NPSAS:2000; 2020). Tabulated using NCES PowerStats.

Equity Indicator 1k(v): Percentage of undergraduate students who received Pell Grants by dependency status: 1990 and 2020



Indicator Status:

Independent students were more likely to have Pell Grants than dependent students in both 1990 and 2020; but there has been a large increase in the percentage of both independent and dependent students receiving Pell Grants since 1990. In 2020, the percentage of students receiving Pell Grants ranged from 36 percent for dependent students (compared with 18 percent in 1990) to 56 percent for independent students with dependents (compared with 23 percent in 1990). Thirty-seven percent of independent students without dependents had Pell Grants (rising from 25 percent in 1990).

NOTE: Dependency status follows the classifications for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent unless they are married or otherwise have exceptional circumstances in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study* (NPSAS:2000; 2020). Tabulated using NCES PowerStats.

College Completion Risk Factors. A 2005 NCES report entitled *Independent Undergraduates: 1999– 2000*[58] includes a chart, using NPSAS:2000 data, that compares independent and dependent students on characteristics that had been found to be predictive of the likelihood of completing college. The "risk" factors identified in 2000 were:

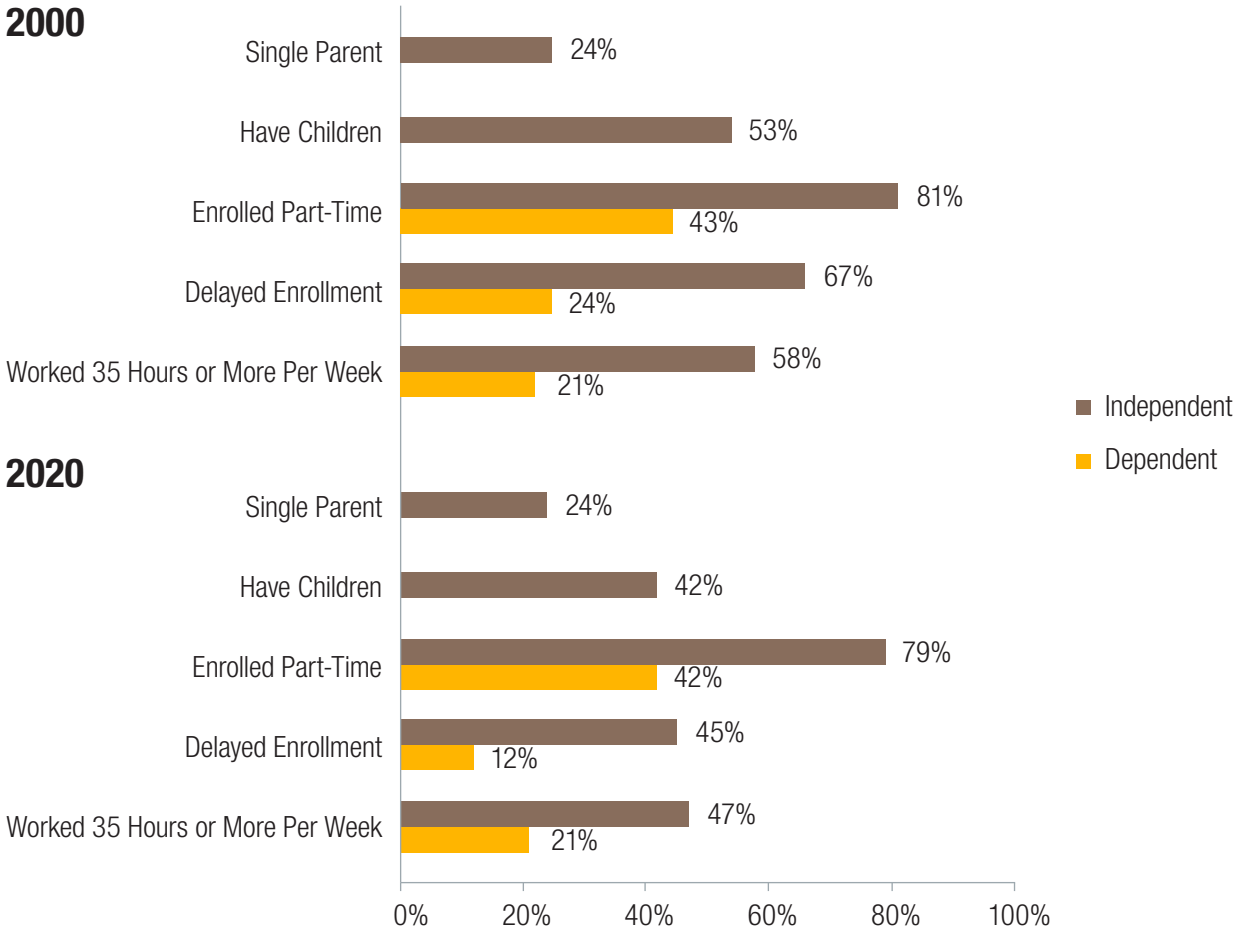
- Worked 35 Hours or More Per Week;
- Delayed Enrollment;
- No Regular High School Diploma;
- Enrolled Part-Time;
- Have Children, and
- Single Parent.

Equity Indicator 1k(vi) replicates the NPSAS:2000 data for selected risk characteristics and shows the same variables from NPSAS:2020.[59] Indicator 1k(vi) shows that in both 2000 and 2020, higher shares of independent than dependent students have the identified risk characteristics. For example, in 2020, 79 percent of independent students, compared with 42 percent of dependent students, were enrolled part-time. In 2020, 45 percent of independent students, compared with 12 percent of dependent students, had delayed entry into postsecondary education. Among independent students, about 42 percent had children in 2020 (down from 53 percent in 2000), and 24 percent were single parents (the same as in 2000). Large differences were also found in the percentages of dependent and independent students working 35 or more hours per week. In 2020, for example, 47 percent of independent students worked 35 or more hours per week, compared with 21 percent of dependent students.

58 Wei, C. C., Nevill, S., & Berkner, L. (2005). *Independent Undergraduates: 1999–2000*. U.S. Department of Education. NCES, 2005-151. Retrieved from: https://nces.ed.gov/pubs2005/2005151.pdf.

59 Data are not presented in the chart for the risk factor of not having a regular high school diploma, due to large sampling errors.

Equity Indicator 1k(vi): Percentage of undergraduate students with college completion risk characteristics by dependency status: 2000 and 2020



Indicator Status:

Higher percentages of independent than dependent students have "completion risk" characteristics.

NOTE: Dependency status follows the classifications for federal student financial aid. Students up to age 24 are classified by the federal aid requirements as dependent unless they are married or otherwise have exceptional circumstances, in which case they are classified as independent students. See the introduction to Indicator 1 for detailed definitions of dependent and independent students.

SOURCE: Wei, C., Nevill, S., & Berkner, L. (2005). *Independent Undergraduates: 1999–2000*. U.S. Department of Education. NCES, 2005-151. Retrieved from: https://nces.ed.gov/pubs2005/2005151.pdf; U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:2000; 2020). Data represents the 1999-2000 and 2019-2020 academic years. Tabulated using NCES PowerStats.

Equity Indicators 1l(i) and 1l(ii): How Has the COVID-19 Virus Affected Short-term Trends in Enrollment in Postsecondary Education?

Indicators 1l(ia&b) and 1l(iia&b) use data from the National Student Clearinghouse Research Center (NSCRC) to compare fall enrollment of 2019 to the fall enrollment of 2021 to study the short-term impact of the COVID-19 pandemic on undergraduate enrollment in postsecondary education institutions. We also added 2021 to 2023 data so that short-term recovery information can be observed. This helps to contextualize how COVID-19 influenced the current postsecondary enrollment trends we are observing. Rather than using data from the NSCRC *Current Term Enrollment Estimates* report series, this Indicator uses data from the *Stay Informed* series. *Stay Informed* studies the effect of COVID-19 on postsecondary enrollment, using 2018 and 2019 as pre-pandemic baselines to compare with 2021 and 2023 data. According to the documentation provided by National Student Clearinghouse Research Center, "The Stay Informed series uses unweighted enrollment counts because the goal is to look at year-over-year changes from the same institution's enrollment patterns rather than total enrollment numbers."[60] In this 2024 *Indicators* report, we include the National Student Clearinghouse Research Center data on enrolled students by age and race/ethnicity.

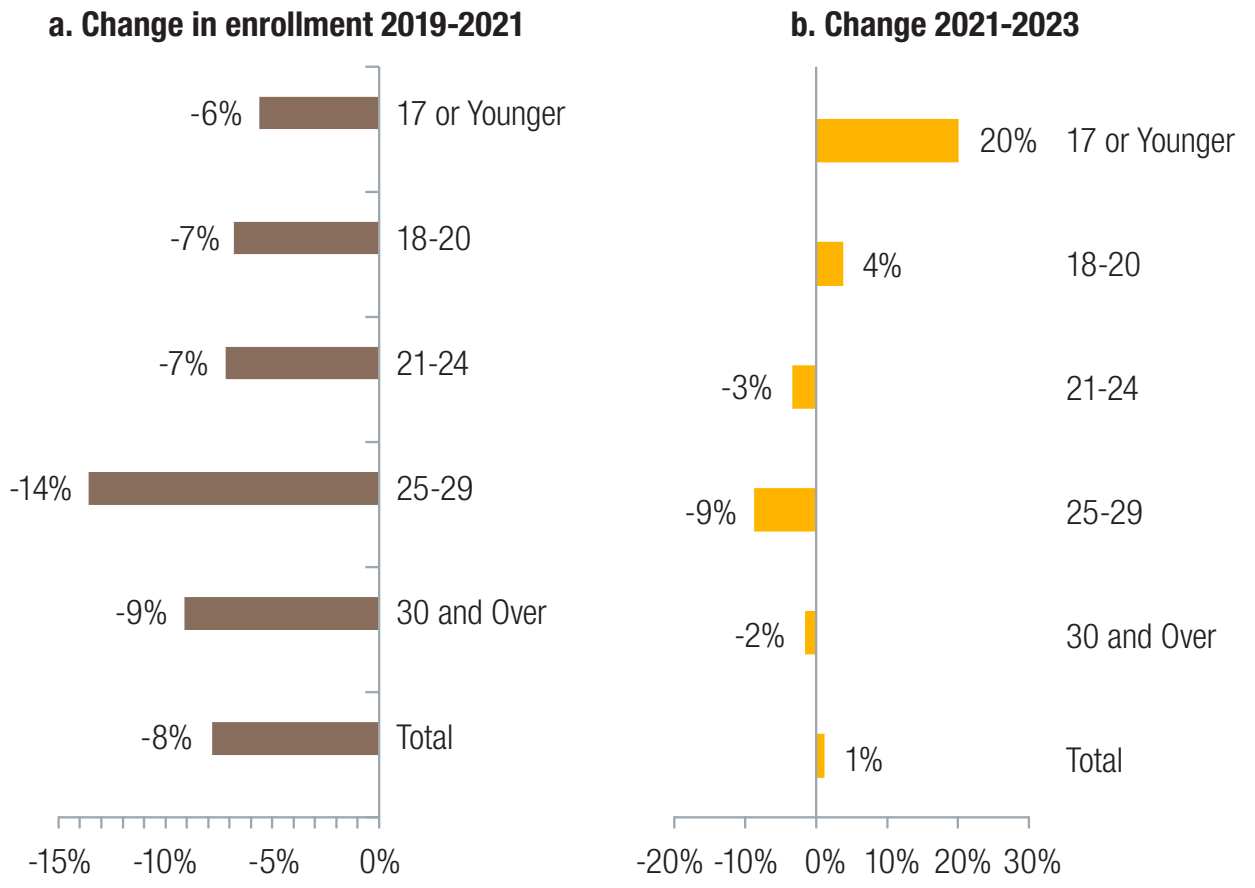
Enrollment by Age. The data in 1l(ia&b) indicates that undergraduate enrollment declined for all ages during the COVID pandemic. Comparing fall undergraduate enrollment from 2019 to fall 2021, enrollment declined by 8 percent; however, it declined most notably for the 25 to 29 age group (by 14 percent) and the 30 and over age group (by 9 percent). Looking at the 2021-2023 data, we see that the largest recovery was among those under 21. Those 21 years and over continued to show declines.

Race/Ethnicity. Undergraduate enrollment declined across all race/ethnicity groups. Indicator 1l(iia&b) shows that the largest decrease in undergraduate enrollment came from international students, which declined by 17 percent between 2019 and 2021. Other large decreases in enrollment came from Native Americans (down by 15 percent), Blacks (down by 12 percent), Whites (down by 12 percent), and Latinx (down by 7 percent). The race/ethnicities with lower rates of decline were Asians (down by 6 percent) and the Other race group (down by 5 percent). Looking at the 2021-2023 data, we see small increases for most groups, but not for White enrollment or international undergraduate enrollment, both of which continued to decrease.

Graduate enrollment, however, was on the rise. Overall, graduate enrollment rose by 5 percent between 2019-2021, and most notably for Latinx (21 percent) and Asians (17 percent). Looking at 2021 to 2023 data, we see that the international graduate student enrollment had the largest increase.

60 National Student Clearinghouse Research Center. (2021). *COVID-19 Stay Informed with the Latest Enrollment Information.* National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment. Retrieved from https://nscresearchcenter.org/stay-informed.

Equity Indicator 1l(ia&b): Changes in undergraduate enrollment by age from fall 2019 to fall 2021 and from fall 2021 to fall 2023



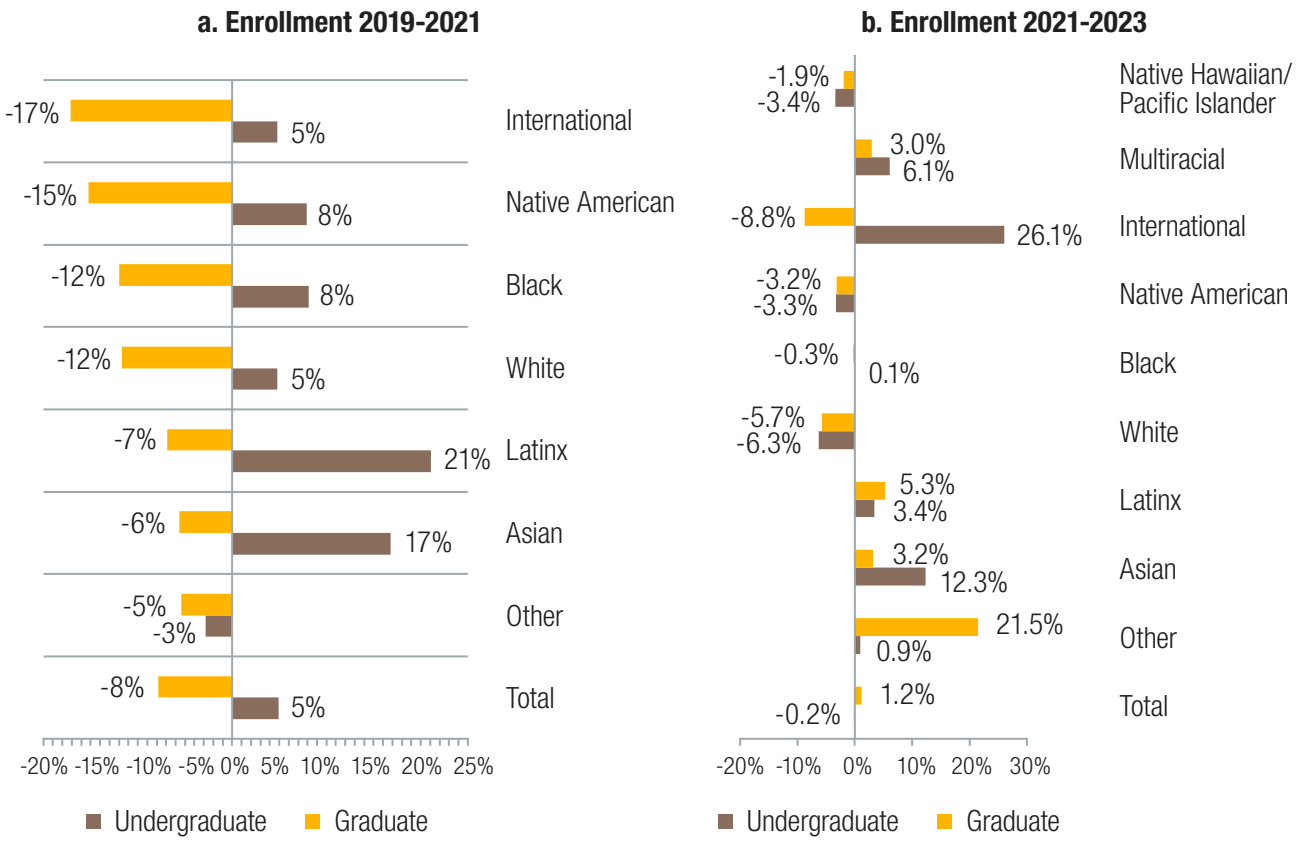
Indicator Status:

Undergraduate enrollment in fall 2021 was down for all ages, but most notably for people ages 25 and older. By 2023, the recovery was among those younger than 21.

NOTE: This indicator uses data from the *Stay Informed* series from the National Student Clearinghouse Research Center and not the *Current Term Enrollment Estimates* report series. The *Stay Informed* series studies the effect of COVID-19 on postsecondary enrollment, using 2018 and 2019 as pre-pandemic baselines to compare with 2021 and 2023 data. The *Stay Informed* series uses unweighted enrollment counts because the goal is to look at year-over-year changes from the same institution's enrollment patterns rather than total enrollment numbers.

SOURCE: National Student Clearinghouse Research Center. (2021 and 2023). *COVID-19 Stay Informed with the Latest Enrollment Information*. National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment. Retrieved from https://nscresearchcenter.org/stay-informed.

Equity Indicator 1I(iia&b): Changes in enrollment by award level and race/ethnicity from fall 2019 to fall 2021 and from fall 2021 to fall 2023



Indicator Status:

Undergraduate enrollment in fall 2021 decreased for all races and ethnicities, but most notably for international and Native American students. In contrast, graduate enrollment rose. During the recovery period, enrollment increased most significantly for international students.

NOTE: This Indicator uses data from the *Stay Informed* series from the National Student Clearinghouse Research Center and not the *Current Term Enrollment Estimates* report series. The *Stay Informed* series studies the effect of COVID-19 on postsecondary enrollment, using 2018 and 2019 as pre-pandemic baselines to compare with 2021 data. The *Stay Informed* series uses unweighted enrollment counts because the goal is to look at year-over-year changes from the same institution's enrollment patterns rather than total enrollment numbers.

SOURCE: National Student Clearinghouse Research Center. (2021 and 2023). *COVID-19 Stay Informed with the Latest Enrollment Information*. National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment. Retrieved from https://nscresearchcenter.org/stay-informed.

Equity Indicators 1m(i) and 1m(ii): What Are the Difficulties Faced by Undergraduates in Higher Education During the COVID-19 Pandemic?

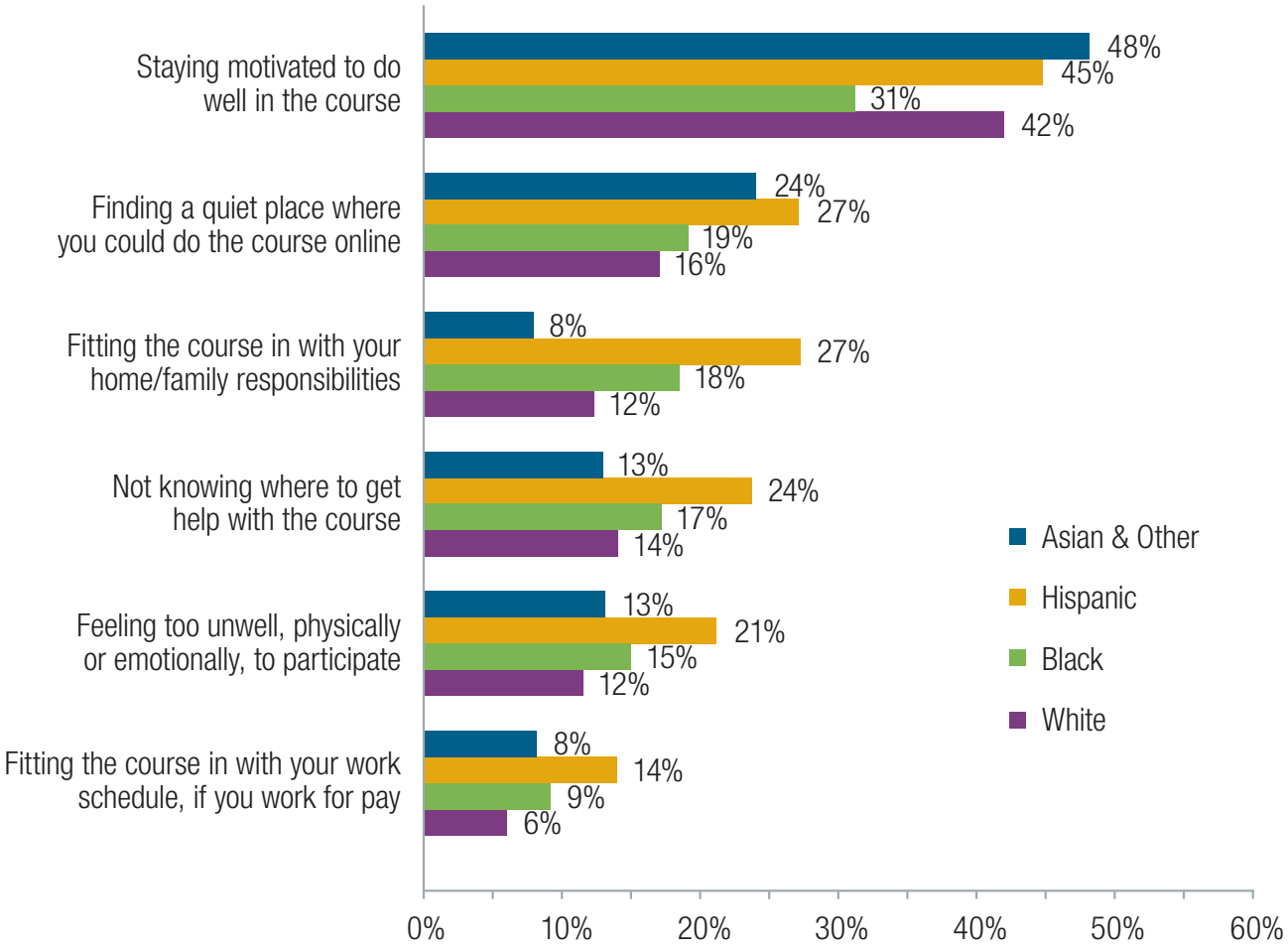
Students enrolled in institutions of higher education experienced many different hardships during the COVID-19 pandemic; however, not all students faced the same difficulties as others. Indicators 1m(i) and 1m(ii) examine data from two different sources to reveal how students dealt with these situations. Indicator 1m(i) uses data from the Survey of Student Perceptions of Remote Teaching and Learning, which was conducted by the Digital Promise[61], an online research organization dedicated to improving the "Digital Learning Gap." Indicator 1m(ii) uses data from the National Postsecondary Study Aid Study of 2020 to show how students dealt with enrollment disruptions in the Spring of 2020.

The Survey of Student Perceptions of Remote Teaching and Learning studies how undergraduate students dealt with courses as they transitioned to online learning during the COVID-19 pandemic (Equity Indicator 1m(i)). Of the many challenges students faced during the pandemic, staying motivated to do well topped the list of difficulties; however, this varied by race and ethnicity, with 48 percent of Asians experiencing this difficulty, 45 percent of Hispanics, 42 percent of Whites, and 31 percent of Blacks. Of the other difficulties students dealt with, Hispanics were found to have a higher number of challenges than other races.

Dependency Status Using NPSAS:20 data, Indicator 1m(ii) shows that 87 percent of students experienced some type of enrollment disruption during the Spring of 2020, at the height of the COVID-19 pandemic. Independent students saw more disruption than dependent students, with more independent students having to withdraw from their institution due to COVID (6 percent of independent students compared with 3 percent of dependent students) than did dependent students, as Indicator 1m(ii) displays.

61 The survey was conducted May 13--June 1, 2020 and included 1,008 undergraduates, ages 18 and older who had been taking courses in person but had to finish remotely. Means, B., and Neisler, J., with Langer Research Associates. (2020). *Suddenly Online: A National Survey of Undergraduates During the COVID-19 Pandemic*. San Mateo, CA: Digital Promise. Retrieved from https://digitalpromise.org/wp-content/uploads/2020/07/ELE_CoBrand_DP_FINAL_3.pdf.

Equity Indicator 1m(i): Percentage of undergraduate students facing difficulties while transitioning to online learning during the COVID-19 pandemic by race/ethnicity: May 2020 to June 2020



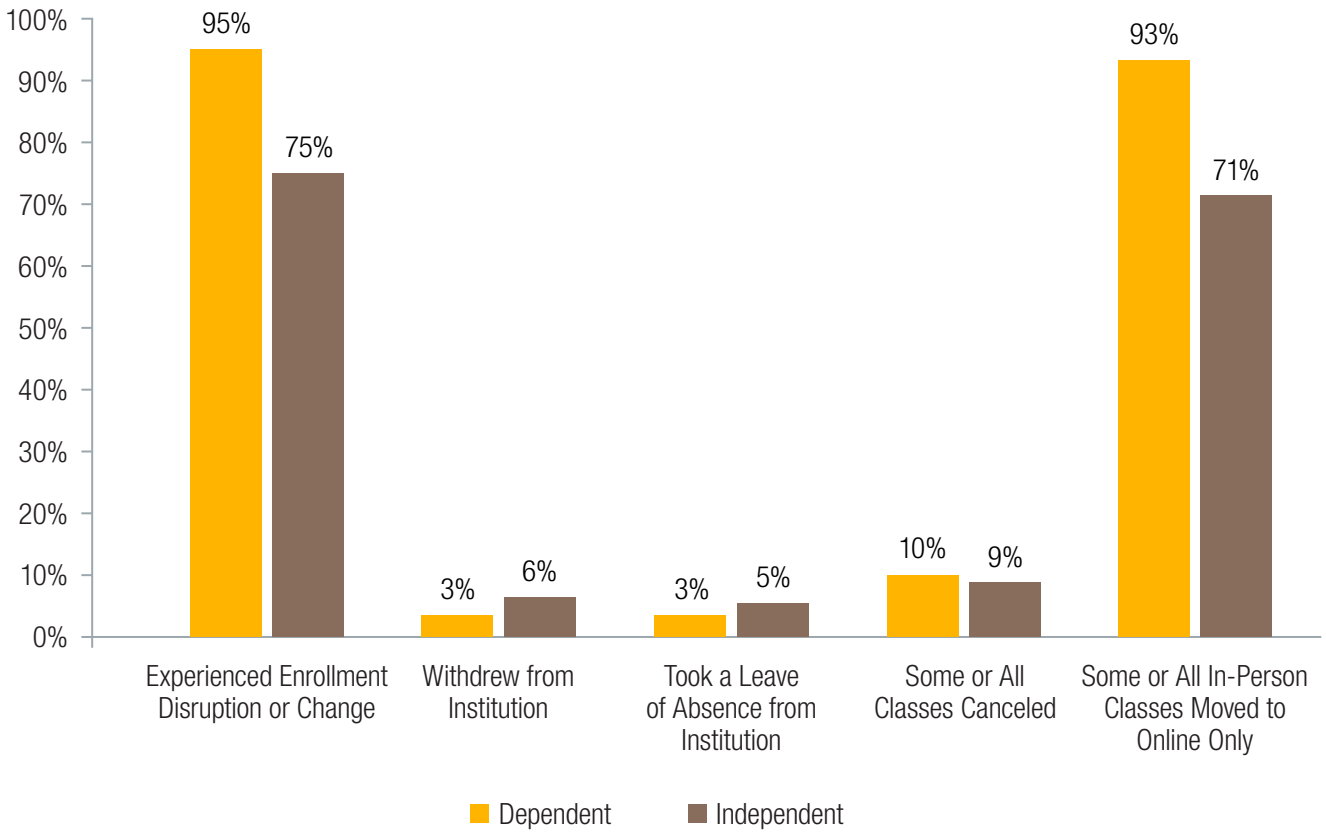
Indicator Status:

Staying motivated to do well in the course during the pandemic was the main challenge faced by students as they shifted to online learning, and Hispanics indicated more challenges than students of other races.

NOTE: The survey was conducted between May 13 and June 1 of 2020 and included 1,008 undergraduates, ages 18 and older who had been taking courses in person but had to finish remotely.

SOURCE: Means, B., & Neisler, J., with Langer Research Associates. (2020). *Suddenly Online: A National Survey of Undergraduates During the COVID-19 Pandemic*. San Mateo, CA: Digital Promise. Retrieved from https://digitalpromise.org/wp-content/uploads/2020/07/ELE_CoBrand_DP_FINAL_3.pdf.

Equity Indicator 1m(ii): Percentage of undergraduate students who experienced enrollment disruptions due to COVID-19 by dependency status: Spring 2020



Indicator Status:

Dependent students were more likely to experience enrollment disruptions and transition to online learning than were independent students. Independent students, however, were more likely to have to withdraw from institutions as a result of COVID than dependent students (6 percent compared with 3 percent).

NOTE: "Some or all classes moved to online" applies only to students whose sampled institution did not exclusively offer online instruction prior to COVID-19.

SOURCE: Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:20): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* (NCES 2021-456). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

EQUITY INDICATOR 2

WHAT TYPES OF POSTSECONDARY EDUCATIONAL INSTITUTIONS DO STUDENTS ATTEND?

Among 2009 9th graders who graduated from high school in 2013, those from the highest SES quintile were 8 times as likely to attend a "most" or "highly" selective college as students from the lower SES quintile (33 percent versus 4 percent).

In 2021, 69 percent of degree-seeking undergraduates who received Federal Pell or other grants were enrolled at a 4-year institution. By comparison, among undergraduates who did not receive Federal Pell or other grants, 81 percent attended a 4-year institution rather than a 2-year institution.

Equity Indicator 2(a-l): Definitions

The sources of data for Equity Indicator 2 are: 1) Integrated Postsecondary Education Data System (IPEDS), which has collected institutional-level data on U.S. postsecondary educational institutions since 1986[62]; 2) five NCES high school longitudinal studies; 3) the NCES National Postsecondary Student Aid Study (NPSAS) conducted at 4-year intervals since 1990; 4) 2019 Barron's Admissions Competitiveness Index, and 5) the National Student Clearinghouse (NSC) data on enrollment before the COVID-19 pandemic and during the COVID-19 pandemic.

- **IPEDS Federal Grant Aid.** IPEDS does not collect data on a student's family income but does collect aggregate data on institutional characteristics that provide reasonable proxies.[63] In Indicator 2, we report the percentage of full-time, first-time degree-seeking undergraduate students receiving "Federal Grants." 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.[64] We report Federal Grant aid because separate Pell Grant data were not reported separately in IPEDS before 2009 and because receipt of Federal Grant aid is a reasonable proxy for Pell-specific measures.[65] However, as was seen in STS Figure 6a in the period of the COVID pandemic, additional

62 In 1986, the IPEDS system was initiated. Prior to this date, the U.S. Department of Education collected institutional data through other data collection systems such as the Higher Education General Information Survey (HEGIS) series, the immediate predecessor to IPEDS.

63 Current IPEDS measures include the percent of undergraduates receiving Pell Grants, percent of full-time, first-time (FTFT) undergraduates receiving Pell Grants, and percent of full-time, first-time (FTFT) undergraduates receiving Federal Grant aid.

64 National Center for Education Statistics, IPEDS Data Center. Retrieved from https://nces.ed.gov/ipeds/datacenter/selectVariables.aspx.

65 Others also use Federal Grant aid as a proxy for receiving Federal Pell Grants. See Giancola, J. & Kahlenberg, R. (2016). *True merit: Ensuring our brightest students have access to our best colleges and universities.* Lansdowne: Jack Kent Cooke Foundation. Retrieved from http://www.jkcf.org/assets/1/7/JKCF_True_Merit_Report.pdf.

Federal Grant aid was made available. This resulted in a jump in the percentage of students receiving Federal Grant aid. For example, in 2020, 42 percent of first-time, full-time undergraduates received Pell Grants, but 52 percent received Pell or other Federal Grants. In this report, Federal Grant aid is also referred to as "Pell or other Federal Grants," or "Federal Grants including Pell."

- **Federal Pell Grant Receipt.** Eligibility for Pell Grants for both dependent and independent students is based on family income, family size, number of family members attending college, and other factors. A dependent student's Pell Grant eligibility is based on parents' family income, and an independent student's eligibility is based on the student's income plus any spousal income. In the 2022-23 award year, slightly over 6 million students received a Pell Grant at a total cost of $27.1 billion. This figure was down from a peak of 9.4 million students in 2011-12 during the Great Recession.[66] In the 2022-23 award year, the maximum Pell Grant award was $6,895.
- **High School Longitudinal Studies Data by Family Socioeconomic Status and Institutional Selectivity.** The five NCES high school longitudinal studies included in this report are: the National Longitudinal Study, representing the scheduled high school graduating class of 1972 (NLS); High School and Beyond Study, representing the scheduled high school graduating class of 1982 (HS&B); National Education Longitudinal Study, representing the scheduled high school graduating class of 1992 (NELS); Education Longitudinal Study (ELS), representing the scheduled high school graduating class of 2004, and High School Longitudinal Study (HSLS) representing the scheduled high school graduating class of 2013. As discussed in Indicator 1, a socioeconomic status (SES) composite is included in each of the NCES high school longitudinal studies. The SES composite is based on data from the parent questionnaires or imputed from the student questionnaires. For the five NCES longitudinal studies, SES is based on five equally weighted components. These components are father's/guardian's education, mother's/guardian's education, family income, father's/guardian's occupational prestige score, and mother's/guardian's occupational prestige score. This Indicator uses data from a published study by Michael Bastedo and Ozan Jaquette and an analytic dataset constructed by merging the high school longitudinal data with the Barron's Admissions Competitiveness Index.[67] We also use data from the High School Longitudinal Study (HSLS) to examine selectivity of institutions attended by 2009 9th graders who graduated high school by 2013. Due to differences in survey design and study methodology, we present these data in a separate chart rather than with the earlier four NCES studies.[68]
- **National Postsecondary Student Aid Study (NPSAS) Data by Dependency Status.** Using data from the 2020 wave of NPSAS, we report differences in the characteristics of higher education institutions attended based on three categories of dependency status: dependent, independent without dependents, and independent with dependents.
- **Institutional Selectivity.** Selectivity is measured using Barron's Admissions Competitiveness Index, which is based on such measures as the percent of applicants admitted, students' high

66 Ma, J. & Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. Table 8. New York: College Board. Retrieved from https://research.collegeboard.org/media/pdf/Trends%20Report%202023%20Updated.pdf and [Data file] Retrieved from https://research.collegeboard.org/media/xlsx/Trends-in-Student-Aid-2023-excel-data.xlsx.

67 Figures are adapted from Bastedo, M. & Jaquette, O. (2011). Running in place: Low-income students and the dynamics of higher education stratification. *Educational Evaluation and Policy Analysis, 33*, 318-339, Appendix 6. Retrieved from http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf.

68 The High School Longitudinal Study (HSLS:2009) sampled 9th graders and completed follow-ups in 2012 (11th grade) and 2013 (the fall after expected high school graduation date). For these reasons, HSLS:2009 is not directly comparable to the earlier four studies which started in 10th or 8th grade and had follow-ups in 12th grade. The 12th grade data on anticipated college enrollment were used in the Bastedo and Jaquette (2011) analyses on selectivity for the four earlier NCES longitudinal studies. The HSLS used quintiles for the SES classification rather than quartiles.

school class rank, and students' college entrance exam scores.[69] NCES has published Barron's datasets corresponding to years in which students in the longitudinal studies typically first enrolled in a postsecondary institution. The competitiveness indices include "most competitive," "highly competitive," "very competitive," "competitive," and "less competitive." We coded institutions not included in Barron's Admissions Competitiveness Index based on level and control using IPEDS data.[70] We used the 2019 Barron's index for all years in Indicator 2e. Reflecting high consistency in Barron's methodology across years, only a small share of institutions changed competitiveness classification over time.[71]

- **National Student Clearinghouse (NSC) Research Center Data** is used to compare fall 2019 enrollment to fall 2021 enrollment to study the effects that COVID-19 has had on undergraduate and graduate enrollment in postsecondary education institutions. The National Student Clearinghouse published this data in a series called *Stay Informed*. NSC reports on enrolled students by gender, age, and race/ethnicity.

Equity Indicator 2a: How Does the Level of Institution Attended Vary by Pell or Other Federal Grant Receipt?

Indicator 2a shows that, among full-time, first-time (FTFT) degree-seeking undergraduates, those who received Federal Grants are consistently less likely than those who do not receive Federal Grants to attend 4-year institutions rather than 2-year institutions. In 2021, 69 percent of Federal Grant recipients were enrolled at 4-year rather than 2-year institutions, compared with 81 percent of non-recipients.[72] The difference in the percentages of Federal Grant recipients and non-recipients attending 4-year rather than 2-year colleges narrowed slightly from 13 percentage points in 2001 to 12 percentage points in 2021.

Equity Indicator 2b: How Does the Control of 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), although relatively stable, has been impacted by economic conditions including the growth of new technologies over the period of 2004 to 2021 (Equity Indicator 2b). 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 most impacted by economic downturns.

Public Institutions. In 2021, 73 percent of Federal Grant recipients and 70 percent of non-recipients attended public institutions. The percentage of Federal Grant recipients attending public institutions ranged over time from a low of 56 percent in 2010 in the time of the Great Recession to a high of 73 percent in 2021. Among non-recipients, the percentage attending public institutions ranged from a low of 66 percent in 2007 to highs of 72 percent in 2016, 2019, and 2020.

69 Bastedo, M. & Jaquette, O. (2011). Running in place: Low-income students and the dynamics of higher education stratification. *Educational Evaluation and Policy Analysis, 33*, 318-339, Appendix 6. Retrieved from http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf.

70 National Center for Education Statistics. (n.d.). Barron's Admissions Competitiveness Index Data Files:1972, 1982, 1992, 2008, 2014. [Data file]. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016332. Barron's Educational Series, Inc. (2018). *Profiles of American Colleges 2019*.

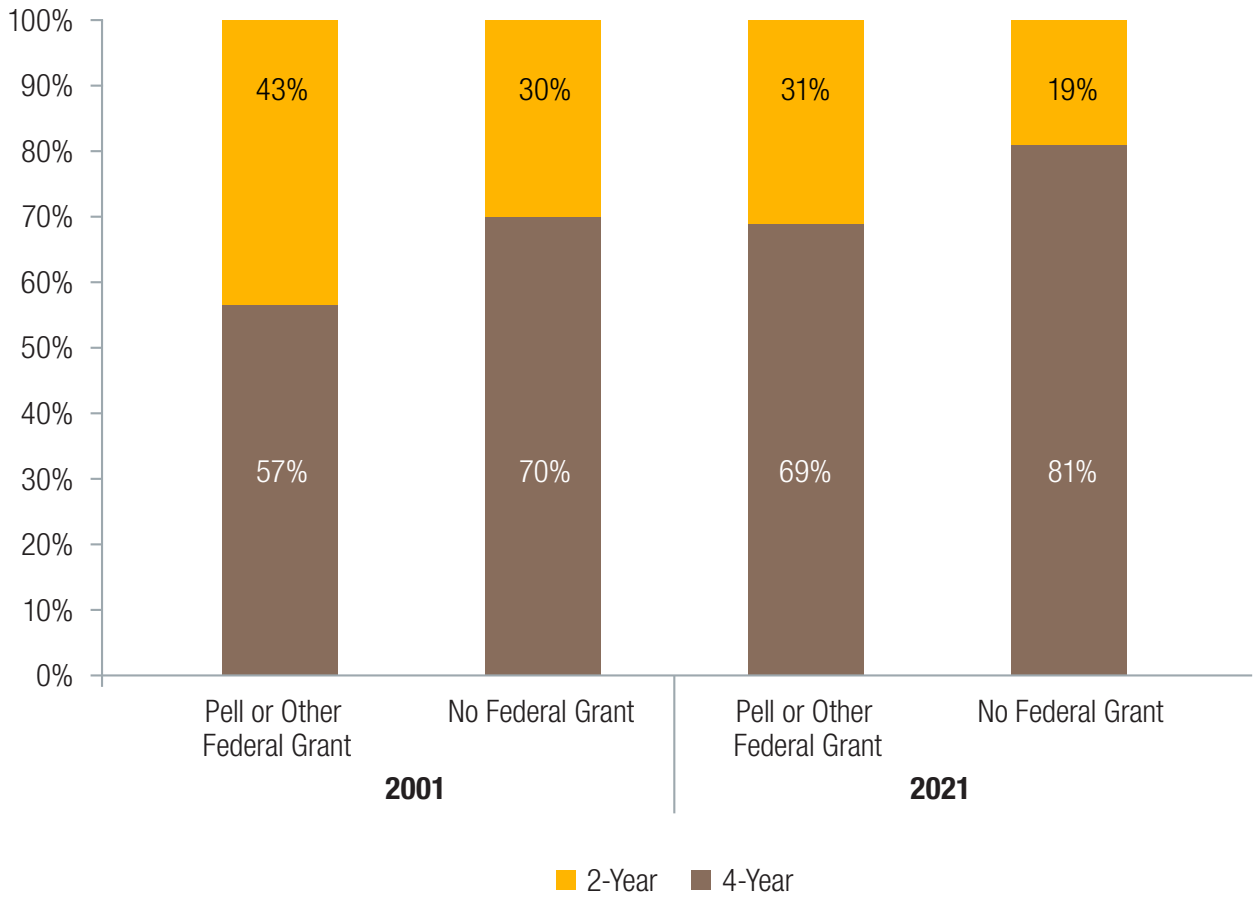
71 Bastedo & Jaquette (2011) also used one year of the Barron's selectivity index in their study (cited above).

72 Throughout this chapter, we refer to the academic year by the end year. For example, academic year 2000-01 is referred to as the year 2001.

Private Non-Profits. The proportion of Federal Grant recipients enrolled in a private non-profit institution has ranged from a low of 13 percent at the height of the Great Recession to a high of 20 percent in 2017. Among non-recipients, the proportion attending a private non-profit institution ranged from a low of 21 percent in 2007 at the early stages of the Great Recession to a high of 26 percent in 2021.

Private For-Profits. The largest difference between those receiving and not receiving Federal Grants has been in the percentage attending private for-profit institutions. Among those receiving Federal Grants, the proportion of FTFT undergraduates who were enrolled at for-profit institutions increased from 18 percent in 2004 to 23 percent in 2006, reached a high of 31 percent in 2010, and declined to a low of 9 percent in 2021. Among non-recipients, the percentage attending private for-profit institutions ranged from lows of 3 percent in 2019 and 2020 to a high of 13 percent in 2007. The percentage of Federal Grant non-recipients attending private for-profit institutions in 2021 was more than two times lower than the percentage of recipients attending for-profit institutions (4 percent vs. 9 percent).

Equity Indicator 2a: 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: 2001 and 2021



Indicator Status:

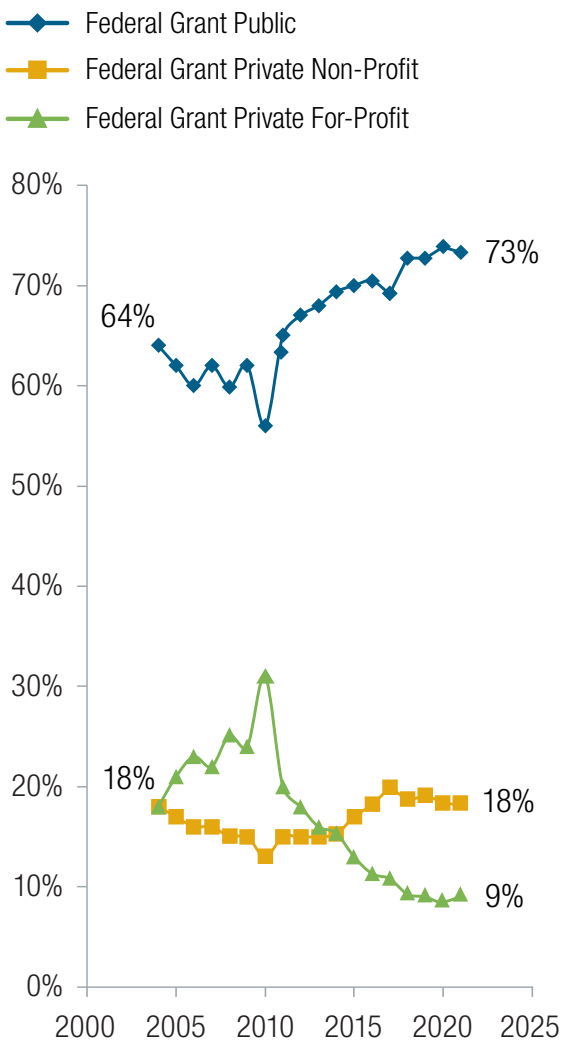
Among both recipients and non-recipients of Federal Grants, the percentage attending 4-year institutions increased between 2000 and 2021. The gap between Federal Grant recipients and non-recipients in percentage attending 4-year institutions narrowed slightly (13 percentage points in 2000 and 12 percentage points in 2021).

NOTE: 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. This figure also includes Federal Grants for undergraduates related to the COVID pandemic.

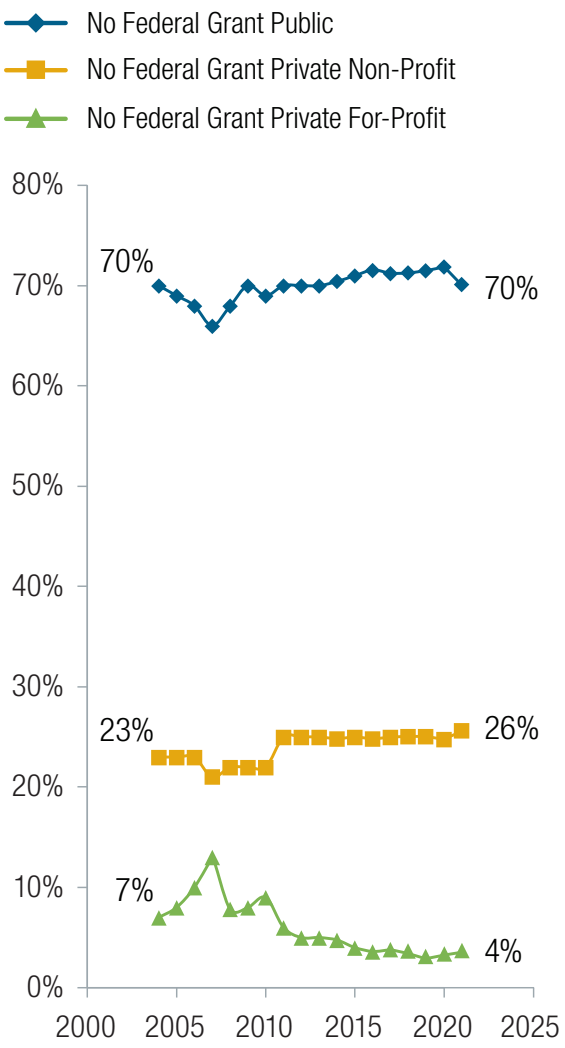
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), as included in *Digest of Education Statistics 2022*, [Table 331.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.20.asp.

Equity Indicator 2b: Percentage distributions by control of institution attended of full-time, first-time degree-seeking undergraduate Federal Grant recipients and nonrecipients: 2004 to 2021

Percentage Distribution of Pell and Other Federal Grant Recipients



Percentage Distribution of Non-Recipients



Indicator Status:

Pell and other Federal Grant recipients were over 2 times as likely as Federal Grant nonrecipients to attend a private for-profit institution in 2004 and 2021.

NOTE: 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. This figure also includes Federal Grants for undergraduates related to the COVID pandemic.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), as included in *Digest of Education Statistics 2022*, [Table 331.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.20.asp.

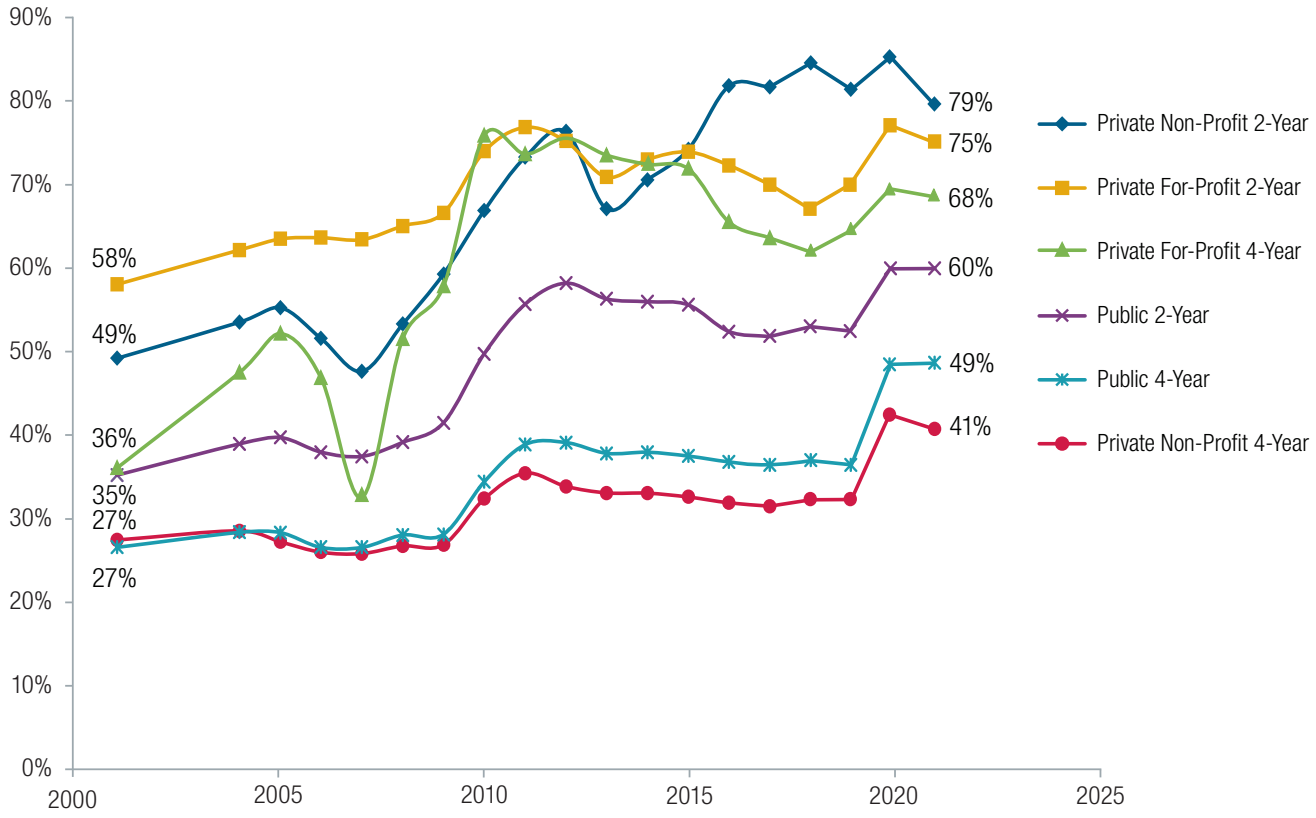
Equity Indicator 2c: How Does the Percent of Students Receiving Federal Grants Vary by Institutional Level and Control?

Over the period represented in Equity Indicator 2c (2001-2021), the percentage receiving Federal Grants at each institution level (2-year/4-year) and control (public, private non-profit, and private for-profit) has grown, with a pattern that 2-year institutions generally have higher levels of Federal Grant recipients, and 4-year 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 percent in private non-profit 4-year and public 4-year institutions to highs of 58 percent for private for-profit 2-year institutions (a gap of 31 percentage points from lowest to highest). By 2021, the percentage ranged from 41 percent in private non-profit 4-year institutions to 79 percent among private non-profit 2-year institutions (a gap of 38 percentage points).

A High Percentage of Students at Private For-Profits Have Federal Grants. Although, as seen in Equity Indicator 2b, the percentage of both recipients and non-recipients of Federal Grants enrolled in private for-profit institutions is relatively small, 9 percent and 4 percent respectively, Federal Grant recipients make up the largest percentage of the 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 2021, two-thirds (68 percent) of FTFT undergraduates attending private for-profit 4-year institutions received Pell or other Federal Grants, compared with about half of FTFT undergraduates attending public 4-year (49 percent) and private non-profit 4-year (41 percent) institutions. Three-quarters (75 percent) percent of FTFT undergraduates at private for-profit 2-year institutions and 79 percent of those attending private non-profit 2-year institutions received Federal Grants in 2021, compared with 60 percent of FTFT undergraduates attending public 2-year institutions.

Change and COVID. Between 2019 and 2020, the percentage of FTFT undergraduates receiving Pell and other Federal Grants increased for all institutions, especially for private non-profit 4-year institutions (10 percentage points) and public 4-year institutions (12 percentage points). One year later, after the impact of COVID subsided, the rate dropped for private non-profit 2-year institutions (6 percentage points), private for-profit 2-year institutions (2 percentage points), private non-profit 4-year institutions (2 percentage points), and for private for-profit 4-year institutions (1 percentage point). It remained the same for both public 2-year and 4-year institutions.

Equity Indicator 2c: Percentage of full-time, first-time (FTFT) degree/certificate-seeking undergraduate students receiving Pell or other Federal Grants by institutional level and control: 2001 to 2021



Indicator Status: High Inequality

Over the period, there has been a growth in the percentage receiving Federal Grants at each level and control of institution. In 2001, the percentage of FTFT students receiving Federal Grants ranged from lows of 27 percent in public 4-year and private non-profit 4-year institutions to highs of 58 percent for private for-profit 2-year institutions (a gap of 31 percentage points from lowest to highest). By 2021, the percentage ranged from 41 percent in private non-profit 4-year institutions to 79 percent among private non-profit 2-year institutions (a gap of 38 percentage points).

NOTE: Federal Grant aid for undergraduates 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 Department of Labor. This figure also includes Federal Grants for undergraduates related to the COVID pandemic.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), as included in *Digest of Education Statistics 2022*, [Table 331.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.20.asp.

Equity Indicator 2d: How Does the Percentage Distribution of Students by Socioeconomic Status Vary by the Selectivity of the Institution?

Equity Indicator 2d presents the distribution of students by socioeconomic status (SES) in each selectivity category of the postsecondary institutional destinations of seniors in the high school graduating classes of 1972, 1982, 1992, and 2004.[73] As institutional selectivity increases, the share of students who come from the lowest SES quartile declines. This pattern is consistent over time.

Data from the Educational Longitudinal Study (ELS) for the high school class of 2004 show that, of the approximately 2 percent of all students (see Appendix A) who planned to attend the "most competitive" institutions, 69 percent were from the highest SES quartile, 19 percent were from the third SES quartile, 8 percent were from the second SES quartile, and 4 percent were from the lowest SES quartile.[74] The representation of students in the highest SES quartile who planned to attend the "most competitive" institutions decreased from 78 percent in 1972 to 69 percent in 2004. The representation of students from the lowest SES quartile planning to attend the "most competitive" institutions remained virtually unchanged (5 percent in 1972 and 4 percent in 2004).

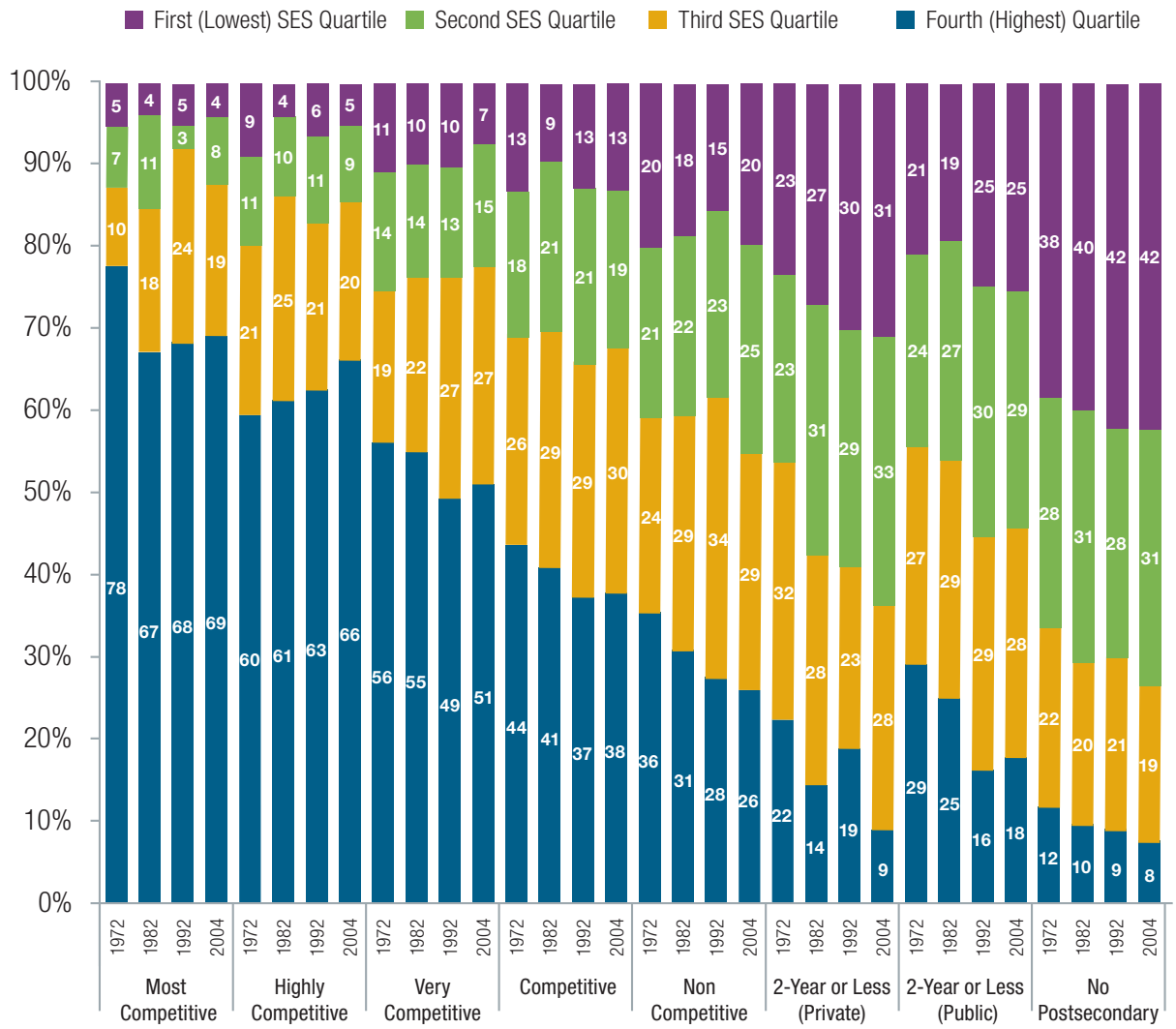
In both 1972 and 2004, among students whose institutional destination was the "most competitive" colleges and universities, 88 percent came from the two highest family income quartiles and 12 percent came from the bottom half of the SES distribution.

At the same time, the representation of youth from the lowest SES quartile increased among those who planned to attend a public 2-year or less institution (from 21 percent in 1972 to 25 percent in 2004) or a private 2-year or less institution (from 23 percent in 1972 to 31 percent in 2004) and among those with no postsecondary education plans (from 38 percent in 1972 to 42 percent in 2004). We note that two out of every five graduating seniors (42 percent) in the lowest SES quartile had no plans for postsecondary education.

73 See Appendix A for the data on which Indicator 2d is based. The data are adapted from the analysis of Bastedo & Jaquette (2011). Running in Place: Low-income Students and the Dynamics of Higher Education Stratification. *Educational Evaluation and Policy Analysis, 33*(3), 318-339. Retrieved from http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf.

74 Across the four studies, the percentages of all graduating high school students who had institutional destinations among the "most competitive" colleges were 1.9 percent in 1972, 2.0 percent in 1982, 3.6 percent in 1992, and 2.4 percent in 2004. See Appendix A for the distribution of institutional destinations by SES quartile as published by Bastedo & Jaquette (2011) as cited above.

Equity Indicator 2d: Percentage distribution of each selectivity category of institutional destinations by parents' socioeconomic status (SES) for high school class cohorts: 1972, 1982, 1992, and 2004



Indicator Status: High Inequality and Persisting Gaps

In the four high school longitudinal studies represented above, among those graduating seniors planning to enroll in the "most competitive" institutions, 4 percent to 5 percent were from the lowest SES quartile, and 67 percent to 78 percent were from the highest SES quartile. Two out of every five graduating seniors (42 percent) in the lowest SES quartile had no plans for postsecondary education.

NOTE: This Indicator draws from high school longitudinal studies survey data on the institutional destination of high school seniors. As the data in Appendix A reveal, in 2004, the percentage of students planning to attend the "Most Competitive" institutions was very low and ranged from 0.5 percent for the first (lowest) SES quartile to 6.2 percent for the fourth (highest) SES quartile. Overall, 2 percent of all students planned to attend a "Most Competitive" institution in 2004.

SOURCE: U.S. Department of Education, NCES, NLS; HS&B, NELS, and ELS; Adapted from Bastedo, M. N., & Jaquette, O. (2011). Running in place: Low-income students and the dynamics of higher education stratification. *Educational Evaluation and Policy Analysis, 33*(3), 318-339. Retrieved from http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf and used with permission.

Equity Indicator 2e: How Does the Average Percentage of Students Receiving Pell or Other Federal Grants Vary by Institutional Competitiveness?

Using IPEDS data combined with the 2019 Barron's Admissions Competitiveness Index, Indicator 2e shows the average percentage of first-time, full-time (FTFT) undergraduates who received Pell or other Federal Grants from 2000 to 2021 by admissions selectivity.

Reflecting the strong association of family income levels and competitive academic achievement measures, Indicator 2e shows 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 2021, 28 percent of students enrolled at the "Most Competitive" institutions received Pell or other Federal Grants, compared with 66 percent of students enrolled at "Noncompetitive" institutions.

Although the representation of students receiving Federal Grants was higher in 2021 than in 2000 in all institutional selectivity categories, differences in average rates of Federal Grants recipients by institutional selectivity also increased over this period. The average percentage of students receiving Federal Grants at the "Most Competitive" institutions was 13 percentage points higher in 2021 than in 2000 (28 percent versus 15 percent). In contrast, the share of FTFT undergraduates receiving Federal Grants was 22 percentage points higher in 2021 than in 2000 at 2-year public and private non-profit institutions (61 percent versus 39 percent), 17 percentage points higher at "Noncompetitive" institutions (66 percent versus 49 percent), and 19 percentage points higher at for-profit 2-year and 4-year institutions (73 percent versus 54 percent).[75]

COVID Impact. In a pattern like that of Equity Indicator 2c, the percentages of enrolled students having Federal Grants increased significantly between 2019 and 2020, and although rates decreased by 2021, the rates remained higher than before 2019. Between 2019 and 2020, the percentage having Federal Grants increased the most for "Very Competitive" institutions, by 15 percentage points between 2019 and 2020, moving from 29 percent to 44 percent, and then declined by 2 percentage points to 42 percent in 2021. Some of this increase may be due to the increase in COVID-related special Federal Student Aid.

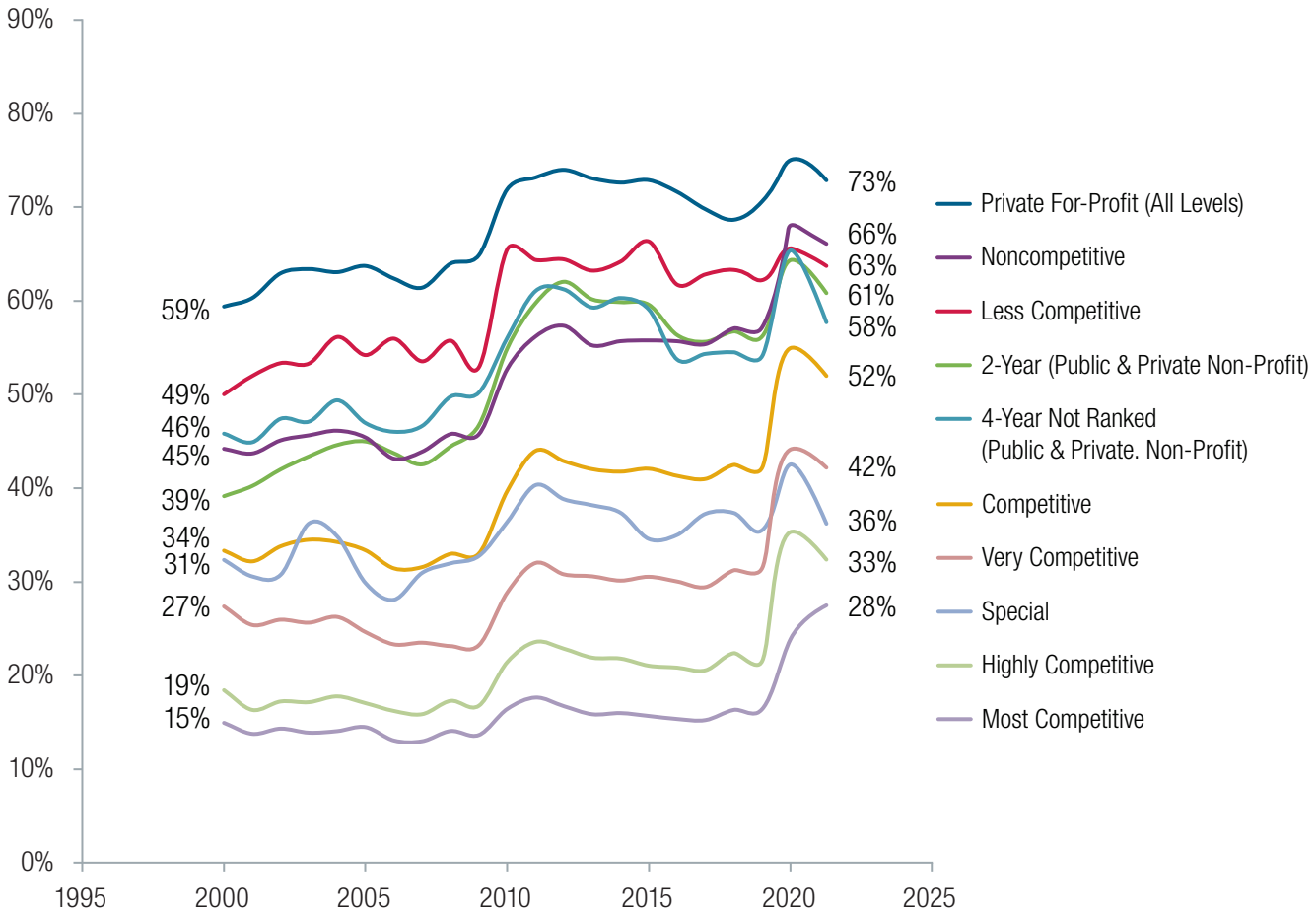
Equity Indicator 2f: How Does Immediate College Enrollment by Competitiveness of the Institution Vary by Socioeconomic Status (SES)?

The NCES High School Longitudinal Study (HSLS), combined with the Barron's Admissions Competitiveness Index, provides information on the competitiveness of the institutions attended by 2009 9th graders who graduated from high school by 2013. While the classifications of institutional competitiveness are different than those reported in Indicators 2d and 2e, the patterns are similar.

Among 2009 9th graders who graduated from high school by 2013, those from the highest SES quintile were 8 times as likely to be enrolled in a "most" or "highly" competitive institution in the fall following scheduled high school graduation (2013) as students from the lowest SES quintile (33 percent versus 4 percent). Almost two-thirds (63 percent) of students from the highest SES quintile were enrolled in the "most," "highly," or "moderately" competitive institutions, compared with 15 percent of those in the lowest SES quintile. About 7 percent of students from the highest quintile were not enrolled in the fall after the scheduled high school graduation, compared with 40 percent of students in the lowest SES quintile.

75 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 (18 institutions in 2020-2021), but we include these institutions in the for-profit sector.

Equity Indicator 2e: Average percentage of full-time, first-time degree/certificate-seeking undergraduate students who were awarded Pell or other Federal Grants by institutional selectivity: 2000 to 2021



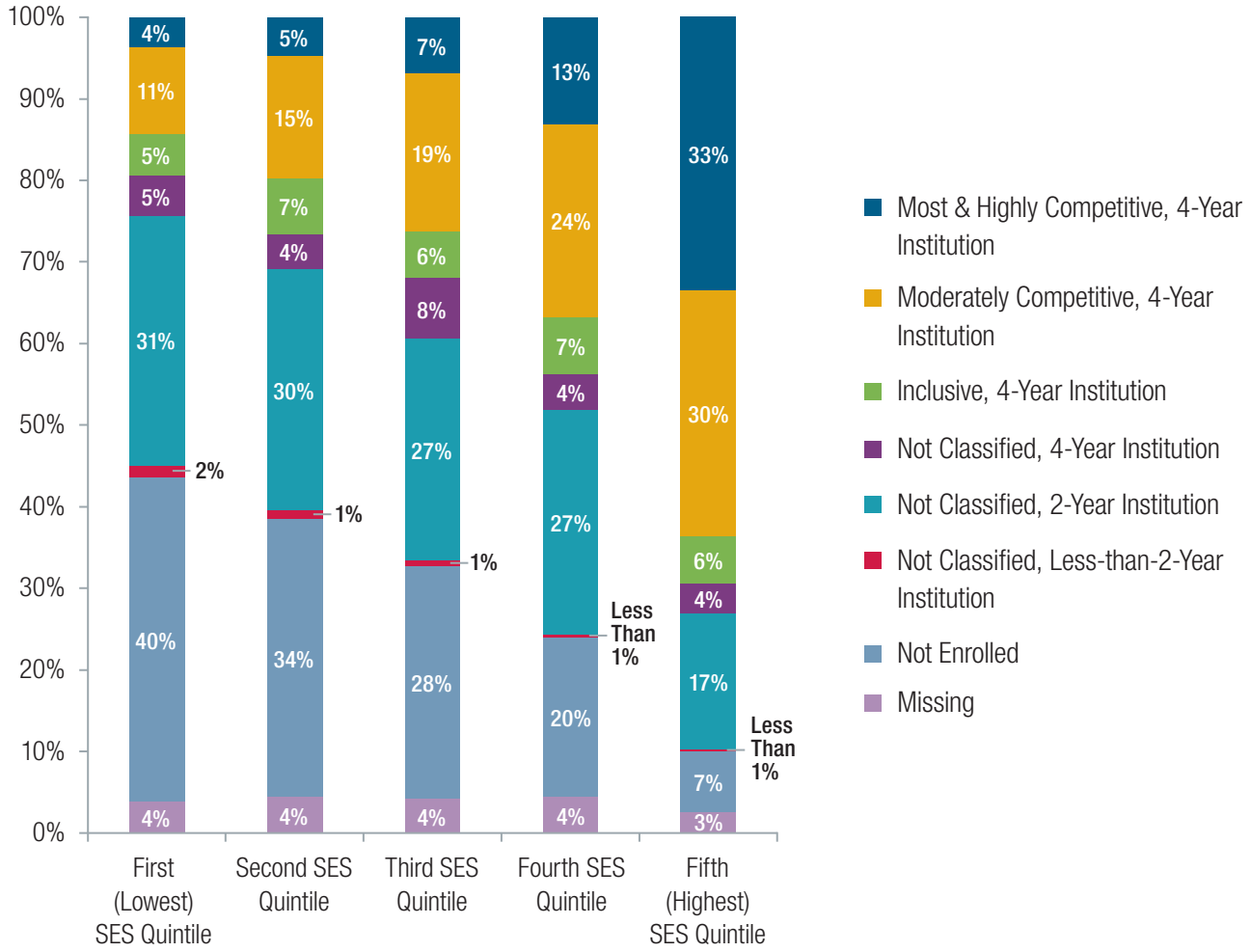
Indicator Status: High Inequality and Widening Gaps

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 percent versus 45 percent) in 2000 to 35 percentage points (28 percent versus 63 percent) in 2021.

NOTE: 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. Data for COVID period reflects new Federal Grants for COVID relief not previously available. Data represents institutional averages in each category.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2021, and Barron's Admissions Competitiveness Index, 2019.

Equity Indicator 2f: Percentage distribution of 2009 9th graders who graduated from high school by institutional selectivity of enrollment in the fall after scheduled high school graduation (in 2013) by SES quintile



Indicator Status: High Inequality

Among 2009 9th graders who graduated from high school by 2013, 4 percent of those from the lowest SES quintile were enrolled in a "most" or "highly" competitive institution in the fall after scheduled high school graduation, compared with 33 percent of students from the highest SES quintile. Forty percent of those from the lowest SES quintile were not enrolled at all.

NOTE: This chart is based on those who graduated from high school in 2013 and excludes 9th graders in 2009 who had not yet completed a regular high school diploma or GED by 2013. Sample members were surveyed in the summer or fall of 2013.

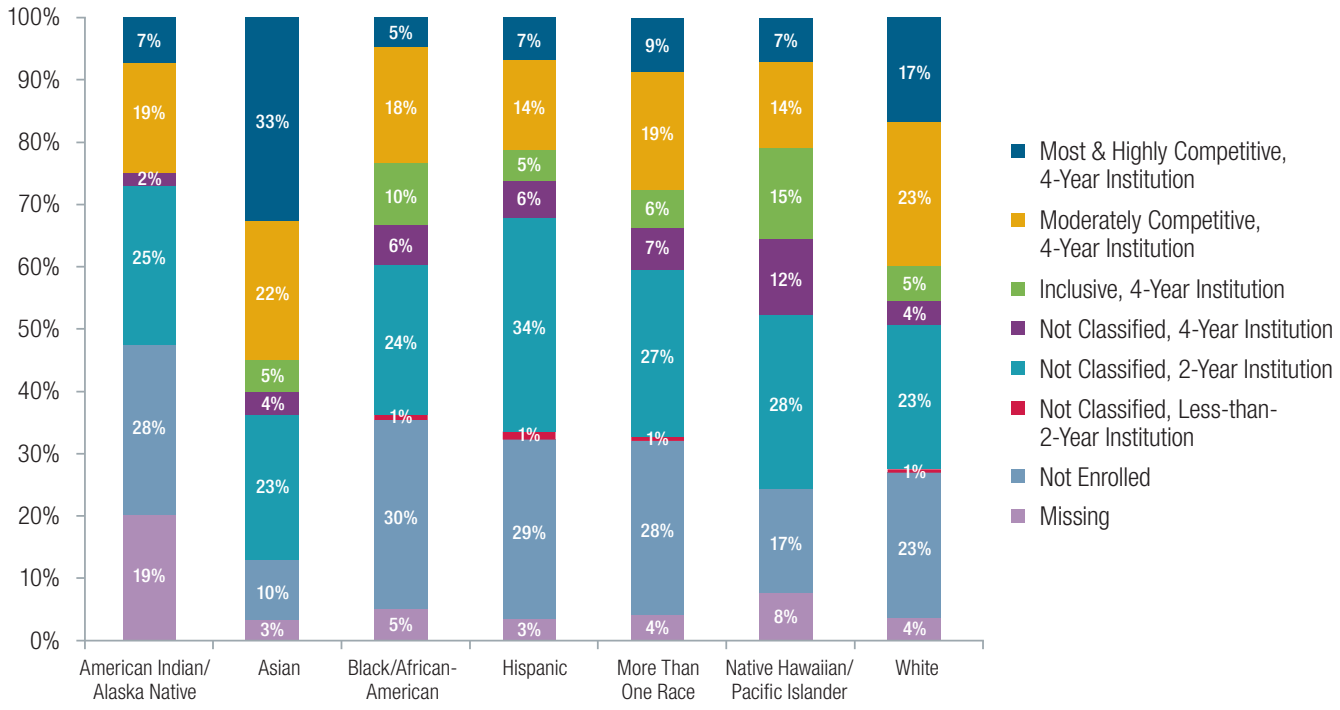
SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLS:2009). Tabulated using NCES PowerStats for HSLS:2009.

Equity Indicator 2g: How Does the Selectivity of Institutions at Which Students Enroll Vary by Race/Ethnicity?

Indicator 2g utilizes information from the High School Longitudinal Study (HSLS) to consider differences in the competitiveness of the higher education institutions attended by 2013 high school graduates who were 9th graders in 2009 by race/ethnicity.

Among 2009 9th graders who graduated from high school by 2013, 30 percent of Blacks and 29 percent of Hispanics were not enrolled in a higher education institution in fall 2013, compared with 23 percent of Whites and 10 percent of Asians. About a third (34 percent) of Hispanics were enrolled at two-year institutions, compared with about a fourth of students from other groups. A third (33 percent) of Asians and 17 percent of Whites were enrolled at "most" or "highly" competitive institutions, compared with 7 percent of Hispanics and 5 percent of Blacks.

Equity Indicator 2g: Percentage distribution of 2009 9th graders who graduated from high school by 2013 by institutional selectivity of enrollment in the fall after scheduled high school graduation by race/ethnicity



Indicator Status: High Inequality

Among 2009 9th graders who graduated from high school by 2013, 33 percent of Asians and 17 percent of Whites were enrolled at "most" or "highly" competitive institutions, compared with 7 percent of Hispanics and 5 percent of Blacks.

NOTE: This chart is based on those who graduated from high school in 2013 and excludes 9th graders in 2009 who had not yet completed a regular high school diploma or GED by 2013. Sample members were surveyed in the summer or fall of 2013. Caution is needed for data on American Indian/Alaska Native, More than One Race, and Native Hawaiian/Pacific Islander as the estimates are not stable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLS:2009). Tabulated using NCES PowerStats for HSLS:2009.

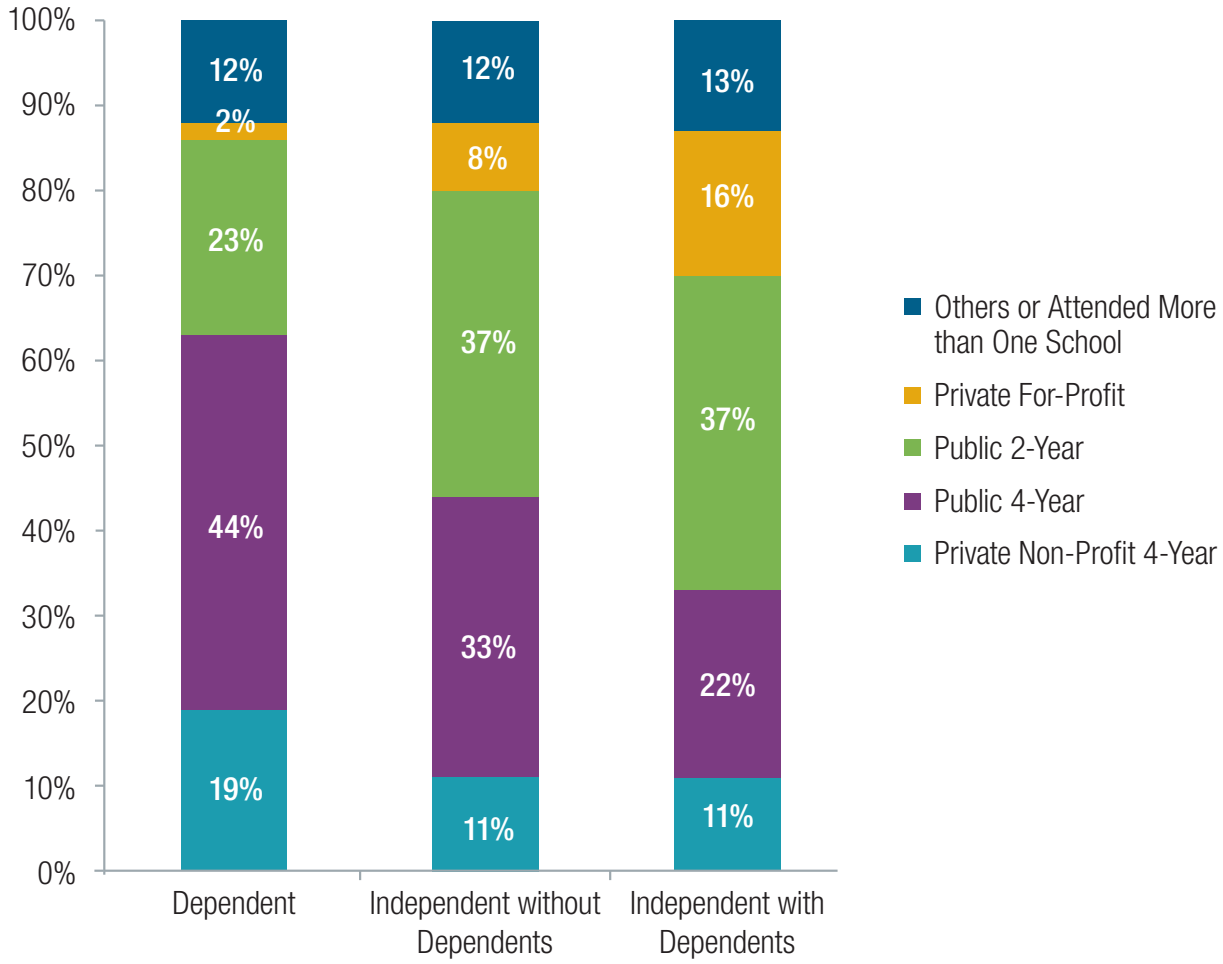
Equity Indicator 2h: How Does Institutional Level and Control Vary by Dependency Status?

Using data from the NPSAS:2020 survey, Indicator 2h shows various types of institutions by dependency status.

Dependency Status and Attendance at 4-Year Public and 4-Year Non-Profit Institutions. Indicator 2h shows that almost two-thirds (63 percent) of dependent undergraduate students in 2020 were enrolled in a 4-year public or private non-profit institution. Smaller shares of independent students were enrolled at 4-year institutions. Among independent students, 44 percent of independent students without dependents and 33 percent of independent students with dependents were enrolled at a 4-year institution.

Dependency Status and Attendance at 2-Year Public and For-Profit Institutions. Independent students with and without dependents were more likely to be enrolled at 2-year or for-profit institutions than dependent students. In 2020, 37 percent of independent students without dependents and 37 percent of independent students with dependents attended a public 2-year institution, compared to 23 percent of dependent students. In 2020, 8 percent of independent students without dependents and 16 percent of independent students with dependents attended a private for-profit institution, compared to 2 percent of dependent students.

Equity Indicator 2h: Percentage distribution of dependent and independent undergraduate students by level and control of institution: 2020



Indicator Status:

Independent students attended public 2-year and private for-profit institutions at higher rates than dependent students. In 2020, 37 percent of independent students without dependents and 37 percent of independent students with dependents attended a public 2-year institution, compared to 23 percent of dependent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2020 National Postsecondary Student Aid Study. Tabulated using NCES PowerStats for NPSAS:2020.

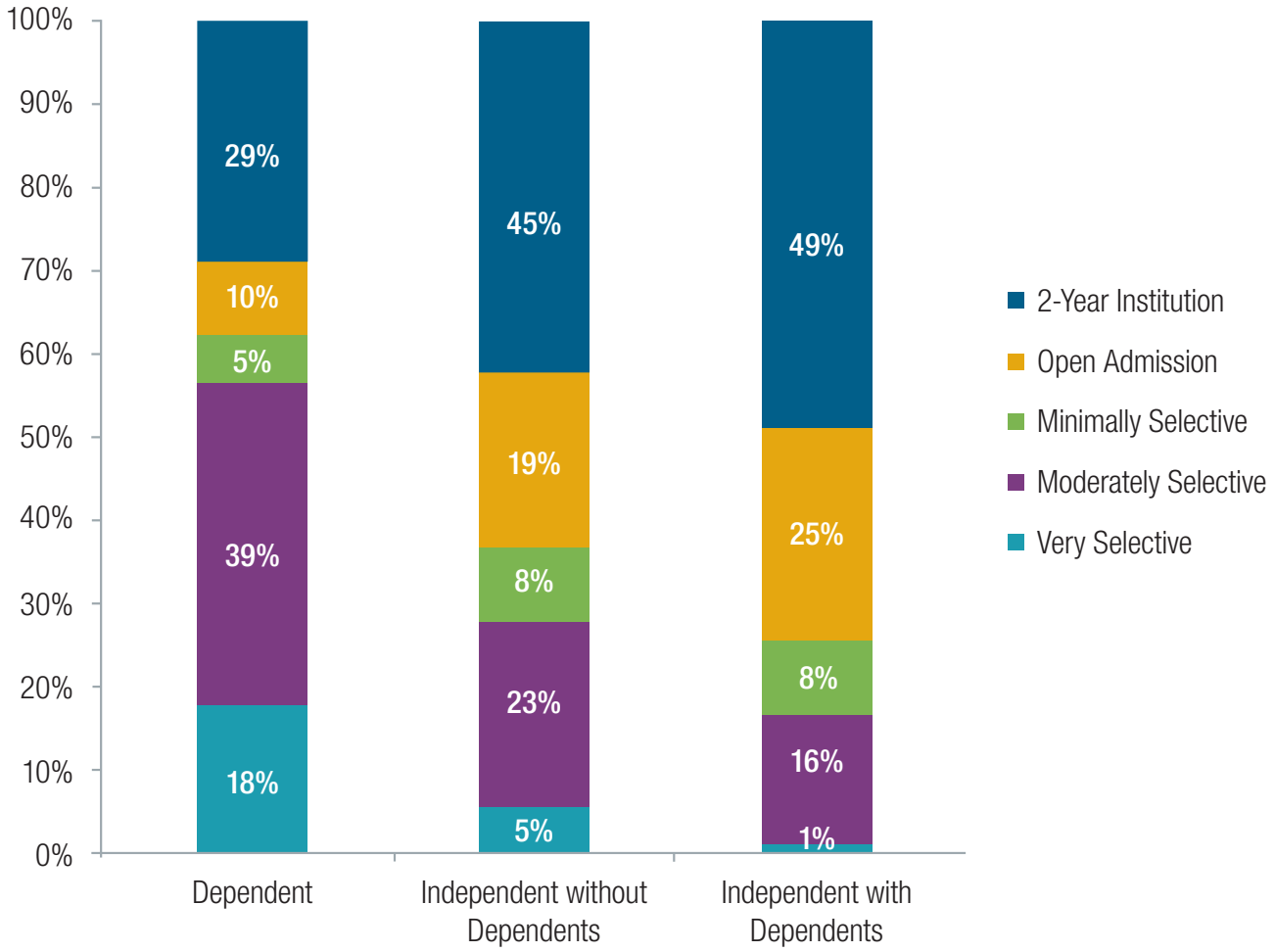
Equity Indicator 2i: How Does Institutional Selectivity Vary by Dependency Status?

Indicator 2i shows that dependent students are more likely to attend very selective and moderately selective institutions than independent students. In 2020, 18 percent of dependent students attended "very selective" institutions, and 39 percent attended "moderately selective" institutions. By comparison, 5 percent of independent students without dependents attended "very selective" institutions and 23 percent attended "moderately selective" institutions. Among independent students with dependents, only 1 percent attended "very selective" institutions and 16 percent attended "moderately selective" institutions.

Independent students are more likely than dependent students to attend 2-year[76] and open admission 4-year institutions. In 2020, 45 percent of independent students without dependents and 49 percent of independent students with dependents attended a 2-year institution, compared with 29 percent of dependent students. In addition, 19 percent of independent students without dependents and 25 percent of independent students with dependents attended an open-admission 4-year institution, compared with 10 percent of dependent students.

76 The categories that NCES provides for the selectivity variable [SELECTV3] are very selective, moderately selective, minimally selective, open admission, and not-a 4-year institution, which we labeled as 2-year.

Equity Indicator 2i: Percentage distribution of dependent and independent undergraduate students by institutional selectivity: 2020



Indicator Status:

Dependent students are more likely than independent students to attend "very selective" and "moderately selective" institutions. By comparison, independent students are more likely to attend open admission 4-year institutions and 2-year institutions.

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

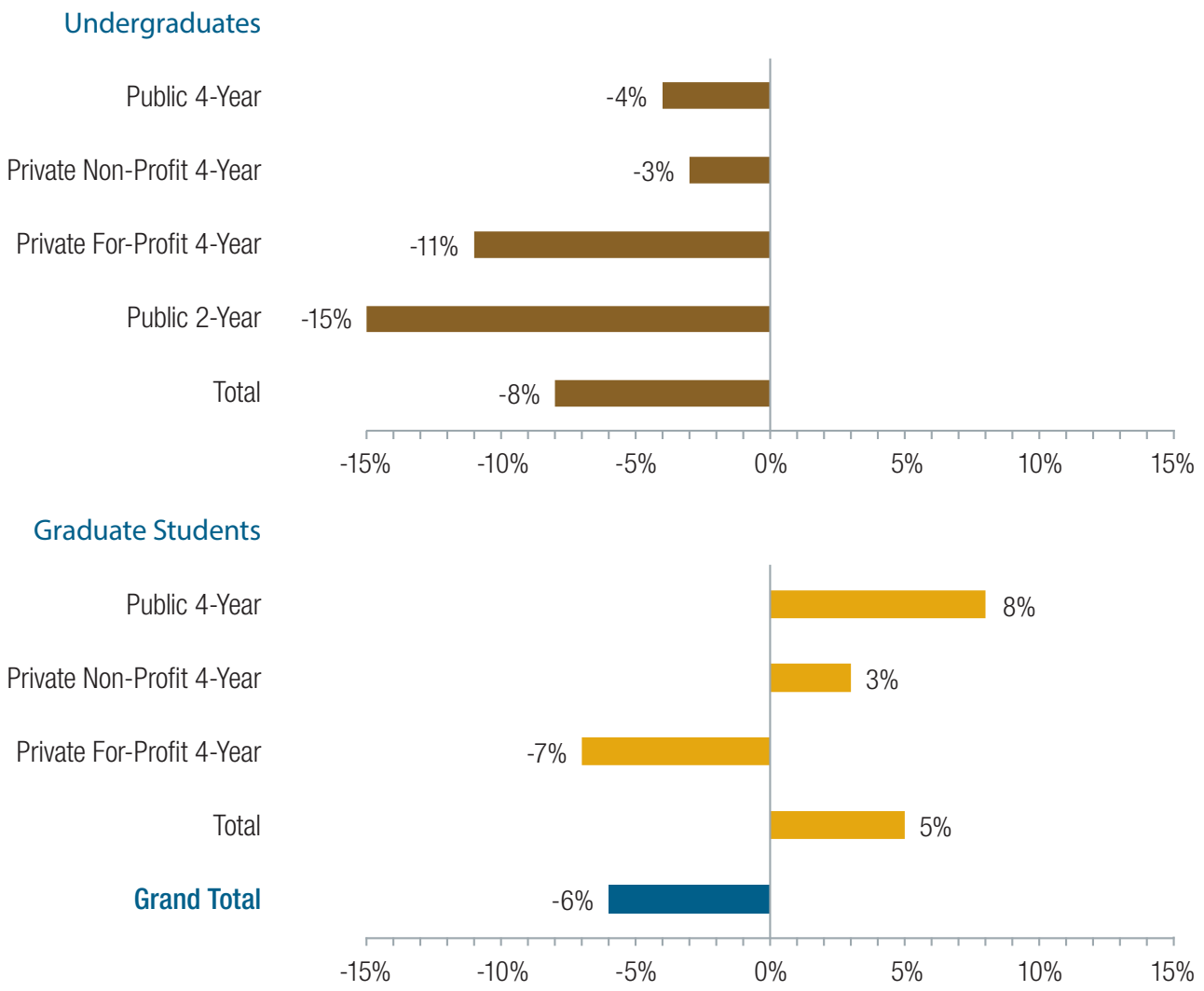
Equity Indicator 2j: How has the COVID-19 pandemic affected the sectors of postsecondary institutions in which students enroll?

Indicator 2j uses data from the National Student Clearinghouse (NSC) Research Center to compare Fall 2019 enrollment to the Fall 2021 enrollment to study the effects of COVID-19 on undergraduate and graduate student enrollment in postsecondary education. This indicator uses data from the *Stay Informed* series revealing that there was an overall 6 percent decline in undergraduate and graduate student enrollment during the COVID-19 pandemic. Using 2018 and 2019 as pre-pandemic baselines to compare with the most recent 2021 data, the series uses unweighted enrollment counts to look at year-over-year changes from the same institution's enrollment patterns rather than total enrollment count.

Undergraduate Enrollment. Undergraduate enrollment declined from fall 2019 to fall 2021 in every postsecondary institutional sector, with an overall decrease of 8 percent. Public 2-year institutions saw the highest decline in student enrollment (15 percent) while public 4-year institutions faced a decline of 4 percent. Over the same period, student enrollment decreased by 3 percent at private non-profit 4-year institutions and by 11 percent at private for-profit 4-year institutions.

Graduate Enrollment. Between fall 2019 and fall 2021, there was a net gain of 5 percent in graduate student enrollment. Public 4-year institutions saw a gain of 8 percent, while private non-profit 4-year institutions saw an increase of 3 percent in graduate student enrollment. Meanwhile, private for-profit 4-year institutions faced a 7 percent decline in enrollment.

Equity Indicator 2j: Percent change in enrollment from fall 2019 to fall 2021 for undergraduate and graduate students by institutional sector



Indicator Status:

Between fall 2019 and fall 2021, overall student enrollment declined by 6 percent, with the greatest decline faced by public 2-year institutions. Undergraduate enrollment decreased by 8 percent during this time, while graduate enrollment saw a net gain of 5 perc.

NOTE: This indicator uses data from the *Stay Informed* series from the National Student Clearinghouse Research Center and not the *Current Term Enrollment Estimates* report series. The *Stay Informed* series studies the effect of COVID-19 on postsecondary enrollment, using 2018 and 2019 as pre-pandemic baselines to compare with the most recent 2021 data. The *Stay Informed* series uses unweighted enrollment counts because the goal is to look at year-over-year changes from the same institution's enrollment patterns rather than total enrollment numbers.

SOURCE: National Student Clearinghouse Research Center. (2021). *COVID-19 Stay Informed with the Latest Enrollment Information.* National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment. Retrieved from https://nscresearchcenter.org/stay-informed.

Equity Indicator 2k: How Has the COVID-19 Pandemic Affected Enrollment by Sector?

Indicator 2k employs data from the National Postsecondary Student Aid Study (NPSAS) of 2020 to evaluate which sectors of higher education were affected by enrollment disruptions in the Spring of 2020. Specifically, Indicator 2k reveals data for students who responded to the questions in the NPSAS survey: "Did you take a leave of absence from [student's sampled institution] between January 1, 2020, and June 30, 2020, as a result of COVID-19?" and "Did you withdraw from [student's sampled institution] between January 1, 2020, and June 30, 2020, as a result of COVID-19?"[77]

As the data in Indicator 2k show, 8 percent of undergraduates enrolled at private for-profit 2-year institutions withdrew from their institution, and 10 percent took a leave of absence. For those undergraduates enrolled in public 4-year institutions, 3 percent withdrew from the institution, and 3 percent also took a leave of absence.

Equity Indicator 2l: How Has the COVID-19 Pandemic Affected Housing for Undergraduates within Different Sectors of Postsecondary Institutions?

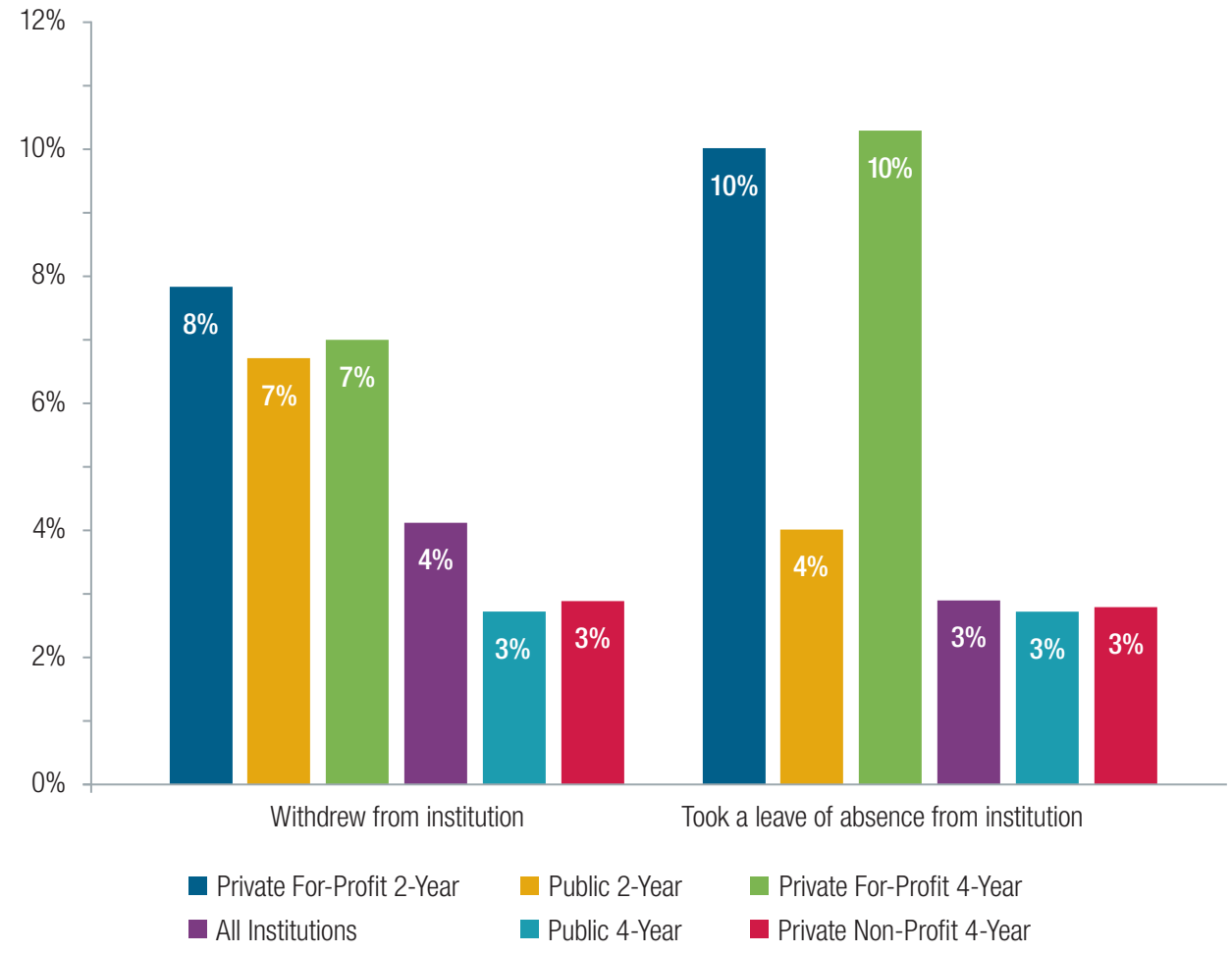
One of the many challenges students faced while dealing with the COVID-19 pandemic was worry about their housing. Students, especially those staying in the dorms, had to either move back home or find another living situation, and some had difficulty finding safe and stable housing arrangements.[78] As part of the NPSAS:2020 survey, students were asked about their housing disruption experiences, and Indicator 2l details the differences by institutional sector.

Of the undergraduate students attending private nonprofit 4-year institutions, 50 percent faced a housing disruption, and 35 percent at public 4-year institutions dealt with this issue. Students attending public 2-year schools were the least likely to experience a housing disruption (8 percent).

77 Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:20): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* (NCES 2021-456). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

78 See footnote 77.

Equity Indicator 2k: Percentage of undergraduate students who withdrew from an institution or took a leave of absence due to COVID-19 by institutional sector: Spring 2020



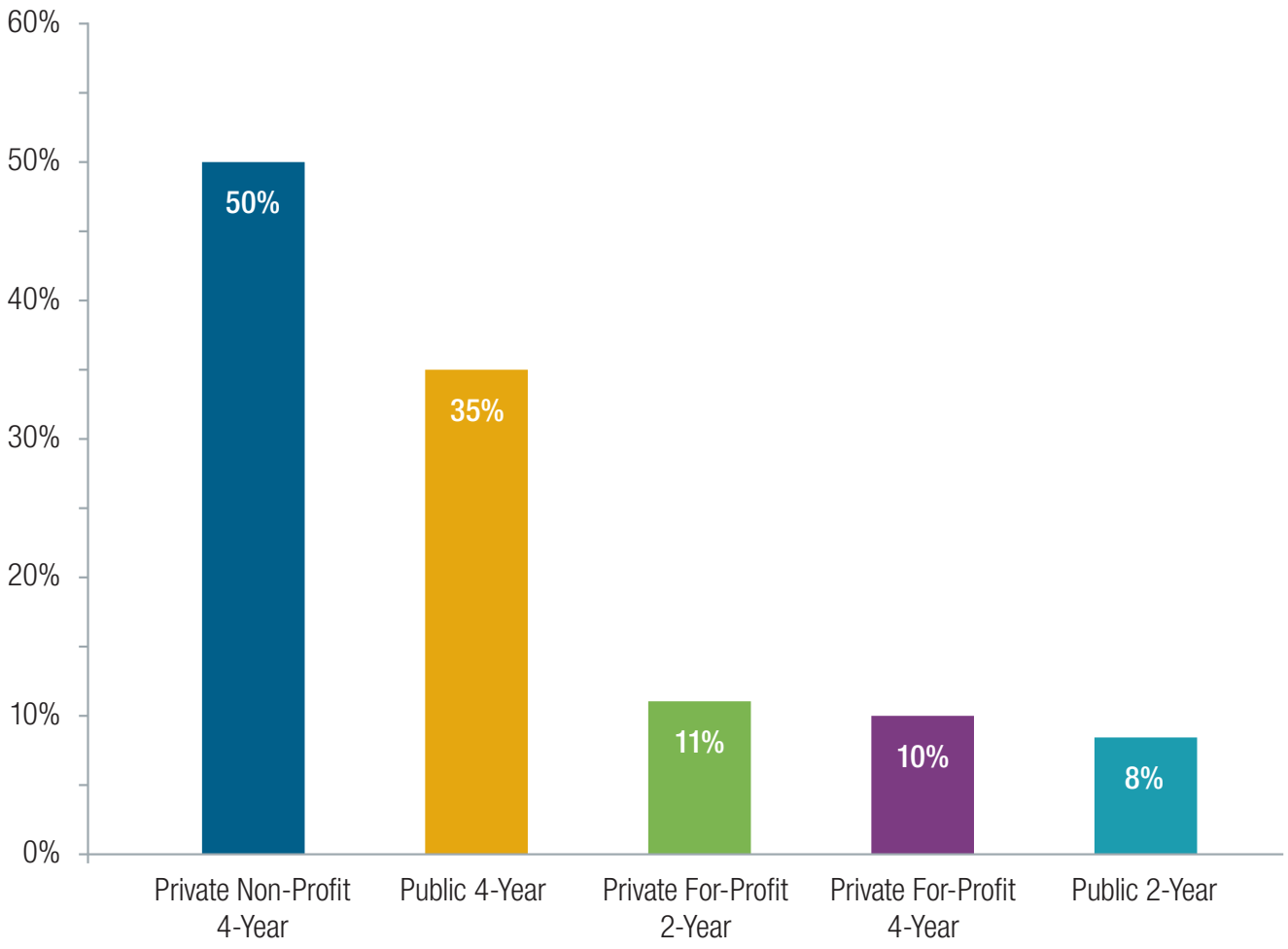
Indicator Status:

Undergraduate students at private for-profit 2-year institutions, public 2-year institutions, and private for-profit 4-year institutions experienced more disruptions in enrollment than students in other sectors.

NOTE: Includes students who reported that they attended their sampled institution at any time between January 1, 2020 and June 30, 2020.

SOURCE: Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:20): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* (NCES 2021-456). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

Equity Indicator 2l: Percentage of undergraduate students who experienced a housing disruption due to COVID-19 by institutional sector: Spring 2020



Indicator Status:

Of the different institutional sectors, undergraduate students at private nonprofit 4-year institutions experienced the most housing disruptions.

NOTE: Housing disruptions consists of whether a student moved to another living situation, moved back to their permanent address, or had difficulty finding safe and stable housing arrangements between January 1, 2020, and June 30, 2020.

SOURCE: Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:20): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* (NCES 2021-456). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

EQUITY INDICATOR 3

DO FINANCIAL AID AND DIFFERENCES IN COLLEGE COSTS ELIMINATE THE BARRIERS TO COLLEGE EQUITY?

The maximum Federal Pell Grant covered only 25 percent of average college costs in 2022-23. The maximum Pell Grant would have been $18,541 rather than $6,895, if it covered about two-thirds of college costs as in the 1970s.

Stark inequity in the U.S. postsecondary education system is manifested in the differences in Educated and Related (E&R) spending per FTE students enrolled. Hillman (2020) found the average amount of E&R spending per FTE students in constant 2022 dollars was $59,673 for Highly Selective colleges and universities, in contrast to $17,108 per FTE for Broad Access colleges and universities. Highly Selective institutions serve 11 percent of FTE enrollment, compared to Broad Access institutions, which serve half (49 percent) of FTE students enrolled.

Equity Indicator 3 addresses the question of whether financial aid and differences in college costs eliminate the barriers to college equity. Equity Indicator 3 tracks statistics related to college cost, the amount of cost covered by Federal Pell Grants, amount of unmet student need, number of Pell Recipients, and educational and related spending (E&R) per full-time enrollment (FTE) of enrolled students. Equity Indicator 3(a-d) utilizes three major sources of data:

- The Integrated Postsecondary Education Data System (IPEDS)
- The Federal Office of Student Aid Pell Grant Reports
- The National Postsecondary Student Aid Study at 4-year intervals from 1990 to 2020[79]

79 In Equity Indicator 3, we utilize data from the NPSAS series dating from 1990 to 2020, conducted at regular 4-year intervals. In 2017-18 there was an administrative records study conducted without a student survey. This covered the 2017-18 academic year and is known as 2017-18 NPSAS Administrative Record Study (NPSAS: 18-AC). In this report, we do not present data from this administrative record study, instead utilizing data from the regular NPSAS series that incudes a student survey. The reader is referred to the NCES 2021 report for results from the NPSAS:18-AC report. Burns, R., Johnson, R., Lacy, T.A., Cameron, M., Holley, J., Lew, S., Wu, J., Siegel, P., & Wine, J. (2021). *2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC): First Look at Student Financial Aid Estimates for 2017–18 (NCES 2021-476)*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021476.

Equity Indicator 3(a-d): Definitions

Drawing on definitions developed by researchers and the federal government for federal student financial aid programs, we rely on the following measures.

- **College Costs** are reported annually by institutions to the U.S. Department of Education through IPEDS and includes tuition, fees, and room and board. Average costs in this report are weighted by undergraduate full-time enrollment but do not account for residency status. For public institutions, in-state tuition and required fees are used.
- **Cost of Attendance (COA)** is the total cost, on average, to attend college each year. The COA includes tuition and fees; on-campus room and board (or a housing and food allowance for off-campus students), and allowances for books, supplies, transportation, loan fees, and, if applicable, dependent care. It can also include other expenses like an allowance for the rental or purchase of a personal computer, costs related to a disability, and costs for eligible study abroad programs. COA is institutionally derived and used by the federal government in determining a student's financial need.
- **Total Federal Aid vs. Federal Grant Aid.** Total Federal Aid, as defined by the U.S. Department of Education, includes grants, loans, and work-study to help students pay for college. We use the term Federal Grant Aid to include federal financial college assistance that does not have to be repaid (e.g., federal loans) and does not have a work requirement (e.g., federal work-study).
- **Maximum Pell Grant** is the largest Pell Grant award allowed by federal law. The average Pell Grant award is lower than the maximum. In award year 2024-25, Pell Grant amounts are scheduled to range from a 10 percent minimum of $750 to a maximum of $7,395.[80]
- **Expected Family Contribution (EFC)** has been used historically and is used for the time span of data reported in this *Equity Indicators* 2024 report to estimate eligibility and amount of Pell Grant Aid. We note that beginning in 2024-25, the EFC is being replaced by the Student Aid Index (SAI), (see below for more information). EFC was calculated by the federal government from information submitted on the Free Application for Federal Student Aid (FAFSA) and determines a student's eligibility for federal student aid. The EFC was determined using formulas mandated by Congress in the Higher Education Act of 1965, as amended, and takes account of indicators of financial strength such as income, assets, and family size. The EFC was combined with the cost of attendance (COA) and the student's enrollment intensity (e.g., full-time, part-time) to determine the amount of the Federal Pell Grant award. Tuition could be used to calculate the amount of the Pell Grant award for students enrolled at low-tuition schools (if tuition is less than the current maximum Pell Grant). The lower the EFC, the greater a student's demonstrated financial need. The amount of the Federal Pell Grant award generally increases as the EFC decreases. An applicant with the minimum EFC of zero will generally receive the maximum Pell award up to the applicant's COA for the year. Proportionally smaller awards are made to part-time students.
- **New Student Aid Index (SAI).** Although the data reported in this Equity Indicators report is not impacted by use of the SAI, we outline below the major changes going into effect for the 2024-25 year. The FAFSA Simplification Act was enacted into law as part of the Consolidated Appropriations Act, 2021, and amended by the Consolidated Appropriations Act, 2022. The Act further amends the Higher Education Act of 1965, as amended (HEA), and impacts the Free Application for Federal Student Aid (FAFSA). Over the period of 2021-24, the U.S. Department of Education has implemented changes

80 Information is provided from a Dear Colleague Letter from Ricard Cordray, Chief Operating Officer of the Federal Student Aid office. https://fsapartners.ed.gov/knowledge-center/library/dear-colleague-letters/2024-01-31/2024-2025-federal-pell-grant-maximum-and-minimum-award-amounts.

in phases, beginning with the 2021-22 Award Year. The Act requires that schools transition from the Expected Family Contribution (EFC) to the Student Aid Index (SAI) beginning in the 2024-25 Award Year. The SAI is a number that determines each student's eligibility for certain types of federal student aid. An applicant's SAI is calculated using modified need analysis formulas outlined in the Act. These formulas use information that applicants provide on the FAFSA form and, in most cases, federal tax information that is retrieved directly from the Internal Revenue Service (IRS).[81]

According to the Department of Education Office of Federal Aid, the most significant changes to the need analysis formulas include:

- Removal of the number of family members in college from the eligibility calculation
- The possibility for an SAI to be a negative number, with a minimum SAI of -1,500 instead of zero
- Elimination of alternate EFCs for enrollment for a period other than 9 months
- Elimination of the Simplified Needs Test (SNT) and Auto-Zero calculations, replaced with similar calculations.

- **Dependency Status.** For the purposes of determining federal financial aid, applicants are classified according to specified criteria as: dependent, independent with dependents, or independent without dependents. Generally, persons under 24 are classified as dependent students unless they are married or otherwise meet specified special circumstances. Students under 24 and not meeting the special circumstances are classified as dependents regardless of whether their parents provide them with any financial support. For dependent students, the parents' tax returns are used to estimate EFC. For independent students, the applicant's, and spouse's income (if applicable) are used to determine the EFC. See Indicator 1 for a detailed description of the special circumstances criteria.
- **Unmet Need,** as we are defining it in this report, is the financial need remaining after the Expected Family Contribution (EFC) and all grants and other discounts (but not loans) are subtracted from the cost of attendance (COA).
- **Education and Related (E&R) Spending per FTE Student.** This calculation is based on an analysis by Nick Hillman that uses IPEDS data on Education and Related (E&R) spending, FTE enrollment, and a constructed selectivity measure based on IPEDS data on institutional characteristics including percent of applications accepted.[82]

81 See this site for more information https://fsapartners.ed.gov/knowledge-center/library/dear-colleague-letters/2023-08-04/fafsa-simplification-act-changes-implementation-2024-25.

82 Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

Equity Indicators 3a(i to iv): What Are the Trends in Average College Costs?

Large Increases in College Costs Since 1980. Average college costs for all institutions, weighted by full-time undergraduate enrollment, were 2.4 times higher in constant 2022-23 dollars than in 1974-75. Indicator 3a(i) shows that cost increases have largely occurred since 1980. In 1980, average costs were lower in constant dollars ($10,843) than in 1974-75 ($11,475). After 1980, average costs rose steadily to $29,503 in 2020-21.[83] Between 2020-21 and 2022-23, overall costs had a small decline in constant dollars (to $27,673), primarily due to college costs not rising over the COVID pandemic period.

Public vs. Private Costs. Average costs in constant 2022 dollars were about twice as high at 4-year private non-profit and for-profit institutions as at 4-year public institutions in both 1974-75 ($19,697 vs. $9,528) and in 2022-23 ($49,654 vs. $22,389). Costs were about twice as high at 2-year private institutions as at 2-year public institutions in 1974-75 ($14,992 vs. $7,748 in 2022-23 dollars) and were 2.4 times higher in 2022-23 ($28,792 vs. $11,953).

Increase in Differences Between 2-Year and 4-Year Public Institutions. 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 constant 2022-23 dollars in 1974-75, average costs at 4-year public institutions were 23 percent higher than 2-year public costs ($9,528 vs. $7,748); however, by 2022-23, average costs were 87 percent higher for 4-year public institutions than 2-year public colleges ($22,389 vs. $11,953).

Larger Rates of Increase at 4-Year than at 2-Year Institutions. Among both public and private institutions, the rate of increase has been higher among 4-year institutions than among 2-year institutions. Among 4-year public postsecondary institutions, average costs were 135 percent higher in 2022-23 than in 1974-75, rising from $9,528 to $22,389. Over the same period, average costs for 2-year public institutions rose from $7,748 to $11,953 (54 percent higher in 2022-23 than in 1974-75). Private institutions have had overall larger rates of increase but a similar pattern in the difference between 4-year and 2-year institutions. Among private 4-year institutions, costs increased from $19,697 in 1974-75 to $49,654 in 2022-23, an increase of 152 percent. Over the same period, costs at 2-year private institutions rose from $14,992 in 1974-75 to $28,792 in 2022-23 (an increase of 92 percent).

Average College Costs Vary Widely by State. States differ in the organization and structure of higher education, particularly in the availability of public and private 2-year and 4-year institutions, degree of state support for higher education, and amount and characteristics of financial aid for students. Indicators 3a(ii) to 3a(iv) show the 2021-22 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 by NCES.[84]

Indicator 3a(ii) 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 2021-22 ranged from less than $16,000 in the District of Columbia, Wyoming, Utah, and Florida to $28,000 or more in Massachusetts, New Jersey, Connecticut, New Hampshire, and a high of $30,921 in Vermont.

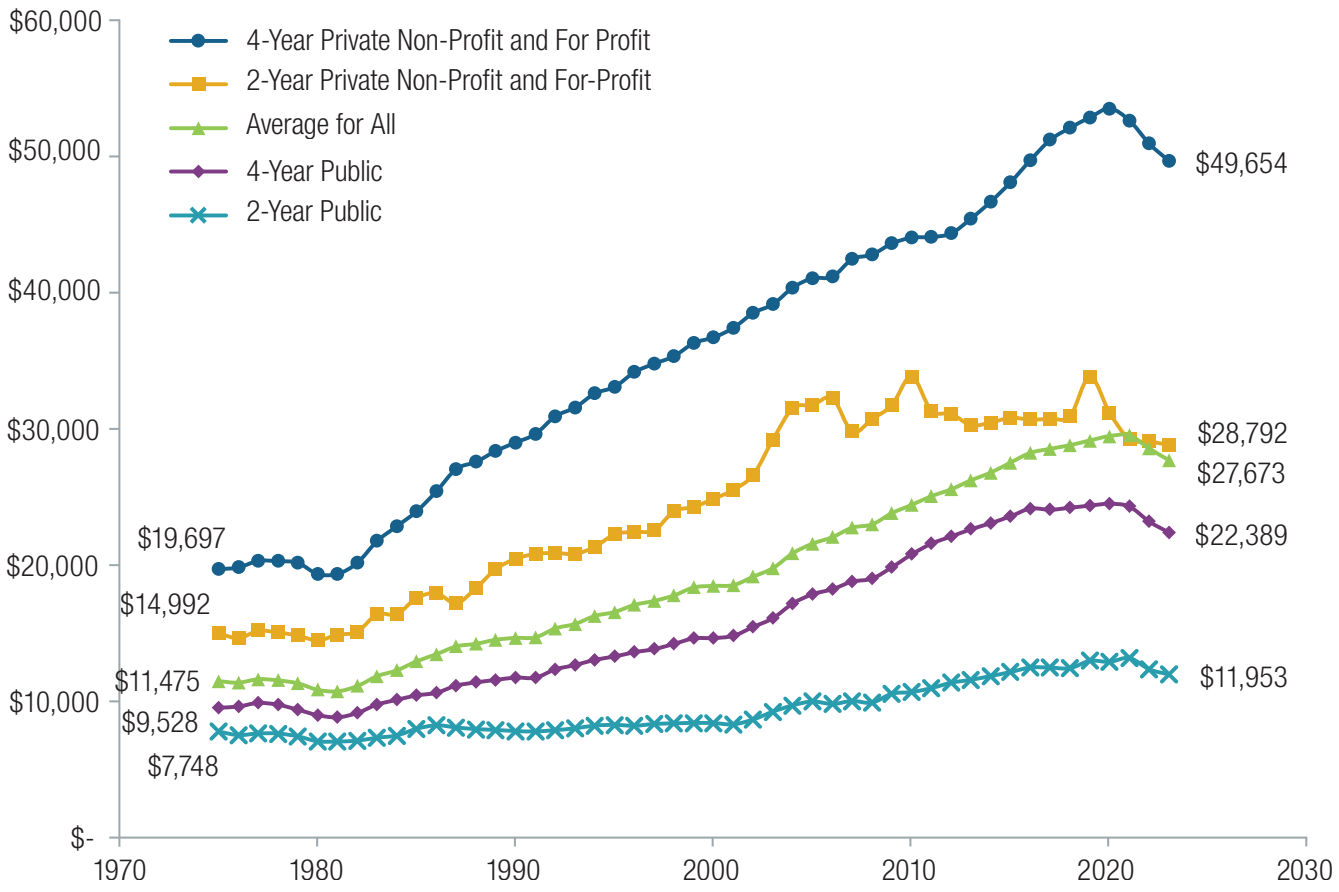
Indicator 3a(iii) shows that at 4-year private (including non-profit and for-profit) institutions, average costs (tuition, fees, and room and board) for full-time students varied from $15,693 in Idaho and $16,003 in Utah to more than $64,000 in Rhode Island, Vermont, and Massachusetts. The following states had average private college tuition and fees above $60,000, but below $64,000: Oregon, Pennsylvania, Connecticut, New York, Maryland, and the District of Columbia. The average for private colleges in the United States was $47,940 in 2021-22.

83 U.S. Department of Education, National Center for Education Statistics. (2023). *Digest of Education Statistics 2023* [Table 330 10]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp.

84 Additional breakouts by in-state and out of state are available at the following NCES website: https://nces.ed.gov/programs/digest/d22/tables/dt22_330.20.asp.

For 2-year public institutions, Indicator 3a(iv) shows that average tuition and fees (not including room and board costs) for full-time, in-state residents were $1,281 in California and $1,805 in New Mexico, compared with $7,367 in South Dakota.

Equity Indicator 3a(i): 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 2022-23 (in constant 2022-23 dollars)



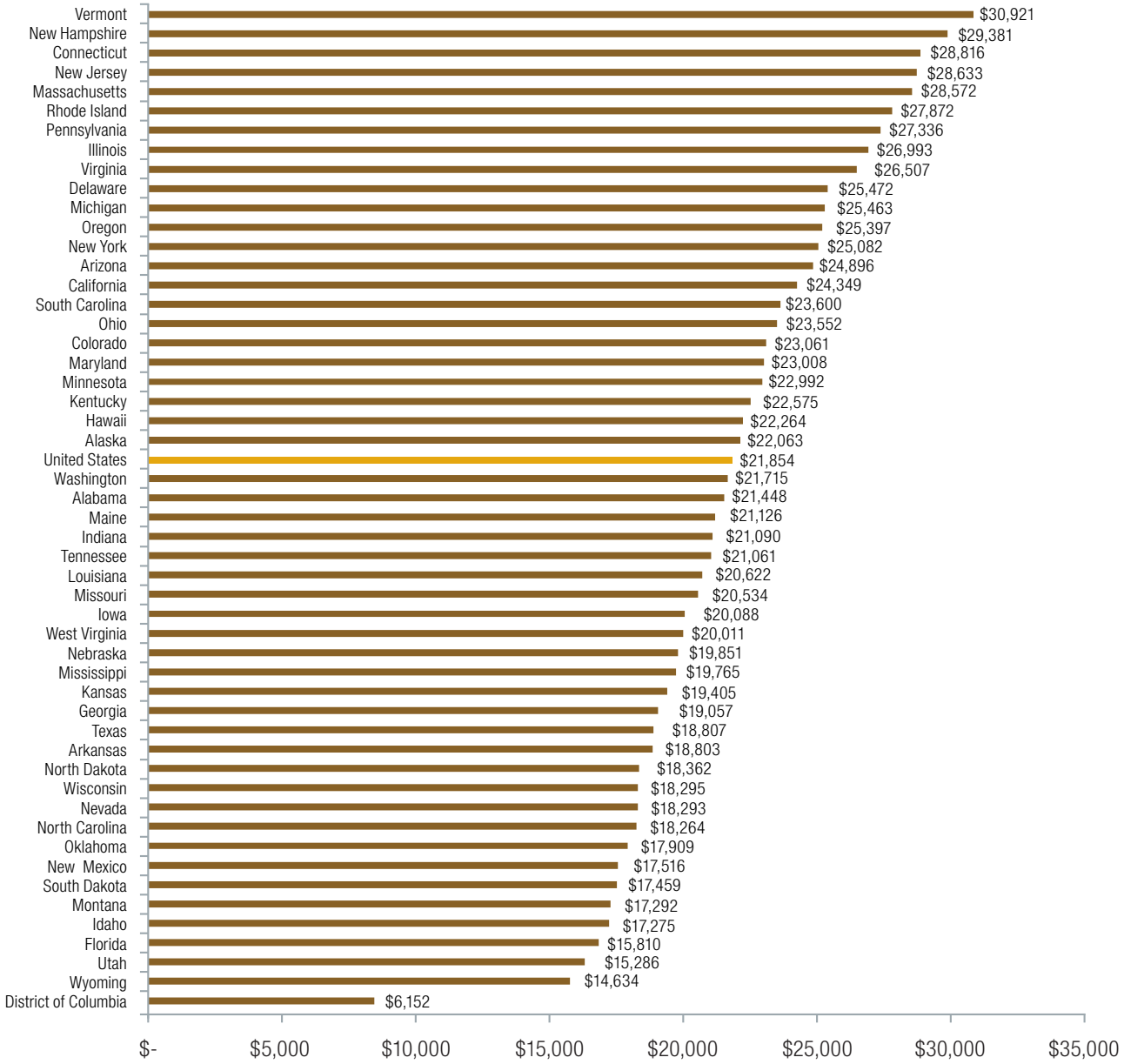
Indicator Status: Large Increases in College Costs and Growing Difference in Costs Between 4-year and 2-year Institutions and Between Public and Private Institutions

In constant dollars, average costs overall in 2022-23 were 2.4 times what they were in 1974-75. Costs at 4-year public institutions increased by 135 percent; costs at 4-year private institutions increased by 152 percent, and costs at 2-year public institutions by 54 percent.

NOTE: College Costs are reported annually by institutions to the U.S. Department of Education through IPEDS and includes 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: U.S. Department of Education, National Center for Education Statistics (2023). *Digest of Education Statistics 2023* [Table 330.10]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp.

Equity Indicator 3a(ii): 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: 2021-22



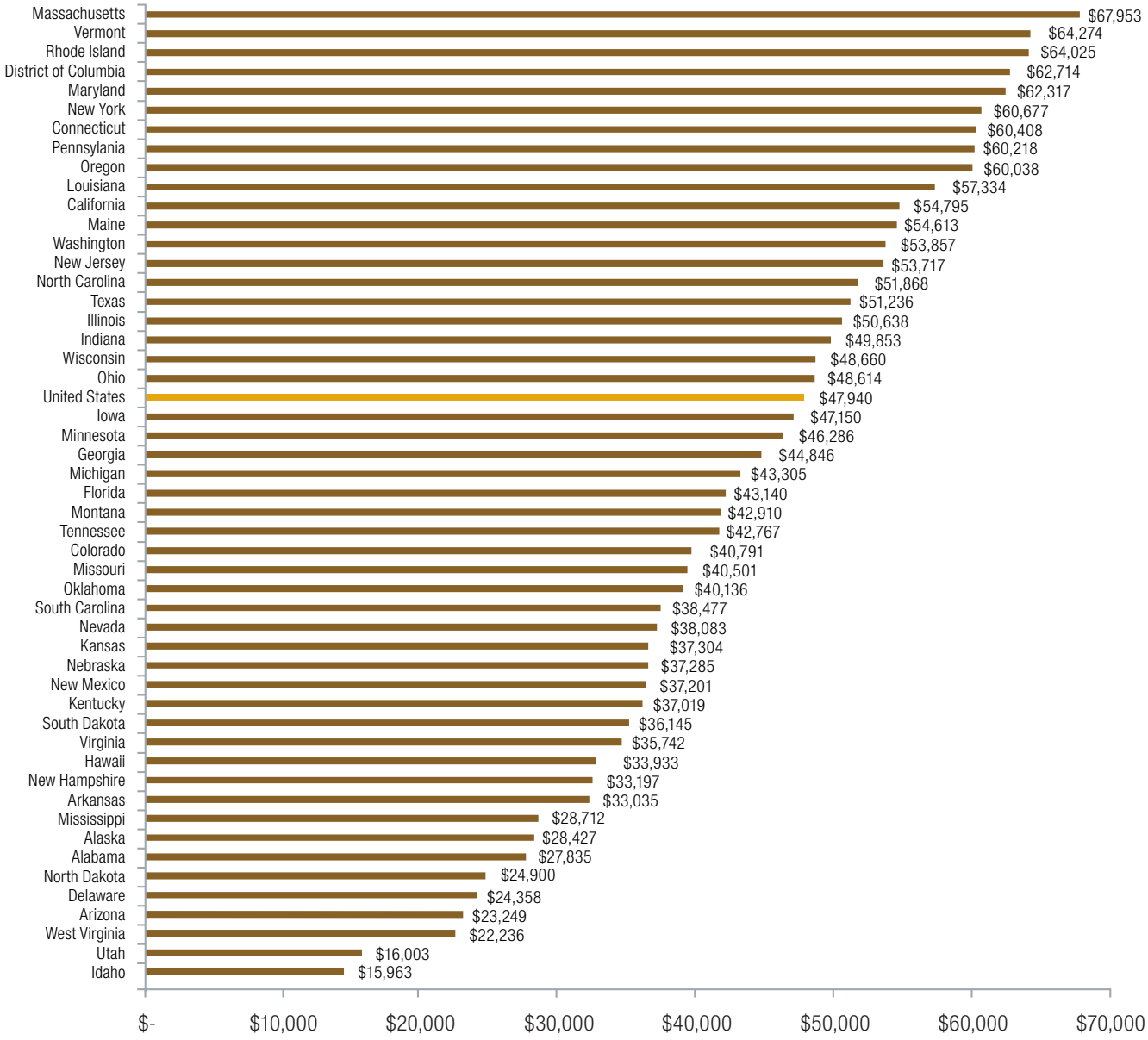
Indicator Status:

There is a wide variation in average college costs charged by 4-year public colleges and universities across states, ranging from $6,152 in the District of Columbia to $30,921 in Vermont.

NOTE: College Costs are reported annually by institutions to the U.S. Department of Education through IPEDS and includes 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: U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022* [Table 330.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_330.20.asp.

Equity Indicator 3a(iii): 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: 2021-22



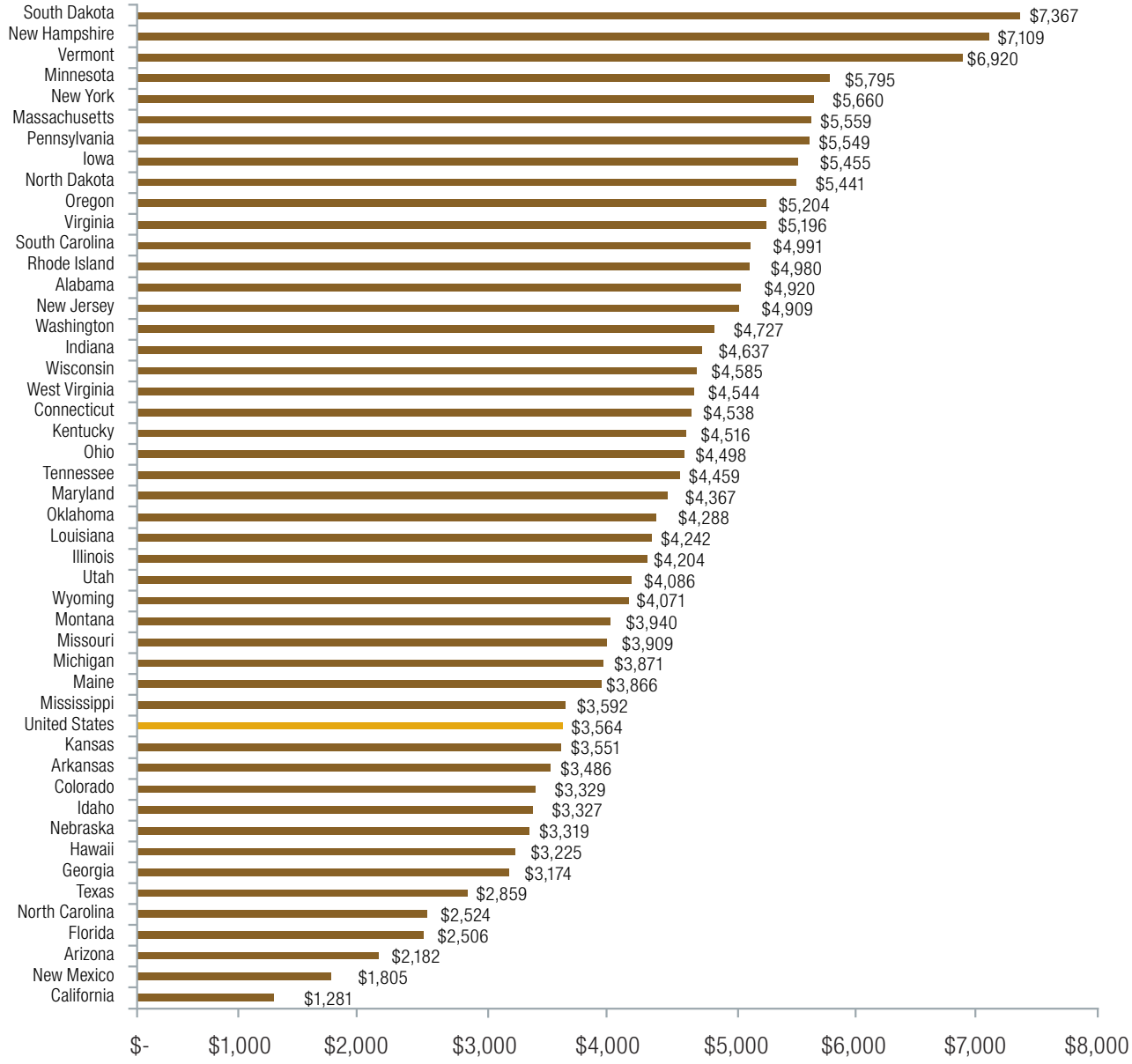
Indicator Status:

There is a wide variation in average costs at private 4-year colleges and universities across states, ranging from $15,963 in Idaho to $67,953 in Massachusetts.

NOTE: College Costs are reported annually by institutions to the U.S. Department of Education through IPEDS and includes 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 are based on full-time students. Figure excludes Wyoming as 4-year private costs are not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022* [Table 330.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_330.20.asp.

Equity Indicator 3a(iv): Average costs (undergraduate tuition, fees, not including room and board costs) charged by 2-year institutions for full-time in-state students by state: 2021-22



Indicator Status:

There is a wide variation in average costs across states. In 2021-22, average costs (undergraduate tuition and fees) of attending a public 2-year institution ranged from $1,281 in California to $7,367 in South Dakota.

NOTE: College Costs are reported annually by institutions to the U.S. Department of Education through IPEDS. 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. Figure excludes Alaska, Delaware, the District of Columbia, and Nevada as these costs are not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022* [Table 330.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_330.20.asp.

Equity Indicators 3b(i to vi): What are the Trends in the Pell Grant Program?

The maximum Pell Grant is set by Congress.[85] The average Pell Grant award is lower than the maximum Pell Grant. The actual Pell amount awarded to an individual student is based on tuition and fees and intensity of enrollment at a specific institution, as well as a student's Expected Family Contribution (EFC). In the recent period, just over one-quarter of recipients typically receive the maximum award.[86]

Trends in Pell Maximum, and Average Award Compared to College Costs. Indicator 3b(i) shows trends in the maximum Pell Grant award and the average Pell Grant award, in constant 2022 dollars from 1974-75 to 2022-23. For comparison, we also include average college costs trends over the same period. The Pell maximum shows fluctuations but much less increase than college costs. In constant 2022 dollars, the maximum Pell award was $6,233 in 1974-75 and $6,895 in 2022-23 (an increase of 11 percent), and the average Pell award increased from $3,752 to $4,510 (an increase of 20 percent). In comparison, during this same period, the overall college costs in constant dollars increased by about 141 percent.

Decrease in Percent of College Costs Covered by Pell Grants. Considering these amounts relative to the increases in college costs over the same period, Indicator 3b(ii) shows the large decrease in the percentage of average costs covered by the maximum Pell Grant. In constant 2022 dollars, the percentage of average college costs covered by the maximum Pell Grant peaked in 1975 and 1979 and has shown a fluctuating trend of decline over the period. In constant 2022 dollars, the Pell Grant maximum fell from a high of 67 percent in 1975-76 and 1979-80 to 43 percent by 1984. In the recent period, the Pell maximum has fallen further and now covers about 25 percent of average college costs.

Amount of Maximum Pell Needed to Cover Two-Thirds of Cost. Early Congressional committee 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.[87] This goal was never reached, but maximum Pell awards came closer in the early years of the program than in recent years. 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. If it had covered two-thirds of average college costs in 2022-23, the maximum Pell would have been $18,541 rather than $6,895.

College Board Full Student Budgets. The average costs considered in Indicator 3a and 3b include tuition and required fees, and room and board charges, but not transportation or other costs. The College Board reports student budgets for full-time students based on their Annual Survey of College Costs.[88] The student budgets for 2023-24 including tuition and fees, room and board, books and supplies, transportation, and other expenses, as published by the College Board, were:

- $19,860 at 2-year public institutions for commuter students within district;
- $28,840 at 4-year public institutions for in-state students living on campus;
- $46,730 at 4-year public institutions for out-of-state students living on campus, and
- $60,420 at 4-year private non-profit institutions for students living on campus.

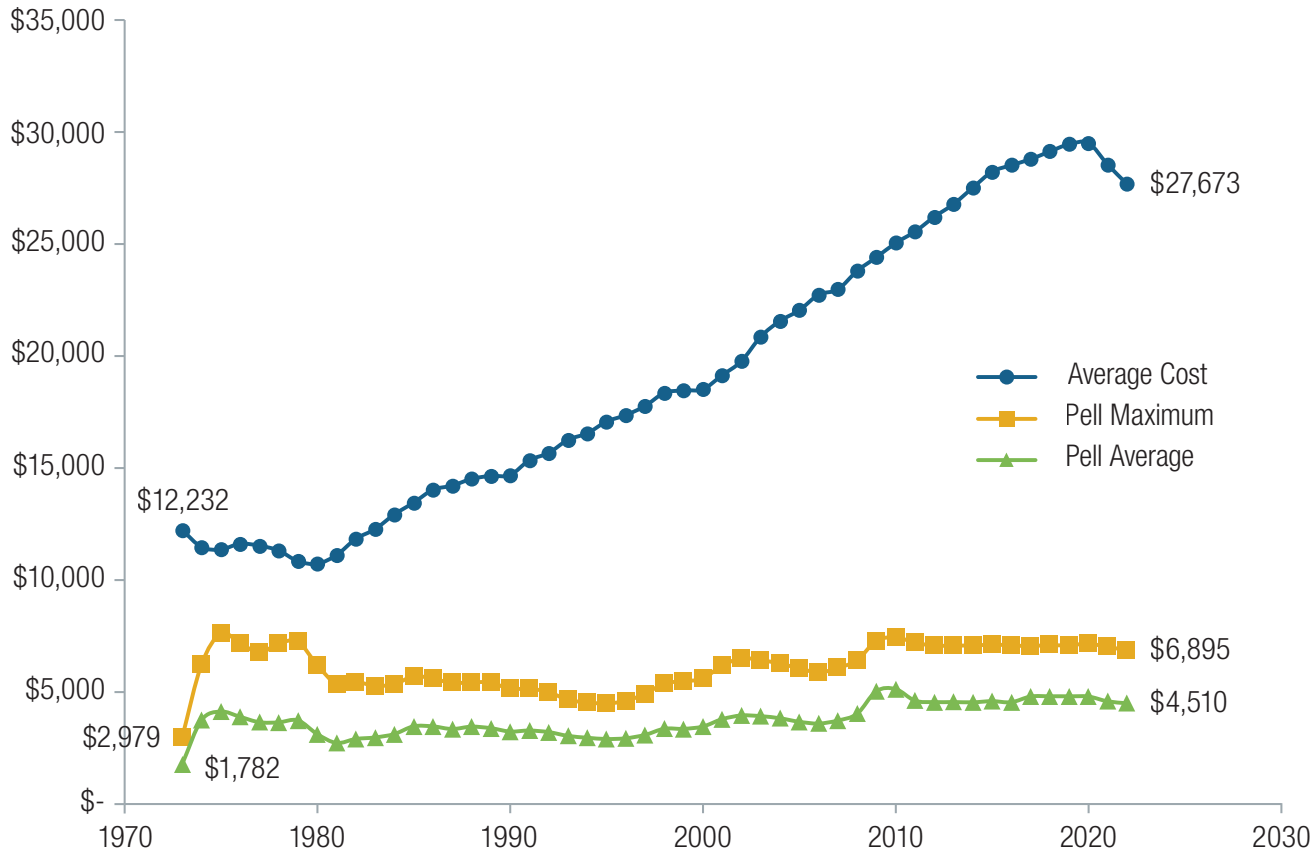
85 The Higher Education Act of 1965, as amended (HEA), provides for an automatic annual increase of the maximum Pell Grant award based on estimated changes in the Consumer Price Index (CPI). The Federal Pell Grant award is $7,395 for the 2023-24 award year (July 1, 2023 to June 30, 2024).

86 The Federal Pell Grant Program End of Year Reports; Federal Student Aid Data Center.

87 Mensel, F. (2013). "Birth of the Pell Grant: The Community College Role," *Reflections on Pell*, 5-55, Washington, DC: Council for Opportunity in Education, Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://www.pellinstitute.org/resources/reflections-on-pell-championing-social-justice-through-40-years-of-educational-opportunity.

88 Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid.

Equity Indicator 3b(i): 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 2022-2023) (in constant 2022 dollars)



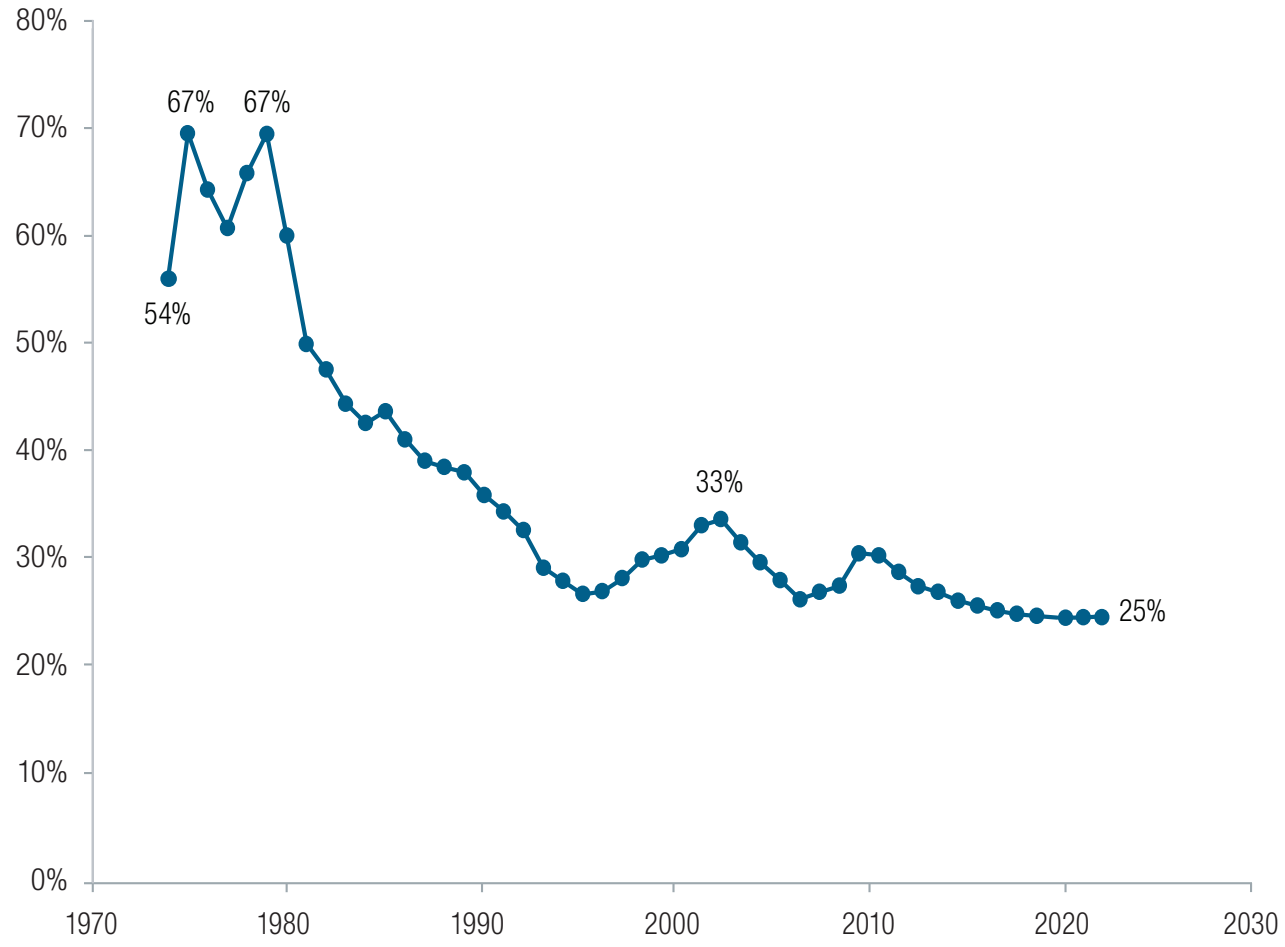
Indicator Status: Widening Gap between Average College Costs and Pell Awards

Excluding the first year of Pell Grants, from 1974-75 (in constant 2022 dollars), the maximum Pell Grant increased by 11 percent and the average Pell Grant increased by 20 percent. In the same period, overall college costs in constant dollars increased 141 percent.

NOTE: College costs are weighted by undergraduate total full-time enrollment at all types of institutions, as reported by NCES. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp. 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: Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid. This report uses data from U.S. Department of Education *Summary Pell Grant Statistics for Cross-Year Comparison, Pell End of Year Report*, various years. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv; https://studentaid.gov/announcements-events/pell-max-award. U.S. Department of Education, National Center for Education Statistics (2023). *Digest of Education Statistics 2023* [Table 330.10]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp.

Equity Indicator 3b(ii): Percentage of average costs (tuition and required fees plus room and board) covered by the maximum Pell Grant: 1974-75 to 2022-23



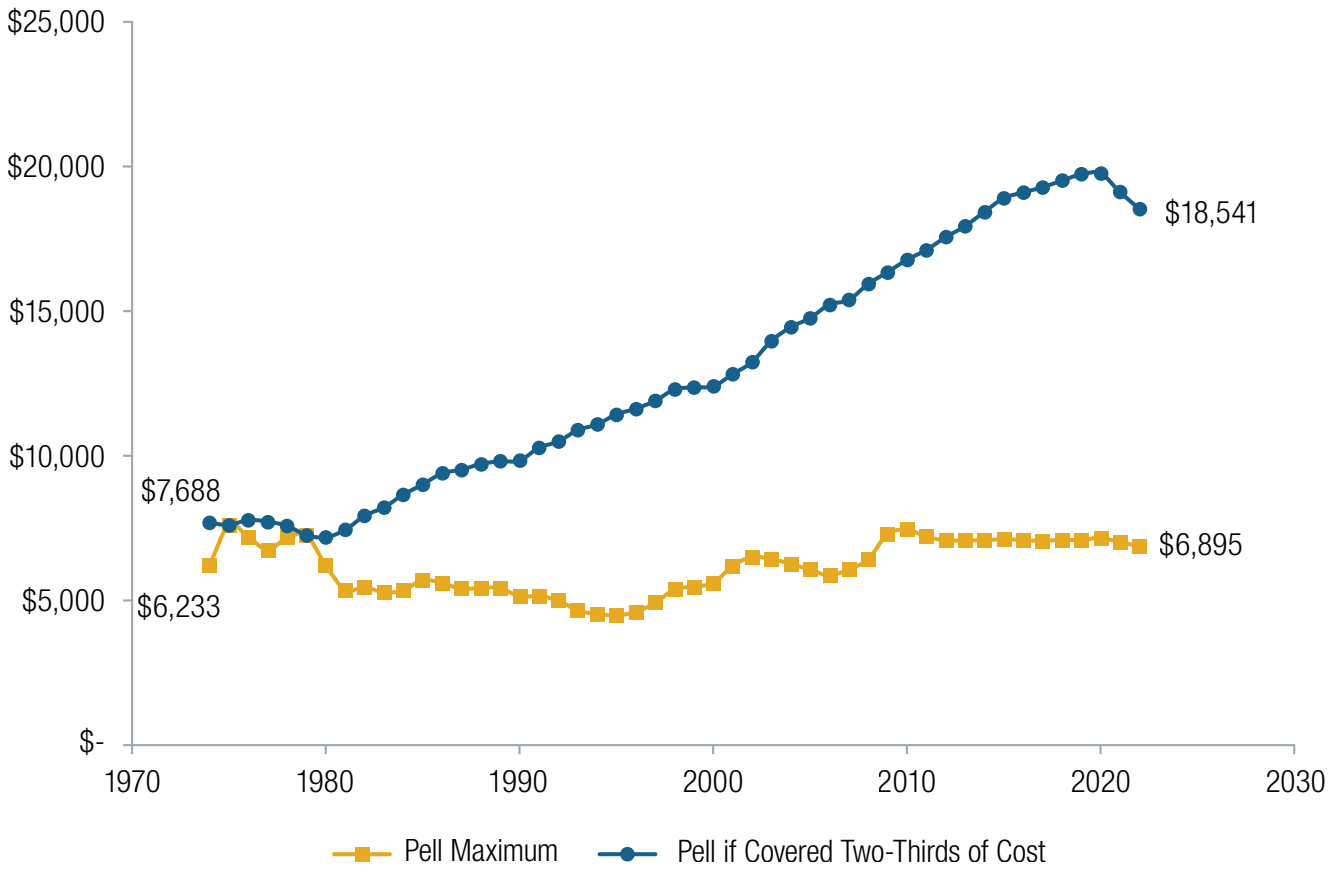
Indicator Status: Large Declining Opportunity

The percentage of average college costs covered by the maximum Pell Grant peaked in 1975 and 1979, when the grant covered about two-thirds (67 percent) of costs, and declined to less than a quarter (24 percent) from 2018 to 2020. After recent increases, in 2022-23, the maximum Pell Grant covered 25 percent of average college costs.

NOTE: Figure 3b(ii) shows the maximum Pell Grant as a percent of average college cost weighted by full-time undergraduate enrollment, among all types of institutions. Average college costs used are for 2022 in constant 2022 dollars.

SOURCE: Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid. This report uses data from U.S. Department of Education *Summary Pell Grant Statistics for Cross-Year Comparison, Pell End of Year Report*, various years. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv; https://studentaid.gov/announcements-events/pell-max-award. U.S. Department of Education, National Center for Education Statistics (2023). *Digest of Education Statistics 2023* [Table 330.10]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp.

Equity Indicator 3b(iii): Maximum Pell Grant if the Pell Grant maximum covered two-thirds of average college costs (tuition and fees; room and board): 1974-75 to 2022-23 (in constant 2022 dollars)



Indicator Status: Reduced Opportunity

The maximum Pell Grant in 2022-23 would be $18,541 rather than $6,895 if it covered about two-thirds of college costs as in 1975 or 1979.

NOTE: Figure 3b(iii) shows what the maximum Pell Grant would need to be to cover two-thirds of the average college costs for a given year.

SOURCE: Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid. This report uses data from U.S. Department of Education *Summary Pell Grant Statistics for Cross-Year Comparison, and the Pell End of Year Report*, various years. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv; https://studentaid.gov/announcements-events/pell-max-award. U.S. Department of Education, National Center for Education Statistics (2023). *Digest of Education Statistics 2023* [Table 330.10]. Retrieved from https://nces.ed.gov/programs/digest/d23/tables/dt23_330.10.asp.

Growth in Pell Grant Recipients. The number of Pell Grant recipients is related to the number enrolled and the percent of those enrolled awarded Pell Grants. Between 1975 and 2011, the number of Pell recipients per year increased from 1.2 million to a peak during the Great Recession of 9.4 million (Equity Indicator 3b(iv), followed by a decline to 6.0 million in 2022. Eligibility is tied to income levels and in periods of recession, the percentage of students qualifying for Pell Grants increases. As shown in STS Figure 3, the number of enrolled students increased from 9.6 million in 1975 to a peak of 18.1 million in 2010, followed by a decline to 15.5 million in 2021.

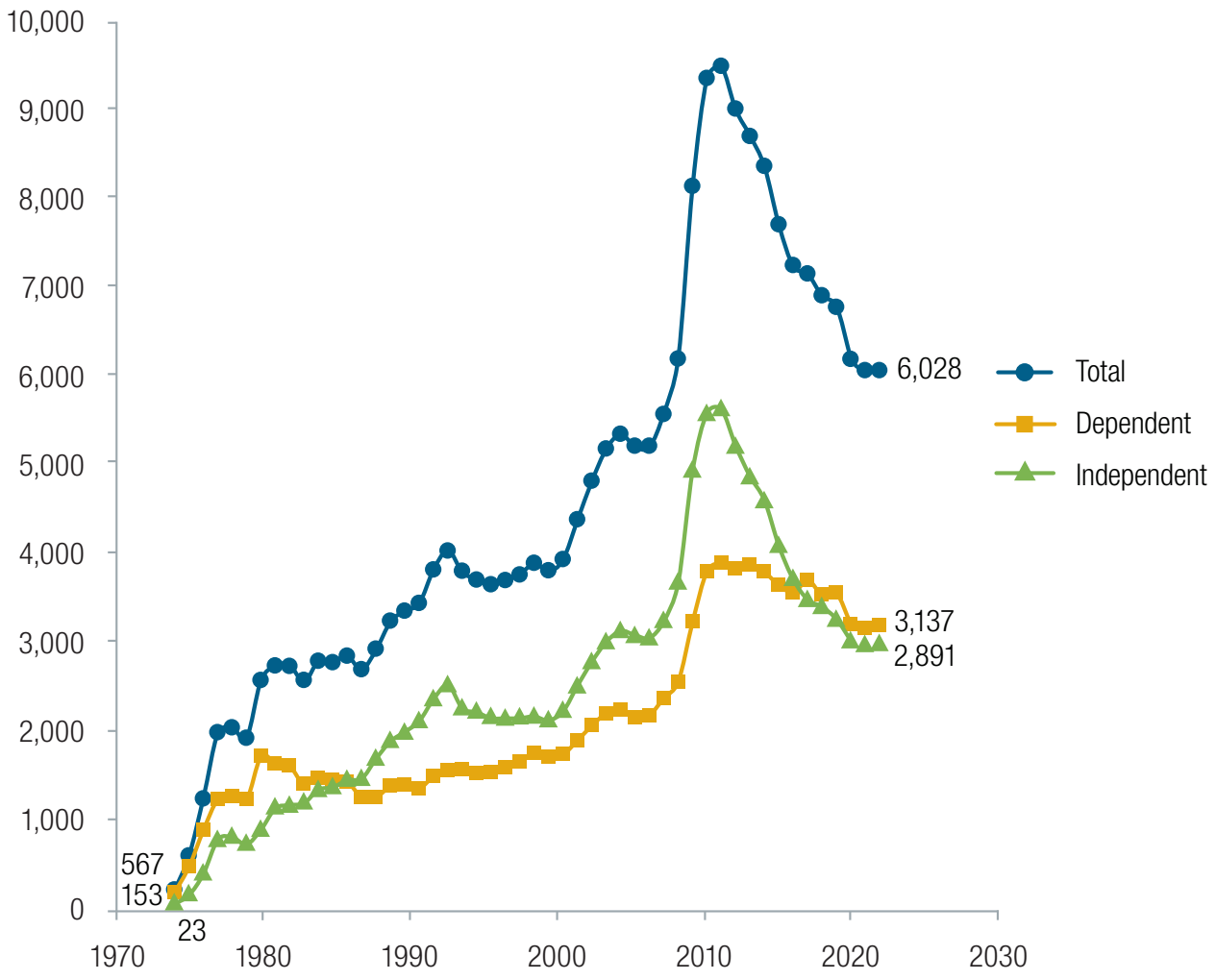
Independent and Dependent Pell Recipients in Economic Downturns. Although recent trends in the numbers of both dependent and independent students receiving Pell Grants have generally followed a similar pattern, peaking during the Great Recession and declining during a period of economic recovery, independent students had somewhat larger rates of increase in recent economic downturns. Between 2006 and 2011, the number of independent Pell recipients increased from 3.0 million to 5.6 million (an increase of about 85 percent), while the number of dependent Pell recipients increased from 2.2 million to 3.9 million, an increase of about 80 percent (Equity Indicator 3b(iv)). About half (48 percent) of all Pell recipients were classified as independent students in 2021-2022 (Equity Indicator 3b(v)). The percentage of Pell recipients who were independent peaked at 62 percent in 1991 and 1992 and was 61 percent in 2009-2010, both periods of economic recession (see Equity Indicator 3b(v)).

Selectivity of Institutions Attended by Pell Recipients and Impact of Economic Downturns and Recovery. As seen in Equity Indicator 2, Pell Grant recipients are not distributed equally across different types of institutions; they tend to enroll more frequently in 2-year rather than 4-year and open access colleges rather than in more selective institutions (Equity Indicator 2). Using IPEDS data on Institutional Characteristics, Hillman (2020) has categorized degree-granting institutions into four categories: *Broad Access, Moderately Selective, Selective and Highly Selective*.[89] Although the categorization is different than the Barron's categorizations used in Indicator 2, the results are similar. Equity Indicator 3b(vi) plots the head count number of Pell recipients enrolled at degree-granting institutions (undergraduate and graduate) by the four selectivity classifications between 1999 and 2018. During that period, there was a 95 percent increase in the numbers of Pell Grant recipients enrolled in degree-granting postsecondary institutions, with most of the increase due to Pell Grant recipients enrolling at *Broad Access* colleges.[90] The impact of the Great Recession and subsequent economic recovery on Pell enrollment is starkly clear for *Broad Access* postsecondary institutions, with a sharp increase followed by a decline of 30 percent between the peak of 2011 and 2018. *Moderately Selective* colleges and universities had a 5 percent decline in Pell recipients, and *Selective* institutions had a very small (less than 1 percent) decline. In the same period, *Highly Selective* institutions had an increase of 2 percent in enrollment of Pell Grant recipients. In 2018, 63 percent of Pell Grant recipients were enrolled at *Broad Access* colleges and universities, while 5 percent were enrolled at *Highly Selective* institutions (calculated from numbers in Equity Indicator 3b(vi)).

89 Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

90 This number does not include Pell recipients enrolled in non-degree granting institutions.

Equity Indicator 3b(iv): Number of Pell Grant recipients (in thousands) by dependency status: 1973-74 to 2022-23



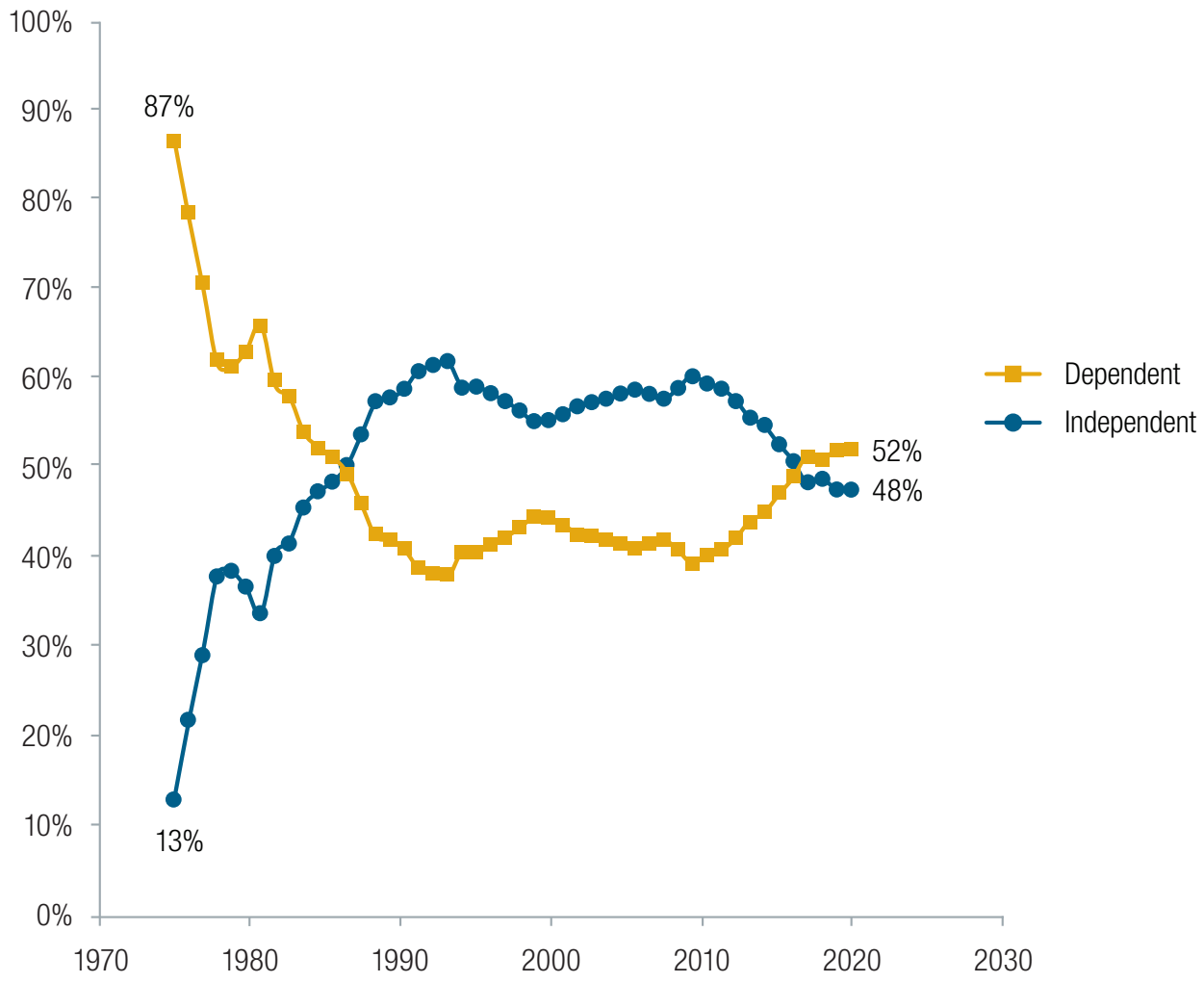
Indicator Status:

The number of students who qualify for Pell Grants is sensitive to economic conditions. The number of Pell Grant recipients peaked during the Great Recession, especially among independent students, and declined during a period of economic recovery.

NOTE: See Indicator 1 for the Dependency Status definitions used for federal financial aid award application purposes. Numbers for independent and dependent students were estimated for 2022-23 based on previous years distribution. These numbers include Pell Grant recipients in degree and non-degree granting institutions.

SOURCE: Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid. This source uses data from U.S. Department of Education *Summary Pell Grant Statistics for Cross-Year Comparison, and Pell End of Year Report*, various years. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv.

Equity Indicator 3b(v): Percentage distribution of Pell Grant recipients by dependency status: 1973-74 to 2022-23



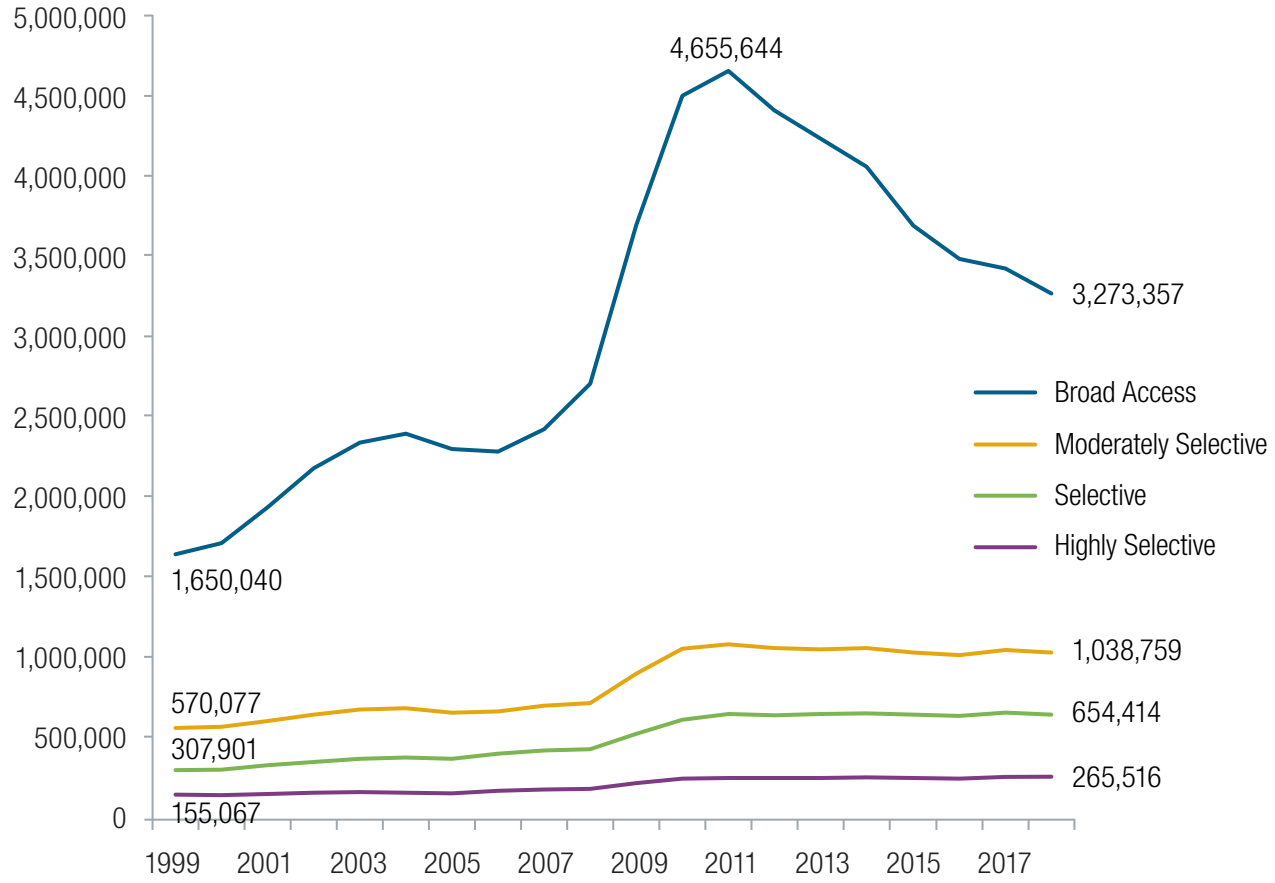
Indicator Status: Reduced Opportunity

The percentage of Pell Grant recipients who were independent peaked at about 62 percent in 1993 and again in 2011 and 2012—periods of economic recession. In 2022-23, independent students received an estimated 48 percent of all Pell Grants.

NOTE: See Indicator 1 for the Dependency Status definitions used for federal financial aid award application purposes. Numbers for independent and dependent students were estimated for 2020 based on previous years distribution.

SOURCE: Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid, using data from U.S. Department of Education *Summary Pell Grant Statistics for Cross-Year Comparison, and Pell End of Year Report*, various years. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv.

Equity Indicator 3b(vi): Number of Pell Grant recipients in degree-granting institutions (undergraduate and graduate) by institutional selectivity: 1999-2018



Indicator Status: High Inequality and Reduced Opportunity

The distribution of Pell Grant recipient enrollment is highly unequal across selectivity categories. In 2018, 63 percent of Pell Grant recipients were enrolled in *Broad Access* colleges and universities and 5 percent were enrolled in *Highly Selective* institutions. The number of Pell Grant recipients increased overall by 95 percent between 1999 and 2018. Most of the growth occurred in *Broad Access* institutions. The impact of the Great Recession and subsequent recovery is apparent in a decline of 30 percent in *Broad Access* enrollment between 2011 and 2018.

NOTE: Selectivity categorizations, and tabulations based on IPEDS Enrollment, Finance, and Institutional Characteristics surveys as analyzed and reported in Hillman (2020) at the source noted below.

SOURCE: Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

Equity Indicators 3c(i) and 3c(ii): What is the Unmet Financial Need for Dependent and Independent Full-time Undergraduates?[91]

Indicators 3c(i) and 3c(ii) display trends in unmet need using data from the National Postsecondary Student Aid Study (NPSAS) for full-time, full-year undergraduates attending one institution. Indicator 3c(i) uses NPSAS data from 1990 to 2020 to show average unmet need for dependent undergraduate students by family income quartile. Indicator 3c(ii) also uses NPSAS data and displays average unmet need, for those who had unmet need, by dependency status (dependent, independent without dependents, and independent with dependents). We define unmet need as the Cost of Attendance (COA) remaining after subtracting Expected Family Contribution (EFC) and all grants and other discounts that do not have to be repaid. Discounts, as measured here, do not include loans.

Unmet Financial Need for Dependent Students by Family Income Quartile: 1990-2020. The data in Indicator 3c(i) are from the nine NPSAS studies conducted between 1990 and 2020. Family income quartiles are tabulated based on the income distribution of parents of the nationally representative samples of students in each of the data collection years. For ease of comparison, all NPSAS data have been re-tabulated to reflect 2022 constant dollars.

Growth in Unmet Financial Need Among Lower Quartiles and Increase in Surplus in Highest Quartile. Equity Indicator 3c(i) shows that unmet need has increased substantially since 1990 for dependent full-time undergraduates in the first and second family income quartiles. It also shows extreme differences in unmet need between dependent full-time undergraduates in the lowest and highest income quartiles. This large difference exists even though students in the lower family income quartiles are more likely to attend community colleges and other institutions with lower average COA and are more likely to qualify for Pell Grant aid. Differences in average unmet need between the lowest and highest family income quartiles reflect the growing inequality in the income distribution of the United States.

In 2020, dependent full-time students in the lowest family income quartile averaged $18,436 in unmet need, while dependent full-time students in the highest family income quartile had, on average, a surplus of $34,218. 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 in constant 2022 dollars ($18,436 vs. $8,122).

Dependent full-time students in the second-lowest family income quartile also averaged high levels of unmet need. In 2020 (in constant 2022 dollars), unmet need for the second-lowest family income quartile averaged $17,380. Dependent full-time students in the third highest quartile averaged a smaller amount of unmet need ($7,059), and students in the fourth/highest quartile averaged a large surplus or negative unmet need (-$34,218).[92]

Unmet Financial Need by Dependency Status: 1990-2020. Indicator 3c(ii) shows the average unmet need, for those who had unmet need,[93] was substantially higher for full-time independent undergraduates in 2020 than for full-time dependent students. For undergraduates attending one institution, full-time, for a full year, the average unmet need was $20,709 for independent students with dependents and $20,814 for independent students without dependents, compared with $13,644 for dependent students (in constant 2022 dollars).

Although unmet financial need declined slightly between the 2016 and 2020 NPSAS among independent students, Equity Indicator 3c(ii) shows that average unmet need was 55 percent higher in 2020 than in 1990 for

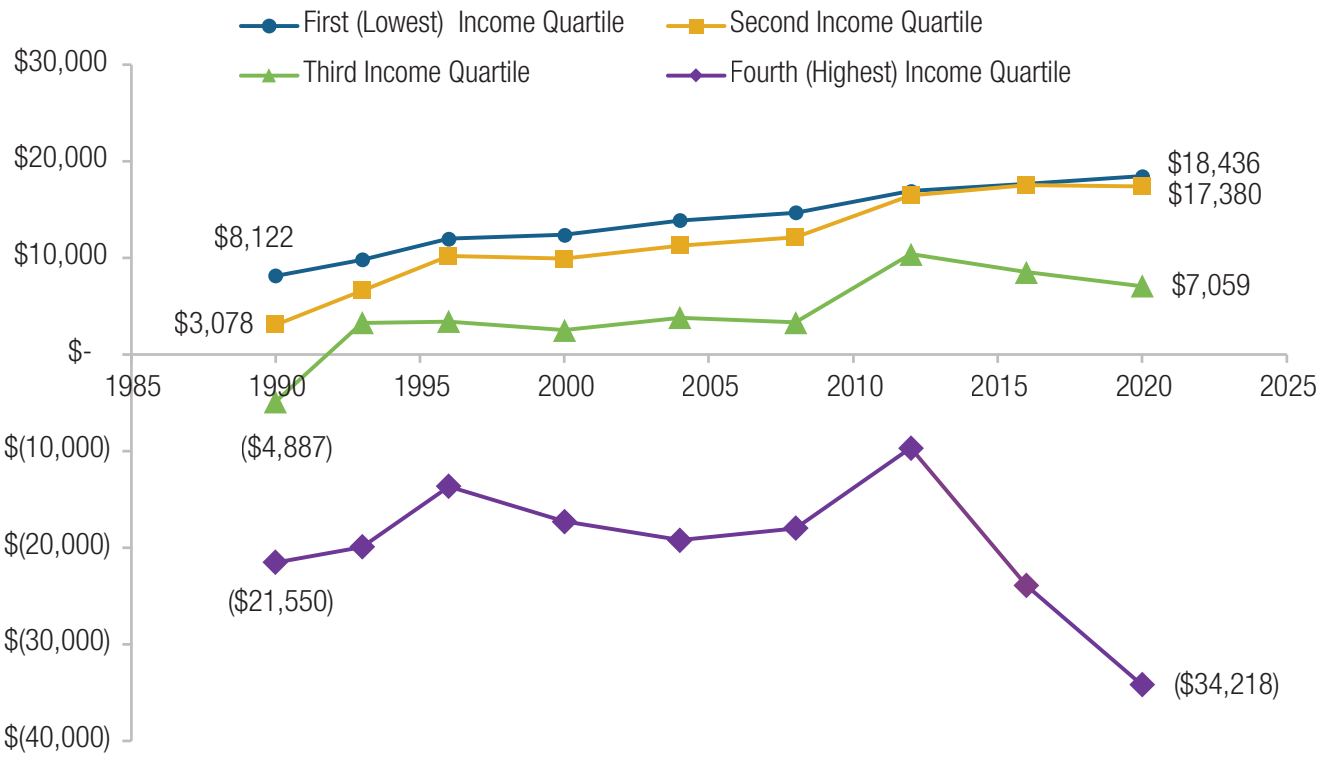
91 The calculation is based on full-time students attending one institution for the year.

92 The percent of students with an Expected Family Contribution (EFC) of zero has also increased over time. For example, between 2000 and 2020. About 20 percent of dependent students had an EFC of zero in 2020 (NPSAS:2020), up from 10 percent in 2000 (NPSAS:2000). The percent of families with an EFC greater than the cost of attendance decreased from 28 percent in 2000 to 21 percent in 2020 (NPSAS:2000 and NPSAS:2020).

93 In 2020, 77 percent of full-time undergraduates attending one institution for a full year had unmet need.

full-time independent students with dependents ($13,360 versus $20,709 in constant 2022 dollars), 127 percent higher for full-time independent students without dependents ($9,172 versus $20,814), and 128 percent higher for full-time dependent students ($5,981 versus $13,644).

Equity Indicator 3c(i): Unmet financial need of dependent full-time undergraduates attending one institution for a full year, by family income quartile: 1990 to 2020 (in constant 2022 dollars)



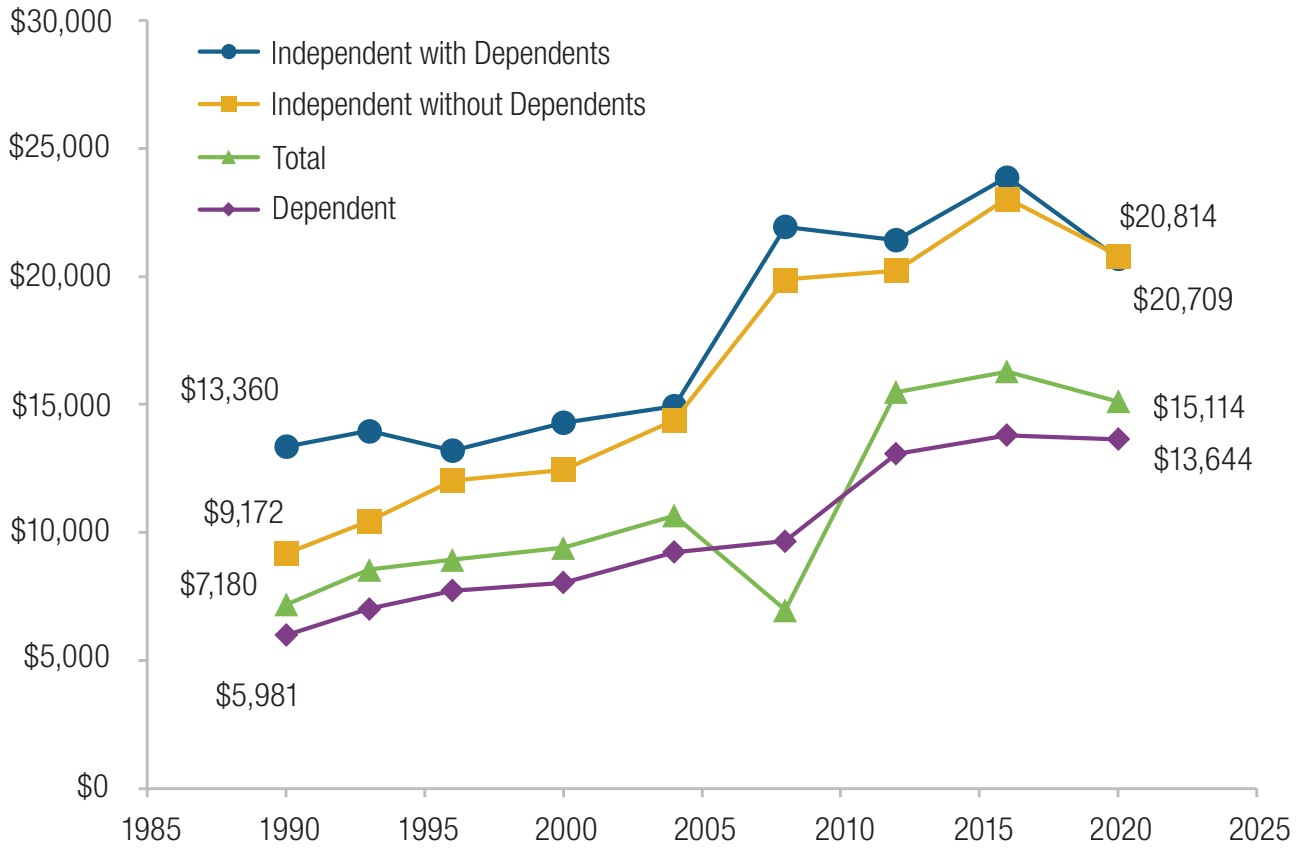
Indicator Status: High Inequality

There are large and growing differences in the unmet need of dependent students from the lowest and highest family-income quartiles. In constant 2022 dollars, dependent students from the lowest family-income quartile averaged $18,436 in unmet need in 2020, while dependent students from the highest income quartile had a surplus of $34,218. In constant dollars, unmet financial need for students in the lowest family-income quartile more than doubled between 1990 and 2020.

NOTE: 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 average Cost of Attendance (COA). Loans are not considered a discount.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Data tabulated using NCES PowerStats.

Equity Indicator 3c(ii): Average unmet financial need, for those who had unmet need, among full-time undergraduates attending one institution for a full year, by dependency status: 1990 to 2020 (in constant 2022 dollars)



Indicator Status: High Unmet Need, Especially Among Independent Students

Average unmet need was 55 percent higher in 2020 than 1990 for full-time undergraduate independent students with dependents ($13,360 versus $20,709 in constant 2022 dollars), 127 percent higher for full-time independent students without dependents ($9,172 versus $20,814), and 128 percent higher for full-time dependent students ($5,981 versus $13,644).

NOTE: 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 average Cost of Attendance (COA). Loans are not considered a discount.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Data tabulated using NCES PowerStats.

Equity Indicators 3d(i to iii): What is the Extent of Differences Between Education and Related (E&R) Spending per FTE Enrollment by Institutional Selectivity and for Pell Recipients?

Based on the analyses of IPEDS data by Hillman (2020), Indicator 3d(i) to 3d(iii) displays Education and Related (E&R) expenditures for degree-granting institutions by selectivity of the institution; the distribution of institutions and students served by selectivity, and differences in spending by Pell Grant receipt.[94]

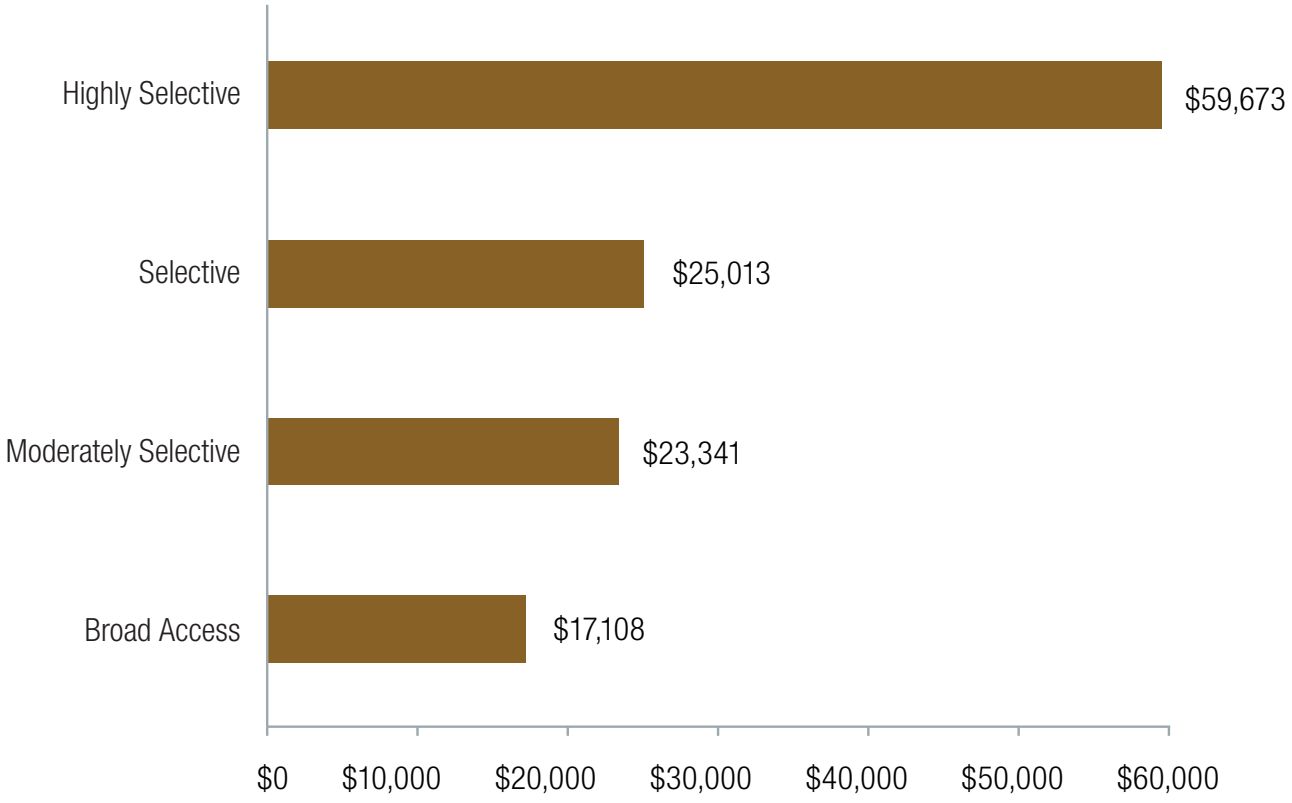
Education and Related (E&R) Spending per FTE Enrollment by Institution Selectivity. In 2018-2019, postsecondary institutions spent an average of $23,815 (constant 2022 dollars) per full-time equivalent (FTE) student on Education and Related (E&R) expenditures. This amount includes the cost for instruction, student services, and a portion of academic and institutional support services expenditures. When disaggregated by institutional selectivity, the numbers present a story of inequality (Equity Indicator 3d(i)). Students attending *Highly Selective* institutions had E&R spending of $59,673 (constant 2022 dollars) per FTE enrolled student; *Broad Access* institutions had E&R spending of $17,108 (constant 2022 dollars) per FTE enrolled student. It is difficult to justify this difference as representing anything close to equal educational opportunity for postsecondary education in the United States.

Distribution of FTE Enrollment, and Education and Related (E&R) Spending by Selectivity. Equity Indicator 3d(ii) displays percentage distributions for FTE enrollment, Education and Related Spending (E&R), and number of institutions by selectivity of the college or university. Although *Broad Access* institutions enroll almost half (49 percent) of the FTE students, they do so with only about one-third (34 percent) of the total Education and Related (E&R) Spending. In contrast, *Highly Selective* institutions enroll about 11 percent of the total FTE enrollment, yet they spend more than a fourth (27 percent) of the total Education and Related expenditures.

Pell Grant Recipients and Education and Related (E&R) Spending Quintiles. Using the analyses by Hillman (2020), Equity Indicator 3d(iii) shows the distribution of Pell Grant recipients enrolled in degree-granting institutions by Education and Related (E&R) spending per FTE institutional quintiles from 1999 to 2018. These distributions show a trend toward greater inequity of expenditures, with a higher percentage of Pell recipients in quintiles with lower education spending per FTE since 1999. In 2018, 29 percent of Pell Grant recipients were enrolled in the lowest quintile of E&R institutional spending, and 9 percent were enrolled in the highest quintile. In 1999, about 22-23 percent of Pell recipients were in each of the three E&R lower quintiles, and 12 percent were in the highest funding quintile.

94 Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

Equity Indicator 3d(i): Education and Related (E&R) spending per FTE enrollment by institution selectivity: IPEDS data 2018-19 (constant 2022 dollars)



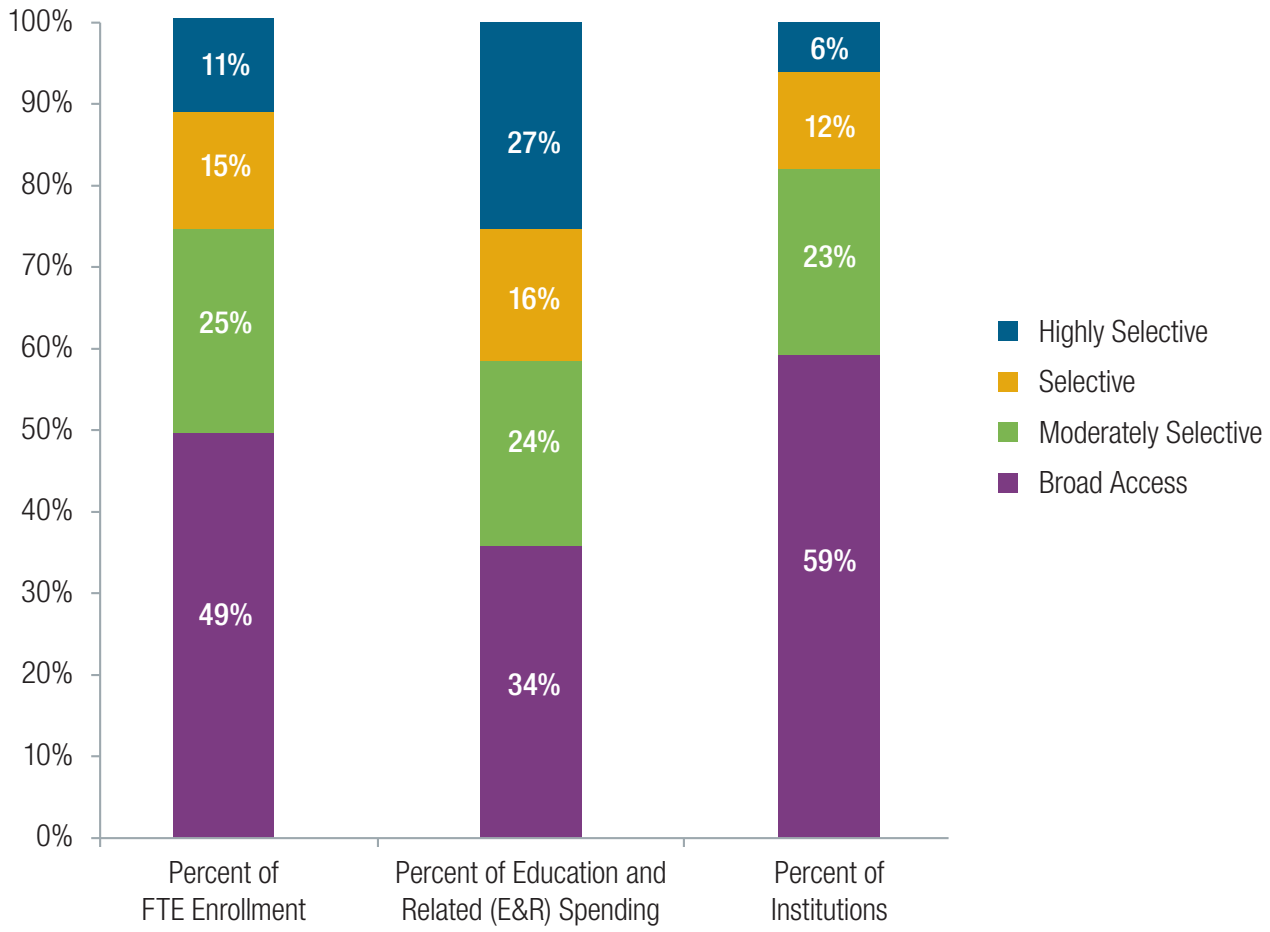
Indicator Status: High Level of Inequality

Spending per FTE student was 3.5 times higher at *Highly Selective* institutions than at *Broad Access* institutions ($59,673 vs, $17,108) in constant 2022 dollars.

NOTE: Selectivity categorizations and tabulations based on IPEDS Enrollment, Finance, and Institutional Characteristics surveys as analyzed and reported in Hillman (2020) as noted below.

SOURCE: Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

Equity Indicator 3d(ii): Percentage distributions of FTE student enrollment, Educational and Related (E&R) spending, and number of institutions by institution selectivity: IPEDS data 2018-2019



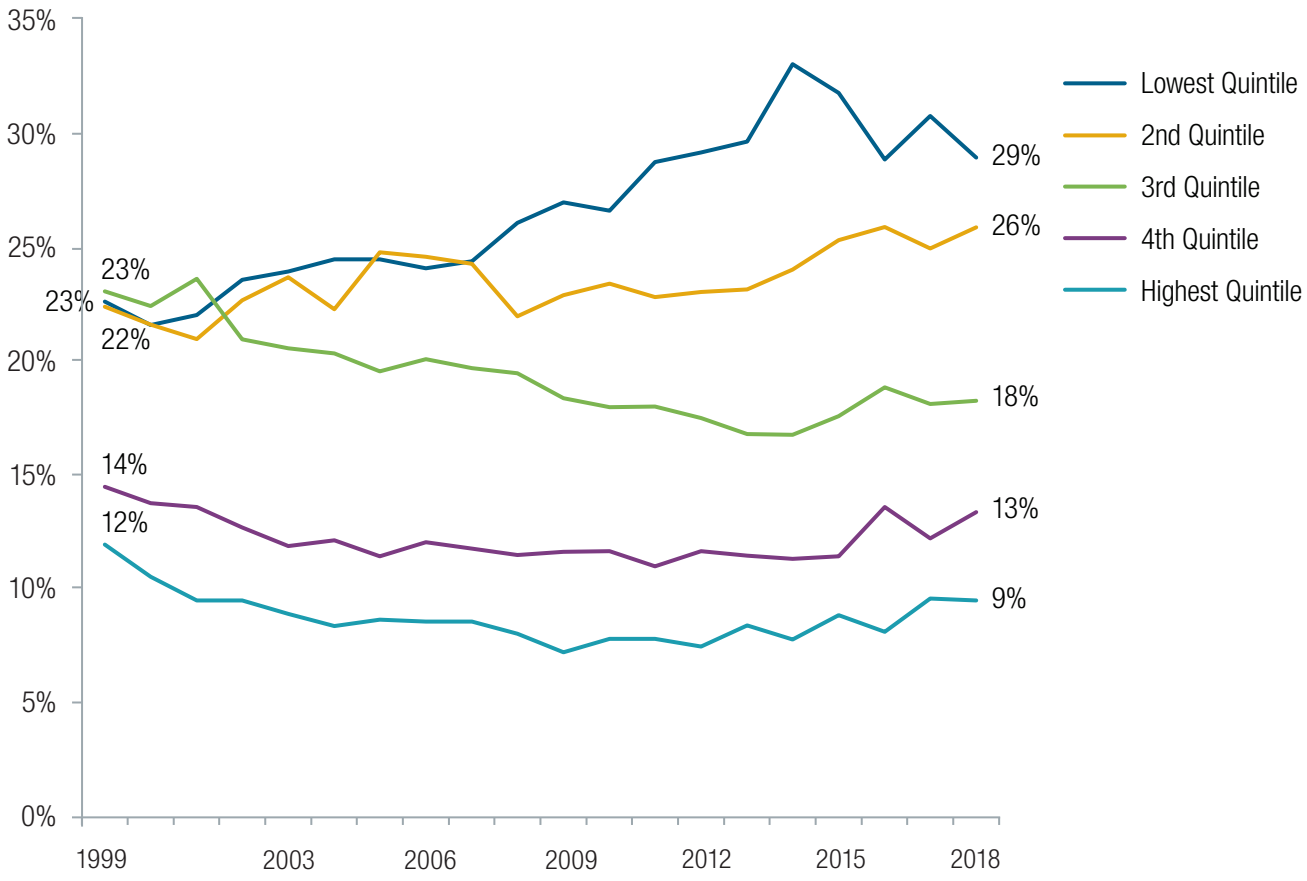
Indicator Status: High Inequality

Broad Access institutions serve almost 50 percent of the FTE students enrolled, yet they do so with about one-third (34 percent) of the total Education and Related Expenditures (E&R). *Highly Selective* institutions serve about 11 percent of the total FTE students, yet they do so with 27 percent of the total Education and Related (E&R) expenditures.

NOTE: Selectivity categorizations, and tabulations based on IPEDS Enrollment, Finance, and Institutional Characteristics surveys as analyzed and reported in Hillman (2020) as noted below.

SOURCE: Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

Equity Indicator 3d(iii): Distribution of Pell Grant recipients by Education and Related (E&R) spending per FTE quintiles: 1999-2018



Indicator Status: High and Growing Inequality

Among the Pell Grant recipients enrolled in degree-granting institutions, 29 percent were in the lowest Education and Related (E&R) spending quintile, and 9 percent were in the highest funding quintile in 2018-19. Two decades earlier, in 1999, 23 percent of Pell Grant recipients were in the lowest E&R quintile, and 12 percent were in the highest E&R quintile.

NOTE: Selectivity categorizations, and tabulations based on IPEDS Enrollment, Finance, and Institutional Characteristics surveys as analyzed and reported in Hillman (2020) at the source noted below.

SOURCE: Hillman, N. (2020, November 20). *Why Rich Colleges Get Richer & Poor Colleges Get Poorer: The Case for Equity-Based Funding in Higher Education – Third Way.* – Third Way. Retrieved from https://www.thirdway.org/report/why-rich-colleges-get-richer-poor-colleges-get-poorer-the-case-for-equity-based-funding-in-higher-education.

EQUITY INDICATOR 4

HOW DO STUDENTS IN THE UNITED STATES PAY FOR COLLEGE?

Since 1980, financing for postsecondary education has increasingly shifted from public funding to students and their families. Even though low-income students on average attend lower-priced colleges, by 2020, the net price of college attendance, after all grants and discounts were considered, represented a stark 90 percent of average family income in the lowest family income quartile.

The long-lasting student debt burden falls most heavily on Pell Grant recipients and students of color. For example, in 2022 dollars, 10 years after being awarded a bachelor's degree, Black students had borrowed an average of $71,904, and White graduates $39,740, to finance their undergraduate and graduate education. This represents a Black-White gap of $32,164.

Equity Indicator 4(a-g): Sources and Definitions

Indicator 4 reports how students and families pay college costs. We include data from the following sources.

- **National Income and Product Accounts (NIPA).** Available since 1952, these data identify the percent of total higher education funding from State and Local Governments, the Federal Government, and Personal Consumption Expenditures. Personal Consumption Expenditures represent costs that are borne by students and their families.
- **The Grapevine Project of the Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers (SHEEO).** The Grapevine Project compiles data on state appropriations and need-based funding.[95]
- **The National Association of State Student Grant & Aid Programs (NASSGAP)** information on state grant programs.
- **U.S. Department of Education, Office of Postsecondary Education (OPE), The Office of Federal Student Aid** publishes Annual Pell Grant Award End of Year Reports[96] and reports on the Federal student loan portfolio which provides data on student loans and default rates. These reports are published yearly since the mid-1970s.

95 Palmer, J. (2023). *About the Grapevine Data*. Retrieved from https://education.illinoisstate.edu/grapevine/about.

96 U.S. Department of Education (n.d.) Federal Pell Grant Program Annual Data Reports. Retrieved from https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv.

- **National Postsecondary Student Aid Study (NPSAS)** is a congressionally-mandated study conducted by NCES that provides detailed cross-sectional data on student financial aid every 4 years. Indicator 4 includes data from the 1990-2020 NPSAS studies. To adjust for inflation, we present dollar amounts in constant 2022 dollars.
- **Baccalaureate and Beyond Study (B&B)** is a longitudinal study that follows a cohort of graduating bachelor's degree recipients drawn from the NPSAS sample. A new B&B cohort is started every 7 years. Indicator 4 includes estimates generated from the 4-year and 10-year follow-ups of the 2008 bachelor's degree recipients surveyed in 2012 and 2018 (B&B:08/12/18). Data are also included from the 1-year follow-up of the 2016 bachelor's graduates conducted in 2017. As with NPSAS data, to adjust for inflation, we present all dollar amounts in 2022 dollars.
- **The Institute for College Access and Success (TICAS) /Project on Student Debt.** The TICAS Project on Student Debt collects voluntary information from institutions and presents state-by-state estimates in its yearly report, *Student Debt and the Class of 2020, 16th Annual Report*: Oakland: Retrieved from https://ticas.org/our-work/student-debt.
- **Federal Reserve System Report on the Economic Well-Being of U.S. Households in 2019-May 2020**. This is a survey and report prepared by the Consumer and Community Research Section of the Federal Reserve Board's Division of Consumer and Community Affairs (DCCA). Retreived from https://www.federalreserve.gov/publications/2020-economic-well-being-of-us-households-in-2019-student-loans-other-education-debt.htm.

Key terms used in this chapter are defined as follows:

- **Net Price is Cost of Attendance (COA) Minus All Grant Aid**. The Higher Education Act of 1965 (HEA), as amended, requires the U.S. Department of Education to make publicly available information about the average net price of each postsecondary institution that participates in Title IV federal student aid programs. The HEA defines institutional net price as "the average yearly price actually charged to first-time, full-time undergraduate students receiving student aid at an institution of higher education after deducting aid." Essentially, net price moves beyond an institution's "sticker price" and provides students and families with an idea of how much a first-time, full-time undergraduate student who was awarded aid pays to attend a particular institution after grant and scholarship aid, but not loan aid, is subtracted from the published cost of attendance (COA).
- **Net Price of Attendance as a Percent of Average Family Income** uses data from the various NPSAS 1990-2020 surveys. Average family income for a quartile reflects the distribution of the NPSAS sample in the study year for dependent undergraduate students who attended one institution for a full year. For the 2020 NPSAS, average family incomes for each quartile in 2022 dollars were as follows: First (lowest), $21,481; Second, $65,831, Third, $125,821, and Fourth (highest), $302,645.[97]
- **Dependent Student** status has a particular definition for financial aid eligibility and is defined as a student who is an undergraduate, unmarried, not a veteran, and younger than 24 years of age. For dependent students, parents' income and assets are used to determine the Expected Family Contribution (EFC) even if the parents have no intention of helping to pay students' college expenses. In exceptional cases (e.g., parental child abuse, parental communication with the child prohibited by a court), the institution's financial aid office may change a student's status from dependent to independent.

97 U.S. Department of Education, National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020), as analyzed by Tom Mortenson and Nicole Brunt. *Postsecondary Education Opportunity (PEO) Newsletter* and database. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

- **Student Borrowing.** In this report, we include the percent borrowing and the average cumulative amounts borrowed at the time of bachelor's, associate's, and certificate completion from NPSAS. Using B&B data from a 4-year and 10-year follow-up of bachelor's degree recipients for the 2008 cohort surveyed in 2012 and 2018, we include both undergraduate and graduate borrowing. For the 2016 graduating cohort, we include data from the 1-year follow-up conducted in 2017. State averages are from the TICAS Project on Student Debt annual survey.

Equity Indicators 4a(i to iii): What are the Trends in Financing of Higher Education in the United States?

Equity Indicators 4a(i to v) present data on funding for higher education. We first give a national overview of the distribution of funding responsibilities for higher education and then look at trend data on state appropriations and need-based aid.

Trends in the Percentage of Higher Education Costs Paid by Students and their Families. Equity Indicator 4a(i) describes trends in the sources of funding for public and private higher education institutions, as reported in the National Income and Product Accounts (NIPA) from 1952 to 2022. The indicator considers changes in the relative contributions of state and local public expenditures, federal expenditures, and personal consumption expenses (students and parents). Since 1975, the percentage of higher education costs covered by state and local governments has declined, while the share covered by students and parents has increased. Students and families now pay an amount just above the percentage paid by state sources. The percentage of total costs borne by parents and students has fluctuated, declining from 50 percent in 1952 to 33 percent between 1977 and 1981. After 1981, the percentage paid by families rose and was 46 percent in 2022. State and local sources accounted for 58 percent of higher education expenditures in 1975 but just 45 percent in 2022.

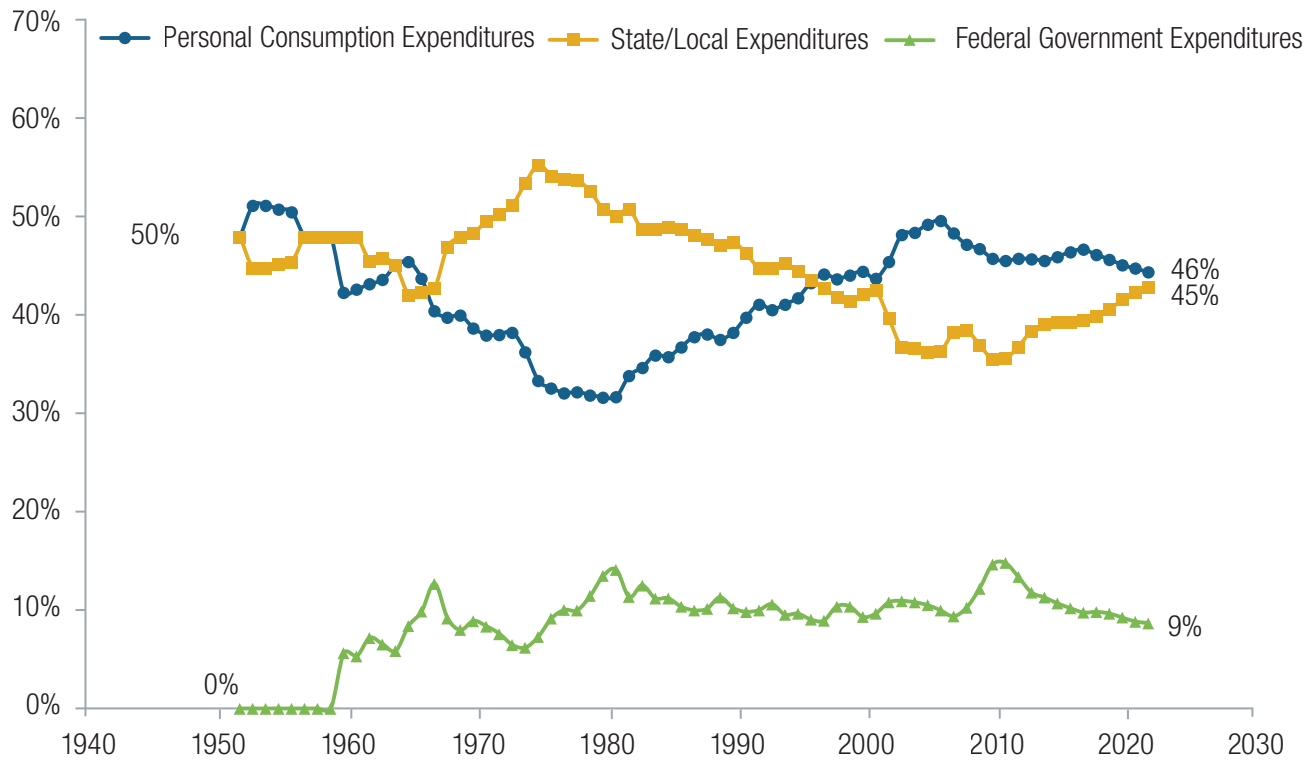
The share of higher education costs provided by the federal government was about the same in 2022 as in 1976 (10 percent). During the Great Recession, the federal government provided additional funding through the American Recovery and Reinvestment Act of 2009 (ARRA). This funding temporarily raised the share of costs covered by the federal government to 15 percent in 2010 and 2011.

Equity Indicator 4a(ii) uses data on state appropriations compiled by the Grapevine Project for FY1961 to FY2023 combined with data on personal income as reported by the Bureau of Economic Analysis.[98] State appropriations are considered per $1,000 of personal income. These data document the increase in state support from the 1960s to the late 1970s with a peak of $9.46 in 1976, and then the subsequent general decline after 1980.[99] Using this measure of state appropriations per $1,000 of personal income, FY2023 state funding for higher education represented 71 percent of the FY2000 state effort and 58 percent of the FY1980 effort. State appropriations per $1,000 of personal income fell from $8.84 in 1980 to $5.16 in 2023.

98 The Grapevine Project at Illinois State University has collected data on state appropriations since 1961. Since 2010, these data have been jointly collected and reported with the State Higher Education Executive Officers (SHEEO). Grapevine (n.d.). About the Grapevine Data. Retrieved from https://education.illinoisstate.edu/grapevine/about; Analyzed by Tom Mortenson and Nicole Brunt. Postsecondary Education Opportunity (PEO) Newsletter and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

99 U.S. Department of Commerce, Bureau of Economic Analysis (2022). National Income and Product Accounts (NIPA). Retrieved from http://www.bea.gov and tabulated by Nicole Brunt and Tom Mortenson. *Postsecondary Education Opportunity (PEO) Newsletter* and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4a(i): Percentage distribution of higher education funding responsibilities: 1952 to 2022



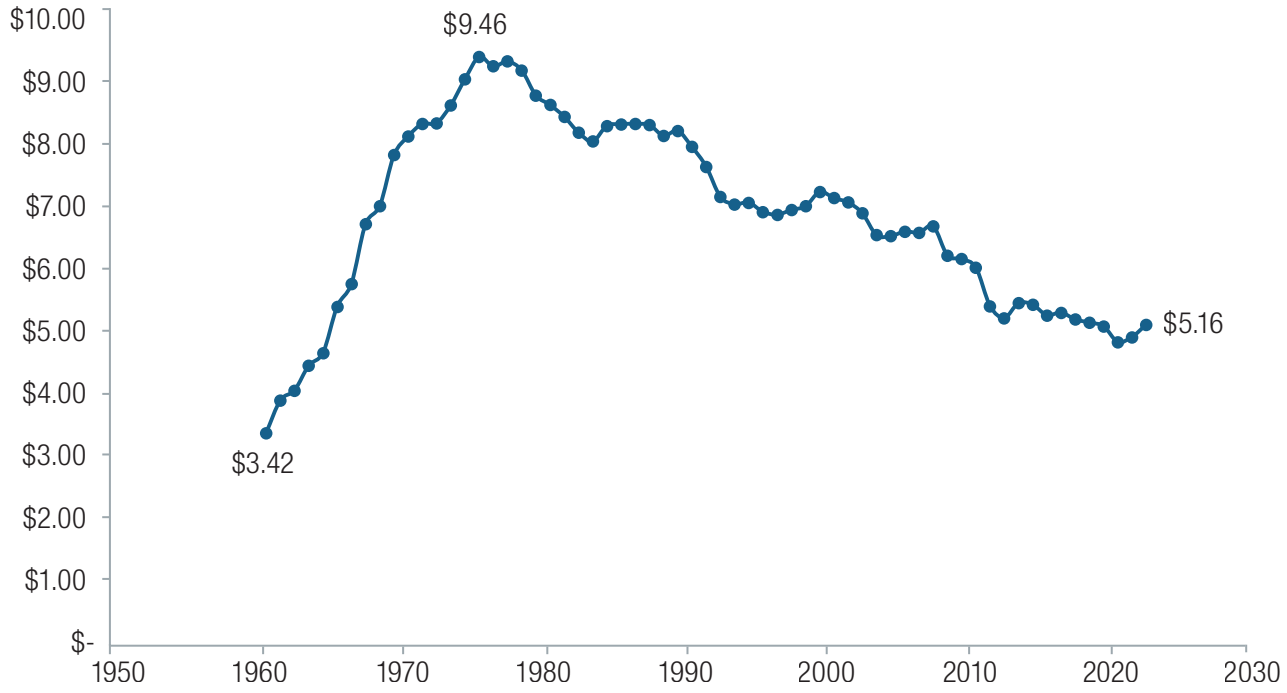
Indicator Status: Decline in Share Paid by State and Local Governments and Increase in Personal Expenditures

The share of higher education expenditures paid by students and families increased from one-third (33 percent) in the late 1970s to almost half (46 percent) in 2022.

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

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis (2023). National Income and Product Accounts (NIPA). Retrieved from https://www.bea.gov/ and tabulated by Tom Mortenson and Nicole Brunt. *Postsecondary Education Opportunity (PEO) Newsletter* and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4a(ii): State fiscal support for higher education per $1,000 of personal income: FY1961 to FY2023



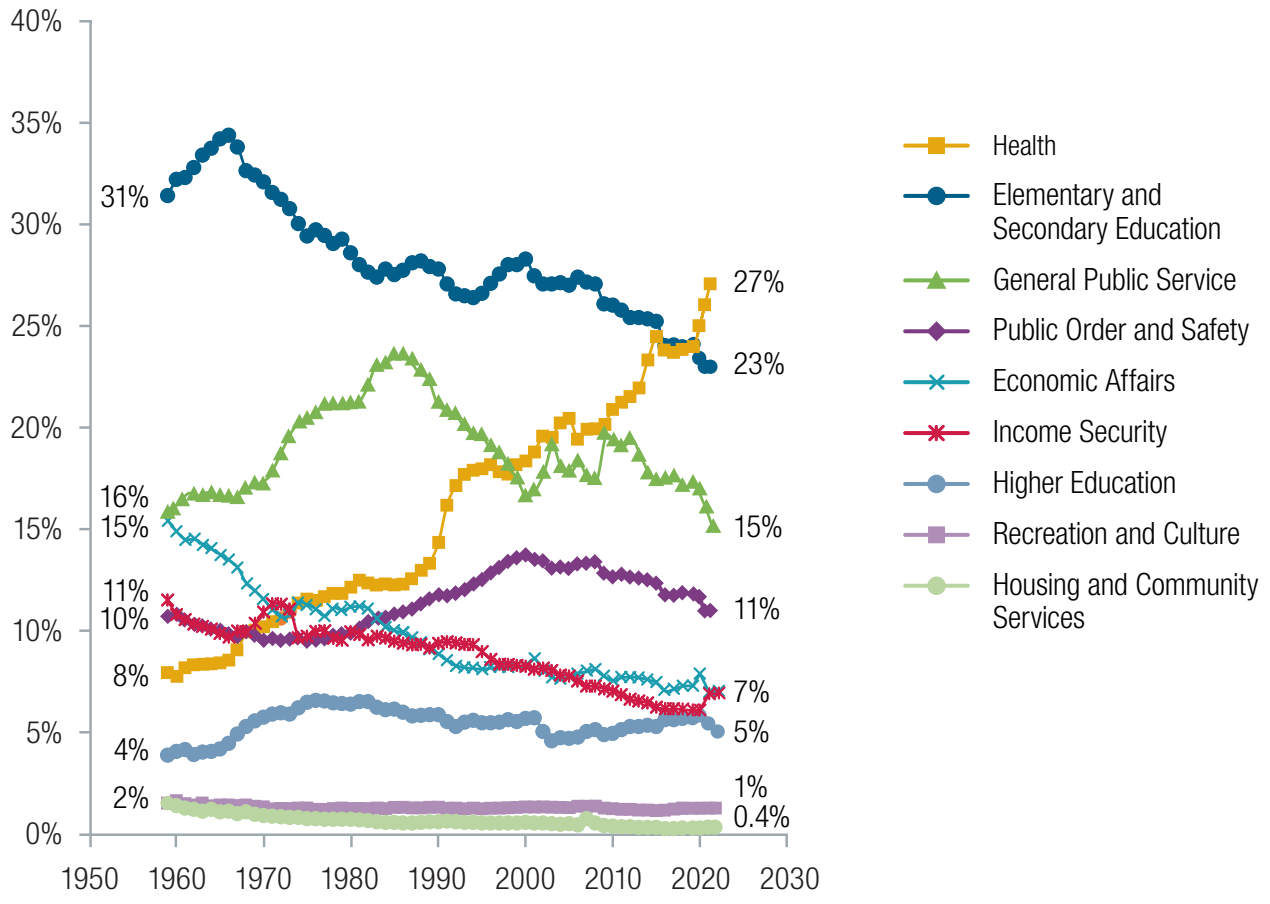
Indicator Status: Decline in State Support

Relative to per capita income, state appropriations for higher education have declined since 1980. FY2021 state funding for higher education represented 71 percent of the FY2000 effort and just over half of the FY1980 effort.

SOURCE: Per capita income data from Bureau of Economic Analysis, https://bea.gov/regional/index.htm; State appropriation data compiled by the Grapevine Project, https://education.illinoisstate.edu/grapevine. Grapevine is an annual compilation of data on state fiscal support for higher education. This is a joint project of the Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers (SHEEO). Analyzed by Tom Mortenson and Nicole Brunt. *Postsecondary Education Opportunity (PEO) Newsletter* and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4a(iii) shows changes in the relative distribution of state appropriations by function between 1959 and 2022. The share of state appropriations allocated to higher education increased from 4 percent in 1959 to 6 percent in the late 1970s and early 1980s and has remained close to 6 percent through 2022 (currently at 5 percent). Over the same period, the proportion of state appropriations allocated to elementary and secondary education declined, from a peak of 34 percent in 1966 to 23 percent in 2022. In contrast, since 1959, the proportion of state appropriations allocated to health care increased from 8 percent in 1959 to 27 percent in 2022.

Equity Indicator 4a(iii): Distribution of state appropriations by function: 1959-2022



Indicator Status: Growth in Health Care's Share of State Appropriations

The share of state appropriations allocated to higher education increased from 4 percent in 1959 to 6 percent in the late 1970s and early 1980s and has remained close to 6 percent through 2022 (currently at 5 percent). The percentage of state appropriations allocated to elementary and secondary education has generally declined over the period, falling from 31 percent in 1959 to 23 percent in 2022. In the same period, health care expenditures grew from 8 percent in 1959 to over one-quarter (27 percent) in FY 2022.

NOTE: BEA has revised estimates from previously reported distributions.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis (2023). National Income and Product Accounts (NIPA). Retrieved from https://www.bea.gov. Personal Consumption Expenditures: NIPA Table 3.16. Tabulated by Tom Mortenson and Nicole Brunt. *Postsecondary Education Opportunity (PEO) Newsletter* and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicators 4a(iv) and 4a(v): How Much is State Need-Based Aid Relative to Pell Grant Aid?

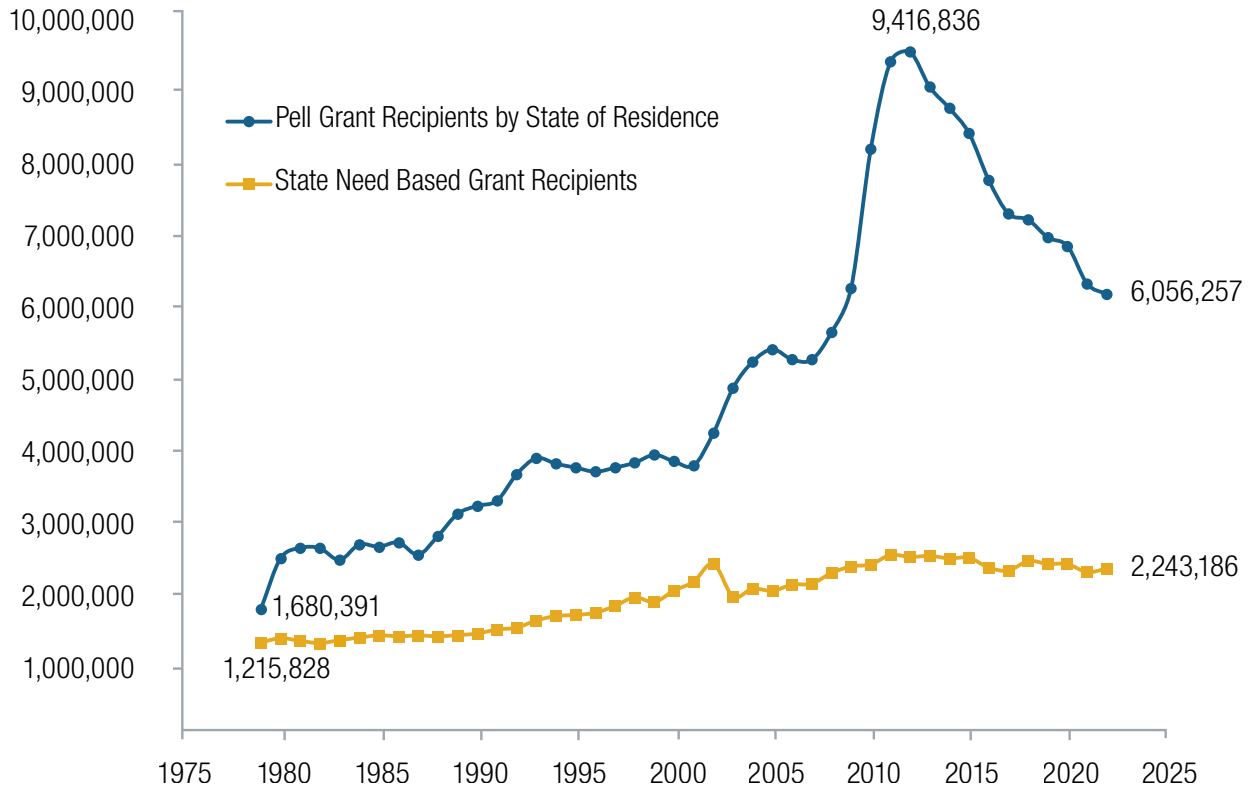
Award Numbers. In FY2022, 6.1 million undergraduate students received Federal Pell Grants, and 2.2 million undergraduates received state need-based grants (Equity Indicator 4a(iv)). Although the number of Pell Grant recipients has declined since a peak in the Great Recession of 9.4 million in 2012, the number of Pell Grant recipients was 260 percent higher in 2022 than in 1979, while the number of state need-based grant aid recipients was 84 percent higher.

Federal and State Need-Based Aid. In FY2022, $25.7 billion was awarded in Federal Pell Grants and about $9.5 billion was awarded across the nation in state-sponsored need-based grants. Combining federal and state need-based aid, in FY2022 need-based aid totaled $35.3 billion. To put this amount in perspective, in FY2018 the federal military spending budget was $795.4 billion and by FY2022 had increased to $877 billion in 2022 dollars.[100]

State Differences. Equity Indicator 4a(v) shows the number of state need-based grant recipients per state as a percentage of the number of Pell Grant recipients in the state in the same year (2022). As we do not have student level data, we do not know the extent to which these figures represent the same individuals. The number of state need-based grant aid recipients relative to the number of Pell Grant recipients in 2022 ranged from 0 percent in Montana and Wyoming to 74 percent in North Dakota, 77 percent in Wisconsin, 79 percent in Maine, 85 percent in Minnesota, 88 percent in Vermont, and 96 percent in Washington.

100 Stockholm International Peace Research Institute (SIPRI). Military Expenditures/Defense Budget 1960-2022. Retrieved from https://www.sipri.org/databases/milex.

Equity Indicator 4a(iv): Numbers of Pell and state need-based grant aid recipients: 1979-2022

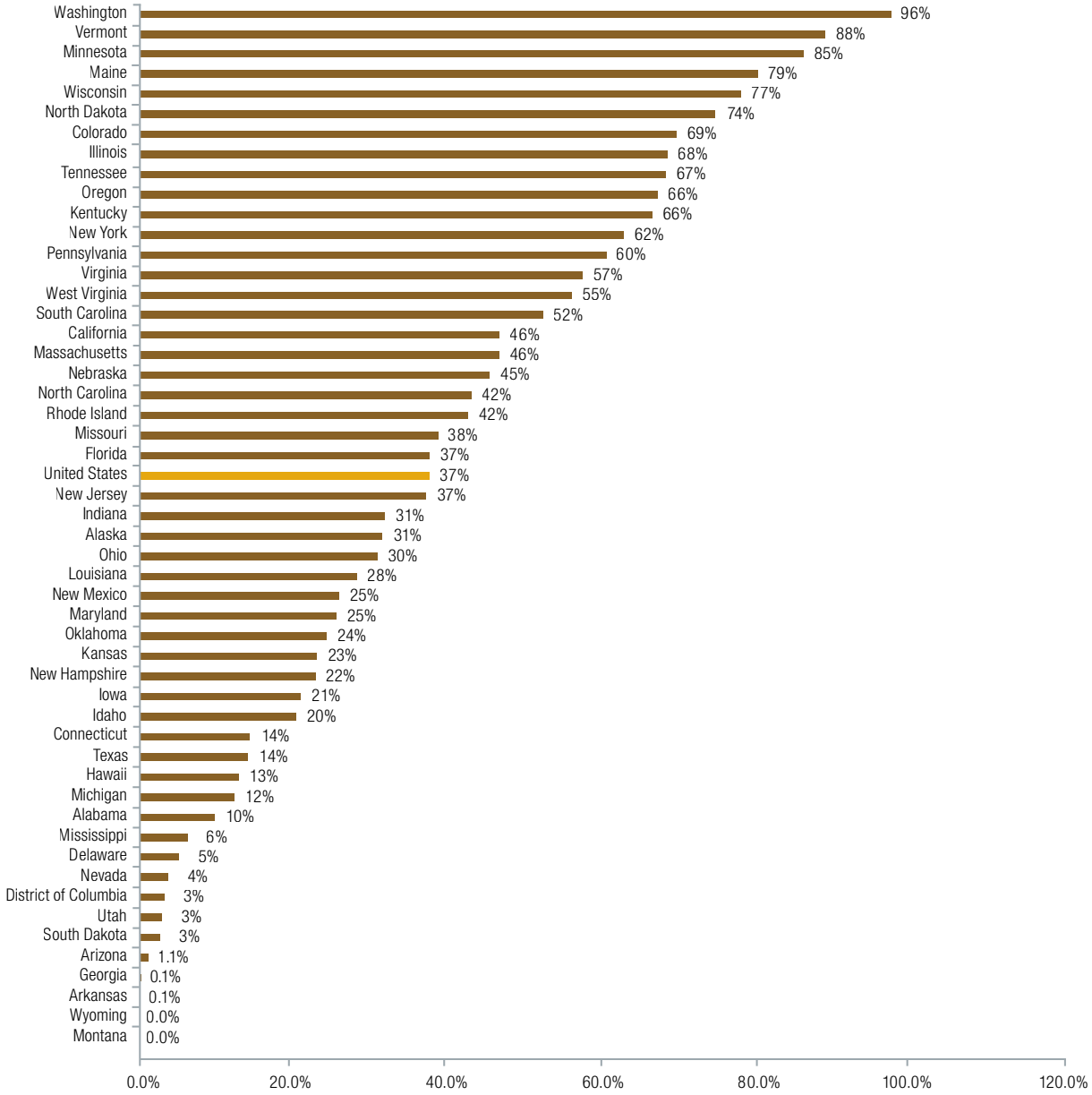


Indicator Status:

In FY2022, 6.1 million undergraduate students received Federal Pell Grants and 2.2 million undergraduates received state need-based grants. Although the number of Pell Grant recipients has declined since a peak of 9.4 million in the Great Recession in 2012, the number of Pell Grant recipients was 260 percent higher in 2022 than in 1979, while the number of state need-based grant aid recipients was 84 percent higher.

SOURCE: Annual state student financial aid program data are collected through the National Association of State Student Grant & Aid Programs (NASSGAP), https://www.nassgapsurvey.com. Annual data on Federal Pell Grants are compiled and reported by the U.S. Department of Education and are available at https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv. Data analyzed by Tom Mortenson and Nicole Brunt, *Postsecondary Education Opportunity (PEO) Newsletter* and database. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4a(v): State need-based grant recipients as a percentage of Pell Grant recipients by state: 2022



Indicator Status: Large Variation by State

In 2022, the number of state need-based grant aid recipients relative to the number of Pell Grant recipients ranged from 0 percent in Montana and Wyoming to 74 percent in North Dakota, 77 percent in Wisconsin, 79 percent in Maine, 85 percent in Minnesota, 88 percent in Vermont, and 96 percent in Washington.

SOURCE: Annual state student financial aid program data are collected through the National Association of State Student Grant & Aid Programs (NASSGAP), https://www.nassgapsurvey.com. Annual data on Federal Pell Grants are compiled and reported by the U.S. Department of Education and are available at https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv. Data analyzed by Tom Mortenson and Nicole Brunt, *Postsecondary Education Opportunity (PEO) Newsletter* and database. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4b(i): What Is the Net Price of Attendance by Family Income?

Using NPSAS data from 1990 to 2020, Indicator 4b(i) tracks the net price of attendance for dependent, full-time undergraduate students who attended one institution for a full year by family income quartile. The net price of attendance is the cost of attendance (COA) minus all grant aid.[101] Net price does not include loans. For ease of comparison, all amounts are in constant 2022 dollars.

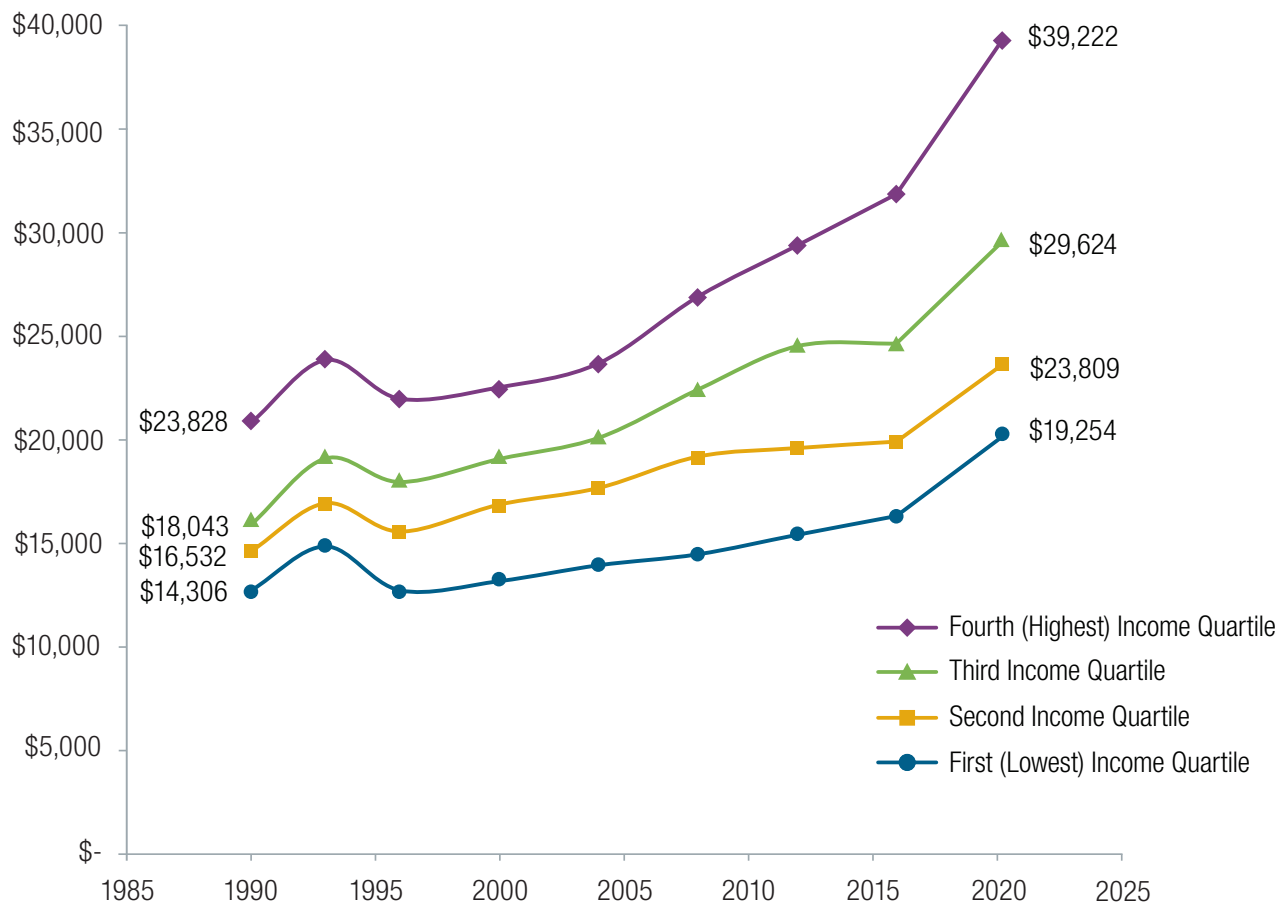
Indicator 4b(i) shows the average net price increased substantially for dependent full-time undergraduate students in constant dollars for all family income quartiles and that the differences between net price for the highest income quartiles and the lowest income quartiles have also increased between 1990 and 2020. In 1990, the average net price in 2022 constant dollars ranged from $14,306 for those in the lowest family income quartile to $23,828 for those in the highest income quartile. The average net price of attendance in 1990 was 67 percent lower for those in the lowest family income quartile than for those in the highest family income quartile. By 2020, the average net price in 2022 constant dollars ranged from $19,254 for those in the lowest income quartile to $39,222 for those in the highest income quartile. The average net price was 104 percent lower for students in the lowest family income quartile than for students in the highest family income quartile in 2020.

The implication of the widening gap in average net price by family income is ambiguous. On the one hand, a widening gap could signify an increasing allocation of available institutional resources to students with the greatest financial need. On the other hand, the widening gap in net price may suggest that over time, colleges in the United States have become more segregated by family income based on the net price of attendance. Students are increasingly sorted according to the amount of family resources available into very different types of colleges with different prices. If low-income students are receiving a higher education of equivalent quality as other students in terms of the learning experience and market value upon completion, then this net price differential would signal an increase in equity. Insofar as differences in net price reflect differences in educational quality and market rewards, then the increasing difference in average net price between students in the upper- and lower-family income quartiles reflects the growing inequity and increased stratification of the nation's higher education system.

This latter interpretation is borne out by examination of IPEDS data on enrollment patterns and average instructional spending differences by Pell Grant receipt discussed in Equity Indicators 3d(i to iii). Using IPEDS data, Hillman (2020) demonstrates that there are substantial differences in educational and related (E&R) spending per FTE enrollment. Disproportionate proportions of wealth and instructional spending per FTE enrollment are concentrated in *Highly Selective* institutions that enroll relatively small percentages of total enrollment and low percentages of Pell Grant recipients and students of color. This raises the question as to what would happen if the tables were turned: what if colleges serving the nation's lowest-income students and students of color had the most (or at least equal) resources?

101 The Higher Education Act of 1965 (HEA), as amended, requires the U.S. Department of Education to make publicly available information about the average net price of each postsecondary institution that participates in Title IV federal student aid programs.

Equity Indicator 4b(i): Average net price for dependent full-time undergraduate students who attended one institution for a full-year by family income quartile: 1990 to 2020 (in constant 2022 dollars)



Indicator Status: Increased Differentiation in Net Price by Family Income Quartile

In constant 2022 dollars, average net price was 104 percent lower for students in the lowest family income quartile than for students in the highest family income quartile in 2020. In 1990, average net price of attendance was 67 percent lower for those in the lowest family-income quartile than for those in the highest family-income quartile.

NOTE: Net price of attendance is defined as cost of attendance (COA) minus all grant aid and discounts but not loans.

SOURCE: U.S. Department of Education, National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Data tabulated by Tom Mortenson and Nicole Brunt, *Postsecondary Education Opportunity (PEO) Newsletter* and database. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4b(ii): What Percentage of Family Income Is Needed to Pay the Average Net Price of Attendance?

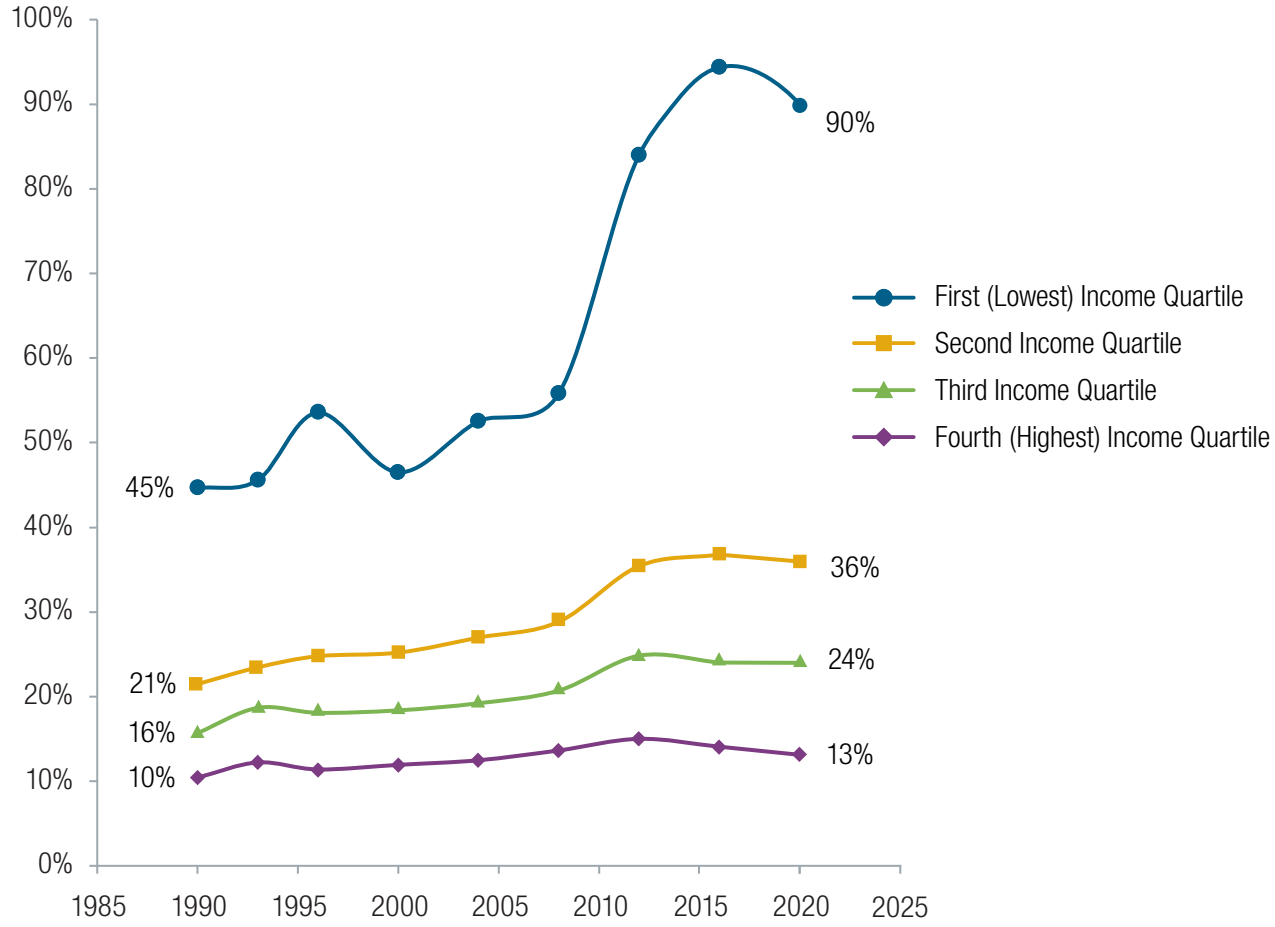
Indicator 4b(ii) tracks average net price of attendance as a percentage of average family income by NPSAS family income quartiles for dependent full-time undergraduate students who attended one institution for a full year.[102] The net price is the price that the student paid to attend their individual institution.

Indicator 4b(ii) shows that net price for dependent full-time undergraduates as a percentage of parents' family income has increased substantially for all family income groups, but especially for dependent full-time undergraduate students in the lowest income quartile. In 2020, average net price as a percentage of average family income was 90 percent for students in the lowest family income quartile, compared with 36 percent for students in the second lowest family income quartile, 24 percent for students in the third highest income quartile, and 13 percent 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 45 percent in 1990 to 56 percent in 2008, and rose again to 84 percent in 2012, peaking at 94 percent in 2016 and was at 90 percent in 2020. In contrast, between 2012 and 2020, net price relative to family income stayed virtually unchanged or declined slightly for dependent full-time undergraduates in the highest two income quartiles ranging from 13 to 15 percent of family income for the highest quartile and 25 to 24 percent for the third quartile. For those in the second lowest income quartile, net price as a percent of family income was quite similar in 2012 and 2020 (35 percent in 2012 and 36 percent in 2020).

102 Net price is different from "out–of-pocket price," as the latter accounts for both grants and loans. See Horn, L. & Paslov, J. (2014). *Out-of pocket Net Price for College*. Washington, DC: U.S. Department of Education, National Center for Education Statistics, NCES 2014-9 02. Retrieved from https://nces.ed.gov/pubs2014/2014902/index.asp.

Equity Indicator 4b(ii): 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 Status: High Inequality: Widening Differences in College Cost Burden Relative to Family Income

In 2020, average net price represented 90 percent of average family income for dependent students in the lowest income quartile, compared with 13 percent of average family income for students in the highest income quartile. In 1990, average net price was 45 percent of family income for dependent students in the lowest quartile and 10 percent for the highest quartile.

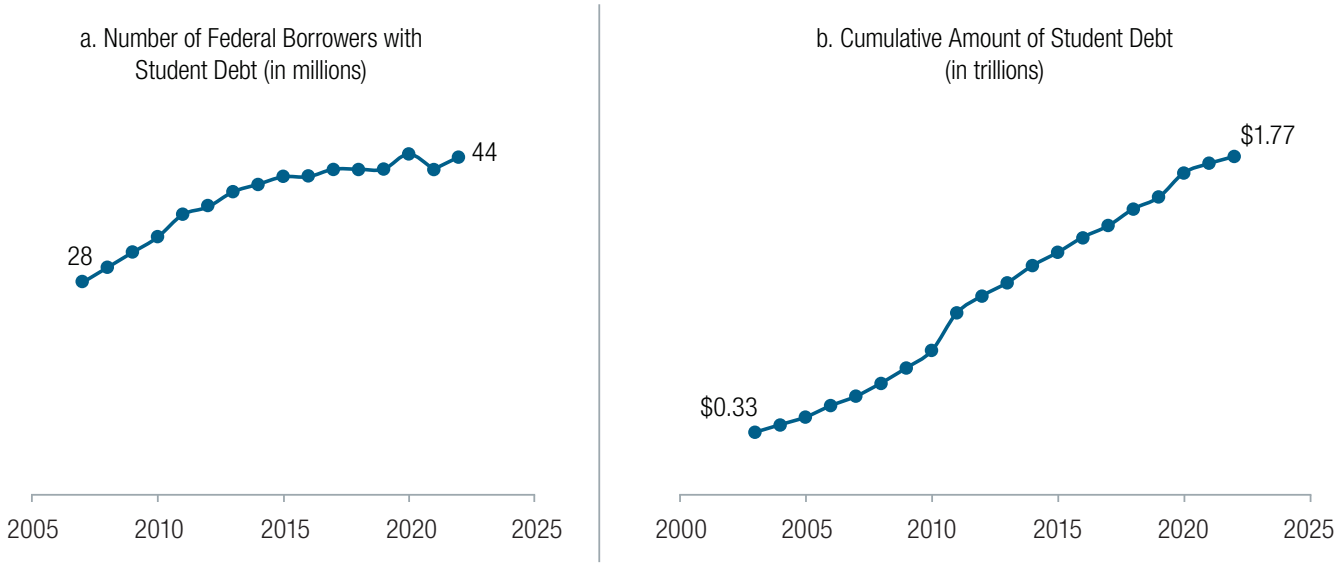
NOTE: Net price is tabulated considering all grants and scholarships, but it does not include loans. Family income quartiles are based on the distribution of family income in each NPSAS survey.

SOURCE: U.S. Department of Education, National Postsecondary Student Aid Study (NPSAS: 1990, 1993, 1996, 2000, 2004, 2008, 2012, 2016, and 2020). Data tabulated by Tom Mortenson and Nicole Brunt, *Postsecondary Education Opportunity (PEO) Newsletter* and database. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

Equity Indicator 4c(ia&b): Student Borrowing and Debt: How Much Is Total Student Debt?

Total Student Debt in the United States. Student debt currently represents the second highest consumer debt category, higher than both auto and credit card debt. Equity Indicator 4c(ia&b) shows the number of borrowers with student debt in millions and the cumulative amount of total student loan balance in trillions. In 2023, 43.6 million persons had student debt, and the cumulative amount (in constant dollars) of student debt in the United States was almost 5 times what it was around the start of the 21st century (rising from one-third, $0.33 trillion in 2003 to about $1.77 trillion in 2023). Of the total student debt in 2023, $1.64 trillion was in the federal student debt portfolio, accounting for 93 percent of the student debt. Although slowed by COVID, in non-pandemic years student debt has been growing at a rate 6 times faster than the U.S. economy.[103] The ripples of this crisis can be devastating, especially for low-income, first-generation students, and students of color. Over the last 4 decades, in the face of the rising cost of higher education and a decline in federal, state, and institutional support, less-resourced students and their families have increasingly relied upon student loans as the only means of attaining a college degree. Student debt has had far-reaching consequences that flow throughout student lives, creating an ever-more-stratified road to professional and financial opportunities, even among those who successfully complete their bachelor's degrees.

Equity Indicator 4c(ia&b): Number of federal borrowers, and cumulative amount of student debt: 2003-2023



Indicator Status: Growing Generational Inequality

In 2023, about 43.6 million borrowers owed a total of $1.77 trillion in student debt, the second largest category of consumer debt in the United States.

SOURCE: Hanson, M. (2023, August 20). *Student Loan Debt Statistics*. Education Data Initiative. Retrieved from https://educationdata.org/student-loan-debt-statistics.

103 Hanson, M. (2023, August 20). *Student Loan Debt Statistics*. Education Data Initiative. Retrieved from https://educationdata.org/student-loan-debt-statistics.

Indicators 4c(iia&b) through 4c(iva&b): How Frequently and How Much do Students Borrow to Complete Their Undergraduate Degrees and Certificates by Type of Institution?

Using NPSAS data, Indicators 4c(iia&b) through 4c(iva&b) show increases overall but some declines between 2016 and 2020 in the percentages of bachelor's, associate's, and certificate completers who ever received student loans, and in the cumulative amount borrowed. The charts present data by type of degree or certificate and by institutional control of the graduating institution.[104] The loans include federal and non-federal loans to students for undergraduate education.

Undergraduate Borrowing for Bachelor's Degrees. Indicator 4c(iia&b) shows that the percentage of bachelor's degree completers who had ever borrowed was 61 percent in 2020, compared with 69 percent in 2016. Borrowing rates were highest among students attending private for-profit institutions (77 percent in 2000 and 82 percent in 2020).[105] The average cumulative amount borrowed by bachelor's degree completers who borrowed increased by 15 percent between 2000 and 2020 in constant 2022 dollars (from $29,120 in 2000 to $33,440 in 2020). In 2020, the average cumulative amount borrowed by bachelor's degree completers who borrowed ranged from $30,080 at public institutions, to $37,180 at private non-profit institutions, and to $44,920 at private for-profit institutions in 2022 constant dollars.

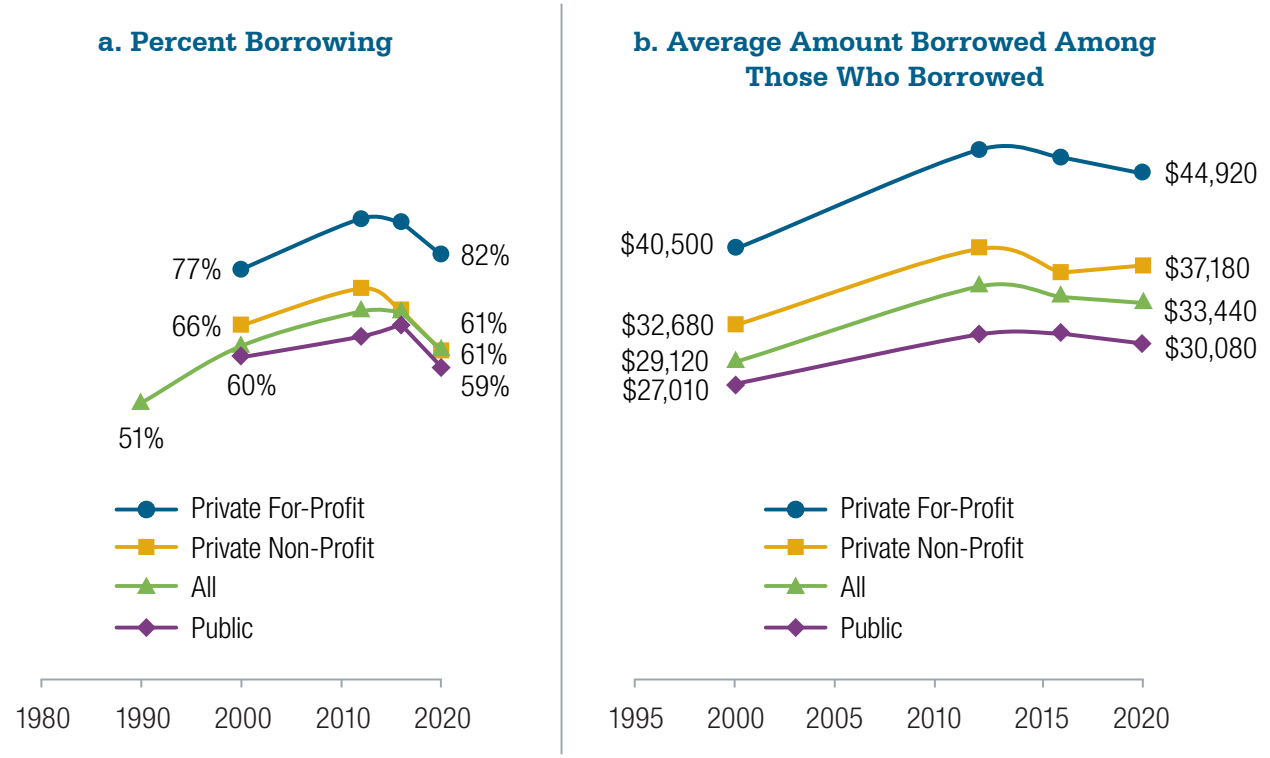
Borrowing for Associate's Degrees. Indicator 4c(iiia&b) shows borrowing rates and average amount borrowed among those who borrowed for associate's degree completers from 2000 to 2020. Overall, 39 percent of associate's degree completers borrowed in 2020, the same rate as in 2000, but rates ranged as high as 50 percent in 2012. In 2020, borrowing rates among associate's degree completers were over three times higher for those who attended private for-profit (93 percent) and private non-profit (77 percent) institutions than for those who attended public institutions (33 percent). In constant 2022 dollars, the average amount borrowed among those who borrowed ranged from $17,020 for those completing associate's degrees at public institutions to $31,280 for those completing at private for-profit institutions. Few private non-profit institutions award associate's degrees, but among those completing their associate's degrees at private non-profit institutions, there have been notable increases in the percent borrowing (from 46 percent in 2000 to 77 percent in 2020). While private for-profit institutions do not show the large increases observed for private non-profits over the period, borrowing rates and average amount borrowed continued to be highest among private for-profit institutions.

Borrowing Among Certificate Completers. Indicator 4c(iva&b) shows borrowing rates for certificate completers. Overall borrowing rates for certificate completers increased from 44 percent to 64 percent over the period of 2000 to 2020. Among public institutions, the percentage borrowing increased from 27 percent to 33 percent, and among the private non-profit sector, increased from 53 percent to 75 percent. The average amount borrowed by those who borrowed increased by 33 percent among public certificate completers and 36 percent among completers from private for-profits. For example, among those completing at public institutions, cumulative loan amounts rose from $12,730 in 2000 to $16,910 in 2020 using 2022 constant dollars.

104 This statistic represents the cumulative borrowing at any institution for those sampled students who were bachelor's, associate or certificate degree completers in the NPSAS study year. The institution control of reference is the institution from which the degree or certificate was conferred.

105 Data for 1990 are for the percentage of undergraduate students, age 18 to 24, in their 4th (senior) year or above who ever received loans. Data for 2000, 2012, 2016, and 2020 are for bachelor's degree completers in NPSAS year.

Equity Indicator 4c(iia&b): 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: Selected NPSAS years, 1990 to 2020 (in constant 2022 dollars)



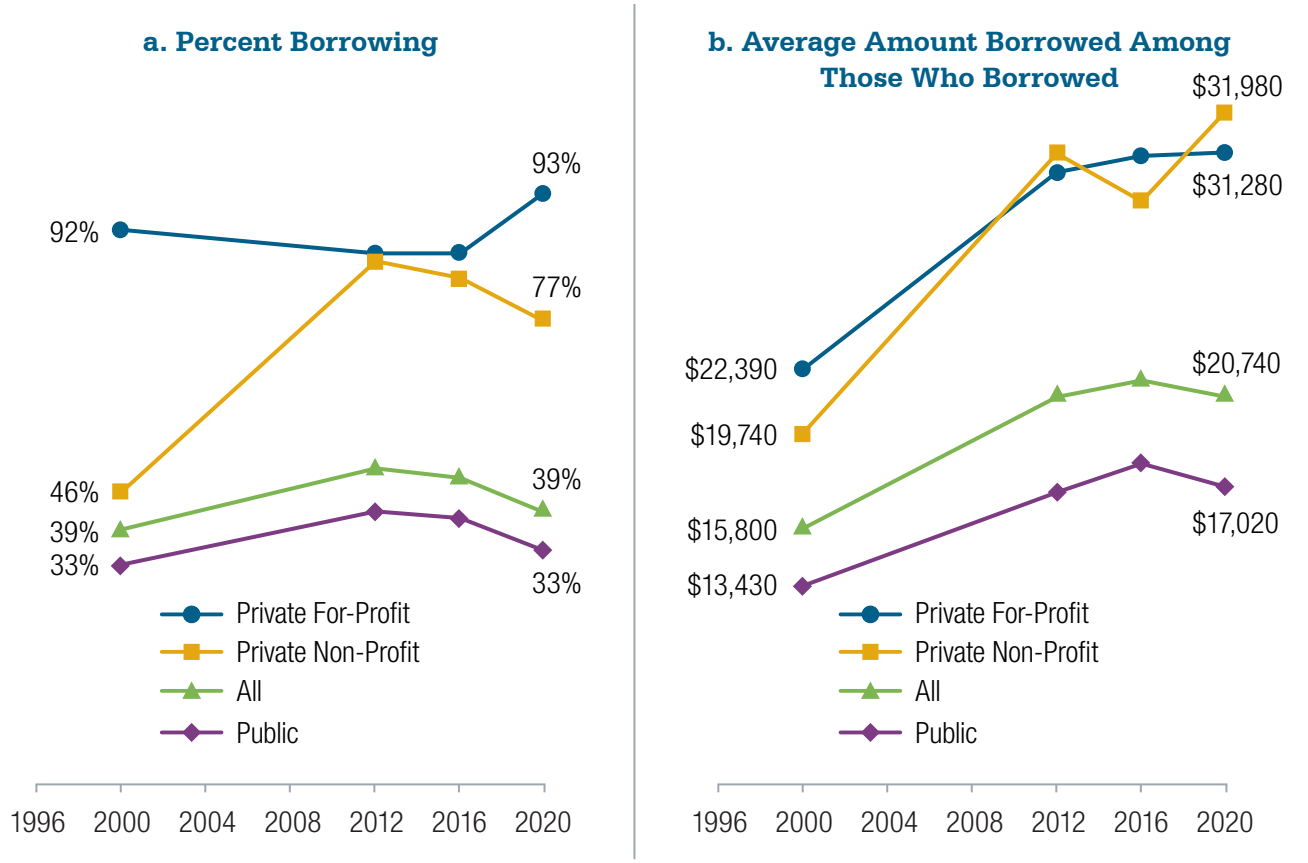
Indicator Status: Substantial Increase in Borrowing Since 1990

Use of loans among bachelor's degree completers increased from 51 percent in 1990, peaked in 2012 at 69 percent and was at 61 percent in 2020. Borrowing rates are highest for bachelor's degree completers at private for-profit institutions (82 percent in 2020). Among those who borrowed, the average amount borrowed by graduation for bachelor's degree completers increased by 15 percent between 2000 and 2020 in constant 2022 dollars.

NOTE: Data are from NPSAS: 1990, 2000, 2012, 2016, and 2020.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 1990, 2000, 2012, 2016, and 2020). *Digest of Education Statistics 2020*, Table [331.95]. Except 1990. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.95.asp.

Equity Indicator 4c(iiia&b): Percentage of associate'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: Selected NPSAS years: 2000, 2012, 2016, and 2020 (in constant 2022 dollars)



Indicator Status: Large Rates of Borrowing and Greater Increases in Average Amount Borrowed at Private For-profit and Private Non-profit than at Public Institutions

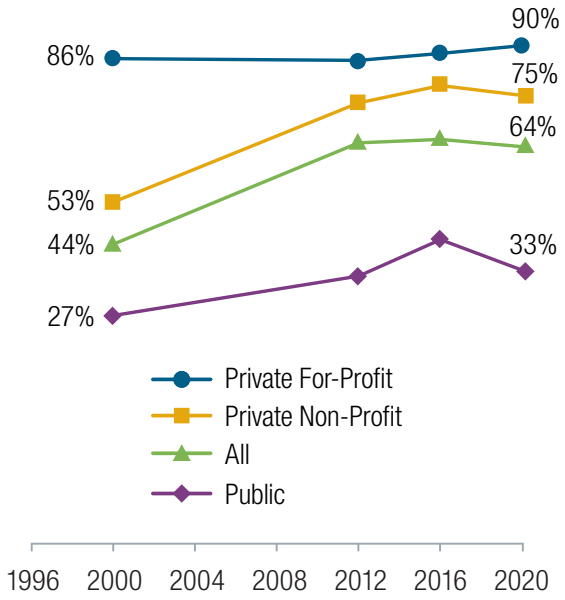
In 2020, 77 percent of associate's degree completers at private non-profit and 93 percent of associate's degree completers at private for-profit institutions borrowed, compared with 33 percent of associate degree completers at public institutions. The average amount borrowed among associate's degree completers who borrowed increased by 31 percent between 2000 and 2020 in constant 2022 dollars, rising from $15,800 in 2000 to $20,740 in 2020.

NOTE: Data are from NPSAS: 2000, 2012, 2016, and 2020.

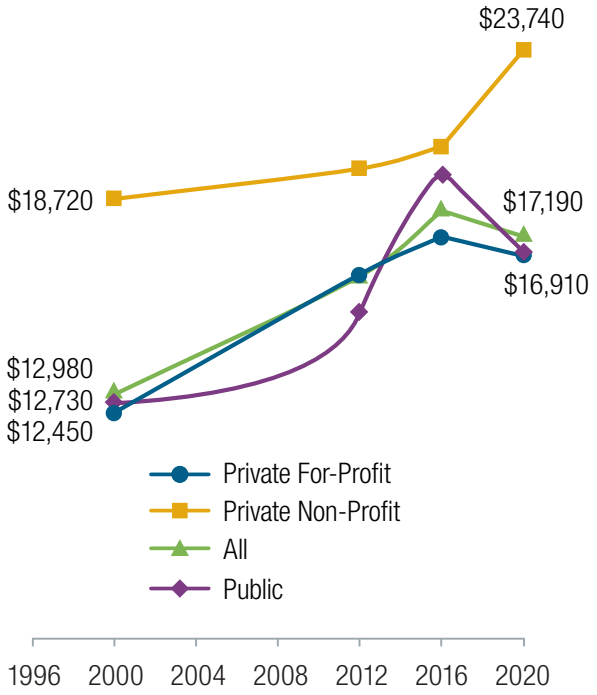
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 2000, 2012, 2016, and 2020). *Digest of Education Statistics 2020*, Table [331.95]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.95.asp.

Equity Indicator 4c(iva&b): Percentage of certificate completers who ever received loans (federal and non-federal loans to students) and average amount borrowed among those who borrowed by institutional control:: Selected NPSAS years: 2000, 2012, 2016, and 2020 (in constant 2022 dollars)

a. Percent Borrowing



b. Average Amount Borrowed Among Those Who Borrowed



Indicator Status:

Borrowing rates remain highest for those completing certificates at private for-profit institutions (90 percent), and this group was the only group that did not have a decline in borrowing rates between 2016 and 2020.

NOTE: Data are from NPSAS: 2000, 2012, 2016, and 2020.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 2000, 2012, 2016, and 2020). *Digest of Education Statistics 2020*, Table [331.95]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.95.asp.

Equity Indicators 4d(ia&b) and 4d(iia&b): How Frequently and How Much Do Undergraduate Students Borrow for Bachelor's or Associate's Degree Attainment by Race/Ethnicity?

Indicators 4d(ia&b) and 4d(iia&b) show the percent of undergraduate bachelor's and associate's degree completers who borrowed as well as the average amount borrowed by those who borrowed by race/ethnicity.[106]

Undergraduate Borrowing Among Bachelor's Degree Completers by Race/Ethnicity. Borrowing rates increased slightly for Black bachelor's degree completers (from 80 percent in 2000 to 83 percent in 2020) and for those of Two or More Races (from 55 percent in 2000 to 64 percent in 2020). In contrast, borrowing rates for Asian bachelor's degree completers decreased from 50 percent in 2000 to 41 percent in 2020 and for Pacific Islanders from 67 percent in 2000 to 50 percent in 2020.[107] The average amount borrowed for 2020 completers among those who borrowed ranged from $29,620 for Hispanic completers to $37,230 for Black bachelor's degree completers (in 2022 constant dollars).

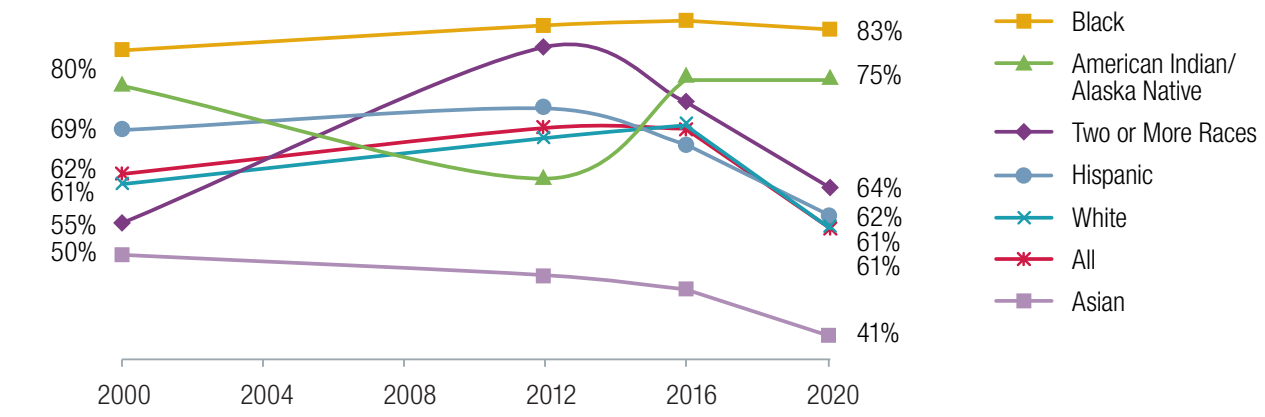
Borrowing Among Associate's Degree Completers By Race/Ethnicity. As Indicator 4d(iia&b) shows, in 2020 borrowing rates were higher among Black (60 percent) associate's degree completers than among White (41 percent), Hispanic (32 percent), and Asian associate's degree completers (24 percent). The percentage of Black associate's degree completers borrowing increased from less than half (44 percent) in 2000 to 60 percent in 2020. The average amount borrowed in 2020 dollars ranged from $18,120 among Hispanic associate's degree completers to $24,840 among Black associate's degree completers.

106 NPSAS sample sizes were too small to disaggregate certificate completion student loan data by race/ethnicity.

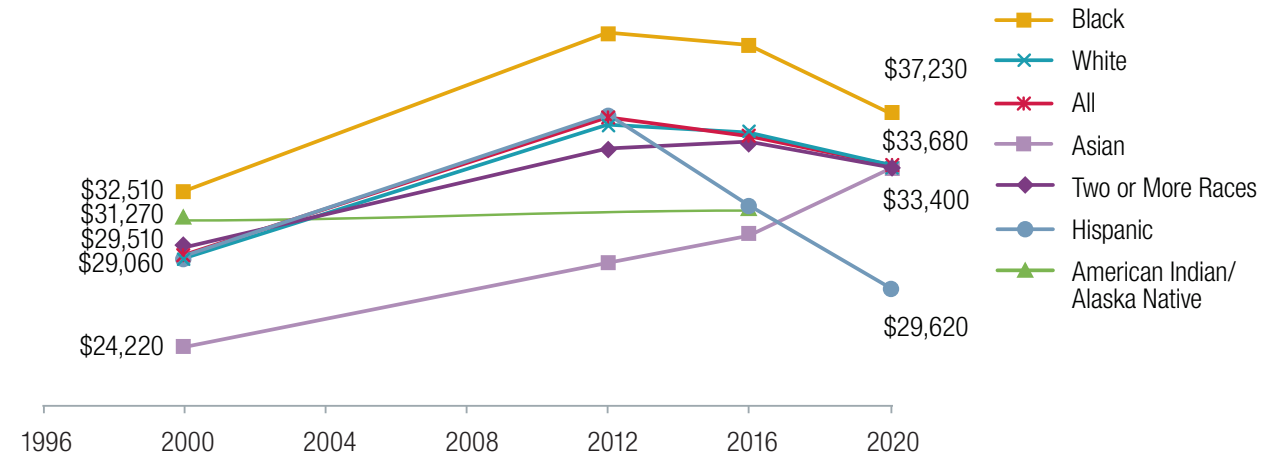
107 Caution is needed in interpreting large changes among relatively small groups with large standard errors. We do not show the data for Pacific Islanders in Indicators 4d(ia&b) and 4d(iia&b) due to small numbers of persons in the category and small sample sizes.

Equity Indicator 4d(ia&b): 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 race/ethnicity: Selected NPSAS years: 2000, 2012, 2016, and 2020 (in constant 2022 dollars)

a. Percent Borrowing



b. Average Amount Borrowed Among Those Who Borrowed



Indicator Status: Highest Rates of Borrowing Are Among American Indian/Alaska Natives and Blacks

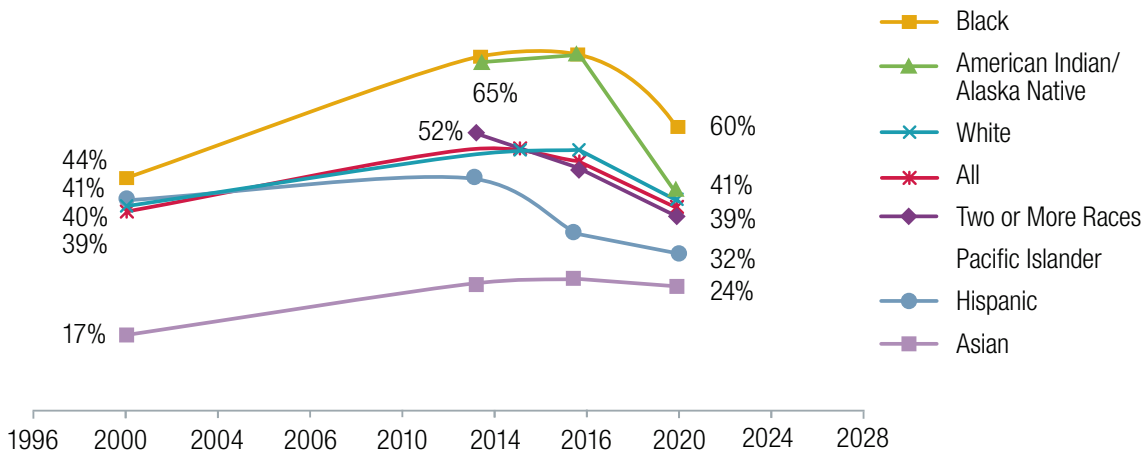
In 2020, 83 percent of Black and 75 percent of American Indian/Alaska Native bachelor's degree completers borrowed, compared with 64 percent of Two or More Races, 62 percent of Hispanics, 61 percent of Whites, and 41 percent of Asian bachelor's degree completers.

NOTE: Data are from NPSAS: 2000, 2012, 2016, and 2020.

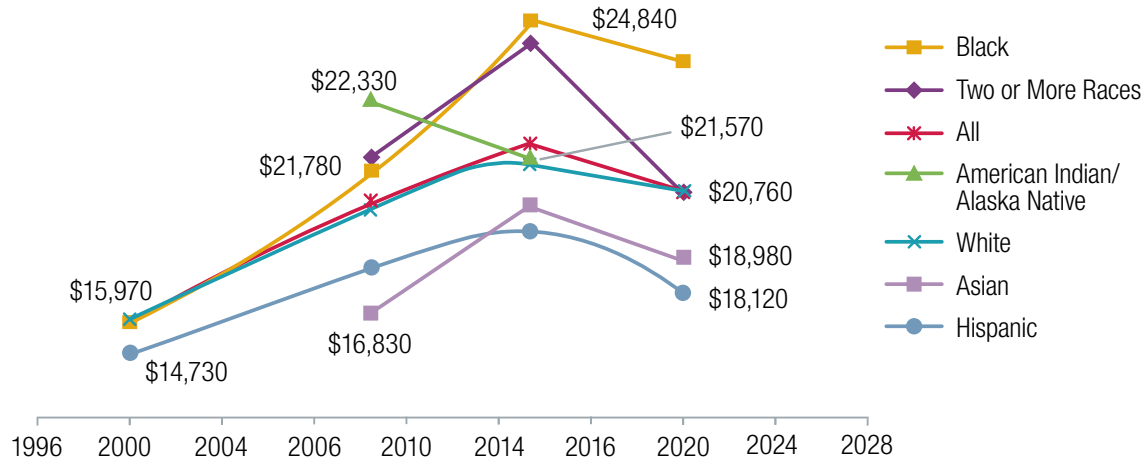
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 2000, 2012, 2016, and 2020). *Digest of Education Statistics 2020*, Table [331.95]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.95.asp.

Equity Indicator 4d(iia&b): Percentage of associate's degree completers who ever received loans (federal and non-federal loans to students) and average amount borrowed among those who borrowed by race/ethnicity: Selected NPSAS years: 2000, 2012, 2016, and 2020 (in constant 2022 dollars)

a. Percent Borrowing



b. Average Amount Borrowed Among Those Who Borrowed



Indicator Status: Blacks Have the Highest Rates of Borrowing for Associate's Degrees

In 2020, 60 percent of Black associate's degree completers had ever borrowed, compared with 41 percent of White, 39 percent of Two or More Races, 38 percent of American Indian/Alaska Native, 32 percent of Hispanic, and 24 percent of Asian associate's degree completers.

NOTE: Data are from NPSAS: 2000, 2012, 2016, and 2020.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS: 2000, 2012, 2016, and 2020). *Digest of Education Statistics 2020*, Table [331.95]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_331.95.asp.

Equity Indicator 4e(i): What do the Bachelor's Degree Follow-up Studies Tell Us About Student Debt?

Indicator 4e(i) includes data from the NCES Baccalaureate and Beyond (B&B) studies. We include data from the 1-year follow-up of the most recent cohort, the 2015-16 bachelor's completers who were surveyed in 2017.[108] We also include data from the 4-year and 10-year follow-ups for the 2008 bachelor's degree completers who were surveyed in 2012 and 2018, respectively.

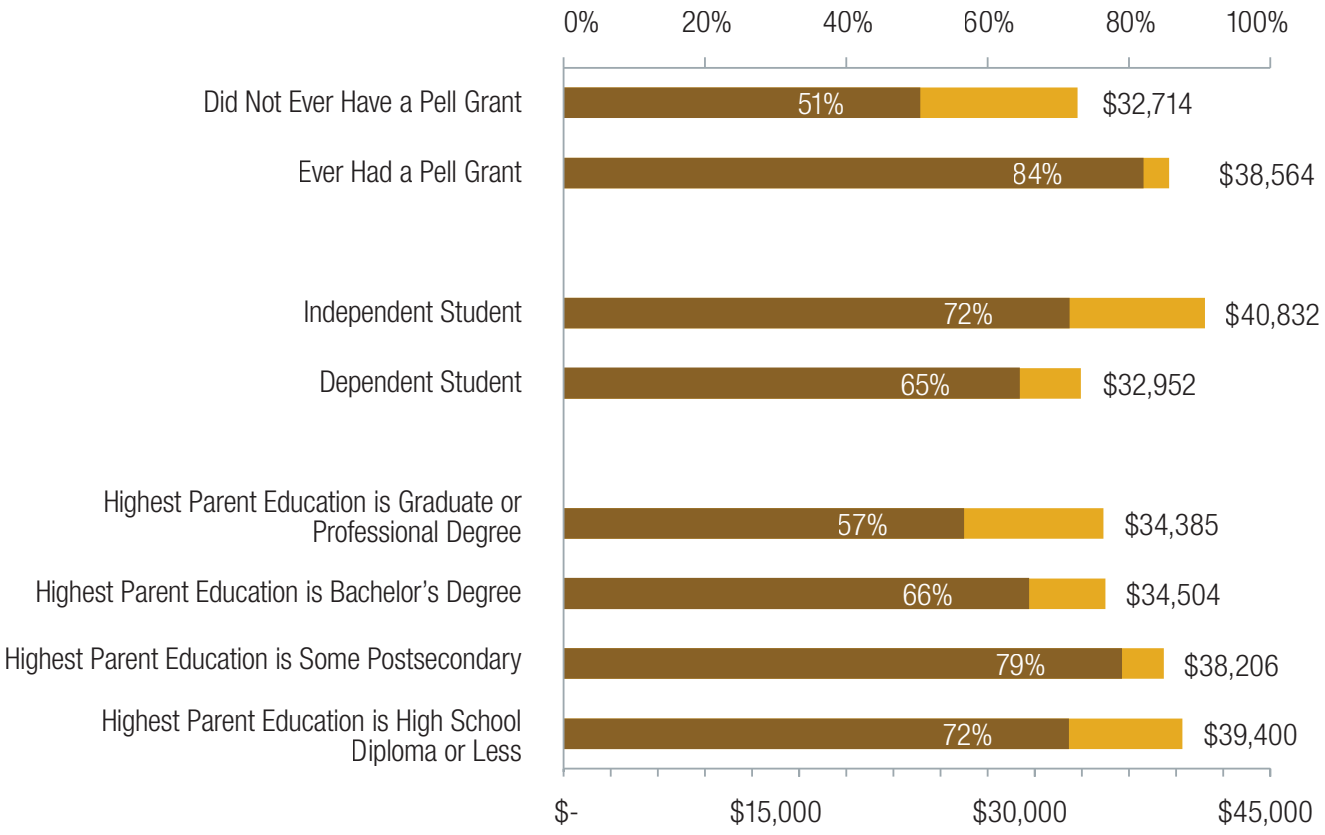
Pell Grant Receipt. It is a myth that those eligible for Pell Grants either do not have to borrow or borrow less because they receive grants. Increasingly, both Pell Grant and non-Pell Grant recipients must borrow to complete degrees; however, Pell Grant recipients are more likely to borrow and must borrow more on average. B&B data from the 1-year follow-up of the 2016 graduates in Equity Indicator 4e(i) documents that Pell Grant recipients were more likely to have to borrow to finance their bachelor's degree than non-Pell Grant recipients. Moreover, among those who borrowed, the average amount borrowed was also significantly higher. The borrowing rate for those who ever received Pell Grants was 84 percent, compared with 51 percent for non-Pell recipients. Pell Grant recipients were 65 percent more likely to have to borrow than non-Pell recipients. In 2022 dollars, the average Pell Grant recipient surveyed a year after graduation who borrowed had borrowed $38,564 after completing a bachelor's degree, compared with $32,714 for non-Pell Grant recipients.

Dependency Status. As indicated in Indicator 4e(i), independent students were more likely to borrow to finance their bachelor's degree than dependent students (72 percent vs. 65 percent). Independent students on average also had to borrow more. Among those who borrowed in 2022 constant dollars, on average independent students borrowed $40,832, compared with $32,952 for dependent students.

Parent Education. Students who had at least one parent whose highest degree was a graduate or professional degree were the least likely to have to incur debt to obtain a bachelor's degree (57 percent), followed by those whose parents had a bachelor's degree as the highest degree (66 percent). First-generation students, those for whom neither parent completed a bachelor's degree, had substantially higher rates of borrowing (79 percent among students whose parents had some college education, and 72 percent for those whose parents had never enrolled in college).

108 Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J. & Cooney, J. (2019). *Baccalaureate and Beyond B&B:16/17: A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later*, National Center for Education Statistics, NCES 2019-241. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019241.

Equity Indicator 4e(i): Percent of bachelor's degree recipients who borrowed and average amount borrowed (in 2022 dollars) to finance their undergraduate education by Pell Grant receipt status, dependency status, and highest parental education level: 2016 graduation cohort interviewed 1 year after graduation: Baccalaureate and Beyond (B&B): 2016/17



Indicator Status:

Fully 84 percent of Pell Grant recipients had to borrow to complete a bachelor's degree, compared with 51 percent of students who had not received Pell Grants. Among those who borrowed, the average amount borrowed in 2022 dollars was $38,564 among Pell Grant recipients and $32,714 among non-Pell recipients.

NOTE: Data are from B&B 2016 cohort from the 1-year follow-up. The average amount borrowed is tabulated based on those who borrowed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond (B&B) 2016/2017. Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J. & Cooney, J. (2019). *Baccalaureate and Beyond B&B:16/17: A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later*, National Center for Education Statistics, NCES 2019. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019241.

Equity Indicators 4e(ii to vi): What Does Bachelor's Degree Recipients' Borrowing and Debt Look Like at 4 and 10 Years After Graduation?

Equity Indicators 4e(ii to vi) examine the impact of graduate school debt and differences in repayment over time, using data from the 2008 cohort surveyed in 2012 at 4 years after graduation and again in 2018 for the 10-year follow-up. In this section, unlike the sections above, tabulations of average amount borrowed or owed include those who did not borrow and do not have student debt as having zero student debt so that the true magnitude of the differences in debt burden can be noted. The average amount of debt is presented in constant 2022 dollars.

Pell Grant Receipt, First-Generation Status, and Black-White Gaps at 4 Years After Receipt of Bachelor's Degree. Four years after graduation, gaps in amounts borrowed between Pell Grant recipients and nonrecipients, and between Black and White bachelor's degree recipients, grew substantially (Equity Indicator 4e(ii)). For example, including those who did not borrow as having zero debt, in 2022 dollars the Black-White gap had grown to $29,446 ($64,256 vs. $34,810). The average amount owed by Pell Grant recipients had grown to $51,124, compared to $33,701 for non-Pell Grant recipients, a gap of $17,423. Possibly reflecting lower rates of graduate school attendance, first-generation college students had somewhat less average debt than those whose parents had completed a bachelor's degree or higher ($41,986 vs. $34,141).

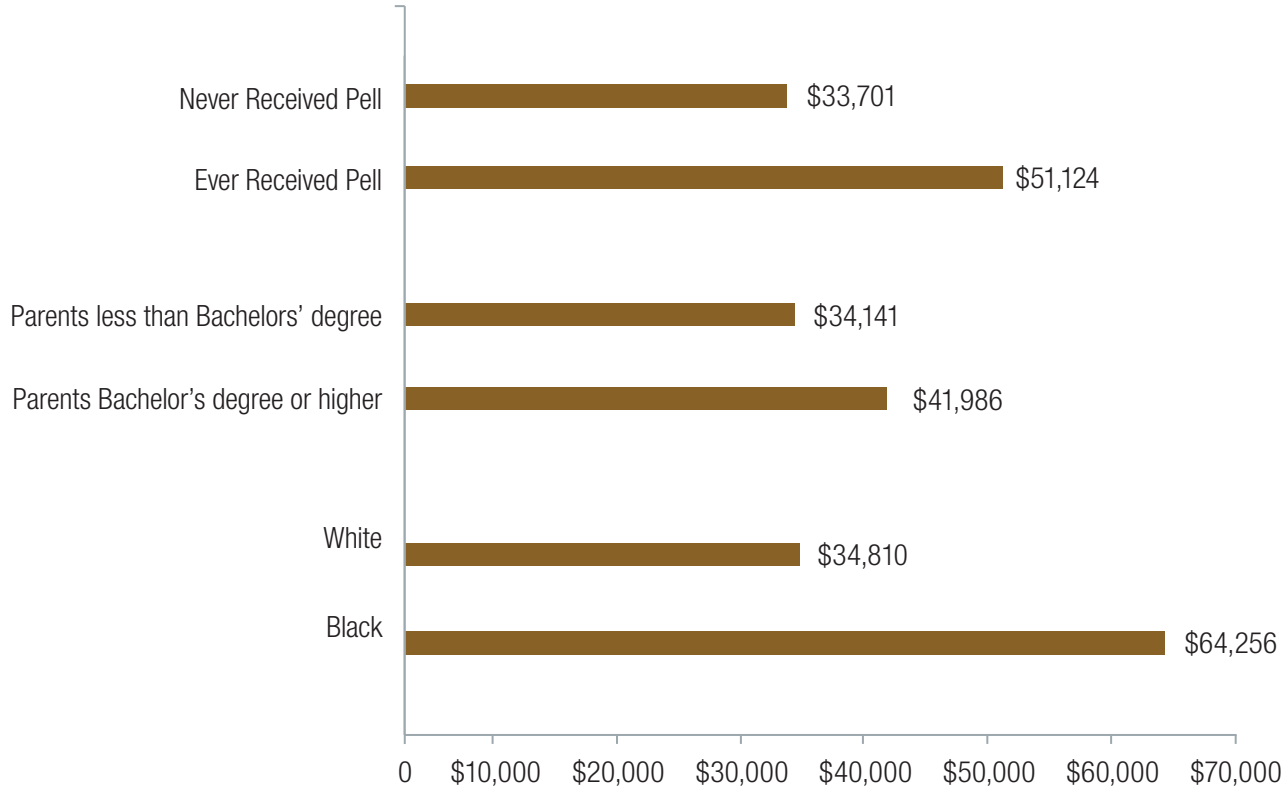
Graduate School Attendance and Debt. As scholars have noted, differences in rates of graduate school attendance have made a substantial impact on the gap in debt between Black and White bachelor's degree completers.[109] Although in the general population, Black graduate degree attainment rates remain lower than those of Whites,[110] Black bachelor's degree recipients are now entering graduate school at higher rates than White bachelor's degree recipients. By 2012, Black graduate school attendance within 4 years of completing a bachelor's degree was 47 percent, and White graduate school attendance was 38 percent (Equity Indicator 4e(iii a)).[111] Reflecting systemic inequality, Black graduate students are also more likely to need to use loans to finance their graduate education (Cominole and Bentz, 2018). This means that the Black-White gap in federal graduate loans is even greater than for undergraduate loans. Almost two-fifths (37 percent) of Black bachelor's completers had graduate loans within 4 years of bachelor's completion, compared with 22 percent of White bachelor's completers (Equity Indicator 4e(iiib)).

109 Scott-Clayton, J. & Li, J. (2016, October 20). Black-White disparity in student loan debt more than triples after graduation. *Evidence Speaks Reports, 2*(3). Washington, DC: Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/10/es_20161020_scott-clayton_evidence_speaks.pdf.

110 Baum, S. & Steele, P. (2017). *Who Goes to Graduate School and Who Succeeds?* Washington, DC: Urban Institute. Retrieved from https://www.urban.org/research/publication/who-goes-graduate-school-and-who-succeeds.

111 Cominole, M. & Bentz, A. (2018). Web-Tables, *Debt After College: Employment, Enrollment, and Student-Reported Stress and Outcomes.* U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond (B&B) study 2012 follow-up of the 2007-08 graduation cohort, March 2018, NCES 2018-401. Retrieved from https://nces.ed.gov/pubs2018/2018401.pdf.

Equity Indicator 4e(ii): Average amount owed (including those with zero debt) by 4 years after graduation by Pell Grant receipt, first-generation college status, and Black-White race/ethnicity: Baccalaureate and Beyond (B&B): 2008/12 (in 2022 dollars)



Indicator Status:

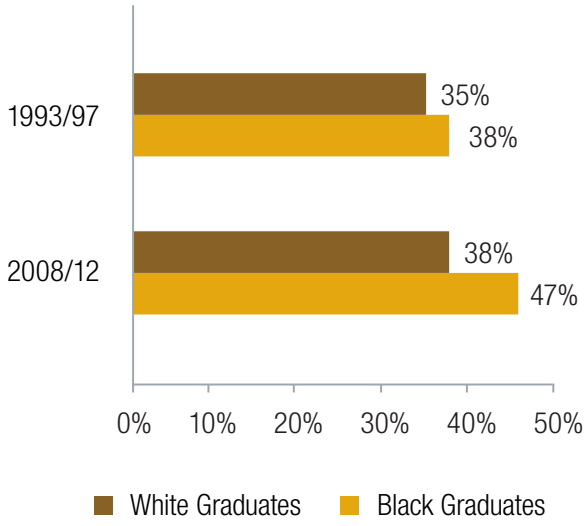
Four years after bachelor's degree completion, the differences in average amount borrowed, especially between Pell Grant recipients and non-recipients and between Black and White bachelor's degree recipients, had grown substantially. For example, in 2022 dollars, the Black-White gap had grown to $29,446 ($64,256 vs. $34,810). The average amount owed by Pell Grant recipients had grown to $51,124, compared to $33,701 for non-Pell Grant recipients, a gap of $17,423.

NOTE: Includes those having no debt as zero amount of student debt.

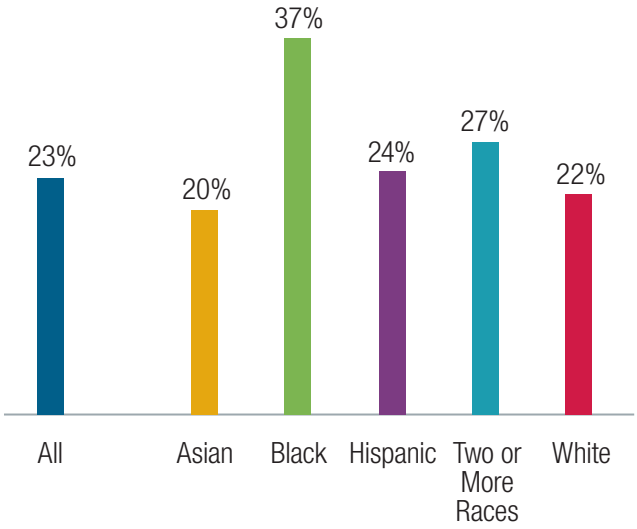
SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond (B&B) U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond (B&B:2008/2012). Tabulated using NCES PowerStats.

Equity Indicator 4e(iiia&b): Percent of 1993/1997 and 2008/2012 bachelor's degree recipients ever enrolled in graduate school by 4 years after graduation; and percent of 2008/12 cohort with graduate loans, by race/ethnicity: Baccalaureate and Beyond (B&B): 1993/97 and 2008/12

a. Enrolled in Graduate School by 4 Years After Bachelor's Completion



b. Percent of 2008 Cohort With Federal Graduate Loans by 4 years after Bachelor's Completion



Indicator Status:

Differences in graduate enrollment rates between Black and White bachelor's completers are increasing (47 percent versus 38 percent in 2008/12 cohort, compared to 38 percent versus 35 percent for the 1993/97 cohort). Four years after graduation, Black bachelor's completers are also more likely to have graduate loans than White completers (37 percent versus 22 percent).

NOTE: Data on graduate school attendance tabulated for U.S. citizens only. The higher rate of graduate school enrollment among Black college graduates does not imply a high rate of enrollment among Black young adults relative to other racial and ethnic groups. Black students earning bachelor's degrees are a smaller share of their age group than White and Asian college graduates. See Baum, S. & Steele, P. (2017). *Who Goes to Graduate School and Who Succeeds?* Washington, DC: Urban Institute. Retrieved from https://www.urban.org/research/publication/who-goes-graduate-school-and-who-succeeds.

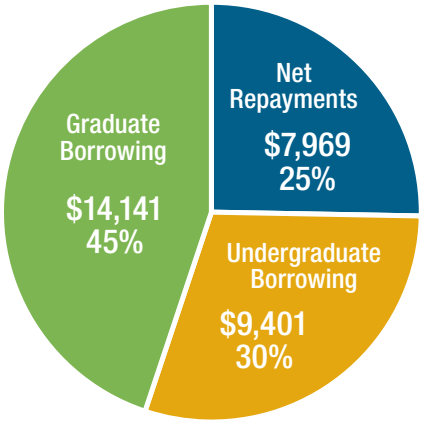
SOURCE: (a) Scott-Clayton, J. & Li, J. (2016, October 20). Black-white disparity in student loan debt more than triples after graduation. *Evidence Speaks Reports, 2*(3). Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/10/es_20161020_scott-clayton_evidence_speaks.pdf; (b) Cominole, M. & Bentz, A. (2018). Web-Tables, *Debt After College: Employment, Enrollment, and Student-Reported Stress and Outcomes*. U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond (B&B) study 2012 follow-up of the 2007-08 graduation cohort, March 2018, NCES 2018-401. Retrieved from https://nces.ed.gov/pubs2018/2018401.pdf.

Disaggregating Black-White Debt Gap at 4 Years After Graduation. The analyses completed by Scott-Clayton and Li (2016) for the Brookings Institution using the B&B 4-year follow-up for the 2008 cohort looked not just at the amount borrowed but also at the total amount owed after 4 years for both undergraduate and graduate loans.[112] As Equity Indicator 4e(iva) shows, they found that the largest percentage (45 percent) of the gap among Black and White bachelor's completers was attributable to differences in graduate school borrowing amounts. Thirty percent of the gap was due to differences in undergraduate borrowing and 25 percent from differences in repayment. Black bachelor's recipients were more likely to defer payments and to have more interest accrued. As the Equity Indicator 4e(ivb) indicates, almost half (48 percent) of Black bachelor's completers owed more than they borrowed for undergraduate and graduate education 4 years later, compared to 17 percent of Whites. Moreover, on average, Black bachelor's completers owed 6 percent more than they borrowed, compared with White bachelor's completers who owed 10 percent less than they borrowed 4 years later.

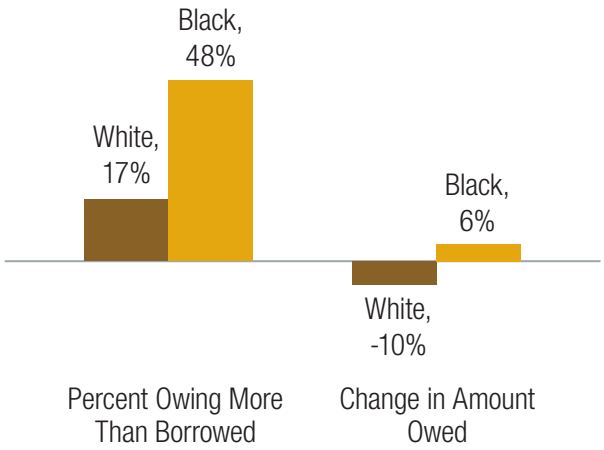
112 Scott-Clayton, J. & Li, J. (2016, October 20). Black-white disparity in student loan debt more than triples after graduation. *Evidence Speaks Reports, 2*(3). Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/10/es_20161020_scott-clayton_evidence_speaks.pdf.

Equity Indicator 4e(iva&b): Source of Black-White differences in amount owed (2022 constant dollars); percent owing more than borrowed, and changes in amount owed 4 years after graduation: Baccalaureate and Beyond (B&B): 2008/12 cohort

a. Percentage Distribution of Source of Black-White Differences in Amount Owed 4 Years After Graduation (in 2022 dollars)



b. Black-White Differences in Percent Owing More Than Borrowed, and Change in Amount Owed by 4 Years After Bachelor's Completion



Indicator Status:

Almost half (48 percent) of Black bachelor's completers owed more than they borrowed 4 years after graduation, compared with 17 percent of White bachelor's completers. Differences in the need to borrow for graduate school accounted for 45 percent of the differences in debt levels between Black and White bachelor's degree completers 4 years after graduation.

NOTE: Data on graduate school attendance tabulated for U.S. citizens only. Percent owning more than borrowed includes amounts borrowed for undergraduate and graduate education. Data in Equity Indicator 4(va) have been updated to 2022 dollars.

SOURCE: Scott-Clayton, J. & Li, J. (2016, October 20). Black-white disparity in student loan debt more than triples after graduation. *Evidence Speaks Reports, 2*(3). Washington, DC: Brookings Institution. Baccalaureate and Beyond (B&B) study 2012 follow-up of the 2007-08 graduation cohort. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/10/es_20161020_scott-clayton_evidence_speaks.pdf.

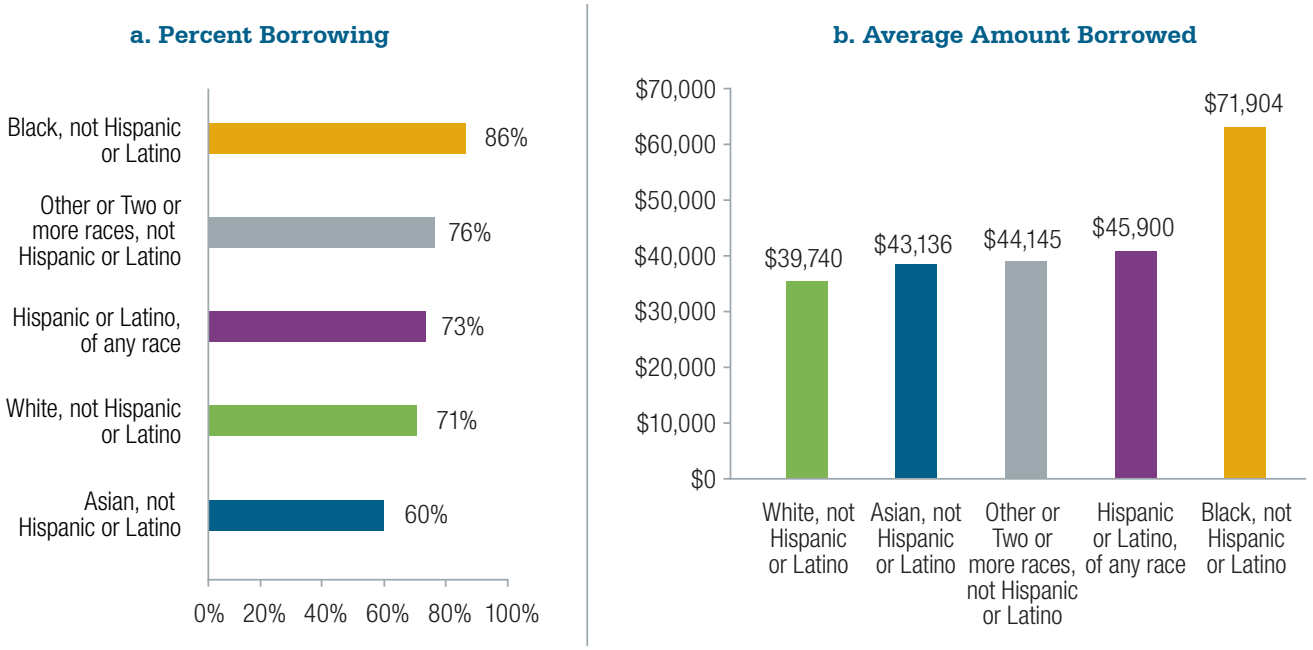
How Does Borrowing and Financial Well-Being of Bachelor's Degree Recipients Vary by Race/Ethnicity 10 Years After Graduation?

A report released in 2021[113] from the 2018 follow-up of the 2008 cohort 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.

Percent Borrowing and Average Borrowed by Race/Ethnicity. The 10-year B&B follow-up of the 2008 cohort reveals that 10 years after graduation, 86 percent of Black bachelor's degree recipients had borrowed at either undergraduate or graduate levels, compared with 71 percent of White graduates, 73 percent of Hispanic or Latino, and 60 percent of Asian graduates (Equity Indicator 4e(va&b)). Including those who had never borrowed as having zero amount borrowed in the calculations, the average amount Black bachelor's degree recipients borrowed in the 2008 cohort to finance their education (expressed in 2022 dollars) was $71,904, and the average amount borrowed by White graduates was $39,740. This represents a Black-White gap of $32,164 in 2022 dollars. Black bachelor's graduates had borrowed almost twice (1.8 times) as much as White graduates for their education by 10 years after receiving their bachelor's degree.

113 Cominole, M., Thomsen, E., Henderson, M., Velez, E.D., & Cooney, J. (2021). *Baccalaureate and Beyond (B&B:08/18): First Look at the 2018 Employment and Educational Experiences of 2007–08 College Graduates (NCES 2021-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Equity Indicator 4e(va&b): Percent borrowing and average amount (includes nonborrowers as zero) in 2022 dollars for undergraduate and graduate enrollment by 10 years after bachelor's completion by race/ethnicity: Baccalaureate and Beyond (B&B): 2008/18



Indicator Status:

Ten years after completing their bachelor's degrees, 86 percent of Blacks had borrowed for undergraduate or graduate education, compared with 71 percent of Whites who were not Hispanic or Latino. The debt gap between Blacks and Whites (including those who did not borrow as zero), rose to $32,164 in 2022 dollars, with Blacks borrowing an average of $71,904 and Whites an average of $39,740.

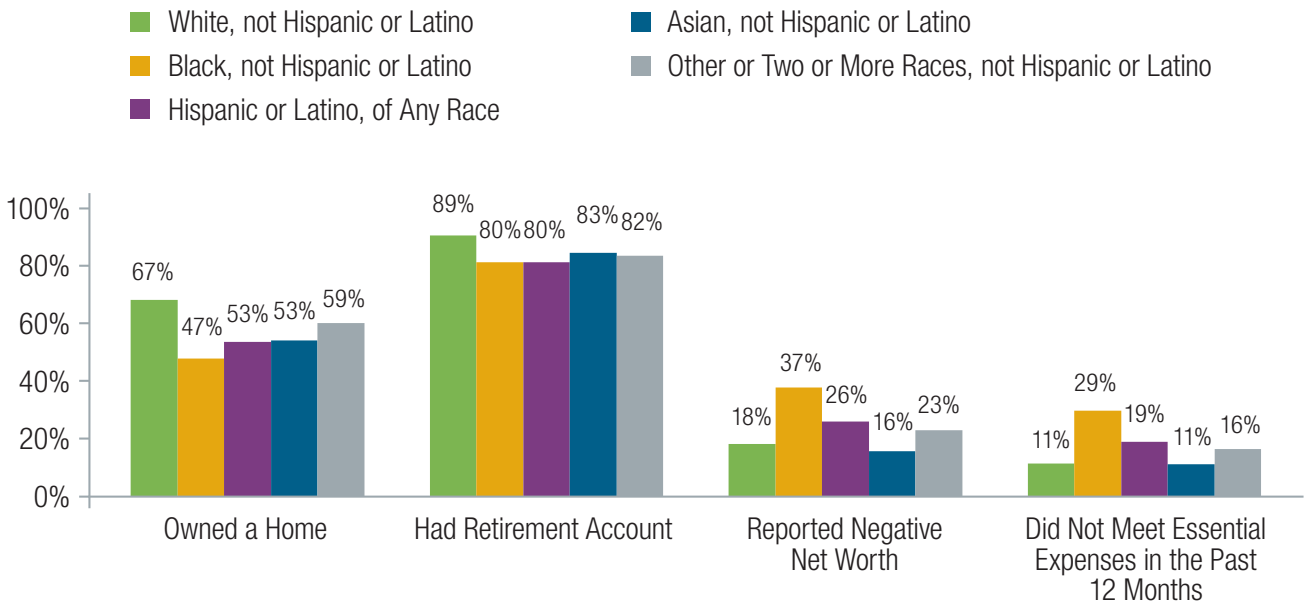
NOTE: Authors' calculation of amount borrowed including non-borrowers as zero is based on published data on percent who borrowed and average amount among those who borrowed.

SOURCE: Cominole, M., Thomsen, E., Henderson, M., Velez, E.D., & Cooney, J. (2021). *Baccalaureate and Beyond (B&B:08/18): First Look at the 2018 Employment and Educational Experiences of 2007–08 College Graduates (NCES 2021-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Financial Well-being of the 2008 B&B Cohort 10 Years After Graduation by Race/Ethnicity. The 10-year B&B follow-up of the 2008 cohort conducted in 2018 also asked a series of financial well-being questions. These questions included measures of home ownership, having a retirement account, negative net worth, and having months when it was impossible to meet essential expenses. Retirement accounts include both employer-based retirement accounts such as 401(k), 403(b), and pensions, and non-employer-based retirement accounts such as individual retirement accounts. Respondents were considered to have negative net worth if they would still be in debt after selling all their major possessions, turning all their investments and other assets into cash, and paying off as many debts as they could. The item "Did not meet essential expenses" refers to being unable to meet essential living expenses such as mortgage or rent payments, utility bills, or important medical care. "Past 12 months" refers to any of the 12 months preceding the interview.

As Equity Indicator 4e(vi), shows there were large financial well-being differences among bachelor's degree recipients by race/ethnicity. Ten years after graduation, home ownership was highest among White bachelor's degree recipients (67 percent) and least frequent among Black bachelor's completers (47 percent). The percentage having a retirement account ranged from 89 percent for White graduates to 80 percent for Black and Hispanic graduates. Starkly, 10 years after being awarded their bachelor's degree, over one-third (37 percent) of Black bachelor's graduates had negative net worth, and 29 percent indicated they had difficulty meeting essential living expenses in the previous 12 months. This compares to 18 percent of White completers with negative net worth and 11 percent who reported being unable to meet essential expenses.

Equity Indicator 4e(vi): Bachelor's degree graduates' financial well-being 10 years after graduation by race/ethnicity: Baccalaureate and Beyond (B&B): 2008/18



Indicator Status:

Indicator Status: Starkly, 10 years after being awarded their bachelor's degree, over one third (37 percent) of Black bachelor's graduates had negative net worth, and 29 percent indicated they had difficulty meeting essential living expenses in the previous 12 months. For White bachelor's graduates, the comparable rates were 18 percent with negative net worth and 11 percent who reported having difficulty meeting essential monthly expenses.

NOTE: Retirement accounts include both employer-based retirement accounts such as 401(k), 403(b), and pensions, and non-employer-based retirement accounts such as individual retirement accounts. Respondents were considered to have negative net worth if they would still be in debt after selling all their major possessions, turning all their investments and other assets into cash, and paying off as many debts as they could. The item "Did not meet essential expenses" refers to being unable to meet essential living expenses such as mortgage or rent payments, utility bills, or important medical care. "Past 12 months" refers to any of the 12 months preceding the interview.

SOURCE: Cominole, M., Thomsen, E., Henderson, M., Velez, E.D., & Cooney, J. (2021). *Baccalaureate and Beyond (B&B:08/18): First Look at the 2018 Employment and Educational Experiences of 2007–08 College Graduates (NCES 2021-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Equity Indicators 4f(i) and 4f(ii): What Are the Rates of Borrowing and Average Amount Borrowed by State?

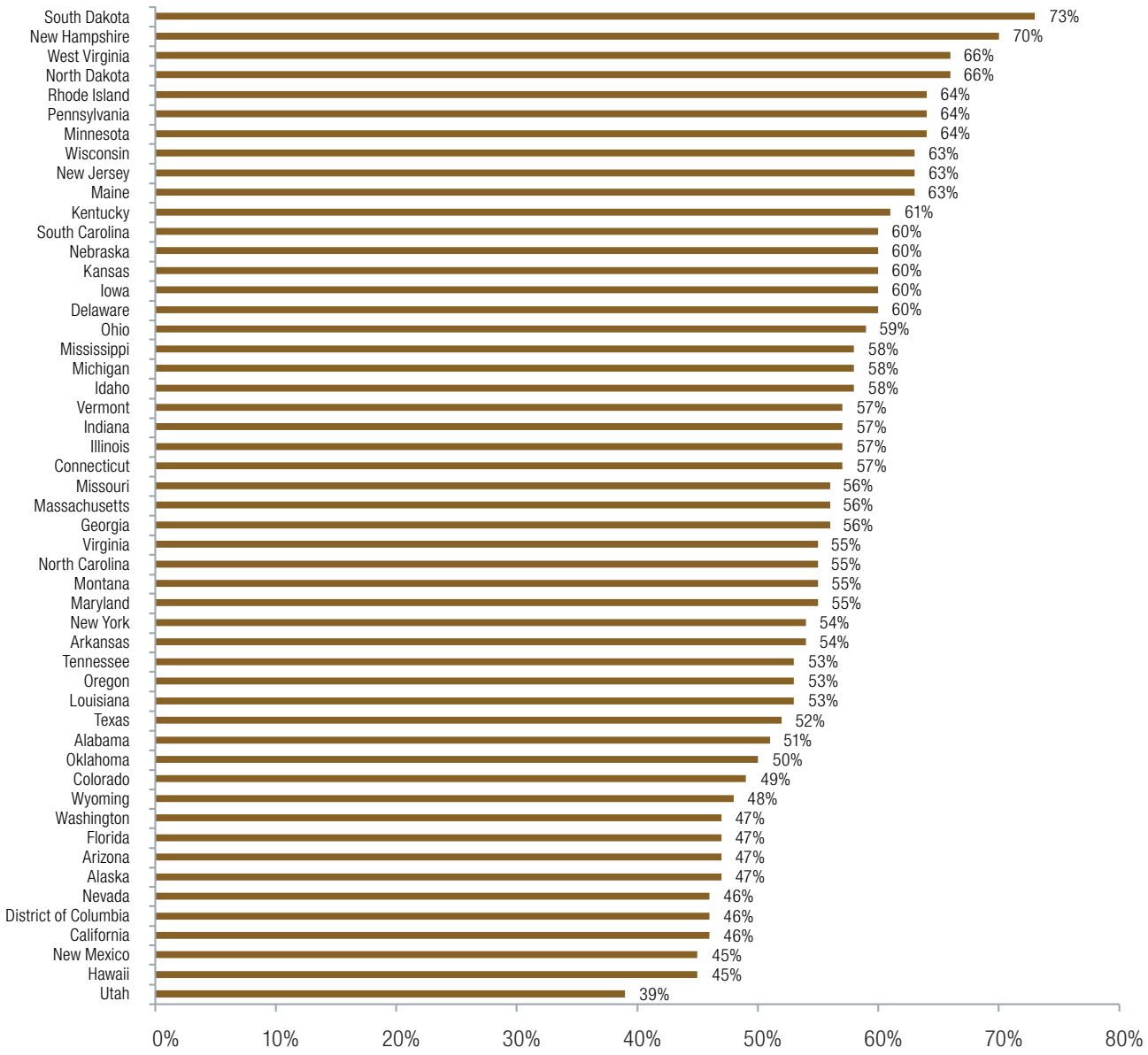
Indicators 4f(i) and 4f(ii) show the estimated percentages of 2020 bachelor's degree recipients who borrowed and, among those who borrowed, the average cumulative amounts borrowed by state. This indicator relies on data from the 2020 Annual Survey of College Debt by TICAS, a voluntary data collection from over 1,000 4-year institutions. To estimate state-level student loan debt, TICAS uses the most recent available figures, which were provided by more than half of all public and non-profit bachelor's degree-granting 4-year colleges. TICAS warns that some caution is warranted when using their data. To estimate state averages, TICAS estimates the percent of students borrowing and the average debt amount borrowed for states that have sufficient usable data from which to calculate state estimates.[114] The limitations of relying on voluntarily-reported data underscore the need for federal collection of cumulative student debt data for all institutions. As with all state comparisons, caution is needed in interpreting differences by state. States may have higher or lower rates of borrowing and amounts borrowed for many reasons, including differences in the rate at which low-income and middle-income students participate in college, availability of need-based grant aid, average college costs, and economic differences among the states.

Indicator 4f(i) shows that, in 2020, fewer than 50 percent of bachelor's degree recipients graduated with debt in Utah (39 percent), Hawaii and New Mexico (45 percent), California, District of Columbia, and Nevada (46 percent), Alaska, Arizona, Florida, and Washington (47 percent), Wyoming (48 percent), and Colorado (49 percent). The states with the highest percent of students graduating with debt were New Hampshire (70 percent) and South Dakota (73 percent).

Indicator 4f(ii) shows that in 2022 dollars, the average amount borrowed in 2020 by those who borrowed ranged from less than $25,000 in Utah ($20,743), New Mexico ($23,597), California ($23,887), and Nevada ($24,150), to more than $40,000 in Connecticut ($40,541), Rhode Island ($41,602), Pennsylvania ($44,524), Delaware ($44,897), and New Hampshire ($45,149).

114 TICAS does not tabulate average rates of borrowing for states in which less than 30 percent of bachelor's degree recipients are represented in the data submitted by institutions within the state. To estimate state averages, TICAS uses the most recent available figures voluntarily reported by colleges, including 50 percent of all public and nonprofit bachelor's degree-granting four-year colleges and representing 80 percent of graduates. Schak, J.O., Wong, N., & Fung, A. (2021). *Student Debt and the Class of 2021, 16th Annual Report.* Oakland: The Institute for College Access & Success (TICAS). Retrieved from https://ticas.org/our-work/student-debt.

Equity Indicator 4f(i): Percentage of bachelor's degree recipients with debt by state: 2020



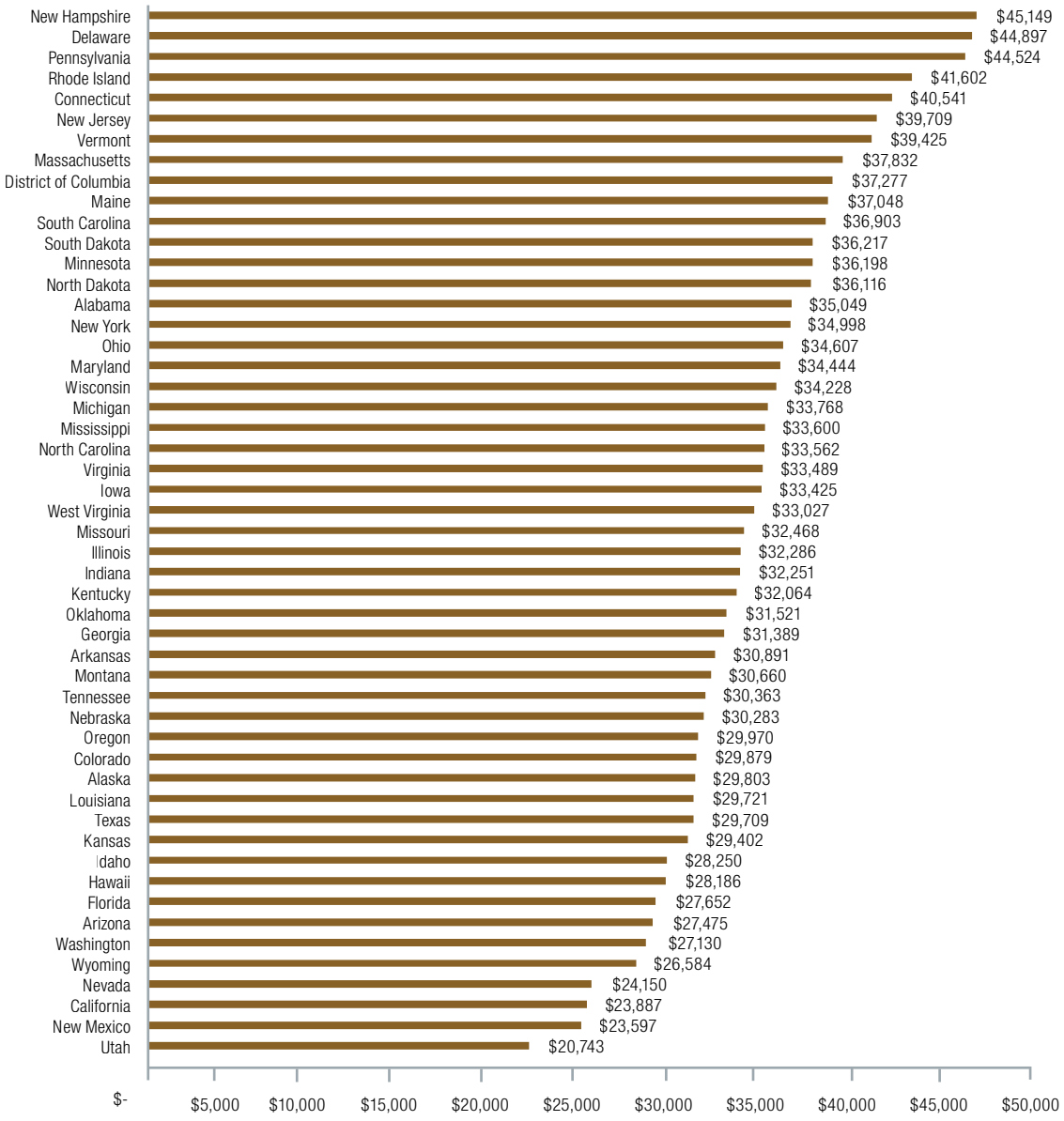
Indicator Status:

The percentage of 2020 bachelor's degree recipients who borrowed ranged from 39 percent in Utah to 73 percent in South Dakota.

NOTE: To estimate state averages, TICAS used the most recent available figures, which were provided voluntarily by more than half of all public and non-profit bachelor's degree-granting 4-year colleges. The college- and state-level debt data used for the report are available online at https://ticas.org. TICAS does not tabulate average rates of borrowing for states in which "less than 30 percent of bachelor's degree recipients are represented in the data submitted by institutions within the state."

SOURCE: Schak, J.O., Wong, N., & Fung, A. (2021). *Student Debt and the Class of 2020, 16th Annual Report.* Oakland: The Institute for College Access & Success (TICAS). Retrieved from https://ticas.org/our-work/student-debt.

Equity Indicator 4f(ii): Average amount of debt in constant 2022 dollars among bachelor's degree recipients who borrowed by state: 2020



Indicator Status:

The average amount borrowed among 2020 bachelor's degree recipients who borrowed in constant 2022 dollars ranged from $ 20,743 in Utah to $45,149 in New Hampshire.

NOTE: To estimate state averages, TICAS used the most recent available figures, which were provided voluntarily by more than half of all public and non-profit bachelor's degree-granting 4-year colleges. The college- and state-level debt data used for the report are available online at https://ticas.org. TICAS does not tabulate average rates of borrowing for states in which "less than 30 percent of bachelor's degree recipients are represented in the data submitted by institutions within the state."

SOURCE: Schak, J.O., Wong, N., & Fung, A. (2021). *Student Debt and the Class of 2020, 16th Annual Report.* Oakland: The Institute for College Access & Success (TICAS). Retrieved from https://ticas.org/our-work/student-debt.

Equity Indicators 4g(ia&b) and 4g(iia&b): What are the Differences in Frequency of Borrowing and Amounts Borrowed by Major Field of Study?

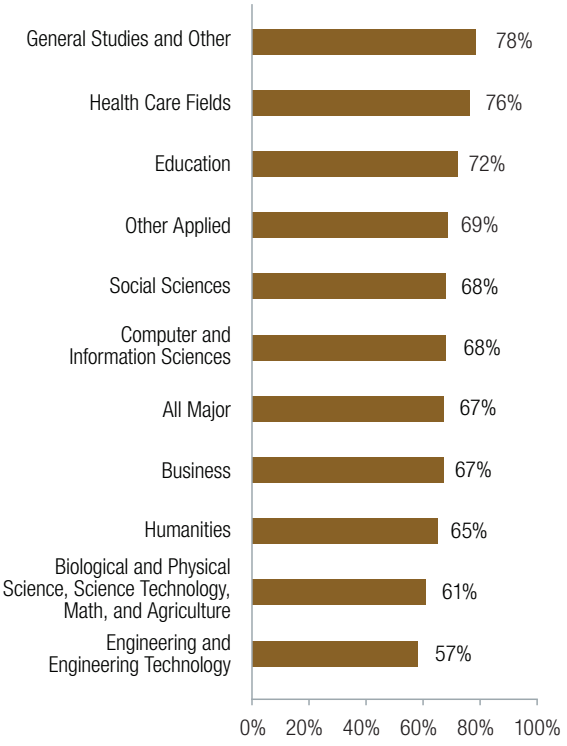
Follow-up After 1-Year. Indicator 4g(ia&b) includes data on percent borrowing and average amount borrowed for undergraduate studies disaggregated by major field of study. Data are from the 1-year follow-up of bachelor's degree completers from most recent (2016) Baccalaureate and Beyond (B&B:16/17) cohort. By major field of study, the percent borrowing for undergraduate studies ranged from a low of 57 percent in Engineering and Engineering Technology to 78 percent in General Studies and Other[115] (Equity Indicator 4g(ia)). Considering the average amounts borrowed among those who borrowed, in 2022 dollars the amounts ranged from $33,072 among the Biological and Physical Sciences to $39,638 among those majoring in Computer and Information Sciences (Indicator 4g(ib)).

Follow-Up After 10-Years. Indicator 4g(iia&b) includes the frequency of borrowing and amounts borrowed for an earlier B&B cohort who graduated in 2008 and were followed at 10 years in 2018 (B&B:08/18). This 10-year follow-up cohort reflects a debt burden that includes both graduate and undergraduate studies. In general, those fields that most require graduate education had the highest percentage borrowing and the largest debt amounts in the B&B 2008/2018 cohort. By major field of study, the percent borrowing ranged from 60 percent among the Engineering and Engineering Technologies, 67 percent among Computer and Information Sciences, and 68 percent among majors in Business, to 76 percent in the Social Sciences and 78 percent in the Health Care Fields. In 2022 dollars, the average amounts borrowed among those who borrowed ranged from a low of $41,362 among Computer and Information Sciences majors to a high of $$97,196 among the Biological and Physical Science fields (majors that often require a Ph.D for employment). As can be seen in Indicator 4g(iia&b), the median amount borrowed was typically substantially lower than the mean and in some fields was much lower. This large difference between the mean and median indicates that the mean was skewed by those with high debt amounts.

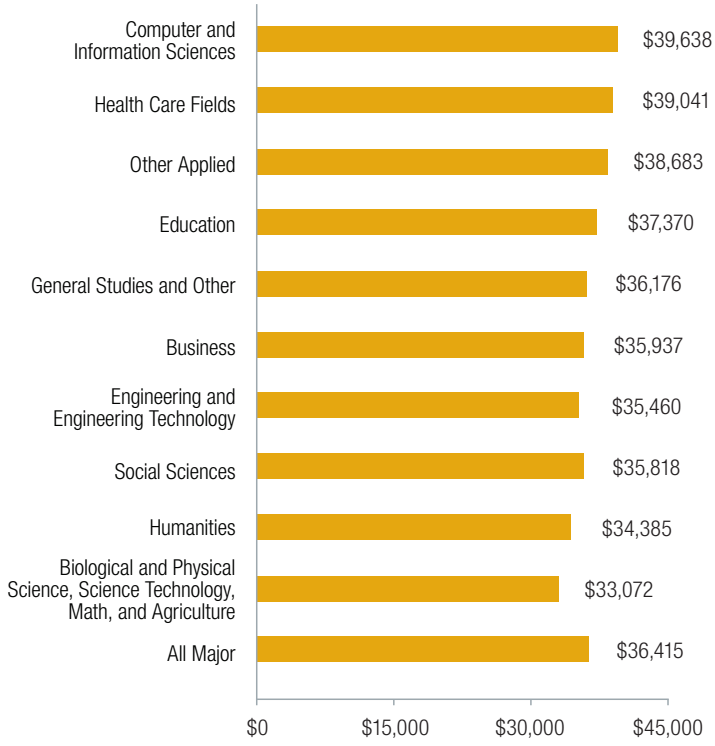
115 See reference for a list of included programs and studies for the "General Studies and Other" major: Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J. & Cooney, J. (2019). *Baccalaureate and Beyond B&B:16/17: A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later*, National Center for Education Statistics, NCES 2019-241 Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019241.

Equity Indicator 4g(ia&b): Percent borrowing and average amount borrowed among those who borrowed in 2022 dollars for undergraduate studies by major field of study (data from the 1-year follow up: Baccalaureate and Beyond (B&B): 2016/17

a. Percent Borrowing



b. Average Amount Among Those Who Borrowed



Indicator Status:

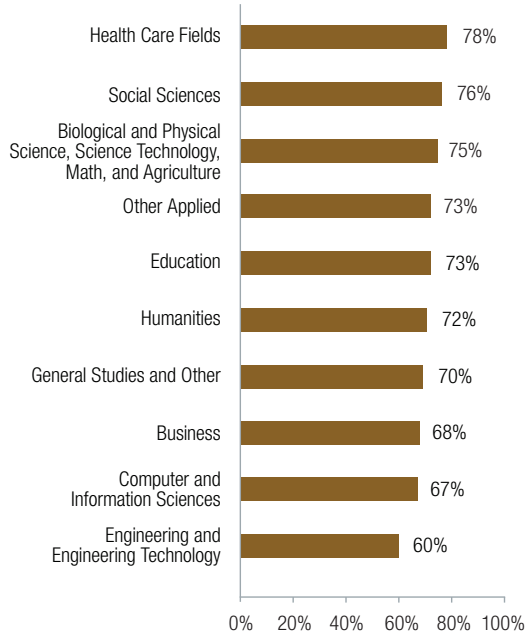
By major field of study, the percent borrowing ranged from a low of 57 percent in Engineering and Engineering Technology to 78 percent in General Studies and Other fields. Of the average amounts borrowed in 2022 dollars, the amounts ranged from a low of $33,072 among the Biological and Physical Sciences to $39,638 among those majoring in Computer and Information Sciences.

NOTE: Respondents with multiple majors were classified by the first major field of study reported. The "Other Applied" category includes personal and consumer services; manufacturing, construction, repair, and transportation; military technology and protective services; architecture; communications; public administration and human services; design and applied arts; law and legal studies; library sciences; and theology and religious vocations. The average amount borrowed in student loans is calculated among those who borrowed either undergraduate or graduate student loans and includes both their undergraduate and graduate student loan amounts.

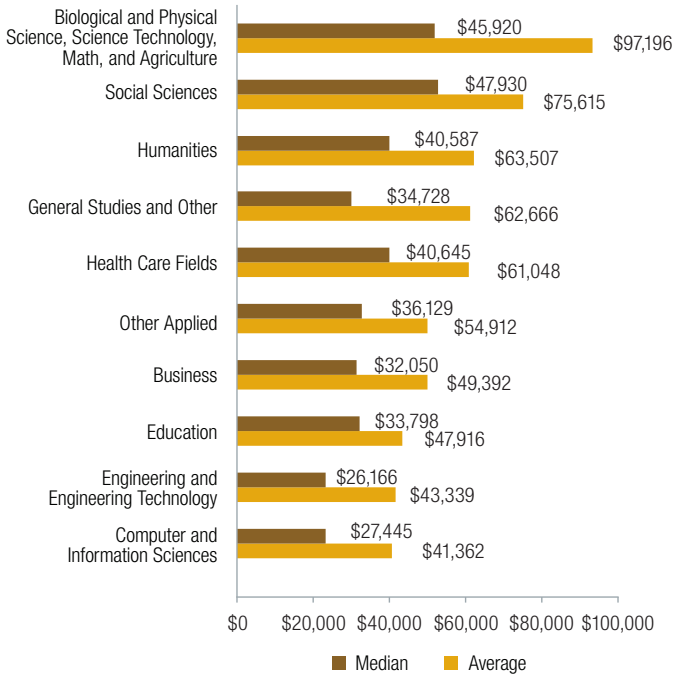
SOURCE: Velez, E.D., Lew, T., Thomsen, E., Johnson, K. Wine, J. & Conney, J. (2019, June). *Baccalaureate and Beyond (B&B:16/17): A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later.* U.S. Department of Education, National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2019/2019241.pdf.

Equity Indicator 4g(iia&b): Percent borrowing and mean and median amount borrowed among those who borrowed in 2022 dollars for undergraduate or graduate studies by major field of study: (from the 10-year follow up: Baccalaureate and Beyond (B&B): 2008/18

a. Percent Borrowing by 10 Years after Graduation for Undergraduate or Graduate Studies



b. Average and Median Amount Borrowed by 10 Years After Graduation for Undergraduate or Graduate Studies



Indicator Status:

In the B&B:08/18 follow-up 10 years after bachelor's completion, those fields that most require graduate education had the highest percentage borrowing and the largest debt amounts. The mean amount borrowed ranged from a low of $41,362 among Computer and Information Sciences to a high of $97,196 among the Biological and Physical Sciences. The median amount borrowed was typically lower than the mean and in some fields was much lower. This large difference between the mean and median indicates that the mean was skewed by those with high debt amounts.

NOTE: See note for 4g(ia&b) for major field classification descriptions. Average and median amount borrowed is tabulated based on those who borrowed.

SOURCE: Cominole, M., Thomsen, E., Henderson, M., Velez, E.D., & Cooney, J. (2021). *Baccalaureate and Beyond (B&B:08/18): First Look at the 2018 Employment and Educational Experiences of 2007–08 College Graduates (NCES 2021-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Equity Indicators 4h(i) and 4h(ii): What Were the Financial and Personal Impacts of COVID-19 in the Spring of 2020?

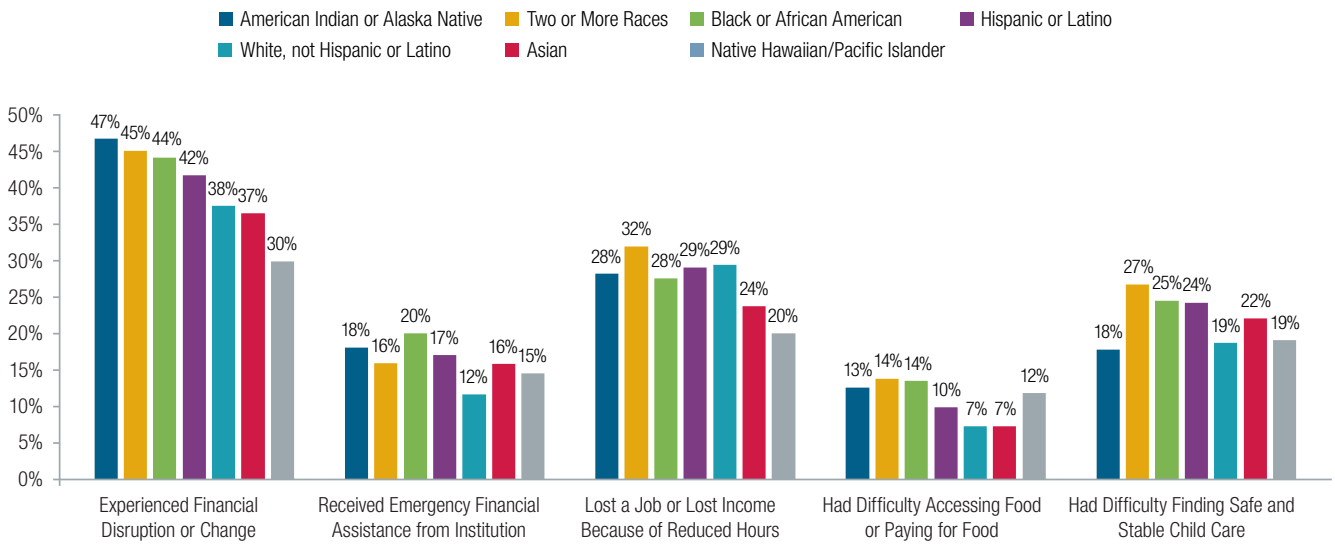
COVID-19 came to the United States just as the National Postsecondary Student Aid Study (NPSAS:2020) was beginning data collection. NPSAS:2020 was adapted to include a series of questions designed to measure the short-term impact of COVID-19. These data were published in a *First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data)* in 2021.[116] Equity Indicators 4h(i) and 4h(ii) present summary information from this report on the impact of financial and personal impacts of undergraduate students by race/ethnicity and by dependency status.

Equity Indicator 4h(i) presents information on various financial and personal impacts by race/ethnicity. The percent of undergraduates who reported they experienced financial disruption or change ranged from 47 percent among American Indian or Alaska Native students to 30 percent among Native Hawaiian or Pacific Islanders. The percent receiving financial assistance from their institutions ranged from 20 percent among Black students to 12 percent among White students. The percent reporting reduced income due to job loss or reduced hours ranged from 32 percent among Two or More Races to 20 percent among Native Hawaiian/Pacific Islander students. The percent of undergraduate students who reported difficulty accessing food or paying for food was twice as high (14 percent) among Two or More Races and Black students as among White and Asian students (7 percent). Those reporting difficulty in finding safe and stable childcare ranged from 27 percent among students of Two or More Races to 18 percent among Native American or Alaska Native students and 19 percent among White and Native Hawaiian/Pacific Islander students.

Equity Indicator 4h(ii) presents information on various financial and personal impacts by dependency status. The percent experiencing financial disruption or change due to COVID was larger for dependent students than independent students (43 percent for dependent students and 35 percent for independent students). Independent students were less likely to report receiving emergency financial assistance from their institution (17 percent for dependent students and 11 percent for independent students). Almost one-third (31 percent) of dependent students and one-quarter (25 percent) of independent students reported loss of job or loss of income because of reduced hours. Independent students were more likely (12 percent) to report difficulty accessing food or paying for food in spring 2020 than dependent students (12 percent vs. 7 percent).

116 Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:2020): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data) (NCES 2021-456).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

Indicator 4h(i) Financial and Personal Impacts of COVID-19: Percentage of undergraduates who experienced various financial and personal disruptions or changes due to COVID-19, by type of disruption or change by race/ethnicity: NPSAS:2020 (Spring 2020)

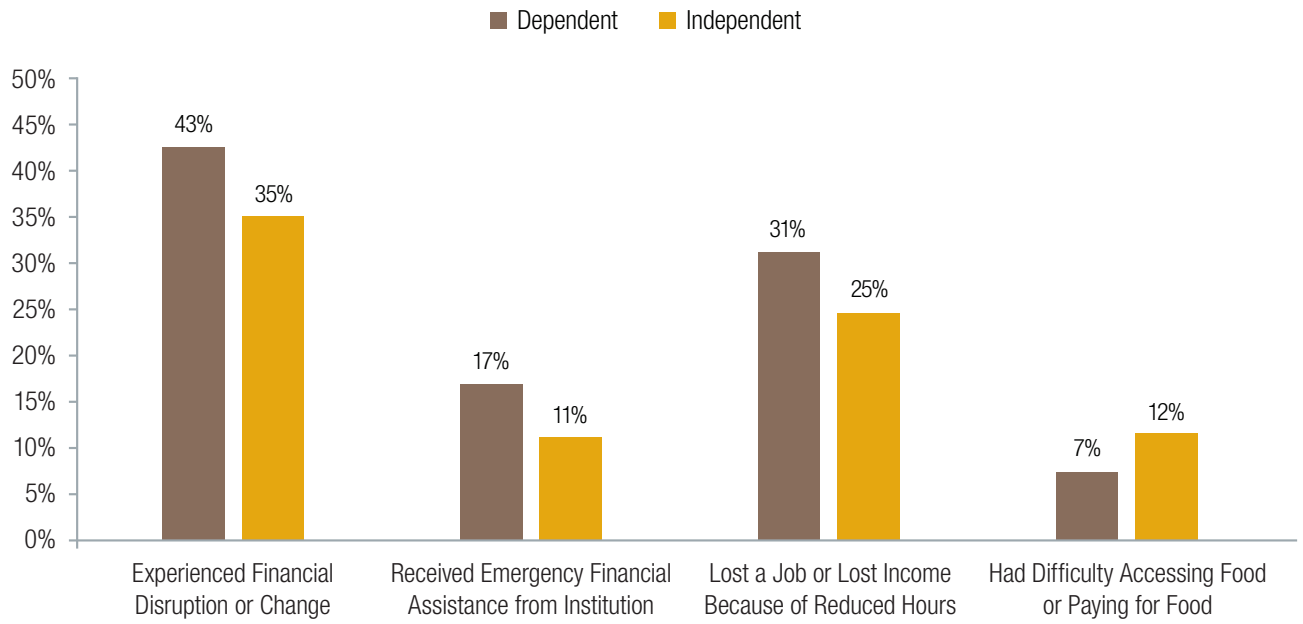


Indicator Status:

The percent reporting reduced income due to job loss or reduced hours ranged from 32 percent to 20 percent: Two or More Races (32 percent), Hispanic and White students (29 percent), Native American or Alaska Native and Black students (28 percent), Asian (24 percent), and Native Hawaiian/Pacific Islander students (20 percent). The percent of undergraduate students who reported difficulty accessing food or paying for food was twice as high (14 percent) for those of Two or More Races and Black students as among White and Asian students (7 percent).

SOURCE: Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:2020): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data) (NCES 2021-456).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

Indicator 4h(ii) Financial and Personal Impacts of COVID-19: Percentage of undergraduates who experienced various financial and personal disruptions or changes due to COVID-19, by type of disruption or change by dependency status: NPSAS:2020 (Spring 2020)



Indicator Status:

Almost one-third (31 percent) of dependent students and one-quarter (25 percent) of independent students reported loss of job or loss of income because of reduced hours. Independent students were more likely (12 percent) to report difficulty accessing food or paying for food in the spring of 2020 than dependent students (12 percent vs. 7 percent).

SOURCE: Cameron, M., Lacy, T.A., Siegel, P., Wu, J., Wilson, A., Johnson, R., Burns, R., & Wine, J. (2021). *2019–20 National Postsecondary Student Aid Study (NPSAS:2020): First Look at the Impact of the Coronavirus (COVID-19) Pandemic on Undergraduate Student Enrollment, Housing, and Finances (Preliminary Data) (NCES 2021-456).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021456.

EQUITY INDICATOR 5

HOW DO EDUCATIONAL ATTAINMENT RATES AND OUTCOMES VARY BY STUDENT CHARACTERISTICS?

Based on Census Current Population Survey (CPS) data in 2022, estimated bachelor's degree attainment rates by age 24 were almost 4 times greater for dependent family members from the highest family-income quartile than for those from the lowest family-income quartile (58 percent vs 16 percent). In 1970, those in the highest income quartile were 7 times as likely as those in the lowest quartile to attain a bachelor's degree by age 24 (40 percent vs. 6 percent).

Equity Indicator 5(a-i): Definitions

Equity Indicator 5 draws on multiple sources of data to describe educational attainment and early graduation outcomes by sociodemographic characteristics. The sources of data are: 1) Census Bureau Current Population Survey (CPS) data on estimated dependent family members' bachelor's degree attainment rates by family income; 2) NCES high school longitudinal studies tracing high school students' bachelor's degree attainment; 3) NCES Beginning Postsecondary Students Longitudinal Studies (BPS) reporting retention and completion rates for cohorts of entering students at various intervals; 4) NCES IPEDS Completions Surveys' data on degrees awarded by race/ethnicity; 5) NCES Baccalaureate and Beyond Longitudinal Study (B&B) follow-up data on outcomes of recent college graduates; 6) Census Bureau data on educational attainment rates by state for various age groupings, and 7) NCES IPEDS Outcomes Component data by state and by Pell Grant receipt. We utilize multiple data sources for Indicator 5 because of the limitations of each source, as described below. Indicator 5 focuses primarily on bachelor's degree attainment, with some attention to associate's, master's, and doctoral degree attainment by race/ethnicity.

Definitions of terms not already provided in the report are presented below.

- **Estimated Rates of Bachelor's Degree Attainment by Age 24 for Dependent Family Members.** This Indicator reports estimated rates of bachelor's degree attainment by age 24 by family income quartile for primary dependent family members using data from the October supplement to the Current Population Survey (CPS). CPS is the only available national annual data source that measures attainment by household income, but the data have important limitations, and caution is warranted when interpreting the results. The CPS household survey data are reported in aggregate for cross-sectional groupings and include only individuals who were considered "dependent family members" of the household at the time of the CPS survey. Recent years have seen differential changes across

income groupings in dependency patterns and length of time for bachelor's degree completion. We use data from the NCES longitudinal studies to improve the calibration of the CPS estimates.[117]

- **Persistence and Completion Data** from the Beginning Postsecondary Students Longitudinal Study (BPS). BPS tracks students first enrolling in a postsecondary educational institution in academic years 1989-90, 1996-97, 2003-04, and 2011-12. NCES began a new BPS cohort in 2019-20; however, this data is not yet available. Persistence and completion data are shown by parents' income quartile for dependent students. We also use BPS data to examine differences in attainment by TRIO eligibility criteria (i.e., low-income and first-generation college status) and by dependency status.[118]
- **Distributions of Associate's, Bachelor's, Master's, and Doctoral Degrees Conferred by Race/Ethnicity Compared to Population Distributions.** These measures use the annual IPEDS Completion Surveys to report the distributions of degrees conferred. We use Census data for comparisons to the U.S. population distribution by race/ethnicity in 1980 and 2021.
- **Further Education, Early Career Earnings, and Unemployment for Recent Bachelor's Degree Recipients.** These Indicators are drawn from the NCES's Baccalaureate and Beyond Longitudinal study (B&B) series. The 2024 *Equity Indicators Report* includes data on post-baccalaureate enrollment, annual income by parent income quartile and by major field of study, and unemployment for 2016 bachelor's degree recipients 1 year after graduation in 2017 (B&B 2016/2017). In addition, the 2024 Equity Indicators report incorporates data from the 10-year follow-up from the third cohort of B&B (2008/2018) to show students' graduate degree status by race/ethnicity, gender, and parents' highest level of education.
- **Educational Attainment by State** uses data from the decennial census (1940 to 2000), American Community Survey (ACS) (2005 – 2019), and the Current Population Survey (CPS) (2020 - 2023) to compare educational attainment for different age populations.
- **IPEDS Outcomes Component/Graduation Rates by State and Pell Grant Receipt.** The IPEDS Outcomes Component provides cohort data on degree-seeking undergraduate students earning any formal award (certificate, associate's, or bachelor's degree) at the institution of first enrollment within 4, 6, and 8, years. Pell Grant receipt data are shown by institution type and control, and institution acceptance rate.

117 See the methodological appendix for additional information. Caution is warranted when interpreting CPS estimates given the many underlying assumptions.

118 TRIO is a set of federal competitive grant programs first authorized under the HEA of 1965, as amended most recently in 2008. The first three TRIO programs began in 1964, 1965, and 1968, respectively. TRIO now consists of eight programs that collectively provide services from middle school through graduate school. The eight TRIO programs are: Upward Bound (UB), Upward Bound Math-Science (UBMS), Veterans Upward Bound (VUB), Talent Search (TS), Student Support Services (SSS), Educational Opportunity Centers (EOC), Ronald E. McNair Postbaccalaureate Achievement Program (McNair), and a training program for TRIO project staff. While federal TRIO program services have been found to increase college entrance, persistence and completion, they are estimated to reach less than 5 percent of the eligible population in any given year. For more information, see Equity Indicator 7: The Federal TRIO Programs: Who, What, Where, When, Why and How Does TRIO Work?

Equity Indicators 5a(i) and 5a(ii): How Do Estimates of Dependent Family Members' Bachelor's Degree Attainment Rates Vary by Family Income Quartile?

Equity Indicator 5a(i) reports a 3-year moving average of the estimated rates of bachelor's degree attainment by age 24 for dependent family members using data from the annual Current Population Survey (CPS) from 1970 to 2022.[119] These data are useful in giving an overall estimation of trends over time; however, there are cautions in comparing year by year large fluctuations. Estimates from sample surveys that are disaggregated by family income quartiles are subject to larger sampling error than estimates for the whole population. They are derived using aggregate cross-sectional CPS data with calibration from the NCES longitudinal studies from similar time frames. Equity Indicator 5a(ii), also using CPS data, reports the 100 percent distribution of bachelor's degrees estimated by family income quartiles over the period.

Indicator 5a(i) shows that bachelor's degree attainment rates increased in all family income quartiles but remains highly unequal. In 2022, an estimated 16 percent of dependent family members in the lowest family-income quartile had attained a bachelor's degree by age 24, compared with 25 percent of those in the second quartile, 44 percent of those in the third quartile, and 58 percent of those in the highest quartile.

The gap in bachelor's degree attainment rates by age 24 between dependent family members in the highest and lowest quartiles was 42 percentage points in 2022, compared with a 34-percentage point gap in 1970. 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 the lowest income quartile (58 percent vs. 16 percent) in 2022. In 1970, dependent family members in the highest income quartile were 6.7 times as likely as those in the lowest quartile to attain a bachelor's degree by age 24 (40 percent vs. 6 percent).

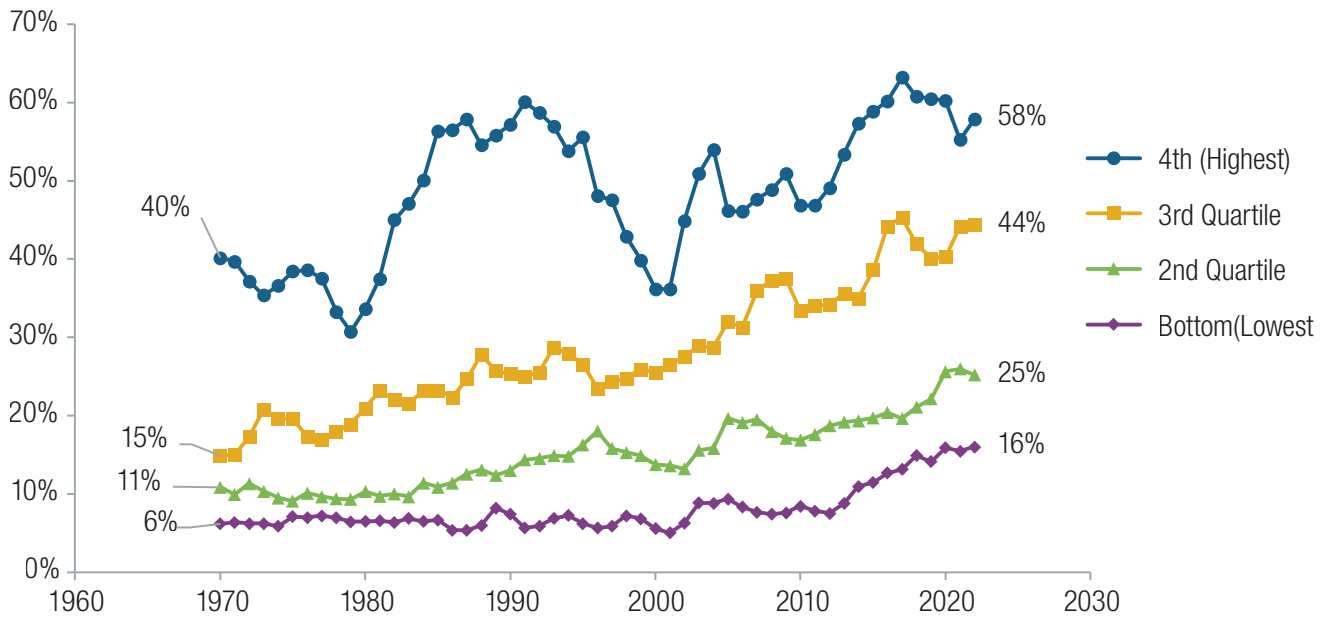
The rate of increase in bachelor's degree attainment for dependent family members by age 24 between 1970 and 2022 was highest for the third quartile, with a 197 percent increase (from 15 percent in 1970 to 44 percent in 2022). The rate of increase in bachelor's degree attainment was lowest for the highest quartile, with attainment rates increasing from 40 percent to 58 percent (44 percent increase). Bachelor's degree attainment rates increased by 159 percent for the lowest quartile, increasing from 6 percent in 1970 to 16 percent in 2022, and by 132 percent for the second lowest quartile, increasing from 11 percent to 25 percent.

Distribution of Bachelor' Degrees Earned by Family Income Quartile. Equity Indicator 5a(ii) displays the 100 percent distribution of bachelor's degrees completed by dependent family members age 18 to 24 by family income quartile from 1970 to 2022. This chart shows that over the last 52 years, the upper two quartiles have consistently accounted for more than 70 percent of the bachelor's degrees completed by dependent students age 18 to 24. In 2022, 39 percent of degrees went to the highest (fourth) quartile and 31 percent to the third quartile. In contrast, 18 percent of bachelor's degrees by age 24 were received by the second quartile and 13 percent by those from the first (lowest) quartile.

The largest relative gains were made by individuals in the third quartile (increasing from 20 percent to 31 percent), with a corresponding decline in the percentage going to the top quartile (from 52 percent to 39 percent). The share of bachelor's degrees awarded by age 24 to dependent family members in the lowest two quartiles remained remarkably unchanged over the 52 years between 1970 and 2022.

119 Because we report a moving average, estimates for individual years may be slightly different from year to year.

Equity Indicator 5a(i): Estimated bachelor's degree attainment by age 24 for dependent family members by family income quartile: 1970 to 2022



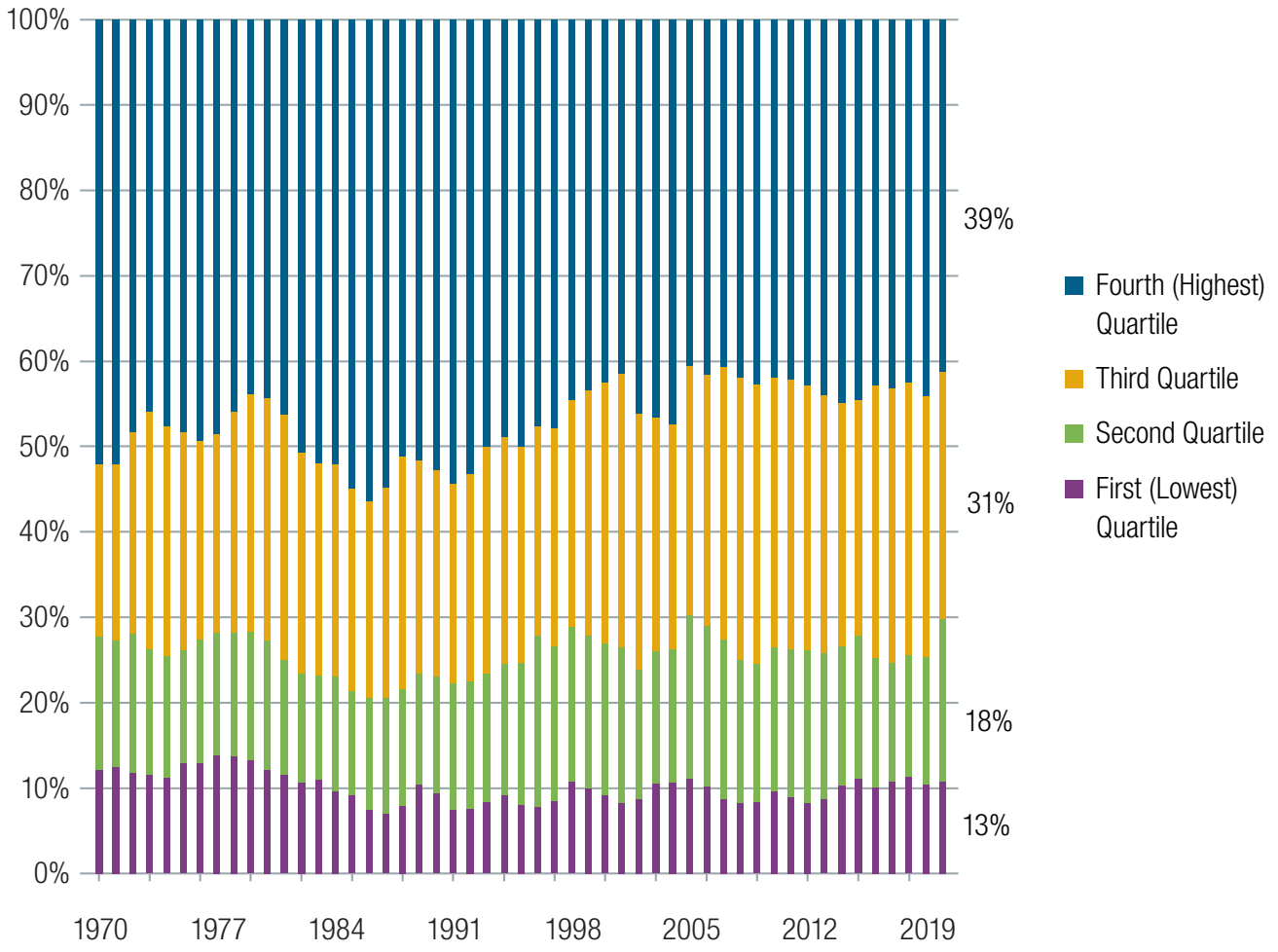
Indicator Status: High Persisting Inequality

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 percent vs. 16 percent). 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 percent vs. 6 percent).

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

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 5a(ii): Distribution of estimated bachelor's degrees attained by dependent family members 18 to 24 years of age by family income quartile: 1970 to 2022



Indicator Status: High Persisting Inequality

In 2022, the upper two quartiles accounted for 70 percent of the bachelor's degrees awarded to dependent students 18 to 24 (39 percent for the highest quartile and 31 percent for the third quartile). The bottom two family income quartiles accounted for 31 percent of degrees (18 percent for the second quartile and 13 percent for the first, or lowest, quartile).

NOTE: This figure reports a 100 percent distribution of bachelor's degrees reported for dependent 18- to 24-year-olds using the CPS data. Due to estimation assumptions and sampling error, caution is warranted when interpreting changes over time, especially large single-year fluctuations. Due to rounding error total may not sum to 100 percent. See Appendix A for further discussion of the methodology and limitations.

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 5a(iiia&b): Growth in Number of Bachelor's Degrees and Change in the Distribution of Bachelor's Degrees by Sex

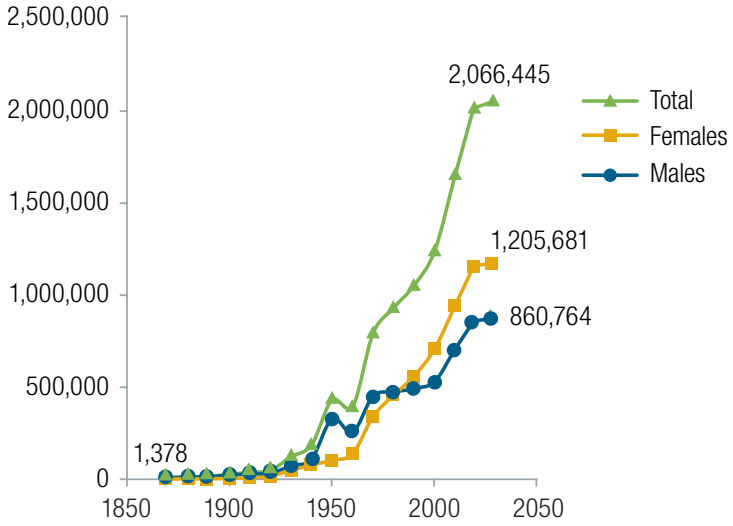
Using data from NCES and IPEDS, Indicator 5a(iiia&b) displays the number of bachelor's degrees conferred to males and females and shows the 100 percent distribution between males and females from 1869 to 2021. As laws, rules, and customs have changed over the last 152 years, there has been a significant change in who earns a bachelor's degree by sex. This chart documents the large 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 the 152 years. It also documents the large impact of historical events.

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

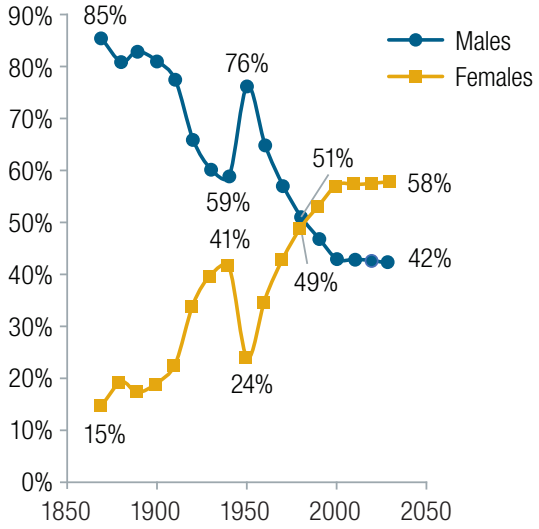
By 1970, the total number of bachelor's degrees awarded had increased to almost 800,000, of which 57 percent were conferred on males and 43 percent on females. A decade later in 1980, the number conferred was almost equally divided between males and females. Between 1980 and 2021, with larger rates of increase among females, the relative distribution between males and females reversed. The number of bachelor's degrees continued to grow to over 2 million by 2021, with 860,764 bachelor's degrees conferred to males (42 percent) and 1,205,681 conferred to females (58 percent).

Equity Indicator 5a(iiia&b): Number and percent of bachelor's degrees conferred by sex: 1869 to 2021

a. Number of Bachelor's Degrees Conferred



b. Percentage Distribution by Sex



Indicator Status: Amid Rise in College Attainment, Females Now Make Up the Majority of Bachelor's Degree Earners

Within the context of large expansion in the number of bachelor's degrees awarded over the period to both females and males, females have gone from being 15 percent of bachelor's degrees recipients in 1869 to 58 percent in 2021. During the period prior to World War II, the female share rose to 40 percent by 1930 and to 41 percent in 1940. Following World War II with the GI Bill and returning veterans, the male share rose to 76 percent, and the female share declined to 24 percent. However, by 1980, males and females each made up about 50 percent of degrees awarded. Since 1980, bachelor's degree attainment by females has increased at a faster rate than that of males.

NOTE: From 1869-70 to 1959-60, bachelor's degrees include degrees that were classified as first professional prior to 2010-11, such as M.D., D.D.S., and law degrees.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics: 2022* [Table 301.20]. Historical summary of faculty, enrollment, degrees conferred, and finances in degree-granting postsecondary institutions: Selected years, 1869-70 through 2020-21. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_301.20.asp.

Equity Indicator 5b: What Percentage of Youth Attain a Bachelor's Degree or Higher Within 8 or 10 Years of Expected High School Graduation by Socioeconomic Status (SES)?

Equity Indicator 5b uses data from three NCES high school longitudinal studies that report bachelor's degree attainment rates for students 8 or 10 years after their expected high school graduation.[120] For this Indicator, we use socioeconomic status (SES), a composite measure based on parental income, education, and occupation, rather than a single measure of self-reported income.[121]

As noted in the discussions of other indicators in this report, comparisons of bachelor's degree attainment across the three longitudinal studies are limited by differences in the starting year. High School and Beyond (HS&B:1980) sampled 1980 high school 10th graders and followed the cohort until 1992, 10 years after expected high school graduation in 1982. The National Education Longitudinal Study of 1988 (NELS:1988) sampled 8th graders in 1988 and followed students until 2000, 8 years after their expected high school graduation in 1992. The Educational Longitudinal Study of 2002 (ELS:2002) sampled 2002 10th graders and followed them until 2012, 8 years after their expected high school graduation in 2004. Because NELS:1988 began with 8th graders rather than students in high school, data from NELS:1988 might be expected to report a higher percentage of students who did not complete high school than the HS&B and ELS studies that began in 10th grade. Other observed differences in bachelor's degree attainment over time may reflect differences in the willingness of high-poverty schools to participate in the three studies,[122] thereby altering the composition of schools and students (despite non-response adjustments by NCES) in the three samples.[123]

With these cautions in mind, Indicator 5b shows that the share of youth attaining a bachelor's degree within 8 or 10 years of their expected high school graduation varies substantially by parents' socioeconomic status (SES) in all three studies. In the most recent study shown (ELS:2002), 10th graders from the highest SES quartile were 4 times as likely to attain a bachelor's degree in 8 years as 10th graders from the lowest SES quartile. Indicator 5b shows that 60 percent of 2002 10th graders from the highest SES quartile attained a bachelor's degree within 8 years, compared with 15 percent of those from the lowest quartile, 22 percent of those from the second quartile, and 37 percent of those from the third SES quartile.

The percentage of individuals from the lowest SES quartile who attained at least a bachelor's degree within 8 or 10 years of their expected high school graduation was virtually the same for the HS&B:1980 cohort (7 percent) as for the NELS:1988 cohort (8 percent). But the percentage of individuals from the lowest SES quartile who attained at least a bachelor's degree nearly doubled to 15 percent for the 2002 10th graders in ELS. As noted above, some

120 In 2009, NCES began another nationally representative survey of high school students: the High School Longitudinal Study of 2009 (HSLS). This study began with 9th graders in 2009. Data for bachelor's degree attainment within 8 or 10 years of expected high school graduation are not yet available from this source, as this latest longitudinal study sampled 9th graders who had an expected high school graduation of 2013.

121 SES is a composite measure that NCES derived in a comparable manner for the three studies. We use the SES measure rather than family income as SES is a more robust measure than the single measure of self-reported family income. The latter tends to have a high rate of missing data and is subject to reporting error in the high school studies.

122 While NCES adjusted for non-response and has engaged in increased follow-up efforts, over time there has been growing reluctance of high-poverty schools to participate in the (voluntary) NCES-sponsored sample surveys. This unwillingness to participate was especially pronounced in ELS:2002.

123 See methodological appendices: Lauff, E., & Ingels, S. J. (2014). *A First Look at 2002 High School Sophomores 10 Years Later, Education Longitudinal Study of 2002 (ELS:2002)* (NCES 2014-363). Washington, DC: U.S. Department of Education; Ingels, S. J., Kaufman, P., Curtin, T. R., Alt, M. N., & Chen, X. (2002). *Coming of Age in the 1990s: The Eighth Grade Class of 1988 12 Years Later. Initial Results from the Fourth Follow-up to the National Education Longitudinal Study of 1988* (NCES 2002–321). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement; Tuma, J., Geis, S., & Carroll, C. D. (1995). *High School and Beyond: Educational Attainment of 1980 High School Sophomores by 1992. 1992 Descriptive Summary of 1980 High School Sophomores 12 years later.* Washington, DC: U.S. Department of Education, National Center for Education Statistics.

of the increase in educational attainment between 1988 8th graders and 2002 10th graders may be related to the fact that the NELS:1988 sampled cohort was younger than the ELS:2002, and consequently had two additional years to potentially drop out of high school. This difference would downward bias bachelor's degree completion rates compared with a study (like ELS:2002) that had an older entering cohort. Census Bureau data show that high school non-completion rates are higher for those with lower incomes than for those with higher incomes. Thus, this caution may be more applicable for understanding trends over time in completion rates for the lowest quartile than for the highest quartile.[124]

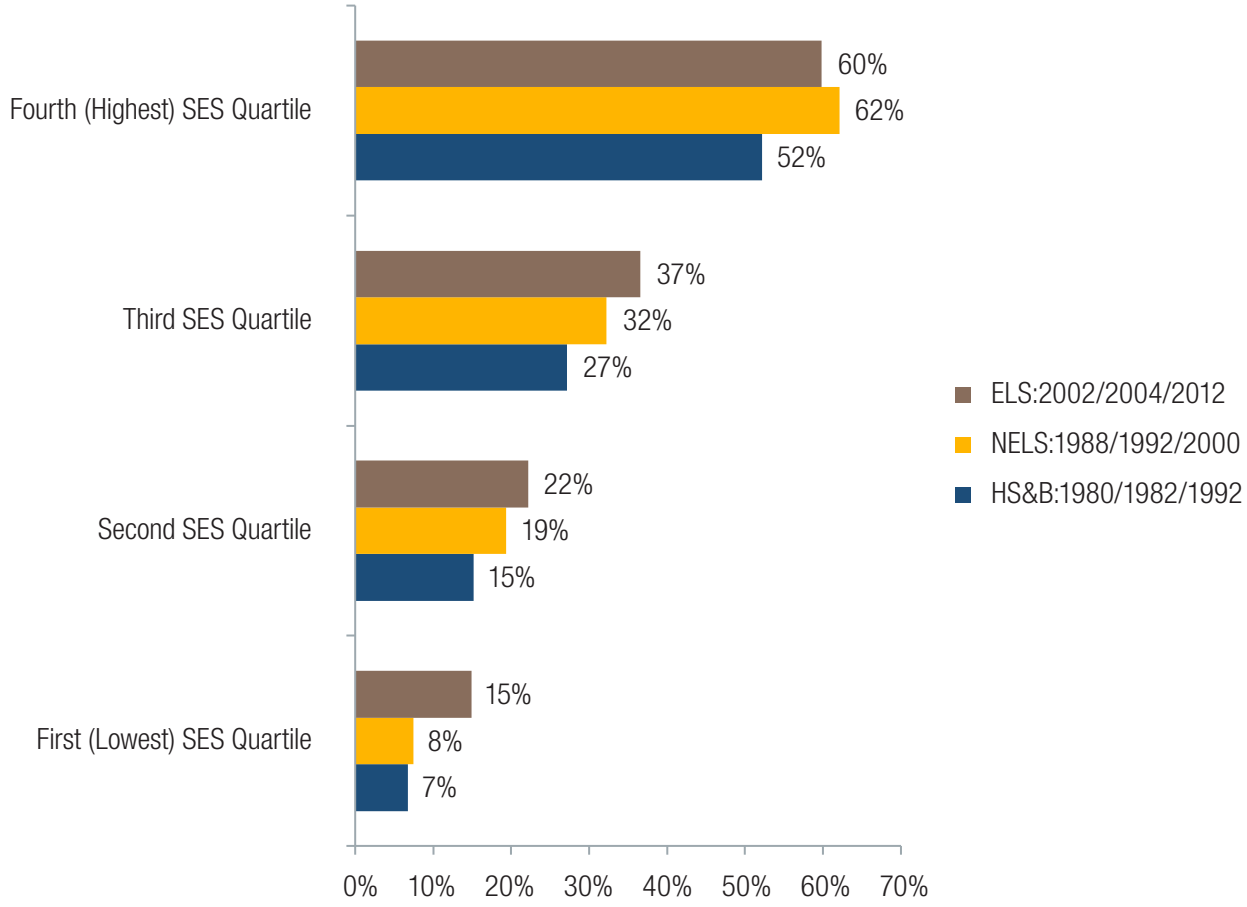
Over the three study periods, the highest SES quartile has shown less variability in high school dropout rates and less gain in both high school and bachelor's degree completion rates than the bottom three SES quartiles. For youth in the highest SES quartile, the percentages attaining at least a bachelor's degree within 8 or 10 years of expected high school graduation were similar in the two most recent studies (62 percent for NELS and 60 percent for ELS), but higher than the earlier study (52 percent for HS&B).

Bachelor's degree attainment rates also increased across the three cohorts for youth in the middle SES quartiles. Attainment rates for youth in the second SES quartile increased from 15 percent in the HS&B:1980 cohort, to 19 percent in the NELS:1988 cohort, to 22 percent in the ELS:2002 cohort. For those in the third SES quartile, bachelor's degree attainment rates increased over the three studies (27 percent, to 32 percent, to 37 percent).

Although differing in methods, time periods, and populations measured, estimates of the differences in bachelor's degree attainment of the highest and lowest quartiles in the NCES longitudinal studies correspond to the CPS data shown in Indicator 5a(i). Equity Indicator 5b shows that, for the ELS:2002 cohort, 10th graders from the highest SES quartile were about 4 times as likely to attain a bachelor's degree within 8 years of expected high school graduation as 10th graders from the lowest SES quartile (60 percent vs. 15 percent). For the earlier HS&B:1980 sophomore cohort, 10th graders in the highest SES quartile were 7.4 times as likely to attain at least a bachelor's degree within 10 years of their scheduled high school graduation as students from the lowest SES quartile (52 percent versus 7 percent).

124 Although SES and income are different measures, family income is one component of the SES-derived variable from the NCES high school longitudinal studies (the other components are parents' education and occupation). In the high school longitudinal studies, there is a high degree of overlap between the distributions for SES and income within the samples. Parental education has generally been found to be more highly associated with educational attainment than parental income. See Cahalan, M., & Maxwell, J. (2007). *Exploring Demographic and Selected State Policy Correlates of State Level Educational Attainment and Achievement Indicators.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. Retrieved from https://chears.org/publications/fulltext/StateDiffEDAttainmentAERA2007Cahalan.pdf.

Equity Indicator 5b: Percentage of youth attaining a bachelor's degree or higher within 8 or 10 years of expected high school graduation by parents' socioeconomic status (SES) quartile: 10th grade cohort from HS&B:1980; 8th grade cohort from NELS:1988; 10th grade cohort from ELS:2002



Indicator Status: High Inequality and Persisting Gap

For the ELS:2002 cohort, 10th graders from the highest SES quartile were 4 times as likely to attain a bachelor's degree within 8 years of expected high school graduation as 10th graders from the lowest SES quartile (60 percent vs. 15 percent). The magnitude of the gap in attainment between the highest and lowest SES quartiles for the 2002 10th grade cohort (45 percentage points) was the same as for the HS&B 1980 10th grade cohort (45 percentage points).

NOTE: Comparisons across surveys are limited due to differences in survey methods, as described in the text.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond (HS&B:1980-class of 1982-1992 follow-up), National Education Longitudinal Study (NELS:1988-class of 1992-2000 follow-up), and Educational Longitudinal Study (ELS:2002-class of 2004-2012 follow-up). Data tabulated using NCES Data Analysis System (DAS).

Equity Indicators 5c(i) and 5c(ii): What Percentage of Beginning First-Time Postsecondary Students Complete Bachelor's Degrees?

Whether first enrolling in a 4-year or 2-year postsecondary institution, most students report aspiring to obtain a bachelor's degree.[125] Equity Indicator 5c(i) and 5c(ii) describe the percent of students who first enrolled in a 4-year or 2-year postsecondary institution who earned a bachelor's degree within 5 or 6 years of initial enrollment by dependency status and for dependent students by family income quartile.[126]

Data for both Indicators are from four waves of NCES's longitudinal Beginning Postsecondary Studies (BPS). These surveys track students who first enrolled in academic years 1989-90, 1995-96, 2003-04, and 2011-12 through the follow-up studies conducted in 1994, 2001, 2009, and 2017 respectively. The 1989-90 cohort follow-up was after 5 years and the other cohorts after 6 years. Hence, we would expect lower rates of completion reported for the 1989-90 BPS cohort than the later cohorts. This is especially the case for independent students who have much higher rates of part-time enrollment (see Equity Indicator 1k(vi)).

Bachelor's Degree Completion of Beginning Postsecondary Students by Dependency Status. As shown in Equity Indicator 5c(i), the bachelor's degree completion rates after 5 or 6 years are significantly higher for dependent students than independent students in each of the BPS cohorts.[127] Excluding the rates from the 5-year follow-up for the 1989-90 cohort, rates for dependent students have ranged from 40 percent in the 1995-96/2001 cohort to 44 percent in the 2011-12/2017 cohort. Over the same period, rates for independent students have fluctuated from 12 percent for the 1995-96/2001 cohort to 9 percent for the 2011-12/2017 cohort. There is a small amount of increase in independent students' bachelor's completion rates over the two cohorts measured after 6 years (12 percent for students followed in 2001 and 15 percent for students followed in 2009).

Bachelor's Degree Completion for Dependent Students by Parents' Family Income. Equity Indicator 5c(ii) shows bachelor's degree completion for dependent students by family income quartiles for the four BPS cohorts. The share of dependent students who completed a bachelor's degree within 5 or 6 years of initial enrollment shows similar differences by family income quartile across the four BPS cohorts represented in Equity Indicator 5c(ii). For the cohort of dependent students who first enrolled in 2011, the percentage who completed at least a bachelor's degree within 5 or 6 years of enrolling ranged from 26 percent for those in the lowest income quartile, to 36 percent in the second quartile, 49 percent in the third quartile, and 69 percent in the highest quartile.

The percentage of dependent students who completed a bachelor's degree or higher from the lowest income quartile remained relatively unchanged over the four years represented, ranging from 26 percent to 28 percent for all four cohorts. Among the second quartile, there was little change (31 percent for those who enrolled in 1989-90; 33 percent for those who enrolled in 1995-96; 37 percent for those who enrolled in 2003-04, and 36 percent for those enrolled in 2011-12).

125 For example, data from ELS:2002 show that 80 percent of all high school students, and 60 percent of those in the lowest SES quartile, hoped to obtain a bachelor's degree or higher. See Cahalan, M., Ingels, S., Burns, L., & Planty, M. (2006). *United States High School Sophomores: A Twenty-two Year Comparison, 1980–2002: Statistical Analysis Report* (NCES 2006–327). Washington, DC: U.S. Department of Education. Retrieved from http://files.eric.ed.gov/fulltext/ED493609.pdf. Similarly, data from The Condition of College and Career Readiness 2014 by ACT indicate that 80 percent of first-generation college students expect to obtain a bachelor's degree or higher. Retrieved from https://www.act.org/content/dam/act/unsecured/documents/CCCR14-NationalReadinessRpt.pdf.

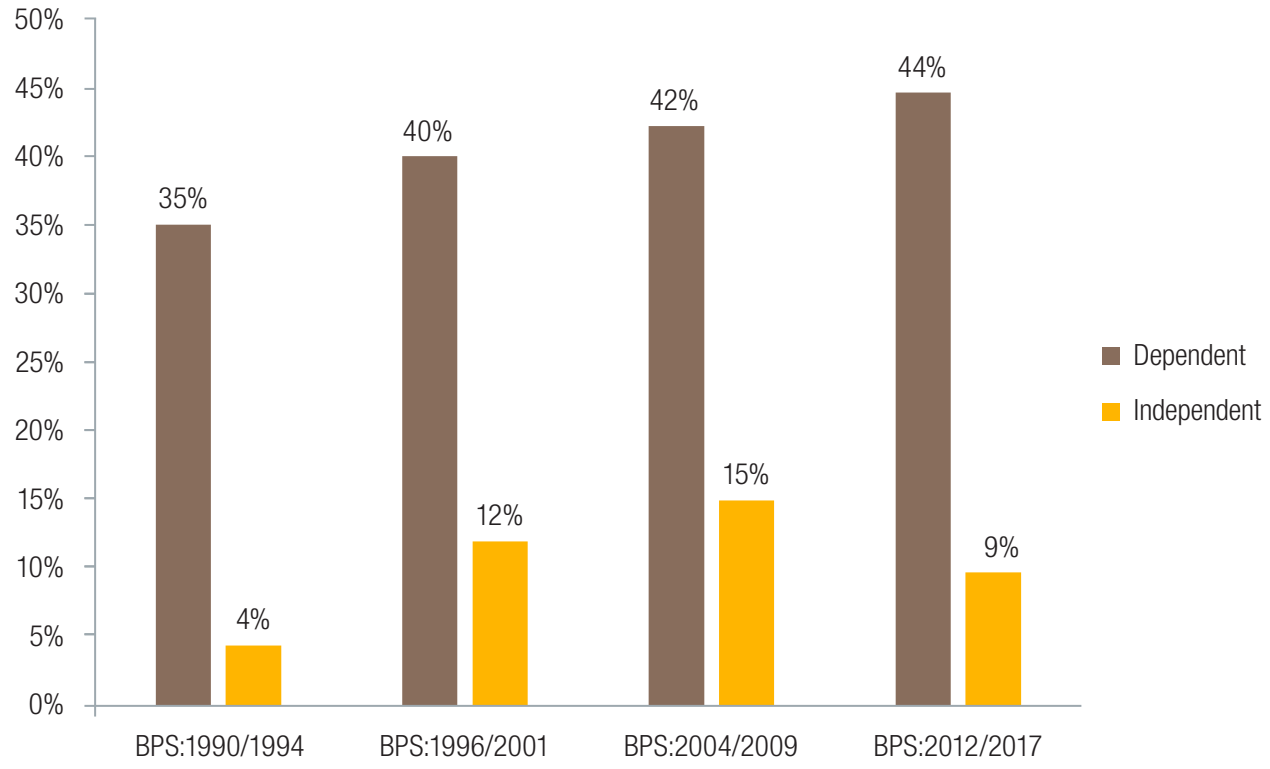
126 BPS data included in these tabulations include full and part-time first-time enrollees in 4-year and 2-year institutions. The BPS series also includes students beginning at less than 2-year institutions. Those enrolling in less than 2-year institutions were not included in these tabulations. Income quartile disaggregation of data by family income quartile is for dependent students only using parents' income. We did tabulations using NCES PowerStats for independent students by student income quartiles including spouse's income but did not include them due to lack of meaningful variation in the income quartiles and cautions on data use.

127 Indicator 5c(i) in previous reports presented NPSAS data for first-time students who obtained a bachelor's within 5 or 6 years of first enrolling at a 4-year or 2-year institution by dependency status for various years (BPS:1989-90 (1994 follow-up), BPS:1995-96 (2001 follow-up), BPS:2003-04 (2009 follow-up), and BPS:2011-12 (2017 follow-up)).

The third and fourth quartiles showed more substantial change, with the largest increases in the highest quartile of family income. For dependent students in the third family income quartile, the percentages obtaining a bachelor's degree increased from 36 percent for those who entered in 1989-90, to 41 percent for those who first entered in 1995-96, 44 percent for those who first entered in 2003-04, and to 49 percent for those who entered in 2011-12. Within the highest income quartile, the percentage of dependent students obtaining a bachelor's degree increased substantially, from 49 percent for those who entered in 1989-90, to 57 percent for those who entered in 1995-96, to 58 percent for those who entered in 2003-04, and to 69 percent for the most recent BPS cohort entering in 2011-12.

Indicator 5c(ii) also shows that the difference in 5- or 6-year bachelor's degree completion rates between dependent students in the lowest and highest family income quartiles increased from 29 percentage points for those first enrolling in 1995-96 (28 percent versus 57 percent) to 43 percentage points for those first enrolling in 2011-12 (26 percent vs. 69 percent).

Equity Indicator 5c(i): Percentage of first-time students who obtained a bachelor's degree or higher within 5 or 6 years of first enrolling in a 4-year or 2-year institution by dependency status: BPS:1989-90 (1994 follow-up), BPS:1995-96 (2001 follow-up), BPS:2003-04 (2009 follow-up), and BPS:2011-12 (2017 follow-up)



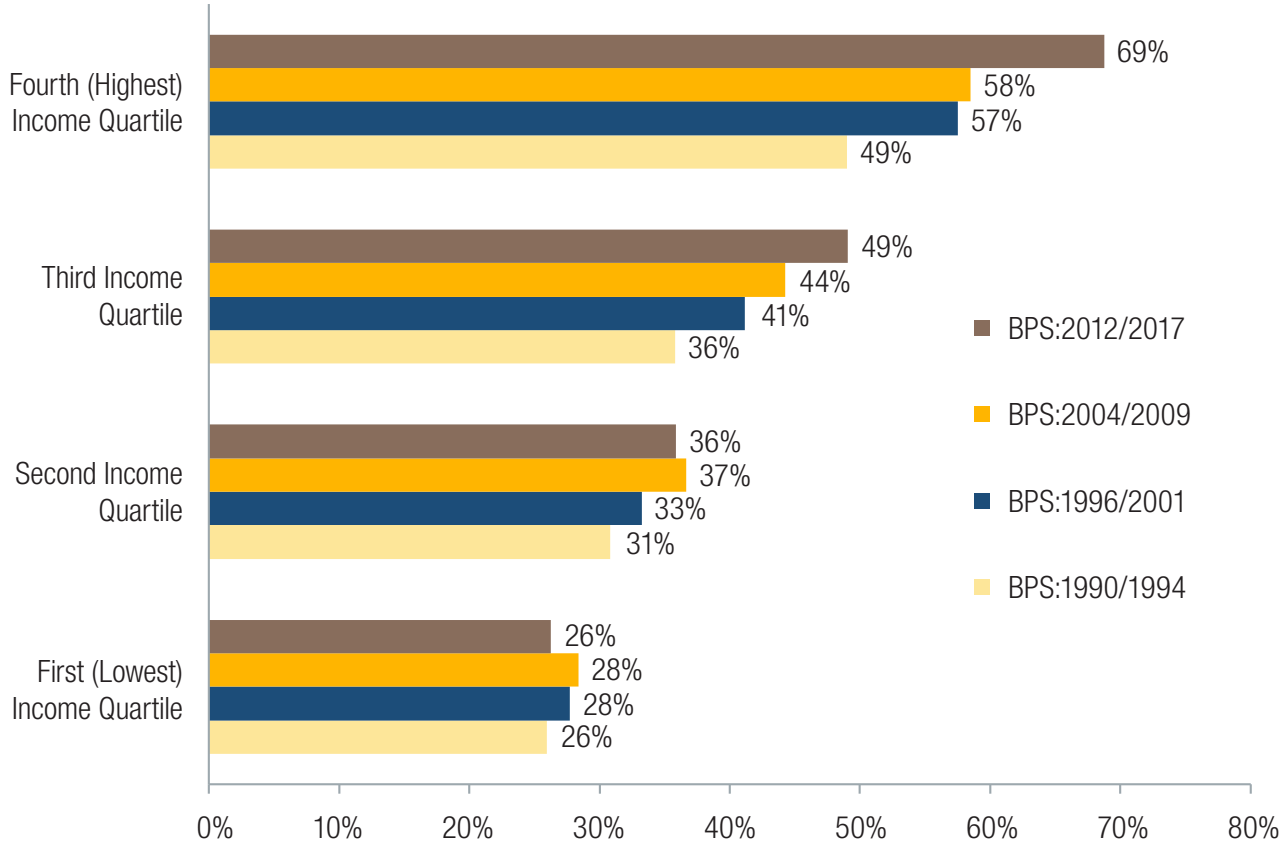
Indicator Status: High Inequality in Completion Rates Between Dependent and Independent Students

Independent students consistently have substantially lower rates of bachelor's degree completion than dependent students. Rates of completing at least a bachelor's degree within 5 or 6 years were more than twice as high for dependent students as independent students.

NOTE: BPS:1989-90/1994 follow-up was conducted after 5 years rather than 6 years after entrance, and some of the differences observed in bachelor's degree attainment rates reflect an earlier follow-up date.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Beginning Postsecondary Students BPS:2012/2017. Tabulated using NCES PowerStats. See also Radford, A., Berkner, L., Wheeless, S., & Shepherd, B. (2010). *Persistence and Attainment of 2003-04 Beginning Postsecondary Students: After 6 Years.* Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2011/2011151.pdf.

Equity Indicator 5c(ii): Percentage of dependent first-time students who obtained a bachelor's degree or higher within 5 or 6 years of first enrolling in a 4-year or 2-year postsecondary institution by parents' family income quartile: BPS:1989-90 (1994 follow-up), BPS:1995-96 (2001 follow-up), BPS:2003-04 (2009 follow-up), and BPS:2011-12 (2017 follow-up)



Indicator Status: High and Increasing Inequality

The family income gap in completion among enrolled dependent students has risen over time. Bachelor's degree completion rates for the 2011-12/2017 cohort were 43 percentage points lower in the lowest quartile than in the highest family income quartile (26 percent vs. 69 percent). Among the 1989-90/94 cohort, there was a gap of 23 percentage points (26 percent vs. 49 percent).

NOTE: Income quartiles are based on applicable BPS sample parents' income at the start of the NPSAS study. The BPS:2012 quartiles reflect 2012 parent family incomes for the first-time, college-going population entering in 2011-12, and thus are not comparable to the CPS income distribution. CPS reflects the income distribution of families of dependent 18- to 24-year-olds for the entire nation for the year specified.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Beginning Postsecondary Students Longitudinal Studies (BPS:1989-90/1994; BPS:1995-96/2001; BPS:2003-04/2009; BPS:2011-12/2017). Tabulated using NCES PowerStats. See also Radford, A., Berkner, L., Wheeless, S., & Shepherd, B. (2010). *Persistence and Attainment of 2003-04 Beginning Postsecondary Students: After 6 Years*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2011/2011151.pdf.

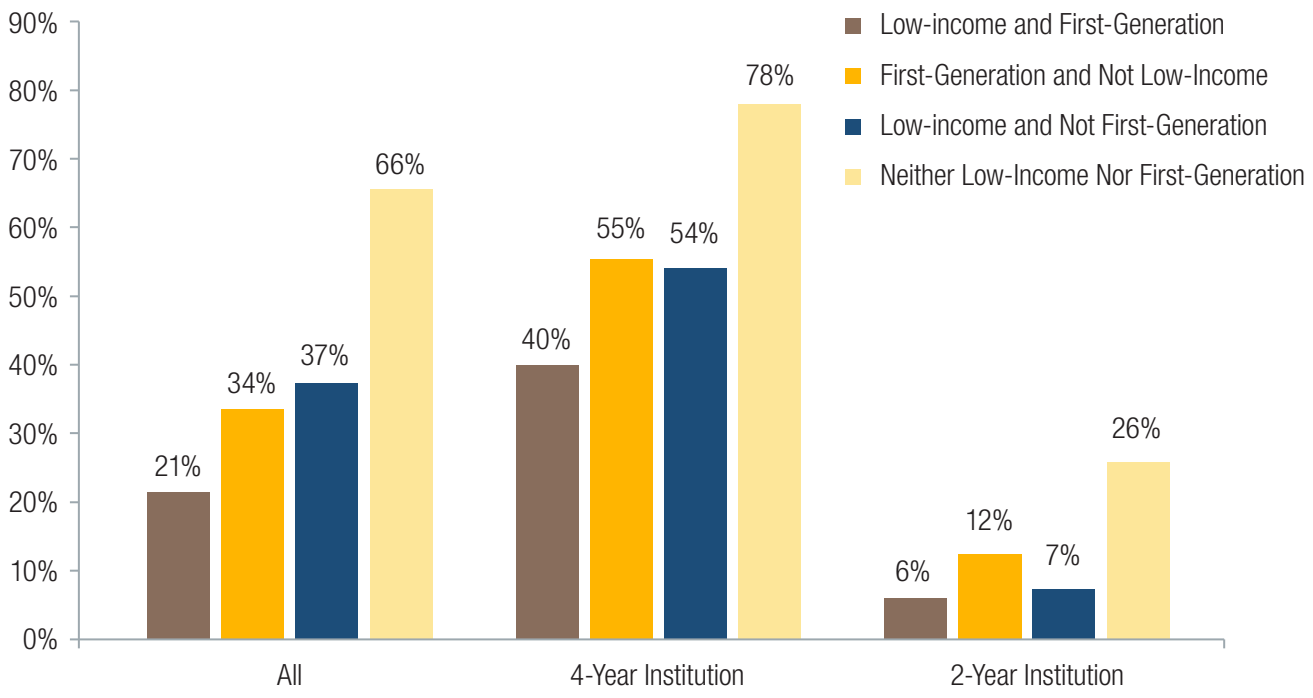
Equity Indicator 5c(iii): What Percentage of Beginning First-Time TRIO-Eligible and Non-TRIO-Eligible Students Complete Bachelor's Degrees within 6 Years?

Using data from the 2017 follow-up of the 2011-12 Beginning Postsecondary Students (BPS:2012/2017) study, Indicator 5c(iii) shows rates of completing a bachelor's degree within 6 years of first enrolling in a 2-year or 4-year institution based on eligibility for Federal TRIO programs. In Indicator 5c(iii), dependent students are classified as to whether they would qualify for the Federal TRIO programs based on their parents' income and first-generation college status. Income thresholds for TRIO eligibility are established by law and reflect an adjusted income that is at or below 150 percent of the federal poverty level. First-generation is defined as neither parent nor guardian having attained a bachelor's degree. Eligibility requirements vary by the specific TRIO program, but for most TRIO programs, two-thirds of participants must be both low-income and first-generation, or students with disabilities. The other one-third must be either low-income or first-generation. We note that the chart is based on eligibility for TRIO and not on participation in TRIO. As the data in Indicator 7b(iii) shows, TRIO program funding allows for serving only a very small percentage of the students that would be eligible for the program in any given year. For example, it is estimated that 1 to 2 percent of eligible students are given the opportunity to participate in the pre-college Talent Search and 3 percent in the Student Support Service (SSS) college program. Less than 1 percent are given the opportunity to participate in the more intensive service TRIO programs such as Upward Bound.

Indicator 5c(iii) shows that 6-year bachelor's degree completion rates for dependent students who first enrolled in a 4-year or 2-year institution in 2011-12 ranged from 21 percent for beginning postsecondary students who were both low-income and first-generation to 66 percent among students who were neither low-income nor first-generation. Dependent students who were first-generation but not low-income had a bachelor's degree completion rate of 34 percent, while students who were low-income and not first-generation had a bachelor's degree completion rate of 37 percent.

Indicator 5c(iii) also shows that dependent students who first enrolled at a 2-year institution were less likely to obtain a bachelor's degree in 6 years than students who first enrolled in a 4-year institution regardless of family income and first-generation status. For both those who first enrolled in a 2-year institution and those who first enrolled in a 4-year institution, dependent students who were neither low-income nor first-generation college had higher rates of obtaining a bachelor's degree in 6 years than students who were both low-income and first-generation (78 percent versus 40 percent for those who first enrolled in a 4-year institution; 26 percent versus 6 percent for those who first enrolled in a 2-year institution).

Equity Indicator 5c(iii): Percentage of dependent students who first enrolled in a postsecondary education institution in academic year 2011-12 who completed a bachelor's degree or higher within 6 years, by low-income and first-generation status and institutional level of initial enrollment: 2012/17



Indicator Status: High Inequality

Among dependent students who first enrolled in 2011-12, 6-year bachelor's degree completion rates were 45 percentage points lower for those who were both low-income and first-generation than for those who were neither low-income nor first-generation (21 percent versus 66 percent). This pattern holds for dependent students regardless of whether they first entered 2-year or 4-year institutions.

NOTE: For this classification, TRIO eligibility criteria were used. TRIO income thresholds are established by law and are set at an adjusted income at or below 150 percent of the federal poverty line. First-generation is defined as neither parent nor guardian having attained a bachelor's degree. In any given year, TRIO programs serve less than 5 percent of eligible low-income and first-generation students. See Equity Indicator 7 for more details on the TRIO programs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012/17 Beginning Postsecondary Students Longitudinal Study. Tabulated using NCES PowerStats.

Equity Indicators 5c(iv) and 5c(v): What Was the Enrollment and Completion Status of Students 4 and 6 Years After First Enrolling?

Equity Indicator 5c(iv) reports enrollment and degree completion status for dependent and independent students who first enrolled in a 2- or 4-year institution in 2011-12. This indicator uses data from the 4-year (2015) and 6-year (2017) follow-ups for the BPS:2011-12/17 cohort. Indicator 5c(v) disaggregates enrollment and degree completion status by family income for dependent students for the 6-year follow-up in 2017.

Enrollment and Completion by Dependency Status. Indicator 5c(iv) shows that, 4 years after first enrolling, 32 percent of dependent students and 6 percent of independent students had attained a bachelor's degree. Two years later, at the 6-year follow-up, 45 percent of dependent and 9 percent of independent students had completed a bachelor's degree.

Six years after first enrolling, 60 percent of dependent students and 38 percent of independent students had attained some form of a postsecondary credential or degree. An additional 12 percent of dependent students and 13 percent of independent students had not obtained a credential or degree but were still enrolled.

About half (49 percent) of independent students had not completed a degree or certificate and were not enrolled 6 years after first enrolling, compared with fewer than a third (27 percent) of dependent students.

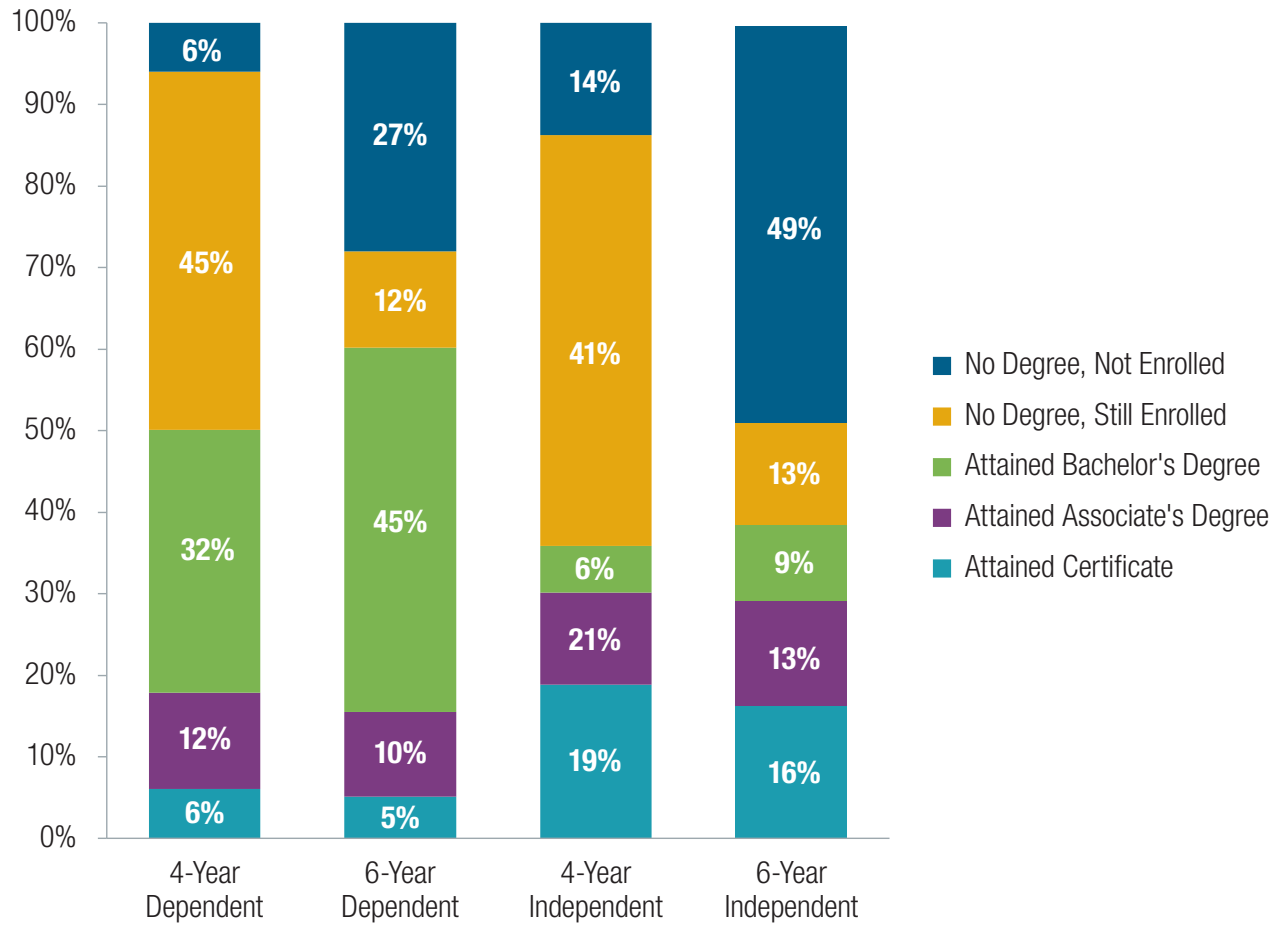
Independent students have higher rates of completing associate's degrees and certificates than dependent students at the 4-year and 6-year follow-ups. Four years after first enrolling, 40 percent of independent students had completed an associate's degree or certificate compared with 18 percent of dependent students. Six years after first enrolling, 15 percent of dependent students and 29 percent of independent students reported an associate's degree or certificate as their highest degree completed.[128]

Enrollment and Completion for Dependent Students by Parent's Family Income. Indicator 5c(v) shows enrollment and degree completion status 6 years (2017) after dependent students first enrolled in 2011-12 by family income quartile. Completion rates for any credential within 6 years are strongly related to parent family income level, ranging from 46 percent for those in the lowest income quartile to 77 percent for the highest quartile. Bachelor's degree completion rates ranged from 26 percent for the lowest quartile to 69 percent for the highest quartile.

The percent of dependent students with no degree or credential and not enrolled 6 years after first enrolling was 39 percent for those in the lowest income quartile, 30 percent for those in the second income quartile, 24 percent for those in the third highest quartile, and 14 percent for those in the highest quartile.

128 Because a portion of independent and dependent students who reported completion of an associate's degree at the 4-year follow-up were working on a bachelor's degree, the percentage reporting associate or certificate award as their highest degree completed declined between the 4-year and 6-year follow-up.

Equity Indicator 5c(iv): Enrollment and degree status by 2015 (4-year follow-up) and 2017 (6-year follow-up) of students who first enrolled in a 4-year or 2-year institution in 2011-12 by dependency status



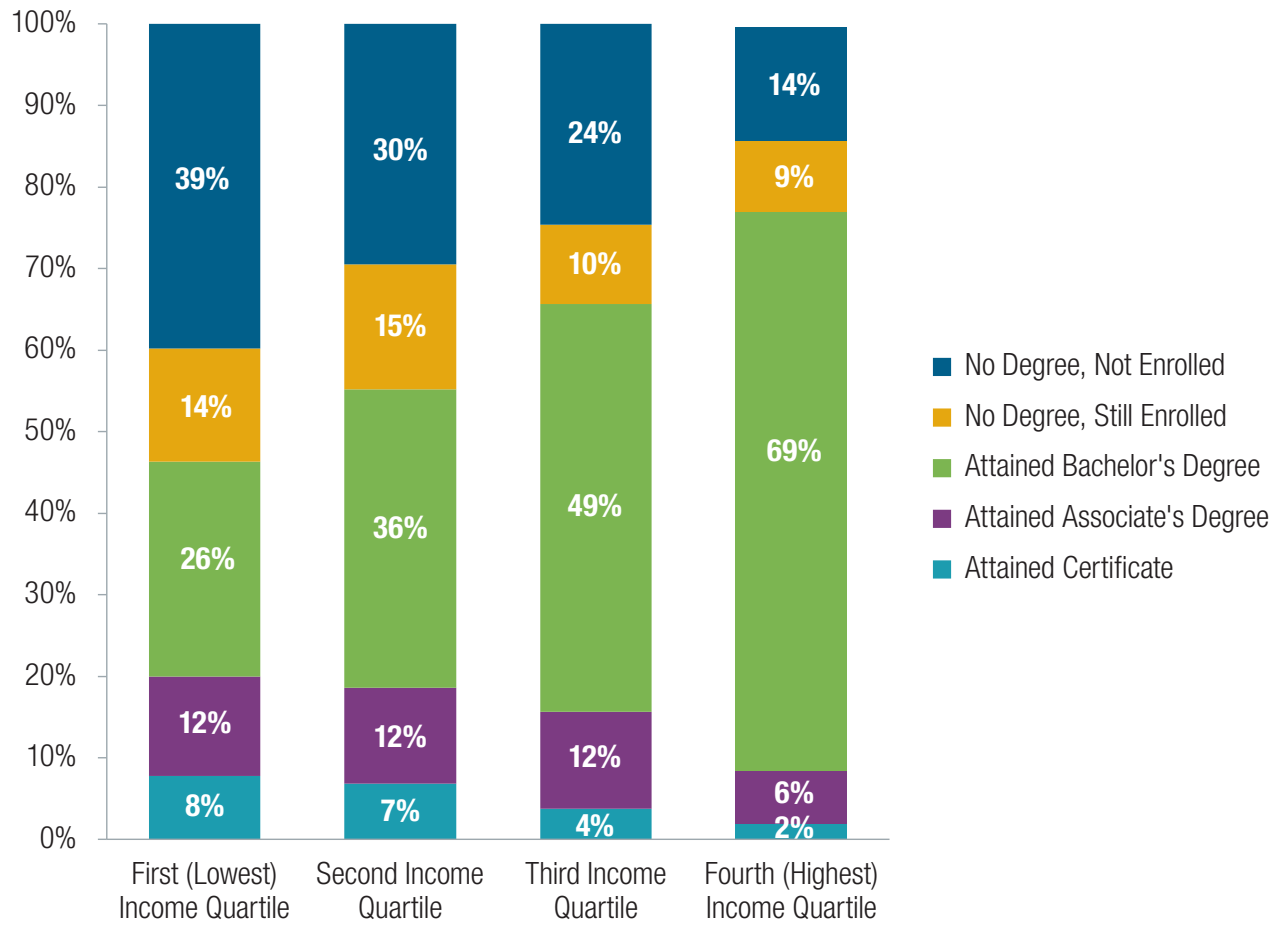
Indicator Status: High Inequality

Four years after first enrolling, 32 percent of dependent students and 6 percent of independent students had attained a bachelor's degree. Six years after first enrolling, 45 percent of dependent students and 9 percent of independent students had completed at least a bachelor's degree.

NOTE: Because a portion of both independent and dependent students who reported completion of an associate's degree at the 4-year follow-up were working on a bachelor's degree, the percentage reporting completion of an associate degree or certificate declined between the 4-year and 6-year follow-ups.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012/17 Beginning Postsecondary Students Longitudinal Study. Tabulated using NCES PowerStats.

Equity Indicator 5c(v): Enrollment and degree status by 2017 (6-year follow-up) of dependent students who first enrolled in a 4-year or 2-year institution in 2011-12 by family income quartile



Indicator Status: High Inequality

The percent of dependent students who completed at least a bachelor's degree within 6 years of first enrolling in 2011-12 was 26 percent for those in the lowest income quartile, compared with 69 percent for those in the highest income quartile.

NOTE: Income quartiles are based on parents' income at the start of the NPSAS study from which the 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: U.S. Department of Education, National Center for Education Statistics, 2012/17 Beginning Postsecondary Students Longitudinal Study. Tabulated using NCES PowerStats.

Equity Indicators 5d(i) and 5d(ii): What is the Distribution of Degrees Awarded to U.S. Citizens by Race and Ethnicity?

Indicator 5d uses data from the Integrated Postsecondary Education Data System (IPEDS) on degrees conferred on U.S. citizens by race/ethnicity in 1980 and 2021. We compare the distribution of the total civilian population and the 18- to 24-year-old population in the same years. Indicator 5d(i) examines associate's and bachelor's degrees conferred, and Indicator 5d(ii) examines master's and doctoral degrees conferred.

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 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.

As Indicators 5d(i) and 5d(ii) indicate, the U.S. population distribution has undergone a considerable demographic change since 1980. Younger individuals represent a higher share of the Black and Hispanic populations than of the White population. In 1980, Whites were 80 percent of the total population and 77 percent of 18- to 24-year-olds. Blacks were 12 percent of the total and 13 percent of 18- to 24-year-olds. Hispanics were 7 percent of the total and 8 percent of 18- to 24-year-olds. Asian/Pacific Islanders were 2 percent of the total and 2 percent of 18- to 24-year-olds. American Indian/Alaska Natives were about 0.6 percent of the total and 0.7 percent of 18- to 24-year-olds.

By 2021, Whites were 59 percent of the total population and 53 percent of those age 18 to 24. Blacks were 13 percent of the total population and 14 percent of those age 18 to 24. Hispanics were 19 percent of the total population and 23 percent of those age 18 to 24. The Asian/Pacific Islander category was 6 percent of both the civilian population and 6 percent of the population age 18 to 24. American Indian/Alaska Natives were 0.7 percent of the total population and 0.8 percent of those age 18 to 24.[129]

Bearing in mind cautions associated with changes in classifications, Indicator 5d suggests some progress, as well as the need for improvement in aligning the racial/ethnic representation of degree recipients with that of the total population and the population age 18 to 24.[130] In 1980, Blacks were about 12 percent of the total U.S. civilian population and 13 percent of the 18- to 24-year-old population, yet attained 9 percent of associate's degrees, 7 percent of bachelor's degrees, 6 percent of master's degrees, and 4 percent of doctoral degrees.

By 2021, Blacks were closer to parity in the percentage of degrees earned but continued to be underrepresented relative to their representation in the population. In 2021, Blacks were 14 percent of the population age 18 to 24 but received 12 percent of associate's degrees (86 percent parity), 10 percent of bachelor's degrees (72 percent of parity), 11 percent of master's degrees (81 percent parity), and 9 percent of doctoral degrees (63 percent of parity).

In 1980, those of Hispanic origin represented 7 percent of the total civilian population and 8 percent of the population age 18 to 24, yet they received 4 percent of associate's degrees and 2 percent of bachelor's, master's and doctoral degrees conferred. By 2021, Hispanics were about 19 percent of the civilian population and 23 percent of those age 18 to 24 and received 26 percent of associate's degrees, 16 percent of bachelor's degrees, 11 percent of master's degrees, and 8 percent of doctoral degrees.

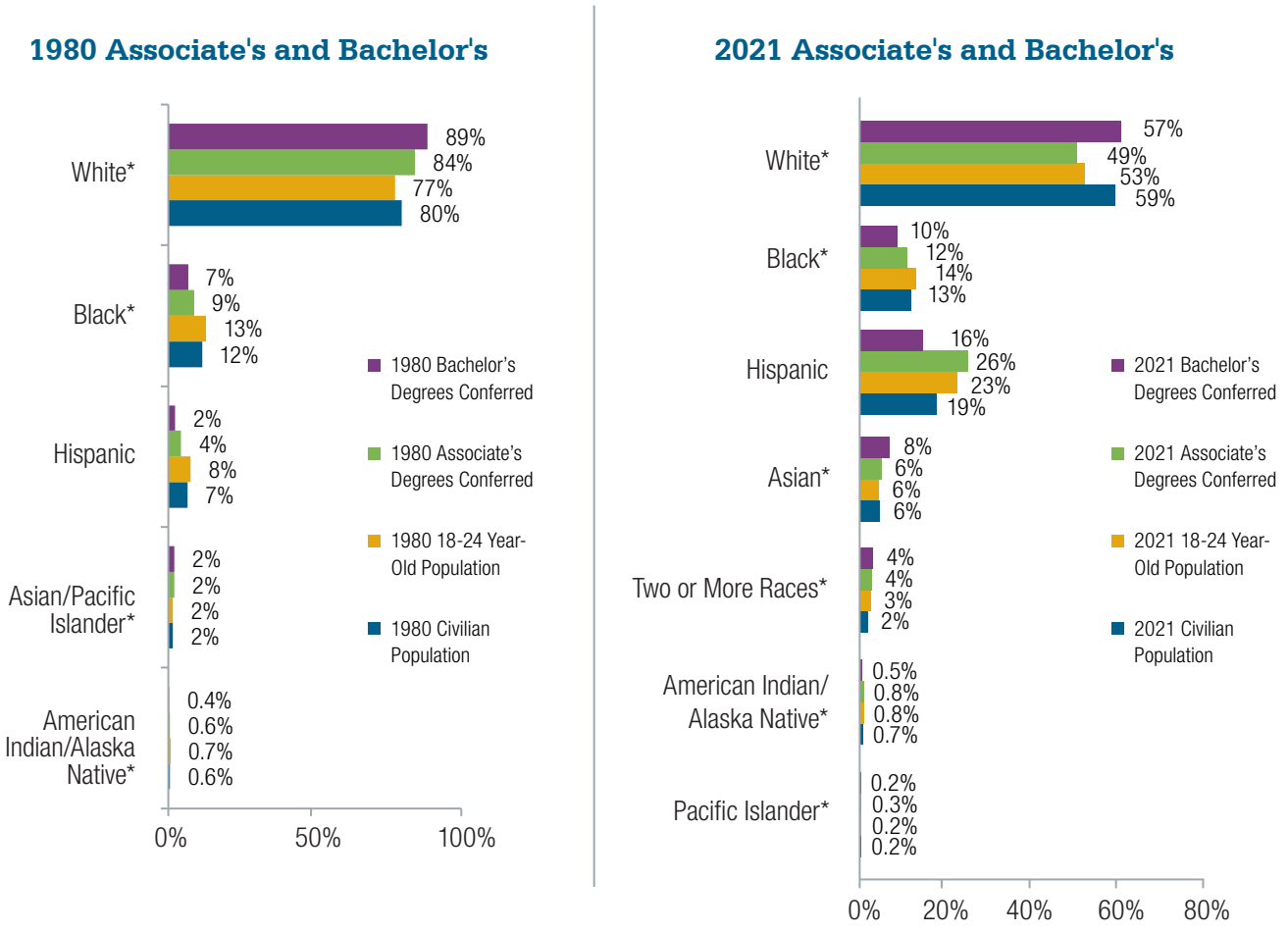
129 In 2021, but not 1980, Native Hawaiian and Other Pacific Islanders were classified separately from the Asian population by the Census Bureau and were 0.2 percent of the U.S. population.

130 Caution is needed in these comparisons, due to changes in the race and ethnicity classifications over time, such as the separation of Hispanics from race/ethnicity classifications and the introduction of the "Two or More Races" category. NCES has data on degrees conferred dating from 1976. Data identifying those of Hispanic origin were not available until 1980. The category "Two or More Races" was not used until 2010 following new OMB regulations.

In 1980, those of Asian/Pacific Islander origin represented 2 percent of the total civilian population and 2 percent of persons age 18 to 24. In 1980, Asians/Pacific Islanders received 2 percent each of the associate's, bachelor's, master's, and doctoral degrees conferred. By 2021, Asians represented 6 percent of the civilian population and 6 percent of the population age 18 to 24, and received 6 percent of associate's degrees, 8 percent of bachelor's degrees, and 7 percent of master's degrees, and 11 percent of doctoral degrees.

In 2021, Whites were closer in degrees conferred relative to their representation in the total population (59 percent) and population age 18 to 24 (53 percent) than in 1980. Whites were awarded 49 percent of associate's degrees (93 percent of parity relative to the population age 18 to 24), 57 percent of bachelor's degrees (108 percent of parity), 53 percent of master's degrees (101 percent of parity), and 56 percent of doctoral degrees (106 percent of parity).

Equity Indicator 5d(i): Distributions of associate's and bachelor's degrees conferred to U.S. citizens and distribution of the civilian population by race/ethnicity: 1980 and 2021



Indicator Status: Gains in Equity Since 1980

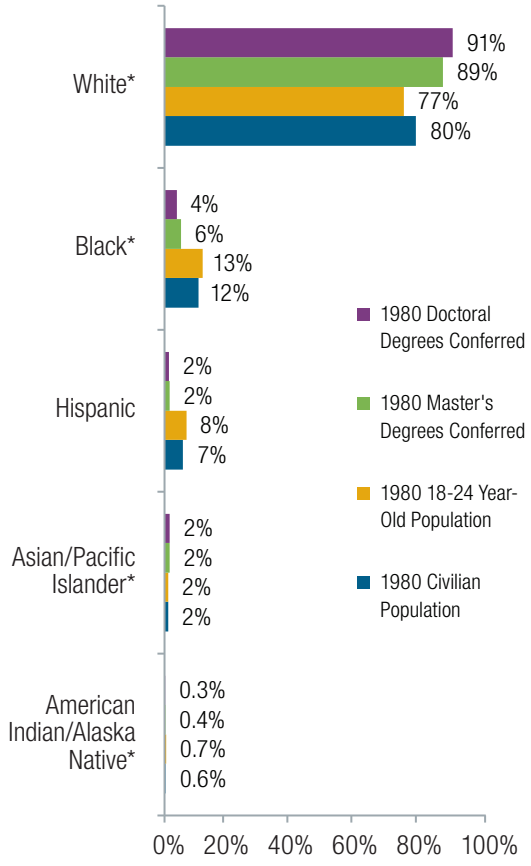
The representation of Blacks and Hispanics among degree recipients has increased since 1980, but Blacks and Hispanics continue to be underrepresented among degree recipients relative to their representation in the population.

NOTE: *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 in interpreting this Indicator as categories for race and ethnicity classifications have changed over time. The category "Two or More Races" was not included in 1980. In 2021, in the population figures by the Census Bureau, Native Hawaiian and Other Pacific Islanders were classified separately from Asians and were 0.2 percent of the U.S. population. The inclusion of the "Two or More Races" category likely reduced the percent of persons who classified themselves as Black, American Indian/Alaska Native, or Asian.

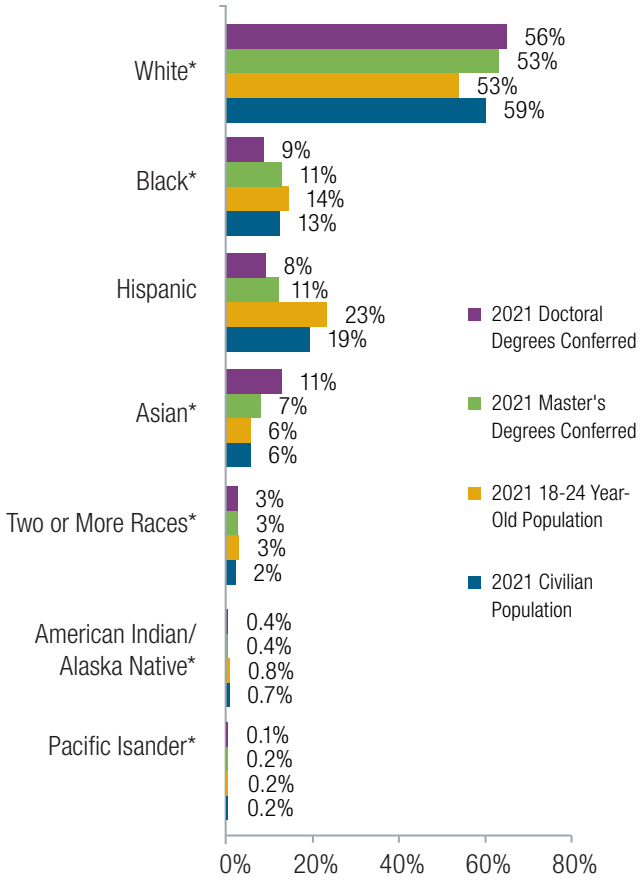
SOURCE: U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022* [Table 101.20] [Table 321.30] [Table 322.30]. Retrieved from https://nces.ed.gov/programs/digest/2022menu_tables.asp.

Equity Indicator 5d(ii): Distributions of master's and doctoral degrees conferred on U.S. citizens and distribution of the civilian population by race/ethnicity: 1980 and 2021

1980 Doctoral and Master's Degrees



2021 Doctoral and Master's Degrees



Indicator Status: Gains in Equity Since 1980

The representation of Blacks and Hispanics among recipients of advanced degrees has increased since 1980, but Blacks and Hispanics continue to be underrepresented among degree recipients relative to their representation in the population.

NOTE: *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 in interpreting this Indicator as categories for race and ethnicity classifications have changed over time. The category "Two or More Races" was not included in 1980. In 2021, in the population figures by the Census Bureau, Native Hawaiian and Other Pacific Islanders were classified separately from Asians and were 0.2 percent of the U.S. population. The inclusion of the "Two or More Races" category likely reduced the percent of persons who classified themselves as Black, American Indian/Alaska Native, or Asian.

SOURCE: U.S. Department of Education, National Center for Education Statistics (2022). *Digest of Education Statistics 2022* [Table 101.20] [Table 323.30] [Table 324.25]. Retrieved from https://nces.ed.gov/programs/digest/2022menu_tables.asp.

Equity Indicators 5e(i) and 5e(ii): What Percent of Bachelor's Degree Recipients are First-Generation College?

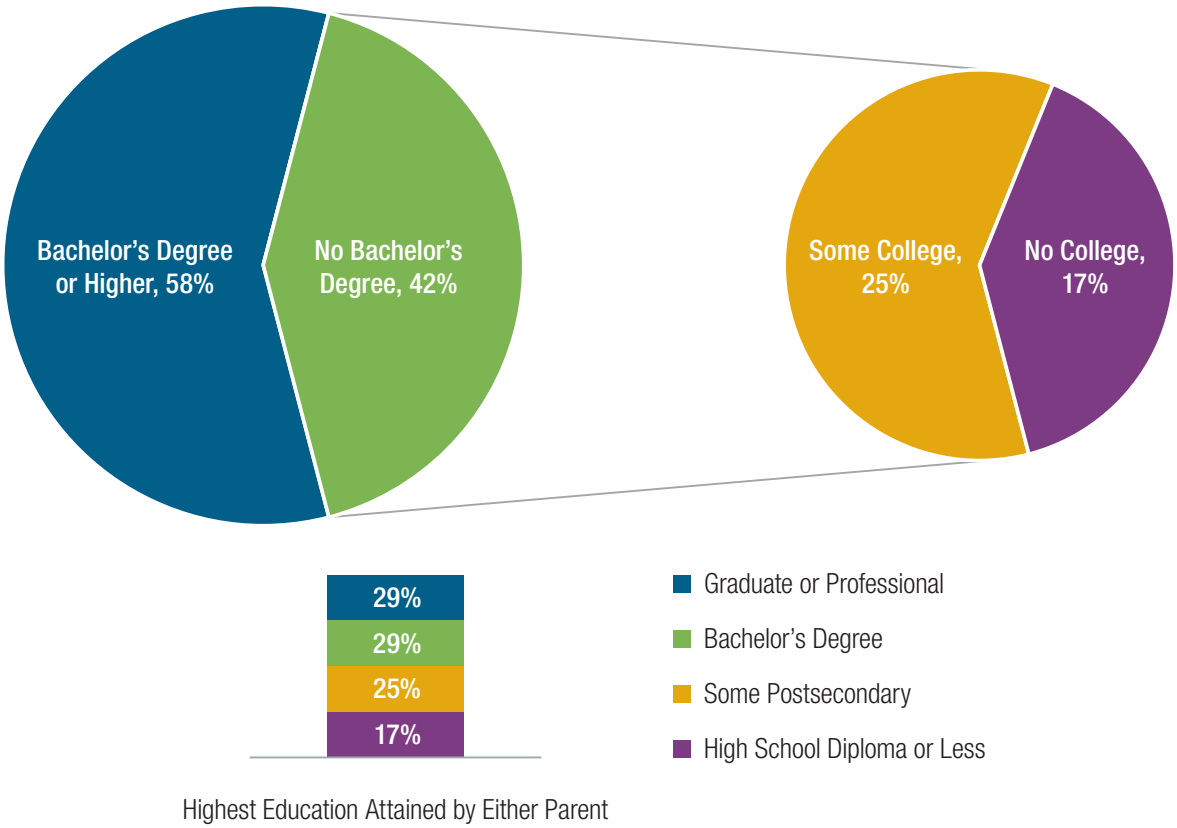
Indicator 5e(i), uses a fourth B&B bachelor's graduate cohort from the 2016 NPSAS and followed students in 2017, 1 year after graduation.[131] Although the B&B is a stratified, nationally representative sample of graduating seniors, some caution is warranted when interpreting the data. Disaggregating the sample by multiple categories such as parents' highest education and race/ethnicity increases sampling errors, especially for categories that have a small number of graduates.

Bachelor's Receipt by Parental Educational Background. Equity Indicator 5e(i) shows the percentage of first-time bachelor's degree recipients by highest education attained by either parent. In 2016, 42 percent of all bachelor's degrees were awarded to students who were first-generation, defined as neither parent has a bachelor's degree and 58 percent were awarded to continuing generation college students. The first-generation college graduates can be divided into those whose parents had some college but not a bachelor's degree (25 percent of the total) and those whose parents had never attended college (17 percent of the total). Considering the whole sample, this means that 83 percent of the bachelor's degree recipients in 2016 had at least one parent who had some college. Among the total graduates in 2016, almost one-third (29 percent) had parents who had a graduate or professional degree.

First-generation college graduates by race/ethnicity. Equity Indicator 5e(ii) shows the data disaggregated by race/ethnicity and shows that Black (59 percent) and Hispanic (60 percent) bachelor's degree recipients were more likely to be first-generation than Asian (40 percent) or White (36 percent) bachelor's degree recipients. Asian and White bachelor's degree recipients were more likely to have parents with graduate or professional degrees. In 2016, one-third of White (33 percent) and 29 percent of Asian bachelor's degree recipients had parents with graduate or professional degrees, compared to 19 percent of Black and 18 percent of Hispanic bachelor's degree recipients.

131 The data was released publicly on NCES PowerStats in December 2019.

Equity Indicator 5e(i): Percentage distribution of first-time bachelor's degree recipients by highest education attained by either parent: B&B:16/17



Indicator Status:

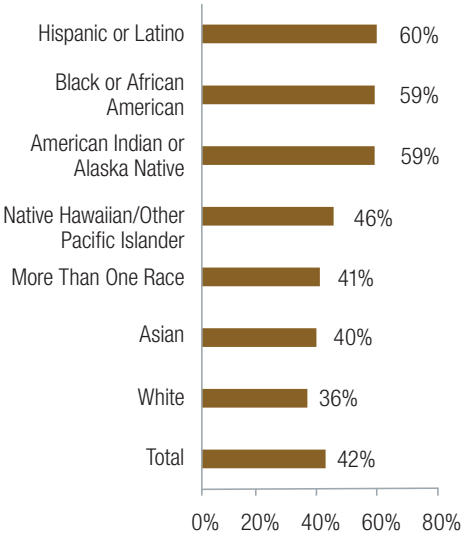
In 2016, 42 percent of all bachelor's degrees attained were by students who were first-generation college (defined as neither parent has a bachelor's degree) and 58 percent were attained by students who had at least one parent with a bachelor's degree. Eighty-three percent of graduates had parents who had a bachelor's degree or at least some college and only 17 percent had parents who had never attended college. Of the total graduates, 29 percent had parents with a graduate or professional degree and 29 percent had parents with a bachelor's degree only.

NOTE: First-generation college student is defined as an undergraduate whose parents do not have a bachelor's or higher degree. High school diploma or less includes the 0.2 percent 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's degree, but neither parent earned a bachelor's or advanced degree.

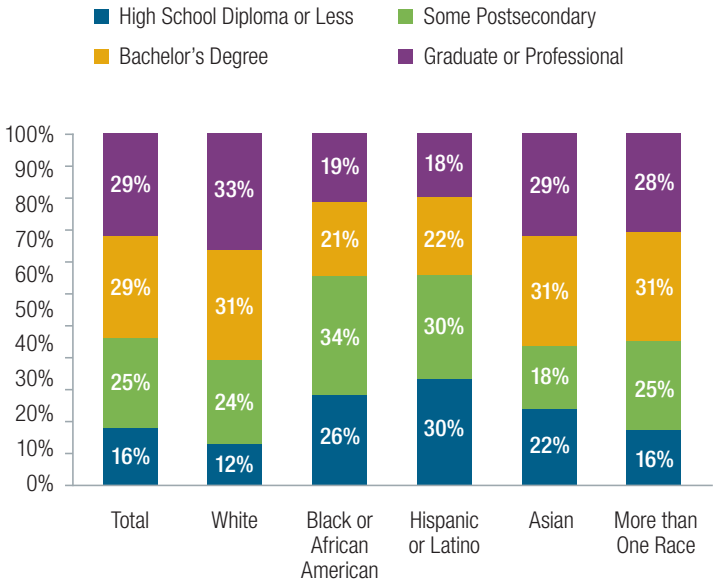
SOURCE: Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J., & Cooney, J. (2019). *Baccalaureate and Beyond (B&B:16/17): A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later (NCES 2019-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Table 1. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pu bid=2019241.

Equity Indicator 5e(ii): Percentage of 2016 bachelor's degree recipients who were first-generation and percentage distribution of bachelor's degrees recipients by highest education attained by either parent by race/ethnicity

Percentage of Bachelor's Degree Recipients Who Are First-Generation College



Distribution of Parent Education of Bachelor's Degree Recipients



Indicator Status:

Equity Indicator 5e(ii) shows that Black and American Indian or Alaska Native (59 percent each) and Hispanic (60 percent) bachelor's degree recipients were more likely to be first-generation than Asian (40 percent) or White (36 percent) bachelor's degree recipients. Almost one-third of White bachelor's degree recipients and 29 percent of Asian recipients had parents with a graduate or professional degree.

NOTE: Detail may not sum to totals because of rounding. First-generation college student is defined as an undergraduate whose parents do not have a bachelor's or higher degree. High school diploma or less includes the 0.2 percent 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's degree, but neither parent earned a bachelor's or advanced degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond: (B&B:2016/2017). Tabulated using NCES PowerStats.

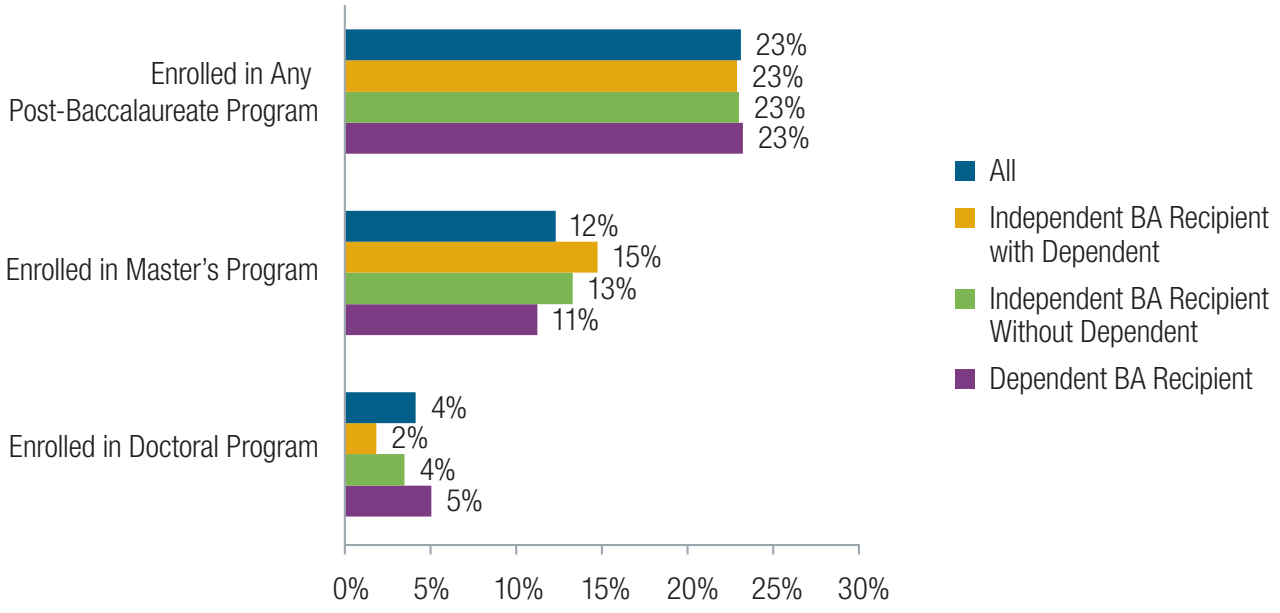
Equity Indicators 5f(i-iv): What are the Differences in Post-Baccalaureate Enrollment and Employment Outcomes at 1 year after Degree Completion by Recipients' Characteristics?

Indicators 5f(i-iv) continue using the B&B:16/17 cohort to explore postbaccalaureate outcomes, 1 year after bachelor's degree completion.

Enrollment in Post-baccalaureate Programs by Dependency Status. As displayed in Indicator 5f(i) overall, 23 percent of 2016 bachelor's graduates had enrolled in some form of a postbaccalaureate degree program 1 year after obtaining a bachelor's degree. This includes doctoral and master's programs and those enrolled in various certificates and other programs. Overall, there were no significant variations by dependency status. Dependent students were slightly more likely to be enrolled in doctoral programs (5 percent for dependents, 4 percent for independent without dependents, and 2 percent for independent with dependents). The rate of master's program enrollment was 11 percent for dependent graduates, 13 percent for independent without dependents, and 15 percent for independents with dependents.

Enrollment in Post-baccalaureate Programs by Race/Ethnicity Status. As displayed in Indicator 5f(ii), Blacks or African American bachelor's degree recipients had the highest enrollment in further education within 12 months of being awarded their bachelor's degree. Over one-fourth (27 percent) of Black graduates had enrolled in some type of further schooling 1 year after graduation. Asian graduates and graduates of More Than One Race were most likely to have enrolled in a doctoral degree or first professional degree programs 1 year after their bachelor's degree award. Rates of enrolling in doctoral programs within 1 year ranged from 6 percent for Asians and those of More than One Race to less than 1 percent for American Indian or Alaska Native graduates. Enrollment in a master's program ranged from 17 percent for Blacks and American Indian or Alaska Natives, to 11 percent for More than One Race, and 10 percent for Asians.

Equity Indicator 5f(i): Percentage of 2016 bachelor's degrees completers who had enrolled in graduate school or other further schooling programs 1 year after graduation (2017) by dependency status: Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017)



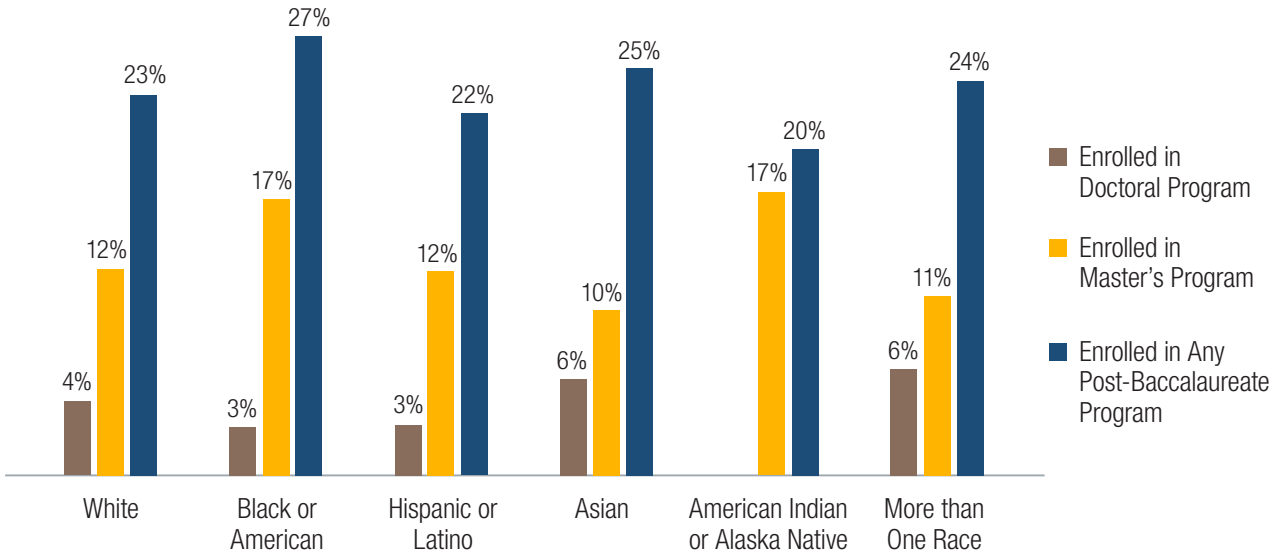
Indicator Status:

Although bachelor's completion rates are much lower for independent students, there is little variation by dependency status in enrolling in graduate or other further schooling after bachelor's degree attainment 1 year after graduation. Independent bachelor's degree recipients with dependents were more likely to enroll in a master's than a doctoral or first professional degree program.

NOTE: In addition to master's and doctoral programs, "Enrolled in Any Program" also includes a small percentage of individuals enrolled in other programs (associate's degree, undergraduate certificate, additional bachelor's degree, and post-bachelor's certificate).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017). Tabulated using NCES PowerStats.

Equity Indicator 5f(ii): Percentage of 2016 bachelor's degrees completers who had enrolled in graduate school or other post-baccalaureate programs 1 year after graduation (2017) by race/ethnicity: Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017)



Indicator Status:

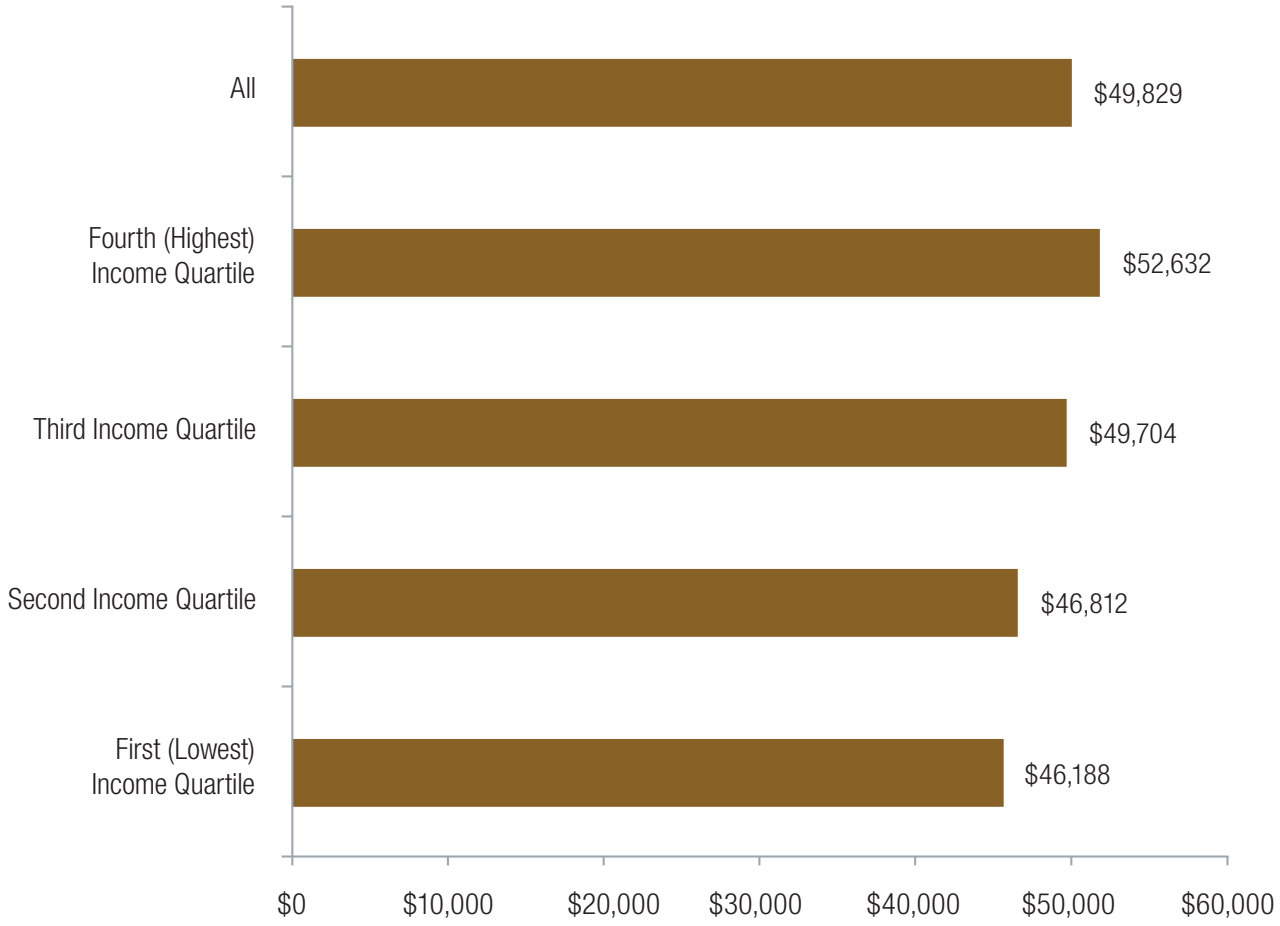
Blacks or African American bachelor's degree awardees had the highest enrollment in advanced education within 12 months of being awarded their bachelor's degree. Over one-fourth (27 percent) of Black graduates had enrolled in some type of postbaccalaureate program by 1 year after graduation.

NOTE: In addition to master's and doctoral programs, "Enrolled in Any Program" also includes individuals enrolled in other programs (associate's degree, undergraduate certificate, additional bachelor's degree, and post-bachelor's certificate)

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017). Tabulated using NCES PowerStats.

Annualized Income by the 1-Year Follow-Up. Indicator 5f(iii) displays average annualized income in 2017 for 2016 dependent bachelor's degree recipients who were employed full-time by parents' income quartile in 2022 constant dollars. The average annualized income reported in Indicator 5f(iii) excludes those who had another bachelor's degree prior to 2016 and those who were enrolled in any educational program in 2017. The average annualized income in 2022 constant dollars for dependent bachelor's degree recipients from the lowest family income quartile was more than $6,000 lower (12 percent) than bachelor's degree recipients from the highest family income quartile ($46,188 vs. $52,632). The average annualized income for bachelor's degree recipients from the third and second family income quartiles was $49,704 and $46,812. The mean annualized income for all dependents graduates 1 year after graduation was $49,829.

Equity Indicator 5f(iii): 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 1-year follow-up in 2017 by parents' income quartile (in 2022 constant dollars)



Indicator Status:

In 2022 dollars, average annualized income 1 year after bachelor's degree attainment was more than $6,000 (12 percent) lower for dependent graduates from the lowest family income quartile than the highest quartile ($46,188 vs. $52,632). (This comparison includes only individuals who were employed and who were not enrolled in educational programs.)

NOTE: 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 2017 follow-up and who were employed full-time.

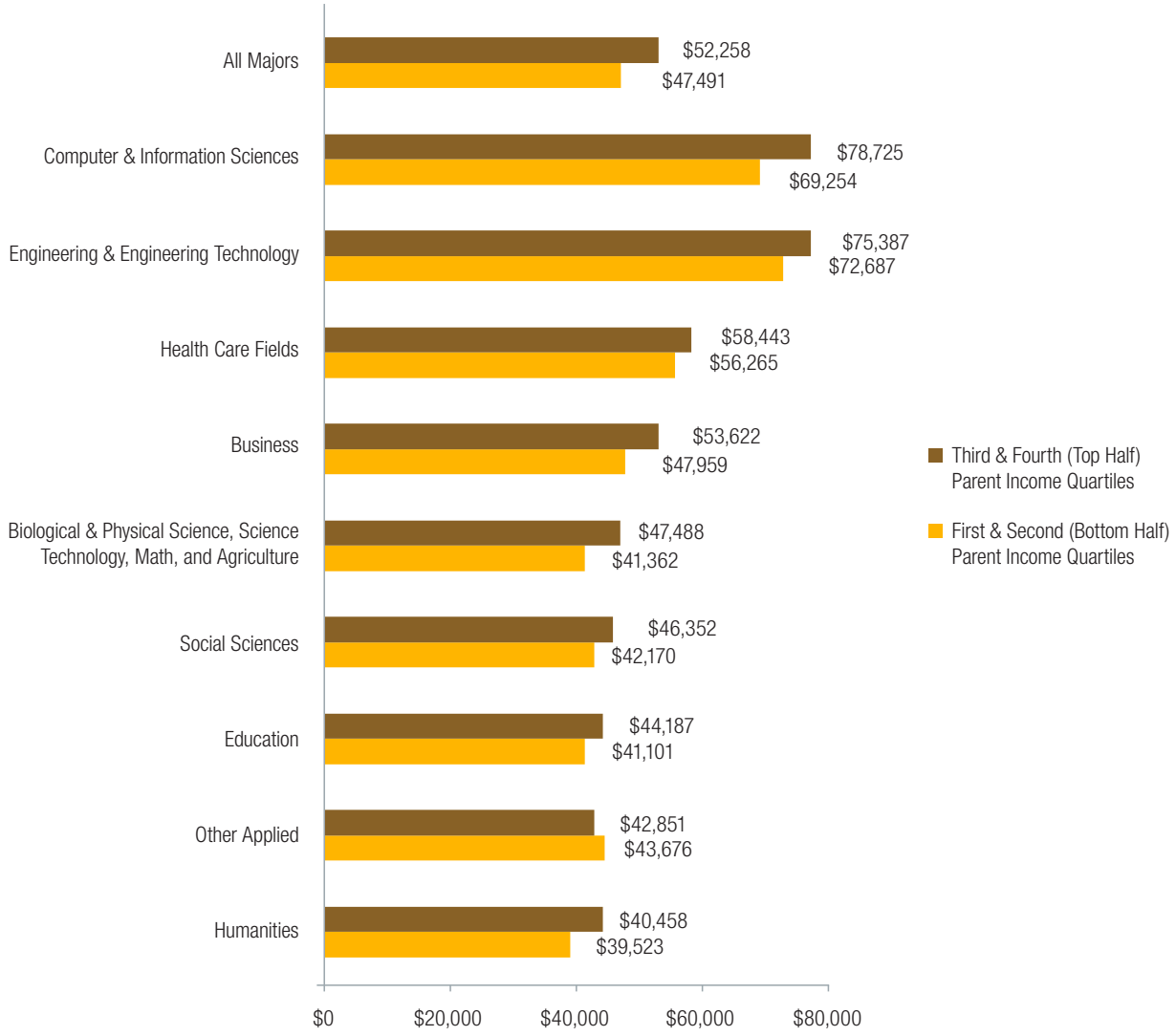
SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017). Tabulated using NCES PowerStats.

Average Annualized Income for Recent Bachelor's Degree Recipients by Major Field. Indicator 5f(iv) reports the average annualized income for 2016 bachelor's degree recipients 1 year after graduation by major field of study and parents' income levels.[132] Parental income is based on the base NPSAS year sample from which the B&B samples are drawn. Due to smaller sample sizes and increased standard errors when the data are disaggregated by major field, we present the data by the combined two top quartiles and the two bottom quartiles. Caution is needed in drawing conclusions from these data due to the wide variety of occupational categories covered by the broad major field categories. In addition, income potentially increases with experiences and with additional graduate schooling for certain fields of study not reflected in the 1-year follow-up data.

As Indicator 5f(iv) shows, there was almost a $5,000 difference between the combined two highest parental income quartiles (top half) and the two lowest parental income quartiles (bottom half) in the annualized income for "All Majors" (i.e., aggregate average for all bachelor's degree completers) at the 1-year follow up ($52,258 vs. $47,491 in constant 2022 dollars). By major field, average annualized income ranged from $39,523 for Humanities for bachelor's degree recipients from families in the bottom half of the parental income distribution to $78,725 for Computer and Information Sciences majors with parents in the top half of the parental income distribution. Although differences by major field were consistently larger than differences within a given major by parental income, within most fields bachelor's recipients with higher parent incomes tended to have slightly higher incomes.

132 "Field of Study" indicates the respondent's major or field of study using 10 categories for bachelor's degree. Students' majors are further aggregated according to the U.S. Department of Education's Classification of Instructional Programs, 2010 edition (CIP 2010). For more information on CIP codes, see http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55.

Equity Indicator 5f(iv): Average annualized income of dependent students graduating in 2016 who had a full-time job after bachelor's degree completion by selected major field category by parental income (constant 2022 dollars)



Indicator Status:

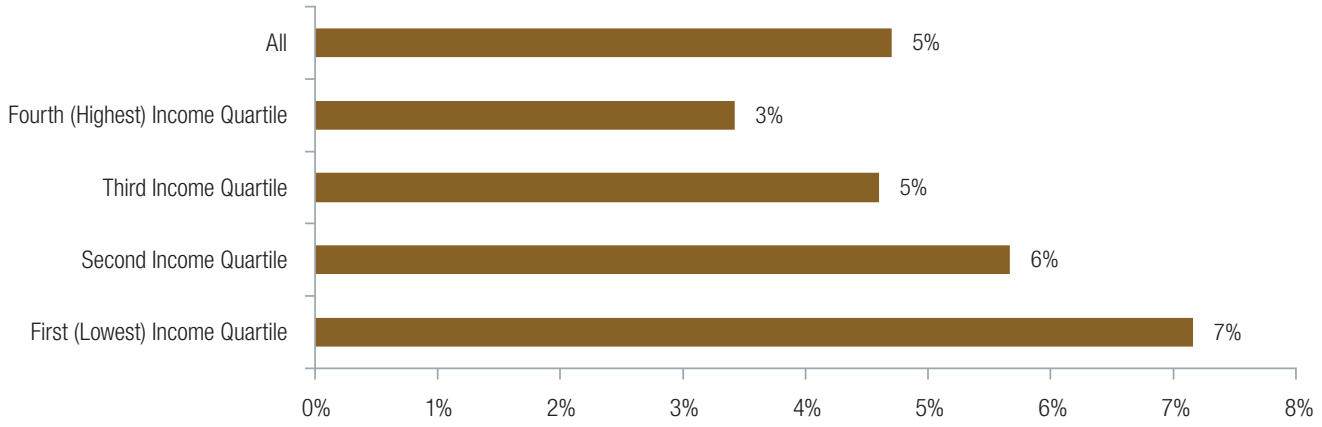
About a $5,000 difference separated the combined two highest parental income quartiles (top half) and the two lowest parental income quartiles (bottom half) in the annualized income for "All Majors" (i.e., the aggregate average for all bachelor's degree completers) at the 1-year follow up ($52,258 vs. $47,491 in constant 2022 dollars). By major field, average annualized income ranged from $39,523 for Humanities majors in the bottom half of parental income to $78,725 in the top half in Computer and Information Sciences majors.

NOTE: Estimates exclude recipients for about 6 percent of 2015–16 bachelor's degree recipients who had earned another bachelor's degree prior to 2015–16. Employment characteristics are for the full-time job held 12 months after completion of a bachelor's degree. Excludes the "General Studies and Other" due to significant standard errors occurring when trying to disaggregate by dependent students' parents' income. Tabulations may differ from published reports due to small differences in classifications and exclusions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017). Tabulated using NCES PowerStats.

Unemployment at the Time of the 1-Year Follow-Up. Indicator 5f(v) displays the percentage of dependent bachelor's degree recipients who were not employed, not enrolled in any educational program, and did not report they were out of the labor force for family or other reasons when they were surveyed 1 year after graduation (in 2017).[133] Seven percent of bachelor's degree recipients from the lowest family income quartile were "unemployed" 1- year after graduation, compared with 6 percent of those in the second lowest income quartile, 5 percent of those from the third income quartile, and 3 percent from the highest income quartile.[134]

Equity Indicator 5f(v) Percentage of dependent students who received bachelor's degrees in 2016 who were "unemployed" (not enrolled in further schooling, not employed, and in the labor force) at the time of the 1-year follow-up in 2017 by parental income



Indicator Status: Unemployment Higher Among Graduates from Lowest Quartile

Bachelor's degree recipients who were in the lowest family income quartile were "unemployed" at a rate 40 percent higher than that of the highest income quartile (7 percent vs. 3 percent).

NOTE: "Unemployed" bachelor's degree recipients were not employed, were not enrolled in an educational program, and did not report that they were out of the labor force.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B:2016/2017). Tabulated using NCES PowerStats.

133 This indicator represents the percentage of non-employed graduates who were not enrolled in further schooling in 2012. It excludes those who indicated that they were "out of the labor force" for any reason.

134 COVID-19 has disrupted the decline of unemployment in the recovery from the Great Recession. See STS for recent COVID-19 statistics on the unemployment rate.

Indicators 5g(i) and 5g(ii): What are the Differences in Post-Baccalaureate Outcomes of 2007-08 Bachelor's Degree Recipients by Demographic Characteristics 10 years After Completion, in 2018?

Indicators 5g(i) and 5g(ii) also use data from the Baccalaureate and Beyond Longitudinal Study (B&B), but the data are from the earlier 2008 cohort followed in 2018, 10 years after graduation.[135] These indicators show post-baccalaureate degree or certificate completion by race/ethnicity and parent's highest education. Postbaccalaureate awards include research doctoral, first professional degrees, master's degrees, and any other degree or certificate awarded after bachelor's degree completion, including other undergraduate degrees or certificates.

Post-Baccalaureate Highest Degree Attainment by Race/Ethnicity. Indicator 5g(i) shows that 10 years after obtaining their bachelor's degree, over 40 percent of each race/ethnicity group had obtained post-baccalaureate degrees or certificates. Rates were highest among Asians, Other or Two or More Races, and Blacks (49, 48, and 46 percent, respectively).

Among bachelor's degree recipients, rates of obtaining a research doctoral degree as the highest degree by 10 years after the bachelor's degree narrowly ranged from 2 to 3 percent for each race/ethnicity group. However, considering the first-professional degrees, Asians stand out as having the highest percentage who attained a first professional or other doctoral degree (12 percent). The largest percentage of post-baccalaureate degrees overall were master's degrees, with 24 to 30 percent of all bachelor's degree completers having attained a master's degree as their highest degree by 10 years after bachelor's completion. Blacks had the largest percentage of bachelor's completers who had attained a Master's degree as the post-baccalaureate highest degree (30 percent).

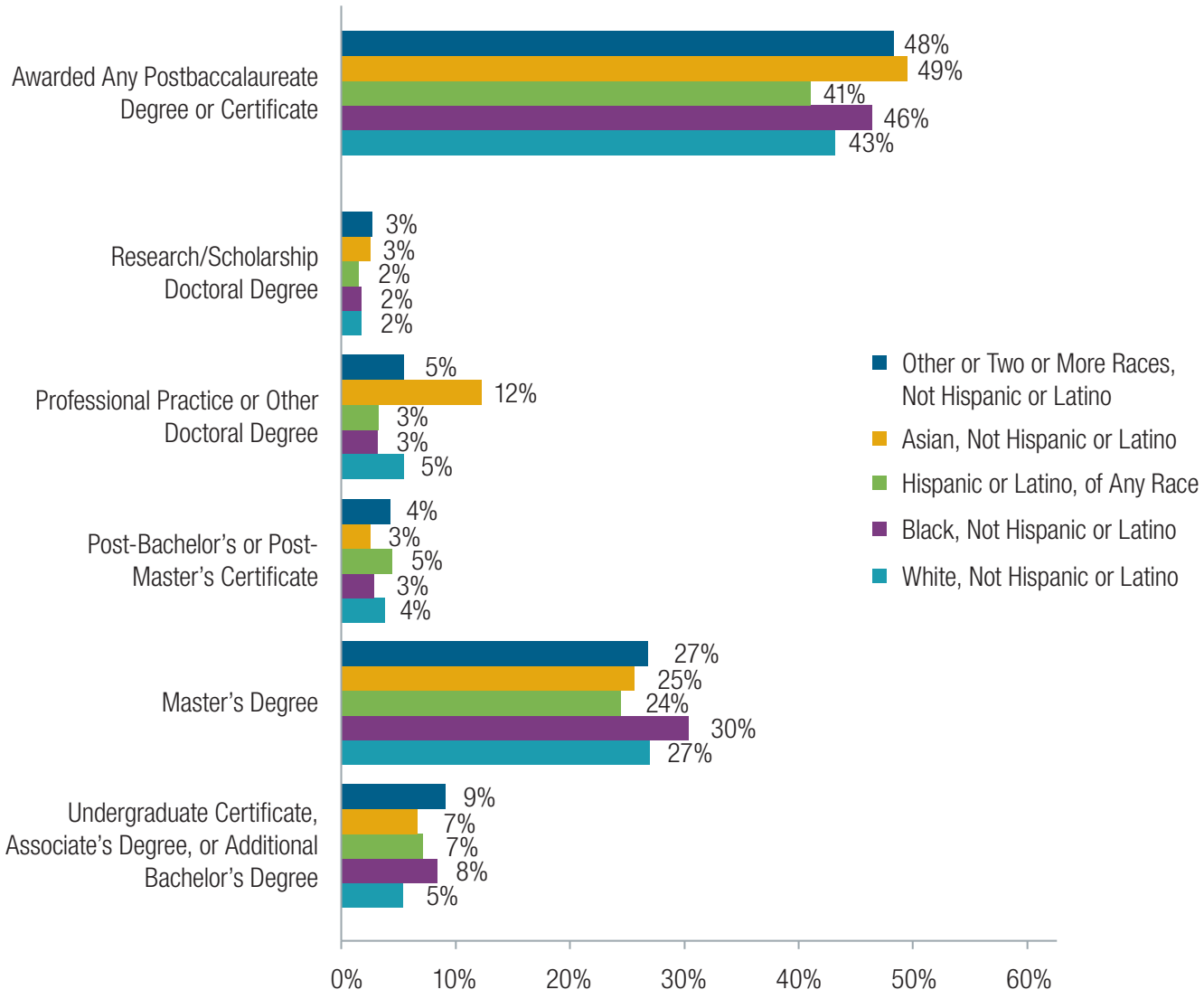
Post-Baccalaureate Highest Degree by Parent's Highest Level of Education. As seen in previous Indicators in this report, parental education is highly associated with whether students enroll in postsecondary education, where they enroll, how much student debt they will incur, and whether they will complete a degree once enrolled. Indicator 5g(ii) uses B&B:2008/2018 data to examine the extent to which parental education is also associated with post-baccalaureate attainment. Overall, Indicator 5g(ii) shows, that although parental education remains related to post-baccalaureate attainment, the differences are most substantial when comparing students whose parents have graduate degrees to those students with parents without graduate degrees.

Among those bachelor's degree completers whose parents had attained a graduate degree, just over half (51 percent) had also obtained a graduate degree by 10 years after their bachelor's graduation. There are fewer differences in post-baccalaureate degree completion rates among those whose parents' highest education level was below the graduate level. For example, rates of attaining any post-baccalaureate degree were 42 percent for those whose parents had a bachelor's degree as their highest degree, 40 percent for those whose parents had some college, and 38 percent for those whose parents had high school or less.

Baccalaureate completers who had a parent with a graduate degree also had the highest rates of obtaining doctoral or professional degrees. For example, 9 percent of bachelor's degree recipients in 2008 who had a parent a with graduate degree had obtained a doctoral or professional degree by 2018, compared with 5 percent whose parents' highest degree was a bachelor's and 3 percent of those whose parents were first-generation college (defined as neither parent having a bachelor's degree).

135 The B&B 2008 10-Year Follow-up includes approximately 14,700 college graduates.

Equity Indicator 5g(i): Percentage of 2008 bachelor's degrees completers awarded further degrees or certificates by 10 years after bachelor's completion by race/ethnicity: Baccalaureate and Beyond Longitudinal Study (B&B:2008/2018)



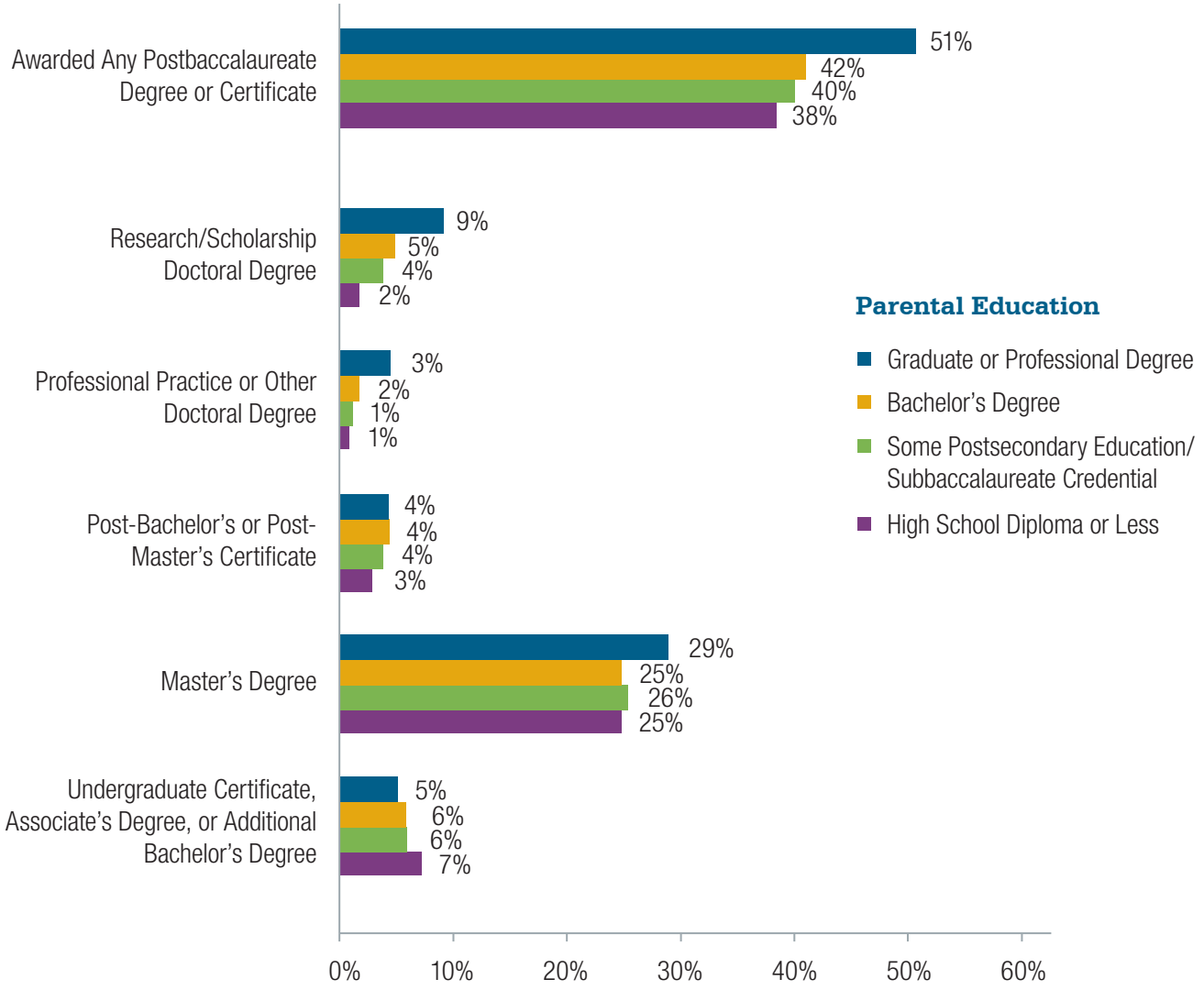
Indicator Status: Post-Baccalaureate Attainment Continues to Show Intergenerational Impact

Between 41 and 49 percent of bachelor's degree completers of all race/ethnicity groups earned post-baccalaureate degrees or certificates. Asians had the highest percentage awarded professional practice degrees and Blacks had the highest percentage awarded master's degrees.

NOTE: Professional practice degrees include M.D, O.D, and J.D.

SOURCE: Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J., & Cooney, J. (2019). *Baccalaureate and Beyond (B&B:16/17): A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later (NCES 2019-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Equity Indicator 5g(ii): Percentage of 2008 bachelor's degrees completers awarded further degrees or certificates by 10 years after bachelor's completion by level of parental education: Baccalaureate and Beyond Longitudinal Study (B&B:2008/2018)



Indicator Status: Educational Attainment Shows Intergenerational Impact

Parental education levels remain associated with degree attainment at the post-baccalaureate levels, especially for those whose parents have earned graduate degrees. Just over half (51 percent) of those whose parents had obtained a graduate or professional degree had also obtained a postbaccalaureate degree by 10 years after their bachelor's graduation, compared with about 38 to 42 percent for those whose parents lack graduate degrees.

NOTE: Professional practice degrees includes M.D, O.D, and J.D.

SOURCE: Velez, E.D., Lew, T., Thomsen, E., Johnson, K., Wine, J., & Cooney, J. (2019). *Baccalaureate and Beyond (B&B:16/17): A First Look at the Employment and Educational Experiences of College Graduates, 1 Year Later (NCES 2019-241).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021241.

Equity Indicators 5h(i to v): What are Differences in Educational Attainment by State?

Equity Indicators 5h(i) to 5h(v) include comparisons of educational attainment by state using Census and Department of Education data. Interpreting state-by-state comparisons is complex. State educational attainment rates are influenced by historical events, geographic patterns, age distributions of a state's population, and demographic migrations into and out of the state, as well as the characteristics and structures of a state's higher education system and state policies that influence educational attainment.[136]

State Variation in High School and College Attainment Rates: 1940 to 2021. Indicators 5h(i) to 5h(iii) use Census Bureau data to show the percent of the population 25 years of age and older that has attained a high school credential and a bachelor's degree or higher by state. The data from 1940 to 2000 are from the decennial census, and the 2010-2019 data are from the American Community Survey.[137] The most recent data for 2020 to 2023 are from the Current Population Survey (CPS) and were calculated using the US Census Bureau's MDAT system.[138] We provide data from 1940 to give historical context to recent observed differences by state. To display the range of variation by state and changes in that variation over time, Indicator 5h(i) plots high school and bachelor's degree attainment rates at 10-year intervals. Indicators 5h(ii) and 5h(iii) present information in bar charts displaying high school and bachelor's degree attainment rates for individual states for 1940 and 2023. We note that the data displayed reflect the educational attainment of persons living in the state at the time of the survey and not the percentage of the population who attained a high school diploma or bachelor's degree from an institution within the state.

Over the 83 years from 1940 to 2023, there has been a convergence across states in the percent of the population age 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 while other states lag (Equity Indicator 5h(i)).

High School Attainment of Population Age 25 and older: 1940 and 2023. As displayed in Indicator 5h(ii), the percent of the population age 25 and older with a high school diploma or other credential averaged 24 percent for the United States in 1940 and ranged from 15 percent to 41 percent across states. The states with the lowest high school attainment rates in 1940 were: Arkansas (15 percent), Kentucky, Alabama, and Mississippi (16 percent), Georgia (17 percent), and Louisiana, West Virginia, Tennessee, and South Carolina (18 percent). The states with the highest high school completion rates were: District of Columbia (41 percent), California (37 percent), Utah (37 percent), and Nevada (36 percent).

By 2023, 91 percent of the U.S. population age 25 and older had attained at least a high school credential. High school attainment continued to vary across states, ranging from 87 percent in New Mexico and Texas to at least 90 percent in 42 states and DC. In 2023, Vermont, Montana, Wyoming, Iowa, Wisconsin, and Minnesota had the highest high school attainment rates (96 percent).

Bachelor's Degree or Higher Attainment: 1940 and 2023. In 1940, 5 percent of the U.S. population age 25 and older had attained at least a bachelor's degree. Although 11 percent of the population age 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 percent (Arkansas) to 7 percent (California and Nevada).

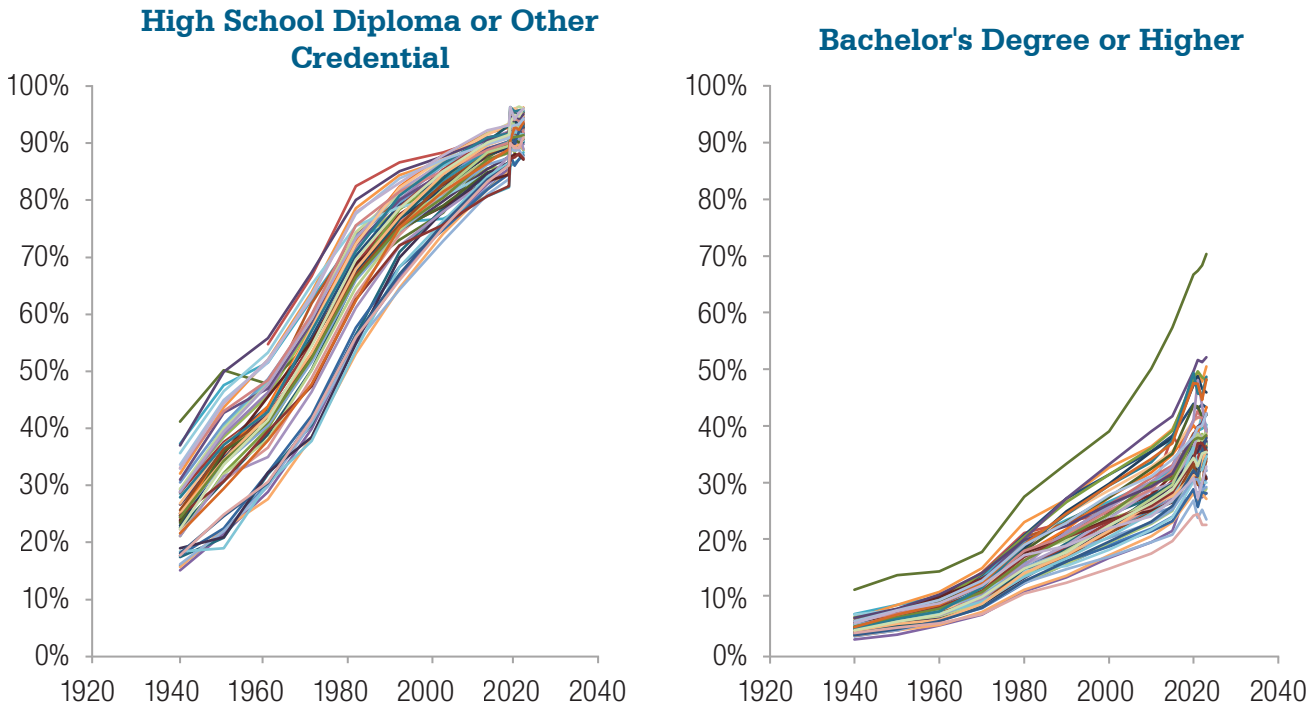
136 Perna, L.W., & Finney, J. (2014). *The attainment agenda: State policy leadership in higher education*. Baltimore, MD: Johns Hopkins University Press.

137 The sample design for American Community Survey is representative at the state level. However, all sample surveys are subject to sampling error. The Census Bureau publishes tables for download with sampling errors for these statistics at the following site: https://data.census.gov/. The data from the decennial census are not subject to sampling error but are subject to coverage error.

138 Dataset: CPS Annual Social and Economic (March Supplement). Weight Used: MARSUPWT. https://data.census.gov/mdat/#/.

By 2023, 38 percent of the U.S. population age 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 percent). Fifteen states had bachelor's degree attainment rates of 40 percent or higher. These included: Kansas, California (40 percent), New York, New Hampshire, Illinois, Utah, Washington (42 percent), Connecticut, Minnesota (43 percent), New Jersey (46 percent), Maryland, Virginia (48 percent), Vermont (49 percent), Colorado (51 percent), and Massachusetts (52 percent).

Equity Indicator 5h(i): Scatter plots of the percentage of the population age 25 and older who had attained a high school diploma or equivalent credential and who had attained a bachelor's degree or higher by state: 1940-2023



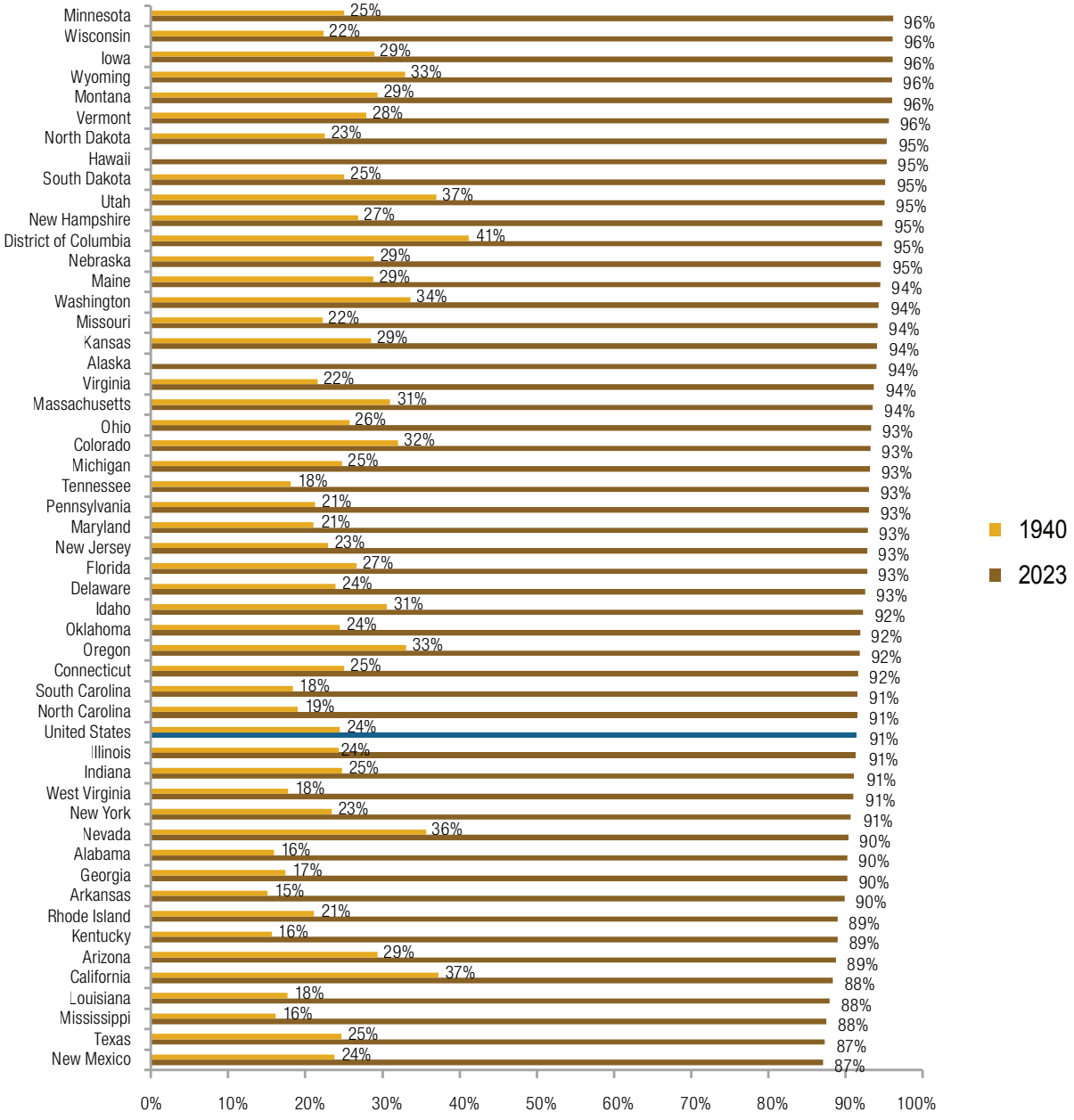
Indicator Status:

Differences across states in high school attainment rates lessened over the 83-year period from 1940 to 2023. Over the same period, differences by state in bachelor's degree attainment rates increased.

NOTE: Data from 1940 to 2000 are from the decennial census. Data from 2010-2019 are from the American Community Survey. Data for 2020 to 2023 are from the Current Population Survey and were calculated using the U.S. Census Bureau's MDAT system.

SOURCE: U.S. Census Bureau (2015). *A Half-century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000.* [Tables]. Retrieved from https://www.census.gov/data/tables/time-series/demo/educational-attainment/educational-attainment-1940-2000.html. U.S. Census Bureau (n.d.). American Community Survey, 2010-2019, [Table S. 1501]. Retrieved from https://data.census.gov/. U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement. Retrieved from https://data.census.gov/mdat/#/.

Equity Indicator 5h(ii): Percentage of the population age 25 and older with a high school diploma or equivalent credential by state: 1940 and 2023



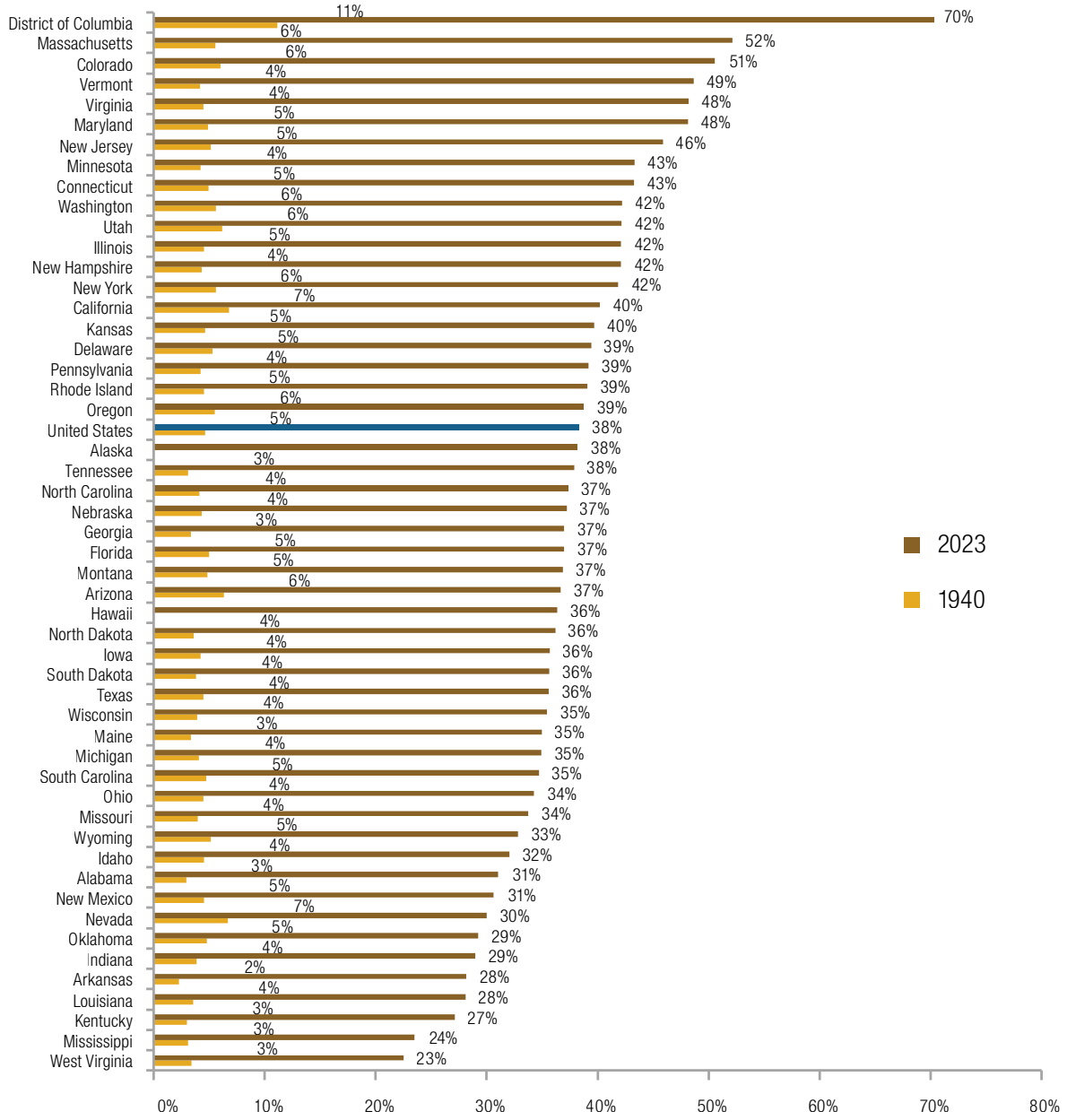
Indicator Status:

In 2023, at least 91 percent of the US population age 25 and older had completed high school.

NOTE: Data from 1940 are from the decennial census. Data for 2023 are from the Current Population Survey and were calculated using the US Census Bureau's MDAT system.

SOURCE: U.S. Census Bureau (2015). *A Half-century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000.* [Tables]. Retrieved from https://www.census.gov/data/tables/time-series/demo/educational-attainment/educational-attainment-1940-2000.html. U.S. Census Bureau, Current Population Survey, CPS Annual Social and Economic Supplement. Retrieved from https://data.census.gov/mdat/#/.

Equity Indicator 5h(iii): Percentage of the population age 25 and older with a bachelor's degree or higher by state: 1940 and 2023



Indicator Status:

In 1940, 5 percent of the U.S. population 25 and older had attained a bachelor's degree. In 2023, 38 percent of the U.S. population had attained a bachelor's degree.

NOTE: Data for 1940 are from the decennial census. Data for 2023 are from the Current Population Survey and were calculated using the US Census Bureau's MDAT system.

SOURCE: U.S. Census Bureau (2015). *A Half-century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000*. [Tables]. Retrieved from https://www.census.gov/data/tables/time-series/demo/educational-attainment/educational-attainment-1940-2000.html. U.S. Census Bureau, Current Population Survey, CPS Annual Social and Economic Supplement. Retrieved from https://data.census.gov/mdat/#/.

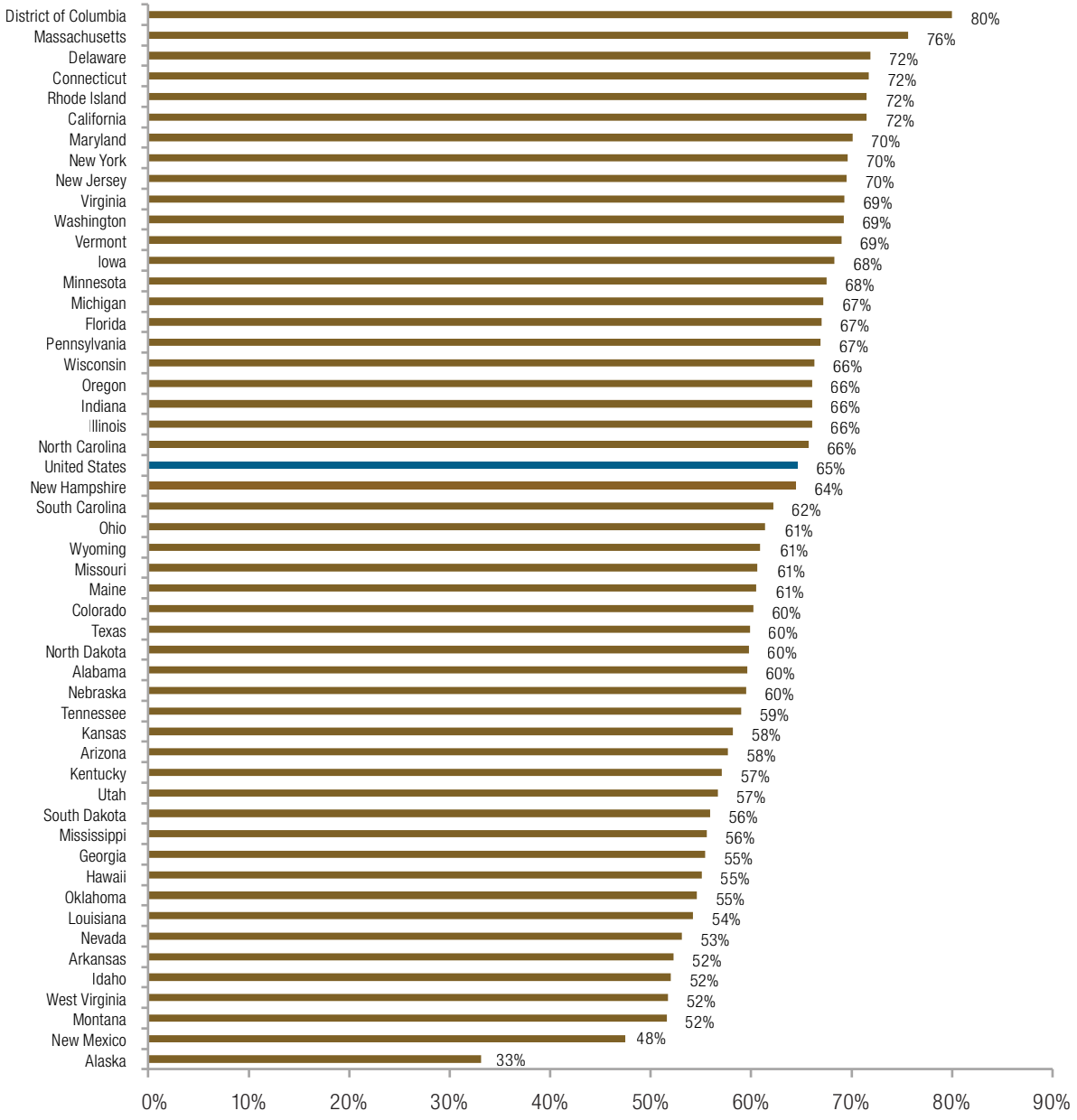
Graduation Rates of Bachelor's Degree-Seeking Students by State. In 1997, as mandated by Congress, NCES through IPEDS began collecting graduation rates from institutions participating in the federal financial aid system (Title IV). Using IPEDS data, Indicator 5h(iv) reports the percentage of full-time 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 2016 cohort who were tracked to ascertain the graduation rate for the institution by 150 percent of time to degree. The national 6-year completion rate at the first institution in which the student was enrolled was 65 percent for the 2016 cohort. The 6-year completion rates for bachelor's degree-seeking students who first enrolled in a 4-year institution in 2016 ranged from 33 percent in Alaska and 48 percent in New Mexico to 76 percent in Massachusetts and 80 percent in the District of Columbia.

Bachelor's Degree Attainment Rates for the 25- to 34-Year-Old Population by State. Equity Indicator 5h(v) uses data from the American Community Survey to show bachelor's degree attainment for the population age 25 to 34 in 2005 and 2022.[139] Nationwide, the percentage of 25- to 34-year-olds with at least a bachelor's degree increased from 30 percent in 2005 to 40 percent in 2022.

By 2022, bachelor's degree attainment rates for adults aged 25 to 34 ranged from 25 percent in Nevada and 26 percent in New Mexico to more than 50 percent in New Jersey (51 percent), Massachusetts (57 percent), and the District of Columbia (78 percent).

139 Indicator 5h(v) shows attainment rates for the population age 25 to 34, while Indicator 5h(iii) shows attainment for the population age 25 and older. Generally, attainment rates are higher for the younger age group than for the total adult population.

Equity Indicator 5h(iv): 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 2022 for cohort beginning in 2016



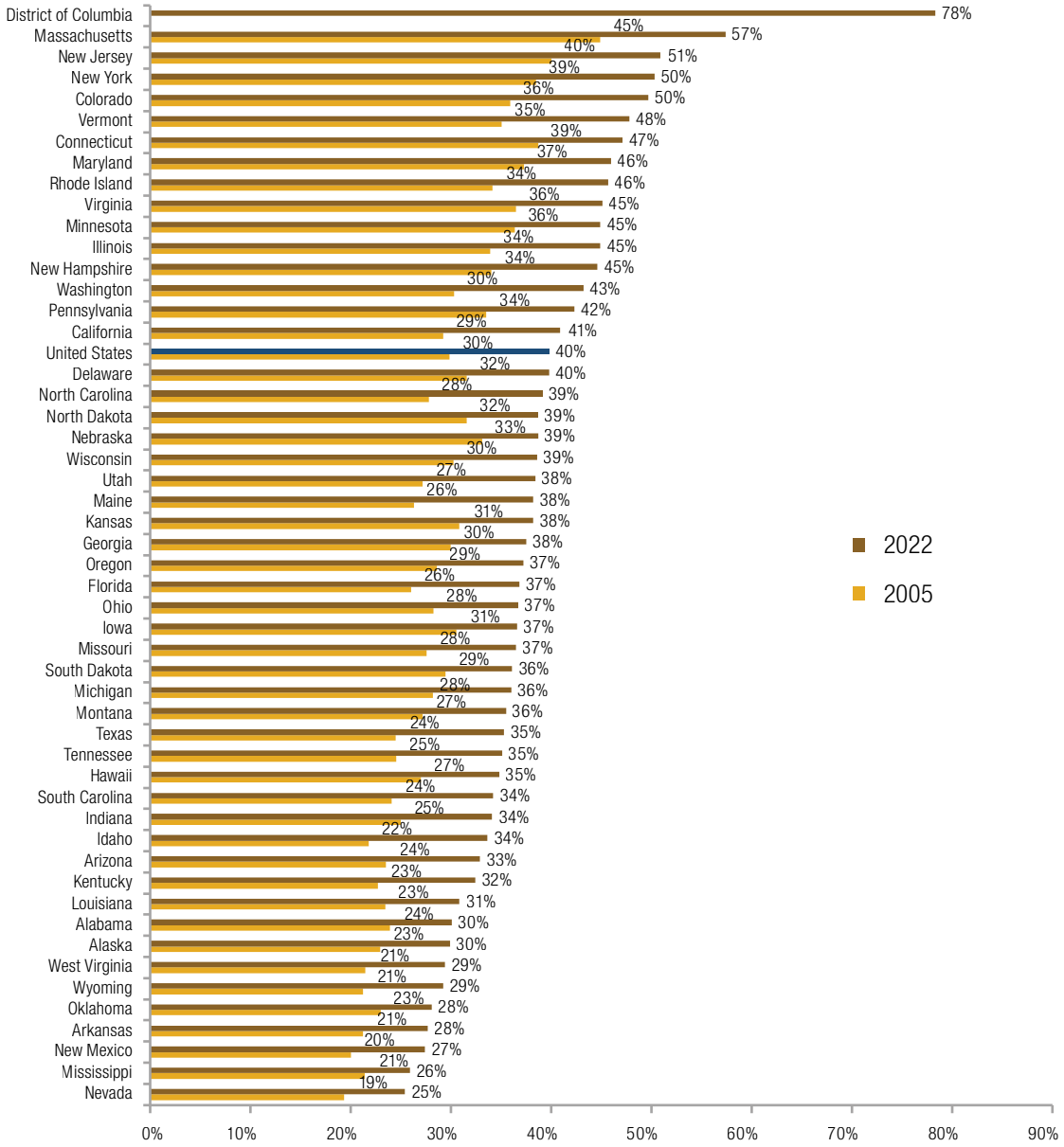
Indicator Status:

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 33 percent in Alaska to 80 percent in District of Columbia.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Graduation Rates component provisional data (2022).

Equity Indicator 5h(v): Percentage of population age 25 to 34 who had attained a bachelor's degree by state: 2005 and 2022



Indicator Status:

By 2022, in addition to the District of Columbia (78 percent), 15 states had bachelor's degree attainment rates for the population age 25 to 34 above 40 percent (California, Pennsylvania, Washington, New Hampshire, Illinois, Minnesota, Virginia, Rhode Island, Maryland, Connecticut, Vermont, Colorado, New York, New Jersey, and Massachusetts). Two states had bachelor's degree attainment rates below 27 percent for that population (Nevada and Mississippi).

NOTE: The American Community Survey data are based on sample surveys; thus, they contain statistical errors that are associated with any sample survey.

SOURCE: U.S. Census Bureau, 2005, American Community Survey, NCHEMS Information System. http://www.higheredinfo.org/; U.S. Census Bureau (n.d.). American Community Survey, 2022, [Table S. 1501]. Retrieved from https://data.census.gov/.

Equity Indicators 5i(i) and 5i(ii): What are Differences in IPEDS Institutional Completion Rates by Pell Receipt Status?

In 1997, as mandated by Congress, NCES through IPEDS began collecting graduation rates from institutions participating in the federal financial aid system (Title IV). The Reauthorization of the Higher Education Opportunity Act of 2008 (HEOA:2008), extended this mandate to also require higher education institutions to report completion rates disaggregated by Pell Grant status. These data are collected in the IPEDS Outcomes Measures Component.[140] The first entering cohort to which the disaggregation by Pell Grant status mandate applied was the 2010 cohort.[141] These rates measure completion at the institution reporting and do not account for transfers among institutions. Nor are institutions allowed to count those students who transferred into the institution and graduated from the institution.

Indicator 5i(i) and 5i(ii) use IPEDS data to show the 6-year completion rates for cohort entry year 2013-14 by selective characteristics as reported in the Digest of Education Statistics.[142] Indicator 5i(i) displays the completion rates by Pell Grant receipt and institution control, and Indicator 5i(ii) looks at differences in completion rates by Pell Grant receipt status and by institutional acceptance rates. As institutions vary greatly in cohort numbers and in the distribution of Pell Grant recipients vs. non-Pell Grant recipients, the data reported below should be used with reference to the total numbers and relative distribution between Pell and non-Pell Grant recipients.

Six-Year Completion Rates by Institution Type, Control, and Pell Grant Receipt Status. Among public 2-year institutions, a higher percentage of Pell Grant recipients than non-Pell Grant recipients completed an award at the institution in which they started (30 percent of Pell Grant recipients vs. 26 percent of non-Pell Grant recipients).[143] Among 4-year public institutions, 6-year completion rates for degree-seeking students were 47 percent for Pell Grant recipients and 52 percent for non-recipients. The largest differences between those receiving and not receiving Pell Grants appear in private non-profit 4-year institutions, with 50 percent of Pell Grant recipients graduating, compared with 66 percent of non-Pell Grant recipients. Among 4-year private for-profit institutions, the 6-year completion rate was 28 percent for Pell Grant recipients and 37 percent for non-Pell Grant recipients.

Six-Year Completion Rates at 4-Year Institutions by Pell Grant Recipient Status and Institutions' Acceptance Rate. Equity Indicator 5i(ii) shows the percentage of degree-seeking undergraduate students in the 2013-14 cohort entering a 4-year postsecondary institution who completed a degree or certificate within 6 years at the same institution, by percent of applicants accepted by Pell Grant receipt status. As Indicator 5i(ii) shows, as the 4-year institutions' acceptance rates decrease, the completion rates increase, except for Pell Grant recipients at the most selective institutions. For each of the acceptance rate categories, completion rates for Pell Grant recipients were lower than non-Pell Grant recipients, except for the largest group, the open admissions category. Completion rates at the same institution for which the student began for open admission 4-year institutions were 31 percent for Pell Grant recipients and 30 percent for non-Pell Grant recipients. The completion rates for the most selective institutions (those for which 25 percent of applicants or less were accepted) were 83 percent for non-Pell Grant recipients and 58 percent for Pell Grant recipients.

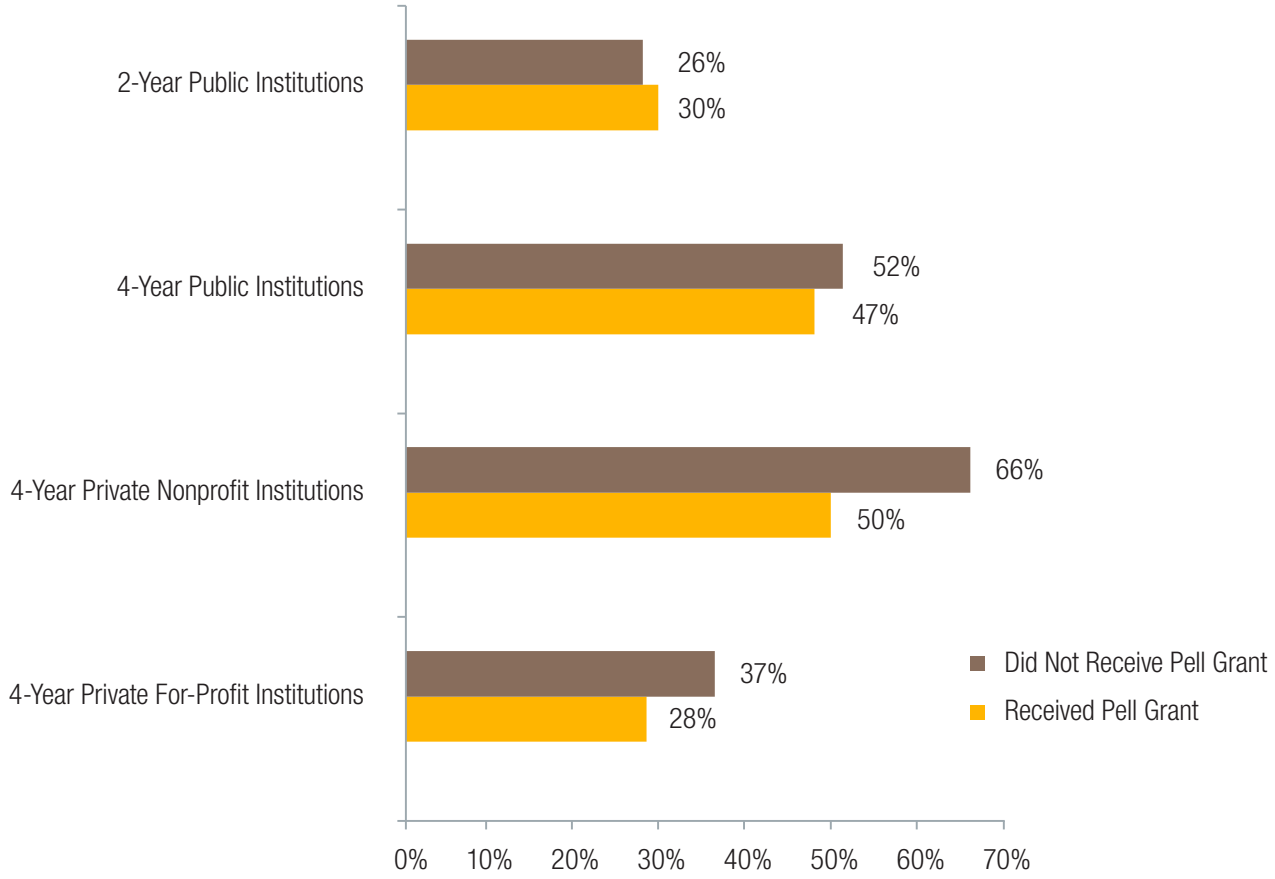
140 U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Winter 2021–22, Outcome Measures component; and IPEDS Fall 2013, Institutional Characteristics component.

141 Whistle, W. and Hiler, T. (2018). *The Pell Divide: How Four-Year Institutions are Failing to Graduate Low- and Moderate-Income Students*. Third Way. Retrieved from https://www.thirdway.org/report/the-pell-divide-how-four-year-institutions-are-failing-to-graduate-low-and-moderate-income-students.

142 https://nces.ed.gov/programs/digest/d22/tables/dt22_326.27.asp.

143 NCES also reports completion rates by Pell Grant receipt status for 2-year private non-profit and 2-year private for-profit institutions. They are not included here due to small cohort sizes relative to public 2-year institutions. Among the private 2-year institutions, completion rates are higher overall, but there are no significant differences between Pell Grant recipients and non-recipients.

Equity Indicator 5i(i): Percentage of degree/certificate-seeking undergraduate students entering a postsecondary institution who completed an award by 6 years at the same institution, by institution level and control by Pell Grant Recipient status, cohort entry year 2013-14



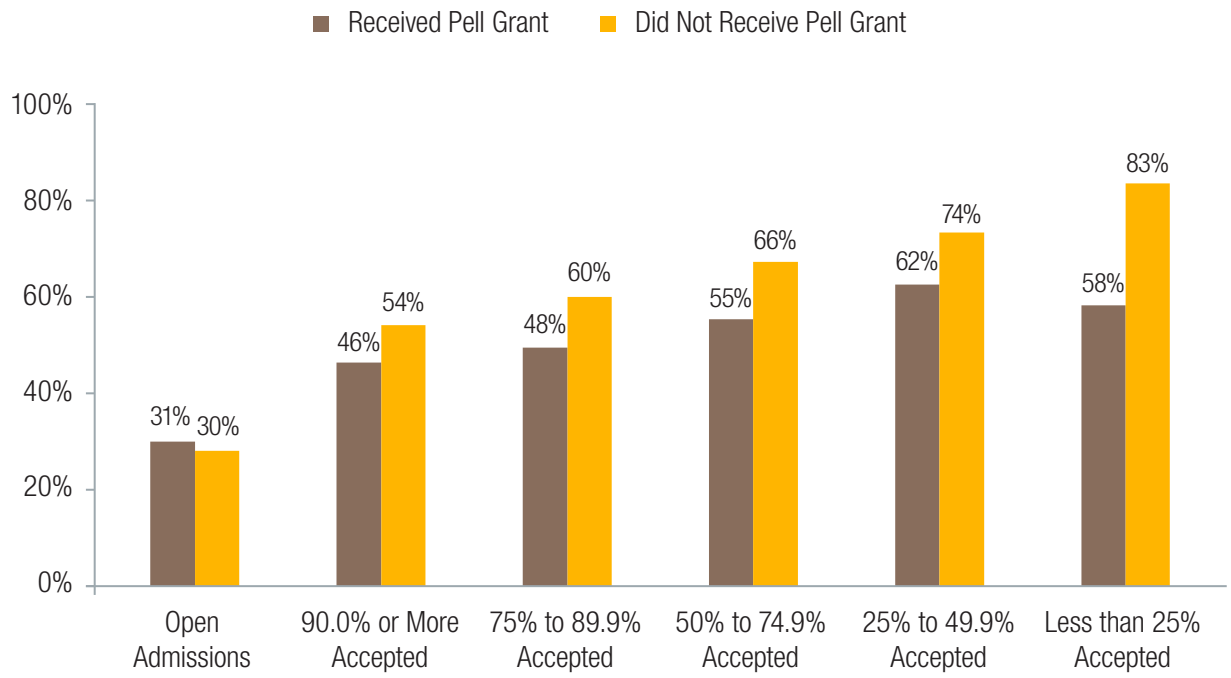
Indicator Status:

The largest differences between those receiving and not receiving Pell Grants were in private nonprofit 4-year institutions, with half (50 percent) of Pell Grant recipients graduating, compared with two-thirds (66 percent) of non-Pell Grant recipients. Among 4-year private for-profit institutions, the 6-year completion rate was 28 percent for Pell Grant recipients and 37 percent for non-Pell Grant recipients.

NOTE: The 2013-14 entry cohort includes all degree/certificate-seeking undergraduate students who entered a degree-granting institution between July 1, 2013, and June 30, 2014. The adjusted cohort excludes students who died or were totally and permanently disabled as well as students who left school to serve in the armed forces (including those called to active duty), to serve with a foreign aid service of the federal government (e.g., the Peace Corps), or to serve on official church missions. Includes only those awards that were conferred by the reporting institution (i.e., the institution that the student entered in 2013-2014); excludes awards conferred by institutions to which the student later transferred. NCES also reports completion rates by Pell Grant Receipt status for 2-year private non-profit and private for-profit institutions. Due to small numbers of students in the cohort, they are not included here but are available at the source listed below.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Winter 2021–22, Outcome Measures component; and IPEDS Fall 2013, Institutional Characteristics component. Retrieved from U.S. Department of Education, National Center for Education Statistics (2024). *Digest of Education Statistics 2022*, [Table 326.27]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_326.27.asp.

Equity Indicator 5i(ii): Percentage of degree-seeking undergraduate students entering a 4-year postsecondary institution who completed a bachelor's degree at the same institution in 6 years by institutions' acceptance rates and Pell Grant recipient status: cohort entry year 2013-14



Indicator Status:

As 4-year institutions' acceptance rates decrease, completion rates go up for both Pell Grant and non-Pell recipients, with an exception at the most selective institutions for Pell Grant recipients. Except for the largest enrollment group (open admissions), higher percentages of non-Pell recipients than Pell recipients complete degrees. At open admission institutions, 6-year completion rates were 31 percent for Pell Grant recipients and 30 percent for non-recipients. Completion rates at the most selective institutions (those for which 25 percent of applicants or less were accepted) were 83 percent for non-Pell Grant recipients and 58 percent for Pell Grant recipients.

NOTE: The 2013-14 entry cohort includes all degree/certificate-seeking undergraduate students who entered a degree-granting institution between July 1, 2013, and June 30, 2014. The adjusted cohort excludes students who died or were totally and permanently disabled as well as students who left school to serve in the armed forces (including those called to active duty), to serve with a foreign aid service of the federal government (e.g., the Peace Corps), or to serve on official church missions. For 4-year institutions, the cohort includes only bachelor's degree-seeking students; excludes awards conferred by institutions to which the student later transferred.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Winter 2021–22, Outcome Measures component; and IPEDS Fall 2013, Institutional Characteristics component. *Digest of Education Statistics 2022*, [Table 326.27]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_326.27.asp.

EQUITY INDICATOR 6

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

Among OECD countries reporting bachelor's attainment information, the U.S. has fallen from 2nd in 2002 to 18th in 2022 in tertiary-type A (bachelor's or above) degree attainment of adults 25 to 34.

Comparing the United States' educational attainment with other countries can lead to greater understanding of factors that promote or hinder equity in higher education attainment. In fact, the U.S. Department of Education's mission statement reflects an interest in international indicators as the Department seeks *"to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access."*[144]

As such, Equity Indicator 6 uses data from the Organisation for Economic Co-operation and Development (OECD) to compare educational attainment in the United States with other countries. The OECD strives to apply common definitions across countries and consistently collect and report data to develop evidence-based international standards. However, differences across countries in educational systems and degree classifications and reporting issues from year-to-year can limit international comparisons.[145]

Equity Indicator 6(a-b): Definitions

Indicator 6 relies on the common terms and definitions developed by the OECD to track educational attainment. Indicator 6a reports tertiary-type A degree attainment, and Indicator 6b combines attainment of tertiary-type A degrees (the equivalent of a bachelor's degree or above) with tertiary-type B degrees (the equivalent of an associate's degree). For both Indicators, we present attainment for the population age 25 to 34 in the years 2000 and 2022.[146]

As defined in the OECD's glossary of statistical terms:[147]

- **Tertiary-type A programs** are largely theory-based and are designed to provide sufficient qualifications for entry to advanced research programs and professions with high skill requirements.

144 U.S. Department of Education. (2011). *Mission*. Retrieved from https://www2.ed.gov/about/overview/mission/mission.html.

145 For more information on the methods used and limitations of international comparisons, see OECD. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/e13bef63-en.

146 For detailed analysis on upper secondary graduation rates and bachelor's degree attainment rates between 1996 and 2017, see Mortenson, T. (2019). Make American Education Great Again. *Postsecondary Education Opportunity, 301*. Washington, D.C: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

147 OECD. (2008). *OECD Glossary of Statistical Terms*. Paris: OECD Publishing. Retrieved from https://www.oecd-ilibrary.org/economics/oecd-glossary-of-statistical-terms_9789264055087-en.

Tertiary-type A programs have a minimum cumulative theoretical duration of 3 years of full-time equivalent study at the tertiary level, although they typically last 4 or more years. These programs are not exclusively offered at universities. This classification is comparable to the BA or BS or above in the U.S. system. Starting in May 2014, OECD began to use a more detailed classification of levels of education to align with the International Standard Classification of Education (ISCED 2011).[148] These are the ISCED 2011 levels: level 5 (short-cycle tertiary education), level 6 (bachelor's or equivalent level), level 7 (master's or equivalent level), and level 8 (doctoral or equivalent level). In this report, we combine levels 6 through 8 and refer to this category as tertiary-type A (the equivalent of a bachelor's degree or higher).

- **Tertiary-type B programs** are typically shorter than tertiary-type A degrees and focus on practical, technical, or occupational skills for direct entry into the labor market, although some theoretical foundations may be covered in the programs. These programs have a minimum duration of 2 years full-time equivalent study at the tertiary level. We present data on ISCED 2011 level 5 (short-cycle tertiary education) as equivalent to tertiary-type B programs (the equivalent of an associate's degree or higher). We use the terms tertiary-type B programs, short-cycle tertiary education, and associate's degree interchangeably.

Equity Indicator 6a: What Percentage of 25- to 34-Year-Olds Have Completed a Type A (Bachelor's or above) Tertiary Degree?

Using the OECD classifications described above, for OECD member countries, Lithuania (58 percent) had the highest rate of bachelor's degree attainment among the 25- to 34-year-old population. The U.S. ranked 2nd out of 35 OECD countries on this indicator in 2002 (with a 31 percent attainment rate) but 18th out of the 38 OECD countries in 2022 (with a 41 percent attainment rate).

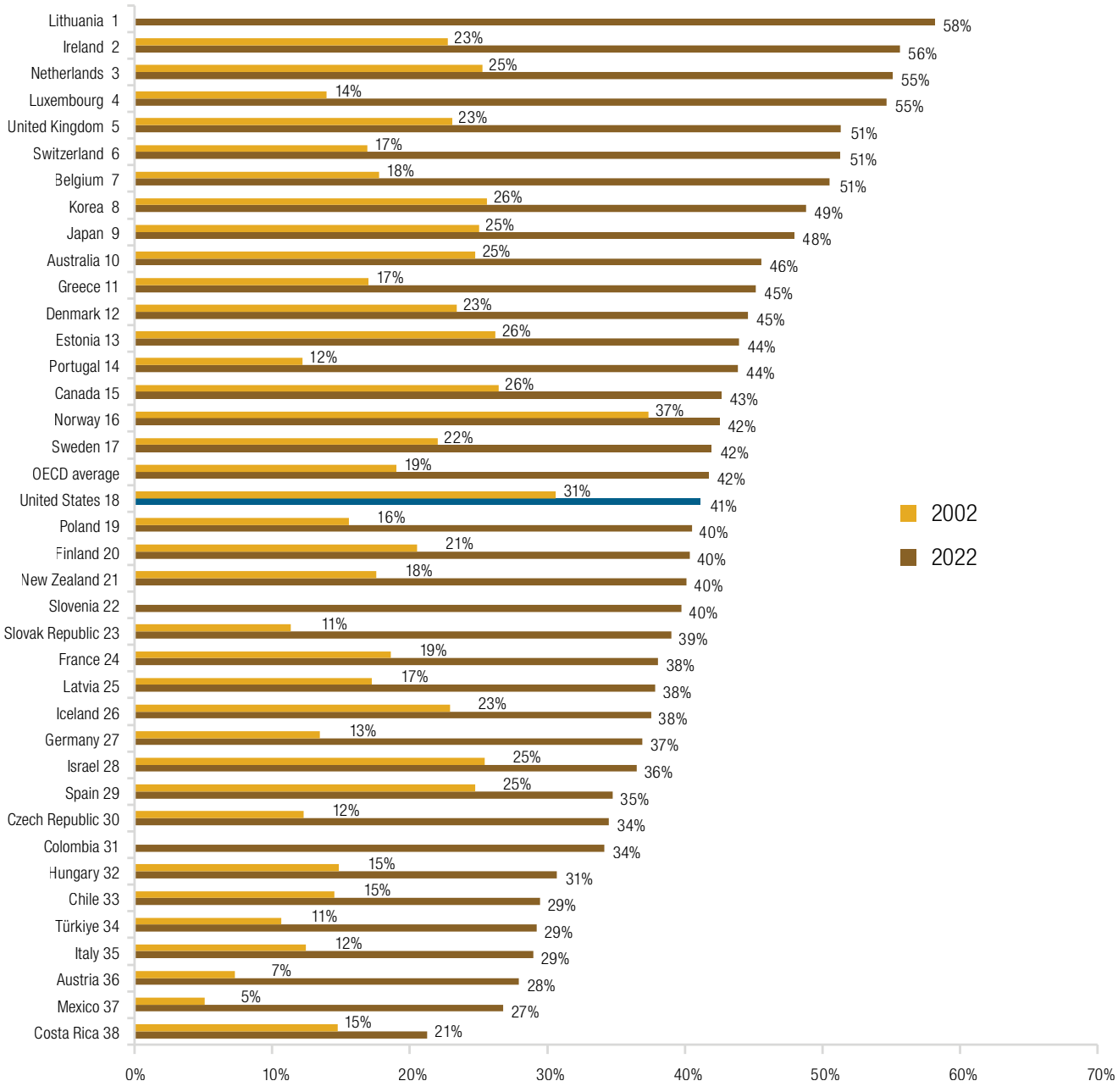
The rate of increase in bachelor's degrees for U.S. adults age 25 to 34 from 2002 to 2022 was 34 percent (increasing from 31 percent to 41 percent), the 2nd lowest rate of increase in comparison to OECD countries reporting attainment rates in both years. The countries that had higher rates of bachelor attainment than the U.S. in 2022 but a lower rate in 2002 were: Sweden, Canada, Portugal, Estonia, Denmark, Greece, Australia, Japan, Korea, Belgium, Switzerland, United Kingdom, Luxembourg, Netherlands, and Ireland. The OCED average rate of attainment for these countries rose from 19 percent in 2002 to 42 percent in 2022, a 119 percent increase. The rate of increase was highest for Mexico, increasing their population of 25 to 34-year-olds with a tertiary type A degree from 5 percent to 27 percent, and lowest for Norway at 14 percent (37 percent to 42 percent).[149]

Variation within the United States and International Variation. Although comparisons of differences across the U.S. states is complex, and states are not countries, there is almost as much variation in the U.S. states as among the OECD countries (Indicator 5h(v)). In the U.S., the share of adults age 25 to 34 with at least a bachelor's degree in 2022 ranged from 25 percent in Nevada to 57 percent in Massachusetts. Massachusetts had a bachelor's degree attainment rate for 25 to 34-year-olds that was similar to the rates of Ireland (56 percent) and Lithuania (58 percent), the countries with the two highest attainment rates in 2022.

148 OECD. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/e13bef63-en.

149 For a systematic international review of widening participation efforts among countries, see Younger, K., Gascoine, L., Menzies, V., & Torgerson, C. (2019). A systematic review of evidence on the effectiveness of interventions and strategies for widening participation in higher education, *Journal of Further and Higher Education, 43*(6), 742-773. Retrieved from https://doi.org/10.1080/0309877X.2017.1404558.

Equity Indicator 6a: Percentage of adults age 25 to 34 with a type A (equivalent of bachelor's degree or above) tertiary degree: 2002 and 2022



NOTE: Caution is needed in making international comparisons given differences in educational degree classifications among countries and reporting differences across years. Please refer to Education at a Glance Database, http://stats.oecd.org for more details.

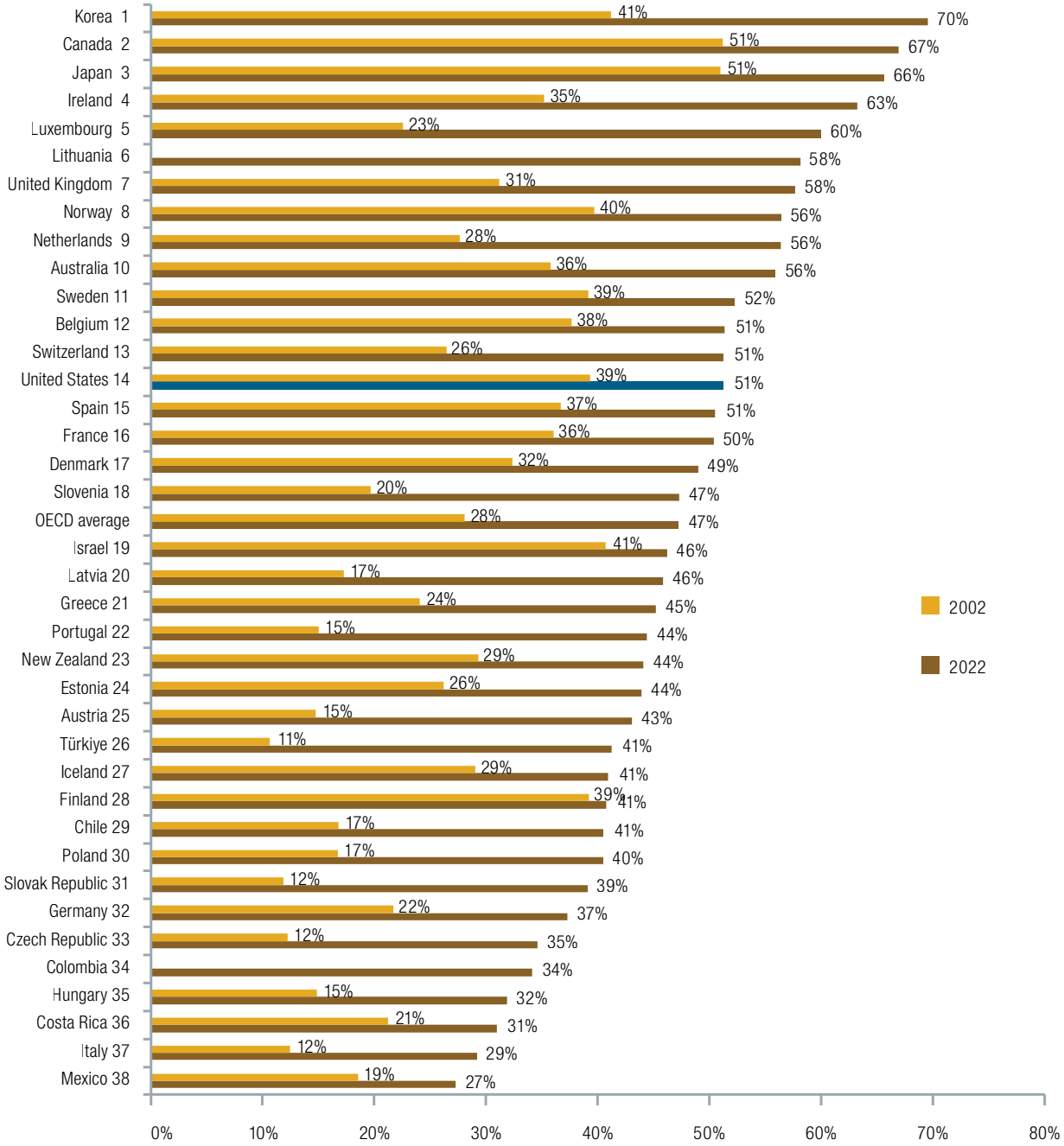
SOURCE: Figure A1.3. OECD. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/e13bef63-en.

Equity 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's) Tertiary Degree?

In 2022, 51 percent of adults age 25 to 34 in the U.S. had attained the equivalent of at least a 2-year (type B) or 4-year or above (type A) tertiary degree. The U.S. ranked 14th out of the 38 OECD countries on this indicator in 2022, down from 6th of 35 countries in 2002. The OECD average rate of type A or type B attainment for adults age 25 to 34 among all OECD countries rose from 28 percent in 2002 to 47 percent in 2022, a 68 percent increase. The percentage of the age 25 to 34 population who had attained a Type A or Type B tertiary degree ranged from 27 percent in Mexico to 70 percent in Korea.

By 2022, at least half of the 25- to 34–year-old population had attained a type A or type B tertiary degree in 16 countries: France (50 percent), Spain (51 percent), United States (51 percent), Switzerland (51 percent), Belgium (51 percent), Sweden (52 percent), Australia (56 percent), Netherlands (56 percent), Norway (56 percent), United Kingdom (58 percent), Lithuania (58 percent), Luxembourg (60 percent), Ireland (63 percent), Japan (66 percent), Canada (67 percent), and Korea (70 percent).

Equity Indicator 6b: Percentage of adults age 25 to 34 with a type A (bachelor's or above) or type B (short-cycle or associate's) tertiary degree: 2002 and 2022



NOTE: Caution is needed in making international comparisons given differences in educational degree classifications among countries and reporting differences across years. Please refer to Education at a Glance Database, http://stats.oecd.org for more details.

SOURCE: Figure A1.3. OECD. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/e13bef63-en.

EQUITY INDICATOR 7

THE FEDERAL TRIO PROGRAMS: WHO, WHAT, WHERE, WHEN, WHY AND HOW DOES TRIO WORK?

In 2022, an estimated 882,201 students participated in one of the 7 Federal TRIO programs. National studies have shown that participation in TRIO substantially increases college entrance, persistence, completion, and graduate school enrollment among low-income, first-generation, and students with disabilities. For example, Talent Search (80 percent), Upward Bound (85 percent), and Upward Bound Math-Science (89 percent) have college entrance rates that far exceed the national average of 45-50 percent for the lower half of the family income distribution. Likewise, in repeated national studies, UB participants have been found to be 2 to 3 times as likely to attain a bachelor's degree in 6 years when compared to similar students not receiving comparable services. Looking at the support programs for students already enrolled in college, SSS participants at 2-year colleges were 78 percent more likely to complete an associate degree, certificate, or transfer to a 4-year college (50 percent for SSS participants vs. 28 percent for the national sample) and SSS participants at 4-year colleges were 24 percent more likely to complete a bachelor's degree. McNair Scholars have a 64 percent graduate school entrance rate, compared with a 42 percent entrance rate for low-income students 4 years after completion of a bachelor's degree.

Equity Indicator 7(a-d): Sources

Recognizing that financial aid alone was not enough to foster a more equitable education system, the Higher Education Act of 1965 included provisions for services that would eventually become known as TRIO. Seeing firsthand the positive impact of the federal TRIO outreach and student services programs, regional and state Education Opportunity Associations and TRIO professionals across the nation founded the Council for Opportunity in Education (COE) in 1981. COE represents the interests of low-income, first-generation, and students with disabilities before the U.S. Congress. In 2015, TRIO celebrated its 50th anniversary, and in 2021, COE celebrated its 40th anniversary. As such, we deemed it appropriate that the *Indicators Historical Trend Report* now include a chapter that can serve as a reference for the who, what, where, when, why, and how of the Federal TRIO programs.

The sources of data for Equity Indicator 7 are:

- **U.S. Department of Education, Office of Postsecondary Education**, which contains programmatic information for each of the TRIO programs: TRIO Home Page (ed.gov) and periodic Fact Sheet publications.

- **TRIO Annual Performance Reports (APR).** Each TRIO grantee submits annual reports to the Department of Education. These reports provide detailed information on a yearly basis on the services, participant characteristics, and outcomes of each TRIO program.
- **National Student Clearinghouse (NSC) Data and National Student Loan Data System (NSLDS).** The National Student Clearinghouse collects student enrollment and degree award data nationally and shares this information with the National Student Loan Data Students (NSLDS). This information is used to track postsecondary outcomes of TRIO participants.
- **TRIO Evaluation and Outcomes Reports.** The Department of Education, Office of Federal TRIO Programs funds periodic outcomes reports and evaluations of the TRIO programs. These studies make use of APR and NSC data, as well as special studies of students to track the outcomes for TRIO participants. To provide baseline and comparison data, the studies use related national data sets from the Census Bureau, Current Population Survey (CPS) School Enrollment reports, and the National Center for Education Statistics (NCES) national studies of college attendance and attainment such as the Beginning Postsecondary Study (BPS) and the Baccalaureate and Beyond (B&B) study.
- **Data from Other Related Government Sources.** Data are also utilized from other government sources, including: Department of Education NCES national school enrollment statistics; Department of Agriculture Food and Nutrition Services Free and Reduced-Price Lunch data; Office of Postsecondary Education (OPE) Annual Pell Grant End of Year Reports; the Census Bureau's American Community Survey of Veterans Status, and the Bureau of Labor Statistics unemployment data.

What is the Mission and Context for TRIO and When Was Each Program Created?

TRIO is a family of eight congressionally mandated and federally funded outreach programs enhancing educational opportunity for low-income and first-generation college students.[150] TRIO grew out of the social movements for civil rights and the focus on addressing poverty of the 1960s and 1970s. All TRIO programs now share a mission to support college access and success for students who are low-income, potentially first-generation college, and, for specific programs, students with disabilities or who are veterans. TRIO projects are currently implemented through five-year competitive grants and 3,500 TRIO projects serve approximately 875,000 participants yearly. TRIO projects are in every state and territory in the nation. The federal TRIO programs were the first set of national college access and retention programs to begin to address and mitigate the role of socioeconomic disadvantages in the United States education system.[151]

Establishment of the TRIO Programs. In 1964, the Economic Opportunity Act authorized the Office of Economic Opportunity to develop and administer a pre-college demonstration program, **Upward Bound (UB)** as a part of the War on Poverty. One year later, the Higher Education Act of 1965 (HEA 1965) created a second outreach program called **Talent Search (TS)**. The original Upward Bound and Talent Search programs were focused on preparation for and access to college for students from families whose income was below the poverty line. The Educational Amendments of 1980 further defined eligible participants in TRIO programs as those whose family income fell below 150 percent of poverty and/or are potential first-generation college students. Upward Bound participants must be at least rising 9th graders and typically enter the program at least by the time they

150 Seven of the TRIO programs serve students directly, and the eighth is a staff training program to enhance the skills and expertise of project directors and staff employed in the Federal TRIO Programs (https://www2.ed.gov/programs/triotrain/index.html).

151 Sections of the Higher Education Act of 1965 which legislate for TRIO have been [was] reauthorized under differing titled acts in 1968, 1972, 1976, 1980, 1986, 1992, 1998, and 2008. As the last reauthorization in 2008 was over 15 years ago, there have been several HEA reauthorization proposals discussed in Congress, but thus far none have been adopted by both houses of Congress.

are rising 12th graders. Talent Search is an outreach program that serves students in middle school through high school graduation.

The Education Amendments of 1968 added a third TRIO program, the Services for Disadvantaged Students, later renamed **Student Support Services (SSS)**. This addition suggested the name "TRIO" by which the programs are still known, despite the fact that by 1990 they had increased to their current number of eight distinct programs. The SSS program's special mission is to support successful college completion for eligible students enrolled in a postsecondary institution, for both traditional-age and nontraditional students. Together the TRIO programs are designed to provide support and equalize participants' access and successful college participation and completion.

Since 1968, five more programs have been added to TRIO. **Veterans Upward Bound (VUB)**, and **Educational Opportunity Centers (EOC)** began in 1972. Both programs have a special focus on adult or nontraditional students who need services to prepare to begin college or to return to postsecondary education. In 1976, **Staff Development Programs** (the **Training Program for Federal TRIO programs**) were initiated to help prepare TRIO professionals to meet their program objectives and comply with regulations. In 1986, the **Ronald E. McNair Postbaccalaureate Achievement Program (McNair)** was created, with a focus on preparation for graduate school and entry into the professoriate for underrepresented students. Using its statutory authority the Department of Education added the **Upward Bound Math-Science (UBMS) program** in 1990 to foster increased interest in STEM majors and careers.

Equity Indicators 7a(i to vi): What are the Trends in the Number of Participants, Projects, and Funding Levels for TRIO?

Equity Indicators 7a(i to vi) present trend data on the TRIO programs. These include: the number of participants (Indicators 7a(i and ii)); the number of projects (Indicators 7a(iii and iv)); the total TRIO funding and funding per participant (7a(v and vi)), and the estimates of the coverage of the program relative to eligible persons (Indicator 7b(iii)).

Number of Participants. Equity Indicator 7a(i) shows the historical trend in total and per program numbers of TRIO participants. In 1965, there were 3,261 participants; that number rose to 882,201 participants in 2022. Overall, the number of TRIO participants grew by 270 percent in the span of 57 years.

Number of Participants by Program. Equity Indicator 7a(ii) shows in detail the number of participants in each of the TRIO programs in 2022.[152] In that year, TRIO programs ranged in participant size from the intensive McNair program, which serves over 5,000 participants per year at a cost of about $10,000 per participant, to the extensive Talent Search program, which serves about 350,000 participants at a cost of about $544 per participant (see Indicator 7a(vi)). In 2022, Upward Bound Programs (UB, UBMS, and VUB) combined served 97,305 low-income, first-generation students.

Number of Projects. Equity Indicator 7a(iii) shows data on the number of projects from 1997 to 2022. The number of TRIO projects in 2022 ranged from 65 VUB projects to 1,162 SSS projects. The original three TRIO programs remain the largest: SSS, UB, and TS in that order. Between 1997 and 2022, the number of SSS projects increased by 46 percent, from 796 to 1,162. In the same period, the number of UB projects increased by 70 percent, from 601 to 1,023 and the number of TS projects increased by 73 percent, from 319 to 552. The programs begun after the original three have remained smaller in numbers, but overall have had the largest rates of increase. UBMS has shown the largest percentage increase, 198 percent, going from 81 projects in 1997 to 241 projects in 2022. The number of McNair projects has risen 108 percent (from 99 projects to 206), and EOC

152 See Appendix A for more information on each TRIO program.

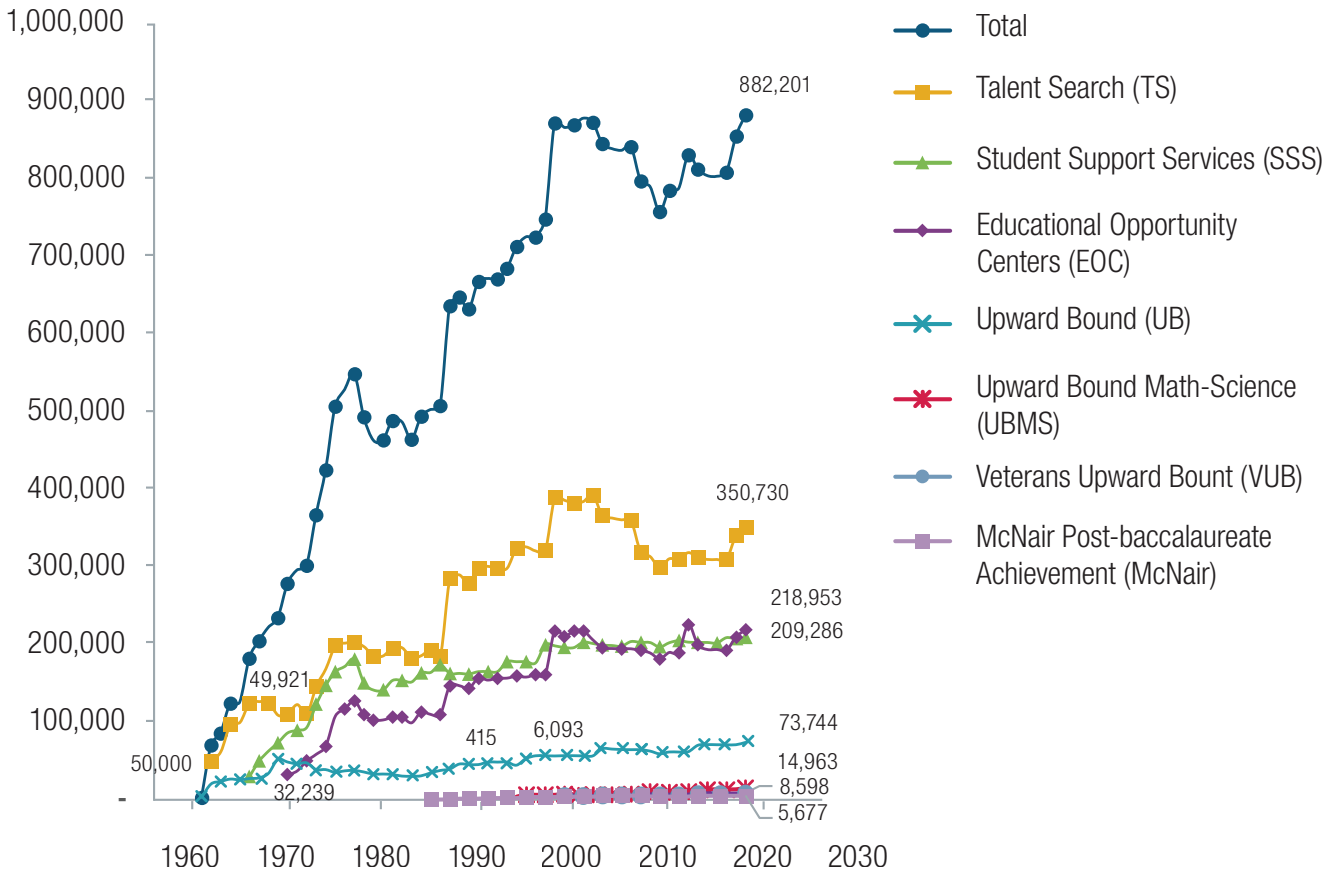
projects by 147 percent (from 74 to 183). The number of VUB projects increased from 45 projects to 65 projects between 2003 and 2022.

Map of TRIO Projects by State. As Equity Indicator 7a(iv) displays, TRIO projects are in every state and in the U.S. territories. In general, the most populous states have the most TRIO projects. California has the largest number of projects (444), followed by Texas with 299 projects, Illinois with 159 projects, and Florida with 118.

TRIO Funding Levels. In constant 2022 dollars, total TRIO funding increased by 7 percent between 1997 and 2022, going from $1,064.10 million to $1,138.60 million over the period (Indicator 7a(v)). Funding for the Upward Bound Math-Science program had the largest percentage increase at 75 percent, followed by a 30 percent increase for McNair, 16 percent for EOC, and 9 percent for Talent Search. In the same period, funding for the "regular" or "classic" Upward Bound program decreased by 4 percent and Veterans Upward Bound decreased by 3 percent. Funding for Student Support Services stayed unchanged.

TRIO Funding Per Participant by Program. Between 1997 and 2022, in constant dollars, funding per participant for the least intensive of the TRIO programs, EOC ($292 per participant) and Talent Search ($544 per participant), has remained relatively stable (Indicator 7a(vi)). Per participant funding for SSS has decreased in the same period (from $2,062 to $1,755). Funding per participant for the most intensive TRIO programs, McNair and the three Upward Bound programs, has decreased over the same period. However, McNair at $9,931 per participant, UB/UBMS at just under $5,000 per participant, and VUB at $2,391 per participant continue to provide the most intensive services of all TRIO programs.

Equity Indicator 7a(i): Number of TRIO participants each year by program: 1965-2022



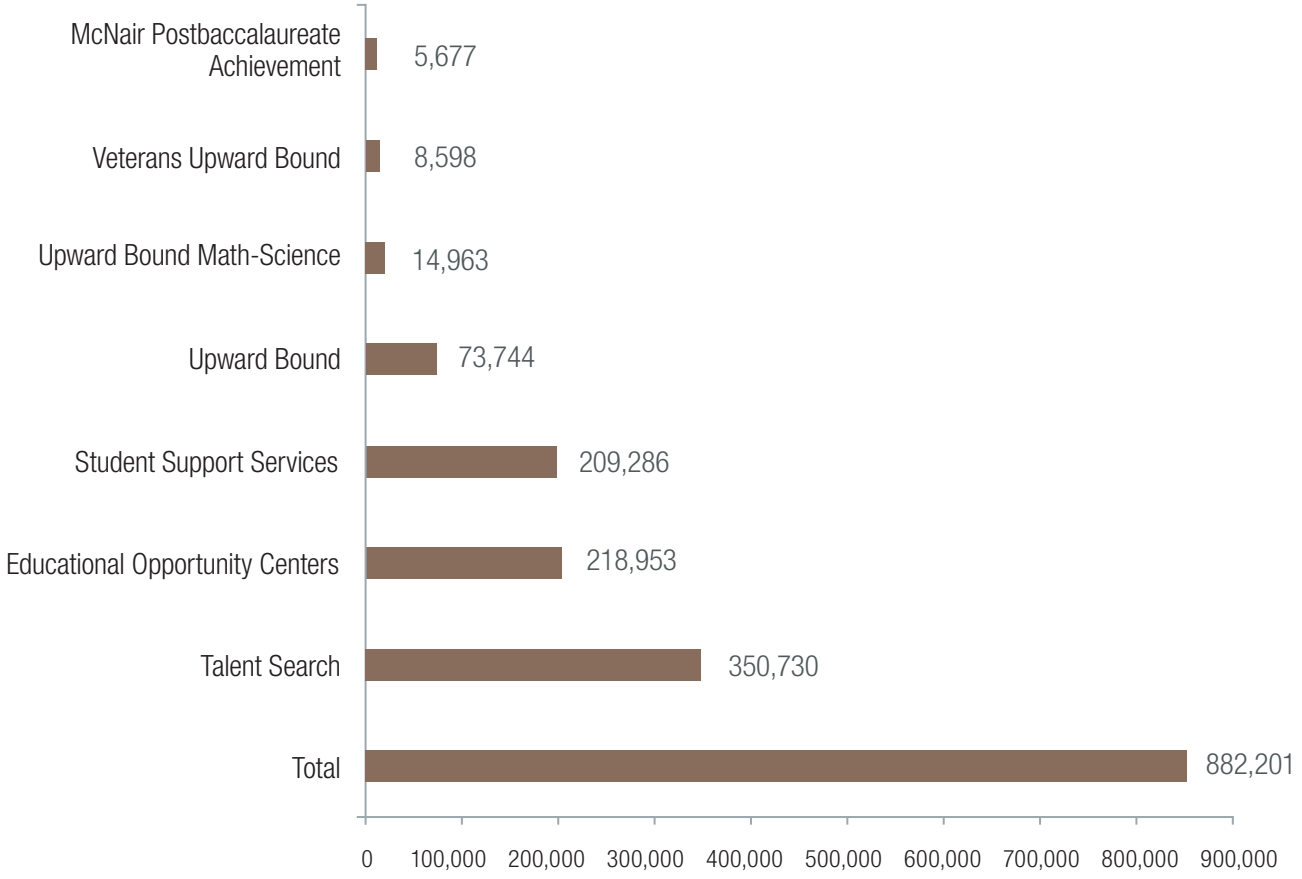
Indicator Status:

In 2022, 3,432 TRIO projects served 882,201 low-income and first-generation students. The largest number of participants are in Talent Search (350,730), Student Support Services (218,953), and Educational Opportunity Centers (209,286).

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from various years, 1965 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicator 7a(ii): Number of participants in each TRIO program: 2022



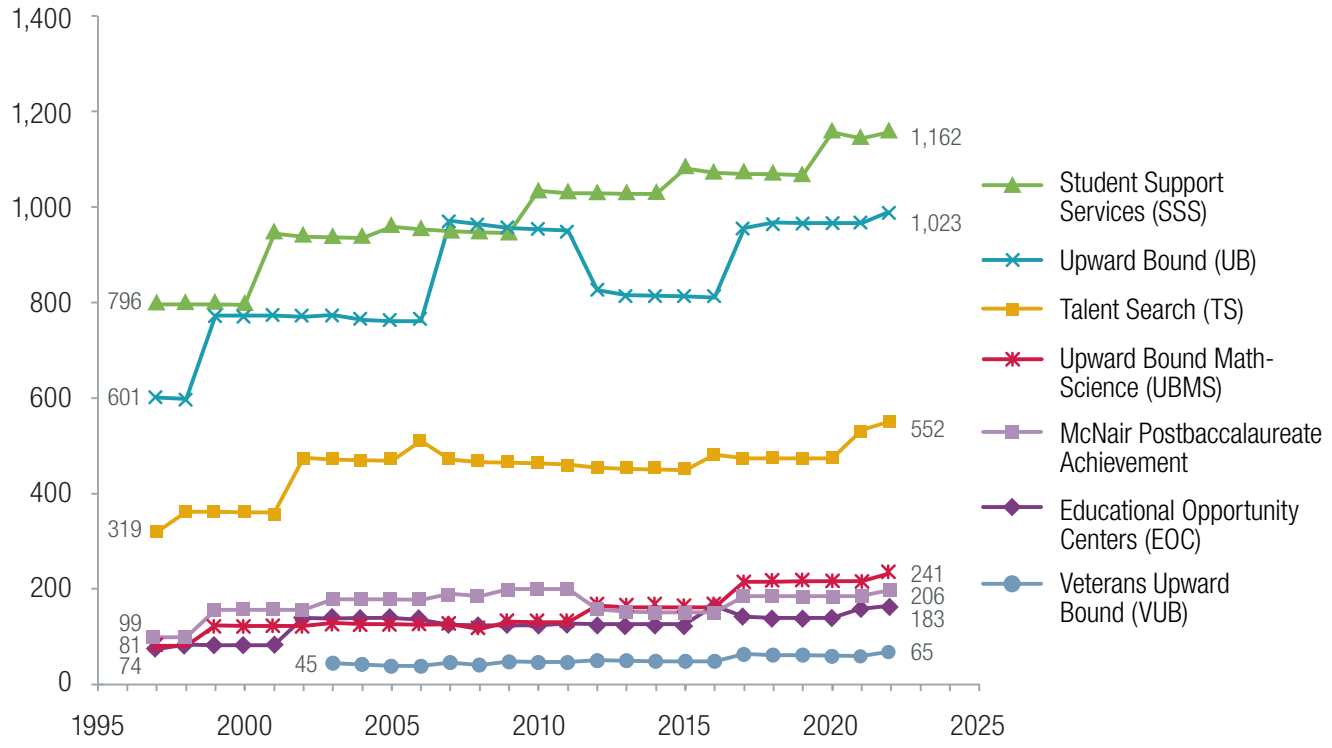
Indicator Status:

TRIO programs range in size from the McNair program, which serves over 5,000 students per year to Talent Search, which serves about 350,000 per year. In 2022, Upward Bound Programs (UB, UBMS, and VUB) combined served 97,305 low-income and first-generation students.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicator 7a(iii): Number of TRIO projects: 1997-2022



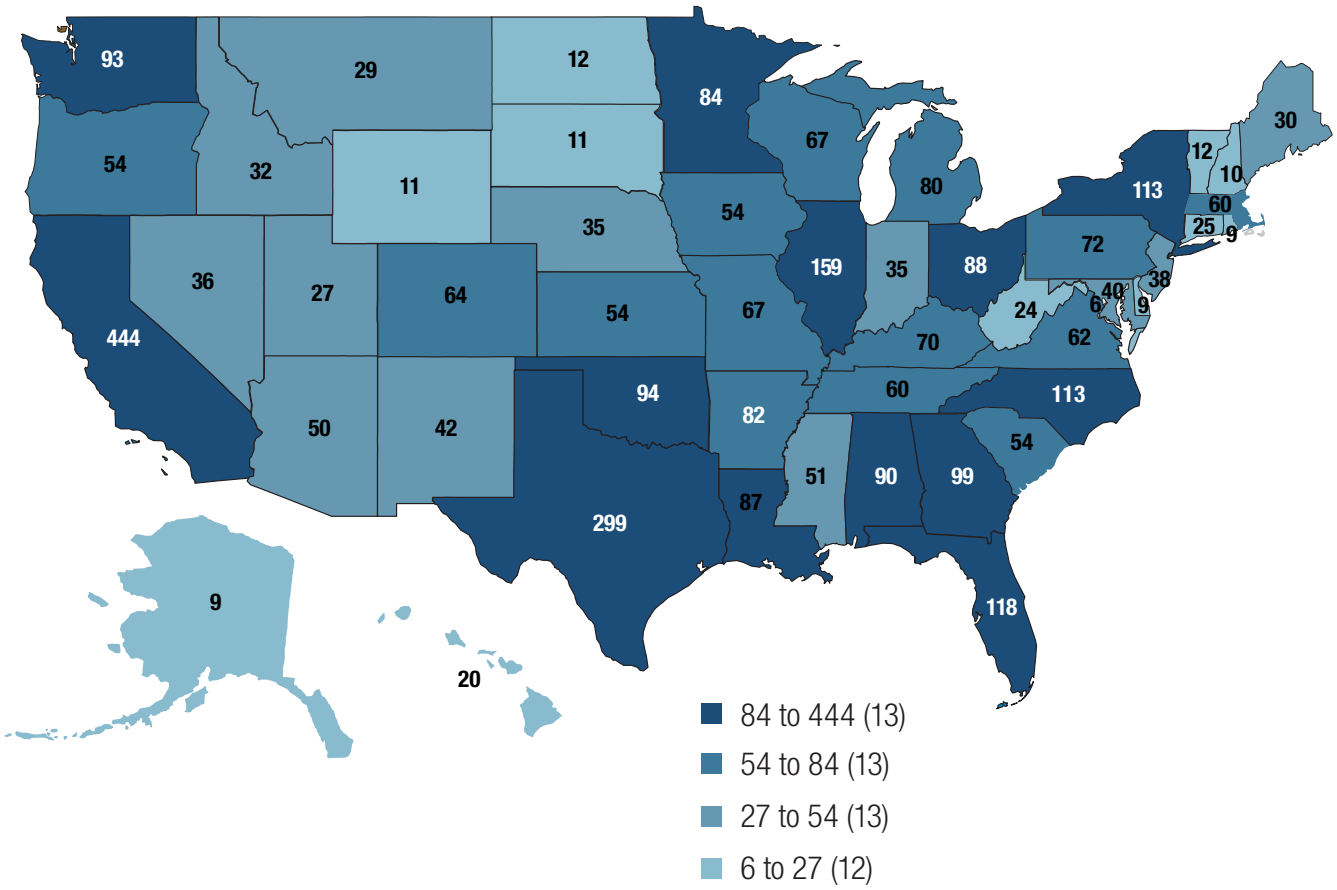
Indicator Status:

The original three TRIO programs still have the largest numbers of projects: SSS, UB, and TS in that order. Between 1997 and 2022, the number of SSS projects increased by 46 percent. The programs begun after the original three have remained smaller in numbers but overall have had the largest rates of increase. The number of Upward Bound Math-Science projects has increased by 198 percent. The number of McNair projects has risen by 108 percent, and the number of EOC projects by 147 percent. The number of VUB projects has increased by 44 percent.

NOTE: Includes projects from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from various years 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicator 7a(iv): Number of TRIO projects by state: 2022-23



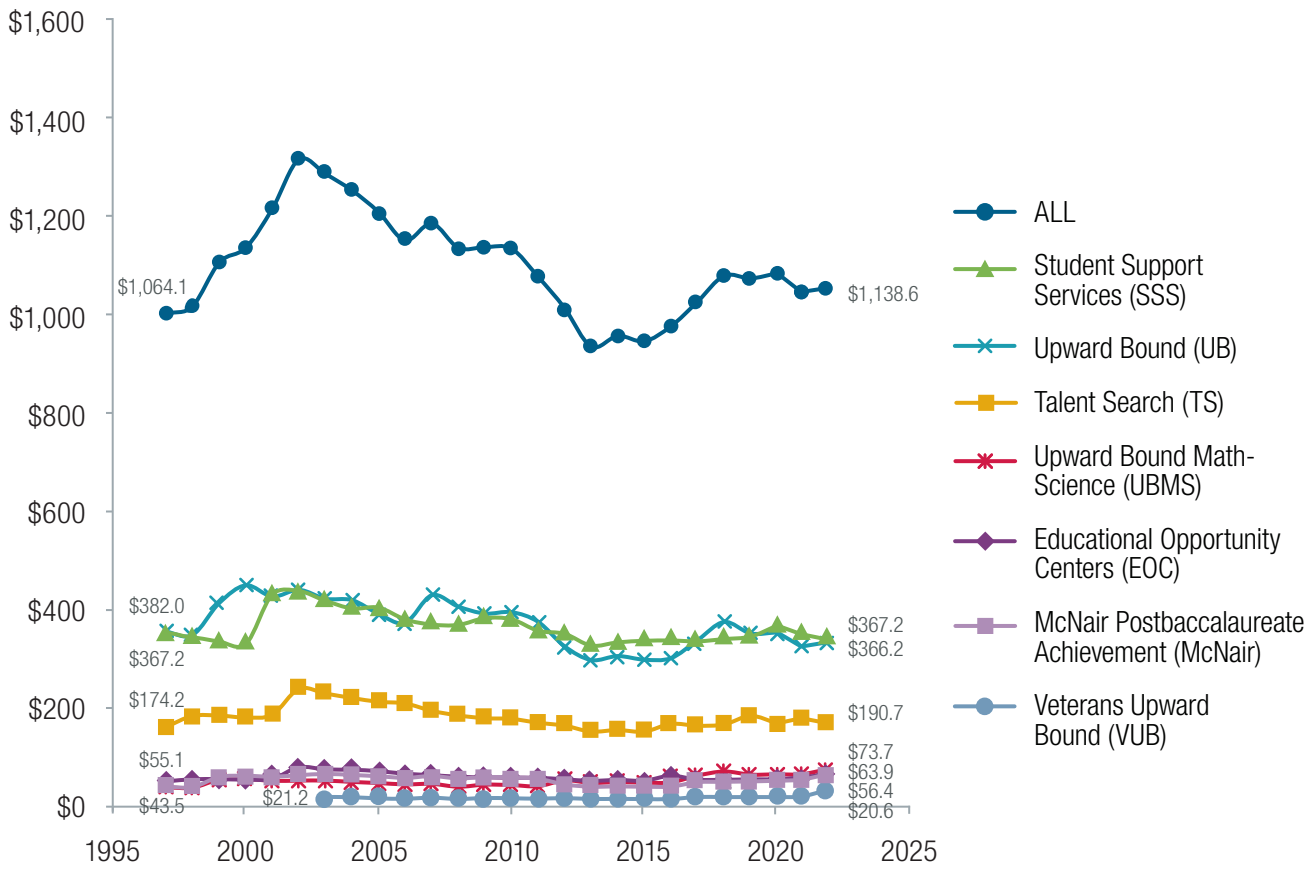
Indicator Status:

TRIO projects are in every state and in the U.S. territories. In general, the most populous states have the most TRIO projects. California has the largest number of projects (444), followed by Texas with 299 projects, Illinois with 159 projects, and Florida with 118.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico. See Indicator 7a(iv) Excel file for the number of projects by type of project by state.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicator 7a(v): TRIO funding for all programs and by program: 1997-2022 (in millions of constant 2022 dollars)



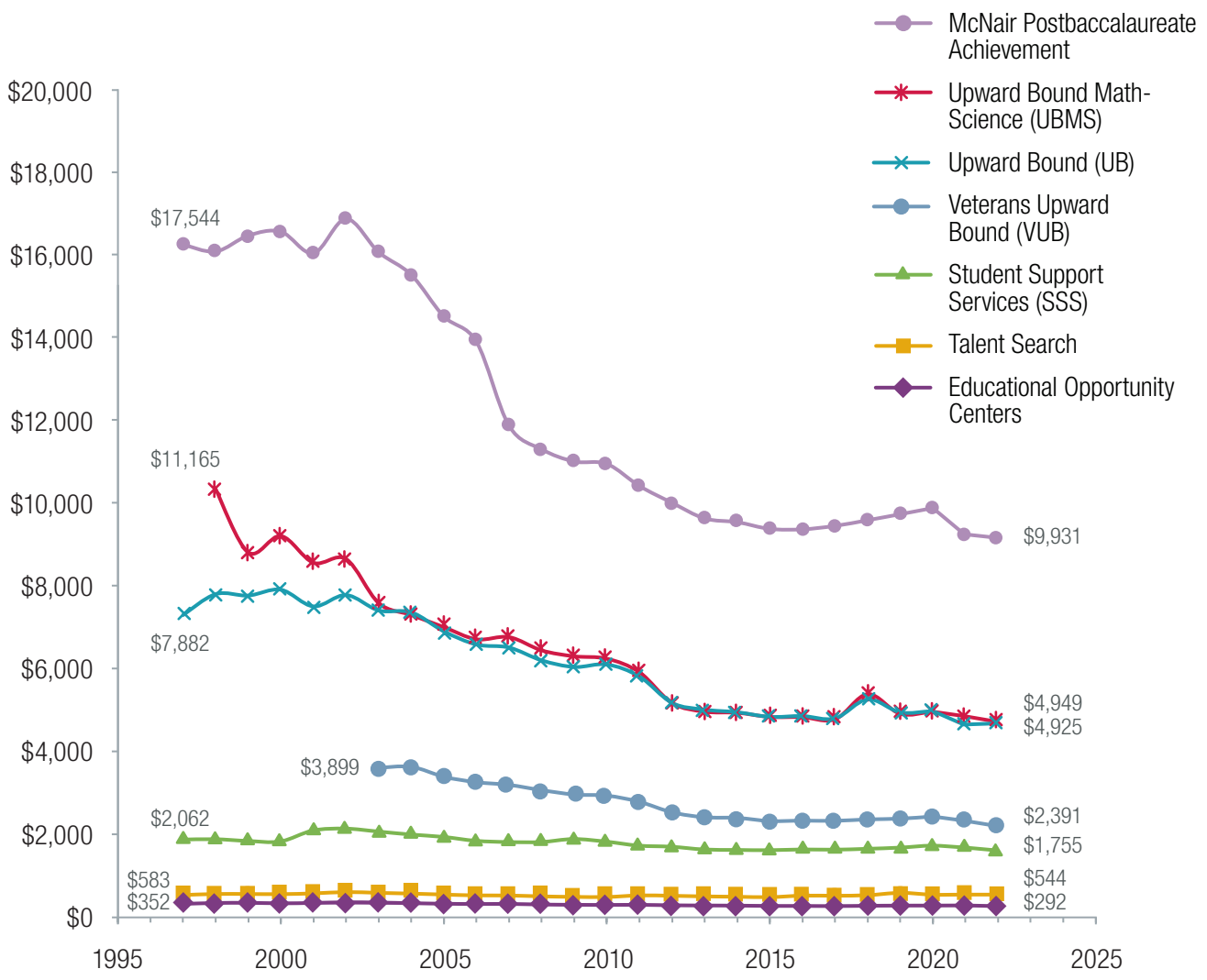
Indicator Status:

In constant 2022 dollars, total TRIO funding increased by 7 percent between 1997 and 2022, rising from $1,064 million to $1,139 million over the period. Funding for Upward Bound Math-Science had the largest percentage increase at 75 percent, followed by a 30 percent increase for McNair, 16 percent for EOC, and 9 percent for Talent Search. In the same period, funding for the "regular" or "classic" Upward Bound program decreased by 4 percent and Veterans Upward Bound decreased by 3 percent. Funding for Student Support Services remained unchanged.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from various years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicator 7a(vi): TRIO funding per participant by program: 1997-2022 (in constant 2022 dollars)



Indicator Status:

Funding per participant for the least intensive of the TRIO programs, EOC ($292 per participant in 2022) and Talent Search ($544 per participant), has remained relatively stable. Per participant funding for Student Support Services has decreased in the same period (from $2,062 to $1,755). Funding per participant for the most intensive TRIO programs, McNair and the three Upward Bound programs, has decreased over the same period. However, McNair at $9,931 per participant, UB/UBMS at just under $5,000 per participant, and VUB at $2,391 per participant continue to provide the most intensive services of all TRIO programs.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from various years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html.

Equity Indicators 7b(i to iv): Who are the TRIO Participants?

Evolution of Eligibility Requirements. When the first three of the TRIO programs (Upward Bound, Student Support Services, and Talent Search) were established by Congress, the eligibility requirements were defined as being "socially and economically disadvantaged." For the 1980 reauthorization of the Higher Education Act, the TRIO stakeholder community worked to help draft eligibility language that that would keep the focus of TRIO on the students most in need, and at the same time be broad enough to include any student who met the family income and parent education criteria. In HEA:80, the eligibility requirements for most of the TRIO programs were defined to be those who are low-income at the 150 percent of poverty level, and those who are the first-generation college (defined as neither parent has completed a bachelor's degree). This latter concept became known as "first-generation college." For most of the TRIO programs, two-thirds of potential participants must be both low-income and first-generation college, and the other one-third must be either low-income or potentially first-generation college. For the SSS program, students with disabilities may be either low-income or first-generation. For the McNair program, students must be low-income, first-generation, or of a racial/ethnic group underrepresented in graduate education.

What is the Distribution of TRIO Participants by the Eligibility Criteria? Indicator 7b(i) provides recently available data by the eligibility criteria mandated by Congress. Data are shown for Student Support Services (SSS), Talent Search (TS), Upward Bound and Upward Bound Math-Science (UB and UBMS data are combined), and Education Opportunity Centers (EOC). Indicator 7b(ii) provides eligibility data for the Veterans Upward Bound (VUB) program, which has slightly different eligibility criteria.[153] The compiled national data show that TRIO is serving the intended populations for which the programs were established.

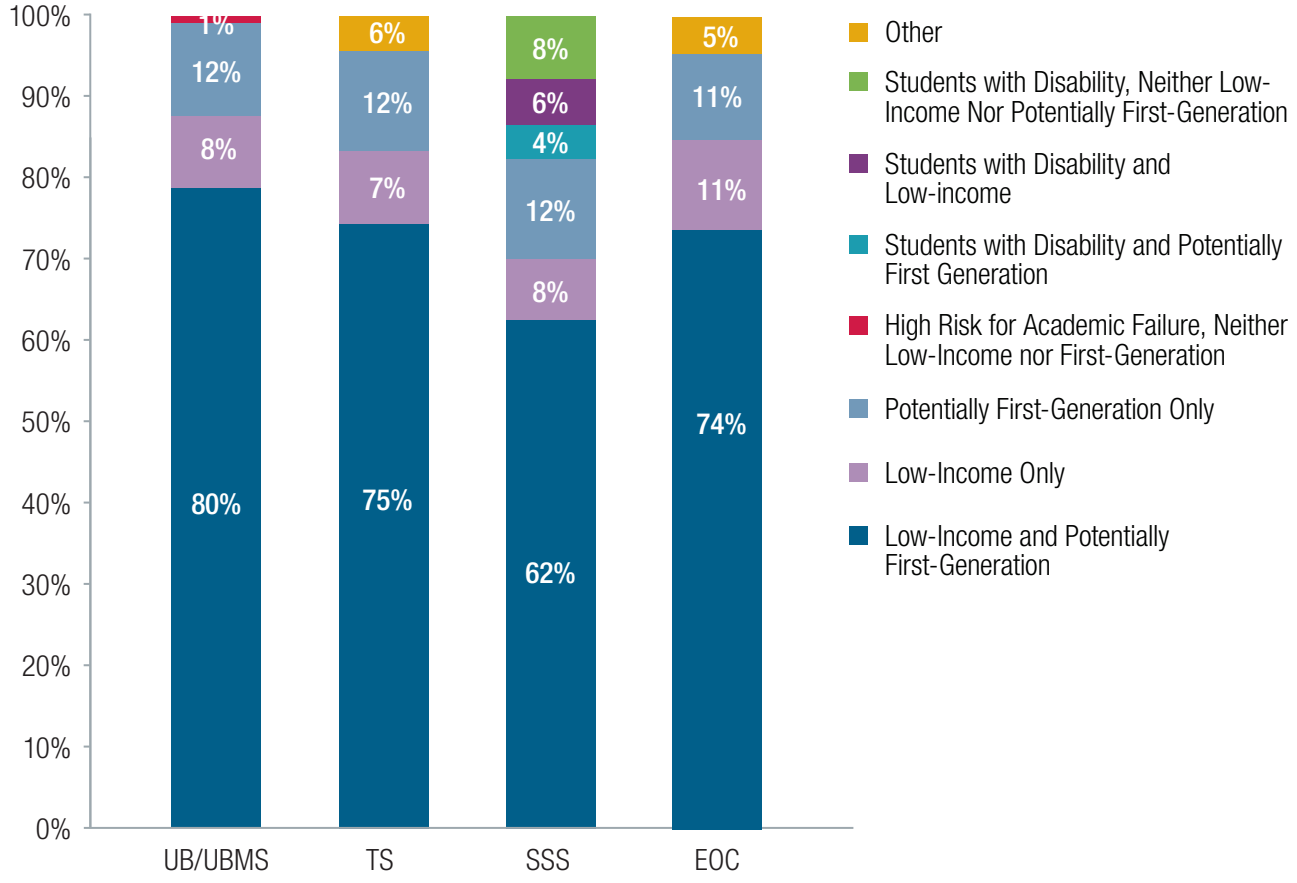
As displayed in Indicator 7b(i), UB/UBMS (with 80 percent), TS (with 75 percent), and EOC (74 percent) exceed the requirement that two-thirds be both low-income and potentially first-generation college. The remainder of the participants in the programs were either low-income or potentially first-generation college.

SSS also meets the formal eligibility requirements mandated by Congress. SSS eligibility requirements include special provisions for students with disabilities. Within SSS, 62 percent were low-income and potentially first-generation college, and 20 percent were low-income or first-generation. Eighteen percent were students with disabilities, of whom 10 percent were also low-income or first-generation. About 8 percent of the SSS participants who were students with disabilities were neither low-income nor first-generation.

Veterans Upward Bound (VUB) eligibility requirements differ somewhat from those of the other UB programs. VUB eligibility criteria include low-income and first-generation, as in other TRIO programs, but also include "high risk for academic failure." As displayed in Indicator 7b(ii), among VUB participants, 46 percent met all three eligibility requirements (low-income, first-generation, and at high risk of academic failure), and 25 percent were both low-income and first-generation but were not at high risk of academic failure. The other 28 percent met two of the criteria with some combination of low-income or first-generation and academic risk criteria. Only 2 percent were neither low-income nor first-generation but were at high risk of academic failure.

153 U.S. Department of Education, Office of Federal TRIO Programs; Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html. Fast Facts Report for the Student Support Services Program (2016); Fast Facts Report for the Talent Search Program (2016); Fast Facts Report for the upward Bound and Upward Bound Math-Science Programs (2021); Fast Facts Report for the Veterans Upward Bound Program (2020); Fast Facts Report for the Educational Opportunity Centers Programs (2022).

Equity Indicator 7b(i): Percentage distribution of Educational Opportunity Centers (EOC) (2018-19), Upward Bound and Upward Bound Math-Science (UB/UBMS) (2017-18), Talent Search (TS) (2013-14), and Student Support Services (SSS) (2013-14) participants by program criteria



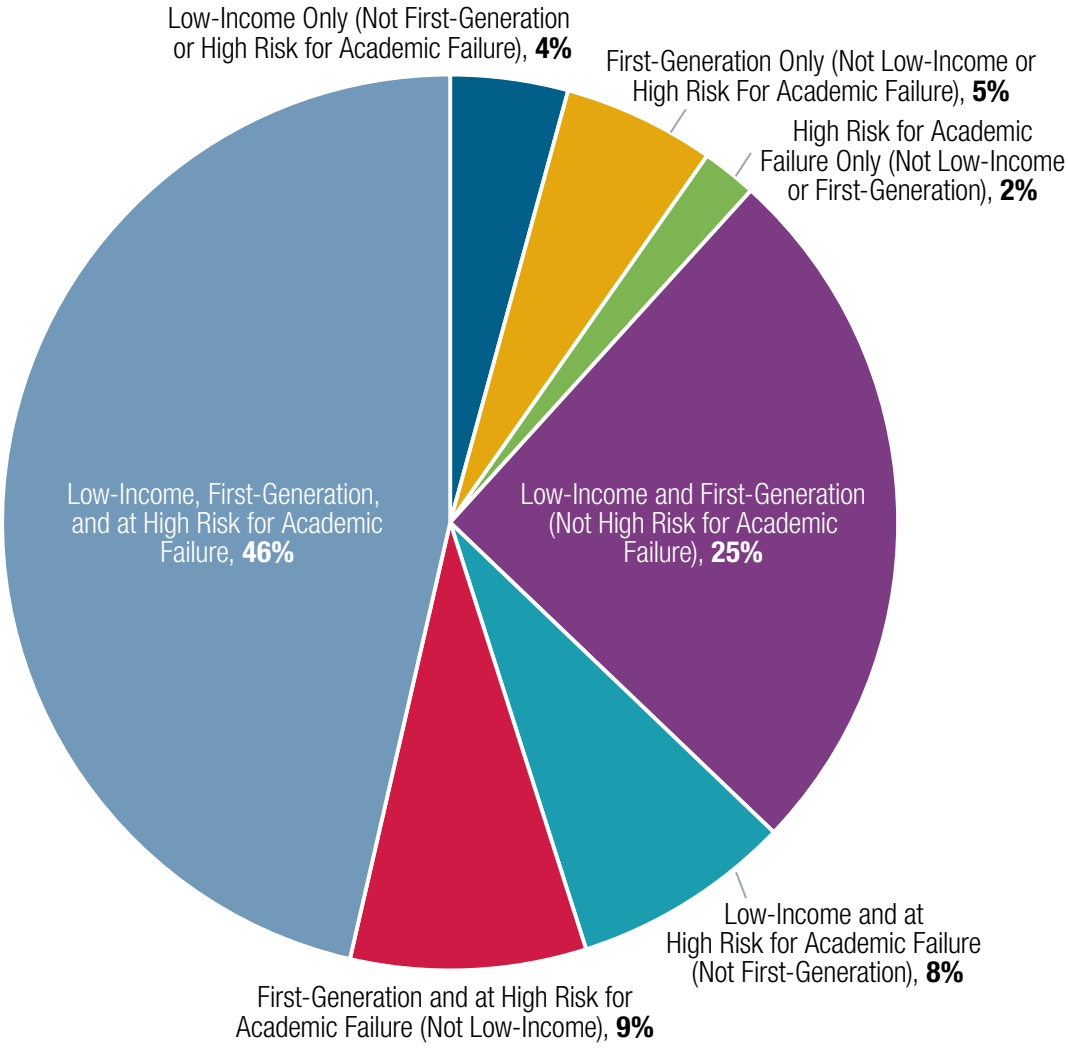
Indicator Status:

TRIO programs are serving the intended populations for which they were established.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016, September). *Fast Facts Report for the Talent Search Program*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/triotalent/ts-fastfacts2016.pdf; U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016, September). *Fast Facts Report for the Student Support Services Program*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-fastfacts2016.pdf; U.S. Department of Education, Office of Postsecondary Education, Student Service. (2021, June). *Fast Facts Report for the Upward Bound and Upward Bound Math-Science Program: 2017-18*. Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ububmsfastfactsreport1718.pdf; U.S. Department of Education, Office of Postsecondary Education, Student Service. (2022, May). *Fast Facts Report for the Educational Opportunity Centers Programs: 2018-19*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/trioeoc/eoc-fastfacts2022.pdf.

Equity Indicator 7b(ii): Percentage distribution of Veterans Upward Bound (VUB) participants by program eligibility criteria: 2016-17



Indicator Status:

Among Veterans Upward Bound (VUB) participants, 46 percent met all three eligibility requirements (low-income, first-generation, and at high risk of academic failure), and 25 percent were both low-income and first-generation but were not at high risk of academic failure. Twenty-six percent met 2 of the criteria with some combination of low-income or first-generation and the academic risk criteria. Two percent were neither low-income nor first-generation but were at high risk of academic failure.

NOTE: Includes participants from all 50 states, Washington, D.C., the Pacific Islands, and Puerto Rico.

SOURCE: U.S. Department of Education, Office of Postsecondary Education, Student Service. (2020, August). *Fast Facts Report for the Veterans Upward Bound Program.* Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/vubfastfactsreport.pdf.

What is the Estimated Coverage of TRIO in Relationship to the Number of Persons Eligible for Services?

Based upon national statistical data on the populations related to the TRIO mission and eligibility criteria, Tom Mortenson and Nicole Brunt have estimated the "TRIO" coverage by program from 1998 to 2023.[154] [155] The coverage is estimated based on available data on eligible population from other government statistics for appropriate years and varies by TRIO program eligibility. The SSS and McNair estimates of coverage use Pell Grant end-of-year published research tables.

The Indicator of coverage estimates for UB, UBMS and TS have traditionally used eligible grade-appropriate data from the School K-12 Enrollment Data from NCES and the Free and Reduced Lunch data from the U.S. Department of Agriculture, Food and Nutrition Services. However, the School Lunch Program data for 2021 and 2022, were drastically altered due to the COVID-19 pandemic, when 100 percent of students were classified as eligible for free or reduced-price lunch. Due to this change the estimates, using Free or Reduced Lunch eligibility would be incorrectly skewed for UB, UBMS, and TS data in Indicator 7b(iii), indicating a large decline in coverage. For this reason, coverage data for these programs for 2021 and 2022 are not included in this report.

VUB coverage is estimated using U.S. Census data on veterans in poverty. EOC estimates of coverage use unemployment data from the Bureau of Labor Statistics (BLS). Using these data combined with the numbers of participants from the Office of Federal TRIO programs from the TRIO Annual Performance Reports, we can obtain some estimates on a year-by-year basis. These data are to be interpreted as rough estimates based on available data, and some caution is needed in interpreting the data, especially year-to-year fluctuations. They are tools to help us understand the general ratio of the number of participants to the number who might be eligible for services; however, they cannot provide precise estimates.

These estimates are reported in Indicator 7b(iii). These ratios indicate that in any given year, TRIO is serving a very small portion of those individuals who might be eligible for the programs based on national statistics. Estimated coverage ranges from 3.6 percent of the eligible population for the least intensive of the TRIO programs (Educational Opportunity Centers)[156] and 3.4 percent for Student Support Services (SSS) to .1 percent for the most intensive program (McNair). The Upward Bound and Upward Bound Math-Science projects together serve about 1 percent of the eligible students. Veterans Upward Bound (VUB) serves about .7 percent of eligible veterans. Moreover, estimated yearly coverage has declined for Talent Search (TS) and Student Support Services (SSS) over the period. TS declined from 3.2 percent to 2.0 percent of eligible students and SSS from 4.9 percent to 3.4 percent. These declines mainly represent growth in the percentages of K-12 and college enrollment that is low-income.

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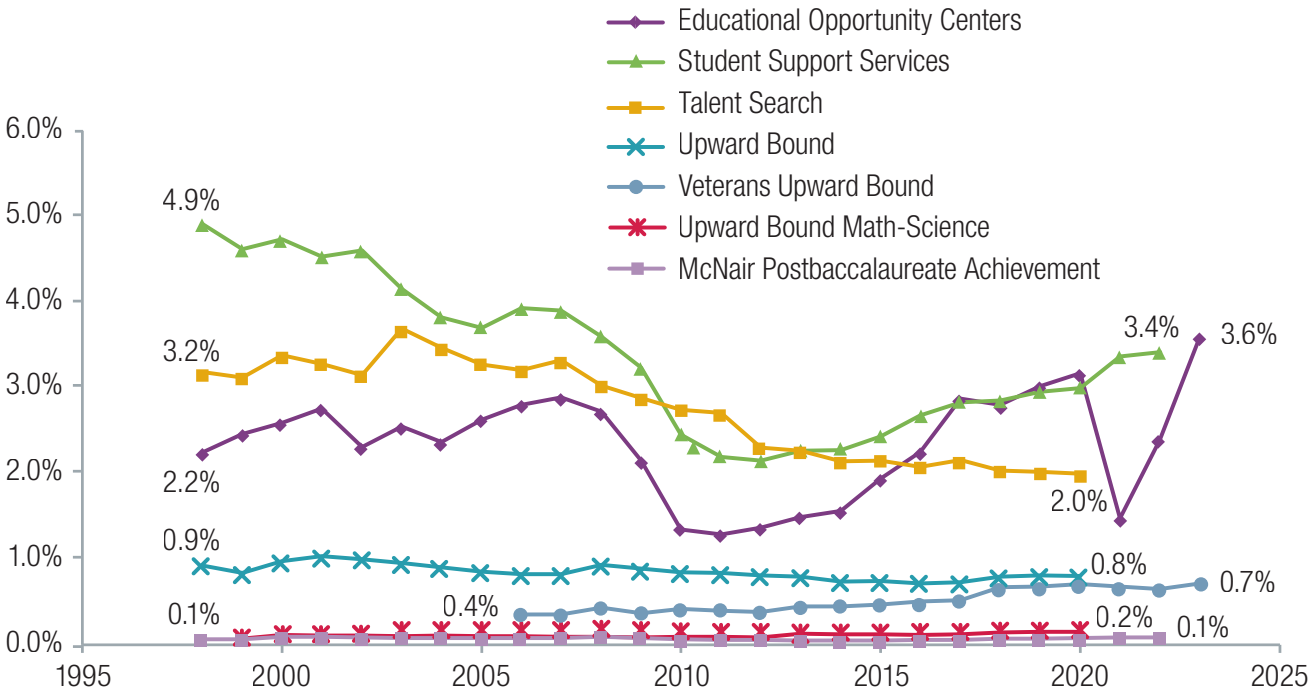
154 The SSS and McNair estimates of coverage use Pell Grant End-of-Year research tables. https://www2.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv; UB, UBMS and TS use eligible grade appropriate data from the School K-12 Enrollment Data of the U.S. Department of Education (for example, https://nces.ed.gov/programs/digest/d23/tables/dt23_203.40.asp) and the Free and Reduced-Lunch data from the US Department of Agriculture, Food and Nutrition Services; VUB coverage is estimated using U.S. Census data on Veterans in Poverty, Table S2101, https://data.census.gov/cedsci. EOC estimates of coverage use unemployment data from the Bureau of Labor Statistics (BLS).

155 Because the School Lunch Program data for 2021 and 2022, used for the calculations for UB, UBMS, and TS, were drastically altered due to the COVID-19 pandemic and incorrectly skew the UB, UBMS, and TS data in Indicator 7b(iii), data for these programs for 2021 and 2022 is not be included in this report.

156 Note that estimates for 2021 and 2022 show that EOC coverage declined, but this may be attributed to the COVID-19 pandemic.

Equity Indicator 7b(iii): Estimated TRIO yearly coverage: ratio of number of participants to estimated eligible population by TRIO project: 1998-2022/23



Indicator Status:

These ratios indicate that in any given year, TRIO is serving a very small portion of those individuals who might be eligible for the programs based on national statistics. Estimated coverage ranged from 3.6 percent for the least intensive of the TRIO programs (Educational Opportunity Centers) and 3.4 percent for Student Support Services (SSS) to 1 percent for UB/UBMS and .1 percent for the most intensive program (McNair). Note that estimates for 2021 show that EOC coverage declined to 1.5 percent, a decrease that may be attributed to the COVID-19 pandemic.

NOTE: Coverage is estimated based on available data on eligible population from other government statistics: the Bureau of Labor Statistics (BLS): the SSS and McNair estimates of coverage use Pell Grant End of Year research tables http://www.ed.gov/finaid/prof/resources/data/pell-data.html and https://studentaid.gov/data-center/student/title-iv; UB, UBMS and TS use eligible grade appropriate data from the K-12 Enrollment Data of the U.S. Department of Education (for example, https://nces.ed.gov/programs/digest/d23/tables/dt23_203.40.asp and Free and Reduced Lunch data from the US Department of Agriculture, Food and Nutrition Services; VUB coverage is estimated using U.S. Census data on Veterans in Poverty, Table S2101, https://data.census.gov/cedsci. EOC estimates of coverage use unemployment data from the Bureau of Labor Statistics (BLS).

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from various years 1997 to 2023. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit https://community.coenet.org/peoarchive/access-peo.

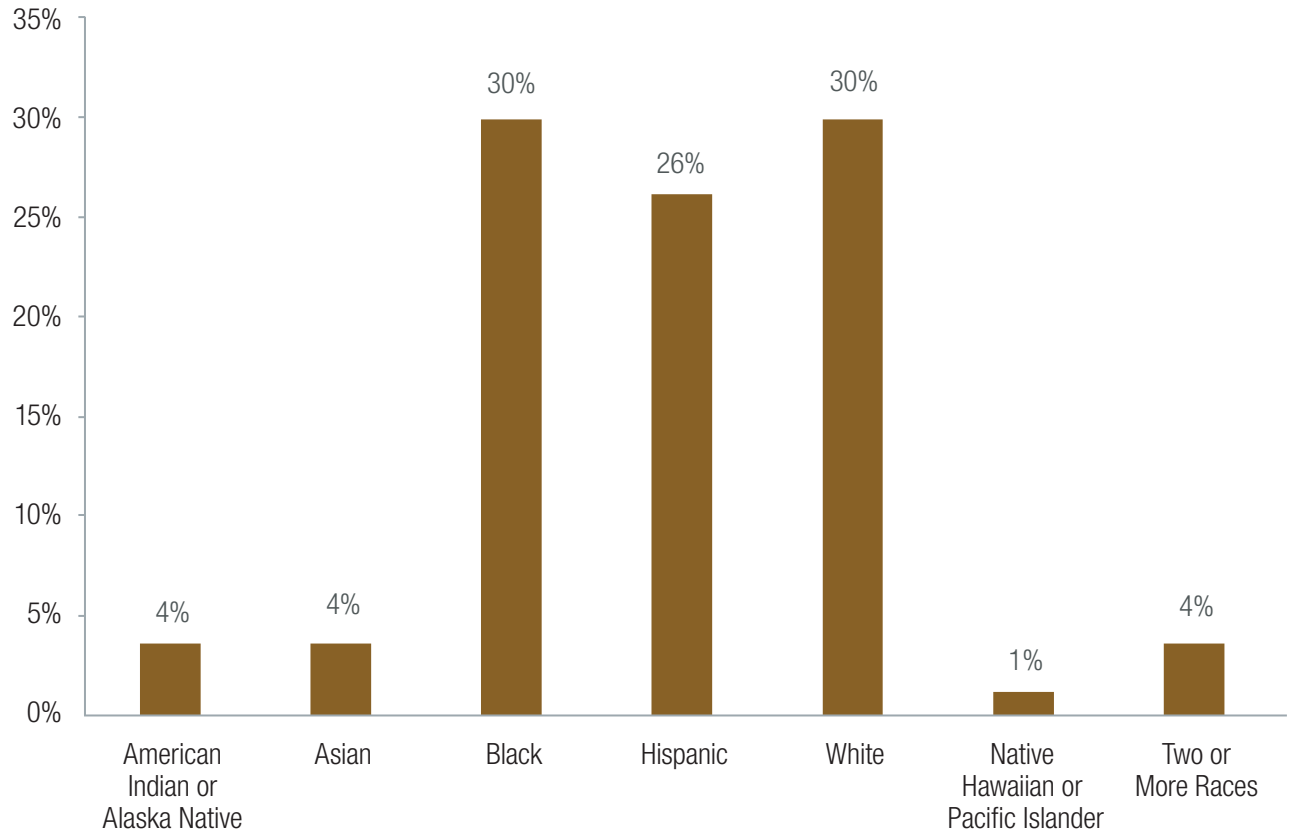
What is the Race/Ethnicity of TRIO Participants? Data on TRIO participants' race/ethnicities are obtained from the annual APR data and reflect the participants' self-identification as to race and ethnicity. These data are only periodically reported by the Department of Education in the various Fact Sheets and Outcomes reports. Combined data for all the diverse TRIO programs are not usually reported. Special tabulations were done in 2008-09 for COE allowing for combined data on the race/ethnicity of all TRIO participants. In 2008-09, combining data for all TRIO participants, 34 percent of TRIO students were White; 33 percent were Black; 21 percent were Hispanic; 5 percent were Asian or Pacific Islander; 3 percent were American Indian or Alaska Native, and 4 percent were "other," a category which included multiracial students. Since 2008-09, the race/ethnicity categories used have been updated to include more choices, including a mixed-race category and new specified breakouts for different groups.

Indicator 7b(iv) gives more recent published data with the revised categories for Talent Search, the largest of the TRIO programs. For the 2013-14 reporting period, 30 percent of TS participants identified as White, and 70 percent of the Talent Search participants identified as members of racial/ethnic minorities. These included: 30 percent Black; 26 percent Hispanic; 4 percent Asian; 4 percent American Indian or Alaska Native; 4 percent Two or More Races, and 1 percent Native Hawaiian Pacific Islander.

Comparisons of the Talent Search data for 2013-14 with the earlier 2008-09 combined data for all of TRIO must be made with caution as any changes noted might reflect differences in the combined totals versus just Talent Search, or differences in the race/ethnicity categories used over time. However, these differences suggest a consistency with U.S. demographic shifts, as well as the inclusion of new, more complex response choices. These comparisons suggest that there has been an increase in the percentage of TRIO participants who are identified as Hispanic (from 21 to 26 percent), a decline in White participants (from 34 to 30 percent) and a decline in Black participants (from 33 to 30 percent). In addition, the percentage of those in Asian groups has increased. Additional data by race/ethnicity for UB and SSS can be accessed at U.S. Department of Education, Office of Federal TRIO Programs from various published reports.[157]

157 Data by race/ethnicity on some of the individual programs can be accessed at U.S. Department of Education, Office of Federal TRIO Programs; Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html. *Fast Facts Report for the Student Support Services Program* (2016); *Fast Facts Report for the Talent Search Program* (2016); *Upward Bound and Upward Bound Math-Science Program Postsecondary Outcomes Report* (September 2016); *Fast Facts Report for the Veterans Upward Bound Program* (2020).

Equity Indicator 7b(iv): Percentage distribution of participants for the largest TRIO program, Talent Search (TS), by race/ethnicity: 2013-14



Indicator Status:

TRIO is diverse, serving underrepresented students from a range of racial/ethnic groups. Seventy percent of Talent Search participants are racial/ethnic minorities.

NOTE: Additional detailed data by race/ethnicity for UB/UBMS, VUB, TS, and SSS can be accessed at U.S. Department of Education, Office of Federal TRIO Programs, from various published reports. https://www2.ed.gov/about/offices/list/ope/trio/index.html. *Fast Facts Report for the Student Support Services Program* (2016); *Fast Facts Report for the Talent Search Program* (2016); *Upward Bound and Upward Bound Math-Science Program Postsecondary Outcomes Report* (September 2016); *Fast Facts Report for the Veterans Upward Bound Program* (2020).

SOURCE: U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016, September). *Fast Facts Report for the Talent Search Program*. Washington, D.C., Retrieved from https://www2.ed.gov/programs/triotalent/ts-fastfacts2016.pdf.

What Studies Have Been Done of TRIO Programs? How Is TRIO Evaluated?

The HEA authorizing legislation for TRIO includes language calling for periodic evaluations designed to foster program improvement. Periodically, the Department of Education (ED) has contracted for TRIO national evaluation studies. In the 1990s, several evaluation studies began examining the impact of TRIO, or TRIO-like programs, on college entrance and completion. Separate evaluation studies have most frequently been conducted for UB/UBMS and SSS. In addition, the Department of Education commissioned some secondary data analyses of national data sets to address the effectiveness of TRIO-like services. For example, in an analysis of the NCES National Educational Longitudinal Study (NELS), Horn and Chen (1998) found in correlational analysis that participation in any type of pre-college program doubled the odds for enrollment in a 4-year college after controlling for other factors known to be related to college entrance.[158] In the late 1990s, the Department began to issue contracts for maintaining longitudinal analyses files for the Annual Performance Reports (APR) for the TRIO programs and developing analyses and reports based on matching the APR data with other national data such as the National Student Clearinghouse (NSC) data.[159] Since the late 1990s, the APR reports have included individual student record outcome tracking data for the Upward Bound, SSS, and McNair programs, and this information has been used for the major outcome reports published in the current period.

The list to follow includes a listing and links to major evaluations and outcomes reports sponsored by the U.S. Department of Education. Space does not permit us to include charts from each of these reports, but we provide some information and citations for recent available information for each of the 7 programs.

- Indicators 7c(i to vi) summarize studies of the pre-college programs: UB/UBMS/VUB, Talent Search, and EOC.
- Indicators 7d(i to v) summarize studies of the TRIO college support programs, Student Support Services (SSS), and McNair.

This discussion does not include the many studies of individual TRIO programs being conducted, many of which form the basis for TRIO-related dissertations. The Pell website contains a resource listing of TRIO-related dissertations from 1990 to 2021.[160]

158 Horn, L. & Chen, X. (1998). *Toward Resiliency: At Risk Students Who Make It to College*, U.S. Department of Education, Office of Educational Research and Improvement, Washington D.C. Retrieved from https://nces.ed.gov/pubs2014/2014902/index.asp.

159 RTI, International is the prime contractor, with subcontractors for analyses of the TRIO performance reports.

160 For a listing of TRIO dissertations from 1990 to 2021, see The Pell Institute for the Study of Opportunity in Higher Education — TRIO Dissertations: https://www.pellinstitute.org/pell-resources-and-projects/trio-dissertations/.

Listing of TRIO National Evaluations and Outcomes Reports: 1979-2022

- Burkheimer, G., Riccobono, J., & Wisenbaker, J. (1979). *Final Report: Evaluation Study of the Upward Bound Program--A Second Follow-up.*, Research Triangle Park, NC: Research Triangle Institute.
- Steven M. Jung & Applied Systems Institute. (1984). *Reanalysis of High School and Beyond Data to Estimate the Impact of Upward Bound*. Washington, D.C.: Applied Systems Institute.
- Myers, D. (1991). "The Effects of Upward Bound and Supplemental Service Programs: Findings from Extant Data" Rockville, MD: Westat, Inc.
- Cahalan, M., & Muraskin, L. (1994). *National Study of Student Support Services Interim Report: Volume 1 Program Implementation* Retrieved from https://files.eric.ed.gov/fulltext/ED370512.pdf.
- Chaney, B., Muraskin, L., Cahalan, M., & Rak, R. (1997). *National Study of Student Support Services. Third-Year Longitudinal Study Results and Program Implementation Study Update*. Retrieved from https://eric.ed.gov/?id=ED410805.
- Muraskin, L. (1997). *"Best Practices" in Student Support Services: A Study of Five Exemplary Sites. Follow-up Study of Student Support Services Programs*. Washington, D.C.: U.S. Department of Education, Office of Planning, Budget, and Evaluation. Retrieved from https://files.eric.ed.gov/fulltext/ED411739.pdf.
- Horn, L. & Chen, X. (1998). *Toward Resiliency: At Risk Students Who Make It to College*. Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement. Retrieved from https://nces.ed.gov/pubs2014/2014902/index.asp.
- Constantine, J.M, Seftor, N.S., Martin, E.S., Silva, T., & Myers, D. (2006). *A Study of the Effect of the Talent Search Program on Secondary and Postsecondary Outcomes in Florida, Indiana, and Texas: Final Report from phase II of the national evaluation*. Washington, D.C: U.S. Department of Education. Retrieved from https://www2.ed.gov/rschstat/eval/highered/talentsearch-outcomes/ts-report.pdf.
- Olsen, R., Seftor, N., Silva, T., Myers, D., DesRoches, D., & Young, J. (2007). *Upward Bound Math-Science: Program description and interim impacts*. Princeton, NJ: Mathematica Policy Research, Inc. Retrieved from https://www2.ed.gov/rschstat/eval/highered/upward-math-science/complete-report.pdf.
- McCoy, A., Wilkinson, A., & Jackson, R. (2008). *Education and Employment Outcomes of the Ronald E. McNair Postbaccalaureate Achievement Program Alumni* By: Decision Information Resources, Inc. U.S. Department of Education Office of Planning, Evaluation and Policy Development Policy and Program Studies Service. Retrieved from https://www2.ed.gov/rschstat/eval/highered/mcnair/mcnair.pdf.
- Cahalan, M. (2009). *Addressing Study Error in the Random Assignment National Evaluation of Upward Bound: Do the Conclusions Change?* Washington, D.C.: Pell Institute, Council for Opportunity in Education. Retrieved from https://www.pellinstitute.org/downloads/publications-Do_the_Conclusions_Change_2009.pdf.
- Chaney, B.W. (2010). *National Evaluation of Student Support Services: Examination of Student Outcomes After Six Years Final Report*. Rockville, MD: Westat, Inc. Prepared for: U.S. Department of Education Office of Planning, Evaluation and Policy Development Policy and Program Studies Service. Retrieved from https://www2.ed.gov/rschstat/eval/highered/student-support/final-report.pdf.
- U.S. Department of Education, (2013). Federal TRIO Programs, *A Report on the Educational Opportunity Centers Program: 2007-08, with Select Comparative Data, 2002-07*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/trioeoc/eocpublication07-08.pdf.
- Cahalan, M., & Goodwin, D. (2014). *Setting the Record Straight: Strong Positive Impacts Found from the National Evaluation of Upward Bound Re-Analysis Documents Significant Positive Impacts Masked by Errors in Flawed Contractor Reports*. Washington, D.C.: Council for Opportunity in Education. Retrieved from http://pellinstitute.org/downloads/publications-Setting_the_Record_Straight_June_2014.pdf.

Listing of TRIO National Evaluations and Outcomes Reports: 1979-2022 (cont.)

- U.S. Department of Education. (2015). *Ronald E. McNair Postbaccalaureate Achievement Program Grantee Level Performance Results*: 2013-14, Washington, D.C.
- Zeiser, K.L., Chan, T., Heuer, R., & Cominole, M. (2015). *Persistence and Completion in Postsecondary Education of Participants in the TRIO Student Support Services Program*. Washington, D.C.: U.S. Department of Education, Student Service Office of Postsecondary Education. Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-heoa-report-2015.pdf.
- Heuer, R., Mason, M., & Lauff, E. (2016). *Upward Bound and Upward Bound Math-Science Programs: Postsecondary Outcomes Report*. Washington, D.C.: U.S. Department of Education, Office of Postsecondary Education, Student Service. Retrieved from https://www2.ed.gov/programs/trioupbound/ub-ubms-outcomes2016.pdf.
- U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016). *Fast Facts Report for the Talent Search Program*, Washington, D.C. Retrieved from https://www2.ed.gov/programs/triotalent/ts-fastfacts2016.pdf.
- U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016). *Fast Facts for the Student Support Services Program*. Washington, D.C., Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-fastfacts2016.pdf.
- Zeiser, K.L., Heuer, R., & Cominole, M. (2019). *Comparing Student Outcomes Between Student Support Services Participants and Nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study May 2019*. Washington, D.C.: U.S. Department of Education, Student Service, Office of Postsecondary Education. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ssspartic pantsinbpsls.pdf.
- U.S. Department of Education. (2020). Office of Postsecondary Education, Student Service, *Fast Facts Report for the Veterans Upward Bound Program*, Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/vubfastfactsreport.pdf.
- U.S. Department of Education. (2021). Office of Postsecondary Education, Student Service, TRIO Fast Facts Report: *Postsecondary Degree Completion Rates Among Students on the Upward Bound/Upward Bound Math-Science to Student Support Services Pathway*. Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ubssspathwaysreport.pdf.
- U.S. Department of Education. (2021). Office of Postsecondary Education, Student Service, *Fast Facts Report for Upward Bound and Upward Bound Math-Science Programs: 2017-18*. Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ububmsfastfactsreport1718.pdf.
- U.S. Department of Education. (2022). Office of Postsecondary Education, Student Service, *Fast Facts Report for Educational Opportunity Centers Program: 2018-19*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/trioeoc/eoc-fastfacts2022.pdf.
- U.S. Department of Education. (2023). Office of Postsecondary Education, Student Service, *Fast Facts Report for Ronald E. McNair Postbaccalaureate Achievement Program: 2019-20*. Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/mcnairfastfactsreport201920.pdf.
- For a listing of TRIO dissertations from 1990, see The Pell Institute for the Study of Opportunity in Higher Education — TRIO Dissertations: https://www.pellinstitute.org/pell-resources-and-projects/trio-dissertations/.

Equity Indicators 7c(i to vi): What Do National Evaluation Studies and Annual Performance Report (APR) Studies of Outcomes Tell us About the TRIO Pre-College Access Programs?

Upward Bound Studies. As shown in Indicators 7a(v), Upward Bound (UB), Upward Bound Math-Science (UBMS) and Veterans Upward Bound (VUB) taken together have the largest total funding among the TRIO programs, with total yearly funding for the three programs of about $460 million. Except for the McNair program, UB and UBMS are the most intensive of the TRIO programs and have the largest funding per participant (almost $5,000 per participant for UB/UBMS in 2022). Upward Bound serves about 70,000 participants per year; UBMS, over 13,000 per year, and VUB serves about 8,500 per year. Currently, the combined Upward Bound programs serve about 97,000 participants (Indicator 7a(ii)). Because of Upward Bound's intensity of services and because it was the first and most well-known of the TRIO programs, Upward Bound is also the most studied.

In 1992, the Department began a random assignment study of the Upward Bound program conducted over more than a 10-year period, with the last follow-up covering 2003-04. Equity Indicator 7c(i) presents summary results of a re-analysis of the data from the National Evaluation of Upward Bound, by the Department of Education Technical Monitors.[161] The analysis uses instrumental variables regressions estimating the impact of participation in Upward Bound on bachelor's degree attainment by 6 years after expected high school graduation. The instrumental variables regression controlling for selection factors revealed that the sample members who participated in UB or UBMS were 3 times more likely to obtain a bachelor's degree within 6 years of their expected high school graduation year when compared to sample members reporting no participation in college access services, and 1.4 times as likely when compared to those who reported participating in other less intensive services, including Talent Search. These findings for those who did not obtain services from the National Evaluation of Upward Bound are very similar to the estimates of bachelor's attainment for similar family income and socioeconomic status (SES) groups from Census Bureau and from the NCES high school longitudinal study from approximately the same time frame. The NCES National Educational Longitudinal Study (NELS:1992/2000) found that 8 percent of the sample who were in the bottom SES quartile had attained a bachelor's degree by 8 years after expected high school graduation (see Indicator 5b). Census Bureau CPS data from the time-period estimated that 6 percent of those from the bottom quartile of the income distribution had obtained a bachelor's degree by age 24 (See Indicator 5a(i)).

Upward Bound Math-Science (UBMS) Evaluation. UBMS has a focus on reinforcing academic preparedness in math, science, and technology to encourage students to major in science, technology, engineering, and math (STEM) in college. Equity Indicator 7c(ii) shows results from the evaluation of UBMS conducted by Mathematica

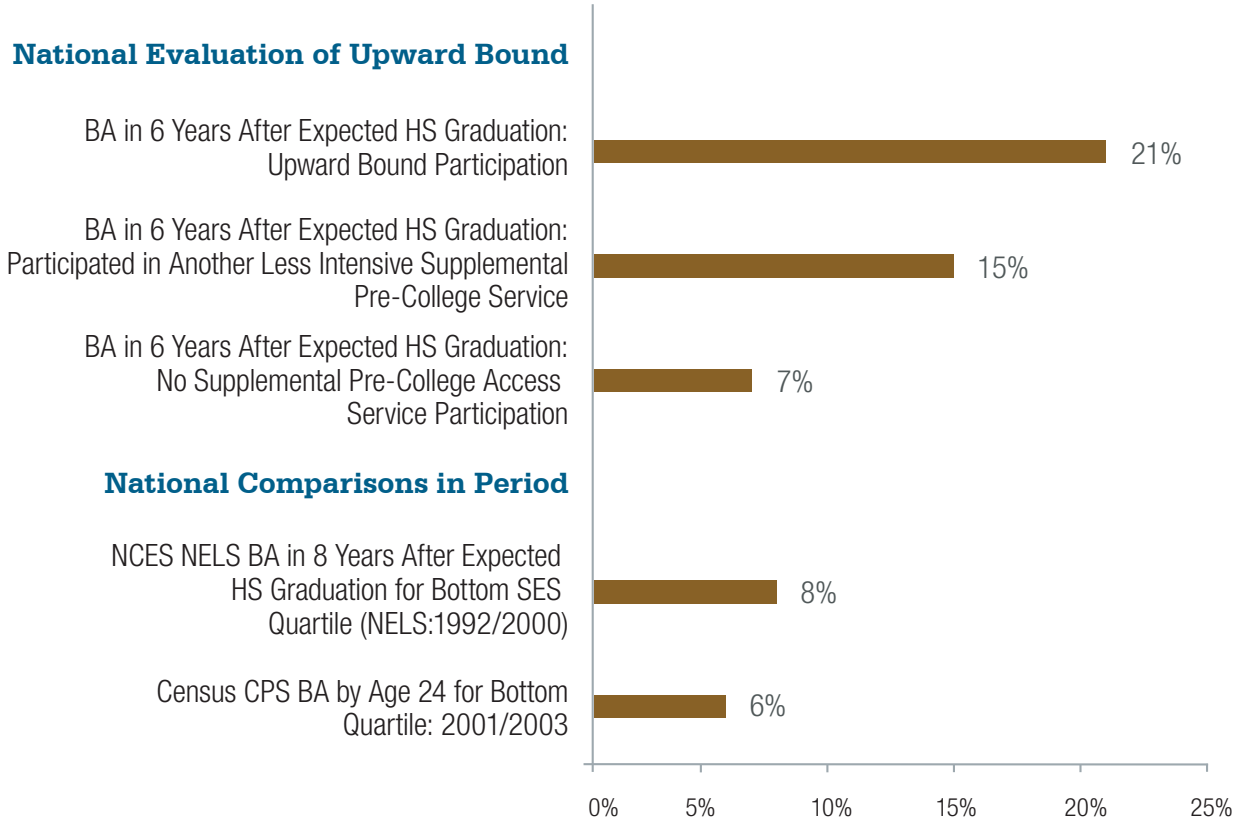
161 Over more than a decade stemming from the early 1990s to 2007, the Department of Education commissioned a random assignment study of the Upward Bound program conducted under three succeeding contracts to Mathematica Policy Research. After serious sampling and non-sampling errors were found in the sample design and evidence was found of a flawed random assignment with serious bias in favor of the control group, the Department of Ed. staff responsible for the study conducted re-analyses designed to mitigate and correct the study errors. The results of the quality assurance studies and re-analyses were subsequently published by COE. See: Cahalan, M. (2009). *Addressing Study Error in the Random Assignment National Evaluation of Upward Bound: Do the Conclusions Change?* Washington, D.C.: Pell Institute, Council for Opportunity in Education. Retrieved from https://coenet.org/wp-content/uploads/2022/12/publications_addressing_study_error_Do_the_Conclusions_Change_2009.pdf and Cahalan, M., & Goodwin, D. (2014). *Setting the Record Straight: Strong Positive Impacts Found from the National Evaluation of Upward Bound Re-Analysis Documents Significant Positive Impacts Masked by Errors in Flawed Contractor Reports.* Washington, D.C.: Pell Institute, Council for Opportunity in Education, Retrieved from https://www.pellinstitute.org/resources/setting-the-record-straight-strong-positive-impacts-from-the-national-evaluation-of-upward-bound/. The technical monitors results were also independently verified by researchers at the University of Wisconsin in 2013 and 2014. Nathan, A.B. (2013). *Dissertation, Does Upward Bound Have an Effect on Student Educational Outcomes? A Reanalysis of the Horizons Randomized Controlled Trial Study.* University of Wisconsin-Madison. Retrieved from https://asset.library.wisc.edu/1711.dl/DS7VCQQLA2BAI8J/R/file-fef06.pdf; Harris, D., Nathan, A.B., & Marksteiner, R. (2014). *The Upward Bound College Access Program 50 Years Later: Evidence from a National Randomized Trial.* University of Wisconsin at Madison. Institute for Research on Poverty Discussion Paper No. 1426-14 — The Upward Bound College Access Program 50 Years Later — Evidence from a National Randomized Trial. Retrieved from https://www.irp.wisc.edu/publications/dps/pdfs/dp142614.pdf.

Policy Research Inc. (MPR) for a cohort of UBMS participants from 1993-95.[162] UBMS participants outperformed a propensity-matched control group in the areas shown in the chart. For example, compared to similarly qualified students, UBMS students were 43 percent more likely to select math or science as a college major. This study was done soon after the UBMS program began. During the period of the early 1990s when this project began, there were 54 UBMS projects. This number grew to 81 projects by 1997, and over the past two decades, the number of UBMS Projects has continued to grow. By 2022-23, there were 241 UBMS projects serving 14,963 participants.[163]

162 Olsen, R., Seftor, N., Silva, T., Myers, D., DesRoches, D., & Young, J. (2008). *Upward Bound Math-Science: Program Description and Interim Impacts*. Princeton, NJ: Mathematica Policy Research, Inc. Retrieved from: https://www2.ed.gov/rschstat/eval/highered/upward-math-science/complete-report.pdf.

163 U.S. Department of Education, Office of Federal TRIO Programs data from years, 1997 to 2021. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at http://www.pellinstitute.org/peo.shtml.

Equity Indicator 7c(i): Instrumental variables two-stage regression, estimates of relative impact of participation in Upward Bound (UB) compared with various levels of pre-college access supplemental services on bachelor's degree (BA) attainment within 6 years of expected high school graduation: National Evaluation of UB study sample: 1994-2003 with national comparisons from the approximate study period



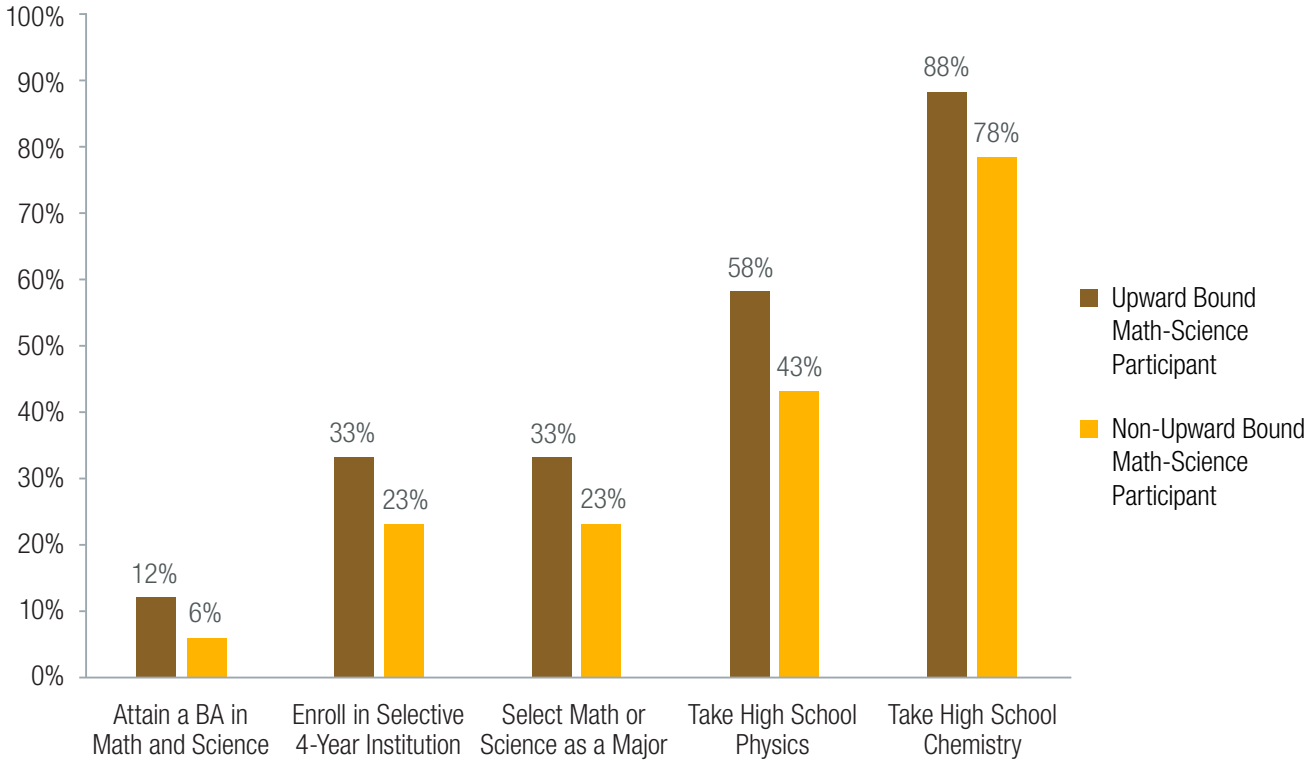
Indicator Status:

Attainment rates for a bachelor's degree by 6 years after expected high school graduation date were 3 times higher for Upward Bound participants than for those sample members who reported no participation in college access supplemental services, and 1.4 times higher for those who reported participation in less-intensive college access supplemental services.

NOTE: The Upward Bound study involved multiple high school participant cohorts that spanned up to 5 years with expected high school graduation years from 1994 to 1998, with most participants having high school graduation dates from 1995 to 1997. Results are based on data from 66 of 67 projects participating in a Random Assignment Study of about 3,000 middle school and early high school low-income and first-generation UB applicants. The estimates in the figures shown are based on longitudinal data in an analysis using instrumental two-stage regressions that first model factors related to differences in participation in services and then use these factors in the second stage to control for participation selection bias factors.

SOURCE: Cahalan, M., & Goodwin, D. (2014). *Setting the Record Straight: Strong Positive Impacts Found from the National Evaluation of Upward Bound.* Washington, D.C.: Council for Opportunity in Education. Retrieve from https://www.pellinstitute.org/resources/setting-the-record-straight-strong-positive-impacts-from-the-national-evaluation-of-upward-bound/.

Equity Indicator 7c(ii): National evaluation of the Upward Bound Math-Science Program (Participant cohorts: 1993-1995)



Indicator Status:

Compared to similarly qualified students, UBMS students were 43 percent more likely to select math or science as a college major.

NOTE: The control group consisted of a sample of 1,500 UBMS participants who applied to UB programs but did not participate in the UBMS and displayed similar demographic characteristics.

SOURCE: Olsen, R., Seftor, N., Silva, T., Myers, D., DesRoches, D., & Young, J. (2008). *Upward Bound Math-Science: Program Description and Interim impacts.* Princeton, NJ: Mathematica Policy Research, Inc. As included in the Pell Institute publication, *National Studies Find TRIO Programs Effective at Increasing College Enrollment and Graduation.* Retrieved from https://www.pellinstitute.org/resources/national-studies-find-trio-programs-effective-at-increasing-college-enrollment-and-graduation/.

Using the Annual Performance Reports (APR) Data and National Student Clearinghouse (NSC) Data to Study Upward Bound and Upward Bound Math-Science (UBMS) Outcomes. The development of Annual Performance Reports (APR) that include data on individual students records that began around 2000, combined with the availability of matching these reports to federal aid files and data from the National Student Clearinghouse (NSC), has allowed for the tracking of national outcomes for TRIO Upward Bound participants. These data can be analyzed with related data from NCES and the Census Bureau data to provide benchmarks of the outcomes for TRIO projects relative to national data.

Enrollment in College in the Fall After Expected High School Graduation for Upward Bound and Upward Bound Math-Science. Equity Indicator 7c(iii) summarizes outcome data for Upward Bound and Upward Bound Math-Science for the 2013-14 high school graduation year cohort with comparisons using national data from the NCES High School Longitudinal Study (HSLS) in a similar period and the Census Bureau's CPS of the same period.[164] Upward Bound tracking data are obtained through the National Student Clearinghouse as contained in the National Student Loan Data System (NSLDS). These data indicate that students who participate in UB and UBMS have high rates of college entrance by fall after high school (89 percent for UBMS and 85 percent for UB). These rates far exceed the national average college entrance rates for students in the lower portion of the family income and SES distributions. The UB/UBMS rates are close to those of the highest SES quintile (91 percent; see Indicator 1g(i)). National enrollment rates for the bottom family income groups were about 45-60 percent in a comparable period. Participation in UB/UBMS increased the rate of college entrance by about 75 percent (86 percent compared to 49 percent).

APR and NSC Data Tracking on Completion of a Bachelor's in 6 Years for UB and UBMS. Equity Indicator 7c(iv) summarizes bachelor's degree attainment within 6 years for the 2008 high school graduation cohort by 2013-14. These data are from the APR reports, matched with the NSLDS system that contains the National Student Clearinghouse data. Although the available national data do not provide an exact comparison group for the UB and UBMS outcomes, these national estimates for students who would be eligible for Upward Bound can provide benchmarks for comparison with the outcomes for UB and UBMS. Equity Indicator 7c(iv) includes benchmark estimates from the Educational Longitudinal Study (ELS) for the bottom SES quartile on bachelor's attainment by 8 years after expected high school graduation and from the CPS on obtaining a bachelor's degree by age 24 for dependent students in the bottom quartile from a similar time frame.

The longitudinal tracking found that 40 percent of UBMS participants, 29 percent of UB participants, and 30 percent of the combined UB and UBMS cohort had obtained their bachelor's degree within 6 years of their expected high school graduation year. During the same period, among the bottom SES quartile, ELS found that 15 percent had attained a bachelor's degree in 8 years. In the same time frame, estimates based on Census CPS data were that 11 percent of the lowest family income quartile had attained a bachelor's degree by age 24. Averaging the CPS estimate of 11 percent with the NCES/ELS estimate of 15 percent, we use 13 percent as a baseline for comparison. Using this baseline, we thus estimate that UB participants were 2.2 times more likely to obtain a bachelor's degree in 6 years (29 percent vs. 13 percent), and UBMS participants were 3.1 times more likely (40 percent vs. 13 percent).

UB/UBMS data for both 7c(iii) and 7c(iv) have been updated in a new NCES report[165] with data for the 2017-18 high school graduation cohort. The results are very similar to those reported above.

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164 Heuer, R., Mason, M., & Lauff, E. (2016). *Upward Bound and Upward Bound Math-Science Programs: Postsecondary Outcomes Report*, U.S. Department of Education, Office of Postsecondary Education, Student Service Washington, D.C., Retrieved from http://www2.ed.gov/programs/trioupbound/resources.html.

165 U.S. Department of Education. (2021). Office of Postsecondary Education, Student Service, *Fast Facts Report for Upward Bound and Upward Bound Math-Science Programs: 2017-18*. Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ububmsfastfactsreport1718.pdf.

Veterans Upward Bound (VUB) Descriptive Information. VUB was established to assist returning veterans to transition into postsecondary education.[166] The majority of Veterans Upward Bound participants are older than other college students, more likely to be married with dependents, and more likely to be working.[167] To participate in VUB, a veteran must be: (1) a potential first-generation college student; (2) a low-income individual, or (3) an individual who has a high risk for academic failure. The VUB program has not had a national evaluation as have Upward Bound and Upward Bound Math-Science; however, in 2020, the Department of Education published a descriptive report in the Fast Fact series. The 2020 Fast Facts Report for the VUB presents descriptive information on 6 risk factors displayed in Indicator 7c(v). The selected risk factors are related to program eligibility. In addition to low-income, and first-generation college, these include[168] race/ethnicity, disability status, age, and type of high school credential earned. In the 2016-17 program year, 86 percent of VUB participants were potential first-generation college students and 84 percent were low-income. About 45 percent of VUB participants were 45 or older. About half (51 percent) were members of an underrepresented minority group, and 50 percent were persons with a disability. As seen in Indicator 7a(i), and 7a(ii), in 2022, approximately 8,598 VUB participants were served. This represents about .7 percent of the eligible population.[169]

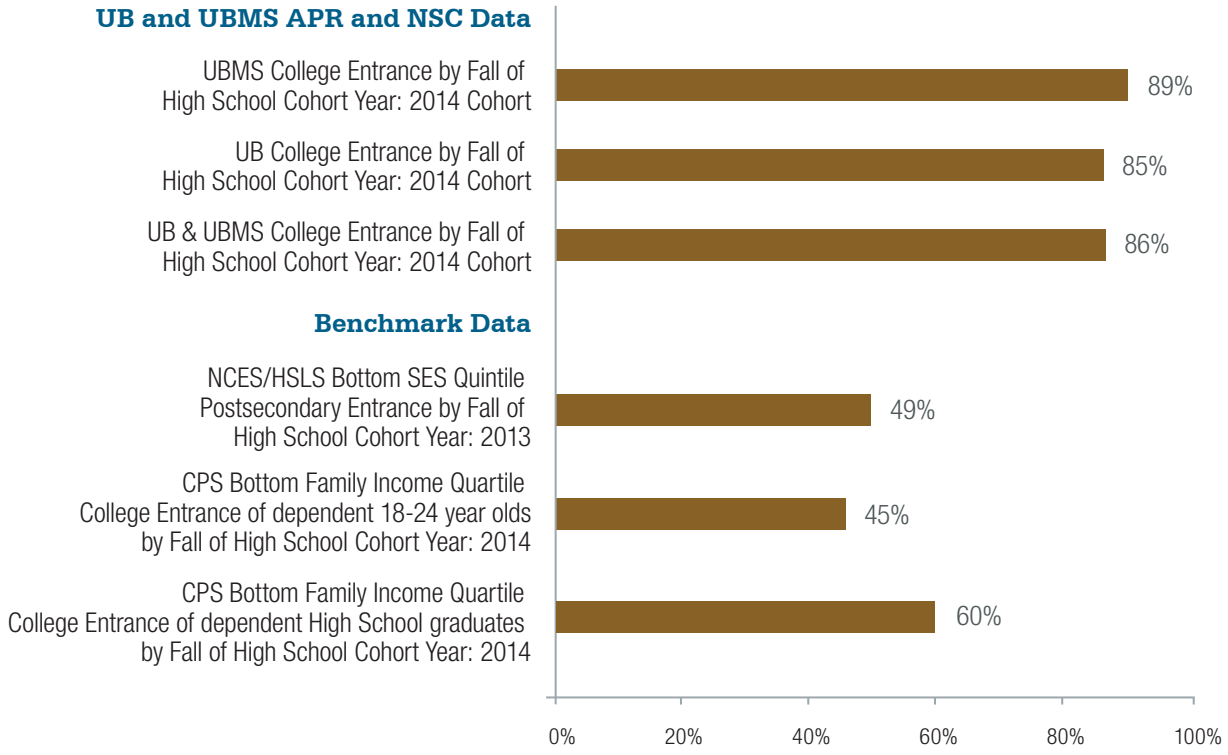
166 TRIO factsheet 50th anniversary. Retrieved from: https://www2.ed.gov/about/offices/list/ope/trio/trio50anniv-factsheet.pdf.

167 Radford, A. W. (2009). *Military Service Members and Veterans in Higher Education: What the New GI Bill May Mean for Postsecondary Institutions*. Washington, DC: American Council on Education. Retrieved from: https://www.acenet.edu/news-room/Documents/Military-Service-Members-and-Veterans-in-Higher-Education.pdf.

168 The set of risk factors does not include the program eligibility criterion of being an individual who has a high risk for academic failure since many of the cohort participants included in the postsecondary enrollment and degree completion results did not report data on this criterion. Because this criterion was not included in the set of risk factors, it is possible for a participant to have qualified for the VUB program by being an individual with a high risk for academic failure but without any of the other 6 risk factors.

169 To determine the population eligible to participate in the Veterans Upward Bound Program, data are drawn from the Census table S2101 that examines veterans 18 years old and over who are living below the federal poverty level.

Equity Indicator 7c(iii): Percentage of Upward Bound (UB) and Upward Bound Math-Science (UBMS) participants who entered postsecondary education by fall of expected high school graduation year, and national benchmark data from NCES High School Longitudinal Study (HSLS) and Census Current Population Survey (CPS): 2013/14



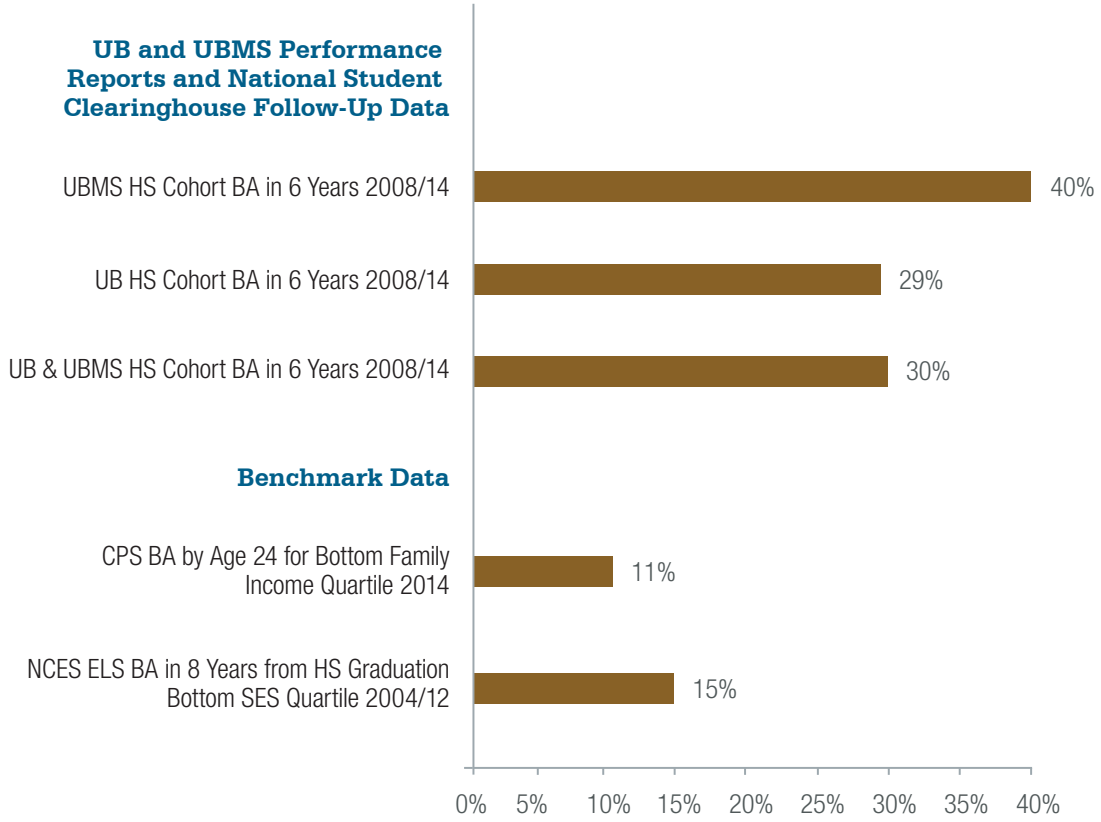
Indicator Status:

National Student Clearinghouse (NSC) tracking data indicate that students who participate in UB and UBMS enter college by the fall after high school at rates (89 percent for UBMS and 85 percent for UB) that far exceed the national average college entrance rates for students in the bottom of the family income and SES distributions. The UB/UBMS rates are closer to those of the highest quintile (91 percent; see Indicator 1g(i)). Enrollment rates for the bottom income and SES group were about 45 to 60 percent in a comparable period. UB/UBMS increased the rate of college entrance by about 75 percent (86 percent compared to 49 percent).

NOTE: UB and UBMS data are based on 2013-14 expected high school graduation cohorts drawn from the APR longitudinal data files and from matching with the National Student Loan Data System (NSLDS) that contains National Student Clearinghouse (NSC) data. The benchmark data were obtained for a similar time period and are drawn from Equity Indicators 1a and 1g(i). High School Longitudinal Study (HSLS:2009) began with a nationally representative sample of 9th graders in 2009 and included follow-ups in 2013 (the fall after scheduled high school graduation); Census CPS data is from 2014. SES is an abbreviation for "Socioeconomic Status." See sources cited for more methodological information.

SOURCE: Heuer, R., Mason, M., & Lauff, E. (2016). *Upward Bound and Upward Bound Math-Science Programs: Postsecondary Outcomes Report*, U.S. Department of Education, Office of Postsecondary Education, Student Service, Washington, D.C. Retrieved from http://www2.ed.gov/programs/trioupbound/resources.html. U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLS:2009/2013). Tabulated using NCES PowerStats; U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 7c(iv): Percentage of Upward Bound (UB) and Upward Bound Math-Science (UBMS) participants who obtained a bachelor's degree (BA) by 6 years after scheduled high school completion, and national benchmarks from NCES Educational Longitudinal Study (ELS) and Census Current Population Survey (CPS) bottom SES and income quartiles: 2013/14 cohort



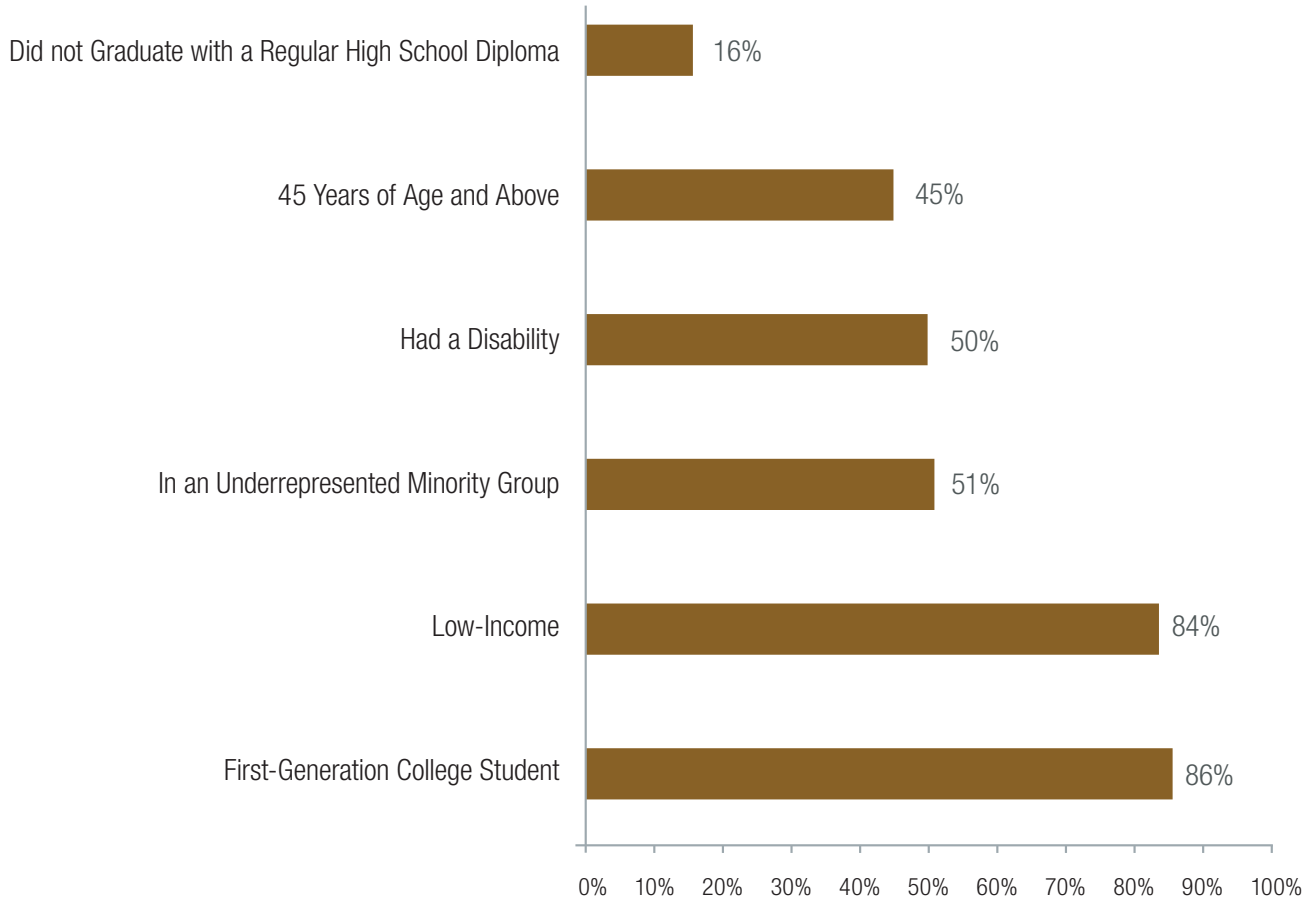
Indicator Status:

When compared with the Census' CPS and NCES' ELS estimates of bachelor's degree attainment for the lowest family income or SES quartiles, UB participants were 2.2 times more likely to obtain a bachelor's degree in 6 years (29 percent vs. 13 percent) and UBMS participants were 3.1 times more likely (40 percent vs. 13 percent). (13 percent is the benchmark average.)

NOTE: UB and UBMS data are based on cohorts drawn from the APR longitudinal data files and from matching with the National Student Data System (NSLDS) that contains National Student Clearinghouse (NSC) data. The UB and UBMS cohort tracked is the 2008 expected high school graduation cohort followed 6 years after HS graduation date in 2013-14. CPS (2014) and NCES ELS (2012) benchmark data were obtained for as close a time period as possible and are in Indicator 5a(i) and 5b. See sources below for more methodological information. SES is an abbreviation for "Socioeconomic Status."

SOURCE: (Upward Bound Data) Heuer, R., Mason, M., & Lauff, E. (2016). *Upward Bound and Upward Bound Math-Science Programs: Postsecondary Outcomes Report*, U.S. Department of Education, Office of Postsecondary Education, Student Service Washington, D.C., Retrieved from http://www2.ed.gov/programs/trioupbound/resources.html. (National Benchmark Data: see Equity Indicators 5a(i) and 5(b) U.S. Department of Education, National Center for Education Statistics, Educational Longitudinal Study (ELS:2002-class of 2004-2012 follow-up). U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 7c(v): Percentage of Veterans Upward Bound (VUB) participants with select risk factors affecting postsecondary success: 2016–17



Indicator Status:

VUB participants have multiple postsecondary risk factors. Over 80 percent of VUB participants are low-income, and 86 percent are first-generation college. Almost half are 45 years of age or older. Half have a disability, and half are members of a minority group.

SOURCE: U.S. Department of Education, Office of Postsecondary Education, Student Service, Fast Facts Report for the Veterans Upward Bound Program, Washington, D.C., 2020. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/vubfastfactsreport.pdf.

Talent Search (TS) is an extensive outreach program that serves youth in the 6th through 12th grades. As noted, TS is the largest of the TRIO programs in terms of number of participants, with 350,730 participants in 2022-23 (Indicator 7a(ii)), and as an extensive rather than intensive program it has among the lowest funding amounts per participant ($544 per participant in 2022 (Indicator 7a(vi))). Participants receive counseling and information about college admission requirements, scholarships, and financial aid assistance. Because TS is an extensive outreach program, it is more difficult to conduct the type of national evaluations that have been done for Upward Bound, for example, in which individual student records are tracked.

The National Evaluation of Talent Search began in the late 1990s and explored the feasibility of matching Talent Search participants to information in the federal aid records in selected states who also maintained a statewide database. The study had to first obtain lists of TS participants from each TS project in the state and match these lists with student financial aid and state longitudinal databases. Three states participated in the study: Florida, Indiana, and Texas.[170] The study examined outcomes of students who were in the 9th grade and TS participants from the 1995-96 cohort and followed them through 2002. Although all the sample population started with students who were 9th graders in 1995–96, Talent Search participants may have received services through the program at any point from grades 6 through 12. Equity Indicator 7c(vi) shows summary information from Florida and Texas. The study found that participants of the Talent Search programs were significantly more likely to attain a regular high school diploma, to be enrolled full-time at a public state institution, and to be first-time financial aid applicants compared to similarly qualified students from the state.[171] A more recent Fast Facts outcome study by the Department of Education found that between 2011–12 and 2013–14, 80 percent of college-ready seniors who participated in TRIO's Talent Search program enrolled in college.[172]

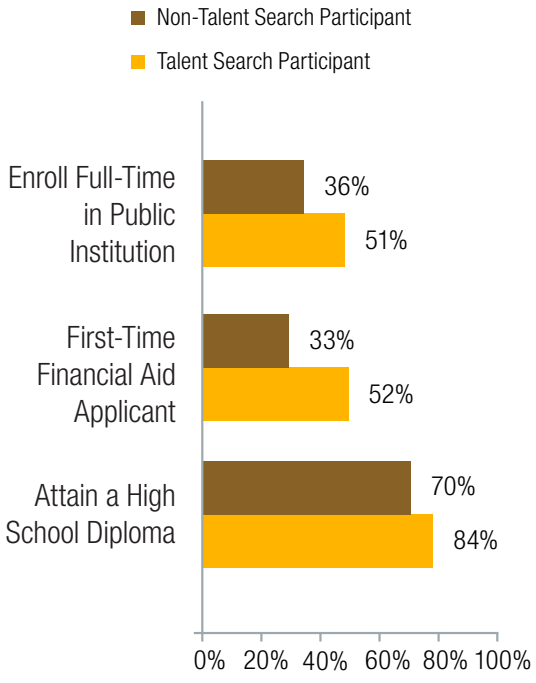
170 Indiana did not have a state-level data base but did have a statewide survey that was used for limited analysis.

171 See here for full report. Constantine, J.M, Seftor, N.S., Martin, E.S., Silva, T., & Myers, D. (2006). *A Study of the Effect of the Talent Search Program on Secondary and Postsecondary Outcomes in Florida, Indiana, and Texas: Final Report from Phase II of the National Evaluation.* Washington, D.C: U.S. Department of Education. Retrieved from https://www2.ed.gov/rschstat/eval/highered/talentsearchoutcomes/ts-report.pdf.

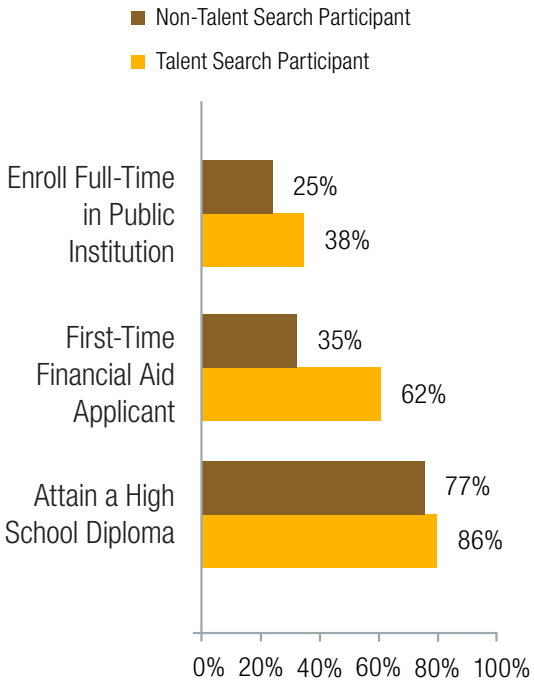
172 U.S. Department of Education, Office of Postsecondary Education, Student Service. (2016, September). *Fast Facts Report for the Talent Search Program*, Washington, D.C. Retrieved from https://www2.ed.gov/programs/triotalent/ts-fastfacts2016.pdf.

Equity Indicator 7c(vi): Results from the National Evaluation of Talent Search propensity matching studies using state longitudinal databases: Florida and Texas Talent Search cohorts from 9th grade in 1995-96 followed until 2002

Florida State Analysis



Texas State Analysis



Indicator Status:

Studies using propensity matching with state data bases found that Talent Search participants had significantly higher rates of enrolling in a public institution, applying for financial aid, and attaining a high school diploma.

SOURCE: Constantine, J.M., Seftor, N.S., Martin, E.S., Silva, T., & Myers, D. (2006). *A Study of the Effect of the Talent Search Program on Secondary and Postsecondary Outcomes in Florida, Indiana, and Texas: Final Report from Phase II of the National Evaluation.* Washington, D.C: U.S. Department of Education. Retrieved from https://www2.ed.gov/rschstat/eval/highered/talentsearch-outcomes/ts-report.pdf.

Educational Opportunity Centers (EOC) provide academic counseling on college admissions to qualified adults who plan to pursue postsecondary education. Educational Opportunity Centers (EOCs) target displaced or underemployed workers from low-income families. EOC serves roughly 200,000 individuals yearly and has the lowest funding per participant of any of the TRIO programs ($292 in 2022 (Indicator 7a(vi))). EOC counselors help students choose colleges and navigate the maze of the financial aid process. Recent analyses of EOC found that more than half (61 percent) of "eligible EOC participants received a high school diploma or equivalent. In addition, of EOC participants who were eligible to complete these outcomes, 73 percent completed college admission applications and 75 percent completed financial aid application." Of those who either received their high school diploma during the reporting year or who already had their high school diploma, 59 percent enrolled in college.[173]

173 U.S. Department of Education. (2022). Office of Postsecondary Education, Student Service, *Fast Facts Report for Educational Opportunity Centers Program: 2018-19*, Washington, D.C. Retrieved from https://www2.ed.gov/programs/trioeoc/eoc-fastfacts2022.pdf.

Equity Indicators 7d(i to vi): What Do National Evaluation Studies and Annual Performance Report (APR) Studies of Outcomes Tell Us about the TRIO College Success Programs?

Student Support Services: National Study of the 1990s. SSS projects are hosted at both 2-year and 4-year higher education institutions, and next to Talent Search, the SSS program serves the largest number of students each year (209,286 in 2022 (Indicator 7a(ii))). SSS provides academic tutoring, peer mentoring, counseling, and other supports to low-income, first-generation college students. In the 1990s, the Department of Education sponsored a National Study of Student Support Services. The study involved both qualitative and quantitative outcome studies that followed participants and non-participants for 6 years after college entrance. The study used propensity matching at both the institution and individual student levels to establish a control group. Relative to the control group, the study found positive impacts for SSS on college persistence and on graduation after 6 years.[174] The case studies (Muraskin, 1997) found that projects that provided a structured first-year learning experience and those that provided holistic services and acted as a "home base" for students had the most successful outcomes on average.[175] The most important common practices across the SSS projects showing exemplary outcomes were: (1) a project-designed, freshman-year experience; (2) an emphasis on academic support for developmental and popular freshman courses; (3) extensive student service contacts; (4) targeted participant recruitment and participation incentives; (5) dedicated staff and directors with strong institutional attachments, and (6) an important role on campus.

More Recent Studies of SSS Outcomes Using National Data Sets for Comparisons. Recent studies, using the APR data with comparisons to national data sets, have been published in 2015 and 2019. Equity Indicators 7d(i) and 7d(ii) display summary comparative information from the report published in 2015 based on SSS APR data and a national sample of eligible beginning students from the nationally representative Beginning Postsecondary Study (BPS). Indicators 7d(iii) and 7d(iv) display data from the 2019 report that uses propensity matching of SSS and non-SSS participants in the BPS sample. The comparison is with members from the BPS sample who did not participate in SSS but who had similar characteristics.

SSS APR Tracking with a National Sample. The report entitled *Persistence and Completion in Postsecondary Education of Participants in the TRIO Student Support Services Program* is based on APR data for SSS cohorts who began postsecondary in 2007-08 at 2-year and 4-year institutions.[176] The report compares the persistence and completion data with those from a national sample of students from the BPS in the 2003-04 year. To create the national sample, the BPS:04/09 was subsampled to include students who met the SSS eligibility requirements of low-income status, first-generation status, or disability status, as well as demonstrated academic need. The percentages in the national sample are estimates based on the weighted BPS:04/09 national sample. Although a national sample was selected based upon BPS students who met the SSS eligibility criteria, there were some differences that limit the comparisons. First, the time frame has a 4-year difference. Second, the BPS

174 Chaney, B., Muraskin, L., Cahalan, M., & Rak, R. (1997, February). *National Study of Student Support Services. Third-Year Longitudinal Study Results and Program Implementation Study Update*. Retrieved from https://eric.ed.gov/?id=ED410805. Compared to similarly qualified students in the control group, SSS students were 12 percent more likely to be retained to the second year (67 percent vs. 60 percent) and 23 percent more likely to be retained to the third year (49 percent vs. 40 percent). Chaney, B.W. (2010). *National Evaluation of Student Support Services: Examination of Student Outcomes After Six Years Final Report*. Rockville, MD: Westat. Prepared for: U.S. Department of Education Office of Planning, Evaluation and Policy Development Policy and Program Studies Service. Retrieved from https://www2.ed.gov/rschstat/eval/highered/student-support/final-report.pdf.

175 Muraskin, L. (1997). *"Best Practices" in Student Support Services: A Study of Five Exemplary Sites. Follow-up Study of Student Support Services Programs*. Department of Education, Washington, DC. Office of Planning, Budget, and Evaluation. Retrieved from https://files.eric.ed.gov/fulltext/ED411739.pdf.

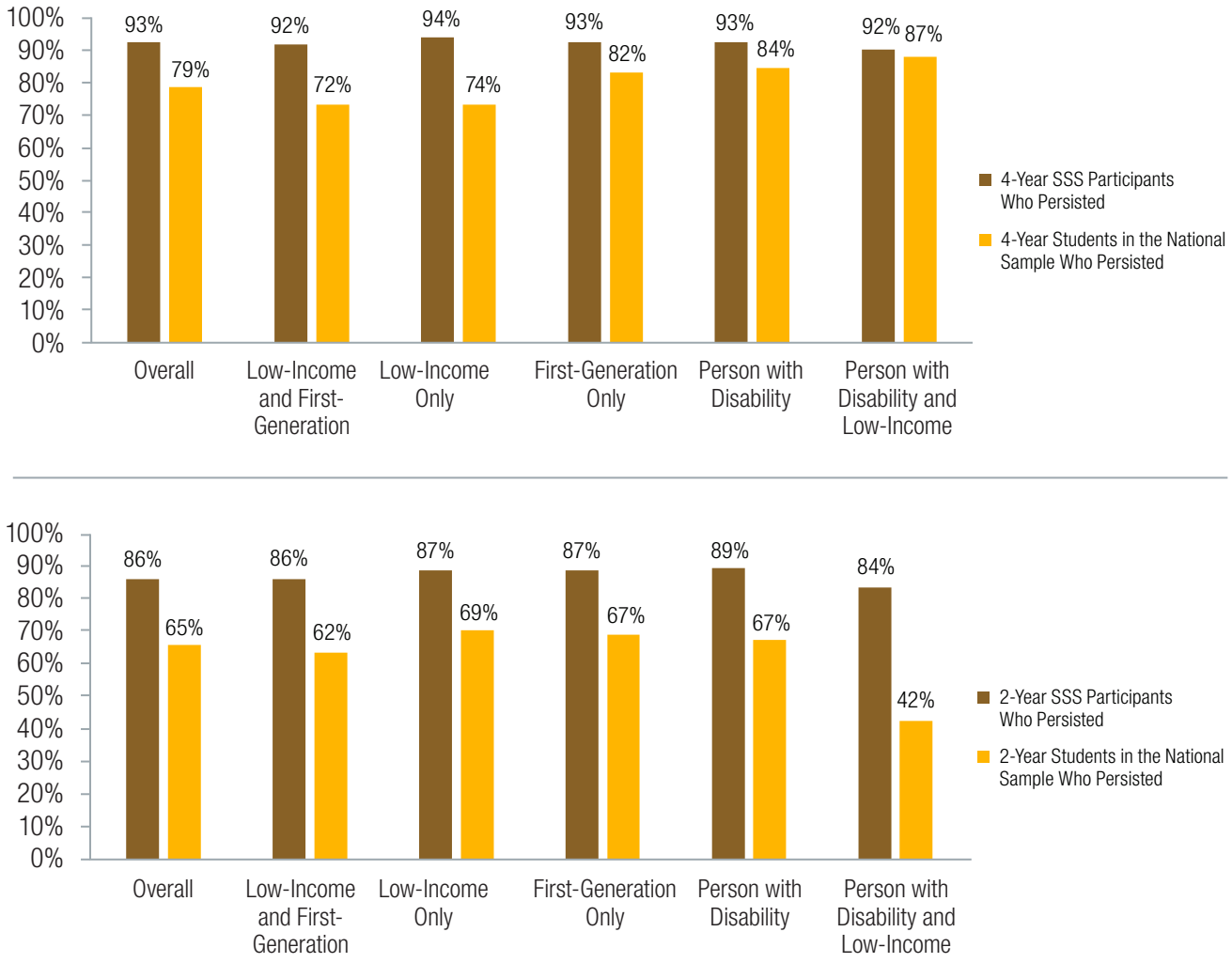
176 Zeiser, K.L., Chan, T., Heuer, R., & Cominole, M. (2015). *Persistence and Completion in Postsecondary Education of Participants in the TRIO Student Support Services Program*, Student Service, Office of Postsecondary Education, U.S. Department of Education. Appendix C. Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-heoa-report-2015.pdf.

national sample did not have a similar proportion of students who were both low-income and first generation. For example, 65 percent of the SSS participants were both low-income and first-generation, while the national sample from BPS national subsample comparable had a smaller percentage that were both low-income and first-generation (32 percent at 2-year and 26 percent at 4-year were both low-income and first-generation). These latter differences might tend to favor the national sample comparison group in outcome comparisons.

Given these limitations, as displayed in Indicator 7d(i), overall, 2-year SSS participants were 32 percent more likely to persist to the fall of the second year than the national sample meeting the SSS eligibility requirements drawn from the BPS 2004 entering cohort. SSS participants in 4-year colleges were 18 percent more likely to persist than the national sample of students entering at 4-year institutions. The SSS program's largest impact on persistence to the second year was for students with disabilities who were also low-income at the 2-year level (84 percent vs. 42 percent).

The 2015 report also includes data on degree or certificate completion. Indicator 7d(ii) shows SSS participants entering 2-year institutions were 78 percent more likely to complete an associate degree or certificate or to have transferred to a 4-year institution by 4 years after entering (50 percent for SSS participants vs. 28 percent for the national sample). SSS participants entering 4-year institutions were 23 percent more likely to obtain a bachelor's degree within 6 years of entering (49 percent for SSS participants vs. 40 percent for the national sample).

Equity Indicator 7d(i): Percentage of Student Support Services (SSS) participants and of the national sample entering 2-year and 4-year institutions who persisted to the fall of the second year by eligibility status: 2003–04 cohort



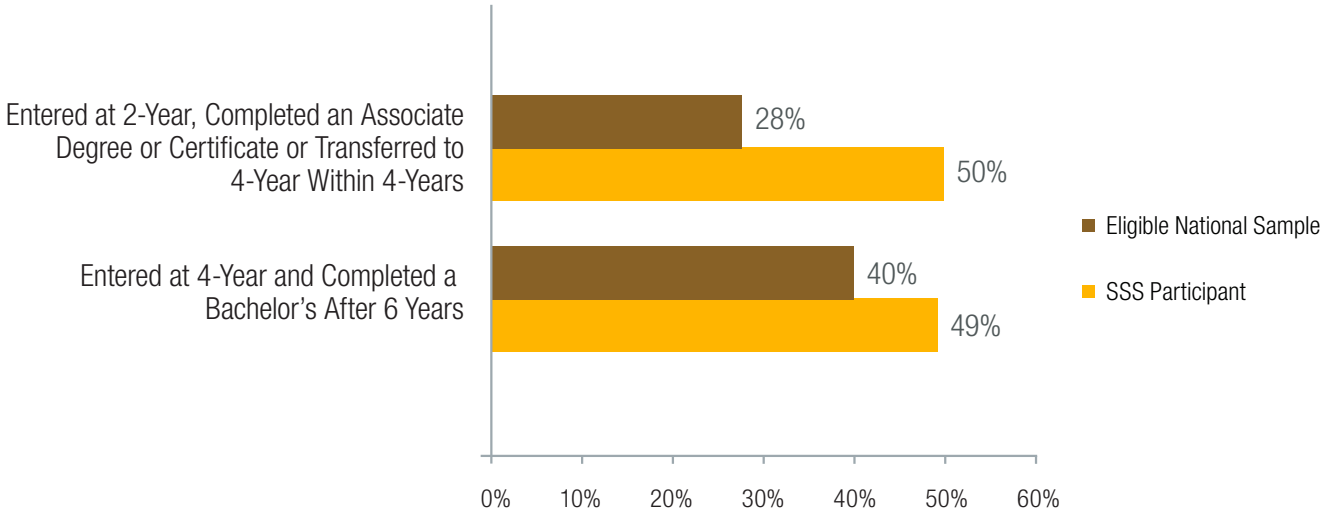
Indicator Status:

Overall, 2-year SSS participants were 32 percent more likely to persist to the fall of a second year than a national sample meeting the SSS eligibility requirements.

NOTE: To create the national sample, the BPS:04/09 was subsampled to include students who met the SSS eligibility requirements of low-income status, first-generation status, or disability status, as well as demonstrated academic need. The numbers and percentages in the national sample columns are estimates based on the weighted BPS:04/09 national sample.

SOURCE: Zeiser, K.L., Chan, T., Heuer, R., & Cominole, M. (2015). *Persistence and Completion in Postsecondary Education of Participants in the TRIO Student Support Services Program*, Student Service, Office of Postsecondary Education, U.S. Department of Education. Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-heoa-report-2015.pdf.

Equity Indicator 7d(ii): Percentage of Student Support Services (SSS) participants and of the national sample comparison group entering 2-year and 4-year institutions who completed degrees within 4 and 6 years: 2003–04 cohort



Indicator Status:

Overall, SSS participants entering 2-year institutions were 78 percent more likely to complete an associate degree or certificate or to have transferred to a 4-year institution by 4 years after entering (50 percent for SSS participants vs. 28 percent for the national sample). SSS participants entering 4-year institutions were 23 percent more likely to attain a bachelor's degree within 6 years (49 percent for SSS participants vs. 40 percent for the national sample).

NOTE: To create the national sample, the BPS:04/09 was subsampled to include students who met the SSS eligibility requirements of low-income status, first-generation status, or disability status, as well as demonstrated academic need. The percentages in the national sample are estimates based on the weighted BPS:04/09 national sample.

SOURCE: Zeiser, K.L., Chan, T., Heuer, R., & Cominole, M. (2015). *Persistence and Completion in Postsecondary Education of Participants in the TRIO Student Support Services Program.* Student Service, Office of Postsecondary Education, U.S. Department of Education. Retrieved from https://www2.ed.gov/programs/triostudsupp/sss-heoa-report-2015.pdf. see Appendix C.

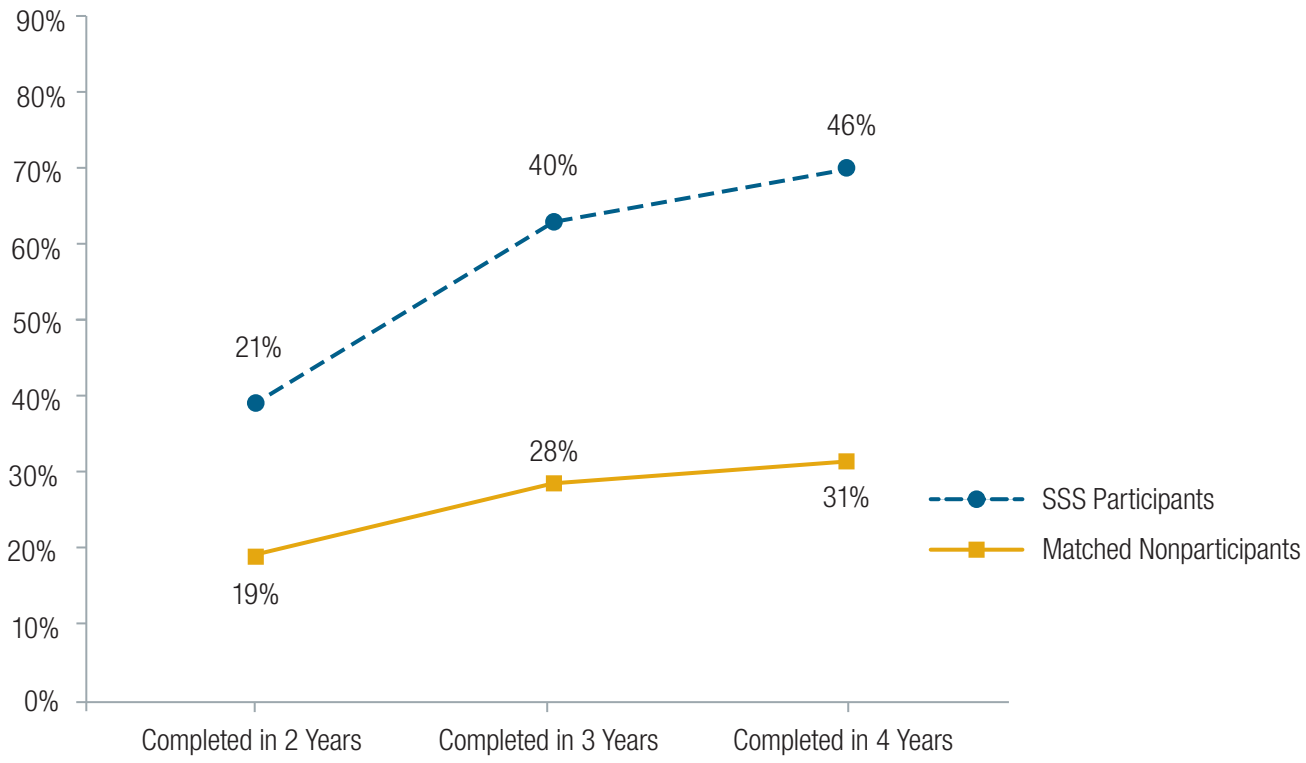
A Propensity-Matching SSS Study Based on the BPS National Sample. Equity Indicators 7d(iii) and 7d(iv) show findings from the report *Comparing Student Outcomes Between Student Support Services Participants and Nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study.*[177] This study used a propensity matching methodology based on the characteristics of students found in the BPS sample of over 40,000 beginning students who were identified as SSS participants at 2-year and 4-year institutions. This group was then matched to others who did not participate in SSS but resembled the SSS participants in key characteristics.[178]

As shown in Indicator 7d(iii), the analysis found that SSS participants entering 2-year institutions were 48 percent more likely than non-participants to complete their associate degree or certificate or transfer to a 4-year institution in 4 years (46 percent vs. 31 percent). As shown in Indicator 7d(iv), SSS participants entering 4-year institutions were 18 percent more likely than non-participants to complete their bachelor's degree in 6 years compared with the matched comparison group (51 percent vs. 43 percent).

177 Zeiser, K.L., Heuer, R., & Cominole, R. (2019). *Comparing Student Outcomes Between Student Support Services Participants and Nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study.* Student Service Office of Postsecondary Education U.S. Department of Education. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/sssparticpantsinbpsls.pdf.

178 To create the subset of matched nonparticipants, propensity-score modeling was performed to identify respondents in the BPS:04/09 who did not participate in the SSS program but had observed background characteristics like those of the SSS participants as identified in the BPS:04/09.

Equity Indicator 7d(iii): Percentage of first-time freshman Student Support Services (SSS) participants and matched nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study (BPS:04/09) who entered 2-year institutions in 2003-04 and completed an associate degree or certificate or transferred to a 4-year institution (with or without receiving an associate degree or certificate) within 2, 3, and 4 years



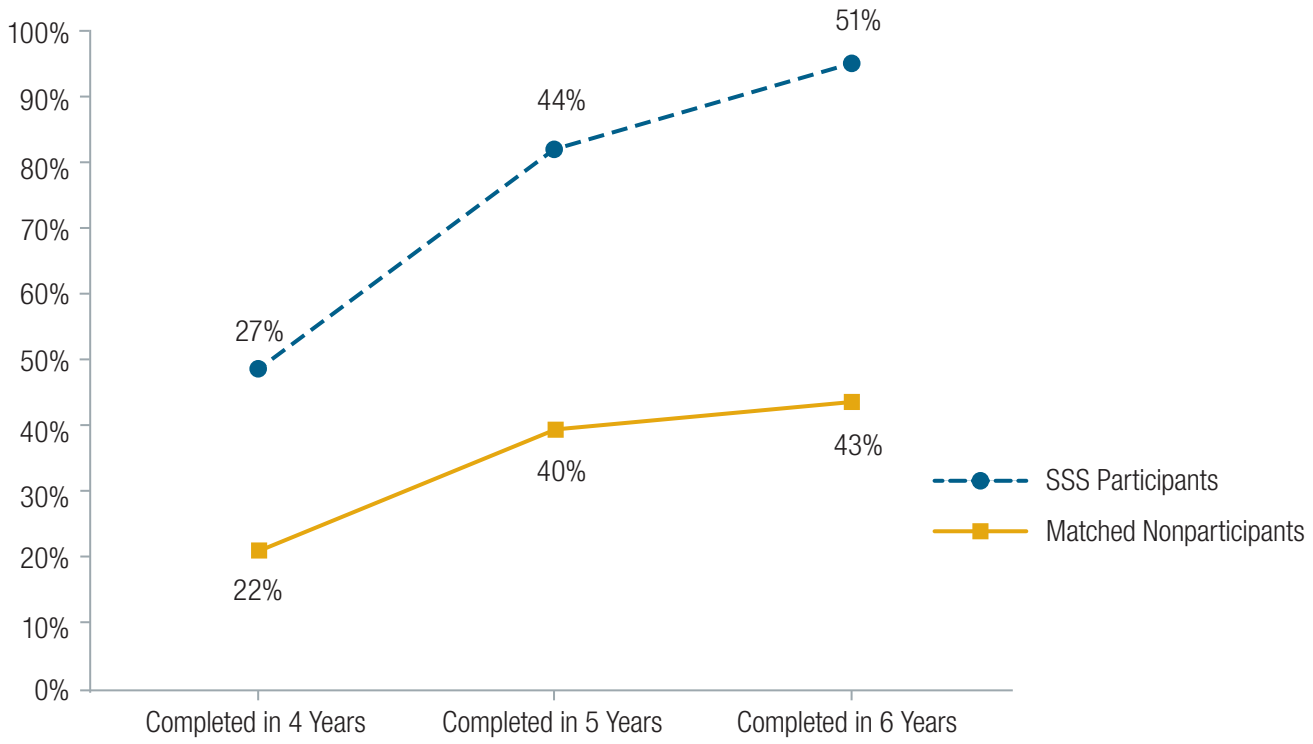
Indicator Status:

SSS participants were 48 percent more likely than nonparticipants to complete their associate degree or certificate or transfer to a 4-year institution in 4 years (46 percent vs. 31 percent).

NOTE: To create the subset of matched nonparticipants, propensity-score modeling was performed to identify respondents in the BPS:04/09 who did not participate in the SSS program but had observed background characteristics that were similar to those of the SSS participants identified in the BPS:04/09. The sample population was as follows SSS participants (n=150) and Matched nonparticipants (n=680).

SOURCE: Zeiser, K.L., Heuer, R., & Cominole, R. (2019). *Comparing Student Outcomes Between Student Support Services Participants and Nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study.* Student Service Office of Postsecondary Education U.S. Department of Education. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/sssparticpantsinbpsls.pdf.

Equity Indicator 7d(iv): Percentage of first-time freshman Student Support Services participants and matched nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study (BPS:04/09) who entered 4-year institutions in 2003-04 and completed a bachelor's degree within 4, 5, and 6 years



Indicator Status:

SSS participants were 18 percent more likely to complete their bachelor's degree in 6 years compared with the matched comparison group of nonparticipants (51 percent vs. 43 percent).

NOTE: To create the subset of matched nonparticipants, propensity score modeling was performed to identify respondents in the BPS:04/09 who did not participate in the SSS program but had observed background characteristics that were similar to those of the SSS participants identified in the BPS:04/09. SSS participants (n=110) and Matched nonparticipants (n=510).

SOURCE: Zeiser, K.L., Heuer, R., & Cominole, M. (2019). *Comparing Student Outcomes Between Student Support Services Participants and Nonparticipants in the 2004/09 Beginning Postsecondary Students Longitudinal Study.* Student Service, Office of Postsecondary Education, U.S. Department of Education. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/sssparticpantsinbpsls.pdf.

Upward Bound/Upward Bound Math-Science to Student Support Services Pathway: Indicator 7d(v) presents findings from a recent (2021) Department of Education report, *Postsecondary Degree Completion Rates Among Students on the Upward Bound/Upward Bound Math-Science to Student Support Services Pathway*.[179] This report uses data from the Department of Education data sources and the National Student Clearinghouse to study outcomes of postsecondary completion rates for UB/UBMS participants. The findings reveal differences based on SSS program participation and enrollment intensity.

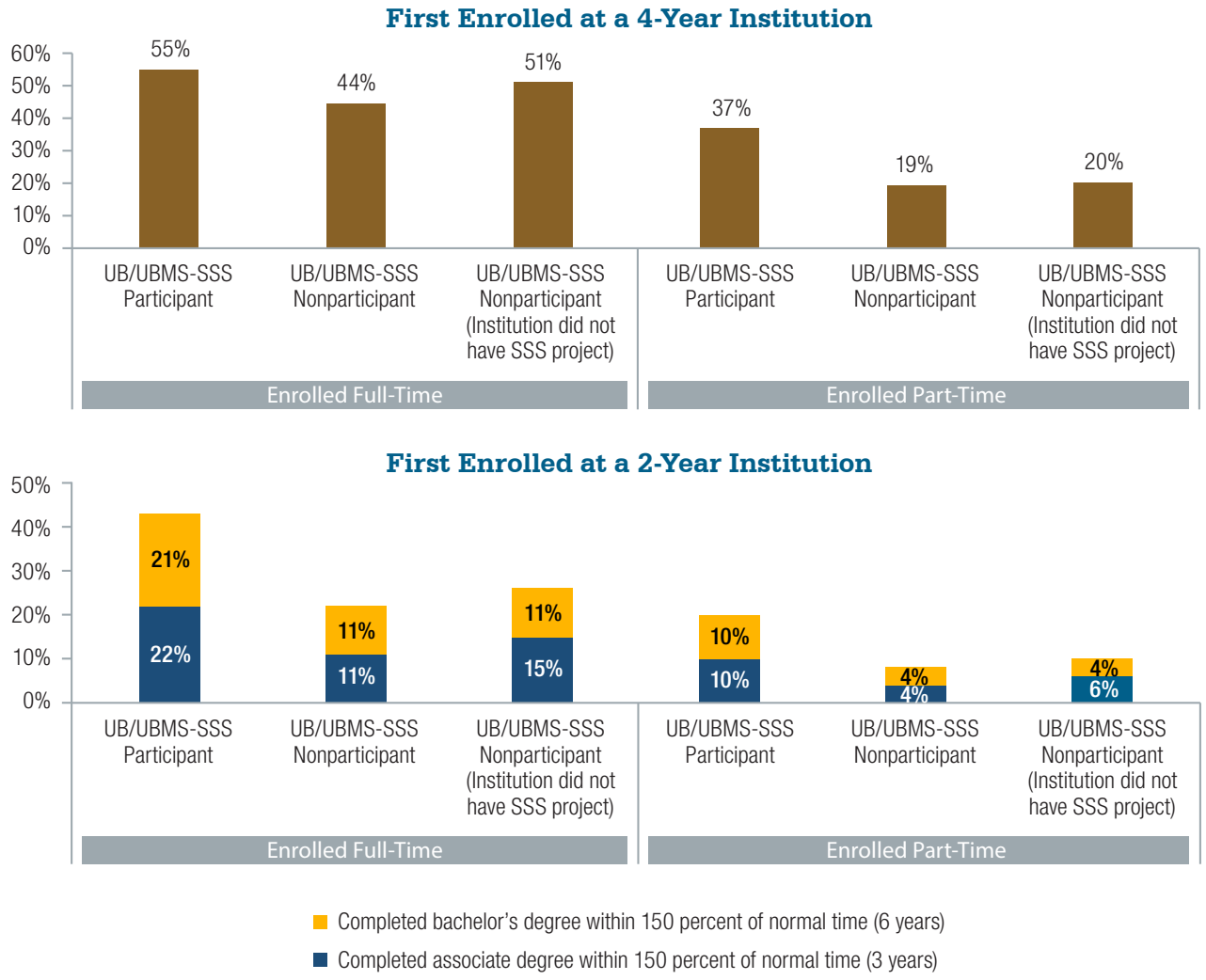
Students who participated in UB/UBMS in high school and also participated in SSS programs (UB/UBMS-SSS Participants) saw higher completion rates within 150 percent of normal time than did those who did not participate in SSS programs (UB/UBMS-SSS Nonparticipants). UB/UBMS-SSS participants who first enrolled full-time at a 4-year institution had a bachelor's degree completion rate of 55 percent, compared to 44 percent for nonparticipants. Of those enrolled part-time, UB/UBMS-SSS participants had a completion rate of 37 percent, compared to 19 percent of nonparticipants.

Similar results are found for students who first enrolled at two-year institutions. For those enrolled full-time, 22 percent of UB/UBMS-SSS participants completed an associate degree within 150 percent of normal time, and 21 percent completed a bachelor's degree; whereas 11 percent of nonparticipants completed an associate degree, and 11 percent completed a bachelor's degree.

For UB/UBMS-SSS participants who first enrolled part-time, 10 percent completed an associate degree, and 10 percent completed a bachelor's degree. In contrast, 4 percent of nonparticipants completed an associate degree, and 4 percent completed a bachelor's degree.

179 "Findings from this study are descriptive in nature. Service in the SSS program is a function of two selection processes: (1) students self-select whether to participate in SSS, and (2) grantees select students to serve through their recruitment efforts. Students who are served by the SSS program may differ from those who are not served in ways that matter relative to degree attainment. Since this report does not control for all differences related to selection processes, findings within this report are not sufficient to justify causal inference. They should instead be interpreted as descriptive." U.S. Department of Education, Office of Postsecondary Education, Student Service. (2021). *TRIO Fast Facts Report: Postsecondary Degree Completion Rates Among Students on the Upward Bound/Upward Bound Math-Science to Student Support Services Pathway*, Washington, D.C., Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ubssspathwaysreport.pdf.

Equity Indicator 7d(v): Among UB/UBMS cohort participants who first enrolled at an institution, completing a degree with 150 percent of normal time by enrollment status and SSS participation: Fall 2007 through Fall 2017



Indicator Status:

Higher degree completion rate for UB/UBMS participants who also participated in SSS programs.

The report from which this data is taken has the following NOTE: "Findings from this study are descriptive in nature. Service in the SSS program is a function of two selection processes: (1) students self-select whether to participate in SSS, and (2) grantees select students to serve through their recruitment efforts. Students who are served by the SSS program may differ from those who are not served in ways that matter relative to degree attainment. Since this report does not control for all differences related to selection processes, findings within this report are not sufficient to justify causal inference. They should instead be interpreted as descriptive."

SOURCE: U.S. Department of Education, Office of Postsecondary Education, Student Service. (2021). *TRIO Fast Facts Report: Postsecondary Degree Completion Rates Among Students on the Upward Bound/Upward Bound Math-Science to Student Support Services Pathway.* Washington, D.C. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/ubssspathwaysreport.pdf.

Ronald E. McNair Postbaccalaureate Achievement Program (McNair): The McNair program encourages and prepares low-income and minority students for doctoral study and to pursue careers in college teaching and research. The McNair program provides research opportunities and faculty mentoring to the McNair scholars that prepares them for graduate school entrance with financial support. In 2022-23, there were 5,677 McNair scholars at a total of 206 project sites. Although the funding per participant has decreased since the early days of the program (see Indicator 7a(vi)), McNair remains the most intensive of the TRIO programs, and it serves about .1 percent of the eligible population.[180]

In the early 2000s, the Department of Education sponsored a study describing outcomes for McNair participants who participated from 1989 to 1993.[181] The study concludes that "a high percentage (73 percent) of McNair participants with bachelor's degrees had enrolled in graduate school at some-time within a five- to seven-year period after receiving their bachelor's degree." More recent data from the 2020-21 APRs report that 71 percent of McNair Scholars who graduated in 2017-18 were enrolled in graduate school within 3 years, and 85 percent of students who first enrolled in graduate school in 2019-20 were found to have persisted into the 2020-21 academic year for their studies.[182]

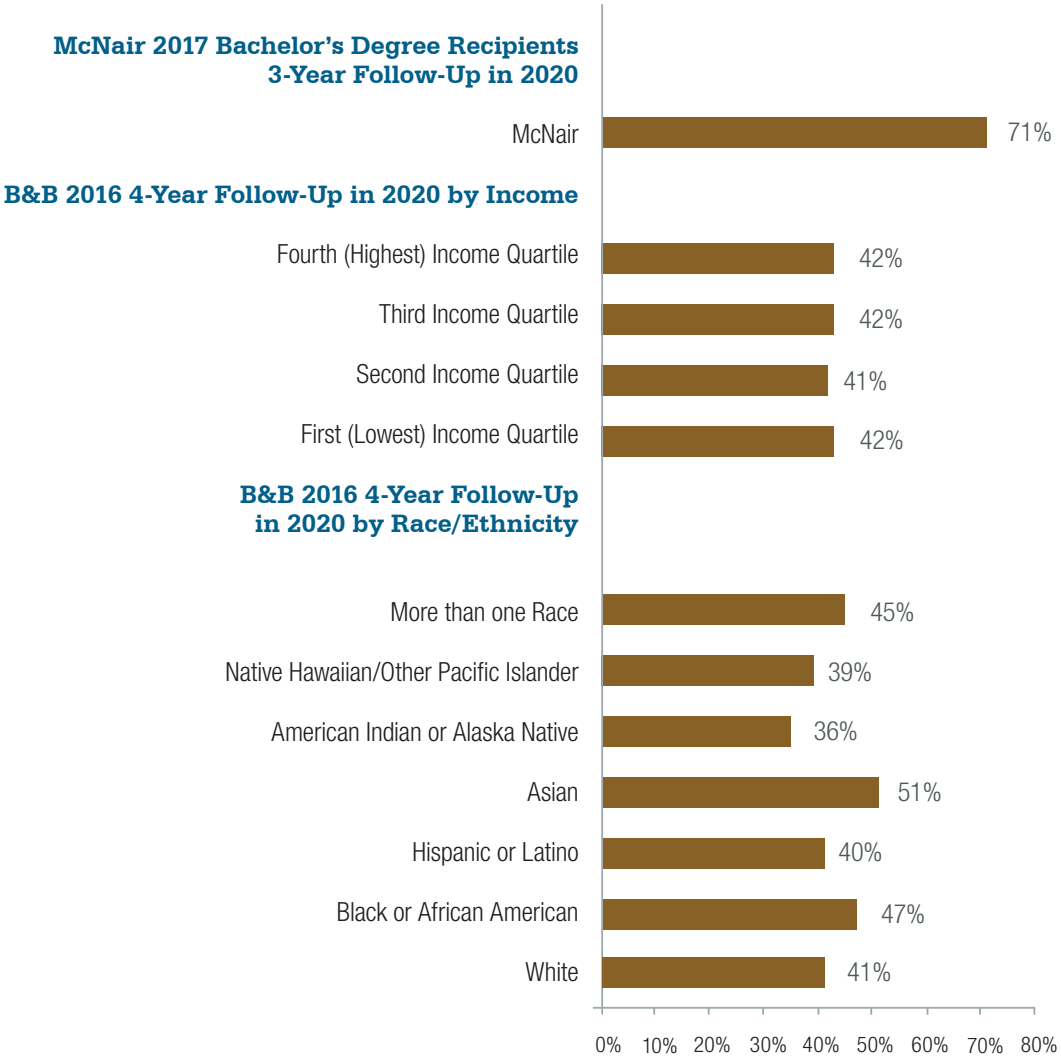
Data from the most recent 4-year follow-up from B&B:2016/2017 cohort can provide some national benchmarks (Indicator 7d(vi)). The Baccalaureate and Beyond (B&B) longitudinal study found that for the 2016 graduating cohort, 42 percent overall and 47 percent of recent Black bachelor's degree recipients had enrolled in any postbaccalaureate program four years later. McNair Scholars with a 71 percent graduate enrollment rate 3 years after bachelor's award were 69 percent more likely to enroll in graduate school than the national averages at 4 years for similar populations (71 percent vs. 42 percent).

180 Eligibility determined by total number of Pell Grant recipients.

181 McCoy, A., Wilkinson, A., & Jackson, R. (2008). *Education and Employment Outcomes of the Ronald E. McNair Postbaccalaureate Achievement Program Alumni*. Decision Information Resources, Inc. U.S. Department of Education, Office of Planning, Evaluation and Policy Development Policy and Program Studies Service. Retrieved from https://www2.ed.gov/rschstat/eval/highered/mcnair/mcnair.pdf.

182 U.S. Department of Education. (2022). *Ronald E. McNair Postbaccalaureate Achievement Program, Project and Program Measures for Government Performance and Results Act (GPRA) Reporting Period: 2020-21*. Washington, D.C. Retrieved from https://www2.ed.gov/programs/triomcnair/mcnair202021granteelevelgpranarrative.docx.

Equity Indicator 7d(vi): Percentage of McNair 2017-18 bachelor's degree recipients who enrolled in post-baccalaureate studies by 3 years after attaining a bachelor's degree, with benchmark data from B&B national data on enrollment rates in any post-baccalaureate degree program by 4 years after bachelor's award by family income quartiles and race/ethnicity



Indicator Status:

McNair Scholars were 67 percent more likely to enroll in graduate school 3 years after being awarded a bachelor's degree than the national averages at 4 years after bachelor's award for similar populations (71 percent vs. 42 percent).

NOTE: For the B&B statistics, in addition to master's and doctoral programs, "Enrolled in Any Program" also includes a small percentage of individuals enrolled in other programs (associate's degree, undergraduate certificate, additional bachelor's degree, and post-bachelor's certificates).

SOURCE: U.S. Department of Education. (2022). *Fast Facts Report for Ronald E. McNair Postbaccalaureate Achievement Program: 2019–20*, Washington, D.C; Retrieved from https://www2.ed.gov/programs/triomcnair/mcnair202021granteelevelgpranarrative.docx; U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Longitudinal Study (B&B 2016/2020). Tabulated using NCES PowerStats using variables B2ENRPG, RACE, and INCQUART.

ESSAYS

WHAT DOES IT MEAN? THE SEARCH FOR SOLUTIONS-SHARED DIALOGUES ESSAYS

In this concluding section, we present five essays that address the Shared Solutions Dialogue theme of the 2024 Equity Indicators 50 Year Historical Trend report, "The Paradox of U.S. Higher Education: Confronting Realities, Exploring Solutions."

The Indicators Reports are written to inform the conversation about higher education equity issues and to foster a mandate to both monitor our progress and to search for and support policy and practices leading to greater equity in educational opportunity. It is the intent of the Equity Indicators Project that each year's report will initiate ongoing dialogues that will accompany the annual monitoring of our progress with periodic essays on related topics of interest.

In this concluding section, we present five essays that address the 2024 Shared Solutions Dialogue theme "The Paradox of U.S. Higher Education: Confronting Realities, Exploring Solutions." These essays address difficult questions raised by the data in the Equity Indicators report series, exploring the paradox that higher education is a major agent of providing the opportunity for mobility, but paradoxically, it has also become a major means of furthering stratification and inequality in the knowledge economy. It is also a major agent of innovation and change to help provide solutions to the global challenges faced in today's society, but also a major legitimizer of the status quo. The five essays, explore these paradoxes, and are intended to foster dialogues with regard to the issues they raise.

Bridging the ROI Gap: Adding Holistic Discourse to the Paradox of Postsecondary Value

Stephanie M. Breen, The Pell Institute for the Study of Opportunity in Higher Education[183]

In recent years, national headlines have spotlighted growing skepticism regarding the value of post-secondary credentials. Publications such as The New York Times[184] and The Wall Street Journal[185] have raised questions whether the benefits of attending college justify the expenses involved, given the increasing costs of tuition and mounting student loan debt. This skepticism is reflected in recent Gallup polls,[186] which reveal a steady decline in the American public's confidence in higher education, dropping to 36 percent in 2023, a 12-percentage point decline from 2018 polls.

Despite research indicating the positive impact of higher education on employment outcomes and lifetime earnings,[187] returns on investment are not uniformly distributed among different socioeconomic groups.[188] Within the higher education context, the concept of return on investment (ROI) refers to the net profit or benefits gained relative to the initial investment of a post-secondary credential.[189] Students from low-income backgrounds often attend institutions with lower return on investment rates compared to their higher-income counterparts, raising questions about whether higher education is indeed the right step for them.

Once upheld as a pathway to economic advancement, higher education is riddled with numerous affordability challenges, limiting access for many, particularly those from historically marginalized communities.[190] [191] In 2023, the United States grappled with a staggering $1.73 trillion in student loan debt, affecting 43 million borrowers

183 All views expressed in this essay are the sole responsibility of the author, and do not represent the position of The Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania(PennAHEAD).

184 Barbaro, M. (2023, September 20). Is College Worth It? [Audio podcast]. *The Daily.* Retrieved from https://www.nytimes.com/2023/09/20/podcasts/the-daily/is-college-worth-it.html.

185 Belkin, D. (2023, March 31). Americans Are Losing Faith in College Education, WSJ-NORC Poll Finds. *The Wall Street Journal.* Retrieved from https://www.wsj.com/articles/americans-are-losing-faith-in-college-education-wsj-norc-poll-finds-3a836ce1.

186 Brenan, M. (2023, July 11). Americans' Confidence in Higher Education Down Sharply. *Gallup.* Retrieved from https://news.gallup.com/poll/508352/americans-confidence-higher-education-down-sharply.aspx.

187 Abel, J. R., & Deitz, R. (2019). *Despite rising costs, college is still a good investment* (No. 20190605). Federal Reserve Bank of New York. Retrieved from https://libertystreeteconomics.newyorkfed.org/2019/06/despite-rising-costs-college-is-still-a-good-investment/; Mortenson, T. (2014), *"Unequal Family Income and Unequal Higher Education Opportunity, 1970 to 2013*", Postsecondary Educational Opportunity, Pell Institute for the Study of Opportunity in Higher Education, Washington DC. Retrieved from https://community.coenet.org/peoarchive/access-peo; Trostel, P. & Smith, M. C. (2015). *It's not just the money: the benefits of college education to individuals and to society.* Center & School of Economics, University of Maine, Lumina Foundation. https://www.luminafoundation.org/files/resources/its-not-just-the-money.pdf.

188 Equity Indicators 5a(i) and 5a(ii). Original source: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, Postsecondary Education Opportunity (PEO) Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

189 Lovenheim, M., & Smith, J. (2023). Returns to different postsecondary investments: Institution type, academic programs, and credentials. *In Handbook of the Economics of Education, 6*, 187-318. Retrieved from https://doi.org/10.1016/bs.hesedu.2022.11.006; Carnevale, A. P., Cheah, B., & Van Der Werf, M. (2022). *The Colleges Where Low-Income Students Get the Highest ROI.* Washington, D.C.: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/cew-reports/lowincome/.

190 Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Nrang, J. (2017). The Fading American Dream: Trends in Absolute Income Mobility since 1940. *Science, 356*(6336), 398–406. Retrieved from http://science.sciencemag.org/content/356/6336/398/tab-pdf.

191 Hillman, N. W., & Crespin-Trujillo, V. (2017). Access and affordability. In *The Challenge of Independent Colleges: Moving Research into Practice* (pp. 47–70), Johns Hopkins University Press.

nationwide.[192] Notably, Students of Color tend to bear a heavier burden of this debt compared to their White counterparts.[193] Among them, Black women carry the greatest load of student debt compared to all other racial, ethnic, and gender groups.[194 195] Such a disproportionate burden of debt exacerbates inequalities in various aspects of life, including homeownership, income stability, and the accumulation of generational wealth.[196] Consequently, inequitable returns on investments and disparities in student loan debt ultimately present a burden for our most diverse learners.

Across generations, perceptions of college and its value have evolved in tandem with labor market trends and sociopolitical shifts. As a result, our understanding of "postsecondary value" today must adapt accordingly. Adopting a holistic perspective on postsecondary value offers an opportunity to address the paradox of assessing education solely through a financial lens and its returns. It also broadens the range of ways in which value can be communicated, understood, and implemented by P-20 educators and administrators.

The Lumina Foundation[197] and Gates Foundation[198] have invested in studies that explore the non-economic benefits of a college education, highlighting its impact on graduates' lives from a human development standpoint. Participation in higher education has been shown to improve critical thinking skills, psychosocial development, and interpersonal competencies. In addition, access to higher education sparks greater interest in civic engagement, including participation in political processes and volunteerism.[199 200 201] Furthermore, researchers have found that college attainment is associated with better health outcomes and behaviors, as well as a higher probability of successful marital relationships.[202]

Joining in this conversation, the Pell Institute, in partnership with the Lumina Foundation, launched a mixed-methods study emphasizing the holistic value of post-secondary credentials from the perspectives of Black, Latinx, and Indigenous college students. Preliminary findings from student surveys affirm that, beyond economic advantages, a college education provides substantial professional, personal, familial, and social benefits to students from diverse backgrounds. For instance, 90 percent of students reported higher confidence and self-

192 Equity Indicator 4c(i a&b). Original Source: Hanson, M. (2024, March 4). *Student Loan Debt Statistics*. Education Data Initiative. Retrieved from https://educationdata.org/student-loan-debt-statistics.

193 Charron-Chénier, R., Seamster, L., Shapiro, T. M., & Sullivan, L. (2022). A Pathway to Racial Equity: Student Debt Cancellation Policy Designs. *Social Currents, 9*(1), 4-24. https://doi.org/10.1177/23294965211024671.

194 Jackson, V., & Williams, B. (2022). How Black Women Experience Student Debt. *Education Trust*. Retrieved from https://edtrust.org/wp-content/uploads/2014/09/How-Black-Women-Experience-Student-Debt-April-2022.pdf.

195 Bostick, D. N., (2021). *The individual and shared narratives of black women repaying student loan debt* (Doctoral dissertation, University of Georgia. College of Education). Retrieved from https://esploro.libs.uga.edu/esploro/outputs/9949391257302959.

196 Scott-Clayton, J., & Li, J. (2016). Black-white disparity in student loan debt more than triples after graduation. *Economic Studies, 2*(3), 1-9. Retrieved from https://www.brookings.edu/articles/black-white-disparity-in-student-loan-debt-more-than-triples-after-graduation/.

197 Lumina Foundation and Gallup (2023). *Education for What? The New Realities of Higher Education in America.* Retrieved from https://www.luminafoundation.org/resource/education-for-what/.

198 https://usprogram.gatesfoundation.org/news-and-insights/usp-resource-center/resources/postsecondary-value-commission

199 Arum, R., Eccles, J. S., Heckhausen, J., Orona, G. A., von Keyserlingk, L., Wegemer, C. M., & Yamaguchi-Pedroza, K. (2021, December 6). A framework for measuring undergraduate learning and growth. *Change: The Magazine of Higher Learning, 53*(6), 51-59. Retrieved from https://doi.org/10.1080/00091383.2021.1987810.

200 Carnevale, A. P., Peitier Campbell, K., Cheah, B., Fasules, M. L., Gulish, A., Quinn, M. C., Sablan, J. R., Smith, N., Strohl, J., & Barrese, S. (1970, January 1). *The Cost of Economic and Racial Injustice in Postsecondary Education.* Georgetown University Center on Education and the Workforce. Retrieved from https://repository.library.georgetown.edu/handle/10822/1062944.

201 Postsecondary Value Commission. (2021). *Equitable value: Promoting economic mobility and social justice through postsecondary education.* Retrieved from https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-Final-Report-FINAL.pdf.

202 Marken, S. (2021, May). E*nsuring a more equitable future: Exploring the relationship between wellbeing and postsecondary value.* Postsecondary Value Commission. Retrieved from https://eric.ed.gov/?id=ED612652.

awareness as well as improved skills in how to engage with diverse perspectives and ideas during their college experience. Attending college not only broadens students' perspectives on life, community, and society but also instills a desire to use their degrees as tools for empowerment and social change. It is unsurprising that over 80 percent of students expressed this sentiment, considering that some college graduates, particularly those from marginalized backgrounds, aspire to attain leadership positions in the workforce that position them to drive significant societal change.[203]

Initial findings from the same student survey also shed light on the vital role of college experiences in developing strong social networks and social capital for students. Four out of five college students found value in the connections formed with peers and faculty through classroom and campus organization interactions, as they perceived increased access to future opportunities as a result of these networks.

While investigations into the nonmonetary benefits of postsecondary education continue at the Pell Institute and other higher education advocacy spaces, what is known about its intrinsic value from today's student perspective complicates narratives surrounding perceptions of the decreased worth of college.

Thus, restoring faith in the value of college credentials requires caution and recognition of the complexities involved. Proposals to tackle the affordability crisis, like doubling the Pell Grant, freezing tuition, expanding free college programs, and increasing state and federal aid provide initial steps towards increasing the economic value of higher education. While working to enhance the economic value of higher education is imperative, it is equally important to invest in programs and institutional agents that provide holistic support and value to students. Value can be expressed and propagated throughout institutions by virtue of TRIO Programs and similar initiatives, which offer comprehensive wraparound services encompassing advising, mentorship, and academic and professional development opportunities that have been shown to contribute to positive student outcomes and experiences.[204] [205] [206] [207]

Within a system of inequity, leveraging different forms of postsecondary value represents an opportunity to deliver on America's promise of social and economic mobility through higher education. These values can only be fully realized once comprehensive structural reforms are implemented to dismantle systemic barriers to equitable access and opportunity in higher education.

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203 McGee, E., & Bentley, L. (2017). The equity ethic: Black and Latinx college students reengineering their STEM careers toward justice. *American Journal of Education, 124*(1), 1-36. Retrieved from https://doi.org/10.1086/693954.

204 Cravens, S. J. (2023). TRIO works: *A comparative analysis of trio student support services program participants and trio eligible non-participants at a Midwest community college* (Doctoral dissertation, University of Illinois at Urbana-Champaign). Retrieved from https://hdl.handle.net/2142/121989.

205 Breen, S. M. (2023). *Networks That Matter: An Exploratory Case Study on the Significance of Peer Networks for Graduate School Choice Among Students of Color in a McNair Program* (Doctoral dissertation, University of Maryland, College Park). Retrieved from http://hdl.handle.net/1903/30786.

206 Garcia, N., & Cuellar, S. (2023). First-Generation College Students' Motivations to Succeed: An Analysis of Experiences With TRIO Programs Through a Self-Determination Theory Perspective. *Journal of First-generation Student Success, 3*(3), 177-192. Retrieved from https://doi.org/10.1080/26906015.2023.2245428.

207 Vaughan, T., & Renbarger, R. (2024). Enhancing TRIO Programs for Rural Students of Color: An Exploratory Study. *In Race and Rurality* (pp. 99-114). London: Routledge.

Understanding the Need to Address the Growing Divide Among States in Educational Attainment

Nicole Brunt and Margaret Cahalan, The Pell Institute for the Study of Opportunity in Higher Education[208]

As we approach the completion of the first quarter of the 21st century, the United States is at a crossroads regarding higher education. The 21st century's knowledge-based global economy requires highly educated workers to understand and address current challenges, and postsecondary education is increasingly required to provide families with a living wage. However, within the context of an extractive consumer-based economic system, combined with increasing inequality, the surging costs of college have been pricing many students, especially low-income students, out of the chance to earn a college degree. Moreover, as Equity Indicator 5h(v) shows, the "chance for a college degree" varies considerably based on the U.S. state in which you live. Each state has its own unique structures for politics, education, finance/economy, demographic composition, and culture, resulting in substantial 21st-century differences in higher educational attainment among the states. On many issues, these growing disparities contribute to an increasingly divided country. In this essay, we explore historical trends and the entanglement of employment and educational differences among the states. We consider where we were, where we are now, and where we might hope to be in the future.

The Rise of Higher Education in the 20th Century.

Towards the end of the 19th century and the beginning of the 20th century, the United States recognized the growing importance of educating its future population. By 1918, all the states had enacted compulsory attendance laws to ensure that all the children would have access to education to prepare them for their future roles as workers and members of society.[209] With these laws, the United States saw an increase in the population age 25 and over who graduated high school, from 16.4 percent in 1920 to 41.1 percent in 1960, and by 2022, 90 percent of the population in almost all states had attained a high school diploma. By 2000, about 24 percent, and by 2022, 38 percent had attained a bachelor's degree, up from 5 percent in 1940.[210] During the period up to 1960, the economy comprised mostly goods-producing industries; however, after 1960, private services and consumer exchange industries, often based on goods produced outside of the United States, became the largest portion of the economy.

The rapid growth of higher education in the U.S. after World War II led to the United States becoming a recognized leader among nations in the education of its population. However, as Equity Indicators 6a and 6b (based on OECD data for 39 countries) demonstrate, the U.S. bachelor's degree attainment rate among the population age 24 to 35 fell from 2nd among OECD-ranked countries in 2002 to 18th in 2022, and from 6th to 14th when short cycle or associates degrees are included in addition to BA or higher degrees.[211] This data indicates that the U.S. rate of 41 percent bachelor's degree attainment is now just below the OECD country average of 42 percent. The U.S. had a substantially lower growth rate of 31 percent over the last 20 years compared to many other developed countries. For example, Australia had an 81 percent growth rate, and the OECD average country rate of growth was 119 percent.

208 All views expressed in this essay are the sole responsibility of the authors, and do not represent the position of The Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD). Each author contributed equally to this essay.

209 Sanchez, M. (2023, December 24). *Is school mandatory in the US?* A detailed look at Compulsory Education Laws. Save Our Schools. Retrieved from https://www.saveourschoolsmarch.org/is-school-mandatory-in-the-us/.

210 U.S. Department of Education, National Center for Education Statistics. (2022). Table 104.10 Rates of high school completion and bachelor's degree attainment among persons age 25 and over, by race/ethnicity and sex: Selected years, 1910 through 2022. *Digest of Education Statistics 2022.* Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_104.10.asp.

211 OECD. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/e13bef63-en.

The national data, however, mask large differences among the U.S. states (Equity Indicator 5h(v)). The states with the largest percentage of college attainment among the population of 24- to 35-year-olds, Massachusetts (57 percent), New Jersey (51 percent), and New York and Colorado (50 percent), are more like those countries that lead in the OECD listing. At the other end of the spectrum, those states with the lowest attainment percentages, Nevada (25 percent), and Mississippi and New Mexico (26 percent), are more like those OECD countries who are closer to the bottom of the listing.

This growing divergence among the states illustrates the fact that in a system in which parent education is the most significant predictor of the likelihood of a child's entrance into and graduation from college, there is a positive reinforcing feedback loop operating.[212] States that start with higher attainment rates among parents will develop knowledge-based economies and increase jobs requiring higher education more rapidly than states starting with fewer college-educated parents. Without federal and state partnerships providing incentives and financial means to widen participation across all states, the differences between states are likely to grow. Those state economies that historically have relied on extractive industries not requiring higher education such as fossil fuel-based industries (for example, coal mining and oil production), which now may pay a living wage but are not likely to do so in the future, may face a difficult transition. Other states with higher starting educational levels will continue to have increased opportunities to grow a knowledge economy, fostering growth in the science, technology, engineering, and math fields (STEM).[213]

One of the factors affecting the decision to go to college and persist is the potential for employment within reach of students. Among the 50 states, using BLS data, the percentage of persons employed in jobs requiring a bachelor's degree or higher ranges from 23 percent in West Virginia, a state with one of the lowest bachelor's attainment rates, to a high of 37 percent in Massachusetts, a state with the highest rate of bachelor's attainment (STS Figures 7f and 8e and 8f). In 2022, BLS statistics indicated that about 29 percent of the workforce was employed in jobs requiring a BA or higher for entry.[214] In 2022, BLS data also indicate that jobs that do not require any postsecondary education remained at 60 percent of the available jobs (projected to decline only slightly to 59 percent by 2032). On average, despite the fact that these jobs are often essential for the wellbeing of society, many of these jobs, unjustly, do not pay a living wage. This makes it increasingly difficult for these families to afford college for their children, even with some financial assistance. The fact that these jobs comprise most of the jobs currently available in some areas of the country contributes to an increasing divide among the population by state of residence.

Although occupations needing college degrees are growing,[215] the decision to go to college is not an easy and simple one for many people.[216] For most potential college students and their families, the cost of college is at

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212 Systems Thinking Tools and Techniques / Feedback Loops and Systems Archetypes (101.school). (n.d.). https://101.school/courses/systems-thinking/modules/2-systems-thinking-tools-and-techniques/units/2-feedback-loops-and-systems-archetypes.

213 Carnevale, A.P., Smith, N., Van Der Werf, M., and Quinn, M.C. (2023). *After Everything: Projection of jobs, education, and training requirements through 2031.* Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/Projections2031-National-Report.pdf and https://cew.georgetown.edu/wp-content/uploads/Projections_2031-State-Report.pdf.

214 U.S. Bureau of Labor Statistics Employment Projections program (2023) Retrieved from https://www.bls.gov/emp/tables/education-summary.htm; https://www.bls.gov/emp/.

215 Some scholars predict larger changes to the occupational education requirements than those predicted by BLS. Carnevale, A.P., Smith, N., Van Der Werf, M., and Quinn, M.C. (2023) state. "By 2031, 72 percent of jobs in the US will require postsecondary education and/or training. And considering just those jobs requiring a bachelor's degree, by 2031, 43 percent of all jobs will require at least a bachelor's or higher degree."

216 Blake, J. (2023, November 8). *Weighing Perceptions Against Realities of Going to College.* Inside Higher Ed. Retrieved from https://www.insidehighered.com/news/students/financial-aid/2023/11/08/cost-attendance-one-many-college-decision-influences; Markert, J. (2019, May 30). Twitter poll: *Cost is top factor when choosing a college.* USA Today. Retrieved from https://www.usatoday.com/story/sponsor-story/college-ave-student-loans/2019/05/30/twitter-poll-cost-top-factor-when-choosing-college/1290536001/; Seltzer, R. (2017, March 22). *Turning Down Top Choices.* Inside Higher Ed. Retrieved from https://www.insidehighered.com/news/2017/03/23/study-shows-how-price-sensitive-students-are-selecting-colleges.

the top of the list of factors when determining where, if, and when they go to college. Although states differ in the degree to which higher education is supported, compared to 1980, by 2022 every state had reduced its investment of tax dollars in higher education.[217] Given the growing college wage premium, a state's median family income is highly associated with the percentage of the population with bachelor's or higher degrees. It is often the poorest states that have larger allocations per $1,000 dollars of income for higher education, but the differences in average income levels by state means that far fewer dollars are available for higher education within poorer states than states with more income per capita.

With less tax dollars helping to fund higher education, students and their families are left footing the bill. Which is not a big deal if they can afford the ever-rising costs of earning a college degree. However, when looking at the Free and Reduced School Lunch program data, the majority of students now come from low-income families.[218] Typically, states in the South (Mississippi, Louisiana) had the highest rates of students eligible for the Free and Reduced School Lunch program, and states in the Northeast and West (New Hampshire, Nevada, Massachusetts) had the lowest rates. In over 30 years, the percentages have increased substantially, moving from an average of 31 percent of students being "low-income" to 57 percent.[219] In other words, on average, our country's children are becoming poorer.

Although the percentage of low-income equity-deserving students has increased, as Equity Indicator 3b(ii) shows, the average Cost of Attendance (COA) covered by Pell Grants has declined from about 67 percent in the early decades of the program and is now at about 25 percent. As NPSAS:2020 data in Equity Indicator 4b(ii) show, for those in the lowest family income quartile, the net price of college after all grants but not loans were considered would constitute 90 percent of the average income for families in the bottom quartile of family income. The ever-rising costs of college may continue to price low-income students out of college, and the possibility of student loans and debt may be a sacrifice that some students are not able to bear. Looking at the data on enrollment among low-income students over the last 20 years, less than 10 percent of low-income Alaskan students were willing to make this sacrifice and enroll in college, with slightly more in Oklahoma and New Mexico. Low-income students in the Northeast (New Jersey, New Hampshire) were more willing to bear the burden, but they grew less willing to do so by 2022. (Indicator 1i(ii)).

At one time, states were helping more to fund higher education, which contributed to our future; now they're less able to do so or choosing not to do so, and rising college costs are pricing low-income students out of enrolling in college while the population of low-income students is rising. Where does that leave the United States? With the rich getting richer and the poor getting poorer. Strong and well-funded federal-state partnerships must be developed to provide additional support and incentives, to ensure that every person across the many different U.S. states has an opportunity to gain an education that equips them to fully participate in the U.S. 21st-century knowledge economy.

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217 Per capita income data from Bureau of Economic Analysis, https://bea.gov/regional/index.htm; State appropriation data compiled by the Grapevine Project, https://education.illinoisstate.edu/grapevine. Analyzed by Tom Mortenson and Nicole Brunt. Postsecondary *Education Opportunity (PEO) Newsletter* and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo.

218 U.S. Department of Agriculture (USDA), Food and Nutrition Services, Free and Reduced-Price Lunch data various years 1989 to 2020. Data supplied by staff at the USDA

219 U.S. Department of Agriculture (USDA), Food and Nutrition Services, Free and Reduced-Price Lunch data various years 1989 to 2020. Data supplied by staff at the USDA.

The Merit Paradox: Increasing Equity in Higher Education First Requires Acknowledging the Myth

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"Every system is perfectly designed to get the results it gets."
— W. Edwards Deming

One of the most successful tools of the American higher education system is the belief in merit. Merit is both a cause, a result, and a justification. Students who go to college have earned it. Students who graduated from college have worked hard. And students who failed or never even got into college must not have been good students. Students at Ivy League universities are there because of their superior intelligence, and students who are in the least selective and most under-resourced institutions should have studied harder. Through merit, the system wipes its hands clean of any wrongdoing and places responsibility over the cache of lifelong opportunities squarely on the shoulders of students.

Merit, in its simplest form, means that one has earned something. It is the belief that someone deserves recognition or awards due to their skills or intelligence. Merit is often propagandized as the American Dream, where if you pull yourself up by your bootstraps you can achieve success, wealth, and influence. One's life circumstance is a direct result of how much hard work they have put into getting there. Merit removes luck from the equation, and thus it removes misfortune. Conveniently, it also ignores the backdoors afforded to wealthy families to get their children with less than stellar "merit" into the country's top colleges (e.g., the Varsity Blues scandal as reported by Leston, 2023).[221]

Students from the top one percent of America's wealthiest families are 77 times more likely to enroll in an Ivy League college than a student from America's poorest families.[222] Many of the data in this Indicators report reinforce this fact (Equity Indicators 2d, 2e, 2f, Appendix A3, and Appendix A4).[223] College is all but a guarantee for the richest kids in America, but it is far from a tangible opportunity for the nation's poorest children. Since a newborn has hardly earned a college acceptance letter through hard work and dedication, this finding is very lucky for virtually all the nation's wealthiest children. Yet, what a misfortune for most of the poorest children in America.

Still, merit is used to justify the permanence of rich students in highly selective colleges and universities, while also being used to praise the select few of the country's poorest students who successfully navigate the minefield of barriers in front of them and get enough good grades to be invited to the Ivy League party. Merit ignores the inequitable access to America's top colleges while simultaneously being used to reinforce and justify the sustained gaps in access to higher education. For example, Black students remain underrepresented at all but 9 percent of America's 101 most selective public institutions, and only 14 percent of these institutions enroll Latinx

220 All views expressed in this essay are the sole responsibility of the author, and do not represent the position of The Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania(PennAHEAD).

221 Leston, A. (2023, December 5). Varsity blues scandal explained. *BC Law: Boston College Law School Magazine.* Retrieved from https://lawmagazine.bc.edu/2023/12/varsity-blues-sandal-explained/.

222 Chetty, R., Friedman, J. N., Saez, E., & Turner, N. (2017). *Mobility report cards: The role of colleges in intergenerational mobility.* National Bureau of Economic Research, Working Paper 23618. Retrieved from https://www.nber.org/system/files/working_papers/w23618/w23618.pdf.

223 Cahalan, M.W., Brunt, N., Breen, S., Montenegro, E., Vaughan III, T, & Perna, L.W. (2024). **Indicators of Higher Education Equity in the United States: 2023 Historical Trend Report.** Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education, Council for Opportunity in Education (COE), and Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD).

students at rates that are representative of their state's Latinx population.[224] We know that Black and Latinx students are disproportionately more likely to be from low-income backgrounds and live in poverty,[225] so we cannot ignore that when we talk about students from the poorest families in America, we are likely talking about high percentages of Black and Latinx students.

So, are we to believe that Black and Latinx students are truly less capable to the extent that they cannot even attain representative access to America's best colleges? After all, merit tells us that if there were enough worthy Latinx students, they would be enrolled in droves. And there's the paradox. Intelligence differences between races/ethnicities have long been disproven and, though there is a revival of scientific racism in recent times,[226] the fact remains that merit is not a good excuse, explanation, or justification for these equity gaps. Instead, we must admit that the merit fallacy is doing exactly what the system intended it to do: sustain outcomes for the wealthy and limit outcomes for all others, while leaving just enough semblance of opportunity and access to quell dissent. Under this system, when access feels like a reward, students from lower socioeconomic backgrounds are too happy celebrating their invitations to question why their brothers and sisters are not along for the ride; meanwhile, multiple generations of rich families have deep roots within the most resourced, most prestigious institutions.

Higher education has allowed the merit fallacy to persist even with the one lever that can close the gap for many students: financial aid. The type of financial aid afforded to college students falls into two categories: merit-based or need-based aid. While we would like to think that merit-based aid is all about rewarding students who have worked hard and earned good grades in high school, that is not the case. Colleges and universities are increasingly using merit scholarships to lure wealthy students and out-of-state students who pay higher tuition regardless of grades.[227] [228] In fact, public colleges have nearly tripled their spending on non-need-based aid from 2001 to 2017, collectively increasing that aid from $1.1 billion to $3 billion.[229]

Research has shown that easing the financial burden on students will greatly increase the chances that they enter, persist, and succeed in college.[230] This is especially true for students who are from low-socioeconomic backgrounds or who are Black, Indigenous, and People of Color (BIPOC). However, these students are not the ones receiving the majority of merit-based financial aid. Both Black and Latinx students tend to borrow money to support their college education (See Equity Indicators 4d(i a&b), 4d(ii a&b), 4e(ii), 4e(iii a&b), 4e(iv a&b), and 4e(va&b) in this report) with Black students taking on more debt than any other demographic to pay for college. For Black and Latinx students, receiving more generous financial aid packages could increase their enrollment

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224 Nichols, A. H. (2020). *"Segregation forever?" The continued underrepresentation of Black and Latino undergraduates at the nation's 101 most selective public colleges and universities.* The Education Trust. Retrieved from https://edtrust.org/wp-content/uploads/2014/09/Segregation-Forever-The-Continued-Underrepresentation-of-Black-and-Latino-Undergraduates-at-the-Nations-101-Most-Selective-Public-Colleges-and-Universities-July-21-2020.pdf.

225 Creamer, J. (2020). *Inequalities persist despite decline in poverty for all major race and Hispanic origin groups.* U.S. Census Bureau. Retrieved from https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html.

226 Evans, G. (2018, March 2). *The unwelcome revival of 'race science'*. The Guardian. Retrieved from https://www.theguardian.com/news/2018/mar/02/the-unwelcome-revival-of-race-science.

227 Barshay, J. (2023, July 31). Poof points: *Surprising patterns in who gets merit and need-based aid from colleges.* The Hechinger Report. Retrieved from https://hechingerreport.org/proof-points-surprising-patterns-in-who-gets-merit-and-need-based-aid-from-colleges/.

228 Knox, L. (2023, December 11). '*Merit scholarship' or enrollment incentive?* Inside Higher Ed. Retrieved from https://www.insidehighered.com/news/admissions/traditional-age/2023/12/11/rise-non-need-merit-aid-raises-equity-concerns.

229 Burd, S. (2020). *Crisis point: How enrollment management and the merit-aid arms race are derailing public higher education.* New America. Retrieved from https://d1y8sb8igg2f8e.cloudfront.net/documents/Crisis_Point_2020-02-10_FINAL.pdf.

230 Bussey, K., Dancy, K., Parker, A. G., Peters, E. E., & Voight, M. (2021). *"The most important door that will ever open:" Realizing the mission of higher education through equitable admissions policies.* Institute for Higher Education Policy. Retrieved from https://live-ihep-wp.pantheonsite.io/wp-content/uploads/2021/06/IHEP_JOYCE_full_rd3b-2.pdf.

at more selective institutions.[231] For every $1,000 of additional grant aid available to students, it is estimated that institutional enrollment increases by four percent.[232]

Perhaps the strongest example of need-based financial aid is the federal Pell Grant given to students from low-socioeconomic backgrounds. Because of its impact in helping make college more affordable to students from families with limited income, the Pell Grant has been heralded as an important tool for equity. The problem is that Pell Grant's maximum award ($7,395 for 2023-2024) is not enough to pay for even a third of the average four-year tuition bill ($26,027).[233] For this reason, there have been many calls to double the Pell Grant maximum award, but year after year the increase is marginal, often not keeping up with the average increases in tuition costs.

Given the stark increase in merit-based aid—knowing that rich white students are most likely to receive such scholarships—and the seeming apprehension to offer more need-based aid, it is no surprise we see equity gaps when it comes to college access and attainment. But the system is not broken. Rather, it is sustaining the "merit myth." The system is generating the exact outputs it was designed to cultivate, and merit—in its contradictory application in higher education that successfully creates the illusion of a "fair" higher education system—is upholding it.

231 Schak, J. O. & Wong, N. (2021). *Dismantling dire disparities: A closer look at racially inequitable funding at public four-year colleges and universities.* The Institute for College Access & Success. Retrieved from https://ticas.org/wp-content/uploads/2021/08/dismantling-dire-disparities.pdf.

232 St. John, E. P. & Starkey, J. B. (1995). An alternative to net price: Assessing the influence of prices and subsidies on within-year persistence. *Journal of Higher Education, 66*(2), 156-186. Retrieved from https://doi.org/10.2307/2943910.

233 Hanson, M. (2023). *Average cost of college & tuition.* Education Data Initiative. Retrieved from https://educationdata.org/average-cost-of-college#:~:text=The%20average%20cost%20of%20attendance,or%20%24223%2C360%20over%204%20years.

The Role of State Policy Leadership in Making Possible the Dream of a College Education

Laura W. Perna, University of Pennsylvania[234]

As I argued in an "ED-Talk"[235] for the American Educational Research Association (AERA), the American dream is a myth when it comes to a college education. The American dream assumes that you only need to work hard to achieve your goals. But, for too many people, hard work is not enough. Our nation's systems and structures fail to ensure that everyone with the dream of a college education has the opportunity and resources to make that dream a reality.

In the United States, individual states have the primary responsibility for the educational attainment of their populations. Consistent with this autonomy, college attainment varies considerably across states. In 2022, just 25% of adults aged 25 to 34 in Mississippi had at least a bachelor's degree, compared to 57% in Massachusetts – a 32 percentage point difference.[236] (Equity Indicator 5h(v)). The likelihood of college attainment also varies within states across demographic groups and localities. As just one metric, in all states, college graduation rates are lower for Pell Grant recipients (a proxy for low-income students) than for students who do not receive financial aid.[237]

Differences in attainment across and within states provide an opportunity to consider what states can do to improve both overall attainment and equity in attainment. Capitalizing on these variations and with assistance from Michael Armijo, Awilda Rodriguez, and Jamey Rorison, several years ago Joni Finney and I conducted case studies of the forces that contribute to attainment and equity in attainment in five states: Georgia, Illinois, Maryland, Texas, and Washington. In the Attainment Agenda: State Policy Leadership in Higher Education,[238] we tell the unique story of each state and then suggest lessons that can be drawn from across the selected states. Although the specifics of each case have changed, the insights we identified have continued relevance.

Identifying what works across states is not easy, given variations in approaches to higher education. For example, in fall 2021, more than 45% of undergraduates enrolled in degree-granting higher education institutions in Iowa (47%), California (47%), Mississippi (48%), and New Mexico (55%) were at a public two-year institution.[239] In contrast, Alaska, Delaware, DC, and Nevada offered no public two-year institutions.[240] States vary in other ways that influence educational attainment, including current educational attainment and wealth of their populations, current and historic public investment in K-12 and higher education, and the characteristics of the economy and workforce, including the educational requirements of jobs.

These and other state contextual characteristics must be considered when identifying what a particular state can do to improve attainment. That being said, our analyses suggest lessons that can be applied across states. First, state policy leaders should establish higher education attainment as a state goal, build statewide commitment to

234 All views expressed in this essay are the sole responsibility of the author, and do not represent the position of The Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD).

235 Perna, L.W. (2016, April 11). Ed-Talk: *Improving college access and success* [Video]. Ed Talk. Retrieved from https://www.youtube.com/watch?v=oV4KoHXy210&t=10s.

236 Equity Indicator 5h(v). Original source: U.S. Census Bureau (n.d.). American Community Survey, 2022, [Table S. 1501]. Retrieved from https://data.census.gov/.

237 U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS) (2022).

238 Perna, L.W., Finney, J.E., & Callan, P.M. (2014). *The Attainment Agenda: State Policy Leadership in Higher Education*. Baltimore: John Hopkins University Press. https://www.press.jhu.edu/books/title/11049/attainment-agenda.

239 U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS), *Digest of Education Statistics 2022*, [Table 304.80]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_304.80.asp.

240 U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Data System (IPEDS), *Digest of Education Statistics 2022*, [Table 317.20]. Retrieved from https://nces.ed.gov/programs/digest/d22/tables/dt22_317.20.asp.

that goal, advance policies to achieve that goal, monitor progress toward achieving the goal, and adjust policies and practices as needed. Rather than identifying a particular policy that a state must adopt, our analyses point to the need for policies that, together, ensure that all students can pay the costs and that all students can move from K-12 to higher education, and transfer between higher education institutions, without requiring developmental or remedial coursework or losing academic credit. High-quality higher education options should also be available and accessible to all students throughout a state.

The particular policies that a state can and should adopt will depend on its historical, economic, political, cultural, and demographic contexts, as well as the characteristics of their higher education systems and the policies they have (and have not) established for encouraging attainment, particularly for students from underserved groups. In their discussion of state higher education leaders' policy priorities for 2024, Tom Harnish and colleagues highlighted the strategic finance plan created by the Tennessee Higher Education Commission as an example of how a state can consider how different policies (including appropriations, financial aid, tuition setting) together contribute to college affordability.[241] This example also points to how leaders should consider in their strategic planning what has been done and what needs to be done, noting that Tennessee's plan identifies three groups of policies: existing policies that should not be changed, existing policies that should be modified, and new policies that are needed.

In the survey of 2024 policy priorities, state higher education executive officers stressed the importance of ensuring that their populations have the education required for the jobs of today and tomorrow, reporting economic and workforce development as the top state higher education priority. To ensure their populations' economic and social well-being into the future, state higher education leaders must ensure that all people – particularly those from groups historically underserved by higher education – have the resources and opportunity to achieve the dream of a college education. College promise programs[242] may be one potential mechanism for meeting this goal.

Data from this Indicators report provide a useful starting point for understanding what state policy leaders can do to ensure that the American dream of a college education is attainable. State policy leaders should use these data as a foundation for considering, for their own state, who has – and who does not have – the opportunity to attain a college degree; what policies and practices are enabling – and what policies and practices are preventing – students from different groups from enrolling and completing college, and what actions state leaders can take for their state to do better. The onus is on state policy leaders to ensure that all people in their state, regardless of demographic characteristics, K-12 schools attended, and place of residence, have the resources and opportunity to realize the dream of a college education.

241 Harnisch, T., Burns, R., Heckert, K., Kunkle, K., & Weeden, D. (2024). *State priorities for higher education in 2024.* State Higher Education Executive Officers Association (SHEEO). Retrieved from https://sheeo.org/wp-content/uploads/2023/12/Policy-Issue-Survey.2024.pdf.

242 O'Donnell, P. (2023, November 8). College Promise Programs Add a 'Higher Promise' of Jobs Along with Scholarships. The 74. Retrieved from https://www.the74million.org/article/college-promise-programs-add-a-higher-promise-of-jobs-along-with-scholarships/.

The Unseen Price: Tackling Legal Cost Barriers to Postsecondary Education for Justice-Impacted Individuals

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It is no secret that completion of postsecondary education comes at a high cost, especially for low-income individuals. Across the United States, over 43 million borrowers owe an average of $37,088 in federal student loans.[244] Grappling with student loan debt imposes a burden on one's ability to make decisions about their future; it may force a person to delay or forgo buying a home or starting a family. Grappling with criminal legal costs, a different form of debt, imposes a similar burden on a justice-impacted individual's ability to make decisions about their futures and lives post-release.

These burdens come in the form of legal financial obligations (LFOs), which can be generally categorized as fines (assessed upon conviction and intended to impose monetary punishment to deter offenses) and fees (designed to pay the government for the administrative costs of supervision and incarcerating an individual). Fees, in particular, are generally charged automatically and bear no relation to an individual's specific offense.[245] Both fines and fees are set by legislatures and courts using discretion to interpret and enforce statutes and regulations.[246]

These LFOs pose a significant financial burden, especially for low-income people of color who are disproportionately represented among justice-impacted individuals.[247] An individual's inability to pay LFOs, forms a debt owed for various expenses used to generate government revenue. These expenses might include pay-to-stay fees, which can be automatically deducted from wages earned while incarcerated[248] in addition to various other specific types of LFOs such as bail bond fees, clerk filing fees, public defender costs, prosecution expenses, and others varying across jurisdictions.[249] The Vera Institute of Justice studied the price of such expenses and found that in New York State alone, mandatory fees imposed upon conviction—unrelated to an individual's specific offense—include a victim fee ranging from $250 to $500 and a DNA fee of $100. The New York state government issued 11,000 arrest warrants to collect these debts, which generated a combined total of $1.21 billion for various government entities within the state in fiscal year 2018.[250] Such legal costs are pervasive and burdensome, especially given that the population charged with paying that debt often lacks the means to do so.

The cost of LFOs, though evident within the criminal legal context, often remains an unseen corollary price as it relates to their effect on discouraging enrollment in prison education programs (PEPs) offering postsecondary

243 All views expressed in this essay are the sole responsibility of the author, and do not represent the position of The Pell Institute for the Study of Opportunity in Higher Education or the Alliance for Higher Education and Democracy of the University of Pennsylvania (PennAHEAD).

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249 Teigen, A. (2020, January). *Assessing Fines and Fees in the Criminal Justice System.* National Conference of State Legislatures. Retrieved from https://documents.ncsl.org/wwwncsl/Criminal-Justice/Fines-and-Fees_v02.pdf.

250 Mai, C. & Rafael, M. (2020, December). *The High Price of Using Justice Fines and Fees to Fund Government in New York.* Vera Institute of Justice. Retrieved from https://www.vera.org/downloads/publications/the-high-price-of-using-justice-fines-and-fees-new-york.pdf.

credentials. According to an NCES Survey of Incarcerated Adults, the desire to maintain a volunteer or work assignment ranked among the top reasons for reluctance to enroll in academic classes or programs;[251] one likely cause for this is that hours associated with these work positions pose a scheduling conflict with PEP school hours. Thus, a justice-impacted individual serving time must choose between PEP enrollment without financial compensation and a work assignment that could at least marginally reduce accumulated debt. On average, an incarcerated person in federal prison working a non-industry job earns between $0.12 and $0.40 per hour for their work; in New York State, that number is between $0.10 to $0.33 per hour.[252] The prospect of earning pennies on the dollar further underscores the significant sacrifices made by those who forgo educational opportunity offered by PEPs in an effort to reduce debt from LFOs. The long-term benefits of PEPs are thus overshadowed by the immediate, yet very minimal, compensation provided by work assignments.

Debt incurred from LFOs also has a negative impact on families. In a survey of over 1,000 people (including 712 formerly incarcerated people) from the Ella Baker Center for Human Rights, 63 percent of respondents reported that family members were primarily responsible for covering conviction-related costs, and 38 percent of families reported court fees and fines as being the most difficult to pay.[253] It therefore stands to reason that a desire to ease the burden on one's family also acts as an incentive to opt for compensation through a work assignment while incarcerated over enrolling in a PEP.

The detrimental effect of this debt is even more evident when we consider that participating in PEPs significantly increases the chance of securing a well-paying job, which is crucial for successful reentry.[254] This is especially important because research indicates that by 2027, 70 percent of jobs in the U.S. will require education and training beyond high school.[255] The debt accrued by LFOs alone inflicts severe penalties for the justice impacted. However, their ability to discourage participation in PEPs positions them as an even more oppressive, unseen price of involvement with the criminal legal system.

Several solutions are available to combat the damaging implications of LFO debt and its disincentivizing of enrollment in PEPs. First, advocates for prison education urge Departments of Corrections (DOCs) to implement policies that will permit enrollment in a PEP to qualify as a work assignment for which incarcerated individuals can be paid. Terrell Blount, Executive Director of the Formerly Incarcerated College Graduates Network (FICGN), a proponent of this solution, shared in his experience: "Providing the opportunity for incarcerated individuals to engage in educational programs as a legitimate form of a paid work assignment eliminates the dilemma of choosing between earning pennies now to survive versus investing in their future to ensure earning a salary later post-release."

Second, to address the extent to which prison work assignments create scheduling conflicts that prevent participation in PEPs, the Vera Institute of Justice recommends that DOCs and partners facilitating PEPs consider offering classes at night or offering work hours during times that avoid overlap with school hours, in addition to providing stipends for incarcerated people to attend school to help curb the difficulty of choosing between

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251 Rampey, B.D., Keiper, S., Mohadjer, L., Krenzke, T., Li, J., Thornton, N., and Hogan, J. (2016). *Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education, and Training: Program for the International Assessment of Adult Competencies: 2014 (NCES 2016-040).* U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2016/2016040.pdf.

252 American Civil Liberties Union. (2022). *Captive Labor: Exploitation of Incarcerated Workers.* University of Chicago, The Law School, Global Human Rights Clinic. Retrieved from: https://www.aclu.org/publications/captive-labor-exploitation-incarcerated-workers.

253 deVuono-Powell, S., Schweidler, C., Walters, A., & Zohrabi, A. (2015). *Who Pays? The True Cost of Incarceration of Families.* Oakland, CA: Ella Baker Center, Forward Together, Research Action Design. Retrieved from https://ellabakercenter.org/wp-content/uploads/2022/09/Who-Pays-FINAL.pdf.

254 Martinez-Hill, J. (2021, February). *A Monumental Shift: Restoring Access to Pell Grants for Incarcerated Students.* Vera Institute of Justice. Retrieved from https://www.vera.org/downloads/publications/restoring-access-to-pell-grants-for-incarcerated-students.pdf.

255 Blumenstyk, G. (2020, January 22). By 2020, they said, 2 out of 3 jobs would need more than a high-school diploma. Were they right? *The Chronicle of Higher Education*. Retrieved from https://www.chronicle.com/newsletter/the-edge/2020-01-22.

education and work.[256]

Third, policymakers can pass legislation to limit the cost of different fines and fees comprised in LFOs—a fix noted in the U.S. Department of Justice's 2023 Dear Colleague Letter[257] to state and local courts and juvenile justice agencies. This letter emphasized the constitutional and statutory restrictions on imposing excessive fines and fees without regard to an individual's economic circumstances. This recommendation is also supported by the Fines and Fees Justice Center (FFJC), which has launched a national End Justice Fees Campaign.[258] Some jurisdictions have already begun addressing the excessive nature of court fines and fee LFOs. New Mexico has passed legislation to eliminate court fees for adults assessed both during and after the time of conviction[259] and Nevada has eliminated room and board fees, which previously garnished 25 percent of an incarcerated person's job wages.[260]

Finally, boosting the incentive for PEPs requires a greater government investment at both the state and federal levels in part through larger allocation of funds to support them. This solution has been recognized recently through the enactment of the federal FAFSA Simplification Act provision of the Consolidated Appropriations Act of 2020. The FAFSA Simplification Act is a culmination of bipartisan efforts resulting in legislation that made incarcerated people eligible to receive federal Pell Grants again following a 20-year ban imposed by the Violent Crime Control and Law Enforcement Act of 1994. The reinstatement of Pell eligibility for the incarcerated officially took effect on July 1, 2023.[261] Hope for successful outcomes from Pell eligibility reinstatement is not unfounded, given that the U.S. Department of Education already launched a Second Chance Pell experiment back in 2015. This initiative selectively distributed Pell Grants, helping those among the 400,000 incarcerated participants earn 11,966 credentials from one of the 200 participating colleges during the 2021-2022 financial aid year.[262] State governments also have a role to play. The Council of State Governments suggests federal and state funding represent a fundamental building block to supporting postsecondary education for the incarcerated, noting that states can leverage their federal funds to support these efforts in addition to implementing state policy changes that remove restrictions on the use of financial aid for people who are currently or may have been incarcerated in the past.[263]

Some may argue that people who commit crimes have earned accrued debt from LFOs (on top of serving a

256 Wachendorfer, A., James, K., Kiki, E., & Taber, N. (January 2024). *Beyond Access: Advancing Racial Equity and Inclusion in Prison Education Programs*. Retrieved from https://www.vera.org/downloads/publications/Beyond-Access-Advancing-Racial-Equity-and-Inclusion-in-Prison-Education-Programs.pdf.

257 Clarke, K., Solomon, A. L., & Rossi, R. (2023, April 23). Dear Colleague Letter. U.S. Department of Justice, Office of the Associate Atorney General. Retrieved from https://www.justice.gov/opa/press-release/file/1580546/download.

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260 Shepack, N. (2023, July 13). *Nevada Ends Exploitative Incarceration Costs While Laying Groundwork for Future Misdemeanor Reform.* Fines & Fees Justice Center. Retrieved from https://finesandfeesjusticecenter.org/2023/07/13/nevada-ends-exploitative-incarceration-costs-while-laying-groundwork-for-future-misdemeanor-reform/.

261 Walter, M. (2021, January 26). Appropriations Act Restores Pell Eligibility to Incarcerated Students, Establishes Eligibility Guidelines for Prison Education Program. National Association of Student Financial Aid Administrators (NASFAA). Retrieved from https://www.nasfaa.org/news-item/24541/Appropriations_Act_Restores_Pell_Eligibility_to_Incarcerated_Students_Establishes_Eligibility_Guidelines_for_Prison_Education_Program.

262 Taber, N. & Muralidharan, A. (2023, June). Second Chance Pell: *Six Years of Expanding Higher Education Programs in Prisons, 2016-2022.* Data Brief. Vera Institute of Justice. Retrieved from https://www.vera.org/downloads/publications/second-chance-pell-six-years-of-expanding-access-to-education-in-prison.pdf.

263 Bacon, L., Lee, G., Weber, J., & Duran, L. (February 2020). *Laying the Groundwork How States Can Improve Access to Continued Education for People in the Criminal Justice System.* Council of State Governments. Retrieved from https://csgjusticecenter.org/wp-content/uploads/2020/02/Laying-the-Groundwork_Feb2020.pdf.

sentence) and are undeserving of any special treatment afforded by Pell Grant eligibility. While that position may appear to have merit on its face, it ignores both the fact that among the core objectives of American criminal law is to rehabilitate individuals for successful reentry to society[264] and that each year, more than 600,000 individuals are released from state and federal prisons.[265] Refusing to take measures to meet the reality of the need each year to prepare thousands of people for success after being incarcerated likely frustrates efforts to achieve that objective. On the other hand, both limiting debt from LFOs and incentivizing PEP enrollment through financial support can increase the chances of obtaining employment crucial to success upon release.

It may be easy to understand how debt accrued through the cost of completing postsecondary education imposes a heavy burden even beyond the financial strain it inflicts on millions by forcing those affected to confront challenging life choices. However, it may not be as evident how debt from criminal legal costs in the form of LFOs inflicts a similar burden and compels a similar weighing of costs and benefits. For a justice-impacted individual, this predicament can deter participation in prison education programs and serve as a barrier to postsecondary education. Addressing this deterrent is crucial, as postsecondary education obtained during incarceration is instrumental for securing a well-paying job to facilitate successful reintegration into society. In this specific context, continued refusal to address the legal cost debt issue—a problem which sits squarely at the intersection with issues of racial equity, poverty, mass incarceration, and access to postsecondary education—only further chips away at the autonomy of justice-impacted individuals by undermining their ability to make important decisions to better their futures.

264 Hart Jr., H.M. (1958). The Aims of the Criminal Law. *Law and Contemporary Problems, 23*(3), 401-441. Retrieved from https://scholarship.law.duke.edu/lcp/vol23/iss3/2.

265 Office of the Assistant Secretary for Planning and Evaluation. (n.d.). *Incarceration & Reentry.* U.S. Department of Health and Human Services. Retrieved from https://aspe.hhs.gov/topics/human-services/incarceration-reentry-0.

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Appendix A: Additional Figures and Methodological Notes

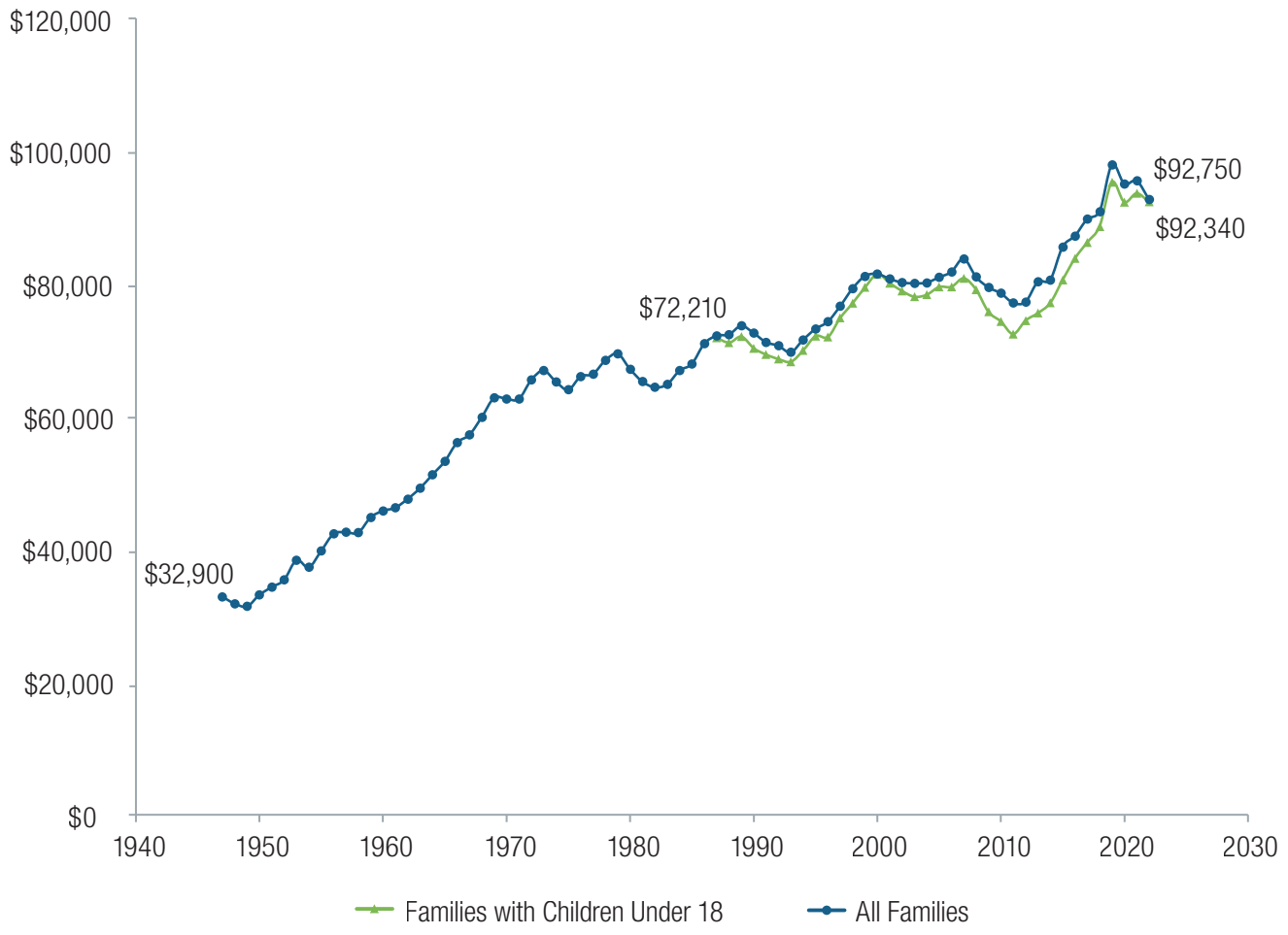
The Appendix includes additional figures, tables, and methodological notes not included in the body of the report. Notes and Figures are ordered under the headings of the sections in which the notes and figures are most applicable.

Setting the Stage (STS)

STS Figures 5a and 5b: The data sources for STS Figure 5 are the Integrated Postsecondary Education Data System (IPEDS, 2021) and Barron's Profiles of American Colleges (2019). The latter provides a competitiveness index of 4-year colleges and universities. The following notes provide details on the coding of institutions by competitiveness and the assigning of codes to institutions not ranked by Barron's. The competitiveness index categories from Barron's were matched (by name and state) to institutional enrollment data found in IPEDS. For those institutions that appeared in IPEDS but were not ranked by Barron's, the institutional sector was used to develop the remaining categories (e.g., "4-Year Not Ranked" and "Private For-Profit"). All for-profit institutions were classified as "private for-profit" institutions even if ranked by Barron's. All institutions that were administrative units or had zero undergraduate enrollment (e.g., medical schools) were omitted from the analyses as these schools do not enroll undergraduates (the variable we're counting for this indicator). To determine enrollment shares by competitiveness category, we first added total fall enrollment (IPEDS variable "EFTOTLT"). We then divided the number of students in each selectivity category by total undergraduates. Enrollment includes both part-time and full-time students.

Additional Figures: Appendix Figure A-1 shows Census data on the median family income for all families from 1947 to 2022, and for families with children under 18 from 1987 to 2022, in 2022 constant dollars. Appendix Figure A-2 shows the upper limits of each Census Current Population Survey (CPS) family income quartile for families with dependent children from 1987 to 2022.

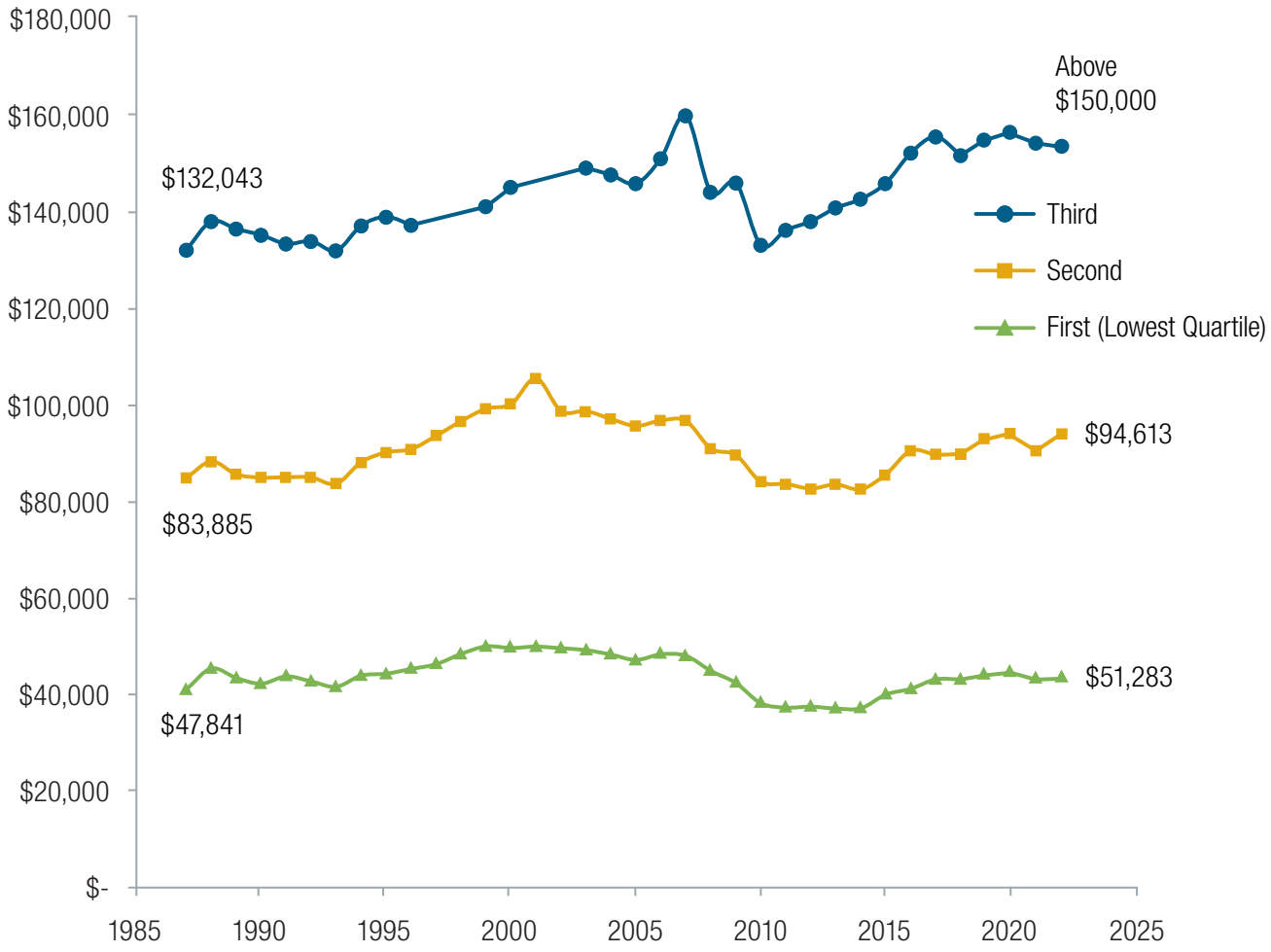
Appendix Figure A-1: Median family income for all families: 1947 to 2022, and for families with children under 18: 1987-2022 (constant 2022 dollars)



This chart on median family income mirrors the fluctuations in economic prosperity in the United States, with the rapid post-World War II growth up to the 1970s followed by much slower but continued growth with periodic recession-based declines. Sharp declines followed the Great Recession around 2008, followed by recovery and increases since 2011-12.

SOURCE: U.S. Census Bureau, CPS data. Calculated from the October Current Population Survey File https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-families.html; https://www2.census.gov/programs-surveys/cps/tables/time-series/historical-income-families/f09ar.xlsx.

Appendix Figure A-2: Upper limits for the first (lowest), second, and third-income quartiles for families of dependent 18- to 24-year-olds: 1987 to 2022 (in constant 2022 dollars)



This chart reveals the gradual widening of the gap in family income between the upper limit of the third quartile and the bottom two quartiles.

NOTE: Upper family income limits of the quartiles are in constant 2022 dollars using the revised CPI-U-RS. The upper limit (maximum) of the third quartile is the minimum for the fourth (highest) quartile. The fourth (highest) quartile minimum is thus approximately above $150,000. The maximum for the fourth (highest) quartile is not reported.

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 2: What Type of Postsecondary Educational Institution Do Students Attend?

- **Indicator 2d:** This Indicator uses a data table in the online appendix (http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf) to the 2011 article, "Running in place: Low-income students and the dynamics of higher education stratification," by Michael Bastedo and Ozan Jaquette, published in *Educational Evaluation and Policy Analysis*. To develop the data table, Bastedo and Jaquette constructed an analytic dataset using four federal longitudinal surveys: National Longitudinal Study of 1972 (NLS); High School and Beyond Study of 1980 (HS&B); National Education Longitudinal Study of 1988 (NELS), and Education Longitudinal Study of 2002 (ELS). In their analyses of the four surveys, the authors examined only students who were seniors in the specified year and who had graduated within 1.5 years of their scheduled high school graduation year. For a more detailed explanation of dataset construction and analytic methodology, see Bastedo and Jaquette (2011). Appendix Figure A-3 shows Table 6 from the article's online appendix, which presents the SES representation in each category of institutional destinations (row percentages). We used these data to construct Indicator 2d. Appendix Figure A-4 shows Table 3 from the body of the article and presents the distribution of students in each SES quartile across different categories of institutions (column percentages).
- **Indicator 2e:** The values reported in Indicator 2e represent the average of the percentage of undergraduates within an institution who receive Federal Grants by institutional selectivity and sector. The Integrated Postsecondary Education Data System (IPEDS, 2021) and Barron's Profiles of American Colleges (2019) are the primary data sources for this Indicator. This Indicator is constructed by merging the Institutional Characteristics (IC) and Student Financial Aid (SFA) IPEDS survey components on Federal Grant (Pell and other Federal Grants) receipt with the information from the Barron's 2019 publication. The IPEDS variable used was the "FGRNT_P" which NCES defines as "Percent of full-time first-time undergraduates awarded federal grant aid." This Indicator tracks the percentage of undergraduate students who receive Federal Grants by institution each academic year from 1999 to the most current year of available data. As in Figures 5a and 5b in Setting the Stage, institutional selectivity is measured using Barron's Admissions Competitive Index (2019) and the institutional sector as reported in IPEDS.

Appendix Figure A-3: SES representation in each institutional destination (row percentages) by cohort

TABLE 6

SES representation of each institutional destination (row percentages), by cohort

	1972				1982							
SES Quartile	**SES Q1**	**SES Q2**	**SES Q3**	**SES Q4**	**SES Q1**		**SES Q2**		**SES Q3**		**SES Q4**	
No PSE	38.1%	28.1%	22.0%	11.9%	39.6%		30.6%	**	20.0%	*	9.7%	***
2yr/ LT 2yr (pub)	20.7%	23.5%	26.8%	29.1%	19.0%		26.7%	**	29.2%	*	25.0%	***
2yr/ LT 2yr (priv)	23.2%	22.7%	31.8%	22.3%	26.8%		30.5%	***	28.3%		14.4%	***
Non Competitive	19.9%	20.8%	23.9%	35.5%	18.4%		22.0%		28.8%	**	30.8%	**
Competitive	13.1%	17.7%	25.6%	43.6%	9.4%	***	20.8%	**	29.0%	*	40.8%	
Very Competitive	10.8%	14.4%	18.9%	55.9%	9.8%		13.8%		21.6%		54.8%	
Highly Competitive	8.9%	10.8%	20.8%	59.6%	4.0%	**	9.7%		25.1%		61.2%	
Most Competitive	5.2%	7.4%	9.9%	77.5%	3.8%		11.4%		17.8%	**	67.0%	**

	1992								2004							
SES Quartile	**SES Q1**		**SES Q2**		**SES Q3**		**SES Q4**		**SES Q1**		**SES Q2**		**SES Q3**		**SES Q4**	
No PSE	41.8%		27.9%	**	21.1%		9.1%		42.0%		31.2%	**	19.1%		7.7%	
2yr/ LT 2yr (pub)	24.6%	***	30.4%	***	28.7%		16.3%	***	25.2%		28.7%		28.2%		17.9%	
2yr/ LT 2yr (priv)	29.8%		28.9%		22.5%	*	18.8%		30.7%		32.8%		27.6%		9.0%	***
Non Competitive	15.4%	*	22.7%		34.3%	**	27.5%		19.6%	**	25.4%		29.1 %	***	25.9%	
Competitive	12.7%	***	21.4%		28.6%		37.3%	**	13.0%		19.1%		30.2%		37.8%	
Very Competitive	10.2%		13.4%		27.2%	***	49.2%	**	7.3%	**	15.0%		26.8%		50.9%	
Highly Competitive	6.4%		10.6%		20.5%		62.6%		5.0%		9.3%		19.5%		66.2%	
Most Competitive	5.0%		2.9%	***	23.9%	*	68.3%		4.1%		8.1%	***	18.7%	*	69.0%	

NOTE: Difference in proportion for SES quartile=I and cohort=t compared to proportion for SES quartile=I and cohort=t-1, significant at the 1% (***), 5% (**), or 10% (*) level, two tailed tests.

SOURCE: Analyses of data from U.S. Department of Education, NCES, High School Longitudinal Studies (NLS, HS&B, NELS, ELS). Published as online Appendix Table 6 in Bastedo, M. N., & Jaquette, O. (2011). Running in Place: Low-income Students and the Dynamics of Higher Education Stratification. *Educational Evaluation and Policy Analysis, 33*(3), 318-339. Retrieved from http://www-personal.umich.edu/~bastedo/papers/EEPA-Appendix.pdf. Reprinted by permission from Sage Publishing Copyright Clearance Center.

Appendix Figure A-4: Distribution of students in each SES quartile across institutional destinations by cohort (column percentages)

TABLE 3

Institutional Destination by Cohort (Column Percentages), by SES Quartile, "Weighted SES" Sample

	SES Quartile 1				SES Quartile 2			
	1972 (%)	1982 (%)	1992 (%)	2004 (%)	1972 (%)	1982 (%)	1992 (%)	2004 (%)
No PSE	63.2	57.6***	48.2***	37.6***	52.3	41.9***	31.8***	25.8***
2yr/LT 2yr (pub)	14.2	19.9***	25.8***	31.5***	18.1	26.2***	31.5***	33.1
2yr/LT 2yr (priv)	4.7	6.2**	3.8***	3.9	5.2	6.7**	3.7***	3.8
Noncompetitive	6.9	6.8	6.9	11.2***	8.1	7.7	10.1***	13.5***
Competitive	6.5	5.5	9.0***	11.1**	9.8	11.3*	15.0***	15.2
Very competitive	3.1	3.1	4.3**	3.3*	4.6	4.1	5.6**	6.3
Highly competitive	0.9	0.5	1.1**	1.0	1.3	1.2	1.9*	1.7
Most competitive	0.4	0.3	0.8**	0.5	0.6	0.9	0.4*	0.8

	SES Quartile 3				SES Quartile 4			
	1972 (%)	1982 (%)	1992 (%)	2004 (%)	1972 (%)	1982 (%)	1992 (%)	2004 (%)
No PSE	40.3	27.6***	21.8***	14.7***	18.6	12.9***	9.5***	5.7***
2yr/LT 2yr (pub)	20.3	28.9***	26.9	30.3**	18.8	23.7***	15.3***	18.5***
2yr/LT 2yr (priv)	7.2	6.2	2.6***	3.0	4.3	3.0**	2.2*	0.9***
Competitive	9.2	10.2	13.8***	14.4	11.7	10.4	11.1	12.3
Very competitive	14.0	15.9*	18.1*	22.3***	20.4	21.5	23.7*	26.8**
Very competitive	6.0	6.6	10.3***	10.4	15.1	15.9	18.8***	18.9
Highly competitive	2.4	3.2	3.3	3.3	5.9	7.4**	10.0***	10.6
Most competitive	0.8	1.4**	3.3***	1.7***	5.2	5.2	9.5***	6.2***

NOTE: Difference in proportion for SES quartile=I and cohort=t compared to proportion for SES quartile=I and cohort=t-1, significant at the 1% (***), 5% (**), or 10% (*) level, two tailed tests.

SOURCE: Analyses of data from U.S. Department of Education, NCES, High School Longitudinal Studies (NLS, HS&B, NELS, ELS). Published in Bastedo, M. N., & Jaquette, O. (2011). Running in Place: Low-income Students and the Dynamics of Higher Education Stratification. *Educational Evaluation and Policy Analysis, 33*(3), 318-339. Reprinted by permission from Sage Publishing Copyright Clearance Center.

Equity Indicator 3: Do Financial Aid and Differences in College Cost Eliminate the Barriers to College Equity?

Appendix Figure A-5 summarizes Pell Grant spending from 1974 to 2022 in billions of constant 2022 dollars. To put this amount in perspective, the annual defense budget is presented over the same period.[266]

Appendix Figure A-5: Annual budgets/spending for Pell Grants and for Military Spending/Department of Defense: 1994 to 2022 (in 2022 billions of constant dollars)

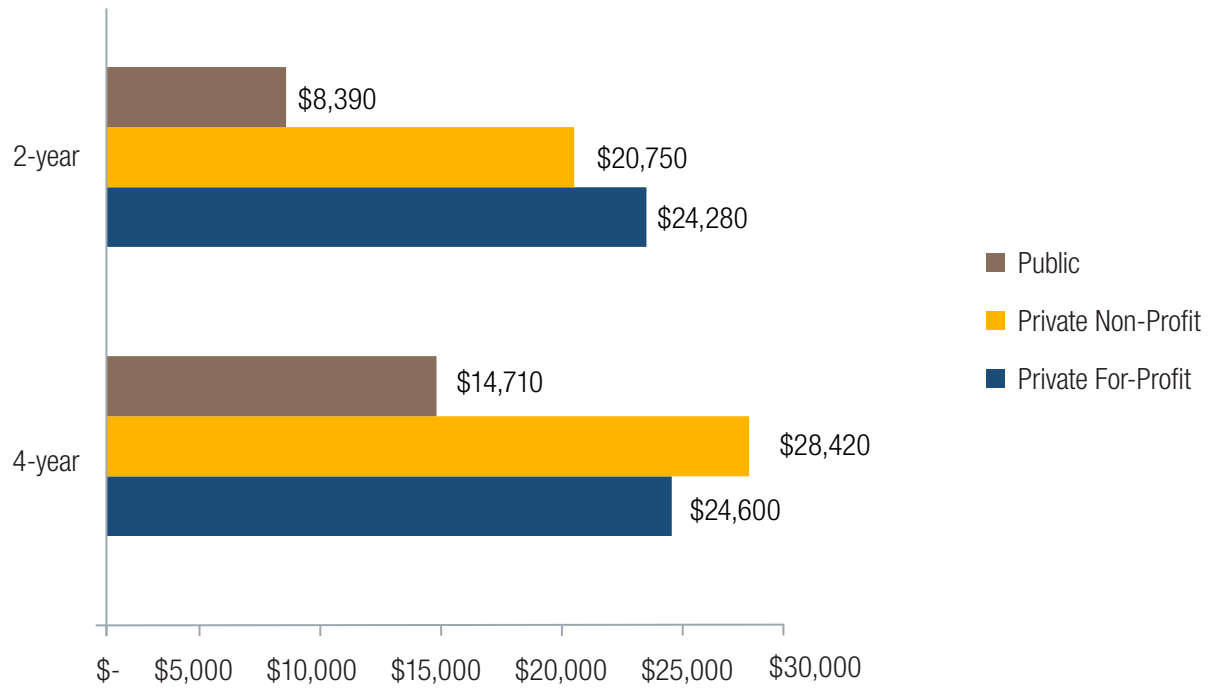
NOTE: The Defense budget for 2022 was $876.9 billion, and the Pell Grant budget for 2022 remained under $28 billion.

SOURCE: Stockholm International Peace Research Institute. (SIPRI). *Military Expenditures/Defense Budget 1974-2022*. Retrieved from https://www.sipri.org/databases/milex; Ma, J. and Pender, M. (2023). *Trends in College Pricing and Student Aid 2023*. New York: College Board. Retrieved from https://research.collegeboard.org/trends/student-aid.

266 Stockholm International Peace Research Institute (SIPRI). *Military Expenditures/Defense Budget 1949-2022*. Retrieved from https://www.sipri.org/databases/milex.

Appendix Figure A-6 presents the net price of attending institutions by type and control of the institution. Net price is the total cost of attendance minus grant and scholarship aid from the federal government, state or local governments, or institutional sources. The data are for Pell Grant or other Title IV aid recipients. The net price ranges from $8,390 for 2-year public institutions to $28,420 for 4-year private non-profit institutions. These data dispel the myth that on average, college grants and scholarships make a 4-year private college affordable for low-income students.

Appendix Figure A-6: Average net price for first-time, full-time degree/certificate seeking students awarded Title IV aid, by control and level of institution: 2020-21 (in constant 2021-22 dollars)



NOTE: Net price is the total cost of attendance minus grant and scholarship aid from the federal government, state or local governments, or institutional sources.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Student Financial Aid component. (2022). *Digest of Education Statistics 2022*, [Table 331.30] Retrieved from: https://nces.ed.gov/programs/digest/d22/tables/dt22_331.30.asp.

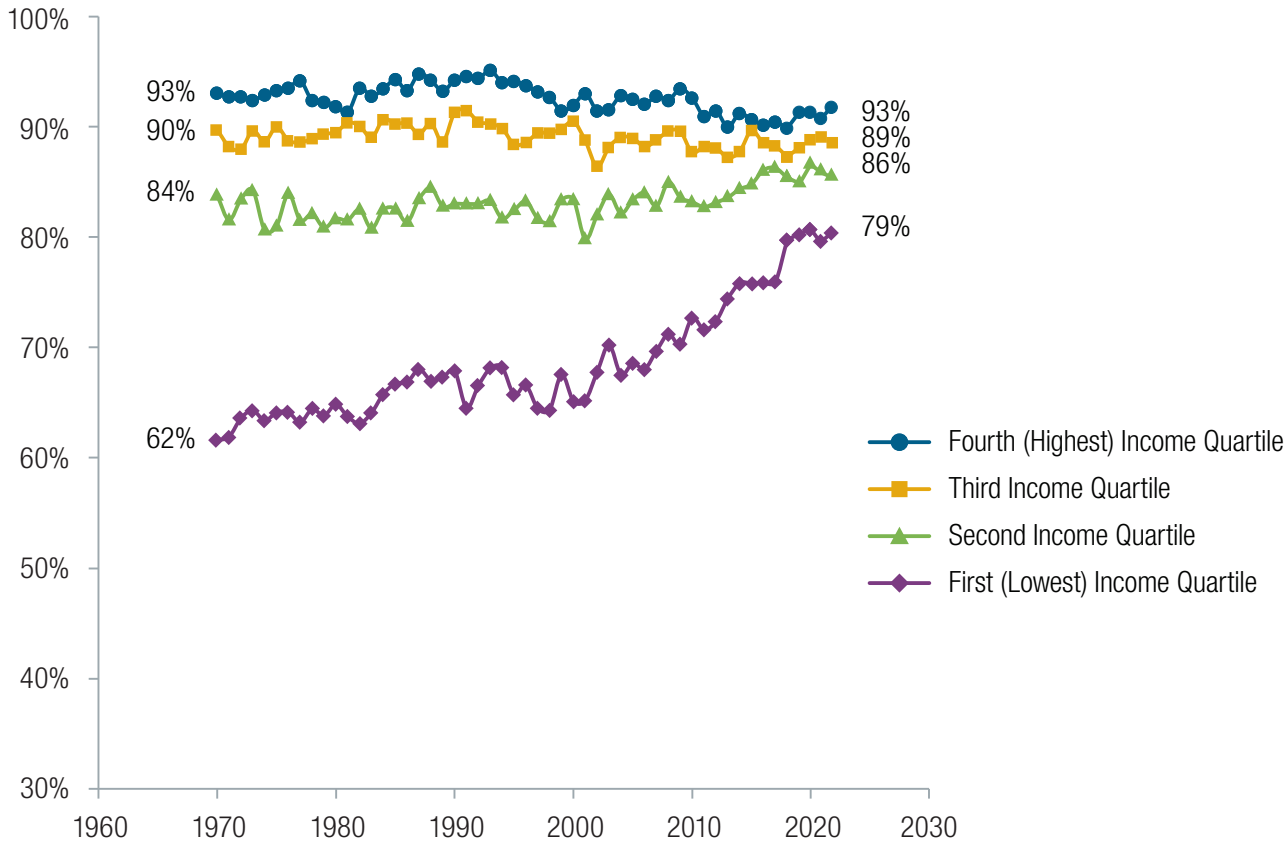
Equity Indicator 5: How Do Educational Attainment Rates and Outcomes Vary by Student Characteristics?

- **High School Graduation Rates:** Bachelor's degree attainment is possible only for those who graduate from high school. Using data from the Current Population Survey (CPS), Appendix Figure A-7 shows high school graduation rates by family income quartile from 1970 to 2022. These data show that, despite the rise in high school graduation rates for those in the first (lowest) income quartile, especially over the past decade, high school graduation rates continue to vary by family income.
- **Equity Indicators 5a-5i:** We report multiple measures of bachelor's degree attainment and completion for Indicator 5, given concerns about the limitations of each of the data sets, but particularly the annual CPS. The CPS is the only available annual source of data on bachelor's degree completion that includes family income measures, but the data have important limitations. As a result, caution is needed in interpreting results using these data. The CPS data are based on household surveys and are reported in aggregate. The data are cross-sectional and include only individuals who were considered "primary dependent family members of the household" at the time of the CPS survey. Recent years have seen differential changes across income groups in dependency patterns and length of time for bachelor's degree completion. For these reasons, the Indicators report also presents estimates of bachelor's degree completion using the NCES High School Longitudinal Studies and the Beginning Postsecondary Students (BPS). We also use IPEDS completions data to report associate's, bachelor's, master's, and doctoral degrees awarded by race/ethnicity.
- **Recalibration of Bachelors' Degree Attainment by Age 24:** In the first (2015) edition of the *Indicators* report, we included data on attainment rates by age 24 for the cohort (Indicator 5a) and for those who had entered college (Indicator 5b). The 2015 *Indicators* report used the HS&B longitudinal study of 1980 10th graders to calibrate the aggregate CPS data to arrive at an estimate of bachelor's degree attainment by age 24. These estimates were rightly criticized as overestimating degree attainment rates for the highest quartiles, given changes in dependency patterns that have occurred over time. Because of the strong positive relationships among family income, dependency status, and degree attainment, data published in the 2015 report using CPS data overestimated bachelor's degree attainment rates for the top income quartile. Since then, Tom Mortenson, who has analyzed these data for over 20 years, has updated these estimates using calibrations from the more recent NCES longitudinal studies corresponding with the time frames to be estimated. In addition to continuing to use the HS&B (1980 10th graders) to calibrate estimates for the earlier periods, he also used estimates from the more recent high school longitudinal studies, NELS (1988 8th graders) and ELS (2002 10th graders), to improve the estimates for the corresponding periods. Using data from these additional longitudinal surveys resulted in little change from the 2015 CPS-based estimates of bachelor's degree attainment rates for the first (lowest), the second, and the third income quartiles but reduced the CPS-based estimates of bachelor's degree attainment for the fourth (highest) quartile considerably.

Caution is still needed in using these adjusted CPS estimates in the subsequent *Indicators* reports, given the many underlying assumptions. For the 2016 *Indicators* report, this calibration work was still in progress, and we reported only on the distribution of bachelor's degrees between the quartiles in Indicator 5a. In 2016, we presented a preliminary revision of estimates of attainment by age 24 in the Appendix of the 2016 Indicators report (Appendix Table A-6). The 2017 to 2024 *Indicators* reports present these revised estimates for Equity Indicator 5a(i) using three-year moving averages of bachelor's degree attainment by age 24 for 1979 to the most current year available from the CPS data.

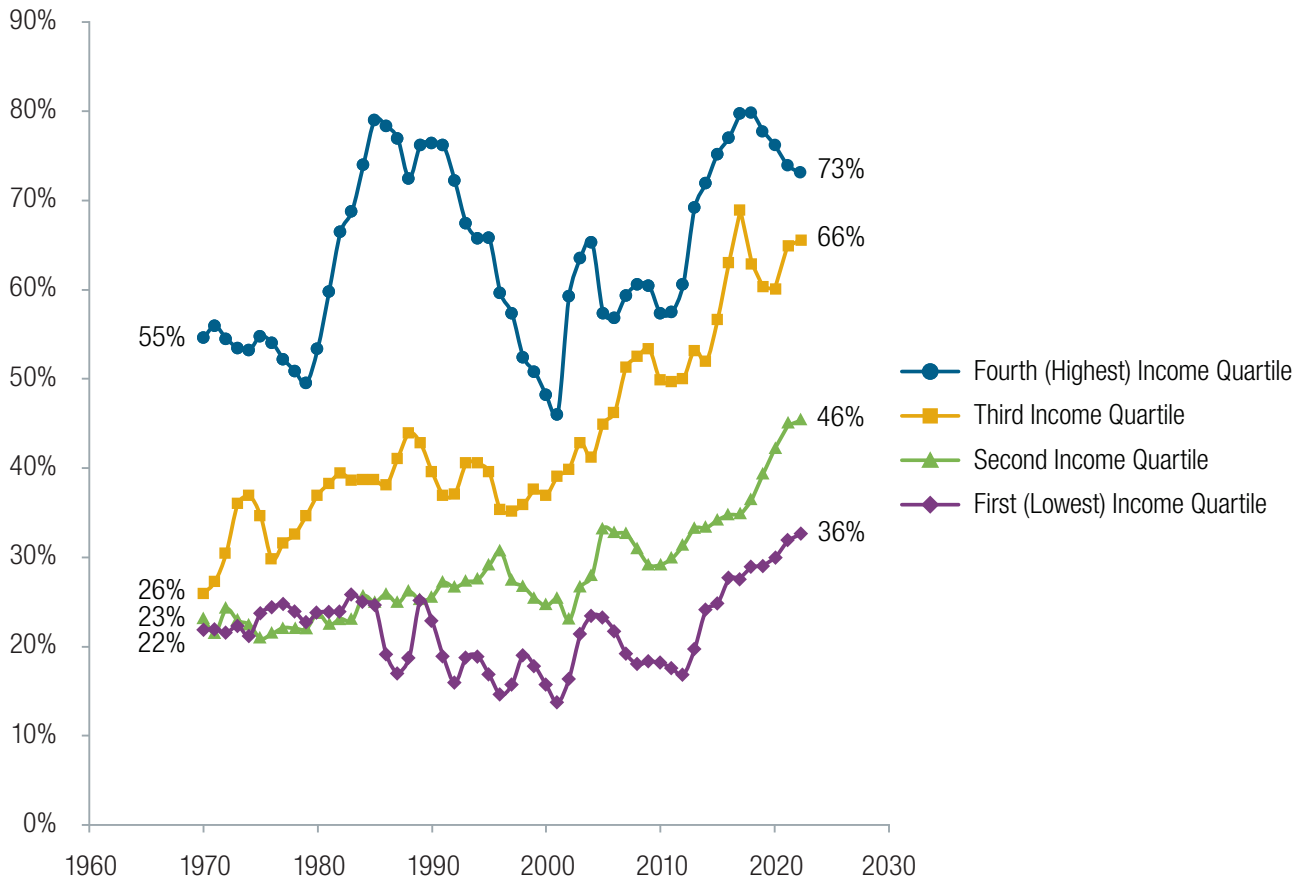
Starting in the 2019 report, we also include in Indicator 5a(ii) the 100 percent distribution of bachelor's degrees by age 24 by family income categories for dependent students. Appendix Figure A-8 shows these estimates using the same methods for attainment by age 24 among those who already began college from 1970 to 2022.

Appendix Figure A-7: High school graduation rates by family income quartile for dependent 18- to 24-year-olds: 1970 to 2022



SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Appendix Figure A-8: Estimates of bachelor's degree attainment by age 24 for dependent family members who began college by family income quartile: 1970 to 2022



NOTE: Based on a three-year moving average using constant factors derived from HS&B, NELS, and ELS combined with the CPS data. Note these estimates are higher than those reported in Equity Indicator 5a(i) in the body of this report because they are for those who have entered college and not for the entire age cohort.

SOURCE: U.S. Census Bureau, 1974-2022, as adapted by Tom Mortenson, *Postsecondary Education Opportunity (PEO)* Newsletters and database, Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved from https://community.coenet.org/peoarchive/access-peo. Compiled by Nicole Brunt and Tom Mortenson using October Current Population Survey School Enrollment Supplement dataset (2022) and U.S. Census Bureau, online extraction tool, MDAT, https://data.census.gov/mdat/#/.

Equity Indicator 7: The Federal TRIO Programs: Who, What, Where, When, Why, and How Does TRIO Work?

Below are tables of the historical trend data used for the charts in Indicator 7. The data include the total programs, funding, participants, funding per program, participants, and TRIO coverage per program. To view these as Excel data files, please refer to the 2024 *Indicators* report on the Pell website. In most cases, the beginning date is 1997. Date varies depending on the availability of data. The starting date does not reflect the start of the programs.

Caution Needed in Interpreting the Estimated Indicator of Coverage Data. Please use caution in interpretation of the aggregate *Estimated Indicators of Coverage* for each of the TRIO programs by year. The indicators are tabulated to give rough estimates at the national level of the percent of the applicable low-income populations served in any given year. Because there is no direct count of the potentially eligible persons for each of the TRIO programs, we use proxy data such as the number of pre-college students eligible for free or reduced lunch or, for college level programs, the number of Pell recipients each year, or for Veterans Upward Bound, the number living below the poverty line. These numbers are used as the denominator in the calculations in which the numerator is the number served by the program each year. However, these numbers, free lunch eligibility, Pell recipients, and number unemployed, receipt are subject to many variable factors on a year-by-year basis. For example, during the COVID-19 pandemic, 100 percent of students were eligible for free or reduced lunch. Because of this change, we do not include an *Estimated Indicator of Coverage* statistic after 2020 for the pre-college programs. This information should be considered for what it is, the number of TRIO participants over a proxy indicator of the number of low-income eligible students.

Appendix Figure A-9: Historical characteristics of Federal TRIO programs, Educational Opportunity Centers (EOC): 1997-2022

Award Year	Programs	Funding	EOC Participants	Funding per Program	Funding per Participant	HEPI	Funding per Participant in Constant $	Participants per Program	Unemployed (000)	EOC Coverage
2022-23	183	$63,886,164	218,953	$349,105	$292	1.00	292	1,196	6,086,437	3.6%
2021-22	170	$61,412,887	209,735	$361,252	$293	0.95	308	1,234	8,777,760	2.4%
2020-21	139	$54,926,989	192,530	$395,158	$285	0.93	308	1,385	13,030,389	1.5%
2019-20	140	$54,100,779	193,530	$386,434	$280	0.91	308	1,382	6,100,479	3.2%
2018-19	140	$51,681,910	193,530	$369,157	$267	0.88	303	1,382	6,411,464	3.0%
2017-18	142	$50,649,719	199,722	$356,688	$254	0.86	295	1,406	7,119,353	2.8%
2016-17	165	$56,186,996	225,678	$340,527	$249	0.83	299	1,368	7,857,015	2.9%
2015-16	126	$46,606,423	189,733	$369,892	$246	0.82	299	1,506	8,419,872	2.3%
2014-15	126	$46,876,529	189,733	$372,036	$247	0.80	307	1,506	9,774,435	1.9%
2013-14	126	$44,067,484	181,581	$349,742	$243	0.78	311	1,441	11,624,030	1.6%
2012-13	126	$45,901,792	189,131	$364,300	$243	0.77	315	1,501	12,683,816	1.5%
2011-12	128	$47,676,723	192,196	$372,474	$248	0.76	328	1,502	14,026,497	1.4%
2010-11	124	$46,724,127	194,445	$376,807	$240	0.74	325	1,568	15,068,324	1.3%
2009-10	124	$46,830,291	194,445	$377,664	$241	0.73	329	1,568	14,430,156	1.3%
2008-09	124	$46,830,291	194,795	$377,664	$240	0.72	335	1,571	9,059,213	2.2%
2007-08	125	$47,006,891	195,795	$376,055	$240	0.68	351	1,566	7,190,010	2.7%
2006-07	135	$47,726,296	205,915	$353,528	$232	0.66	349	1,525	7,127,604	2.9%
2005-06	139	$48,971,567	217,565	$352,313	$225	0.63	356	1,565	7,752,573	2.8%
2004-05	139	$48,971,567	217,265	$352,313	$225	0.61	371	1,563	8,253,403	2.6%
2003-04	138	$47,694,915	210,065	$345,615	$227	0.59	387	1,522	8,876,765	2.4%
2002-03	139	$48,011,331	217,836	$345,405	$220	0.56	395	1,567	8,545,430	2.5%
2001-02	82	$33,234,295	160,836	$405,296	$207	0.55	377	1,961	6,953,242	2.3%
2000-01	82	$30,504,684	160,836	$372,008	$190	0.52	367	1,961	5,827,683	2.8%
1999-00	82	$29,794,380	158,036	$363,346	$189	0.50	380	1,927	6,094,646	2.6%
1998-99	83	$29,000,000	159,236	$349,398	$182	0.48	376	1,919	6,459,066	2.5%
1997-98	74	$25,790,000	156,686	$348,514	$165	0.47	352	2,117	6,983,292	2.2%

NOTE: Please use caution in interpretation of the *Estimated Indicator of Coverage* statistic for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator for each of the programs. EOC coverage is estimated by EOC participants divided by number of unemployed. Estimates of coverage is tied to variation in unemployment rates. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-10: Historical characteristics of Federal TRIO programs, McNair Postbaccalaureate Achievement Program (McNair): 1989-2022

Award Year	Programs	Funding	McNair Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant In Constant $	Participants per Program	Pell Grant Recipients	McNair Coverage
2022-23	206	$56,378,254	5,677	$273,681	$9,931	1.00	$9,931	28		
2021-22	187	$49,824,230	5,242	$266,440	$9,505	0.95	$9,998	28	6,070,348	0.1%
2020-21	187	$51,778,211	5,242	$276,889	$9,878	0.93	$10,673	28	6,211,769	0.1%
2019-20	187	$50,027,266	5,242	$267,525	$9,544	0.91	$10,512	28	6,736,584	0.1%
2018-19	187	$47,872,986	5,242	$256,005	$9,133	0.88	$10,355	28	6,854,706	0.1%
2017-18	187	$45,896,206	5,234	$245,434	$8,769	0.86	$10,207	28	7,101,820	0.1%
2016-17	151	$36,589,491	4,338	$242,315	$8,435	0.83	$10,118	29	7,184,051	0.1%
2015-16	151	$35,701,197	4,293	$236,432	$8,316	0.82	$10,129	28	7,648,736	0.1%
2014-15	151	$35,600,323	4,293	$235,764	$8,293	0.80	$10,304	28	8,303,266	0.1%
2013-14	152	$34,060,382	4,191	$224,081	$8,127	0.78	$10,400	28	8,650,320	0.0%
2012-13	158	$37,270,374	4,482	$235,888	$8,316	0.77	$10,809	28	8,945,764	0.1%
2011-12	200	$46,118,554	5,419	$230,593	$8,511	0.76	$11,246	27	9,430,792	0.1%
2010-11	200	$47,373,968	5,419	$236,870	$8,742	0.74	$11,823	27	9,294,832	0.1%
2009-10	200	$47,298,189	5,430	$236,491	$8,711	0.73	$11,885	27	8,053,449	0.1%
2008-09	185	$44,326,656	5,067	$239,604	$8,748	0.72	$12,203	27	6,143,726	0.1%
2007-08	190	$45,604,173	5,210	$240,022	$8,753	0.68	$12,815	27	5,530,412	0.1%
2006-07	177	$41,714,498	4,186	$235,675	$9,965	0.66	$15,005	24	5,152,828	0.1%
2005-06	178	$41,934,925	4,236	$235,589	$9,900	0.63	$15,668	24	5,156,264	0.1%
2004-05	179	$42,092,721	4,133	$235,155	$10,185	0.61	$16,752	23	5,296,544	0.1%
2003-04	179	$41,885,612	4,118	$233,998	$10,171	0.59	$17,344	23	5,130,099	0.1%
2002-03	156	$38,357,300	3,774	$245,880	$10,164	0.56	$18,210	24	4,766,270	0.1%
2001-02	156	$35,785,817	3,774	$229,396	$9,482	0.55	$17,315	24	4,332,372	0.1%
2000-01	156	$34,859,043	3,774	$223,455	$9,237	0.52	$17,878	24	3,891,783	0.1%
1999-00	156	$32,114,068	3,641	$205,859	$8,820	0.50	$17,776	23	3,756,621	0.1%
1998-99	99	$20,774,063	2,469	$209,839	$8,414	0.48	$17,361	25	3,855,180	0.1%
1997-98	99	$20,367,000	2,480	$205,727	$8,213	0.47	$17,544	25	3,732,807	0.1%
1996-97	99	$19,817,000	2,480	$200,172	$7,991	0.45	$17,603	25	3,665,654	0.1%
1995-96	99	$19,080,000	2,460	$192,727	$7,756	0.44	$17,584	25	3,611,821	0.1%
1994-95	68	$11,900,000	1,800	$175,000	$6,611	0.43	$15,429	26	3,674,967	0.0%
1993-94	68	$9,598,000	1,730	$141,147	$5,548	0.41	$13,390	25	3,755,675	0.0%
1992-93	68	$9,576,000	1,700	$140,824	$5,633	0.40	$13,985	25	4,002,045	0.0%
1991-92	42	$4,944,000	1,000	$117,714	$4,944	0.39	$12,714	24	3,786,230	0.0%
1990-91	28	$3,000,000	730	$107,143	$4,110	0.37	$11,123	26	3,404,810	0.0%
1989-90	14	$1,482,000	415	$105,857	$3,571	0.35	$10,248	30	3,322,151	0.0%

NOTE: Please use caution in interpretation of the *Estimated Indicator of Coverage* statistic for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the indicator of coverage statistic for each of the programs. McNair coverage is estimated by McNair participants divided by total Pell Grant recipients. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years 1989 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html. Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-11: Historical characteristics of Federal TRIO programs, Student Support Services (SSS): 1997-2022

Award Year	Programs	Funding	SSS Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant In Constant $	Participants per Program	Pell Grant Recipients	SSS Coverage
2022-23	1162	$367,195,716	209,286	$316,003	$1,755	1.00	$1,755	180.1		
2021-22	1149	$363,222,465	207,699	$316,121	$1,749	0.95	$1,840	180.8	$6,072,771	3.4%
2020-21	1156	$365,918,070	209,075	$316,538	$1,750	0.93	$1,891	180.9	$6,214,454	3.4%
2019-20	1066	$337,107,672	202,255	$316,236	$1,667	0.91	$1,836	189.7	$6,739,615	3.0%
2018-19	1069	$322,608,056	202,880	$301,785	$1,590	0.88	$1,803	189.8	$6,857,778	3.0%
2017-18	1069	$310,042,423	202,913	$290,030	$1,528	0.86	$1,779	189.8	$7,105,237	2.9%
2016-17	1071	$302,405,536	203,290	$282,358	$1,488	0.83	$1,784	189.8	$7,187,535	2.8%
2015-16	1081	$297,256,676	205,263	$274,983	$1,448	0.82	$1,764	189.9	$7,652,519	2.7%
2014-15	1027	$288,631,903	202,492	$281,044	$1,425	0.80	$1,771	197.2	$8,308,644	2.4%
2013-14	1027	$274,739,441	197,068	$267,516	$1,394	0.78	$1,784	191.9	$8,655,816	2.3%
2012-13	1028	$290,325,810	202,750	$282,418	$1,432	0.77	$1,861	197.2	$8,951,280	2.3%
2011-12	1029	$290,572,674	202,921	$282,384	$1,432	0.76	$1,892	197.2	$9,436,532	2.2%
2010-11	1034	$302,514,811	204,096	$292,568	$1,482	0.74	$2,005	197.4	$9,300,599	2.2%
2009-10	946	$301,525,678	198,057	$318,738	$1,522	0.73	$2,077	209.4	$8,063,392	2.5%
2008-09	947	$284,364,806	198,940	$300,280	$1,429	0.72	$1,994	210.1	$6,151,829	3.2%
2007-08	949	$271,566,777	199,499	$286,161	$1,361	0.68	$1,993	210.2	$5,538,411	3.6%
2006-07	953	$271,412,971	201,534	$284,799	$1,347	0.66	$2,028	211.5	$5,160,763	3.9%
2005-06	959	$274,545,170	203,212	$286,283	$1,351	0.63	$2,138	211.9	$5,163,916	3.9%
2004-05	935	$263,030,892	196,237	$281,316	$1,340	0.61	$2,205	209.9	$5,304,097	3.7%
2003-04	936	$263,650,147	196,387	$281,678	$1,343	0.59	$2,289	209.8	$5,137,566	3.8%
2002-03	937	$262,711,302	198,551	$280,375	$1,323	0.56	$2,371	211.9	$4,773,528	4.2%
2001-02	944	$253,766,358	199,956	$268,820	$1,269	0.55	$2,317	211.8	$4,339,940	4.6%
2000-01	795	$183,298,415	176,614	$230,564	$1,038	0.52	$2,009	222.2	$3,896,051	4.5%
1999-00	796	$178,916,836	178,099	$224,770	$1,005	0.50	$2,025	223.7	$3,760,473	4.7%
1998-99	796	$178,916,836	178,099	$224,770	$1,005	0.48	$2,073	223.7	$3,855,180	4.6%
1997-98	796	$171,893,687	178,099	$215,947	$965	0.47	$2,062	223.7	$3,624,652	4.9%

NOTE: Please use caution in interpretation of the *Estimated Indicator of Coverage* statistic for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the indicator of coverage statistic for each of the programs. The SSS indicator of coverage statistic is determined by SSS participants divided by total Pell Grant recipients. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html. Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-12: Historical characteristics of Federal TRIO programs, Talent Search (TS): 1997-2022

Award Year	Programs	Funding	Talent Search Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant In Constant $	Participants per Program	6th to 12th Grade Enrollments	Free and Reduced-Price Eligibility Rate	Low Income School Enrollment	Talent Search Coverage
2022-23	552	$190,714,400	350,730	$345,497	$544	1.00	$544	635				
2021-22	530	$184,987,311	340,427	$349,033	$543	0.95	$572	642				
2020-21	473	$168,306,753	309,905	$355,828	$543	0.93	$587	655				
2019-20	473	$179,852,045	309,905	$380,237	$580	0.91	$639	655	27,102,678	57.2%	15,506,796	2.0%
2018-19	473	$158,260,406	309,905	$334,589	$511	0.88	$579	655	26,923,568	57.0%	15,341,117	2.0%
2017-18	473	$151,772,998	312,855	$320,873	$485	0.86	$565	661	26,782,439	57.5%	15,390,551	2.0%
2016-17	481	$150,635,825	318,723	$313,172	$473	0.83	$567	663	26,630,109	55.4%	14,749,408	2.2%
2015-16	449	$134,520,595	310,199	$299,600	$434	0.82	$528	691	26,466,850	56.3%	14,905,777	2.1%
2014-15	450	$134,613,873	310,747	$299,142	$433	0.80	$538	691	26,371,350	54.7%	14,421,473	2.2%
2013-14	452	$128,116,544	299,683	$283,444	$428	0.78	$547	663	26,240,035	53.3%	13,992,426	2.1%
2012-13	454	$135,968,652	313,641	$299,490	$434	0.77	$563	691	26,189,533	52.8%	13,821,250	2.3%
2011-12	461	$138,658,540	319,678	$300,778	$434	0.76	$573	693	26,076,438	53.3%	13,887,378	2.3%
2010-11	463	$141,646,643	359,740	$305,932	$394	0.74	$532	777	26,124,583	50.8%	13,270,867	2.7%
2009-10	464	$141,508,765	360,940	$304,976	$392	0.73	$535	778	26,079,735	50.4%	13,153,481	2.7%
2008-09	466	$142,743,840	363,300	$306,317	$393	0.72	$548	780	26,137,944	48.2%	12,594,455	2.9%
2007-08	471	$142,884,182	366,330	$303,363	$390	0.68	$571	778	26,333,918	46.0%	12,101,413	3.0%
2006-07	510	$149,627,580	392,743	$293,387	$381	0.66	$574	770	26,423,662	44.8%	11,826,085	3.3%
2005-06	468	$144,648,938	384,588	$309,079	$376	0.63	$595	822	26,350,994	45.5%	11,987,314	3.2%
2004-05	469	$144,230,198	382,541	$307,527	$377	0.61	$620	816	26,209,144	44.6%	11,695,426	3.3%
2003-04	471	$144,810,906	386,241	$307,454	$375	0.59	$639	820	25,932,017	42.9%	11,132,245	3.5%
2002-03	475	$143,505,809	389,454	$302,117	$368	0.56	$660	820	25,536,764	41.3%	10,538,775	3.7%
2001-02	360	$109,960,406	320,854	$305,446	$343	0.55	$626	891	25,008,679	40.7%	10,185,251	3.2%
2000-01	360	$100,544,841	320,854	$279,291	$313	0.52	$607	891	24,498,211	39.9%	9,783,680	3.3%
1999-00	362	$98,672,886	326,041	$272,577	$303	0.50	$610	901	24,091,571	40.0%	9,630,897	3.4%
1998-99	362	$95,960,000	324,341	$265,083	$296	0.48	$610	896	25,922,041	40.1%	10,395,801	3.1%
1997-98	319	$81,540,000	298,574	$255,611	$273	0.47	$583	936	23,481,196	39.9%	9,371,586	3.2%

NOTE: Please use caution in interpretation of the *Estimated Indicator of Coverage* for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the coverage indicator for each of the programs. The Talent Search indicator of coverage statistic is estimated by TS participants divided by total amount of low-income school 6th to 12th grade enrollment. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-13: Historical characteristics of Federal TRIO programs, Upward Bound (UB): 1997-2022

Award Year	Programs	Funding	Upward Bound Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant in Constant $	Participants per Program	Public High School Enrollments	Free and Reduced-Price Eligibility Rate	Low Income School Enrollment	UB Coverage
2022-23	1023	$366,203,750	73,994	$357,970	$4,949	1.00	$4,949	72				
2021-22	966	$335,817,182	70,744	$347,637	$4,747	0.95	$4,993	73				
2020-21	966	$352,094,127	70,711	$364,487	$4,979	0.93	$5,380	73				
2019-20	966	$343,356,535	70,742	$355,442	$4,854	0.91	$5,346	73	15,351,476	57.2%	8,783,346	0.8%
2018-19	967	$355,592,015	70,914	$367,727	$5,014	0.88	$5,686	73	15,311,827	57.0%	8,724,718	0.8%
2017-18	956	$312,052,710	70,001	$326,415	$4,458	0.86	$5,189	73	15,315,567	57.5%	8,801,103	0.8%
2016-17	810	$270,228,385	61,747	$333,615	$4,376	0.83	$5,250	76	15,269,700	55.4%	8,457,308	0.7%
2015-16	813	$263,412,436	61,361	$324,001	$4,293	0.82	$5,229	75	15,185,805	56.3%	8,552,443	0.7%
2014-15	814	$264,578,959	61,458	$325,036	$4,305	0.80	$5,349	76	15,087,196	54.7%	8,250,605	0.7%
2013-14	816	$250,117,297	59,097	$306,516	$4,232	0.78	$5,416	72	14,940,332	53.3%	7,966,891	0.7%
2012-13	826	$269,229,023	62,576	$325,943	$4,302	0.77	$5,592	76	14,900,497	52.8%	7,863,580	0.8%
2011-12	951	$305,387,247	64,262	$321,122	$4,752	0.76	$6,280	68	14,911,921	53.3%	7,941,556	0.8%
2010-11	953	$313,945,491	64,391	$329,429	$4,876	0.74	$6,594	68	15,028,172	50.8%	7,634,069	0.8%
2009-10	956	$308,930,189	64,566	$323,149	$4,785	0.73	$6,529	68	15,116,364	50.4%	7,624,035	0.8%
2008-09	964	$313,093,939	65,179	$324,786	$4,804	0.72	$6,701	68	15,147,782	48.2%	7,298,893	0.9%
2007-08	971	$315,176,549	65,587	$324,590	$4,805	0.68	$7,036	68	15,260,968	46.0%	7,012,981	0.9%
2006-07	761	$266,623,737	56,430	$350,360	$4,725	0.66	$7,114	74	15,267,794	44.8%	6,833,202	0.8%
2005-06	761	$265,975,770	56,450	$349,508	$4,712	0.63	$7,457	74	14,979,739	45.5%	6,814,423	0.8%
2004-05	763	$274,097,258	56,679	$359,236	$4,836	0.61	$7,954	74	14,816,640	44.6%	6,611,697	0.9%
2003-04	774	$266,183,250	56,721	$343,906	$4,693	0.59	$8,002	73	14,526,266	42.9%	6,235,919	0.9%
2002-03	770	$264,189,513	56,324	$343,103	$4,691	0.56	$8,404	73	14,242,621	41.3%	5,877,791	1.0%
2001-02	772	$251,154,772	56,564	$325,330	$4,440	0.55	$8,108	73	13,917,030	40.7%	5,667,970	1.0%
2000-01	772	$249,650,137	56,564	$323,381	$4,414	0.52	$8,542	73	13,699,759	39.9%	5,471,177	1.0%
1999-00	772	$220,500,637	52,960	$285,623	$4,164	0.50	$8,391	69	13,552,240	40.0%	5,417,672	1.0%
1998-99	598	$181,760,000	44,495	$303,946	$4,085	0.48	$8,429	74	13,192,784	40.1%	5,290,847	0.8%
1997-98	601	$178,810,000	48,462	$297,521	$3,690	0.47	$7,882	81	13,053,787	39.9%	5,209,900	0.9%

NOTE: Please use caution in interpretation of the *Estimated Indicator of Coverage* for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the coverage indicator for each of the programs. The UB indicator of coverage statistic is estimated by the number of UB participants in a given year divided by estimates of the total amount of low-income school enrollment. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-14: Historical characteristics of Federal TRIO programs, Upward Bound Math-Science Program (UBMS): 1997-2022

Award Year	Programs	Funding	Upward Bound Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant in Constant $	Participants per Program	Public High School Enrollments	Free and Reduced-Price Eligibility Rate	Low Income School Enrollment	UBMS Coverage
2022-23	241	$73,699,494	14,963	$305,807	$4,925	1.00	$4,925	62				
2021-22	212	$64,843,908	13,184	$305,867	$4,918	0.95	$5,174	62				
2020-21	212	$65,439,438	13,184	$308,677	$4,964	0.93	$5,363	62				
2019-20	212	$63,521,110	13,184	$299,628	$4,818	0.91	$5,307	62	15,339,463	57.2%	8,776,473	0.2%
2018-19	212	$67,687,618	13,184	$319,281	$5,134	0.88	$5,821	62	15,293,143	57.0%	8,714,072	0.2%
2017-18	211	$58,256,458	13,132	$276,097	$4,436	0.86	$5,164	62	15,296,801	57.5%	8,790,319	0.1%
2016-17	162	$44,289,274	10,176	$273,391	$4,352	0.83	$5,221	63	15,251,841	55.4%	8,447,417	0.1%
2015-16	162	$43,050,368	10,034	$265,743	$4,290	0.82	$5,226	62	15,168,208	56.3%	8,542,533	0.1%
2014-15	162	$43,083,035	10,034	$265,945	$4,294	0.80	$5,335	62	15,069,591	54.7%	8,240,977	0.1%
2013-14	162	$40,547,999	9,676	$250,296	$4,191	0.78	$5,363	60	14,922,688	53.3%	7,957,482	0.1%
2012-13	166	$44,141,410	10,265	$265,912	$4,300	0.77	$5,589	62	14,882,786	52.8%	7,854,234	0.1%
2011-12	131	$33,812,442	6,992	$258,110	$4,836	0.76	$6,390	53	14,883,417	53.3%	7,926,376	0.1%
2010-11	131	$34,873,057	6,992	$266,207	$4,988	0.74	$6,745	53	14,999,515	50.8%	7,619,512	0.1%
2009-10	132	$35,203,799	7,057	$266,695	$4,988	0.73	$6,807	53	15,098,261	50.4%	7,614,905	0.1%
2008-09	116	$31,186,306	6,250	$268,847	$4,990	0.72	$6,961	54	15,129,378	48.2%	7,290,025	0.1%
2007-08	126	$33,976,483	6,808	$269,655	$4,991	0.68	$7,307	54	15,242,047	46.0%	7,004,286	0.1%
2006-07	125	$32,296,562	6,707	$258,372	$4,815	0.66	$7,251	54	15,243,392	44.8%	6,822,281	0.1%
2005-06	127	$32,592,037	6,817	$256,630	$4,781	0.63	$7,567	54	14,950,764	45.5%	6,801,242	0.1%
2004-05	127	$32,812,036	6,845	$258,362	$4,794	0.61	$7,884	54	14,784,501	44.6%	6,597,355	0.1%
2003-04	129	$33,392,693	6,947	$258,858	$4,807	0.59	$8,196	54	14,505,094	42.9%	6,226,830	0.1%
2002-03	123	$31,772,406	6,093	$258,312	$5,215	0.56	$9,343	50	14,234,349	41.3%	5,874,378	0.1%
2001-02	123	$30,847,003	6,093	$250,789	$5,063	0.55	$9,245	50	13,900,348	40.7%	5,661,176	0.1%
2000-01	123	$31,302,902	6,093	$254,495	$5,138	0.52	$9,944	50	13,682,499	39.9%	5,464,284	0.1%
1999-00	124	$29,276,284	6,200	$236,099	$4,722	0.50	$9,516	50	13,534,586	40.0%	5,410,614	0.1%
1998-99	81	$20,140,000	3,722	$248,642	$5,411	0.48	$11,165	46	13,192,784	40.1%	5,290,847	0.1%
1997-98	81	$19,740,000		$243,704		0.47			13,053,787	39.9%	5,209,900	0.0%

NOTE: Please use caution in interpretation of the *Estimated Indicators of Coverage* statistic for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the coverage indicator statistic for each of the programs. The UBMS coverage is estimated by UB participants divided by estimates of the total amount of low-income school enrollment. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years, 1997 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

Appendix Figure A-15: Historical characteristics of Federal TRIO programs, Veterans Upward Bound (VUB): 2003-2022

Award Year	Programs	Funding	Upward Bound Participants	Funding per Program	Funding per Participant	HEPI	Funding Per Participant in Constant $	Participants per Program	Veterans 18 & Over that are below the Poverty Level	VUB Coverage
2022-23	65	$20,557,756	8,598	$316,273	$2,391	1.00	$2,391	132	1,202,499	0.7%
2021-22	60	$18,815,149	7,898	$313,586	$2,382	0.95	$2,506	132	1,212,630	0.7%
2020-21	60	$19,228,457	7,898	$320,474	$2,435	0.93	$2,631	132		
2019-20	62	$19,064,429	8,157	$307,491	$2,337	0.91	$2,574	132	1,151,580	0.7%
2018-19	62	$18,384,370	8,157	$296,522	$2,254	0.88	$2,556	132	1,194,686	0.7%
2017-18	64	$18,186,172	8,407	$284,159	$2,163	0.86	$2,518	131	1,240,965	0.7%
2016-17	49	$13,852,595	6,587	$282,706	$2,103	0.83	$2,523	134	1,263,660	0.5%
2015-16	49	$13,548,241	6,566	$276,495	$2,063	0.82	$2,513	134	1,293,093	0.5%
2014-15	49	$13,706,511	6,566	$279,725	$2,087	0.80	$2,594	134	1,382,063	0.5%
2013-14	50	$13,068,144	6,404	$261,363	$2,041	0.78	$2,611	128	1,428,921	0.4%
2012-13	51	$14,392,377	6,831	$282,203	$2,107	0.77	$2,739	134	1,527,857	0.4%
2011-12	47	$13,180,173	5,780	$280,429	$2,280	0.76	$3,013	123	1,491,772	0.4%
2010-11	47	$13,565,830	5,780	$288,635	$2,347	0.74	$3,174	123	1,448,461	0.4%
2009-10	48	$13,851,830	5,900	$288,580	$2,348	0.73	$3,203	123	1,411,814	0.4%
2008-09	41	$12,030,210	5,060	$293,420	$2,378	0.72	$3,317	123	1,369,091	0.4%
2007-08	46	$13,351,830	5,660	$290,257	$2,359	0.68	$3,454	123	1,298,709	0.4%
2006-07	39	$11,492,305	4,909	$294,674	$2,341	0.66	$3,525	126	1,378,763	0.4%
2005-06	39	$11,371,489	4,909	$291,577	$2,316	0.63	$3,666	126	1,378,133	0.4%
2004-05	42	$12,576,611	5,269	$299,443	$2,387	0.61	$3,926	125		
2003-04	45	$12,415,570	5,430	$275,902	$2,286	0.59	$3,899	121		

NOTE: Please use caution in interpretation of the Estimated Indicator of Coverage statistic for each of the TRIO programs due to difficulty in estimating the target eligible population to be used as the denominator in calculating the coverage indicator for each of the programs. Veterans Upward Bound coverage is determined by total VUB participants divided by the total number of veterans 18 and over that are living below the poverty line. Data include programs in the Trust & Territories.

SOURCE: U.S. Department of Education, Office of Federal TRIO Programs data from years, 2003 to 2022. Retrieved from https://www2.ed.gov/about/offices/list/ope/trio/index.html; Updated and maintained by Tom Mortenson and Nicole Brunt. For more details, visit the Excel files at https://community.coenet.org/peoarchive/access-peo.

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