

TRENDS IN HIGHER EDUCATION SERIES

---

# Trends in College Pricing and Student Aid **2023**



COLLEGE  
PRICING



STUDENT  
AID

*Trends in College Pricing and Student Aid 2023* was authored by Jennifer Ma, executive research scientist, and Matea Pender, senior policy research scientist, at College Board.

### Contact Information for the Authors

trends@collegeboard.org

Tables, graphs, and data in this report or excerpts thereof may be reproduced or cited, for noncommercial purposes only, provided that the following attribution is included:

Source: Ma, Jennifer and Matea Pender (2023),  
*Trends in College Pricing and Student Aid 2023*, New York: College Board.  
© 2023 College Board.

[www.collegeboard.org](http://www.collegeboard.org)

[research.collegeboard.org/trends](http://research.collegeboard.org/trends)

### ACKNOWLEDGMENTS

We thank Dean Bentley, Jessica Howell, and Michael Hurwitz for their thoughtful reviews. We also thank the cooperation and support of many colleagues at College Board, including Jessica Bernier, Connie Betterton, Mark Bloniarz, Sauyeh Hadjaty, Kayla Hately, Karen Lanning, Kevin Morris, Tarlin Ray, Jose Rios, Shelby Robertson, Ashley Robinson-Spann, Mark Syp, Chris Villanueva, and the Annual Survey of Colleges team.

We thank all of those who contributed to the data collection for this publication, especially Tara Marini of the Office of Federal Student Aid, Mike Solomon of the Illinois Student Aid Commission, and institutional research department staff and campus administrators who provided us with invaluable data through the Annual Survey of Colleges.

BFF Media Work provided expert graphic design work.

### DEFINING TERMS

“Costs” refer to the expenditures associated with delivering instruction, including physical plant and salaries.

“Prices” are the expenses that students and parents face.

“Published price” is the price institutions charge for tuition and fees, as well as housing and food in the case of students residing on campus. A full student expense budget also includes allowances for books and course materials, supplies, transportation, and other personal expenses.

“Net price” is what the student and/or family must cover after grant aid is subtracted.

“General subsidies” make it possible for institutions to charge less than the actual costs of instruction. State, federal, and local appropriations, as well as private philanthropy, reduce the prices faced by all students—whether or not they receive financial aid.

# Highlights

## TRENDS IN COLLEGE PRICING

### PUBLISHED PRICES

- In 2023-24, the average published (sticker) tuition and fees for full-time undergraduate students are (Table CP-1):
  - ◆ Public four-year in-state: \$11,260, \$270 higher than in 2022-23 (2.5% before adjusting for inflation).
  - ◆ Public four-year out-of-state: \$29,150, \$850 higher than in 2022-23 (3.0% before adjusting for inflation).
  - ◆ Public two-year in-district: \$3,990, \$100 higher than in 2022-23 (2.6% before adjusting for inflation).
  - ◆ Private nonprofit four-year: \$41,540, \$1,600 higher than in 2022-23 (4.0% before adjusting for inflation).
  - ◆ After adjusting for inflation, all these one-year percent changes are negative as the average CPI in the first eight months of 2023 is 4.5% higher than that in the first eight months of 2022.
- In 2023-24, average estimated budgets (tuition and fees, housing and food, and allowances for books and supplies, transportation and other personal expenses) for full-time undergraduate students range from \$19,860 for public two-year in-district students and \$28,840 for public four-year in-state students to \$46,730 for public four-year out-of-state students and \$60,420 for private nonprofit four-year students. (Figure CP-1)
- Between 1993-94 and 2023-24, average published tuition and fees increased from \$2,650 to \$3,990 at public two-year, from \$5,380 to \$11,260 at public four-year, and from \$23,300 to \$41,540 at private nonprofit four-year institutions, after adjusting for inflation. (Figure CP-2) Over the decade between 2013-14 and 2023-24, average inflation-adjusted tuition and fees declined by 6% at public two-year colleges, declined by 4% at public four-year institutions, and increased by 5% at private nonprofit four-year institutions. (Figure CP-4)
- In 2023-24, average published tuition and fees for full-time in-district students at public two-year colleges range from \$1,440 in California and \$2,130 in New Mexico to \$8,660 in Vermont. From 2022-23 to 2023-24, the average published two-year in-district tuition and fees did not increase in 10 states, before adjusting for inflation. (Figure CP-5, Table CP-5 online)
- In 2023-24, average published tuition and fees for full-time in-state students at public four-year institutions range from \$6,360 in Florida and \$6,700 in Wyoming to \$17,170 in New Hampshire and \$17,180 in Vermont. From 2022-23 to 2023-24, the average published four-year in-state tuition and fees did not increase in seven states and the District of Columbia, before adjusting for inflation. (Figure CP-6, Table CP-5 online)

### NET PRICES AFTER GRANT AID

- Since 2009-10, first-time full-time in-district students at public two-year colleges have been receiving enough grant aid on average to cover their tuition and fees. (Figure CP-8)

- After adjusting for inflation, the average net tuition and fee price paid by first-time full-time in-state students enrolled in public four-year institutions peaked in 2012-13 at \$4,230 (in 2023 dollars) and declined to an estimated \$2,730 in 2023-24. (Figure CP-9)
- After adjusting for inflation, the average net tuition and fee price paid by first-time full-time students enrolled in private nonprofit four-year institutions declined from \$18,820 (in 2023 dollars) in 2006-07 to an estimated \$15,910 in 2023-24. (Figure CP-10)
- In 2019-20, 39% of full-time in-state students at public two-year colleges received enough grant aid to cover their tuition and fees, including 71% of those from families with incomes of less than \$40,000 and 10% of those from families with incomes of \$120,000 or more. (Figure CP-11)
- In 2019-20, 31% of full-time in-state students at public four-year colleges received enough grant aid to cover their tuition and fees, including 64% of those from families with incomes of less than \$40,000 and 9% of those from families with incomes of \$120,000 or more. (Figure CP-11)
- In 2019-20, 18% of full-time students at private nonprofit four-year institutions received enough grant aid to cover their tuition and fees, including 35% of those from families with incomes of less than \$40,000 and 7% of those from families with incomes of \$120,000 or more. (Figure CP-12)

### INSTITUTIONAL FINANCES

- State and local funding per student increased in 2021-22 (in inflation-adjusted dollars) for the 10th consecutive year. State and local funding per student reached \$10,240 in 2020-21, the highest level since 1999-2000. (Figures CP-13A and CP-13B)
- Between 2015-16 and 2020-21, the share of total revenues from federal appropriations and government grants and contracts increased at all types of public institutions. Note that the 2020-21 government grants and contracts include federal Covid relief funds for colleges and universities. (Figure CP-15)
- Between 2015-16 and 2020-21, per-student education and related expenditures declined at both public and private nonprofit doctoral and master's institutions, after adjusting for inflation. (Figure CP-16)

### FAMILY INCOME AND ENROLLMENT TRENDS

- Between 1992 and 2022, inequality in family incomes increased. The average income increased by 65% for the top quintile of families and by 27% for the lowest quintile of families, after adjusting for inflation. (Figure CP-17A)
- Between fall 2019 (pre-Covid) and fall 2021, total enrollment declined by 947,900 (5%)—from 19.5 million to 18.6 million. Total undergraduate enrollment declined by 6.6% (from 16.439 to 15.352 million) and total graduate enrollment increased by 4.5% (from 3.066 to 3.205 million). The public two-year sector saw the largest decline in enrollment. (Figures CP-18 and CP-19)
- Between fall 2011 and fall 2021, the shares of undergraduate students who were Asian, Hispanic, or two or more races increased while the shares of undergraduate students who were Black, White, or American Indian/Alaska Native declined. (Figure CP-21)

# TRENDS IN STUDENT AID

## TYPES OF STUDENT AID

- In 2022-23, undergraduate students received an average of \$15,480 per full-time equivalent (FTE) student in financial aid: \$10,680 in grants, \$3,860 in federal loans, \$850 in education tax credits and deductions, and \$90 in Federal Work-Study (FWS). (Figure SA-1, Table SA-3 online)
- In 2022-23, graduate students received an average of \$28,300 per FTE student in financial aid: \$10,320 in grants, \$17,490 in federal loans, \$430 in tax credits and deductions, and \$60 in FWS. (Figure SA-1, Table SA-3 online)
- In 2022-23, undergraduate and graduate students received a total of \$240.7 billion in student aid in the form of grants, FWS, federal loans, and federal tax benefits. Students borrowed about \$14.7 billion from nonfederal sources. (Table SA-1)

## FEDERAL STUDENT AID

- Total federal grant aid decreased by 33% in inflation-adjusted dollars between 2012-13 and 2022-23. Pell Grants declined by 33% (\$13.7 billion) and veterans' benefits declined by 35% (\$5.3 billion). (Table SA-1 online)
- In 2022-23, average benefits from the Post-9/11 GI Bill program were \$14,590, compared with \$4,510 per Pell Grant recipient. There were 6.0 million Pell Grant recipients compared with 537,000 veterans' benefits recipients. (Figure SA-7)
- Between 2012-13 and 2022-23, federal loans to undergraduates fell by 49%, while federal loans to graduate students declined by 11%. (Figures SA-3 and SA-4)
- FWS and Federal Supplemental Educational Opportunity Grants (FSEOG) combined provided \$1.9 billion to undergraduate students in 2022-23—1% of the total aid. (Figure SA-3)

## PELL GRANTS

- Total Pell Grant expenditures reached its peak in 2010-11 at \$47.9 billion (in 2022 dollars) and declined to \$27.2 billion in 2022-23 (43% decline). (Figure SA-17B)
- The number of Pell Grant recipients was 9.3 million in 2010-11 and declined to 6.0 million in 2022-23 (35% decline). (Figure SA-17B)
- The average Pell Grant per recipient was \$3,960 (in 2022 dollars) in 2002-03. It peaked at \$5,140 in 2010-11 and fell to \$4,510 in 2022-23. (Table SA-5 online)
- In 2023-24, the maximum Pell award is \$7,395, a \$500 increase from the previous year before adjusting for inflation. This is the largest one-year increase in maximum Pell since 2009-10, before adjusting for inflation. (Table SA-8 online)

## OTHER SOURCES OF GRANT AID

- Between 2012-13 and 2022-23, institutional grant aid for undergraduate students increased by 33% (\$15.2 billion in 2022 dollars). (Figure SA-3)
- Between 2012-13 and 2022-23, institutional grant aid for all students rose by \$19.2 billion (in 2022 dollars), reaching a total of \$76.9 billion in 2022-23. Institutional grants accounted for 53% of all grant aid for undergraduate and graduate students in 2022-23. (Figure SA-5)

- Between 2011-12 and 2020-21, state grant aid per FTE undergraduate student increased from \$790 to \$1,070 in 2021 dollars. In 2021-22, state grant aid per FTE undergraduate student was \$1,060. In 2021-22, state grant aid per FTE undergraduate student ranged from under \$200 in six states to over \$2,000 in four states. (Figures SA-19A and SA-20A)






## STUDENT BORROWING


- In 2022-23, after the 12th consecutive decline in annual education borrowing, students and parents borrowed \$98.2 billion in federal and nonfederal loans, down from a peak of \$152.8 billion (in 2022 dollars) in 2010-11. (Figure SA-6)
- Federal loans per FTE undergraduate student declined to \$3,860 in 2022-23, from a peak of \$6,970 (in 2022 dollars) in 2010-11. Federal loans per FTE graduate student declined to \$17,490 in 2022-23, from a peak of \$22,930 in 2010-11. (Figure SA-1)
- The share of annual federal education loans going to graduate students (who constitute about 16% of all postsecondary students) rose from 36% (\$34.6 billion out of \$94.9 billion in 2022 dollars) in 2007-08 to 47% (\$39.4 billion out of \$83.5 billion) in 2022-23. (Figure SA-9A)
- In 2022-23, 446,000 graduate students borrowed through the grad PLUS program; 1.3 million borrowed unsubsidized loans. The average amount borrowed through the PLUS program was \$10,430 higher than the average unsubsidized loan (\$29,780 vs. \$19,350). (Figure SA-9B)
- Nonfederal education loans fell from about \$31.5 billion (in 2022 dollars) in 2007-08 to \$10.3 billion in 2010-11 and rose to about \$14.7 billion in 2022-23. (Figure SA-6)

## STUDENT DEBT







- As of March 2023, 32% of borrowers owed less than \$10,000 and 21% of borrowers owed between \$10,000 and \$20,000 in federal loan debt. These borrowers held 4% and 8% of the outstanding federal debt, respectively. (Figure SA-10)
- Among 2021-22 bachelor's degree recipients from public and private nonprofit four-year institutions, 51% graduated with debt and the average debt among borrowers was \$29,400. (Figure SA-14A)
- In 2021-22, 49% of bachelor's degree recipients from public four-year institutions graduated with federal loans with an average federal debt level of \$20,700 per borrower; 52% of bachelor's degree recipients from private nonprofit four-year institutions graduated with federal loans with an average federal debt level of \$22,200. (Figure SA-14B)
- The share of 2019-20 bachelor's degree recipients who borrowed \$50,000 or more for undergraduate studies ranged from 8% of those who earned their degrees at public four-year colleges and universities to 26% of those who graduated from for-profit institutions. (Figure SA-15)
- In 2019-20, 13% of master's degree recipients, 13% of doctoral degree recipients, and 57% of professional degree recipients borrowed \$100,000 or more to fund their undergraduate and graduate study. (Figure SA-16)

# Contents

<b>3</b>	<b>Highlights</b>		
<b>7</b>	<b>Introduction</b>		
<b>TRENDS IN COLLEGE PRICING</b>			
<b>10</b>	<b>Published Charges, 2022-23 and 2023-24</b>	TABLE CP-1	Average Published Undergraduate Charges by Sector and by Carnegie Classification, 2022-23 and 2023-24
<b>11</b>	<b>Student Budgets, 2023-24</b>	FIGURE CP-1	Average Estimated Undergraduate Budgets, 2023-24
<b>12</b>	<b>Published Tuition and Fees over Time</b>	FIGURE CP-2	Published Tuition and Fees over Time
		FIGURE CP-3	Published Tuition and Fees Relative to 1993-94, by Sector
<b>13</b>	<b>Published Charges over Time</b>	FIGURE CP-4	Ten-Year Percentage Changes in Published Charges, by Decade
		 TABLE CP-2	Tuition and Fees and Housing and Food over Time
		 TABLE CP-3	Tuition and Fees over Time (Unweighted)
		 TABLE CP-4	Tuition and Fees by Region over Time
<b>14</b>	<b>Tuition and Fees by State: Public Two-Year</b>	FIGURE CP-5	2023-24 In-District Tuition and Fees at Public Two-Year Institutions by State and Five-Year Percentage Changes
		 TABLE CP-5	Tuition and Fees by Sector and State over Time
<b>15</b>	<b>Tuition and Fees by State: Public Four-Year</b>	FIGURE CP-6	2023-24 Tuition and Fees at Public Four-Year Institutions by State and Five-Year Percentage Changes
<b>16</b>	<b>Tuition and Fees by State: Flagship Universities</b>	FIGURE CP-7	2023-24 Tuition and Fees at Flagship Universities and Five-Year Percentage Changes
		 TABLE CP-6	Tuition and Fees at Flagship Universities over Time
<b>17</b>	<b>Average Net Price: Public Two-Year</b>	FIGURE CP-8	Average Net Price over Time for First-Time Full-Time Students at Public Two-Year Institutions
<b>18</b>	<b>Average Net Price: Public Four-Year</b>	FIGURE CP-9	Average Net Price over Time for First-Time Full-Time Students at Public Four-Year Institutions
<b>19</b>	<b>Average Net Price: Private Nonprofit Four-Year</b>	FIGURE CP-10	Average Net Price over Time for First-Time Full-Time Students at Private Nonprofit Four-Year Institutions
<b>20</b>	<b>Net Price by Income: Public Institutions</b>	FIGURE CP-11	Distribution of Full-Time In-State Undergraduate Students at Public Institutions by Net Tuition and Fees, 2019-20
<b>21</b>	<b>Net Price by Income: Private Institutions</b>	FIGURE CP-12	Distribution of Full-Time Undergraduate Students at Private Institutions by Net Tuition and Fees, 2019-20
<b>22</b>	<b>Institutional Revenues: State and Local Funding</b>	FIGURE CP-13A	Annual Percentage Changes in State and Local Funding and Public Tuition and Fees over Time
		FIGURE CP-13B	Total and Per-Student State and Local Funding and Public Enrollment over Time
<b>23</b>	<b>Institutional Revenues: State and Local Funding</b>	FIGURE CP-14	2021-22 State and Local Funding per Student and per \$1,000 in Personal Income and 10-Year Percentage Changes in Inflation-Adjusted Funding per Student, by State
<b>24</b>	<b>Institutional Revenues: Public Institutions</b>	FIGURE CP-15	Institutional Revenues per Student at Public Institutions over Time
<b>25</b>	<b>Institutional Revenues and Expenditures</b>	FIGURE CP-16	Net Tuition Revenues, Subsidies, and Education Expenditures per Student over Time
<b>26</b>	<b>Family Income</b>	FIGURE CP-17A	Family Income over Time by Quintile
		FIGURE CP-17B	Family Income by Selected Characteristics, 2022
<b>27</b>	<b>Enrollment Patterns over Time</b>	FIGURE CP-18	Enrollment by Level of Enrollment and Attendance Status over Time
<b>28</b>	<b>Enrollment Patterns over Time, by Sector</b>	FIGURE CP-19	Enrollment by Sector, Level of Enrollment, and Attendance Status over Time
<b>29</b>	<b>Public Enrollment by State</b>	FIGURE CP-20A	Fall 2019 to Fall 2021 Two-Year Percentage Changes in Total Undergraduate Enrollment at Public Four-Year institutions, by State
		FIGURE CP-20B	Fall 2019 to Fall 2021 Two-Year Percentage Changes in Total Undergraduate Enrollment at Public Two-Year Institutions, by State
<b>30</b>	<b>Enrollment by Race/Ethnicity</b>	FIGURE CP-21	Distribution of Undergraduate Enrollment by Sector and Race/Ethnicity, Fall 2011 through Fall 2021, Selected Years

 Figures and tables that are only available online at [research.collegeboard.org/trends](https://research.collegeboard.org/trends).

# Contents—Continued

<b>TRENDS IN STUDENT AID</b>		
<b>32 Total Student Aid</b>	TABLE SA-1	Total Student Aid and Nonfederal Loans in 2022 Dollars over Time
	 TABLE SA-2	Total Student Aid and Nonfederal Loans in Current Dollars over Time
<b>33 Aid per Student</b>	FIGURE SA-1	Average Aid per Student over Time
	 TABLE SA-3	Average Aid per Student over Time
<b>34 Grants, Loans, and Other Aid</b>	FIGURE SA-2	Composition of Total Aid and Nonfederal Loans over Time
	 TABLE SA-4	Total Aid and Nonfederal Loans in Current and Constant Dollars over Time
<b>35 Total Undergraduate Student Aid</b>	FIGURE SA-3	Total Undergraduate Student Aid by Source and Type over Time
<b>36 Total Graduate Student Aid</b>	FIGURE SA-4	Total Graduate Student Aid by Source and Type over Time
<b>37 Sources of Grant Aid</b>	FIGURE SA-5	Total Grant Aid by Source over Time
<b>38 Types of Loans</b>	FIGURE SA-6	Total Federal and Nonfederal Loans by Type over Time
<b>39 Federal Aid</b>	FIGURE SA-7	Number of Recipients by Federal Aid Program, 2022-23
	FIGURE SA-8	Percentage Distribution of Federal Aid Funds by Sector, 2021-22
	 TABLE SA-5	Federal Aid per Recipient by Program over Time in Current and Constant Dollars
	 TABLE SA-7	Percentage Distribution of Federal Aid Funds by Sector over Time
<b>40 Federal Loans: Annual Borrowing</b>	FIGURE SA-9A	Total Annual Amount Borrowed in Federal Loans over Time
	FIGURE SA-9B	Average Annual Amount Borrowed in Federal Loans over Time
	 TABLE SA-6	Federal Loans in Current and Constant Dollars over Time
<b>41 Federal Loans: Borrowing and Balances</b>	FIGURE SA-10	Distribution of Borrowers and Debt by Outstanding Balance, FY2023
	FIGURE SA-11	Percentage of Undergraduates Borrowing Federal Loans over Time
<b>42 Federal Loans: Outstanding Debt by Age</b>	FIGURE SA-12A	Distribution of Outstanding Federal Loan Dollars and Borrowers by Borrower Age
	FIGURE SA-12B	Distribution of Borrowers by Outstanding Balance and Borrower Age, FY2023
<b>43 Federal Loans: Outstanding Debt by Repayment Plan and Repayment Status</b>	FIGURE SA-13A	Distribution of Outstanding Federal Direct Loan Dollars and Borrowers by Repayment Plan over Time
	FIGURE SA-13B	Repayment Status of Federal Education Loan Portfolio, FY2023
<b>44 Cumulative Debt: Bachelor's Degree Recipients</b>	FIGURE SA-14A	Average Cumulative Debt Per Borrower Among Bachelor's Degree Recipients at Four-Year Institutions over Time
	FIGURE SA-14B	Average Cumulative Debt Per Borrower by Loan Type Among Bachelor's Degree Recipients at Four-Year Institutions
<b>45 Cumulative Debt: Undergraduate Degree Recipients</b>	FIGURE SA-15	Distribution of 2019-20 Degree or Certificate Completers by Cumulative Amount Borrowed for Undergraduate Study
<b>46 Cumulative Debt: Graduate Degree Recipients</b>	FIGURE SA-16	Distribution of 2019-20 Graduate Degree Completers by Cumulative Amount Borrowed for Undergraduate and Graduate Study
<b>47 Pell Grants</b>	FIGURE SA-17A	Undergraduate Enrollment and Percentage Receiving Pell Grants over Time
	FIGURE SA-17B	Total Pell Grant Expenditures and Number of Recipients over Time
<b>48 Pell Grants</b>	FIGURE SA-18	Published Prices at Four-Year Institutions and Maximum Pell over Time
<b>49 State Grants</b>	FIGURE SA-19A	Need-Based and Non-Need Based State Grants per Undergraduate Student over Time
	FIGURE SA-19B	Percentage of State Grant Aid Based on Need by State, 2021-22
<b>50 State Grants</b>	FIGURE SA-20A	State Grant Aid per Undergraduate Student by State, 2021-22
	FIGURE SA-20B	State Grant Expenditures as a Percentage of Total State Support for Higher Education by State, 2021-22
<b>51 Institutional Grants</b>	FIGURE SA-21A	Average Institutional Grant Aid in 2020 Dollars per First-Time Full-Time Student over Time
	FIGURE SA-21B	Percentage of First-Time Full-Time Students Receiving Institutional Grant Aid over Time
<b>52 Higher Education Emergency Relief Fund</b>	FIGURE SA-22A	Average HEERF Funding per Student, by Sector and Share of Pell Enrollees
	FIGURE SA-22B	Distribution of HEERF Funding and Full-Time Equivalent Students by Sector
<b>53 Notes and Sources</b>		

# Introduction

College Board's Trends in Higher Education series started 40 years ago when the first *Trends in Student Aid* report was published. *Trends in College Pricing* debuted 15 years later in 1998 and the first edition of *Education Pays* was published in 2004. Combined, these three signature reports aim to provide a comprehensive picture of the sticker and net prices of attending college, the amount of student aid that is available, student debt levels, and the payoffs associated with attending college.

## FAMILY INCOME, STICKER PRICES, STUDENT AID, AND NET PRICES

In the last 30 years, income inequality grew as the average income increased by 65% for the highest fifth of families and by 27% for the lowest fifth of families, after adjusting for inflation. In 2022, the average family income was \$23,580 for the lowest fifth and \$315,700 for the highest fifth of families. Family incomes vary by demographic characteristics: median incomes for Black and Hispanic families were about 65% of the median for white families and the median income for families with at least one four-year college graduate was more than double the median income for families headed by a high school graduate. (Figures CP-17A and CP-17B)

Recognizing the struggles students and families face in paying for college, many colleges and universities did not raise tuition during the pandemic. As a result, tuition increases for the 2020-21 and 2021-22 academic years were among the lowest in recent decades. More colleges and universities raised tuition in 2022-23 and 2023-24 than in the previous two years. From 2022-23 to 2023-24, the average sticker tuition and fees increased by 2.6% for public two-year in-district students, by 2.5% for public four-year in-state students, and by 4.0% for private nonprofit four-year students, before adjusting for inflation. After adjusting for the 4.5% inflation, average tuition and fees declined in all three sectors between 2022-23 and 2023-24. (Table CP-2)

Changes in sticker prices tend to garner the most media attention. However, it is important to note that the majority of undergraduate students do not pay the full sticker price. Grant aid does not need to be repaid and helps lower the actual prices that students and families pay. In 2022-23, an estimated \$145.3 billion in grant aid was awarded to undergraduate and graduate students. Of that total, 26% came from the federal government, 9% came from the state governments, 53% came from colleges and universities, and the remaining 12% came from employers and other private sources. (Figure SA-5)

Since 2009-10, first-time full-time students at public two-year colleges have been receiving enough grant aid on average to cover their tuition and fees. In addition, the average net tuition and fees paid by first-time full-time students at public four-year and private nonprofit four-year institutions have been declining or stable in recent years. (Figures CP-8, CP-9, and CP-10)

## BORROWING AND STUDENT DEBT

Total annual education borrowing has been declining over the past 12 years. Students and parents borrowed a total of \$98.2 billion

in federal and nonfederal loans in 2022-23, down from a peak of \$152.8 billion (in 2022 dollars) in 2010-11. (Figure SA-6)

While total annual borrowing has been declining, the share of total borrowing going to graduate students has been growing. In 2022-23, new loans disbursed to graduate students accounted for 47% of the total federal loans, up from 34% a decade earlier. (Figure SA-9A) The increase in the share of annual borrowing going to graduate students is likely a result of borrowing limits as well as the increase in the number of graduate PLUS loan borrowers. Graduate students can borrow through the unsubsidized loan program and the federal grad PLUS loan program. While the unsubsidized loan borrowing limits have not changed since 2008, graduate students and parents of dependent undergraduate students can borrow up to the full cost of attendance not covered by grant aid through the grad PLUS and parent PLUS programs, respectively.

After adjusting for inflation, per-borrower annual borrowing through the subsidized and unsubsidized programs declined for both undergraduate and graduate borrowers in the last decade, while per-borrower annual borrowing through the parent and grad PLUS programs increased. During this time, the total number of graduate students increased by 9% and the total number of grad PLUS borrowers grew by 29%; the total number of undergraduate students declined by 14% and the total number of parent PLUS borrowers declined by almost the same percentage (Figure SA-9B). The increase in the share of loans going to graduate students has prompted the Department of Education to introduce new requirements for graduate programs to improve transparency and accountability.<sup>1</sup>

## FEDERAL HIGHER EDUCATION INITIATIVES

Federal student loan payments resumed in October 2023, after being on pause since March 2020. To help borrowers manage loan payments, the White House announced a new Income-Driven Repayment (IDR) plan in August 2023—the Saving on a Valuable Education (SAVE) plan.<sup>2</sup> Under the SAVE plan, monthly loan payments will be up to 50% lower than under the previous IDR plan and many borrowers may qualify for a \$0 payment. Additionally, borrowers who keep up with their required payments will not see their loan balance grow and borrowers whose original balances were \$12,000 or less will receive forgiveness after 120 payments.

The SAVE plan provides important support for low-income and middle-income borrowers, many of whom rely on Pell Grants to pay for their college education. Federal Pell Grants, which are awarded to students from lower-income households, have been declining in real terms since the expansion of the program during the Great Recession of 2008. In 2022-23, \$27.2 billion in Pell Grant expenditures were awarded to 6.0 million recipients, down from

<sup>1</sup> <https://www.insidehighered.com/news/government/student-aid-policy/2023/10/03/biden-administration-puts-grad-schools-hot-seat>

<sup>2</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2023/08/22/fact-sheet-the-biden-harris-administration-launches-the-save-plan-the-most-affordable-student-loan-repayment-plan-ever-to-lower-monthly-payments-for-millions-of-borrowers/>

its peak of \$47.9 billion (in 2022 dollars) in 2010-11 and 9.4 million recipients in 2011-12. The drop in the number of Pell recipients is a result of declines in both undergraduate enrollment and the share of undergraduate students receiving Pell. (Figure SA-17A) The average Pell Grant per recipient was between \$4,500 and \$4,800 (in 2022 dollars) during the last decade. (Table SA-5 online)

For the 2023-24 academic year, the maximum Pell award is \$7,395, a \$500 (7.3%) increase from the previous year before adjusting for inflation and 2.6% increase after adjusting for inflation. This is the largest one-year increase in maximum Pell before adjusting for inflation since 2009-10. Additional changes to the Pell Grant program are under way as part of the FAFSA Simplification Act, which was passed on December 27, 2020 and will be fully implemented by 2024-25. This Act will expand access to Pell Grants to more students and link eligibility to family size and federal poverty level.<sup>3</sup>

## ENROLLMENT

Our analysis of enrollment data from the Department of Education shows that from 2019 (pre-Covid) to 2021, total postsecondary enrollment declined by about 947,900 (5%). However, enrollment changes were uneven across levels of enrollment, sectors, and states. From 2019 to 2021, total undergraduate enrollment declined by 6.6% while total graduate enrollment increased by 4.5%. Over this two-year period, total enrollment declined by 13% in the public two-year sector, declined by 1% in the public four-year sector, increased by 1% in the for-profit sector, and remained roughly unchanged in the private nonprofit four-year sector. (Figure CP-19)

At the state level, total public four-year undergraduate enrollment declined in 41 states and public two-year enrollment declined in 44 states between fall 2019 and fall 2021. (Figures CP-20A and CP-20B)

While fall 2021 is the latest year available from the Department of Education, more recent data from the National Student Clearinghouse show that between fall 2021 and fall 2022, total enrollment declined by 1.2% in the public four-year and by 0.6% in the private nonprofit four-year sector. Total enrollment increased by 2.6% in the for-profit four-year and by 0.4% in the public two-year sector.<sup>4</sup> The increase in public two-year enrollment reverses a trend of declining enrollment in this sector since 2010.

Declines in enrollment have a direct impact on tuition revenues and the financial health of institutions. Facing enrollment challenges, several colleges have announced cutting programs and majors, and a number of small private colleges have closed.<sup>5</sup> A few public

3 <https://studentaid.gov/help-center/answers/article/fafsa-simplification-act>  
4 [https://public.tableau.com/app/profile/researchcenter/viz/CTEE\\_Fall2022\\_Report/CTEEFallDashboard](https://public.tableau.com/app/profile/researchcenter/viz/CTEE_Fall2022_Report/CTEEFallDashboard)

5 <https://apnews.com/article/west-virginia-university-academic-faculty-cuts-245527c044cc2cfe80bcbe8c2eda7e98>; <https://www.insidehighered.com/news/business/cost-cutting/2023/10/02/several-colleges-plan-cuts-address-significant-financial-woes>; <https://www.highereddive.com/news/college-closings-next-year-how-many/690293/>

systems have consolidated campuses in an effort to be more cost efficient.<sup>6</sup>

## WHAT IS NEW IN THIS YEAR'S REPORT

### *National Postsecondary Study Aid Study (NPSAS) Analyses*

In this year's report, we include net price and student debt analyses using the newly released *NPSAS 2020*, a nationally representative study of undergraduate and graduate students with a special focus on how they finance their education.

In 2019-20, 39% of full-time in-state students at public two-year colleges, 31% of full-time in-state students at public four-year institutions, and 18% of full-time students at private nonprofit four-year institutions received enough grant aid to cover their tuition and fees. Larger shares of students from lower-income families than those from higher-income families received enough grant aid to cover tuition and fees. (Figures CP-11 and CP-12)

Among all 2019-20 bachelor's degree recipients, 36% did not borrow any loans for their undergraduate study, including 39% of public four-year graduates, 35% of private nonprofit four-year graduates, and 18% of for-profit graduates; 10% borrowed \$50,000 or more, including 8% of public four-year graduates, 12% of private nonprofit four-year graduates, and 26% of for-profit graduates.<sup>7</sup> In 2019-20, 13% of master's and doctoral degree recipients as well as 57% of professional degree recipients borrowed \$100,000 or more to fund their undergraduate and graduate study. (Figures SA-15 and SA-16)

### *HEERF I, II, and III Funding Analysis*

We include updated analysis on the distribution of HEERF funding that includes all three waves. In general, public two-year colleges received the most HEERF I, II, and III funding per student, followed by public four-year, private nonprofit four-year, and for-profit institutions. In addition, schools with higher shares of Pell recipients received more funding per student than schools with lower shares of Pell recipients (Figures SA-22A and SA-22B).

6 <https://www.insidehighered.com/news/2021/07/15/pennsylvania-system-approves-plan-merge-six-universities>; <https://www.nbcconnecticut.com/news/local/connecticuts-12-community-colleges-merge-july-1/3055040>; <https://vermontbiz.com/news/2021/september/30/castleton-northern-vermont-university-vermont-tech-rename-vermont-state>

7 Note the shares of bachelor's degree recipients who borrowed are higher than those from the ASC data in Figure SA-14 because the NPSAS data include students who graduated from for-profit institutions as well as students who transferred.





TRENDS IN HIGHER EDUCATION SERIES

---

# Trends in College Pricing 2023

# Published Charges by Sector and by Carnegie Classification, 2023-24

In 2023-24, the average published (sticker) tuition and fee price for full-time in-state students at public four-year institutions is \$11,260, \$270 (2.5% before adjusting for inflation) higher than it was in 2022-23.

**TABLE CP-1** Average Published Charges (Enrollment-Weighted) for Full-Time Undergraduates, 2022-23 and 2023-24

	Sector					Carnegie Classification					
	Public Two-Year In-District	Public Four-Year In-State	Public Four-Year Out-of-State	Private Nonprofit Four-Year	For-Profit	Public Four-Year			Private Nonprofit Four-Year		
						Doctoral	Master's	Bachelor's	Doctoral	Master's	Bachelor's
<b>Tuition and Fees</b>											
2023-24	\$3,990	\$11,260	\$29,150	\$41,540	—	\$11,930	\$9,250	\$8,910	\$49,660	\$30,970	\$41,890
2022-23	\$3,890	\$10,990	\$28,300	\$39,940	\$15,740	\$11,630	\$9,070	\$8,770	\$47,620	\$29,930	\$40,340
\$ Change	\$100	\$270	\$850	\$1,600	—	\$300	\$180	\$140	\$2,040	\$1,040	\$1,550
% Change	2.6%	2.5%	3.0%	4.0%	—	2.6%	2.0%	1.6%	4.3%	3.5%	3.8%
<b>Housing and Food (Room and Board)</b>											
2023-24	\$9,970	\$12,770	\$12,770	\$14,650	—	\$13,400	\$11,680	\$11,850	\$16,780	\$13,710	\$13,580
2022-23	\$9,610	\$12,310	\$12,310	\$14,030	—	\$12,880	\$11,310	\$11,390	\$16,000	\$13,180	\$13,020
<b>Tuition and Fees and Housing and Food</b>											
2023-24	\$13,960	\$24,030	\$41,920	\$56,190	—	\$25,330	\$20,930	\$20,760	\$66,440	\$44,680	\$55,470
2022-23	\$13,500	\$23,300	\$40,610	\$53,970	—	\$24,510	\$20,380	\$20,160	\$63,620	\$43,110	\$53,360
<b>Percentage of Undergraduates Enrolled Full Time</b>											
Fall 2021	33%	80%		81%	69%	83%	73%	54%	87%	72%	86%

**NOTE:** Prices in Table CP-1 are not adjusted for inflation. Tuition prices reported for 2022-23 have been revised and may differ from those reported in *Trends in College Pricing and Student Aid 2022*. The latest tuition and fee estimate available for the for-profit sector is for 2022-23. Carnegie groupings are based on 2021 Carnegie classification.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Fall 2021 Enrollment data and IPEDS 2022 Institutional Characteristics data.

*Enrollment-weighted tuition values represent the price charged by each institution weighted by the number of full-time undergraduate students enrolled in fall 2021. Public four-year in-state charges are weighted by total fall 2021 full-time undergraduate enrollment in each institution, including both in-state students and out-of-state students. Out-of-state tuition and fees are computed by adding the average in-state price to the out-of-state premium weighted by the number of full-time out-of-state undergraduate students enrolled at each institution. Housing and food expenses are estimated by applying the average one-year percent change among institutions that reported data in both years to the previous year's sector average. In Trends in College Pricing 2019 and earlier editions, housing and food charges were weighted by the number of undergraduate students residing on campus for four-year institutions and by the number of commuter students for public two-year institutions.*

- In 2023-24, the average published tuition and fee price for full-time in-district students at public two-year institutions is \$3,990, \$100 (2.6% before adjusting for inflation) higher than it was in 2022-23.
- In 2023-24, the average published tuition and fee price for full-time students at private nonprofit four-year institutions is \$41,540, \$1,600 (4.0% before adjusting for inflation) higher than it was in 2022-23.
- In fall 2021, 33% of all undergraduate students at the public two-year sector were enrolled full time, compared with more than 80% at public four-year and private nonprofit four-year sectors.
- Within public four-year and private nonprofit four-year sectors, doctoral institutions have higher prices than master's and bachelor's institutions.

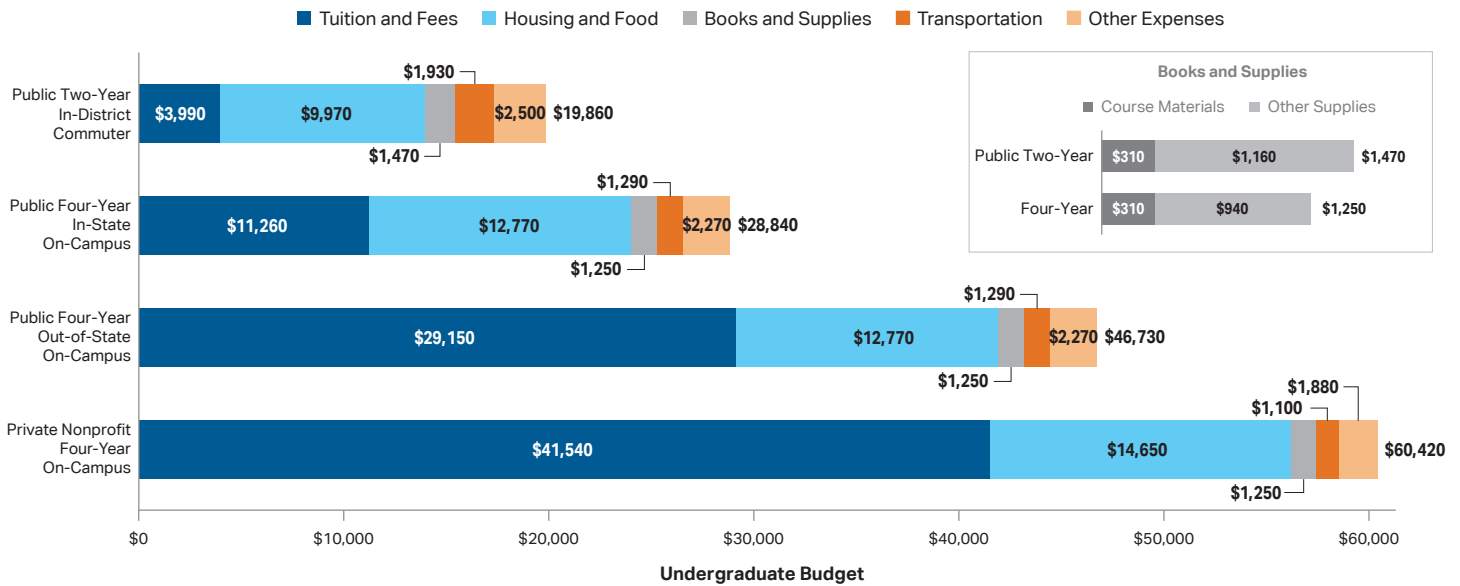
## ALSO IMPORTANT:

- The prices shown in Table CP-1 are for full-time students. Prices for part-time students are typically less than those for full-time students.
- The prices shown in Table CP-1 are for one academic year. The total price of a college education depends on how long a student is enrolled before completing a degree—frequently more than four years for a bachelor's degree and more than two years for an associate degree.

# Student Budgets, 2023-24

In 2023-24, average estimated budgets for full-time undergraduate students range from \$19,860 for public two-year in-district students and \$28,840 for public four-year in-state students to \$46,730 for public four-year out-of-state students and \$60,420 for private nonprofit four-year students.

**FIGURE CP 1** Average Estimated Full-Time Undergraduate Budgets (Enrollment-Weighted) by Sector, 2023-24



**NOTE:** Expense categories are based on institutional budgets for students as reported in the College Board’s Annual Survey of Colleges. Figures for tuition and fees and housing and food mirror those reported in Table CP-1. Data for books and supplies, transportation, and other expenses are projected and reflect the average amounts allotted in determining the total cost of attendance and do not necessarily reflect actual student expenditures. Books and supplies may include course materials such as hardcopy textbooks, online textbooks, textbook rentals, and other supplies such as a personal computer used for study.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Fall 2021 Enrollment data; Student Watch and Student Monitor.

- Student budgets are constructed by institutional financial aid offices. These budgets form the basis for determining the total cost of attendance, which can affect the amount of financial aid for which students are eligible.
- Housing and food and other components of student budgets vary less across sectors than tuition and fees. As a result, while the average published in-district tuition and fee price at public two-year institutions is 35% of the in-state price at public four-year colleges, the total public two-year in-district student budget is 69% of the public four-year in-state student budget (\$19,860 vs. \$28,840).
- The average in-state published tuition and fee price at public four-year institutions is 27% of the average price at private nonprofit four-year institutions; the average student budget is about half the amount (\$28,840 vs. \$60,420).

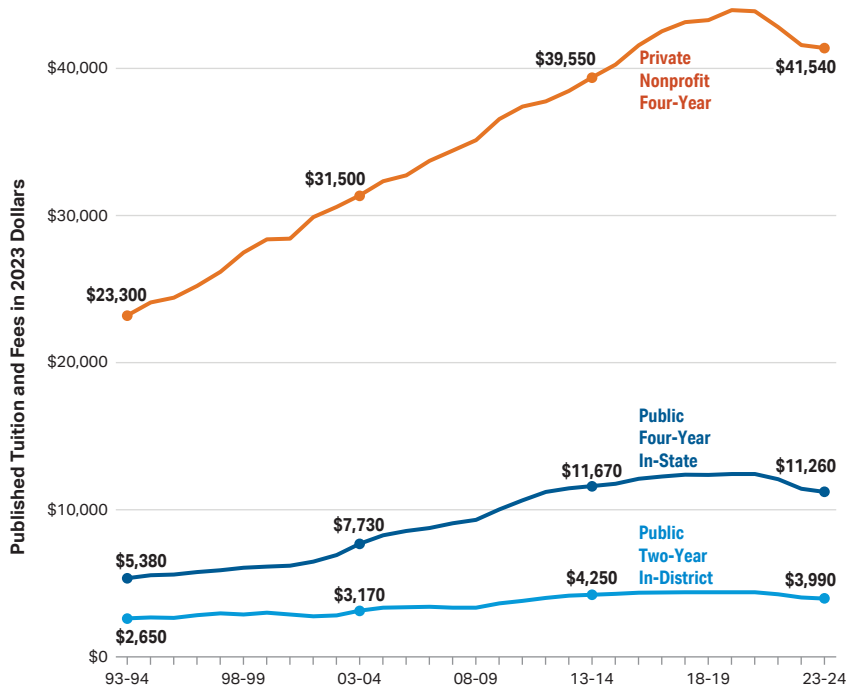
## ALSO IMPORTANT:

- In the last decade, average student spending on college textbooks and digital course materials declined by over 40%. ([Student Watch and Student Monitor: 2023 Reports](#))

# Published Tuition and Fees over Time

Between 1993-94 and 2023-24, the average published tuition and fees increased from \$2,650 to \$3,990 at public two-year, from \$5,380 to \$11,260 at public four-year, and from \$23,300 to \$41,540 at private nonprofit four-year institutions, after adjusting for inflation.

**FIGURE CP-2** Average Published Tuition and Fees in 2023 Dollars by Sector, 1993-94 to 2023-24

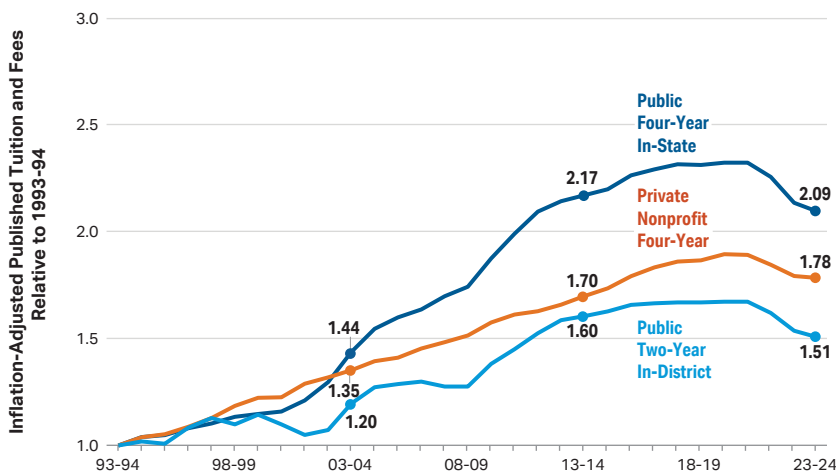


- For all three sectors, the inflation-adjusted average published tuition and fees peaked in 2019-20 and declined between 2019-20 and 2023-24, while the Consumer Price Index increased by 20% during this four-year period.
- In 2023-24, the average published tuition and fee price at public four-year colleges is 2.8 times as high as the average price at public two-year colleges; it was twice as high in 1993-94.
- In 2023-24, the average published tuition and fee price at private nonprofit four-year institutions is 3.7 times as high as the average price at public four-year institutions; it was 4.3 times as high in 1993-94.
- In 2023-24, the average published tuition and fee price is 1.51 times as high as it was 30 years ago at public two-year colleges, 2.09 times as high as it was 30 years ago at public four-year institutions, and 1.78 times as high as it was 30 years ago at private nonprofit four-year institutions, after adjusting for inflation.

## ALSO IMPORTANT:

- The increases in the net prices that students actually pay, after taking grant aid into consideration, have been smaller over the long term than increases in published prices. See Figures CP-8, CP-9, and CP-10 for details on estimated average net prices over time.
- Over the 30-year period from 1992 to 2022, median family income in the United States increased by 31% (from \$70,690 to \$92,750), after adjusting for inflation. (U.S. Census Bureau, 2022 Income Table, Table F-7; calculations by the authors)

**FIGURE CP-3** Inflation-Adjusted Published Tuition and Fees Relative to 1993-94, 1993-94 to 2023-24 (1993-94 = 1.0)



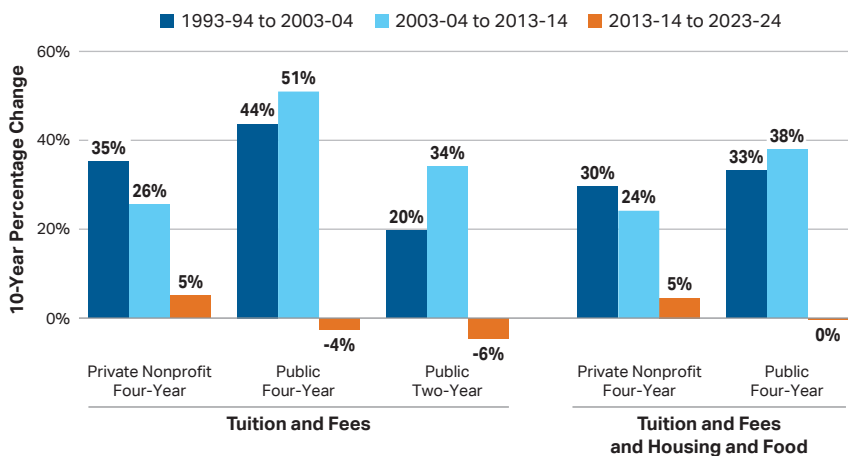
**NOTE:** Figure CP-3 shows published tuition and fees by sector, adjusted for inflation, relative to 1993-94 published prices. For example, a value of 2.09 indicates that the tuition and fee price in the public four-year sector in 2023-24 is 2.09 times as high as it was in 1993-94, after adjusting for increases in the Consumer Price Index.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data.

# Published Charges over Time

After adjusting for inflation, the average published tuition and fees in all three sectors remained unchanged in 2020-21 and declined in 2021-22, 2022-23, and 2023-24. The inflation rate was 1.2% in 2020, 4.7% in 2021, 8.0% in 2022, and 4.5% in the first eight months of 2023.

**FIGURE CP-4** Ten-Year Percentage Changes in Inflation-Adjusted Published Prices by Decade, 1993-94 to 2023-24



**NOTE:** Each bar in Figure CP-4 shows the percentage change in published prices in inflation-adjusted dollars over a 10-year period. For example, from 2013-14 to 2023-24, average published tuition and fees at private nonprofit four-year colleges increased by 5% beyond increases in the Consumer Price Index. Average tuition and fee prices reflect in-district charges for public two-year institutions and in-state charges for public four-year institutions.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data.

- Between 2013-14 and 2023-24, the average published in-state tuition and fees at public four-year institutions declined by 4% after adjusting for inflation, compared with increases of 44% between 1993-94 and 2003-04 and 51% between 2003-04 and 2013-14.
- Between 2013-14 and 2023-24, the average published in-state tuition and fees in the public four-year sector declined by \$410 in 2023 dollars, compared with increases of \$2,350 between 1993-94 and 2003-04 and \$3,940 between 2003-04 and 2013-14.
- Between 2013-14 and 2023-24, the average tuition, fees, housing and food remained unchanged at public four-year and increased by 5% at private nonprofit four-year institutions, after adjusting for inflation.

## ALSO IMPORTANT:

- The price increases reported in Table CP-2 are adjusted for inflation and are smaller than the unadjusted numbers in Table CP-1.

**TABLE CP-2** Average Tuition and Fees and Housing and Food (Enrollment-Weighted) in 2023 Dollars, 1993-94 to 2023-24, Selected Years

Academic Year	Tuition and Fees in 2023 Dollars						Tuition and Fees and Housing and Food in 2023 Dollars			
	Private Nonprofit Four-Year	10-Year \$ Change	Public Four-Year	10-Year \$ Change	Public Two-Year	10-Year \$ Change	Private Nonprofit Four-Year	10-Year \$ Change	Public Four-Year	10-Year \$ Change
1993-94	\$23,300		\$5,380		\$2,650		\$33,440		\$13,140	
2003-04	\$31,500	\$8,200	\$7,730	\$2,350	\$3,170	\$520	\$43,310	\$9,870	\$17,500	\$4,360
2013-14	\$39,550	\$8,050	\$11,670	\$3,940	\$4,250	\$1,080	\$53,770	\$10,460	\$24,130	\$6,630
2023-24	\$41,540	\$1,990	\$11,260	-\$410	\$3,990	-\$260	\$56,190	\$2,420	\$24,030	-\$100
Academic Year	Private Nonprofit Four-Year	One-Year % Change	Public Four-Year	One-Year % Change	Public Two-Year	One-Year % Change	Private Nonprofit Four-Year	One-Year % Change	Public Four-Year	One-Year % Change
2013-14	\$39,550		\$11,670		\$4,250		\$53,770		\$24,130	
2014-15	\$40,410	2.2%	\$11,820	1.3%	\$4,310	1.4%	\$54,840	2.0%	\$24,450	1.3%
2015-16	\$41,730	3.3%	\$12,170	3.0%	\$4,390	1.9%	\$56,620	3.2%	\$25,250	3.3%
2016-17	\$42,690	2.3%	\$12,320	1.2%	\$4,410	0.5%	\$57,790	2.1%	\$25,680	1.7%
2017-18	\$43,310	1.5%	\$12,450	1.1%	\$4,420	0.2%	\$58,640	1.5%	\$25,940	1.0%
2018-19	\$43,450	0.3%	\$12,430	-0.2%	\$4,420	0.0%	\$58,810	0.3%	\$26,060	0.5%
2019-20	\$44,120	1.5%	\$12,490	0.5%	\$4,430	0.2%	\$59,660	1.4%	\$26,260	0.8%
2020-21	\$44,040	-0.2%	\$12,490	0.0%	\$4,430	0.0%	\$59,770	0.2%	\$26,340	0.3%
2021-22	\$42,970	-2.4%	\$12,130	-2.9%	\$4,290	-3.2%	\$58,340	-2.4%	\$25,620	-2.7%
2022-23	\$41,740	-2.9%	\$11,480	-5.4%	\$4,070	-5.1%	\$56,400	-3.3%	\$24,350	-5.0%
2023-24	\$41,540	-0.5%	\$11,260	-1.9%	\$3,990	-2.0%	\$56,190	-0.4%	\$24,030	-1.3%

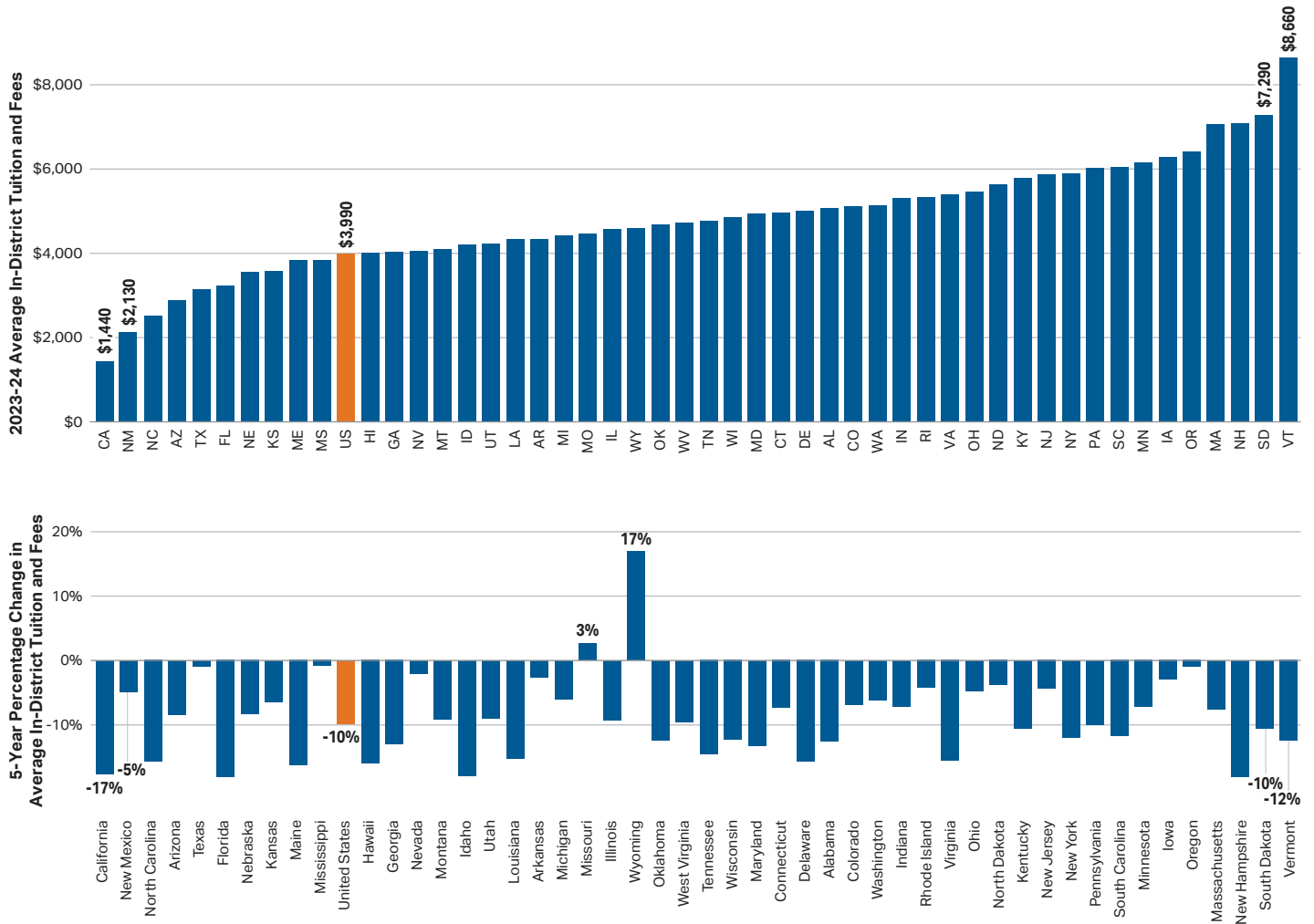
**NOTE:** Average tuition and fee price reflects in-district charges for public two-year institutions and in-state charges for public four-year institutions.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data.

# Tuition and Fees by State: Public Two-Year

In 2023-24, average published tuition and fees for full-time in-district students at public two-year colleges range from \$1,440 in California and \$2,130 in New Mexico to \$8,660 in Vermont.

**FIGURE CP-5** Average 2023-24 In-District Tuition and Fees at Public Two-Year Institutions and 2018-19 to 2023-24 Five-Year Percentage Changes in Inflation-Adjusted In-District Tuition and Fees, by State



SOURCE: College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data.

- Between 2018-19 and 2023-24, average in-district tuition and fees at public two-year colleges increased in two states, after adjusting for inflation.
- Between 2018-19 and 2023-24, average in-district tuition and fees at public two-year colleges fell by 15% or more in 10 states, after adjusting for inflation.

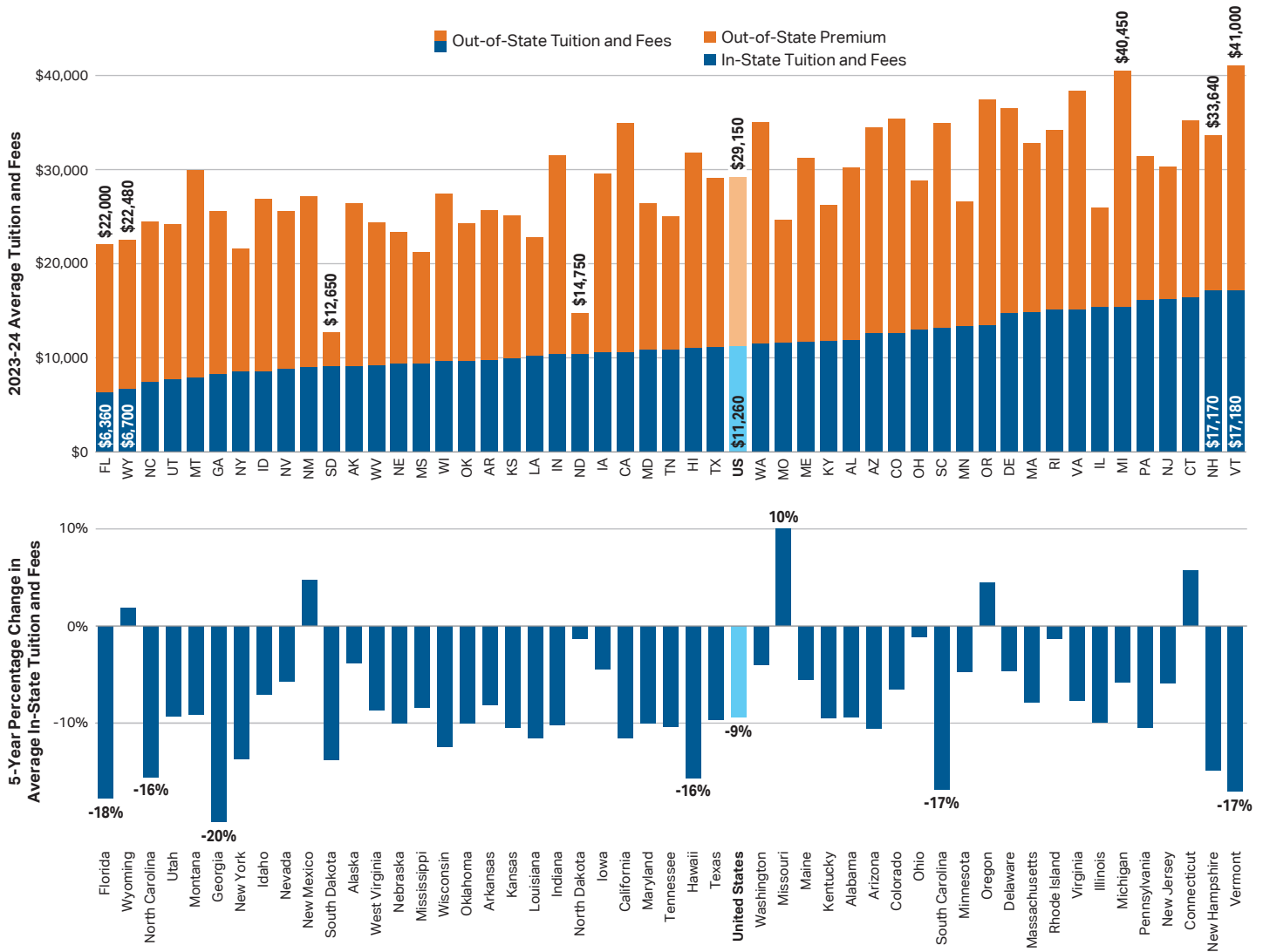
### ALSO IMPORTANT:

- From 2022-23 to 2023-24, the average published two-year in-district tuition and fees did not increase in 10 states and increased by less than 1% in five states, before adjusting for inflation. (Table CP-5 online)

# Tuition and Fees by State: Public Four-Year

In 2023-24, average published tuition and fees for full-time in-state students at public four-year institutions range from \$6,360 in Florida and \$6,700 in Wyoming to \$17,170 in New Hampshire and \$17,180 in Vermont.

**FIGURE CP-6** Average 2023-24 Tuition and Fees at Public Four-Year Institutions and 2018-19 to 2023-24 Five-Year Percentage Changes in Inflation-Adjusted In-State Tuition and Fees, by State



SOURCE: College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data.

- Between 2018-19 and 2023-24, average in-state tuition and fees at public four-year institutions increased in five states, after adjusting for inflation.
- Between 2018-19 and 2023-24, average in-state tuition and fees at public four-year institutions fell in 45 states and fell by more than 15% in six states, after adjusting for inflation.

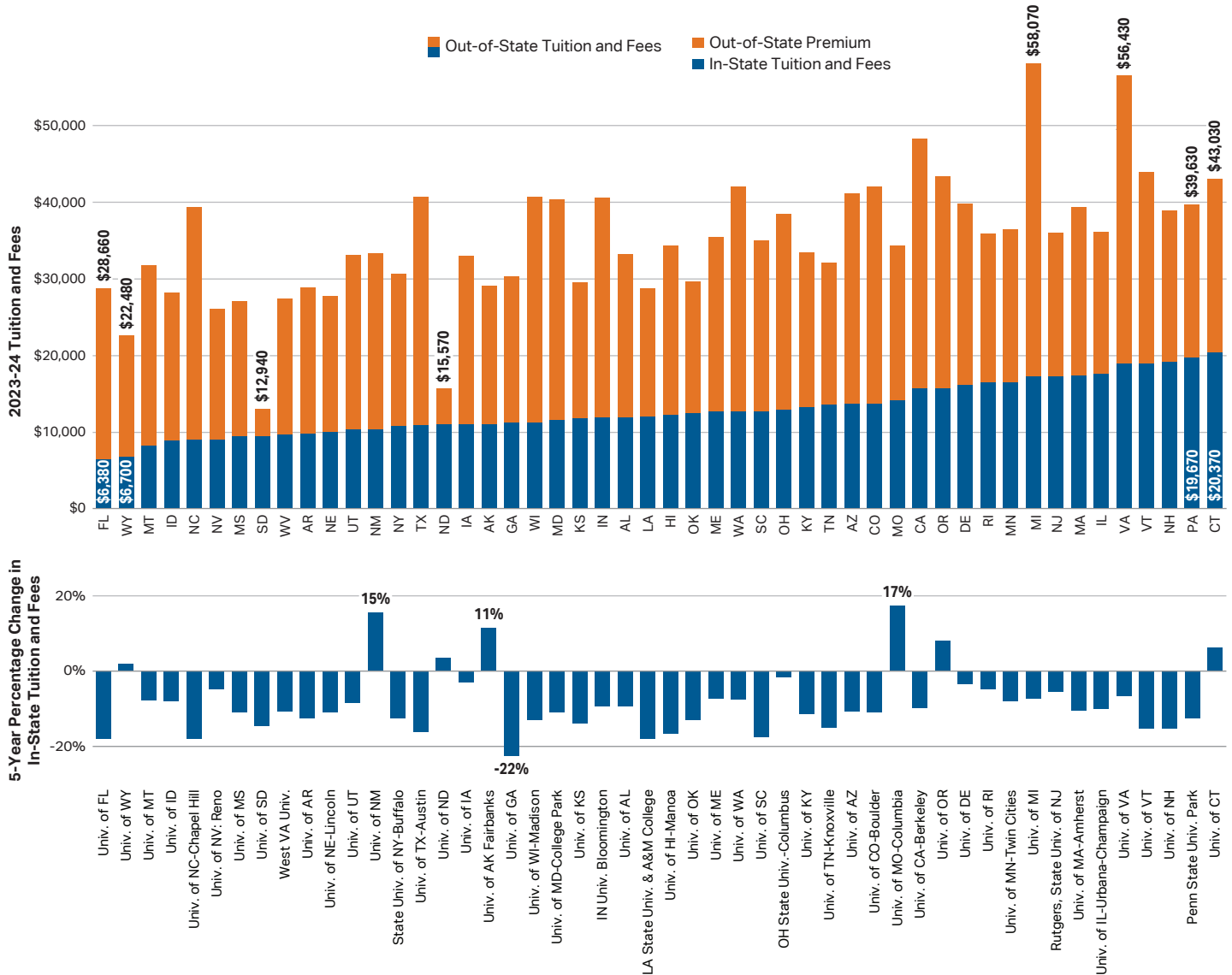
## ALSO IMPORTANT:

- A small number of public four-year institutions charge the same tuition to out-of-state students as to in-state students.
- From 2022-23 to 2023-24, the average published four-year in-state tuition and fees did not increase in seven states and the District of Columbia and increased by less than 1% in six states, before adjusting for inflation. (Table CP-5 online)

# Tuition and Fees by State: Flagship Universities

In 2023-24, published tuition and fees for full-time in-state students at public flagship institutions range from \$6,380 at the University of Florida and \$6,700 at the University of Wyoming to \$19,670 at Pennsylvania State University and \$20,370 at the University of Connecticut.

**FIGURE CP-7** 2023-24 Tuition and Fees at Flagship Universities and Five-Year Percentage Changes in Inflation-Adjusted In-State Tuition and Fees



SOURCE: College Board, Annual Survey of Colleges.

- In 2023-24, published tuition and fees for full-time out-of-state students at public flagship institutions range from \$12,940 at the University of South Dakota and \$15,570 at the University of North Dakota to \$56,430 at the University of Virginia and \$58,070 at the University of Michigan.
- Public flagship universities in 43 states had lower in-state tuition and fees in 2023-24 than in 2018-19, after adjusting for inflation.

## ALSO IMPORTANT:

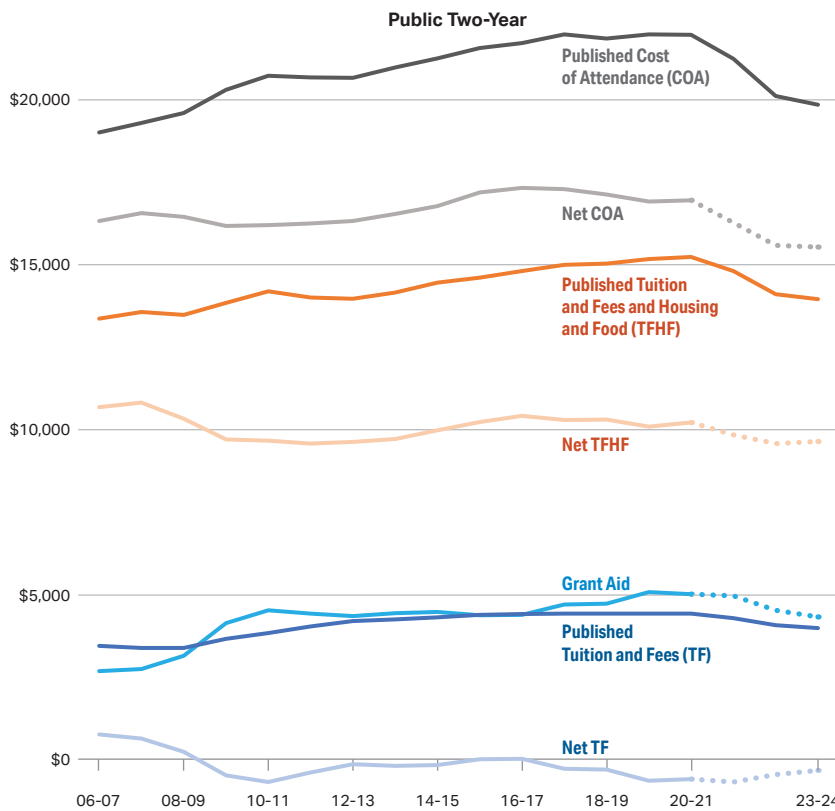
- In 2023-24, 13 flagship universities did not raise in-state tuition or mandatory fees over those charged for the 2022-23 academic year, before adjusting for inflation. (Table CP-5 online)



# Average Net Price: Public Two-Year

Since 2009-10, first-time full-time in-district students at public two-year colleges have been receiving enough grant aid on average to cover their tuition and fees.

**FIGURE CP-8** Average Published and Net Prices in 2023 Dollars, First-Time Full-Time In-District Undergraduate Students at Public Two-Year Institutions, 2006-07 to 2023-24



	Published TF	Published TFHF	Published COA	Grant Aid per Student	Net TF	Net TFHF	Net COA
06-07	\$3,440	\$13,370	\$19,020	\$2,680	\$760	\$10,690	\$16,340
07-08	\$3,380	\$13,570	\$19,310	\$2,740	\$640	\$10,830	\$16,570
08-09	\$3,380	\$13,490	\$19,610	\$3,150	\$230	\$10,340	\$16,460
09-10	\$3,660	\$13,850	\$20,320	\$4,140	-\$480	\$9,710	\$16,180
10-11	\$3,840	\$14,200	\$20,740	\$4,530	-\$690	\$9,670	\$16,210
11-12	\$4,040	\$14,010	\$20,690	\$4,430	-\$390	\$9,580	\$16,260
12-13	\$4,200	\$13,980	\$20,680	\$4,350	-\$150	\$9,630	\$16,330
13-14	\$4,250	\$14,160	\$20,990	\$4,440	-\$190	\$9,720	\$16,550
14-15	\$4,310	\$14,460	\$21,270	\$4,480	-\$170	\$9,980	\$16,790
15-16	\$4,390	\$14,620	\$21,580	\$4,380	\$10	\$10,240	\$17,200
16-17	\$4,410	\$14,820	\$21,730	\$4,390	\$20	\$10,430	\$17,340
17-18	\$4,420	\$15,000	\$22,000	\$4,700	-\$280	\$10,300	\$17,300
18-19	\$4,420	\$15,040	\$21,870	\$4,730	-\$310	\$10,310	\$17,140
19-20	\$4,430	\$15,180	\$22,000	\$5,080	-\$650	\$10,100	\$16,920
20-21	\$4,430	\$15,240	\$21,980	\$5,020	-\$590	\$10,220	\$16,960
21-22	\$4,290	\$14,820	\$21,250	\$4,970	-\$680	\$9,850	\$16,280
22-23	\$4,070	\$14,110	\$20,130	\$4,530	-\$460	\$9,580	\$15,600
23-24	\$3,990	\$13,960	\$19,860	\$4,320	-\$330	\$9,640	\$15,540

- In 2023-24, first-time full-time students at public two-year colleges need to cover an estimated \$9,640 in housing and food after grant aid, in addition to another \$5,900 in allowances for books and supplies, transportation, and other personal expenses.
- Average net tuition and fee price declined in this sector from 2006-07 through 2010-11 and has fluctuated between -\$690 and \$20 since 2010-11.

## ALSO IMPORTANT:

- Because of changes in the data sources used in calculating average grant aid per student, numbers in Figures CP-8, CP-9, and CP-10 are not strictly comparable with those in *Trends in College Pricing 2019* and earlier editions.
- The average net prices in Figure CP-8 are calculated among all first-time full-time undergraduate students in the public two-year sector, including those who did not receive grant aid. In 2020-21, 76% of first-time full-time undergraduate students in this sector received federal, state, or institutional grant aid.
- The large increase in average grant aid shown in Figure CP-8 between 2008-09 and 2010-11 was primarily a result of increases in Pell Grant funding. In 2020-21, the latest year for which detailed financial aid data are available from IPEDS, 54% of the total grant aid awarded to first-time full-time students in the public two-year sector came from Pell Grants.

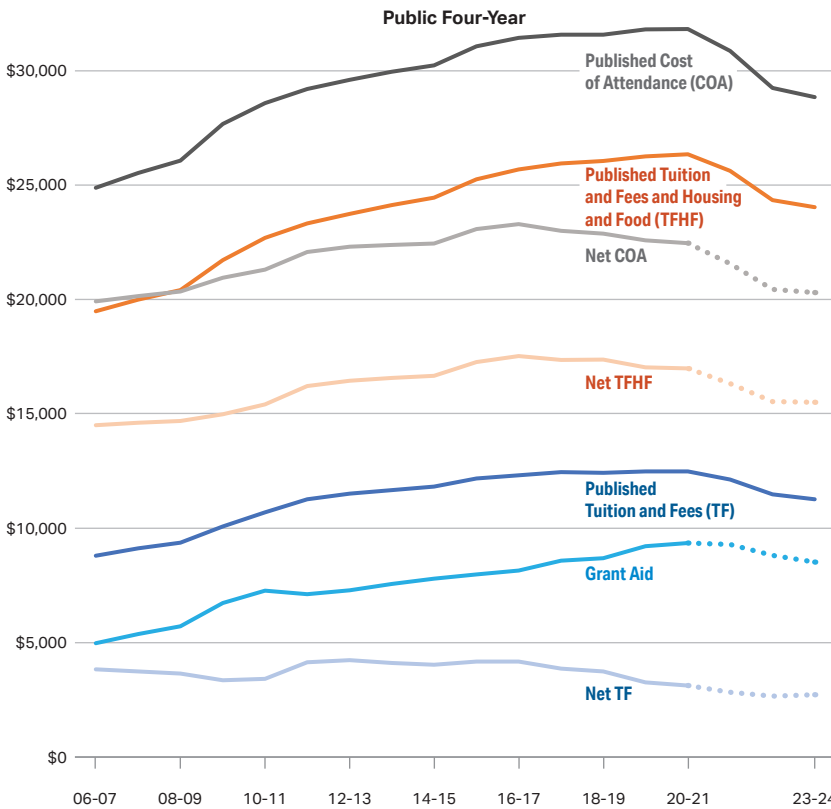
**NOTE:** Average net price is calculated as the difference between published price from College Board's Annual Survey of Colleges and grant aid from IPEDS Student Financial Aid data. Because the latest year for which grant aid data are available is 2020-21, grant aid and net prices for 2021-22 and after are projected and shown in dotted lines. Higher Education Emergency Relief Fund is included in the 2019-20 and 2020-21 grant aid data and projected for later years.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Student Financial Aid data.

# Average Net Price: Public Four-Year

After adjusting for inflation, the average net tuition and fee price paid by first-time full-time in-state students enrolled in public four-year institutions peaked in 2012-13 at \$4,230 (in 2023 dollars) and declined to an estimated \$2,730 in 2023-24.

**FIGURE CP-9** Average Published and Net Prices in 2023 Dollars, First-Time Full-Time In-State Undergraduate Students at Public Four-Year Institutions, 2006-07 to 2023-24



	Published TF	Published TFHF	Published COA	Grant Aid per Student	Net TF	Net TFHF	Net COA
06-07	\$8,800	\$19,480	\$24,880	\$4,970	\$3,830	\$14,510	\$19,910
07-08	\$9,130	\$20,000	\$25,530	\$5,380	\$3,750	\$14,620	\$20,150
08-09	\$9,370	\$20,410	\$26,070	\$5,720	\$3,650	\$14,690	\$20,350
09-10	\$10,080	\$21,720	\$27,680	\$6,730	\$3,350	\$14,990	\$20,950
10-11	\$10,700	\$22,690	\$28,580	\$7,280	\$3,420	\$15,410	\$21,300
11-12	\$11,260	\$23,330	\$29,200	\$7,120	\$4,140	\$16,210	\$22,080
12-13	\$11,520	\$23,740	\$29,600	\$7,290	\$4,230	\$16,450	\$22,310
13-14	\$11,670	\$24,130	\$29,950	\$7,560	\$4,110	\$16,570	\$22,390
14-15	\$11,820	\$24,450	\$30,230	\$7,790	\$4,030	\$16,660	\$22,440
15-16	\$12,170	\$25,250	\$31,070	\$7,990	\$4,180	\$17,260	\$23,080
16-17	\$12,320	\$25,680	\$31,440	\$8,150	\$4,170	\$17,530	\$23,290
17-18	\$12,450	\$25,940	\$31,580	\$8,580	\$3,870	\$17,360	\$23,000
18-19	\$12,430	\$26,060	\$31,570	\$8,690	\$3,740	\$17,370	\$22,880
19-20	\$12,490	\$26,260	\$31,810	\$9,220	\$3,270	\$17,040	\$22,590
20-21	\$12,490	\$26,340	\$31,820	\$9,360	\$3,130	\$16,980	\$22,460
21-22	\$12,130	\$25,620	\$30,860	\$9,300	\$2,830	\$16,320	\$21,560
22-23	\$11,480	\$24,350	\$29,250	\$8,810	\$2,670	\$15,540	\$20,440
23-24	\$11,260	\$24,030	\$28,840	\$8,530	\$2,730	\$15,500	\$20,310

- In 2023-24, first-time full-time in-state students at public four-year colleges need to cover an estimated average of \$15,500 in tuition and fees and housing and food after grant aid, in addition to \$4,810 in allowances for books and supplies, transportation, and other personal expenses.
- Between 2006-07 and 2023-24, average grant aid per first-time full-time in-state student at public four-year colleges increased by \$3,560 after adjusting for inflation, from \$4,970 (in 2023 dollars) to an estimated \$8,530; average published tuition and fees in this sector increased by \$2,460, from \$8,800 (in 2023 dollars) to \$11,260.

## ALSO IMPORTANT:

- In 2020-21, the latest year for which detailed financial aid data are available from IPEDS, 49% of the total \$9,360 in grant aid per first-time full-time student in the public four-year sector came from institutional grant aid provided by colleges and universities in the form of discounts from their published prices.
- The average net prices in Figure CP-9 are calculated among all first-time full-time undergraduate students in the public four-year sector, including those who did not receive grant aid. In 2020-21, 80% of first-time full-time undergraduate students in this sector received federal, state, or institutional grant aid.

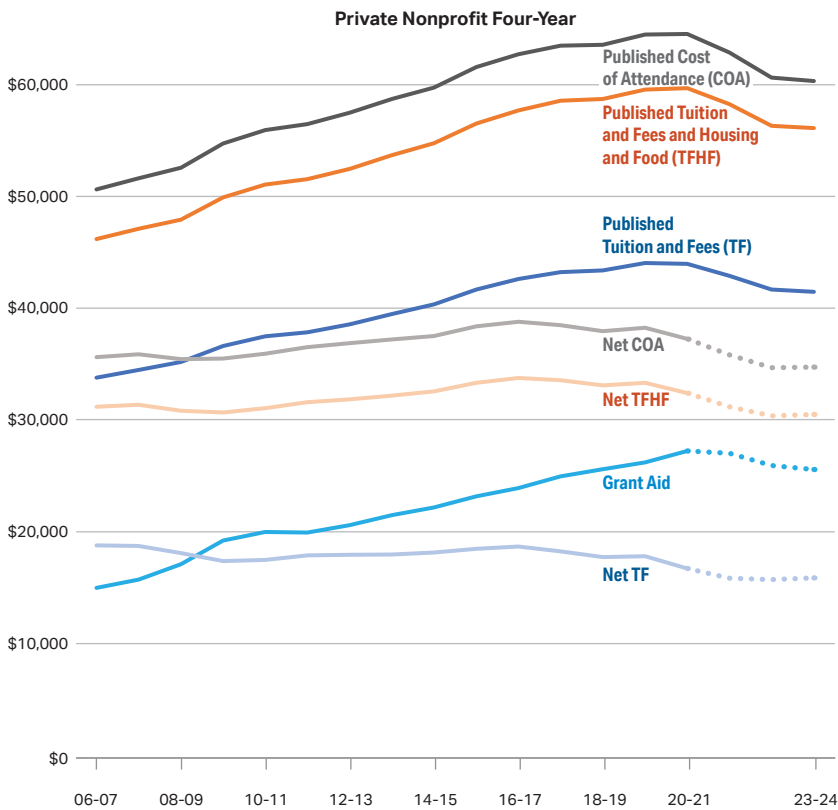
**NOTE:** Average net price is calculated as the difference between published price from College Board's Annual Survey of Colleges and grant aid from IPEDS Student Financial Aid data. Because the latest year for which grant aid data are available is 2020-21, grant aid and net prices for 2021-22 and after are projected and shown in dotted lines. Higher Education Emergency Relief Fund is included in the 2019-20 and 2020-21 grant aid data and projected for later years.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Student Financial Aid data.

# Average Net Price: Private Nonprofit Four-Year

After adjusting for inflation, the average net tuition and fee price paid by first-time full-time students enrolled in private nonprofit four-year institutions declined from \$18,820 (in 2023 dollars) in 2006-07 to an estimated \$15,910 in 2023-24.

**FIGURE CP-10** Average Published and Net Prices in 2023 Dollars, First-Time Full-Time Undergraduate Students at Private Nonprofit Four-Year Institutions, 2006-07 to 2023-24



	Published TF	Published TFHF	Published COA	Grant Aid per Student	Net TF	Net TFHF	Net COA
06-07	\$33,840	\$46,270	\$50,720	\$15,020	\$18,820	\$31,250	\$35,700
07-08	\$34,540	\$47,180	\$51,710	\$15,770	\$18,770	\$31,410	\$35,940
08-09	\$35,260	\$48,010	\$52,640	\$17,130	\$18,130	\$30,880	\$35,510
09-10	\$36,690	\$49,990	\$54,830	\$19,260	\$17,430	\$30,730	\$35,570
10-11	\$37,550	\$51,150	\$56,030	\$20,030	\$17,520	\$31,120	\$36,000
11-12	\$37,910	\$51,620	\$56,570	\$19,980	\$17,930	\$31,640	\$36,590
12-13	\$38,620	\$52,550	\$57,570	\$20,640	\$17,980	\$31,910	\$36,930
13-14	\$39,550	\$53,770	\$58,800	\$21,540	\$18,010	\$32,230	\$37,260
14-15	\$40,410	\$54,840	\$59,820	\$22,230	\$18,180	\$32,610	\$37,590
15-16	\$41,730	\$56,620	\$61,660	\$23,220	\$18,510	\$33,400	\$38,440
16-17	\$42,690	\$57,790	\$62,820	\$23,970	\$18,720	\$33,820	\$38,850
17-18	\$43,310	\$58,640	\$63,570	\$25,010	\$18,300	\$33,630	\$38,560
18-19	\$43,450	\$58,810	\$63,670	\$25,660	\$17,790	\$33,150	\$38,010
19-20	\$44,120	\$59,660	\$64,570	\$26,260	\$17,860	\$33,400	\$38,310
20-21	\$44,040	\$59,770	\$64,620	\$27,290	\$16,750	\$32,480	\$37,330
21-22	\$42,970	\$58,340	\$62,980	\$27,090	\$15,880	\$31,250	\$35,890
22-23	\$41,740	\$56,400	\$60,720	\$25,970	\$15,770	\$30,430	\$34,750
23-24	\$41,540	\$56,190	\$60,420	\$25,630	\$15,910	\$30,560	\$34,790

- In 2023-24, first-time full-time students at private nonprofit four-year colleges need to cover an estimated average of \$30,560 in tuition and fees and housing and food after grant aid, in addition to \$4,230 in allowances for books and supplies, transportation, and other personal expenses.
- Between 2006-07 and 2023-24, average grant aid per first-time full-time student at private nonprofit four-year colleges increased from \$15,020 to an estimated \$25,630, after adjusting for inflation; average published tuition and fees in this sector increased from \$33,840 to \$41,540 during this time period.

## ALSO IMPORTANT:

- In 2020-21, the latest year for which detailed financial aid data are available from IPEDS, 86% of the total \$27,290 in grant aid per first-time full-time student in the private nonprofit four-year sector came from colleges and universities in the form of discounts from their published prices.
- The average net prices in Figure CP-10 are calculated among all first-time full-time undergraduate students in the private nonprofit four-year sector, including those who did not receive grant aid. In 2020-21, 88% of first-time full-time undergraduate students in this sector received federal, state, or institutional grant aid.

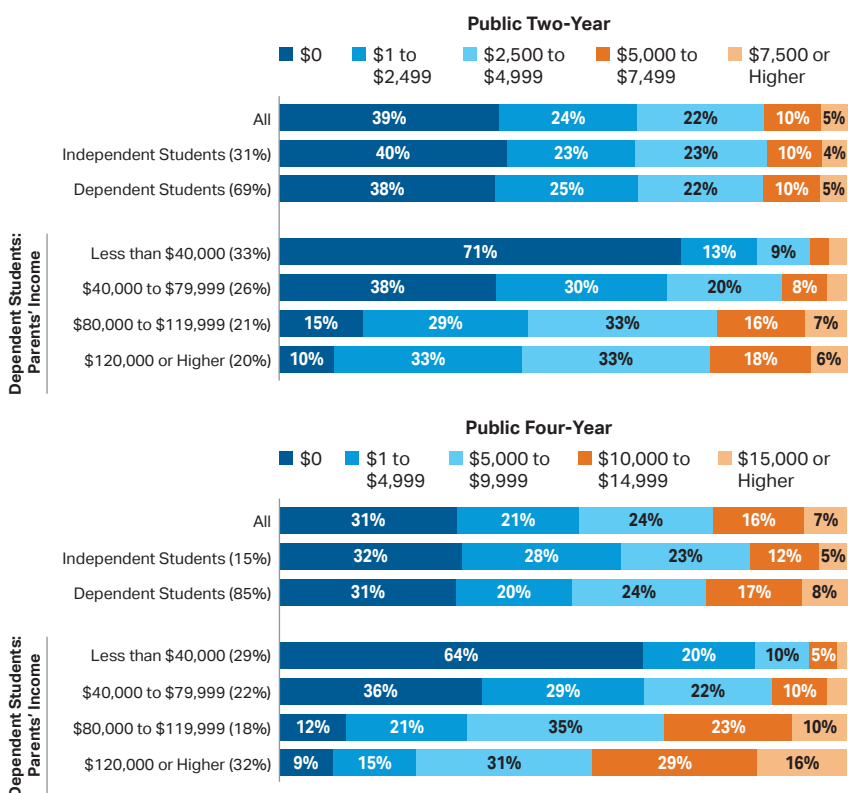
**NOTE:** Average net price is calculated as the difference between published price from College Board's Annual Survey of Colleges and grant aid from IPEDS Student Financial Aid data. Because the latest year for which grant aid data are available is 2020-21, grant aid and net prices for 2021-22 and after are projected and shown in dotted lines. Higher Education Emergency Relief Fund is included in the 2019-20 and 2020-21 grant aid data and projected for later years.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, IPEDS Student Financial Aid data.

# Net Price by Income: Public Institutions

In 2019-20, 39% of full-time in-state students at public two-year colleges received enough grant aid to cover their tuition and fees, including 71% of those from families with incomes of less than \$40,000 and 10% of those from families with incomes of \$120,000 or more.

**FIGURE CP-11** Distribution of Full-Time In-State Undergraduate Students at Public Institutions by Net Tuition and Fees, 2019-20



- In 2019-20, 31% of full-time in-state students at public four-year colleges received enough grant aid to cover their tuition and fees, including 64% of those from families with incomes of less than \$40,000 and 9% of those from families with incomes of \$120,000 or more.
- At both public two-year and public four-year institutions, similar shares of independent and dependent students did not pay any part of their tuition and fees.
- In 2019-20, full-time in-state dependent students at public two-year and four-year institutions from families with incomes of less than \$40,000 received enough grant aid, on average, to cover their tuition and fees. The average remaining expenses after grant aid were \$11,220 at public two-year and \$14,610 at public-four year colleges.

## ALSO IMPORTANT:

- A major component of student budgets is living expenses, which differ depending on whether students live on campus, in off-campus housing, or with parents. In 2019-20, 37% of full-time undergraduate students at public four-year institutions lived on campus, 42% lived in off-campus housing, and 21% lived with parents. At public two-year colleges, 5% lived on campus, 40% lived in off-campus housing, and 55% lived with parents. (Authors' calculations from NPSAS 2020)
- The average net prices shown in the table on this page are not strictly comparable to those in Figure CP-8 and Figure CP-9 because of different data sources and methodologies.

**NOTE:** This analysis includes full-time in-state undergraduate students who were U.S. citizens or permanent residents. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, National Postsecondary Student Aid Study (NPSAS), 2020; calculations by the authors.

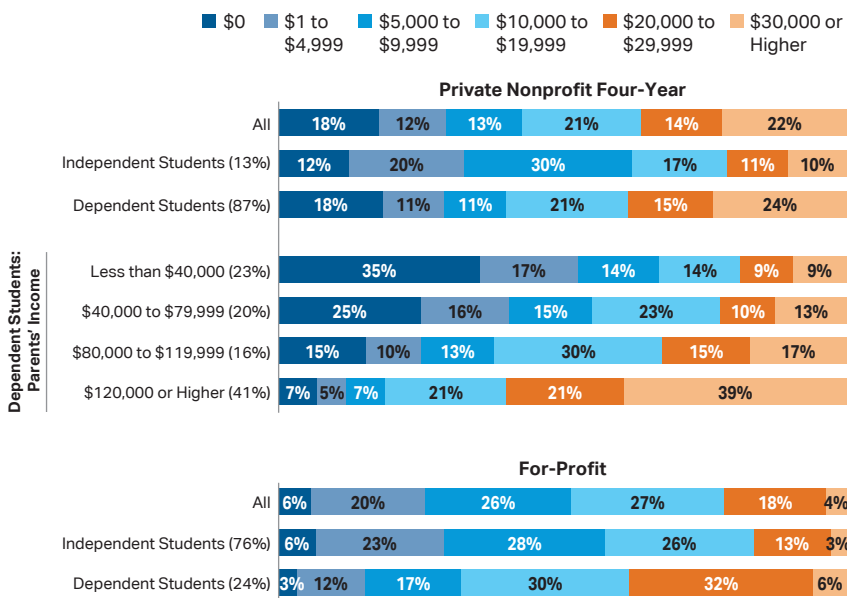
## Average Grant Aid, Net Tuition and Fees, and Net Budget, 2019-20

	Public Two-Year			Public Four-Year		
	Average Grant Aid	Net Tuition and Fees	Net Total Budget	Average Grant Aid	Net Tuition and Fees	Net Total Budget
All	\$3,680	\$700	\$14,430	\$7,670	\$3,920	\$20,510
Dependent Students	\$3,590	\$740	\$13,600	\$7,670	\$4,070	\$20,530
Independent Students	\$3,860	\$610	\$16,280	\$7,630	\$3,070	\$20,390
Parents' Income of Dependent Students						
Less than \$40,000	\$6,700	-\$2,320	\$11,220	\$13,360	-\$2,220	\$14,610
\$40,000 to \$79,999	\$3,320	\$940	\$13,750	\$9,200	\$2,180	\$18,860
\$80,000 to \$119,999	\$1,450	\$2,990	\$14,940	\$4,380	\$7,250	\$22,980
\$120,000 or Higher	\$1,170	\$3,060	\$15,800	\$3,370	\$9,220	\$25,620

# Net Price by Income: Private Institutions

In 2019-20, 18% of full-time students at private nonprofit four-year institutions received enough grant aid to cover their tuition and fees, including 35% of those from families with incomes of less than \$40,000 and 7% of those from families with incomes of \$120,000 or more.

**FIGURE CP-12** Distribution of Full-Time Undergraduate Students at Private Institutions by Net Tuition and Fees, 2019-20



- In 2019-20, 22% of full-time students at private nonprofit four-year institutions paid \$30,000 or more in tuition and fees after grant aid, including 9% of those from families with incomes of less than \$40,000 and 39% of those from families with incomes of \$120,000 or more.
- At for-profit institutions, 6% of full-time students received enough grant aid to cover their tuition and fees in 2019-20, including 3% of dependent students and 6% of independent students.
- In 2019-20, full-time dependent students at private nonprofit four-year institutions received an average of \$21,850 in grant aid, ranging from \$17,240 for those from families with incomes of at least \$120,000 to \$29,930 for those from families with incomes of under \$40,000.
- At private nonprofit four-year institutions, the average total expenses after grant aid were \$22,950 for those from families with incomes of under \$40,000 to \$44,850 for those from families with incomes of \$120,000 or more.

**NOTE:** This analysis includes full-time undergraduate students who were U.S. citizens or permanent residents. The sample size for dependent students in the for-profit sector is too small to allow for reliable analysis by family income. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, National Postsecondary Student Aid Study (NPSAS), 2020; calculations by the authors.

## Average Grant Aid, Net Tuition and Fees, and Net Budget, 2019-20

	Private Nonprofit Four-Year			For-Profit		
	Average Grant Aid	Net Tuition and Fees	Net Total Budget	Average Grant Aid	Net Tuition and Fees	Net Total Budget
All	\$21,850	\$16,260	\$33,130	\$6,390	\$12,000	\$27,010
Dependent Students	\$23,540	\$17,020	\$34,160	\$8,850	\$15,790	\$29,540
Independent Students	\$10,210	\$11,010	\$26,010	\$5,630	\$10,810	\$26,220
Parents' Income of Dependent Students						
Less than \$40,000	\$29,930	\$6,140	\$22,950	\$12,780	\$13,620	\$27,020
\$40,000 to \$79,999	\$28,310	\$10,040	\$26,310	\$9,200	\$13,950	\$27,780
\$80,000 to \$119,999	\$24,610	\$15,440	\$32,580	\$5,850	\$17,230	\$31,490
\$120,000 or Higher	\$17,240	\$27,110	\$44,850	\$3,740	\$21,360	\$35,170

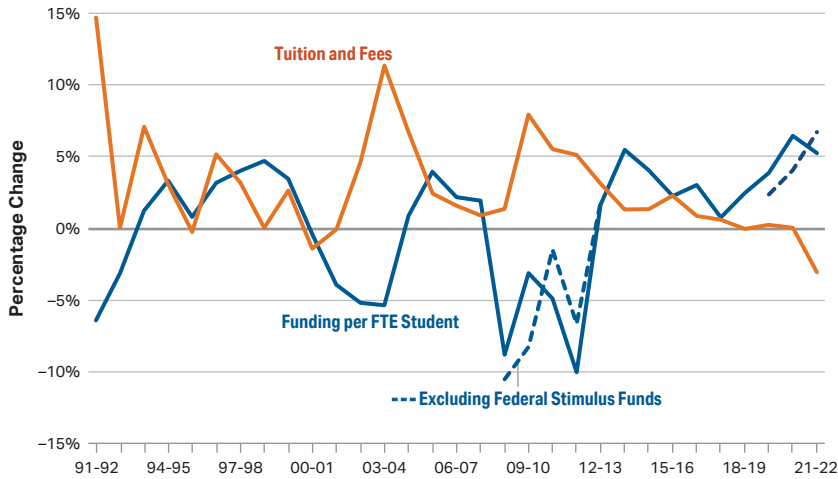
## ALSO IMPORTANT:

- A major component of student budgets is living expenses, which differ depending on whether students live on campus, in off-campus housing, or with parents. In 2019-20, 61% of full-time undergraduate students at private nonprofit four-year institutions lived on campus, 26% lived in off-campus housing, and 13% lived with parents. At for-profit colleges, about 5% of full-time undergraduate students lived on campus, 73% lived in off-campus housing, and 21% lived with parents. (Authors' calculations from NPSAS 2020)
- The average net prices for the private nonprofit four-year sector shown in the table on this page are not strictly comparable to those in Figure CP-10 because of different data sources and methodologies.

# Institutional Revenues: State and Local Funding

State and local funding for higher education tends to be cyclical. Historically, declines in state and local funding per student were followed by large percentage increases in tuition and fees in the public sector.

**FIGURE CP-13A** Annual Percentage Changes in Inflation-Adjusted Per-Student State and Local Funding for Higher Education and in Tuition and Fees at Public Institutions, 1991-92 to 2021-22

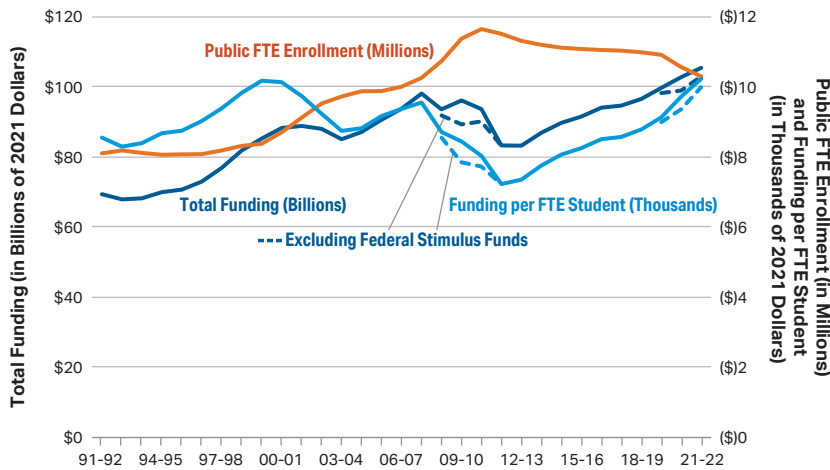


- State and local funding per student increased in 2021-22 (in inflation-adjusted dollars) for the 10th consecutive year, following four years of decline during and after the Great Recession of 2008.
- State and local funding per student reached \$10,240 in 2021-22, the highest level since 1999-2000 when it was \$10,180 (in 2021 dollars).
- In the last 30 years, total state and local funding increased by 52% after adjusting for inflation, total full-time equivalent public enrollment increased by 27%, and funding per student increased by 20%.

**ALSO IMPORTANT:**

- In response to the Covid-19 pandemic, the federal government provided stimulus funding that supplemented state and local funding. This stimulus funding first became available in 2019-20 and is reflected in the solid lines in Figures CP-13A and CP-13B.
- Similarly, the federal government provided stimulus funding for higher education during the Great Recession of 2008. This funding was available from 2008-09 through 2011-12.

**FIGURE CP-13B** Total and Per-Student State and Local Funding for Higher Education in 2021 Dollars and Public FTE Enrollment, 1991-92 to 2021-22



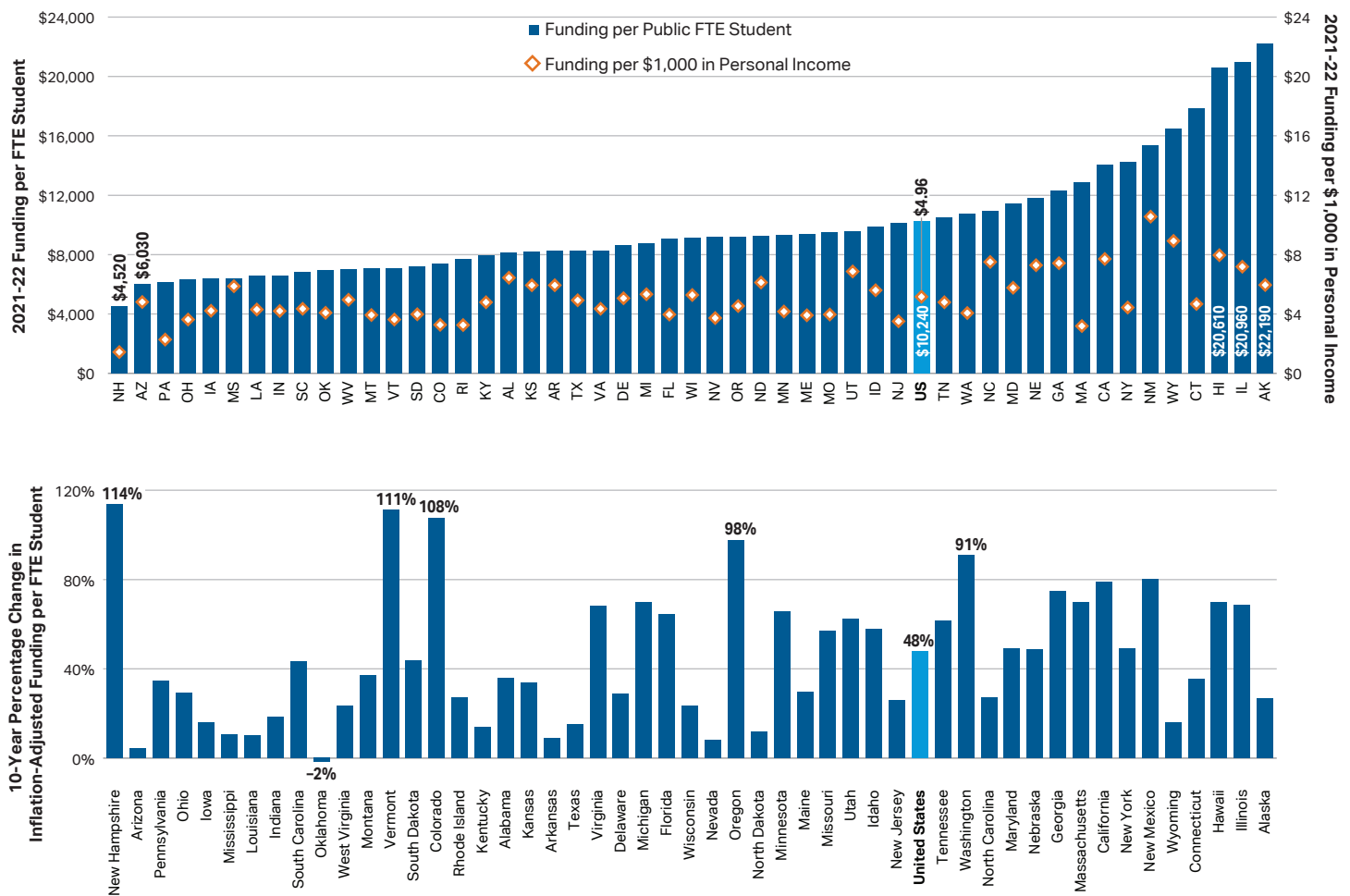
**NOTE:** Enrollment figures are fall FTE enrollments for public two-year and four-year institutions excluding medical students. Annual percentage changes in public tuition and fees are the averages of annual percentage changes in tuition and fees in the public four-year and public two-year sectors. Funding is for both two-year and four-year institutions and includes tax revenues and other state and local funds for higher education, but not funding for capital expenditures.

**SOURCE:** College Board, Annual Survey of Colleges; NCES, *Digest of Education Statistics, 2022*, Table 307.10; State Higher Education Executive Offices Association (SHEEO), State Higher Education Finance (SHEF) reports; calculations by the authors.

# Institutional Revenues: State and Local Funding

In 2021-22, state and local funding for public higher education averaged \$10,240 per full-time equivalent (FTE) student in the United States; it ranged from \$4,520 in New Hampshire and \$6,030 in Arizona to more than \$20,000 in Hawaii, Illinois, and Alaska.

**FIGURE CP-14** 2021-22 State and Local Funding for Higher Education per Student and per \$1,000 in Personal Income and 10-Year Percentage Changes in Inflation-Adjusted Funding per Student, by State



SOURCE: SHEEO, SHEF reports; Bureau of Economic Analysis, Annual State Personal Income 2021; calculations by the authors.

- Between 2011-12 and 2021-22, inflation-adjusted per-student state and local funding for higher education increased by 48% in the United States and increased by at least 50% in 19 states.
- Between 2011-12 and 2021-22, inflation-adjusted per-student state and local funding for higher education more than doubled in three states and declined in one state.

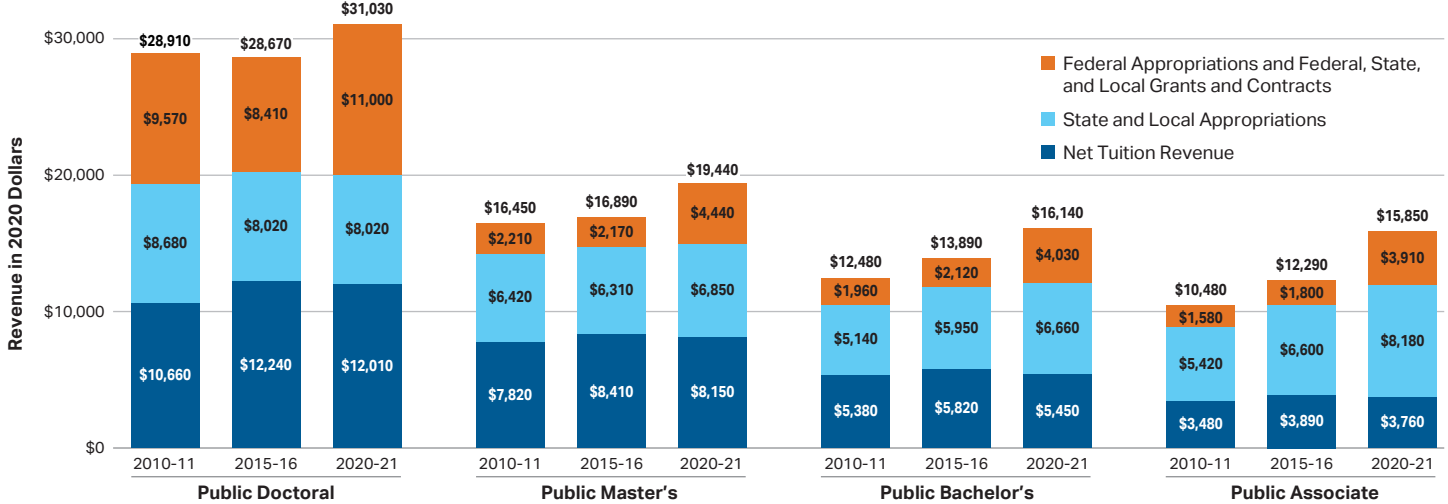
## ALSO IMPORTANT:

- One explanation for the large percentage increases shown in Figure CP-14 is the low levels of state funding per student during the Great Recession of 2008. As shown in Figure CP-13B, state funding per student declined from 2008-09 through 2011-12 before recovering.

# Institutional Revenues: Public Institutions

Between 2015-16 and 2020-21, the share of total revenues from federal appropriations and government grants and contracts increased at all types of public institutions. Note that the 2020-21 government grants and contracts include federal Covid relief funds for colleges and universities.

**FIGURE CP-15** Institutional Revenues per Full-Time Equivalent (FTE) Student in 2020 Dollars at Public Institutions, 2010-11, 2015-16, and 2020-21



## Percentage of Institutional Revenues from Various Sources

	Net Tuition Revenue	State and Local Appropriations	Federal Appropriations and Federal, State, and Local Grants and Contracts
<b>Public Doctoral</b>			
2010-11	37%	30%	33%
2015-16	43%	28%	29%
2020-21	39%	26%	35%
<b>Public Master's</b>			
2010-11	48%	39%	13%
2015-16	50%	37%	13%
2020-21	42%	35%	23%
<b>Public Bachelor's</b>			
2010-11	43%	41%	16%
2015-16	42%	43%	15%
2020-21	34%	41%	25%
<b>Public Associate</b>			
2010-11	33%	52%	15%
2015-16	32%	54%	15%
2020-21	24%	52%	25%

**NOTE:** Net tuition revenue is the amount of revenue an institution takes in from tuition and fees, net of all institutional grant aid provided to students. Some of this revenue comes in the form of Pell Grants and other financial aid from federal and state governments and other sources. Institutional averages are weighted by 12-month FTE enrollments including both undergraduate and graduate students. Institution groupings are based on the 2021 Carnegie Classification. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, IPEDS Finance and 12-Month Enrollment data, 2011, 2016 and 2021; calculations by the authors.

- Between 2015-16 and 2020-21, the share of total revenues from net tuition declined at all types of public institutions.
- In 2020-21, per-student revenues from the combination of government sources and net tuition were nearly twice as large at public doctoral universities as at public bachelor's and two-year colleges. These per-student revenues were \$31,030 at doctoral universities, \$19,440 at master's universities, \$16,140 at bachelor's colleges, and \$15,850 at associate institutions in the public sector.

## ALSO IMPORTANT:

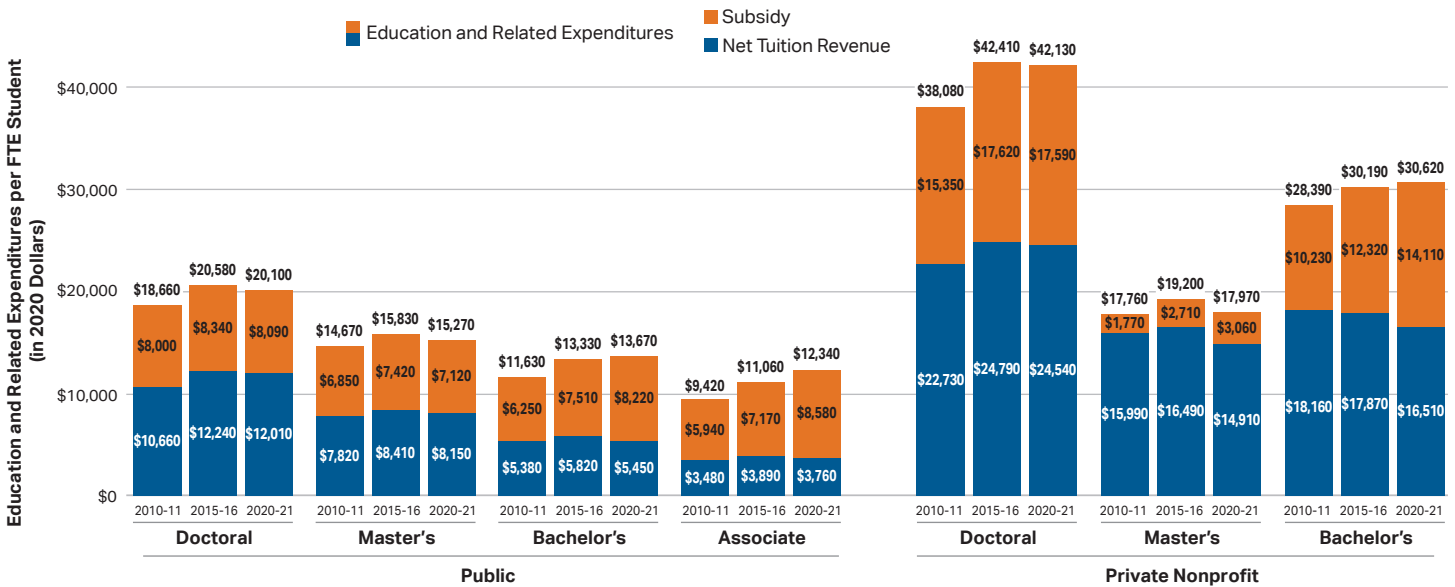
- In addition to the revenue sources included in Figure CP-15, institutions also receive revenues from gifts and investment returns, which account for a small share of total revenues at public institutions.
- Revenues from auxiliary enterprises such as residence halls, dining facilities, hospitals, and independent operations, not included in Figure CP-15, are usually dedicated to running those operations.



# Institutional Revenues and Expenditures

Between 2015-16 and 2020-21, per-student education and related expenditures declined at both public and private nonprofit doctoral and master's institutions, after adjusting for inflation.

**FIGURE CP-16** Net Tuition Revenues, Subsidies, and Education and Related Expenditures per Full-Time Equivalent (FTE) Student in 2020 Dollars, 2010-11, 2015-16, and 2020-21



## Institutional Subsidy as a Percentage of Education and Related Expenditures

	Public				Private Nonprofit		
	Doctoral	Master's	Bachelor's	Associate	Doctoral	Master's	Bachelor's
2010-11	43%	47%	54%	63%	40%	10%	36%
2015-16	41%	47%	56%	65%	42%	14%	41%
2020-21	40%	47%	60%	70%	42%	17%	46%

## Net Tuition as a Percentage of Education and Related Expenditures

	Public				Private Nonprofit		
	Doctoral	Master's	Bachelor's	Associate	Doctoral	Master's	Bachelor's
2010-11	57%	53%	46%	37%	60%	90%	64%
2015-16	59%	53%	44%	35%	58%	86%	59%
2020-21	60%	53%	40%	30%	58%	83%	54%

**NOTE:** Institutional subsidy to students represents the portion of the cost of educating students not covered by net tuition revenue. Net tuition revenue is the amount of revenue an institution takes in from tuition and fees, net of all institutional grant aid provided to students. Some of this revenue comes in the form of Pell Grants and other financial aid from federal and state governments and other sources. Institutional averages are weighted by 12-month FTE enrollments including both undergraduate and graduate students. Institution groupings are based on the 2021 Carnegie Classification. The percentages in the top table are not institutional discount rates, which represent institutional grant aid as a share of published tuition and fees. Graduate student enrollment and research activity vary across different types of institutions, so per-student revenues and expenditures are not strictly comparable.

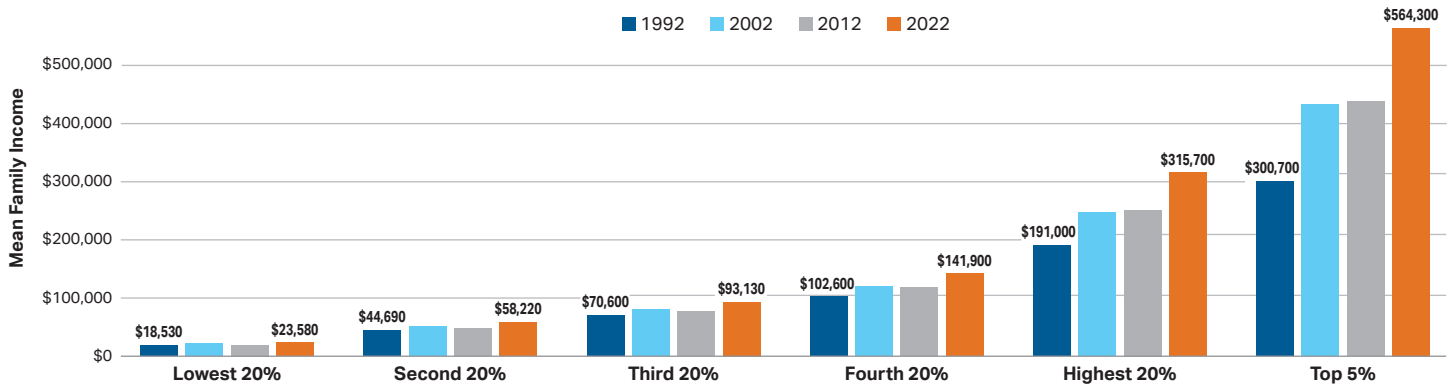
**SOURCE:** NCES, IPEDS Finance and 12-Month Enrollment data, 2011, 2016, and 2021; calculations by the authors.

- Education and related (E&R) expenditures include spending on instruction, student services, and the education share of spending on central academic and administrative support, as well as operations and maintenance. These expenditures can be considered institutions' costs of providing education to students. A portion of these expenditures is covered by net tuition revenues from students and the remaining portion is a subsidy to students. In addition to E&R expenditures, institutional budgets include expenditures for other purposes such as research, public services, and auxiliary enterprises.
- In 2020-21, the E&R expenditures per FTE student ranged from \$12,340 at public associate colleges to \$42,130 at private nonprofit doctoral universities.
- In 2020-21, the share of E&R expenditures at public institutions that was subsidy to students ranged from 40% at doctoral institutions to 70% at associate colleges.
- In 2020-21, the share of E&R expenditures at private nonprofit institutions that was subsidy to students was 17% at master's institutions, 42% at doctoral institutions, and 46% at bachelor's colleges.

# Family Income

Between 1992 and 2022, the average income increased by 65% for the top quintile of families and by 27% for the lowest quintile of families, after adjusting for inflation.

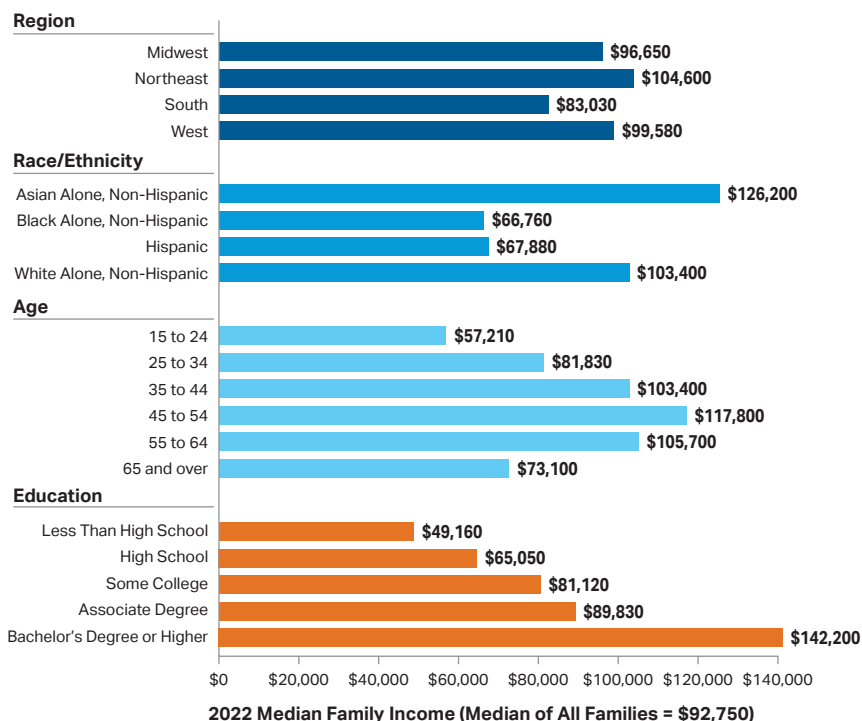
**FIGURE CP-17A** Mean Family Income in 2022 Dollars by Quintile, 1992, 2002, 2012, and 2022



	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Top 5%
\$ Change from 1992 to 2022	\$5,050	\$13,530	\$22,530	\$39,300	\$124,700	\$263,600
% Change from 1992 to 2022	27%	30%	32%	38%	65%	88%
2022 Income Bracket	\$42,350 or Less	\$42,351 to \$74,500	\$74,501 to \$114,000	\$114,001 to \$178,000	\$178,001 or More	\$334,200 or More
2022 Mean Income	\$23,580	\$58,220	\$93,130	\$141,900	\$315,700	\$564,300

- In 2022, average incomes ranged from \$23,580 for the lowest quintile to \$315,700 for the highest quintile and \$564,300 for the top 5% of families.
- In 2022, the median income of families headed by individuals ages 45 to 54—the age bracket of parents of most traditional-age college students—was 27% higher than the overall median (\$117,800 compared with \$92,750).
- In 2022, the \$142,200 median family income of families with at least one four-year college graduate was more than twice the median for families headed by a high school graduate (\$65,050).

**FIGURE CP-17B** Median Family Income by Selected Characteristics, 2022



## ALSO IMPORTANT:

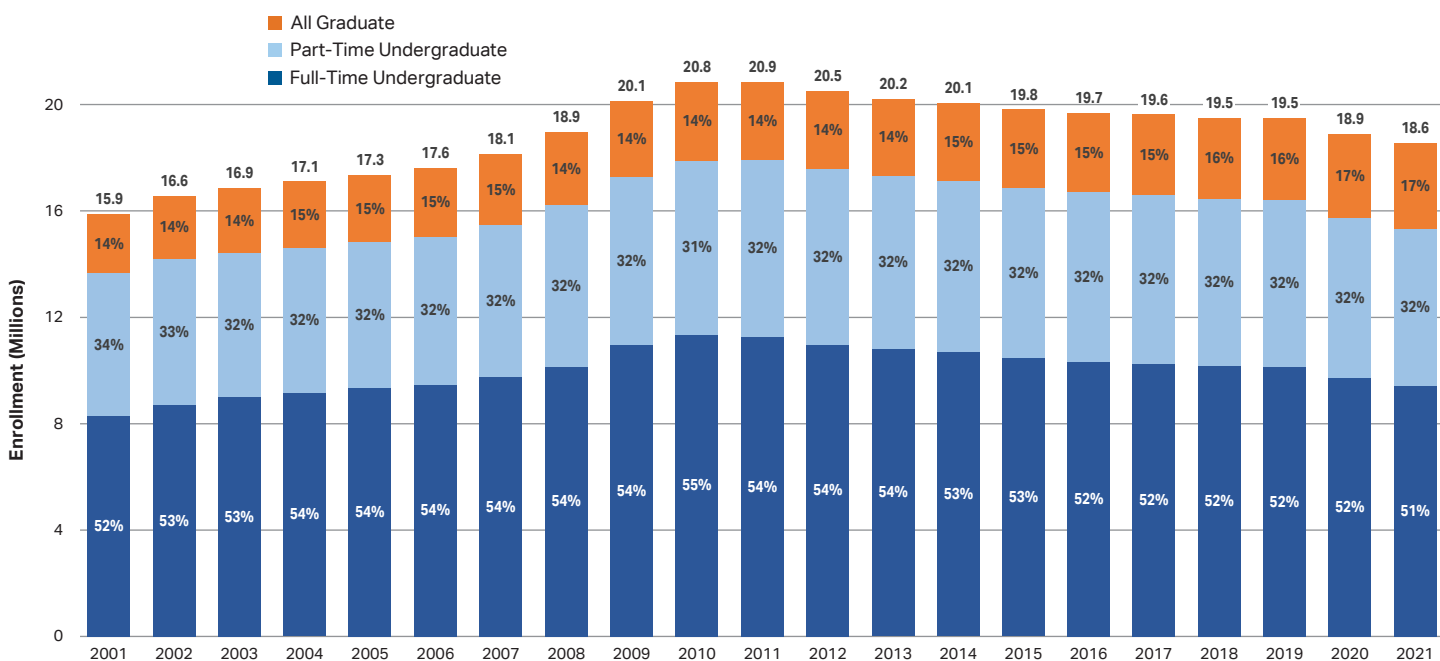
- The share of all income going to the 20% of families with the lowest incomes declined from 4.3% in 1992 to 3.7% in 2022. The share of income going to the top 5% of families increased from 17.6% in 1992 to 22.3% in 2022. (U.S. Census Bureau, Table F-2)
- According to the Census Bureau, a household consists of all the people who occupy a housing unit. A family is a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together.

SOURCE: U.S. Census Bureau, Current Population Survey, 2022 Annual Social and Economic Supplement, Table F-1, Table F-3, Table F-5, and FINC-01; calculations by the authors.

# Enrollment Patterns over Time

Between fall 2019 (pre-Covid) and fall 2021, total enrollment declined by 947,900 (5%)—from 19.5 million to 18.6 million. Total undergraduate enrollment declined by 6.6% (from 16.439 million to 15.352 million) and total graduate enrollment increased by 4.5% (from 3.066 million to 3.205 million).

**FIGURE CP-18** Postsecondary Fall Enrollment (in Millions) by Attendance Status and Level of Enrollment, 2001 to 2021



**NOTE:** Includes degree-granting Title-IV institutions. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, IPEDS Fall Enrollment data, 2001 through 2021; calculations by the authors.

Total Postsecondary Fall Enrollment (in Millions), 2001 to 2021

Year	Full-Time Undergraduate	Part-Time Undergraduate	All Graduate	Total
2001	8.3	5.4	2.2	15.9
2002	8.7	5.5	2.4	16.6
2003	9.0	5.4	2.4	16.9
2004	9.2	5.4	2.5	17.1
2005	9.4	5.5	2.5	17.3
2006	9.5	5.6	2.6	17.6
2007	9.8	5.7	2.6	18.1
2008	10.2	6.1	2.7	18.9
2009	10.9	6.4	2.8	20.1
2010	11.4	6.6	2.9	20.8
2011	11.3	6.7	2.9	20.9
2012	11.0	6.6	2.9	20.5
2013	10.8	6.5	2.9	20.2
2014	10.7	6.5	2.9	20.1
2015	10.5	6.4	2.9	19.8
2016	10.3	6.4	3.0	19.7
2017	10.3	6.3	3.0	19.6
2018	10.2	6.3	3.0	19.5
2019	10.1	6.3	3.1	19.5
2020	9.7	6.0	3.1	18.9
2021	9.4	5.9	3.2	18.6

**NOTE:** Components may not sum to totals because of rounding.

- Between fall 2001 and fall 2011, total enrollment increased by 5.0 million (31%)—from 15.9 million to 20.9 million. Since the enrollment peak in fall 2011, total enrollment has declined by 2.3 million (11%) to 18.6 million in fall 2021.
- The share of full-time undergraduate students increased from 52% of total in fall 2001 to 55% in fall 2010. It then declined to 51% in fall 2021. The share of part-time undergraduate students ranged between 31% and 34% over the past two decades.
- The share of graduate students rose from 14% of total (2.2 million) in fall 2001 to 17% (3.2 million) in fall 2021.

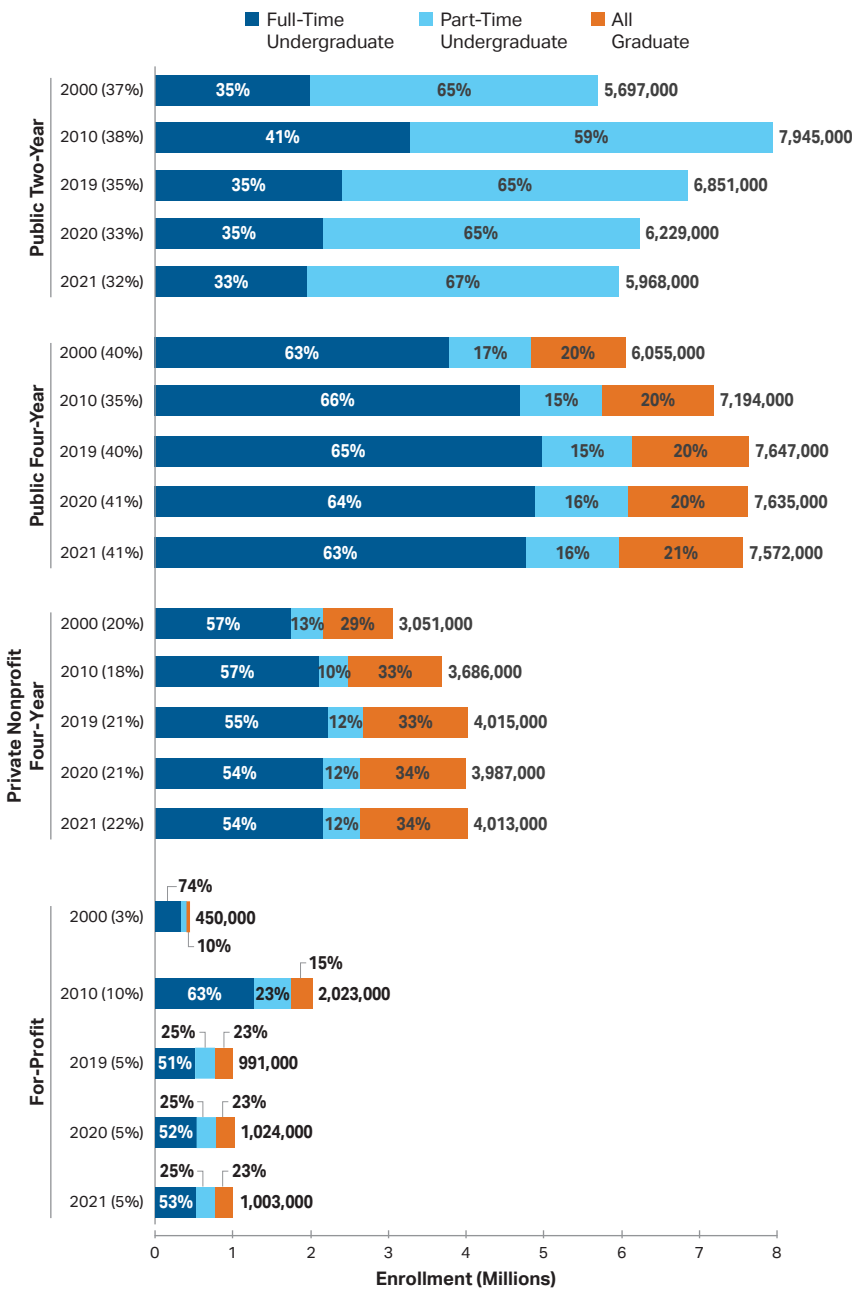
## ALSO IMPORTANT:

- Students enrolled in non-degree-granting institutions, who are not included in Figure CP-18, may be eligible for federal student aid if they are working toward certificates at accredited institutions.
- Fall 2021 in Figure CP-18 is the latest year available in IPEDS data. More recent data from the National Student Clearinghouse show that between fall 2021 and fall 2022, total enrollment declined by 0.7%, total undergraduate enrollment declined by 0.6%, and total graduate enrollment declined by 1.2%. (Shapiro et al., 2023)

# Enrollment Patterns over Time, by Sector

Between fall 2019 (pre-Covid) and fall 2021, the public two-year sector saw the largest decline in enrollment—883,000 (13%). Total enrollment in this sector declined by 622,000 (9%) between fall 2019 and fall 2020 and by an additional 261,000 (4%) by fall 2021.

**FIGURE CP-19** Postsecondary Fall Enrollment by Sector, Attendance Status, and Level of Enrollment, 2000 to 2021, Selected Years



**NOTE:** Includes degree-granting Title-IV institutions. Percentages on the vertical axis represent the enrollment in each sector as a percentage of total enrollment. Four-year institutions include only those where more than 50% of degrees/certificates awarded are bachelor's degree or higher. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, IPEDS Fall Enrollment data, 2000, 2010, 2019, 2020, and 2021; calculations by the authors.

- Between fall 2019 and fall 2021, total enrollment declined by 75,000 (1%) in the public four-year sector and by 2,000 (<1%) in the private nonprofit four-year sector; it increased by 12,000 (1%) in the for-profit sector.
- Between fall 2019 and fall 2021, total undergraduate enrollment (including full-time and part-time students) fell by 174,000 (3%) in the public four-year sector and by 50,000 (2%) in the private nonprofit four-year sector; it increased by 19,000 (3%) in the for-profit sector.
- Between fall 2019 and fall 2021, total graduate student enrollment rose by 99,000 (7%) in the public four-year sector, rose by 47,000 (4%) in the private nonprofit four-year sector, and declined by 7,000 (3%) in the for-profit sector.
- Between 2000 and 2010, total enrollment in the for-profit sector more than quadrupled. Since 2010, enrollment in this sector declined by half. Graduate students rose from 10% of all students in fall 2000 to 23% in 2019 and after.

## ALSO IMPORTANT:

- Fall 2021 in Figure CP-19 is the latest year available in IPEDS data. The National Student Clearinghouse data show that between fall 2021 and fall 2022, total enrollment declined by 1.2% in the public four-year, declined by 0.6% in the private nonprofit four-year sector, and increased by 2.6% in the for-profit four-year and by 0.4% in the public two-year sector. (Shapiro et al., 2023)

Postsecondary Fall Enrollment by Sector, Attendance Status, and Level of Enrollment, 2019 through 2021

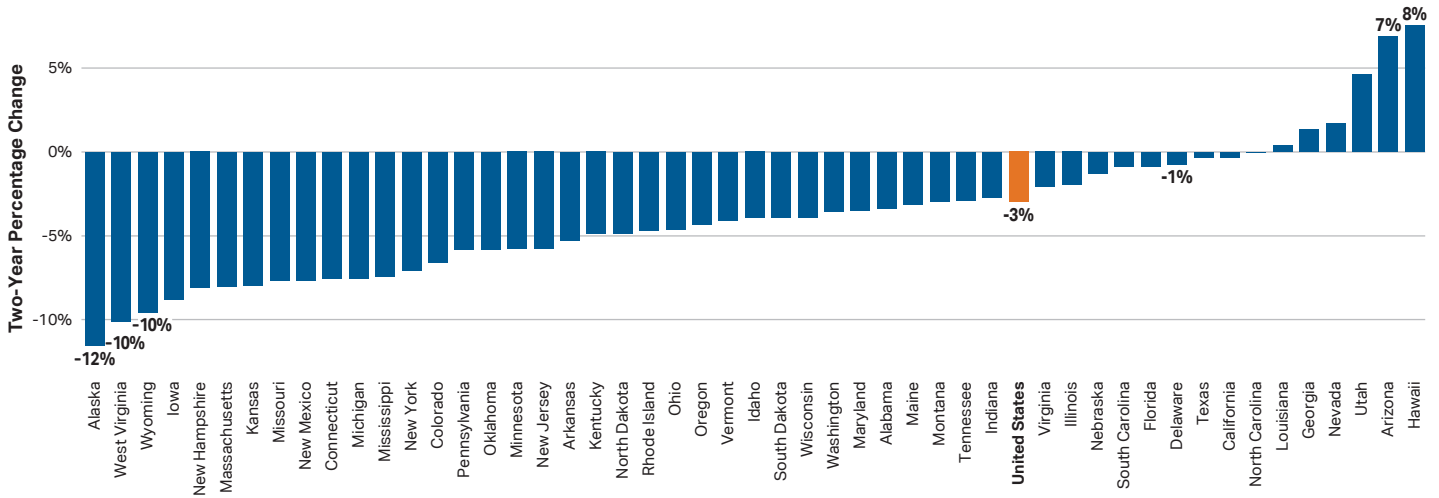
		Full-Time Undergraduate	Part-Time Undergraduate	All Graduate	Total
Public Two-Year	2019	2,410,000	4,441,000	—	6,851,000
	2020	2,160,000	4,069,000	—	6,229,000
	2021	1,957,000	4,011,000	—	5,968,000
Public Four-Year	2019	4,989,000	1,162,000	1,496,000	7,647,000
	2020	4,898,000	1,194,000	1,543,000	7,635,000
	2021	4,781,000	1,196,000	1,595,000	7,572,000
Private Nonprofit Four-Year	2019	2,216,000	463,000	1,337,000	4,015,000
	2020	2,161,000	471,000	1,355,000	3,987,000
	2021	2,165,000	464,000	1,384,000	4,013,000
For-Profit	2019	508,000	251,000	233,000	991,000
	2020	529,000	259,000	236,000	1,024,000
	2021	530,000	248,000	226,000	1,003,000

**NOTE:** Components may not sum to totals because of rounding.

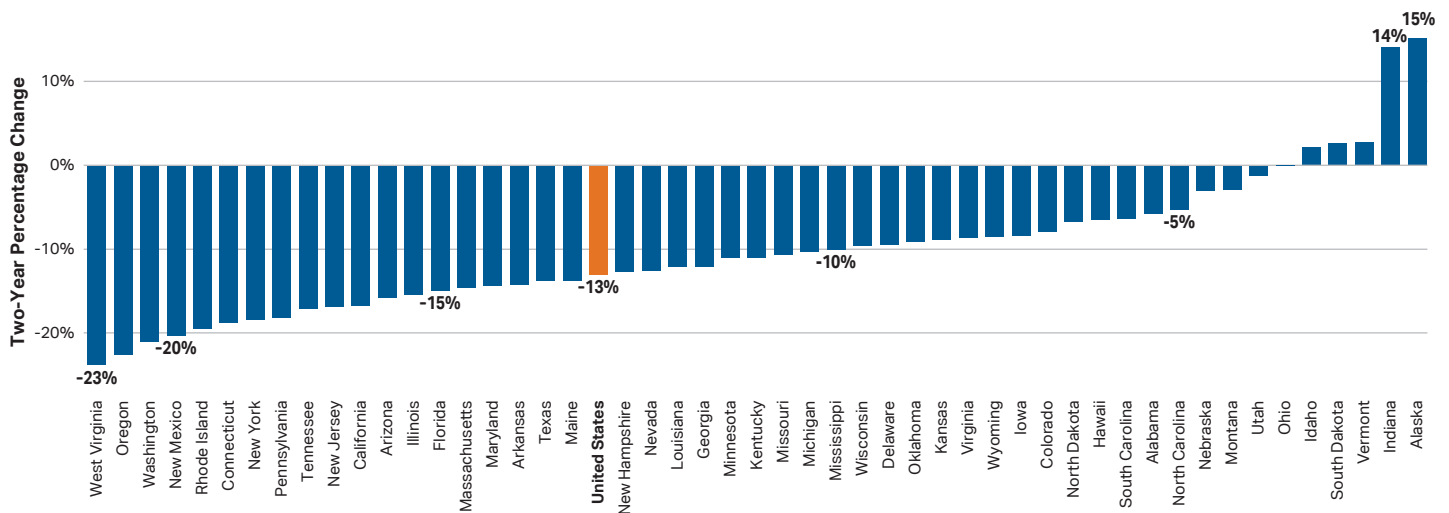
# Public Enrollment by State

Between fall 2019 (pre-Covid) and fall 2021, total undergraduate enrollment at public four-year colleges declined in 41 states, remained stable in four states, and increased in five states.

**FIGURE CP-20A** Fall 2019 to Fall 2021 Two-Year Percentage Changes in Total Undergraduate Enrollment at Public Four-Year Institutions, by State



**FIGURE CP-20B** Fall 2019 to Fall 2021 Two-Year Percentage Changes in Total Undergraduate Enrollment at Public Two-Year Institutions, by State



**NOTE:** Two-year colleges are those where more than 50% of degrees/certificates awarded are associate degrees or certificates, even if they award some bachelor's degrees.

**SOURCE:** NCES, IPEDS Fall Enrollment data, 2019 and 2021; calculations by the authors.

- In the public four-year sector, changes across states ranged from declines of 12% in Alaska and 10% in West Virginia and Wyoming to increases of 7% in Arizona and 8% in Hawaii.
- Between fall 2019 and fall 2021, total enrollment at public two-year colleges declined by at least 15% in 14 states, declined by less than 15% in 30 states, remained stable in one state, and increased in five states. Changes across states ranged from declines of 22% in Oregon and 23% in West Virginia to increases of 14% in Indiana and 15% in Alaska.

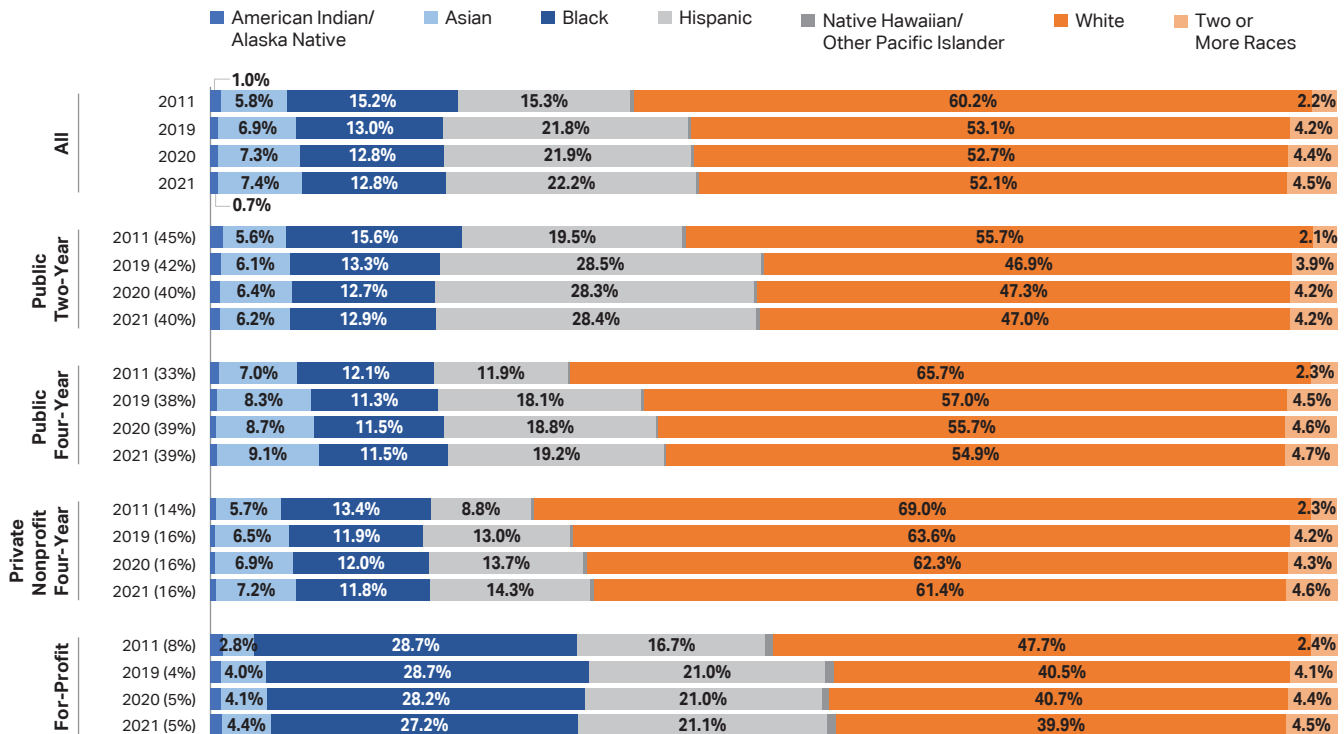
## ALSO IMPORTANT:

- Overall, two-year colleges accounted for half of the public undergraduate enrollment in fall 2021. In six states, this share was 60% or more; in five states, it was below 30%.
- Between fall 2019 and fall 2021, enrollment rates among recent high school graduates declined at all types of colleges. (College Board, *College Enrollment and Retention in the Era of Covid: Fall 2021 Update on Continued Pandemic Impacts*, Figure 3C)

# Enrollment by Race/Ethnicity

Between fall 2011 and fall 2021, the shares of undergraduate students who were Asian, Hispanic, or two or more races increased while the shares of undergraduate students who were Black, White, or American Indian/Alaska Native declined.

**FIGURE CP-21** Distribution of Undergraduate Enrollment by Sector and Race/Ethnicity, Fall 2011 through Fall 2021, Selected Years



**NOTE:** Includes degree-granting Title IV postsecondary institutions. Nonresident aliens and “unknown” categories are excluded. Four-year institutions include only those where more than 50% of degrees/certificates awarded are bachelor’s degree or higher. Percentages on the vertical axis represent the enrollment in each sector as a percentage of total undergraduate enrollment. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, IPEDS Fall Enrollment data, 2011 through 2021; calculations by the authors.

- Hispanic students represented 19.5% of all undergraduates in the public two-year sector in fall of 2011. The share of these students in the public two-year sector increased to 28.4% in fall 2021.
- Asian students represented 7% of all undergraduates in the public four-year sector in fall of 2011. The share of these students in the public four-year sector increased to 9.1% in fall 2021.
- White students represented 65.7% of all undergraduates in the public four-year sector in fall of 2011. The share of these students in the public four-year sector decreased to 54.9% in fall 2021.
- In fall 2021, the share of undergraduates who are Black ranged from 11.5% at public four-year institutions to 27.2% at for-profit institutions.

## ALSO IMPORTANT:

- States with large Hispanic populations such as California, Florida, and Texas also have higher shares of students enrolled in the public two-year sector. (*Trends in College Pricing and Student Aid 2022*, Figure CP-18B)
- In 2021, Hispanic students accounted for an estimated 25.8% of all public high school graduates in the United States, up from 18.6% in 2011, while the share of White students declined from 58.4% in 2011 to 49.7% in 2021. (WICHE, *Knocking at the College Door*, 10th edition)
- A recent study of the impact of the first year of widespread test-optional policies due to the pandemic shows that, between fall 2020 and fall 2021, the share of enrolled students who were underrepresented minority increased by 1 to 2 percentage points at more selective institutions, but remained unchanged at all other institutions. (College Board, *Updated Evidence on Changes in College Applications, Admissions, and Enrollments Focus on the Fall 2022 Admissions Cycle*, Figures 7 and 8A-8D)



TRENDS IN HIGHER EDUCATION SERIES

---

# Trends in Student Aid 2023

# Total Student Aid

In 2022-23, undergraduate and graduate students received a total of \$240.7 billion in student aid in the form of grants, Federal Work-Study, federal loans, and federal tax credits and deductions.

**TABLE SA 1** Total Student Aid and Nonfederal Loans in 2022 Dollars (in Millions), Undergraduate and Graduate Students Combined, 1992-93 to 2022-23, Selected Years

	Academic Year									10-Year % Change	30-Year % Change	
	92-93	02-03	12-13	17-18	18-19	19-20	20-21	21-22	Preliminary 22-23			
<b>Federal Aid</b>												
<b>Grants</b>												
Pell Grants	\$12,882	\$18,938	\$40,867	\$34,232	\$33,110	\$32,530	\$29,927	\$27,926	\$27,189	-33%	111%	
FSEOG	\$1,209	\$1,179	\$934	\$875	\$978	\$961	\$978	\$941	\$891	-5%	-26%	
LEAP	\$149	\$108	—	—	—	—	—	—	—	—	—	
Veterans' Benefits	\$1,962	\$3,189	\$14,872	\$13,934	\$13,910	\$13,129	\$11,907	\$10,424	\$9,616	-35%	390%	
<b>Total Federal Grants</b>	<b>\$16,202</b>	<b>\$23,414</b>	<b>\$56,673</b>	<b>\$49,041</b>	<b>\$47,999</b>	<b>\$46,620</b>	<b>\$42,812</b>	<b>\$39,291</b>	<b>\$37,697</b>	<b>-33%</b>	<b>133%</b>	
<b>Loans</b>												
Perkins Loans	\$1,860	\$2,375	\$1,288	\$753	—	—	—	—	—	—	—	
Subsidized	\$19,976	\$31,771	\$35,437	\$24,962	\$23,095	\$21,569	\$18,723	\$16,965	\$15,259	-57%	-24%	
Unsubsidized	—	\$27,649	\$72,011	\$58,228	\$55,847	\$54,510	\$52,379	\$47,852	\$43,673	-39%	—	
Parent PLUS	\$2,299	\$7,913	\$12,519	\$15,219	\$14,905	\$14,140	\$11,356	\$11,277	\$11,247	-10%	389%	
Grad PLUS	—	—	\$9,692	\$12,291	\$12,516	\$12,840	\$13,290	\$13,529	\$13,285	37%	—	
<b>Total Federal Loans</b>	<b>\$24,135</b>	<b>\$69,708</b>	<b>\$130,946</b>	<b>\$111,453</b>	<b>\$106,363</b>	<b>\$103,058</b>	<b>\$95,747</b>	<b>\$89,623</b>	<b>\$83,465</b>	<b>-36%</b>	<b>246%</b>	
<b>Federal Work-Study</b>	\$1,282	\$1,636	\$1,230	\$1,171	\$1,305	\$1,271	\$1,268	\$1,234	\$1,138	-7%	-11%	
<b>Education Tax Benefits</b>	—	\$9,530	\$23,480	\$17,400	\$15,770	\$14,620	\$13,630	\$12,290	\$10,740	-54%	—	
<b>Total Federal Aid</b>	<b>\$41,619</b>	<b>\$104,288</b>	<b>\$212,330</b>	<b>\$179,065</b>	<b>\$171,436</b>	<b>\$165,568</b>	<b>\$153,457</b>	<b>\$142,439</b>	<b>\$133,040</b>	<b>-37%</b>	<b>220%</b>	
<b>State Grants</b>	\$4,605	\$9,409	\$12,226	\$14,251	\$14,405	\$14,832	\$14,591	\$14,044	\$13,627	11%	196%	
<b>Institutional Grants</b>	\$16,541	\$28,729	\$57,696	\$73,808	\$76,228	\$78,871	\$79,800	\$79,709	\$76,861	33%	365%	
<b>Private and Employer Grants</b>	\$5,860	\$11,440	\$18,380	\$19,750	\$19,860	\$19,730	\$18,680	\$18,100	\$17,150	-7%	193%	
<b>Total Federal, State, Institutional, and Other Aid</b>	<b>\$68,625</b>	<b>\$153,865</b>	<b>\$300,631</b>	<b>\$286,874</b>	<b>\$281,928</b>	<b>\$279,002</b>	<b>\$266,528</b>	<b>\$254,291</b>	<b>\$240,677</b>	<b>-20%</b>	<b>251%</b>	
<b>Nonfederal Loans</b>	—	\$13,400	\$11,800	\$14,200	\$15,300	\$16,500	\$13,600	\$14,500	\$14,700	25%	—	
<b>Total Student Aid and Nonfederal Loans</b>	<b>\$68,625</b>	<b>\$167,265</b>	<b>\$312,431</b>	<b>\$301,074</b>	<b>\$297,228</b>	<b>\$295,502</b>	<b>\$280,128</b>	<b>\$268,791</b>	<b>\$255,377</b>	<b>-18%</b>	<b>272%</b>	

**NOTE:** Table SA-1 does not include the Higher Education Emergency Relief Fund, a variety of small federal grant and loan programs, as well as some small programs for veterans and members of the military. Federal Supplemental Educational Opportunity Grant (FSEOG) and Federal Work-Study (FWS) funds reflect federal allocations and do not include the required matching funds from institutions. Tax benefits, private and employer grants, and nonfederal loans are estimated. The data for 2021-22 and 2022-23 institutional grant aid and 2022-23 state grant aid are estimated. Components may not sum to totals because of rounding.

**SOURCE:** See page 54 for Table SA-1 data sources.

- The federal government's share of total student aid decreased from 71% in 2012-13 to 55% in 2022-23.
- Between 2012-13 and 2022-23, total grant aid for postsecondary students remained stable (in inflation-adjusted dollars) at about \$145 billion. In the last decade, total federal grants declined by 33% to \$37.7 billion in 2022-23 and institutional grants grew by 33% to an estimated \$76.9 billion in 2022-23.
- Between 2012-13 and 2022-23, total federal loans declined by 36% (in inflation-adjusted dollars) to \$83.5 billion.

## ALSO IMPORTANT:

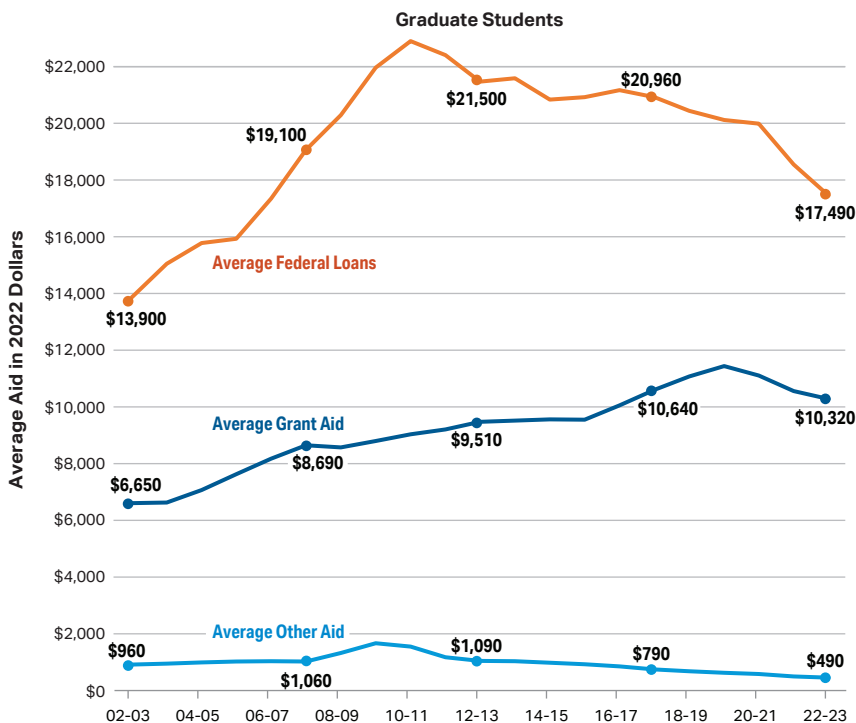
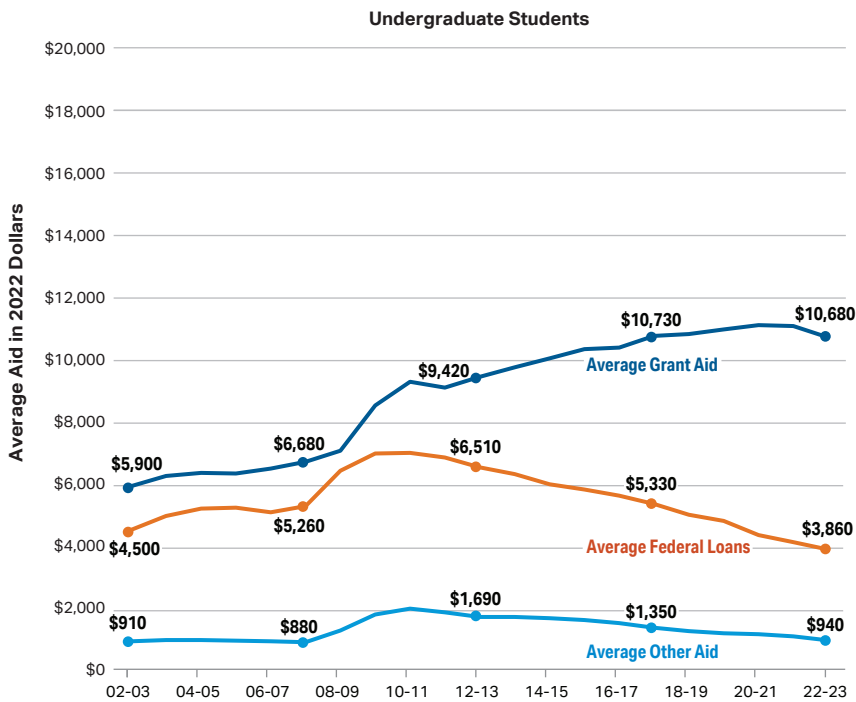
- In 2022-23, undergraduate students received 74% (\$177.0 billion) of total student aid, including 95% of all federal grants and 53% of federal loans. They received 84% of total grant aid from all sources and 58% of all loans, including nonfederal loans. The remainder of the aid funded graduate students. (Table SA-1 online)



# Aid per Student

Between 2002-03 and 2022-23, average grant aid per full-time equivalent (FTE) undergraduate student grew by 81% (from \$5,900 to \$10,680 in 2022 dollars) and average grant aid per FTE graduate student increased by 55% (from \$6,650 to \$10,320 in 2022 dollars).

**FIGURE SA-1** Average Aid per Full-Time Equivalent (FTE) Student in 2022 Dollars, 2002-03 to 2022-23



- Average federal loans per FTE student peaked in 2010-11 for both undergraduate and graduate students. Federal loans per FTE undergraduate student declined to \$3,860 in 2022-23, from a peak of \$6,970 (in 2022 dollars) in 2010-11. Federal loans per FTE graduate student declined to \$17,490 in 2023-24, from a peak of \$22,930 in 2010-11.
- In 2022-23, average other aid (federal tax benefits and work-study) was \$940 per FTE undergraduate student and \$490 per FTE graduate student.

**ALSO IMPORTANT:**

- In 2022-23, most of the “Other Aid” for both undergraduate and graduate students was from education tax credits and deductions. About 10% was from Federal Work-Study.

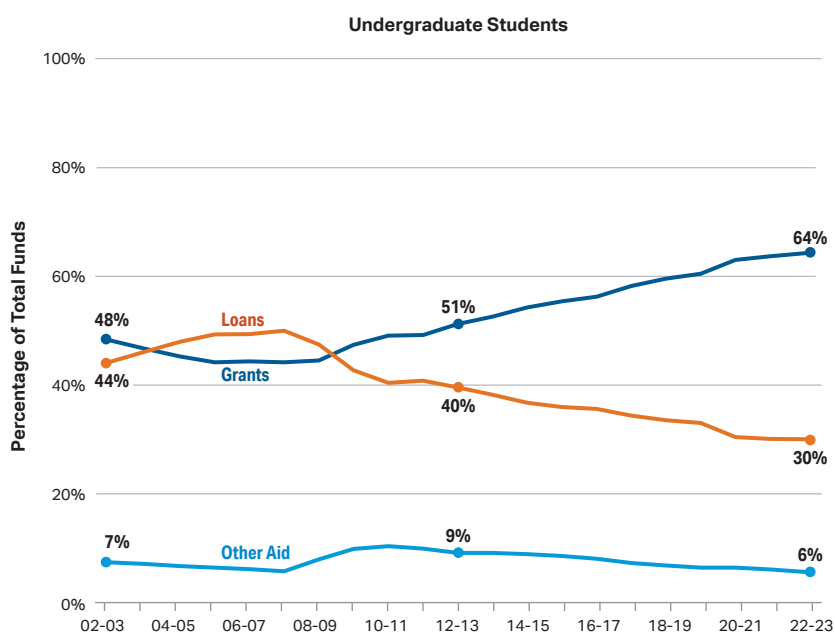
**NOTE:** Loans reported here include only federal loans to students and parents. Grants from all sources are included. “Other Aid” includes federal education tax credits and deductions and Federal Work-Study. Undergraduate and graduate shares of some forms of aid are estimates based on NPSAS data. Dollar values are rounded to the nearest \$10.

**SOURCE:** Table SA-3 online. Please see page 54 for Table SA-3 data sources.

# Grants, Loans, and Other Aid

Loans (including both federal and nonfederal) fell from 40% of the total financial aid and nonfederal loans in 2012-13 to 30% in 2022-23 for undergraduate students.

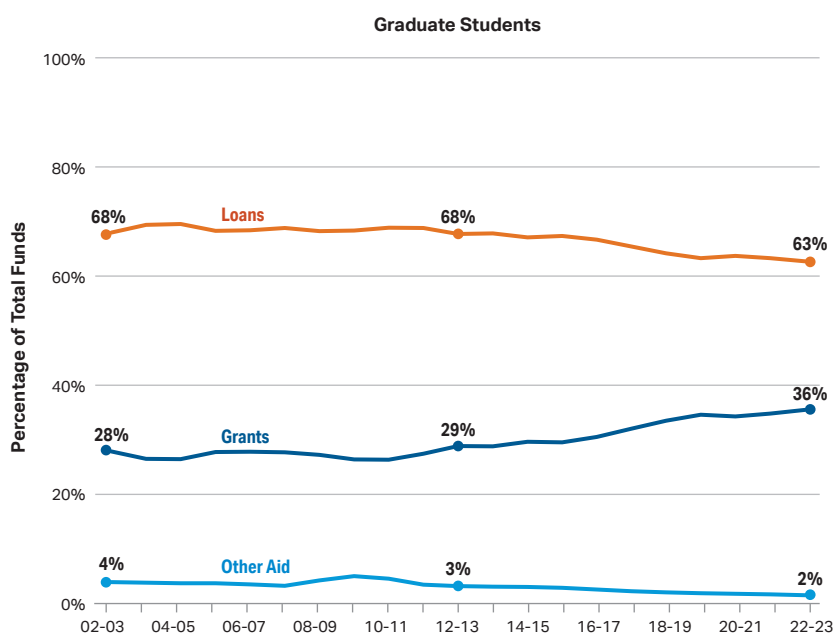
**FIGURE SA-2** Composition of Total Aid and Nonfederal Loans, 2002-03 to 2022-23



- Grants rose from 51% of total funding in 2012-13 to 64% in 2022-23 for undergraduate students.
- Between 2002-03 and 2022-23, loans consistently made up 63% to 70% of total funding for graduate students.
- Grants have been the source of 26% to 36% of funding for graduate students over this 20-year period.
- In 2022-23, the combination of federal tax benefits and Federal Work-Study (FWS) made up 6% of all student aid and nonfederal loans for undergraduate students and 2% for graduate students.

**ALSO IMPORTANT:**

- For undergraduate students, total grant aid declined by 3% and total loan volume fell by 41% between 2012-13 and 2022-23, after adjusting for inflation. (Table SA-1 online)
- For graduate students, total grant aid increased by 18% and total loan volume fell by 11% between 2012-13 and 2022-23. (Table SA-1 online)



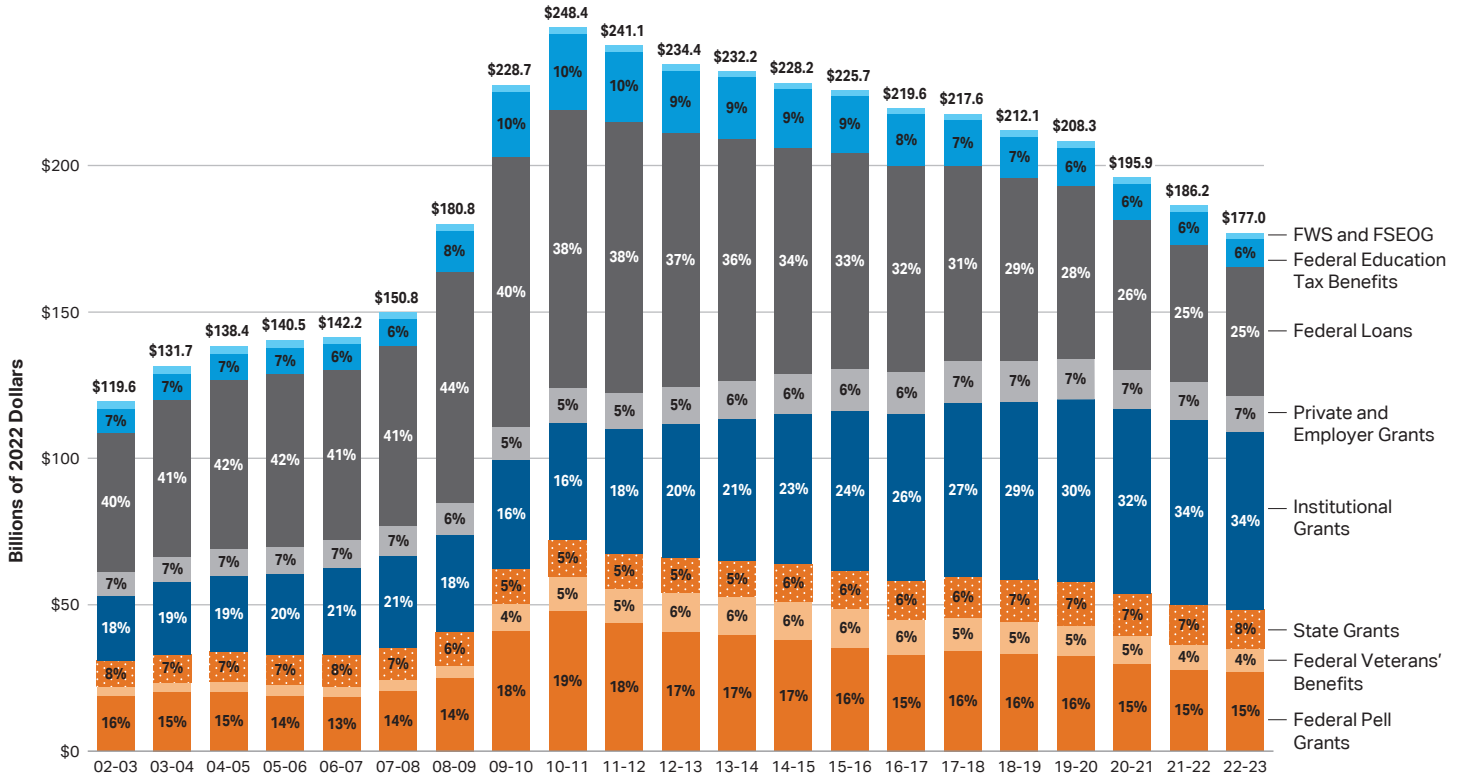
**NOTE:** Nonfederal loans are included to show the total education borrowing by students and parents. "Other Aid" includes Federal Work-Study and federal education tax credits and deductions. Percentages may not sum to 100 because of rounding.

**SOURCE:** Table SA-4 online. Please see page 54 for Table SA-4 data sources.

# Total Undergraduate Student Aid by Type

Total financial aid for undergraduate students peaked in 2010-11 (\$248.4 billion in 2022 dollars) and declined to \$177 billion in 2022-23.

**FIGURE SA-3** Total Undergraduate Student Aid in 2022 Dollars by Source and Type (in Billions), 2002-03 to 2022-23



**NOTE:** Percentages may not sum to 100 because of rounding.

**SOURCE:** Table SA-1 online. Please see page 54 for Table SA-1 data sources.

- Between 2012-13 and 2022-23, institutional grant aid for undergraduate students increased by 33% (\$15.2 billion in 2022 dollars).
- Between 2012-13 and 2022-23, federal loans for undergraduate students declined by 49% (\$42.5 billion in 2022 dollars) and federal Pell Grants declined by 33% (\$13.7 billion in 2022 dollars).

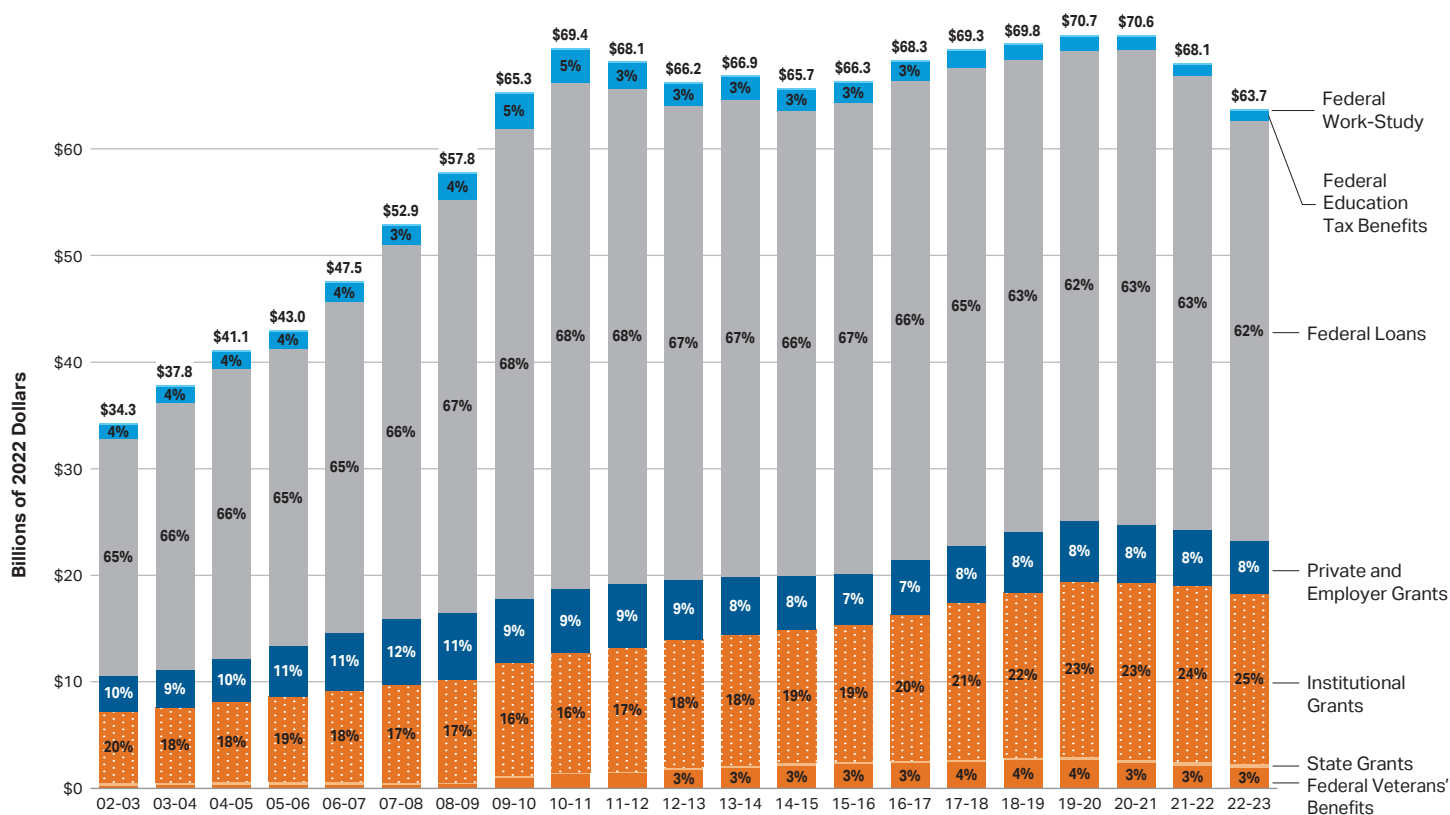
## ALSO IMPORTANT:

- Between 2012-13 and 2022-23, full-time equivalent undergraduate enrollment decreased by 14% while total grant aid to undergraduate students declined by 3% and total aid (including grants, loans, and other aid) decreased by 25%. Over this decade, average grant aid per undergraduate student increased by 13% (\$1,260) and average total aid per undergraduate student decreased by 12% (\$2,140). (Table SA-3 online)

# Total Graduate Student Aid by Type

Total financial aid for graduate students grew rapidly between 2002-03 and 2010-11 (from \$34.3 to \$69.4 billion in 2022 dollars). It remained stable at about \$66 billion to \$71 billion between 2011-12 and 2021-22. It then slightly declined to \$63.7 billion in 2022-23.

**FIGURE SA-4** Total Graduate Student Aid in 2022 Dollars by Source and Type (in Billions), 2002-03 to 2022-23



NOTE: Percentages may not sum to 100 because of rounding.

SOURCE: Table SA-1 online. Please see page 54 for Table SA-1 data sources.

- Federal loans are the largest funding source for graduate students, peaking at 68% of the total funding from 2009-10 to 2011-12. In 2022-23, 62% of total funding for graduate students was from federal loans.
- Between 2002-03 and 2012-13, federal loans for graduate students doubled, increasing from \$22.1 billion to \$44.3 billion in 2022 dollars. Federal loans for these students decreased by 11% over the next decade to \$39.4 billion in 2022-23.
- Institutional grants are the second largest funding source for graduate students. Between 2002-03 and 2012-13, institutional grants for graduate students rose by 79%, from \$6.7 billion to \$12.0 billion in 2022 dollars. Institutional grants grew by another 33% over the next decade to \$16.0 billion in 2022-23.

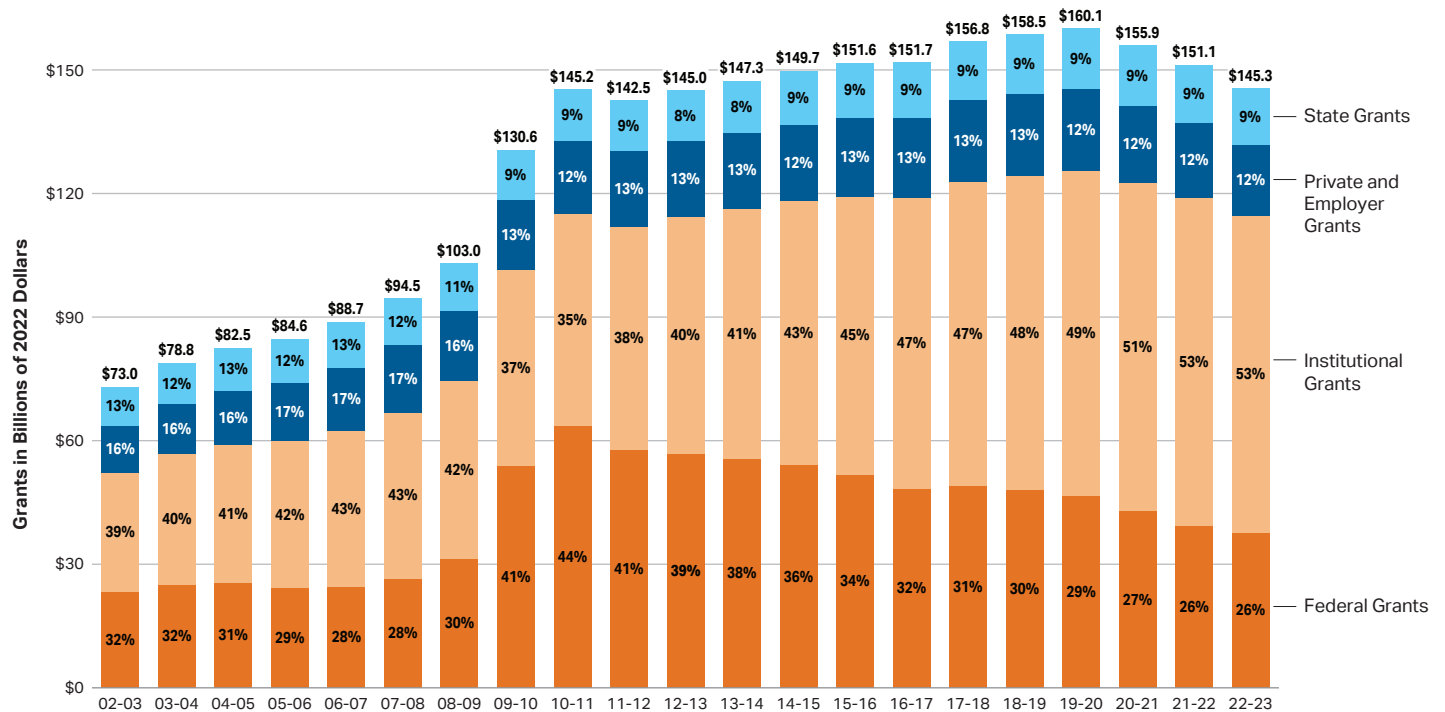
## ALSO IMPORTANT:

- Between 2012-13 and 2022-23, full-time equivalent graduate enrollment increased by 9% while total grant aid to graduate students increased by 18% and total aid (including grants, loans, and other aid) decreased by 4%. Over this decade, average grant aid per graduate student increased by 9% (\$810) and average total aid per graduate student decreased by 12% (\$3,800). (Table SA-3 online)

# Sources of Grant Aid

The total amount of grant aid supporting postsecondary students almost doubled (after adjusting for inflation) between 2002-03 and 2012-13, from \$73 billion to \$145 billion. It then continued to grow to \$160.1 billion in 2019-20, but declined to \$145.3 billion in 2022-23.

**FIGURE SA-5** Total Grant Aid in 2022 Dollars by Source of Grant, 2002-03 to 2022-23



**NOTE:** Percentages may not sum to 100 because of rounding.

**SOURCE:** Please see page 54 for Figure SA-5 data sources.

- Between 2002-03 and 2012-13, institutional grant aid doubled (in 2022 dollars), reaching a total of \$57.7 billion in 2012-13. Over the last decade, institutional grant aid grew by an additional 33% to \$76.9 billion in 2022-23. Institutional grants accounted for 53% of all grant aid for undergraduate and graduate students in 2022-23.
- In 2002-03, federal grants constituted 32% of total grant aid for undergraduate and graduate students. This share peaked at 44% in 2010-11 and declined to 26% in 2022-23.
- Since 2009-10, state grant aid was between 8% and 9% of all grant aid. Total state grant aid grew by 30% (after adjusting for inflation) between 2002-03 and 2012-13 and by another 11% over the decade ending in 2022-23.
- Grants from employers and other private sources were between 12% and 17% of total grant aid to postsecondary students for the entire two decades from 2002-03 through 2022-23 and were 12% of the total in 2022-23.

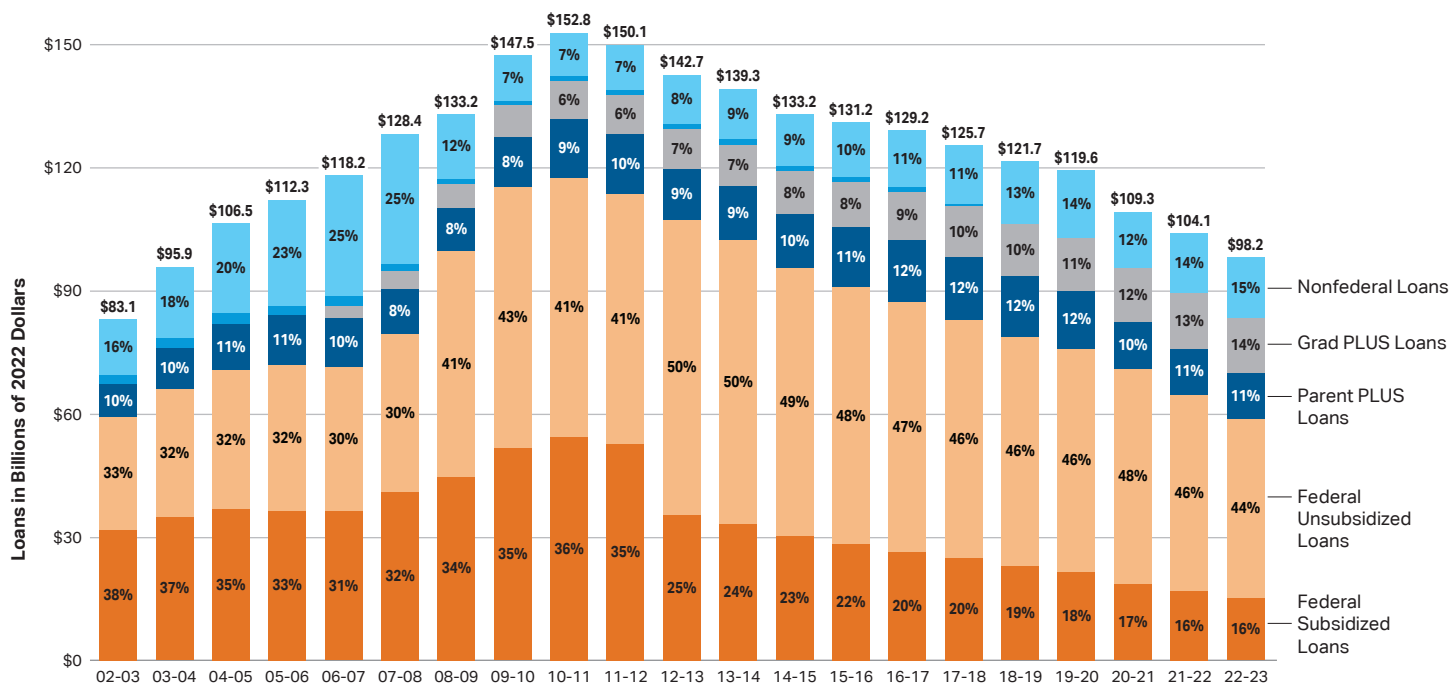
## ALSO IMPORTANT:

- Grant aid for veterans increased from 21% of federal grant aid in 2010-11 to 26% in 2022-23. At the same time, Pell Grants decreased from 75% to 72% of the total. (Table SA-1 online)
- Figure SA-5 shows the composition of grant aid for undergraduate and graduate students combined. In 2022-23, 8% of graduate student grant aid came from the federal government in the form of aid to veterans, 69% from institutions, 22% from employers and other private sources, and 1% from states. For undergraduate students, the percentages were 29% federal, 50% institutional, 10% private and employer, and 11% state. (Table SA-1 online)

# Types of Loans

Total education borrowing declined for the 12th consecutive year in 2022-23. Between 2021-22 and 2022-23, total education borrowing declined by \$5.9 billion (6%) after adjusting for inflation.

**FIGURE SA-6** Total Federal and Nonfederal Loans in 2022 Dollars by Type of Loan, 2002-03 to 2022-23



**NOTE:** Nonfederal loans include loans to students from states and institutions in addition to private loans issued by banks, credit unions, and other lenders. Values for nonfederal loans are best estimates and are less precise than federal loan amounts.

**SOURCE:** Please see page 54 for Figure SA-6 data sources.

- Total annual student and parent borrowing for postsecondary education reached its peak of \$152.8 billion (in 2022 dollars) in 2010-11. It then declined by 36% (\$54.6 billion in 2022 dollars) to \$98.2 billion in 2022-23.
- Between 2010-11 and 2022-23, federal Direct subsidized and unsubsidized student loans fell by \$58.9 billion (50%) and borrowing through parent PLUS declined by \$3.0 billion (21%). Total Grad PLUS borrowing increased by \$3.9 billion (42%) over this period.
- Students borrow nonfederal education loans from banks, credit unions, and other private lenders, including some states and postsecondary institutions. These loans, which are not part of the student aid system and typically do not involve subsidies, fell from about \$31.5 billion (in 2022 dollars) in 2007-08 to \$10.3 billion in 2010-11, before increasing to about \$14.7 billion in 2022-23. Nonfederal loans accounted for about 15% of all education loans in 2022-23.

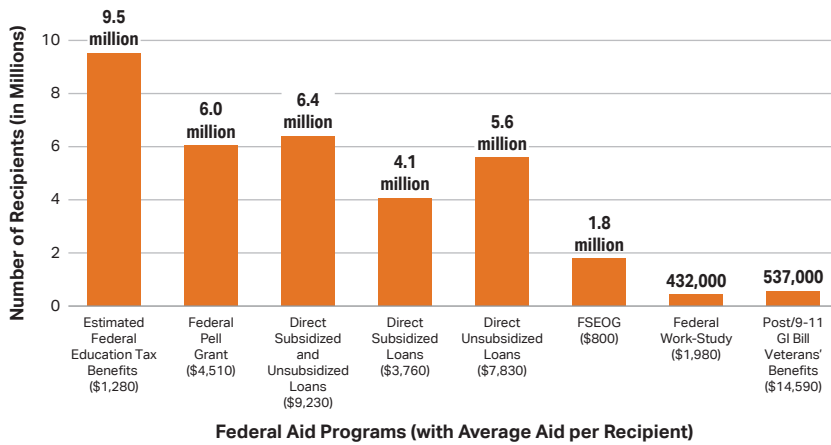
## ALSO IMPORTANT:

- There are no credit requirements for subsidized and unsubsidized Direct Loans. To qualify for PLUS loans, borrowers cannot have an “adverse credit history,” defined as being 90 days or more delinquent on any debts greater than \$2,085 or being the subject of default determination, bankruptcy discharge, foreclosure, repossession, tax lien, wage garnishment, or write-off of a federal education debt during the five years preceding the date of the credit report.

# Federal Aid

In 2022-23, average benefits from the Post-9/11 GI Bill program were \$14,590, compared with \$4,510 per Pell Grant recipient. There were 6.0 million Pell Grant recipients compared with 537,000 veterans' benefits recipients.

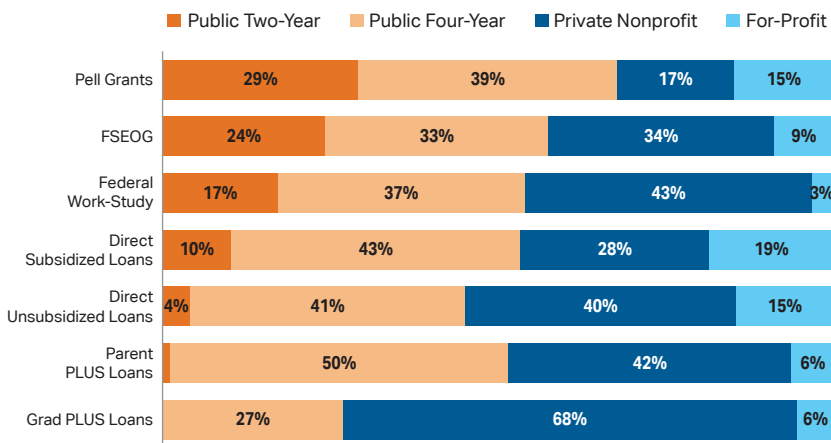
**FIGURE SA-7** Number of Recipients by Federal Aid Program (with Average Aid Received), 2022-23



**NOTE:** Data on tax benefits are for 2020 and are estimated. FSEOG and FWS amounts are for 2021-22 and represent federal funds only. Institutions provide matching funds so the awards that students receive under these programs are larger than these federal aid amounts.

**SOURCE:** Please see page 54 for Figure SA-7 data sources.

**FIGURE SA-8** Percentage Distribution of Federal Aid Funds by Sector, 2021-22



**NOTE:** Excludes aid to students enrolled in public less-than-two-year colleges and to students enrolled in foreign institutions. Percentages may not sum to 100 because of rounding.

**SOURCE:** Please see page 54 for Figure SA-8 data sources.

- In 2022-23, the total number of borrowers in the subsidized and unsubsidized Direct Loan programs was 6.4 million—less than the sum of the number of recipients in each program because about half of borrowers participated in both programs.
- In 2021-22, public two-year college students, who made up 28% of full-time equivalent (FTE) undergraduate enrollment, received 29% of Pell Grant funds.
- In 2021-22, students in the private nonprofit sector accounted for 20% of undergraduate and 25% of total postsecondary FTE enrollment. They received 68% of Grad PLUS loans, 42% of Parent PLUS loans, and 43% of Federal Work-Study (FWS) funds.

## ALSO IMPORTANT:

- Pell Grants, FSEOG, and Direct subsidized loans are for undergraduates only. Grad PLUS loans are for graduate students only. Parent PLUS loans are for parents of undergraduate students. FWS, Direct unsubsidized loans, and Post-9/11 GI Bill benefits are available to both undergraduate and graduate students.

## Distribution of Fall 2021 Enrollment by Sector

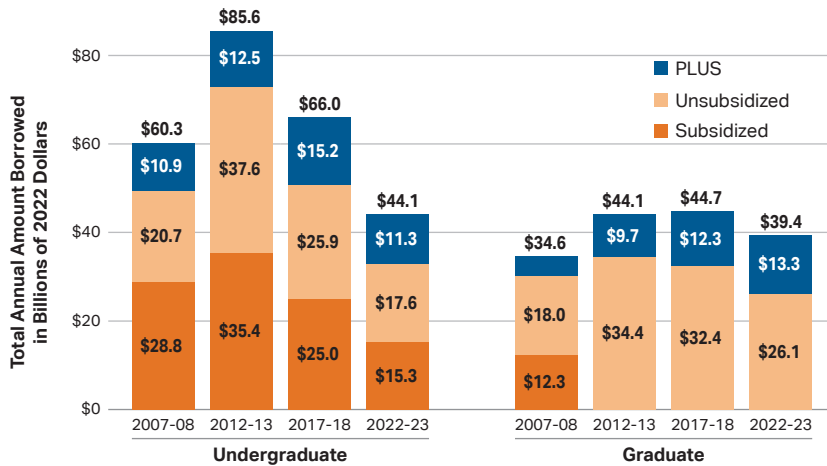
	FTE Undergraduate Students	FTE Graduate Students	All FTE Students
Public Two-Year	28%	0%	24%
Public Four-Year	44%	48%	45%
Private Nonprofit	20%	45%	25%
For-Profit	7%	6%	7%

**SOURCE:** NCES, IPEDS Enrollment data.

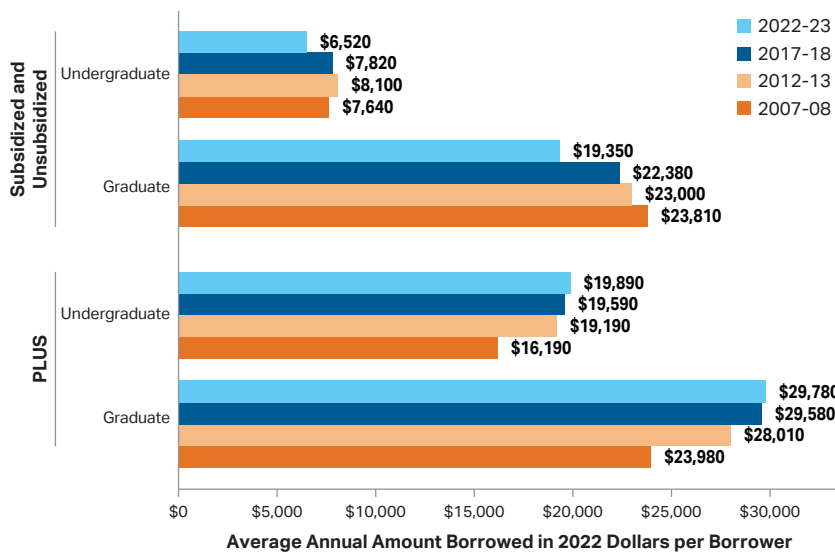
# Federal Loans: Annual Borrowing

After rapid growth in annual borrowing between 2007-08 and 2012-13, total federal loans to undergraduate students declined by 48% (\$41.5 billion in 2022 dollars) and total federal loans to graduate students decreased by 11% (\$4.7 billion) between 2012-13 and 2022-23.

**FIGURE SA-9A** Total Annual Amount Borrowed from Federal Subsidized, Unsubsidized, and PLUS Loans in Billions of 2022 Dollars, 2007-08 to 2022-23, Selected Years



**FIGURE SA-9B** Average Annual Amount Borrowed in Federal Subsidized, Unsubsidized, and PLUS Loans in 2022 Dollars, 2007-08 to 2022-23, Selected Years



Number of Borrowers (in Thousands), 2007-08 to 2022-23, Selected Years

		2007-08	2012-13	2017-18	2022-23
Subsidized and Unsubsidized	Undergraduate	6,473	9,024	6,502	5,037
	Graduate	1,272	1,495	1,447	1,349
	TOTAL	7,745	10,519	7,948	6,386
PLUS	Undergraduate	671	652	777	565
	Graduate	181	346	415	446
	TOTAL	852	998	1,192	1,012

- The share of annual federal education loans going to graduate students (who constitute about 16% of all postsecondary students) rose from 36% (\$34.6 billion out of \$94.9 billion in 2022 dollars) in 2007-08 to 47% (\$39.4 billion out of \$83.5 billion) in 2022-23.
- In 2022-23, undergraduates taking subsidized and/or unsubsidized loans borrowed an average of \$6,520—\$1,580 less (in 2022 dollars) than a decade earlier and \$1,300 less than in 2017-18.
- In 2022-23, 446,000 graduate students borrowed through the grad PLUS program; 1.3 million borrowed unsubsidized loans. The average amount borrowed through the PLUS program was \$10,430 higher than the average unsubsidized loan (\$29,780 vs. \$19,350).

## ALSO IMPORTANT:

- Dependent undergraduate student can borrow up to \$31,000 for their undergraduate study. No more than \$23,000 can be subsidized loans. Independent students and dependent students whose parents are not eligible for parent PLUS loans can borrow an additional \$26,500 in unsubsidized loans.
- Graduate and professional students can borrow up to a lifetime total of \$138,500 from the subsidized and unsubsidized loan programs, including their undergraduate borrowing. Each year students are enrolled, they can borrow up to the full cost of attendance not covered by grant aid, including living expenses and books and supplies in addition to tuition and fees through the grad PLUS program.
- Like the grad PLUS program, the parent PLUS program allows borrowing to cover students' entire budgets less grant aid received for an unlimited number of years of enrollment.

**NOTE:** Graduate students became eligible to borrow PLUS Loans in 2006-07. Components in Figure SA-9A may not sum to totals because of rounding.

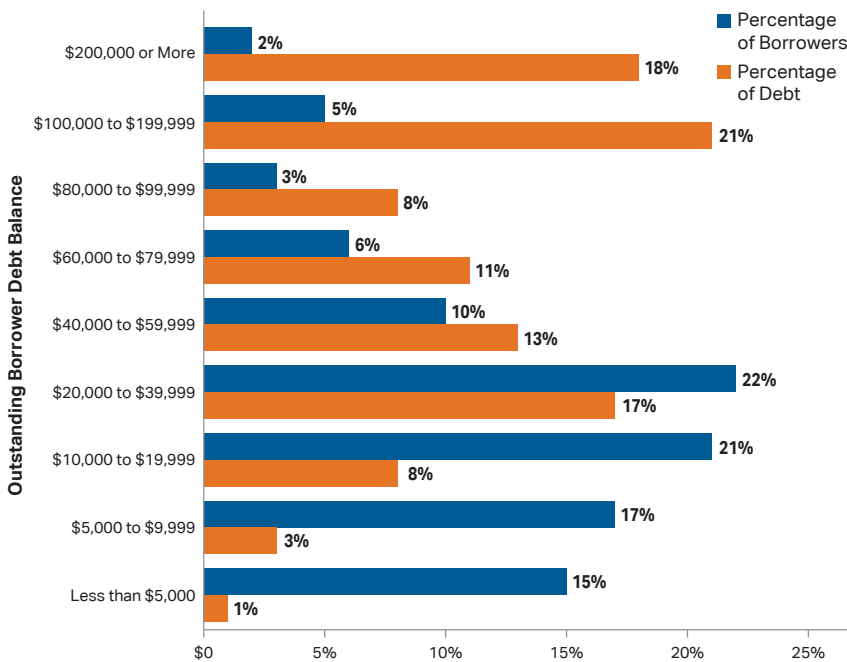
**SOURCE:** Table SA-6 online. Please see page 54 for Table SA-6 data sources.



# Federal Loans: Borrowing and Balances

As of March 2023, 32% of borrowers owed less than \$10,000 in federal loan debt. These borrowers held 4% of the outstanding federal debt.

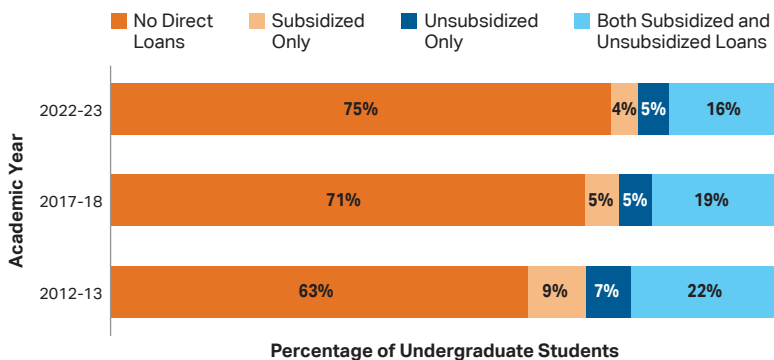
**FIGURE SA-10** Distribution of Borrowers and Debt by Outstanding Balance, Second Quarter of FY2023



**NOTE:** Includes both loans made under the Federal Direct Loan Program (FDLP) and the Federal Family Education Loan (FFEL) Program, which ended in 2009-10. Data were as of March 31, 2023, the end of the second quarter of FY2023. Percentages may not sum to 100 because of rounding.

**SOURCE:** U.S. Department of Education, Federal Student Aid Center, Federal Student Loan Portfolio.

**FIGURE SA-11** Percentage of Undergraduate Students Borrowing Federal Subsidized and Unsubsidized Student Loans, 2012-13, 2017-18, and 2022-23



**NOTE:** IPEDS headcount enrollments are adjusted for the difference between total headcount, which counts students more than once if they are enrolled in more than one institution at the same time, and unduplicated headcount reported by the National Student Clearinghouse (NSC). Twelve-month undergraduate headcount for 2022-23 is estimated from NSC data. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, IPEDS 12-month enrollment data; National Student Clearinghouse, Current Term Enrollment Estimates: Spring 2023; U.S. Department of Education, Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

- As of March 2023, 21% of borrowers owed between \$10,000 and \$20,000. These borrowers held 8% of the outstanding federal debt.
- As of March 2023, 47% of the outstanding federal education loan debt was held by 10% of borrowers owing \$80,000 or more.
- In 2022-23, 25% of undergraduate students borrowed Federal Direct student loans, down from 29% in 2017-18 and 37% in 2012-13.
- In 2022-23, 4% of undergraduate students borrowed subsidized loans only, 5% borrowed unsubsidized loans only, and 16% borrowed from both programs.

**ALSO IMPORTANT:**

- Federal student loan default rates are highest for borrowers with low balances. For example, among borrowers entering repayment in 2010-11, the three-year default rate ranged from 24% for those owing \$5,000 or less to 7% for those owing \$40,000 or more. Two-thirds of those who defaulted owed \$10,000 or less. (*Trends in Student Aid 2016*, Figure 12B)
- The share of undergraduate students borrowing federal student loans rose steadily from 25% in 2002-03 to 38% in 2011-12. Since 2011-12, the share borrowing has declined each year, to 25% in 2022-23. (Table SA-6 online)

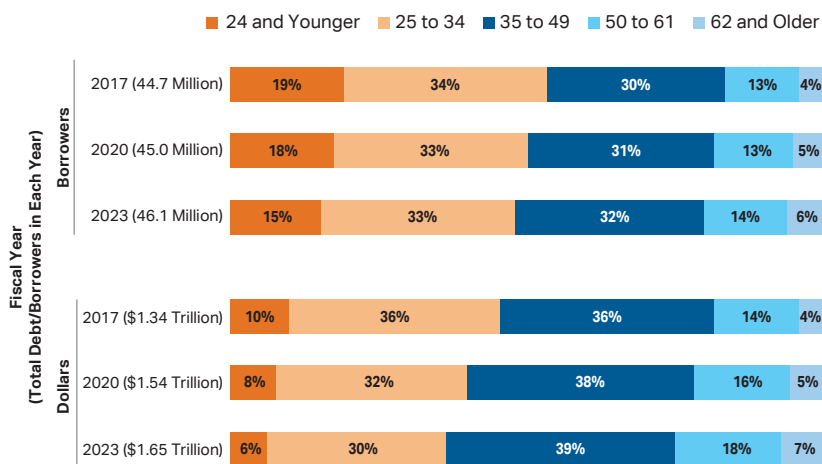
Federal Loan Balance by Debt Size, Second Quarter of FY2023

	Total Balance (in Billions)	Number of Borrowers (in Millions)	Average Balance
\$200,000 or More	\$290.9	1.0	\$290,900
\$100,000 to \$199,999	\$338.5	2.5	\$135,400
\$80,000 to \$99,999	\$126.5	1.4	\$90,400
\$60,000 to \$79,999	\$180.3	2.6	\$69,300
\$40,000 to \$59,999	\$214.1	4.4	\$48,700
\$20,000 to \$39,999	\$283.4	10.0	\$28,300
\$10,000 to \$19,999	\$138.0	9.5	\$14,500
\$5,000 to \$9,999	\$56.1	7.8	\$7,200
Less than \$5,000	\$19.1	7.0	\$2,700
Total	\$1,646.9	46.2	\$35,600

# Federal Loans: Outstanding Debt by Age

As of March 2023, 25% of the \$1.65 trillion outstanding federal loan balance was held by borrowers who were 50 or older, up from 18% in 2017.

**FIGURE SA-12A** Distribution of Outstanding Federal Loan Dollars and Borrowers by Borrower Age, Second Quarter of FY2017, FY2020, and FY2023

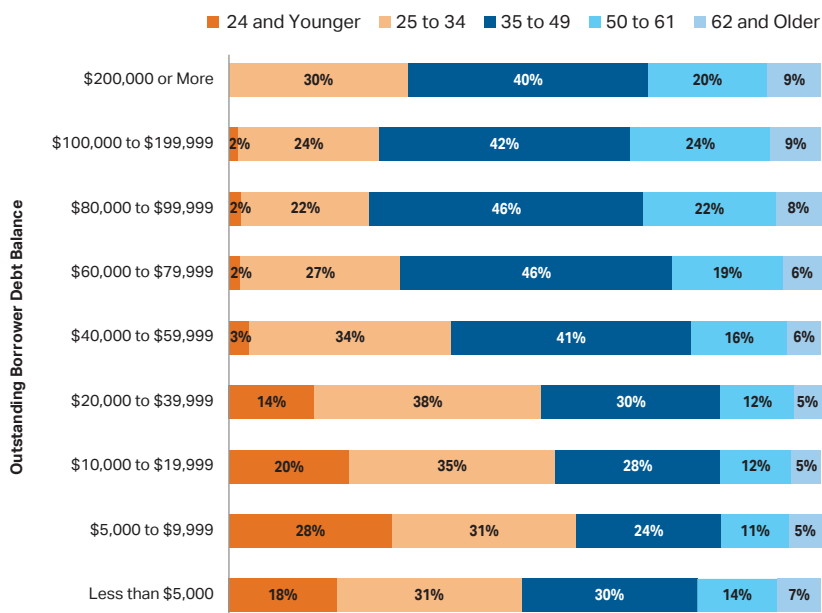


- As of March 2023, 20% of the 46.1 million borrowers were age 50 or older, holding 25% of all the outstanding federal loan debt. In 2017, 17% of borrowers were in this age group, holding 18% of all outstanding federal loan debt.
- Among the group of borrowers with outstanding debt balances of \$200,000 or more, 30% are under age 35 and 29% are 50 or older.
- Among the group of borrowers with outstanding debt balances of \$5,000 or less, about half are 35 or older including 21% that are 50 or older.

## ALSO IMPORTANT:

- Data in Figures SA-12A and SA-12B include both debt held by student borrowers who borrowed for their own education and parent borrowers who borrowed for their children's education through Parent PLUS loans.

**FIGURE SA-12B** Distribution of Borrowers by Outstanding Balance and Age, Second Quarter of FY2023



Federal Loan Balance by Borrower Age, Second Quarter of FY2023

	Total Balance (in Billions)	Number of Borrowers (in Millions)	Average Balance
24 and Younger	\$103.4	7.1	\$14,600
25 to 34	\$497.5	15.1	\$32,900
35 to 49	\$635.7	14.7	\$43,200
50 to 61	\$297.4	6.5	\$45,700
62 and Older	\$112.8	2.7	\$41,600

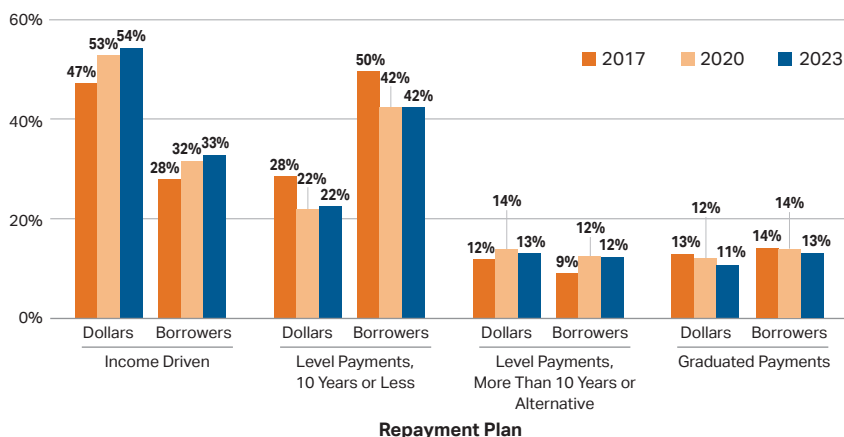
**NOTE:** Includes both loans made under the Federal Direct Loan Program (FDLP) and the Federal Family Education Loan (FFEL) Program, which ended in 2009-10. Data were as of March 31, 2023, the end of the second quarter of FY2023. Percentages may not sum to totals because of rounding.

**SOURCE:** U.S. Department of Education, Federal Student Aid Center, Federal Student Loan Portfolio.

# Outstanding Federal Loans

More than half of the debt owed by student loan borrowers in repayment is now in Income-Driven Repayment (IDR) plans that limit monthly payments to a share of discretionary income.

**FIGURE SA-13A** Distribution of Outstanding Federal Direct Loan Dollars and Borrowers by Repayment Plan, Second Quarter of FY2017, FY2020, and FY2023



**NOTE:** Data include Direct Loan borrowers in repayment, deferment, and forbearance and reflect the end of the second quarter (March 31) of each fiscal year. Because some borrowers have multiple loans, recipients may be counted multiple times across varying loan statuses. Income-driven plans include REPAYE, Pay As You Earn, Income-Contingent Repayment, and Income-Based Repayment. Level payment plans require monthly payments that are the same over a fixed period of time. Alternative repayment plans are customized to borrowers' circumstances. Under the graduated payment plan, monthly payments increase over time. Percentages may not sum to 100 because of rounding.

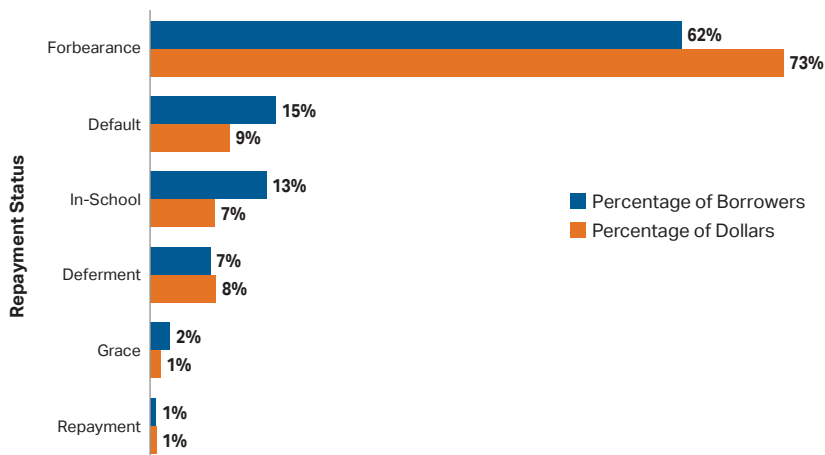
**SOURCE:** U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio.

- In March 2023, 33% of borrowers in repayment on federal Direct loans were in IDR plans, up from 28% in 2017 and 32% in 2020.
- The CARES Act and subsequent Executive Orders suspended federal student loan payments, ended collections on defaulted federal student loans, and suspended interest accrual on all federal student loans through September 1, 2023. As a result, 62% of borrowers (and 73% of outstanding dollars) were in forbearance in March 2023. The average balance of these loans was \$40,900.
- In March 2023, 15% of borrowers (and 9% of outstanding dollars) were in default. The average balance of defaulted loans was \$21,500, compared with \$34,300 for all outstanding loans.

## ALSO IMPORTANT:

- In August 2023, President Biden launched the Saving on a Valuable Education (SAVE) plan, a new IDR plan that calculates payments based on a smaller portion of the borrower's adjusted gross income, compared to the previous Revised Pay As You Earn (REPAYE) plan. (<https://studentaid.gov/announcements-events/save-plan#benefits>)

**FIGURE SA-13B** Repayment Status of Federal Education Loan Portfolio, Second Quarter of FY2023



**NOTE:** Includes both loans made under the Federal Direct and Federal Family Education Loan (FFEL) programs and held by the Department of Education. Excludes the \$115 billion in outstanding FFEL loans not held by the federal government. The second quarter of FY2023 ended on March 31, 2023.

**SOURCE:** U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio.

Federal Loan Balance by Repayment Status, Second Quarter of FY2023

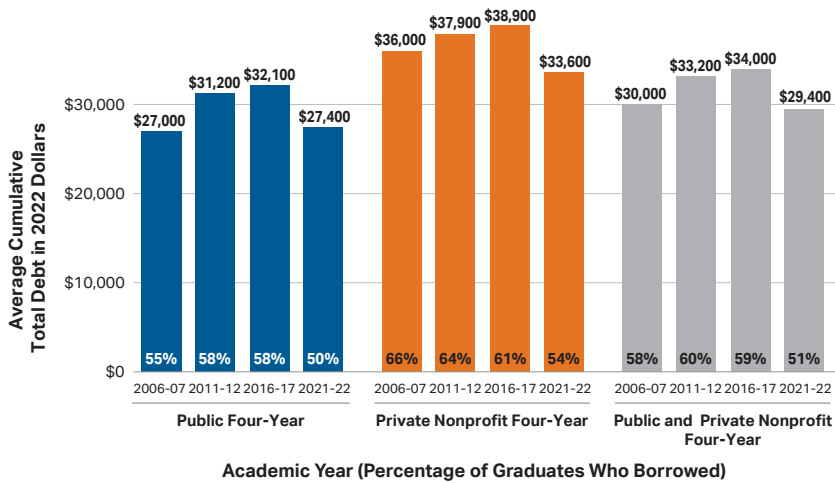
Repayment Status	Total Balance (in Billions)	Number of Borrowers (in Millions)	Average Balance
Forbearance	\$1,120.2	27.4	\$40,900
Default	\$139.8	6.5	\$21,500
In-School	\$113.7	6.0	\$19,000
Deferment	\$115.5	3.1	\$37,300
Grace	\$18.4	1.0	\$18,400
Repayment	\$10.7	0.3	\$35,700
Other	\$7.1	0.2	\$35,500
<b>Total</b>	<b>\$1,525.4</b>	<b>\$44.5</b>	<b>\$34,300</b>

**NOTE:** Forbearance: payment temporarily suspended or reduced because of financial hardships; Default: more than 360 days delinquent; In-School: borrower is still enrolled, loans are not in repayment; Deferment: payments postponed because of economic hardship, military service, or returning to school; Grace: six-month period after borrower is no longer enrolled at least half time; Repayment: in active repayment status. The "Other" category includes loans that are in non-defaulted bankruptcy and in a disability status.

# Cumulative Debt: Bachelor's Degree Recipients

Among 2021-22 bachelor's degree recipients from public and private nonprofit four-year institutions, 51% graduated with debt and the average debt among borrowers was \$29,400.

**FIGURE SA-14A** Average Cumulative Debt per Borrower in 2022 Dollars: Bachelor's Degree Recipients at Public and Private Nonprofit Four-Year Institutions, 2006-07 to 2021-22, Selected Years



- Between 2016-17 and 2021-22, the average cumulative student debt levels (in 2022 dollars) and the shares of bachelor's degree recipients who borrowed declined in both public four-year and private nonprofit four-year sectors.
- In 2021-22, 49% of bachelor's degree recipients from public four-year institutions graduated with federal loans with an average federal debt level of \$20,700 per borrower; 52% of bachelor's degree recipients from private nonprofit four-year institutions graduated with federal loans with an average federal debt level of \$22,200.
- In 2021-22, 9% of bachelor's degree recipients from public four-year institutions graduated with private loans with an average private debt level of \$34,600 per borrower; 13% of bachelor's degree recipients from private nonprofit four-year institutions graduated with private loans with an average private debt level of \$44,600.

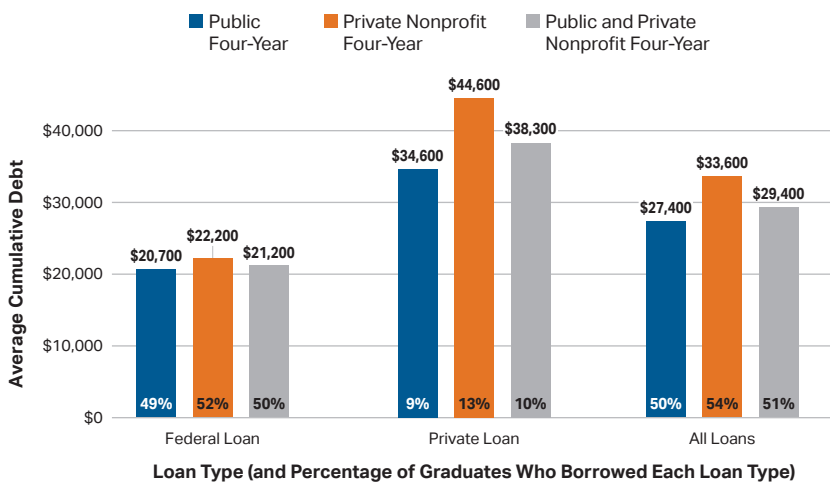
**NOTE:** Includes federal and nonfederal loans taken by students who began their studies at the institution from which they graduated. Parent PLUS loans are not included. The available data are not adequate to allow comparable calculations for for-profit institutions.

**SOURCE:** College Board, Annual Survey of Colleges, 2007 to 2022; calculations by the authors.

## ALSO IMPORTANT:

- Students who earn their bachelor's degrees at for-profit institutions, not included in Figures SA-14A and SA-14B, are more likely to borrow and accumulate higher levels of debt than those who graduate from public and private nonprofit four-year colleges. (Figure SA-15)
- Figures SA-14A and SA-14B include only students who earned their bachelor's degrees at the institutions in which they first enrolled. Students who attend two or more institutions may have different borrowing patterns.

**FIGURE SA-14B** Average Cumulative Debt per Borrower by Loan Type: 2021-22 Bachelor's Degree Recipients at Public and Private Nonprofit Four-Year Institutions



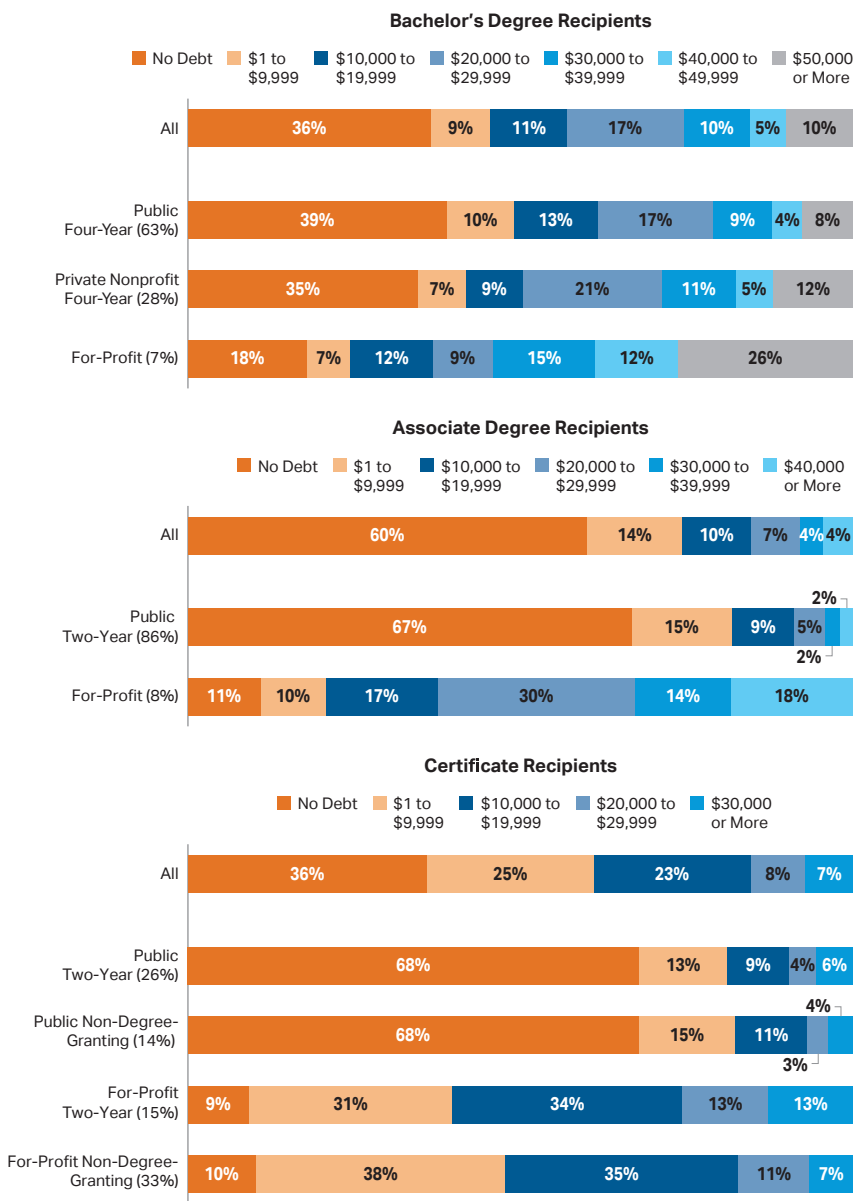
**NOTE:** All loans include federal and nonfederal loans taken by students who began their studies at the institution from which they graduated. Parent PLUS loans are not included. The available data are not adequate to allow comparable calculations for for-profit institutions.

**SOURCE:** College Board, Annual Survey of Colleges, 2022; calculations by the authors.

# Cumulative Debt: Undergraduate Degree Recipients

The share of 2019-20 bachelor's degree recipients who borrowed \$50,000 or more for undergraduate studies ranged from 8% of those who earned their degrees at public four-year colleges and universities to 26% of those who graduated from for-profit institutions.

**FIGURE SA-15** Distribution of 2019-20 Degree or Certificate Completers by Cumulative Amount Borrowed for Undergraduate Study



- Among students who received associate degrees in 2019-20, 60% did not borrow, including 67% of those who graduated from public two-year colleges and 11% of those who earned their degrees from for-profit institutions.
- In 2019-20, non-degree-granting for-profit institutions granted 33% of all undergraduate certificates. Among students completing these programs, 10% did not borrow and 18% borrowed \$20,000 or more. About two-thirds of certificate completers who attended public two-year institutions graduated without debt and 10% borrowed \$20,000 or more.

**ALSO IMPORTANT:**

- Undergraduate certificate programs are short-term programs that prepare students for gainful employment in a recognized occupation. To qualify for federal financial aid, they must meet program hour specifications.
- In 2019-20, 24% of the 4.02 million undergraduate credentials conferred were certificates, 25% were associate degrees, and 51% were bachelor's degrees. (NCES, *Digest of Education Statistics 2022*, Table 318.40)
- Higher shares of 2019-20 than 2015-16 undergraduate degree or certificate recipients graduated without debt. (Figure SA-15 and *Trends in Student Aid 2018*, Figure 16)
- In 2021, median earnings among full-time working adults were \$44,300 for high school graduates, \$52,100 for associate degree recipients, and \$73,300 for bachelor's degree recipients. (*Education Pays 2023*, Figure 2.1)

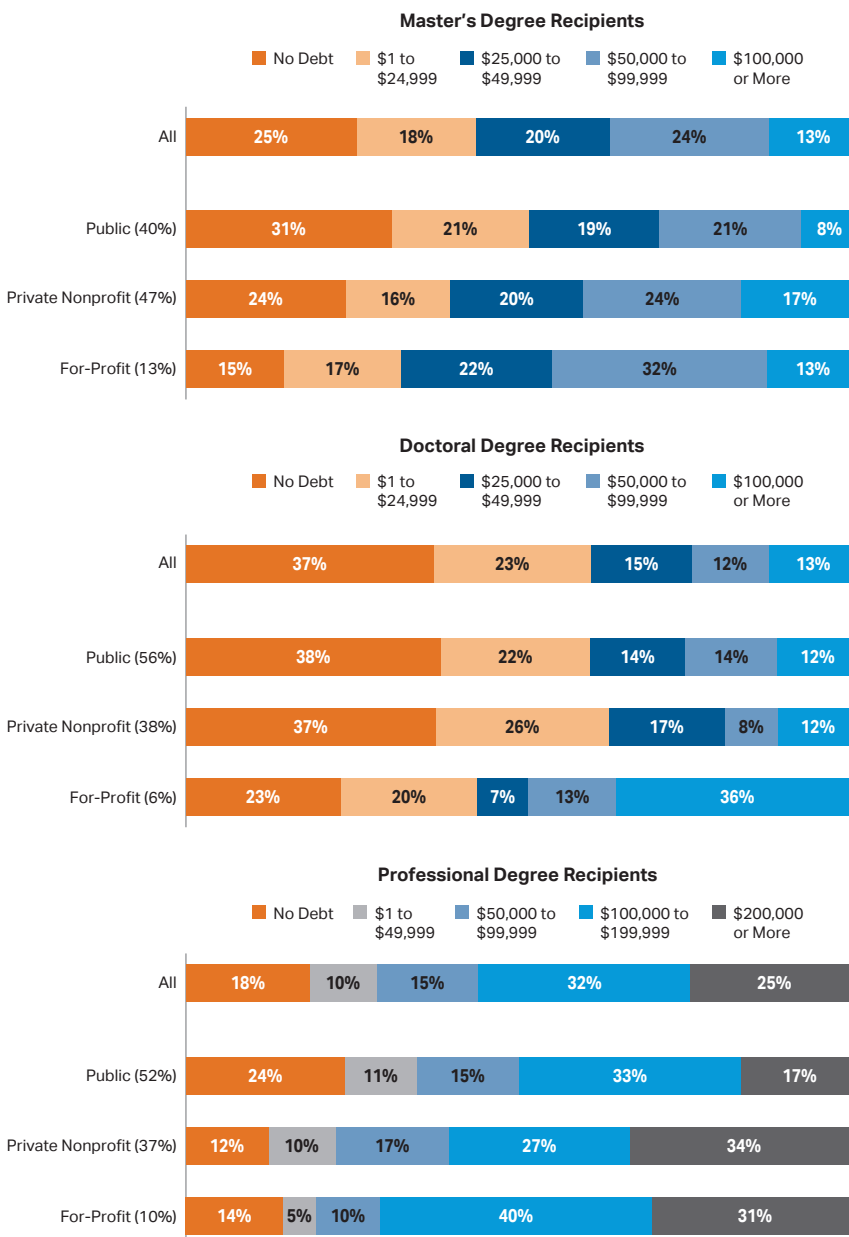
**NOTE:** This analysis includes students who are U.S. citizens or permanent residents and includes all loans borrowed for undergraduate study except Parent PLUS loans. Percentages in parentheses on the vertical axis represent shares of students earning degrees/credentials from each sector. These percentages do not sum to 100 because a small percentage of students earn degrees/credentials from sectors not shown. For example, the bachelor's degree figure excludes students who earned their bachelor's degrees from public and private nonprofit two-year schools and the associate degree and certificate graphs exclude students who earned their credentials from public and private nonprofit four-year schools.

**SOURCE:** NCES, National Postsecondary Student Aid Study, 2020; calculations by the authors.

# Cumulative Debt: Graduate Degree Recipients

In 2019-20, 13% of master's degree recipients, 13% of doctoral degree recipients, and 57% of professional degree recipients borrowed \$100,000 or more to fund their undergraduate and graduate study.

**FIGURE SA-16** Distribution of 2019-20 Graduate Degree Completers by Cumulative Amount Borrowed for Undergraduate and Graduate Study



- The shares of 2019-20 master's degree recipients who did not borrow for their postsecondary education were 31%, 24%, and 15% for graduates from public, private nonprofit, and for-profit institutions, respectively.
- Just under 40% of doctoral degree recipients at public and private nonprofit institutions did not borrow for their postsecondary study, while 12% borrowed \$100,000 or more.
- Six percent of 2019-20 doctoral degree recipients earned their degrees at for-profit institutions; 36% of these students borrowed \$100,000 or more for their postsecondary education.
- About a third of those who earned professional degrees from private nonprofit universities in 2019-20 borrowed \$200,000 or more for their postsecondary education, as did 17% of those who earned their professional degrees from public universities and 31% of those who earned their professional degrees from for-profit universities.

## ALSO IMPORTANT:

- Almost two-thirds of graduate-level recipients earned master's degrees; 14% earned professional degrees; 11% earned research doctoral degrees; the remaining share earned post-baccalaureate certificates. (Authors' calculations using NPSAS 2020)
- Professional degrees include those in chiropractic medicine, dentistry, law, medicine, optometry, osteopathic medicine, pharmacy, podiatry, and veterinary medicine.
- In 2021, median earnings among full-time working adults were \$87,300 for those with master's degrees, \$120,700 for those with doctoral degrees, and \$121,600 for those with professional degrees. (*Education Pays 2023*, Figure 2.1)

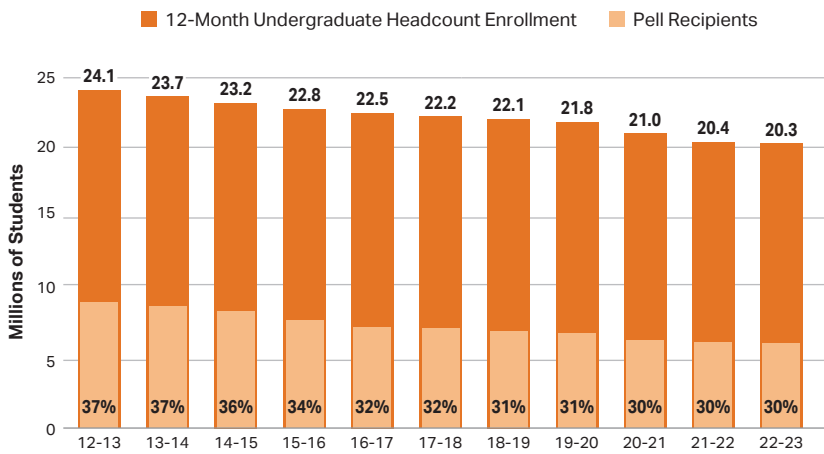
**NOTE:** This analysis includes students who are U.S. citizens or permanent residents and includes all loans borrowed for both undergraduate and graduate study. Percentages on the vertical axis represent shares of graduates from each sector. Percentages may not sum to 100 because of rounding.

**SOURCE:** NCES, National Postsecondary Student Aid Study, 2020; calculations by the authors.

# Pell Grants

Between 2012-13 and 2022-23, the number of undergraduates declined by 3.8 million (16%) and the number of Pell Grant recipients declined by 2.9 million (33%).

**FIGURE SA 17A** Undergraduate Enrollment and Percentage of Undergraduate Students Receiving Pell Grants, 2012-13 to 2022-23



**NOTE:** IPEDS headcount enrollments are adjusted for the difference between total headcount, which counts students more than once if they are enrolled in more than one institution at the same time, and unduplicated headcount reported by the National Student Clearinghouse (NSC). Twelve-month undergraduate headcount for 2022-23 is estimated from NSC data.

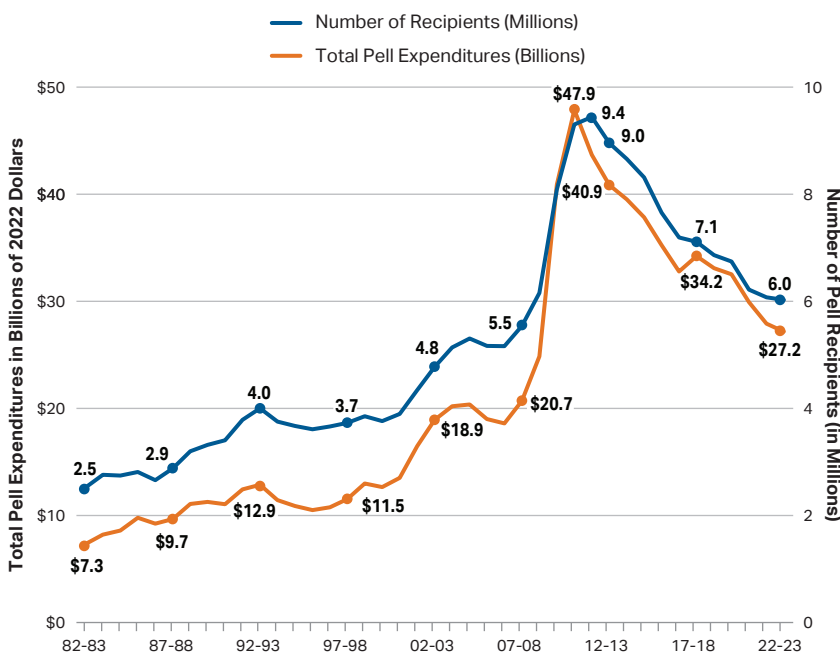
**SOURCE:** NCES, IPEDS 12-month enrollment data; National Student Clearinghouse, *Current Term Enrollment Estimates: Spring 2023*; U.S. Department of Education, *Federal Pell Grant Program End-of-Year Report, 2011-12 through 2020-21*; U.S. Department of Education, Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

- In 2012-13, 37% of undergraduates received Pell Grants. The share of undergraduates receiving Pell Grants declined to 30% in 2022-23.
- Total Pell Grant expenditures reached its peak in 2010-11 at \$47.9 billion (in 2022 dollars) and declined to \$27.2 billion in 2022-23 (43% decline). The number of Pell Grant recipients was 9.3 million in 2010-11 and declined to 6.0 million in 2022-23 (35% decline).
- Between 2021-22 and 2022-23, the number of Pell Grant recipients declined by 1% and total Pell Grant expenditures decreased by 3%, after adjusting for inflation.

**ALSO IMPORTANT:**

- Changes in Pell Grant expenditures result from changes in the legislated maximum grant approved by Congress, the formula for determining families' ability to pay, the number of enrolled students, the share of students enrolling full time, and the financial circumstances of students and families.

**FIGURE SA-17B** Total Pell Grant Expenditures and Number of Recipients, 1982-83 to 2022-23

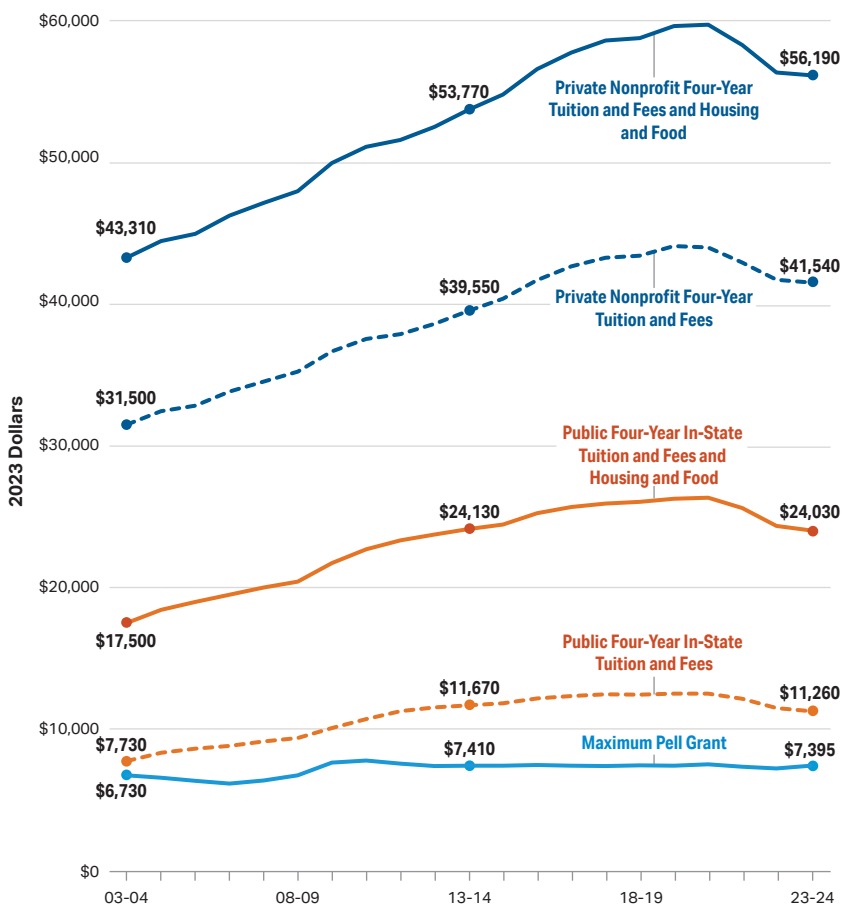


**SOURCE:** U.S. Department of Education, *Federal Pell Grant Program End-of-Year Report, 1981-82 through 2020-21*; U.S. Department of Education, Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

# Pell Grants

The \$7,395 maximum Pell Grant in 2023-24 is 3% higher than it was in 2022-23 and 10% higher than it was in 2003-04, after adjusting for inflation.

**FIGURE SA-18** Maximum Pell Grant and Published Prices at Public and Private Nonprofit Four-Year Institutions in 2023 Dollars, 2003-04 to 2023-24



**SOURCE:** College Board, *Trends in College Pricing 2023*, Table CP-2 online; U.S. Department of Education, Federal Pell Grant Program End-of-Year Report, 2002-03 through 2020-21; U.S. Department of Education, Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the author.

- The maximum Pell Grant is the most frequently cited measure of per-student benefits provided by the program. However, most students receive smaller grants because they are enrolled part time or because their family incomes and assets reduce their aid eligibility.
- In 2023-24, the maximum Pell Grant covers 66% of average published in-state tuition and fees and 31% of average tuition, fees, housing, and food at public four-year colleges and universities.
- In 2023-24, the maximum Pell Grant covers 18% of average published tuition and fees and 13% of average tuition, fees, housing, and food at private nonprofit four-year colleges and universities.
- Between 2013-14 and 2023-24, average published tuition and fees declined by 3.5% at public four-year institutions and increased by 5% at private nonprofit four-year institutions, while the maximum Pell Grant remained constant after adjusting for inflation.

## ALSO IMPORTANT:

- For the 2023-24 academic year, the maximum Pell award is \$7,395, a \$500 increase from the previous year before adjusting for inflation. This is the largest one-year increase in maximum Pell before adjusting for inflation since 2009-10. (Table SA-8 online)

Maximum Pell Grant as a Percentage of Published Prices, 2003-04 to 2023-24, Selected Years

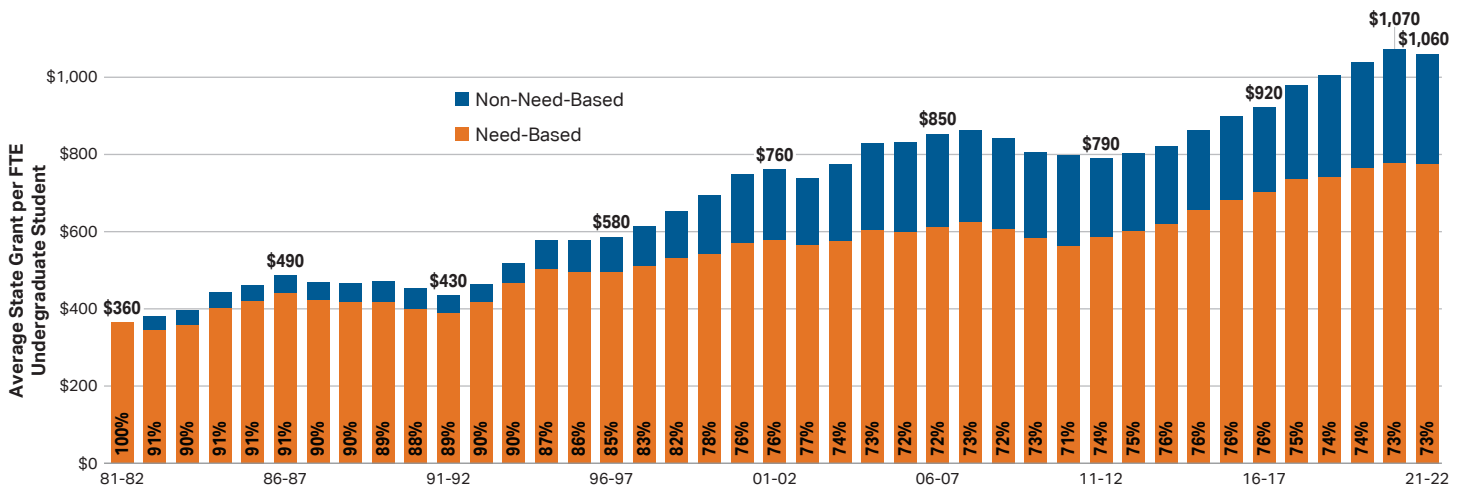
	Public Four-Year		Private Nonprofit Four-Year	
	In-State Tuition and Fees	In-State Tuition and Fees and Housing and Food	Tuition and Fees	Tuition and Fees and Housing and Food
2003-04	87%	38%	21%	16%
2008-09	72%	33%	19%	14%
2013-14	63%	31%	19%	14%
2018-19	60%	28%	17%	13%
2023-24	66%	31%	18%	13%



# State Grants

Between 2011-12 and 2020-21, state grant aid per full-time equivalent (FTE) undergraduate student increased from \$790 to \$1,070 in 2021 dollars. In 2021-22, state grant aid per FTE undergraduate student was \$1,060.

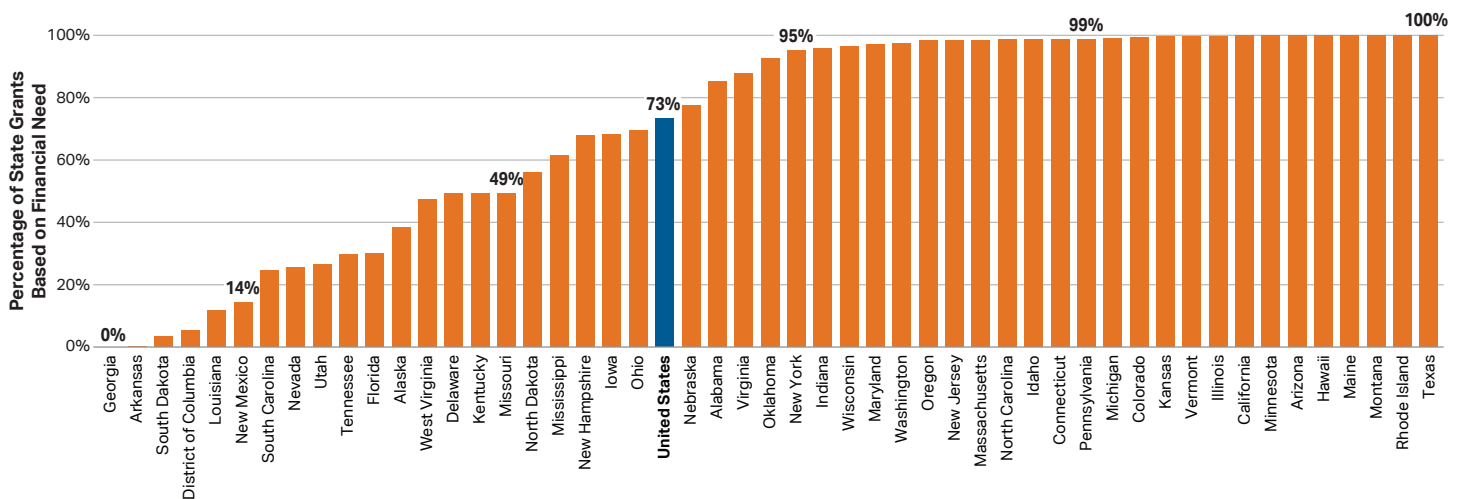
**FIGURE SA-19A** Need-Based and Non-Need-Based State Grant Aid per Full-Time Equivalent (FTE) Undergraduate Student in 2021 Dollars, 1981-82 to 2021-22



**NOTE:** Percentages displayed represent shares of total undergraduate state grant aid that was based on students' financial circumstances.

**SOURCE:** National Association of State Student Grant and Aid Programs (NASSGAP) Annual Survey, 1981-82 to 2021-22, Tables 1 and 12.

**FIGURE SA-19B** Need-Based State Grant Aid as a Percentage of Total Undergraduate State Grant Aid, by State, 2021-22



**NOTE:** Need-based aid includes any grants for which financial circumstances contribute to eligibility. Non-need-based aid refers to grants for which financial circumstances have no influence on eligibility. Wyoming's state grant aid is not disaggregated by need-based/non-need-based status.

**SOURCE:** NASSGAP Annual Survey, 2021-22, Table 1.

- The share of state grant aid that was need-based increased from a low of 71% in 2010-11 to 76% between 2013-14 and 2016-17. It declined to 73% in 2020-21 and 2021-22.
- In 2021-22, 25 states considered students' financial circumstances in allocating at least 95% of their state grant aid. In 15 states and the District of Columbia, less than half of their state grant aid was awarded based on financial need.

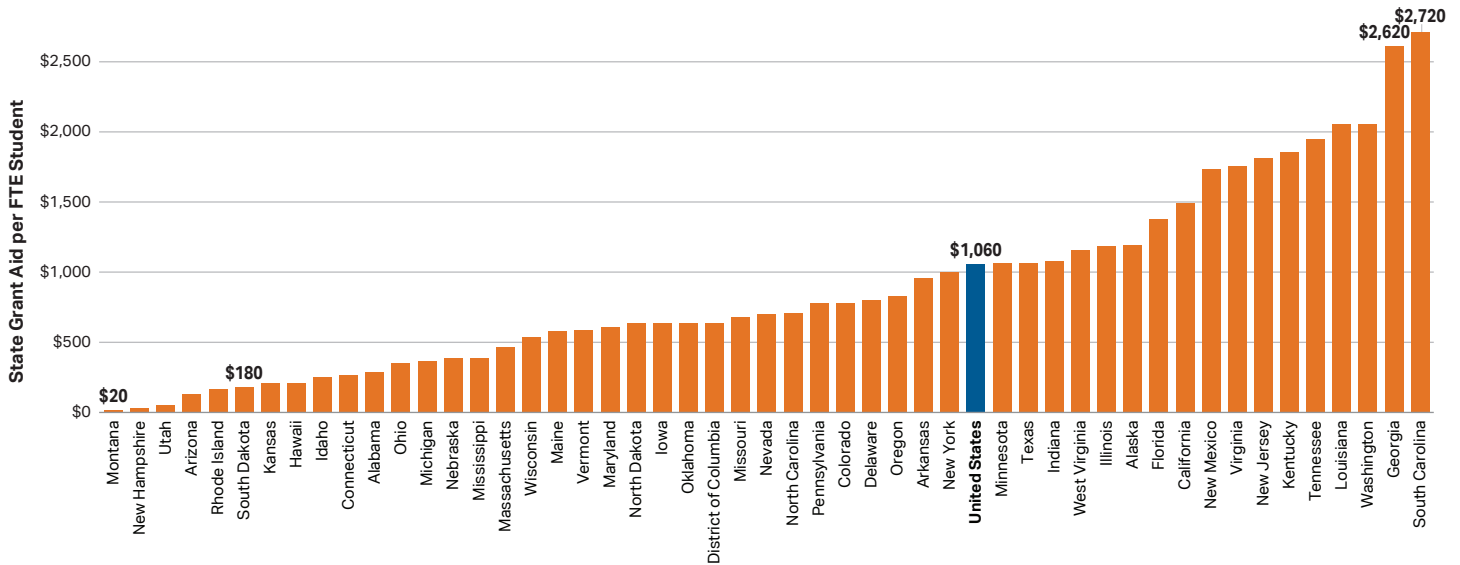
### ALSO IMPORTANT:

- In 2020-21, the shares of first-time full-time undergraduate students who received state grants were 38%, 24%, and 42% at public four-year, private nonprofit four-year, and public two-year institutions, respectively. (Authors' calculations from IPEDS 2020-21 Student Financial Aid data)

# State Grants

In 2021-22, state grant aid per full-time equivalent (FTE) undergraduate student ranged from under \$200 in six states to over \$2,000 in four states.

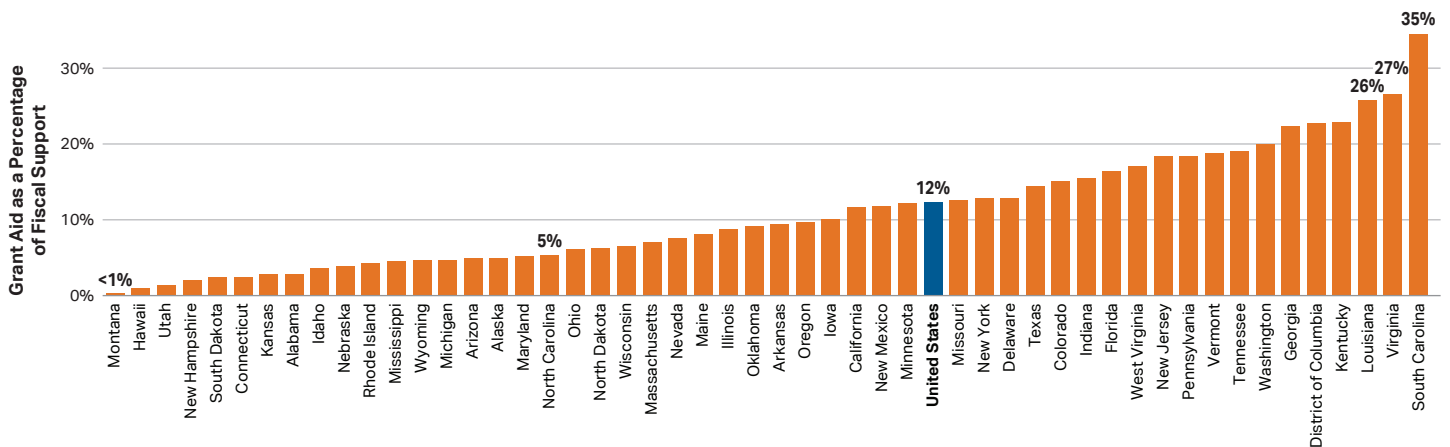
**FIGURE SA-20A** State Grant Aid per Full-Time Equivalent (FTE) Undergraduate Student, by State, 2021-22



**NOTE:** Full-time equivalent students include both state residents and out-of-state students. States do not award grant aid to nonresidents. Most states do not award state grant aid to their residents who attend colleges outside the state.

**SOURCE:** NASSGAP Annual Survey, 2021-22, Tables 1 and 12.

**FIGURE SA-20B** State Grant Expenditures as a Percentage of Total State Support for Higher Education, by State, 2021-22



**NOTE:** State grant expenditures include funding for both undergraduate and graduate students.

**SOURCE:** NASSGAP Annual Survey, 2021-22, Table 14.

- South Carolina, with the highest grant aid per FTE undergraduate student, considered the financial circumstances of recipients for 25% of state grant funds in 2021-22. Georgia, with the second highest grant aid per FTE undergraduate student, allocates all its grant funds without regard to students' financial circumstances. (Figure SA-19B)
- Overall, state grant expenditures constituted 12% of total state support for higher education in 2021-22. State grant expenditures

constituted 5% or less of total state support for higher education in 18 states and 20% or more in six states and the District of Columbia.

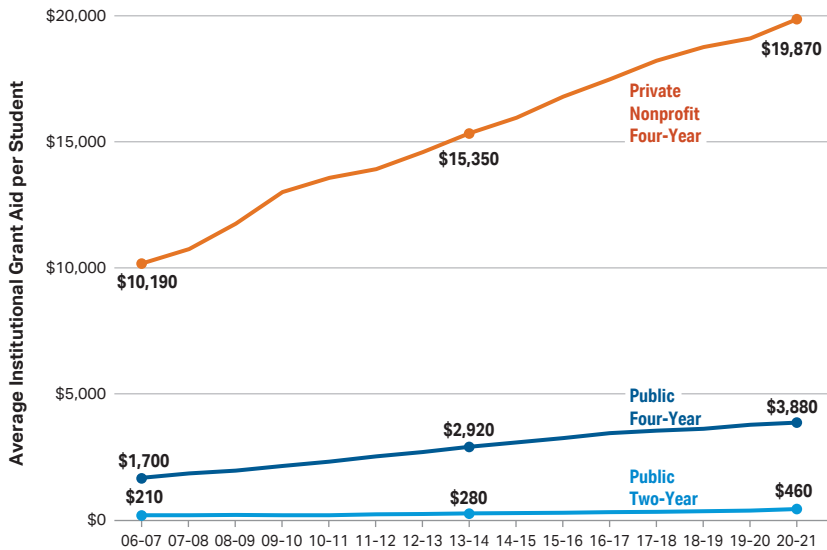
### ALSO IMPORTANT:

- In 2021-22, six states (California, New York, Texas, Florida, Georgia, and Virginia) accounted for 52% of all state grant aid dollars, with California accounting for 18% of the total.

# Average Institutional Grant Aid by Sector

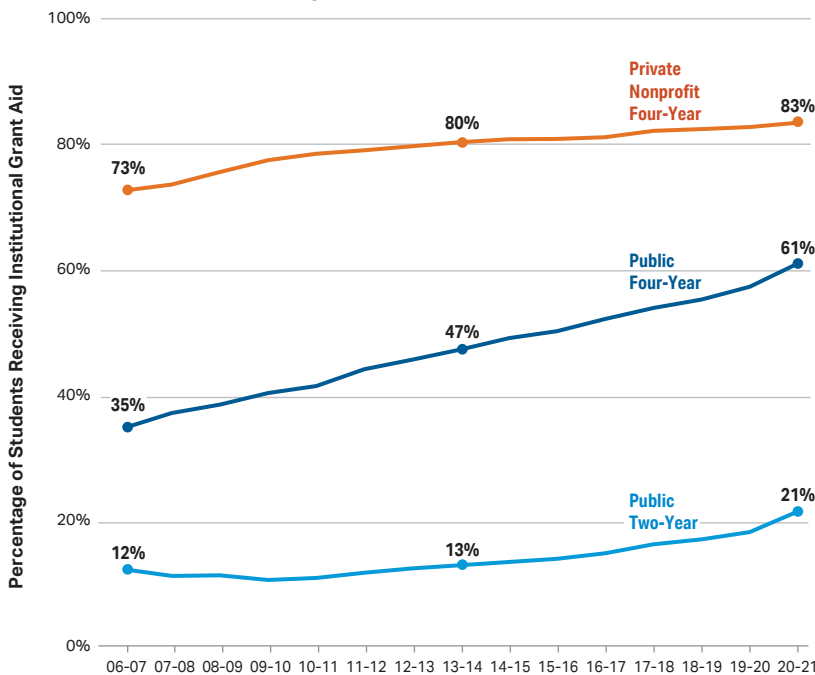
Between 2006-07 and 2020-21, average institutional grant aid per first-time full-time undergraduate student (including both recipients and nonrecipients) at private nonprofit four-year institutions nearly doubled after adjusting for inflation, from \$10,190 to \$19,870 in 2020 dollars.

**FIGURE SA-21A** Average Institutional Grant Aid in 2020 Dollars, First-Time Full-Time Undergraduate Students, 2006-07 to 2020-21



- Between 2006-07 and 2020-21, average institutional grant aid per first-time full-time student at public four-year institutions increased by 128% after adjusting for inflation, from \$1,700 to \$3,880 in 2020 dollars.
- Between 2006-07 and 2020-21, average institutional grant aid per first-time full-time student at public two-year institutions increased by 119% after adjusting for inflation, from \$210 to \$460 in 2020 dollars.
- In 2020-21, the shares of first-time full-time undergraduate students receiving institutional grant aid were 21% at public two-year, 61% at public four-year, and 83% at private nonprofit four-year institutions.
- Between 2006-07 and 2020-21, the share of first-time full-time undergraduate students receiving institutional grant aid increased at all three sectors, with the largest increase in the public four-year sector, from 35% in 2006-07 to 61% in 2020-21.
- Between 2019-20 and 2020-21, public colleges saw large one-year increases in the shares of first-time full-time undergraduate students receiving institutional grant aid — from 57% to 61% at public four-year colleges and from 18% to 21% at public two-year colleges.

**FIGURE SA-21B** Percentage of First-Time Full-Time Undergraduate Students Receiving Institutional Grant Aid, 2006-07 to 2020-21



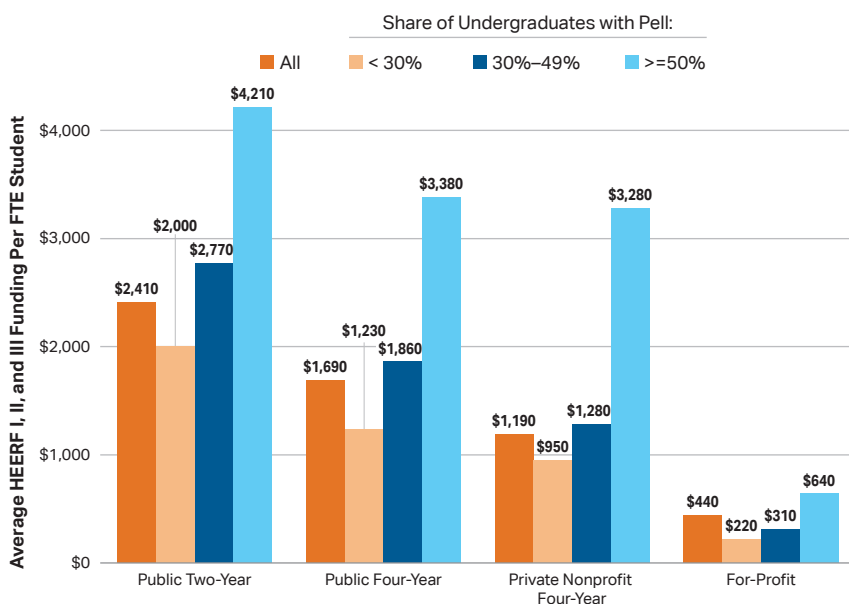
**NOTE:** Four-year institutions include only those where more than 50% of degrees/certificates awarded are bachelor's degree or higher.

**SOURCE:** NCES, IPEDS Student Financial Aid data, 2007 through 2021.

# Higher Education Emergency Relief Fund

The average Higher Education Emergency Relief Funding per full-time equivalent (FTE) student was \$2,410 at public two-year, \$1,690 at public four-year, \$1,190 at private nonprofit four-year, and \$440 at for-profit institutions. This includes all the funding awarded, half of which must be distributed to students.

**FIGURE SA-22A** Average HEERF I, II, and III Funding per Full-Time Equivalent Student, by Sector and Share of Pell Enrollees



**NOTE:** Funding per FTE student includes both the student and institution portions. The average funding is calculated across fall 2020, 2021, and 2022 FTE enrollment. Because fall 2022 enrollment data are not yet available in IPEDS, we use fall 2021 enrollment data as a proxy for fall 2022. Four-year institutions include only those where more than 50% of degrees/certificates awarded are bachelor's degree or higher.

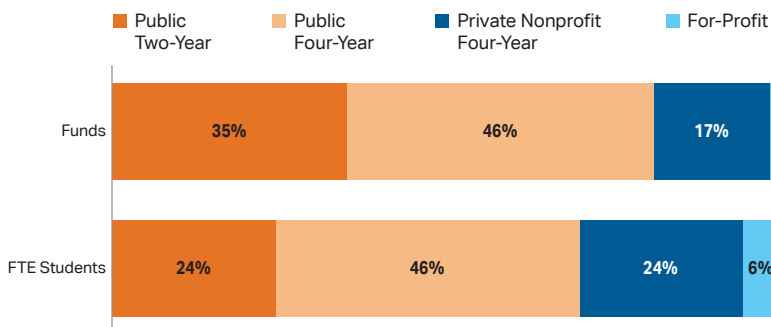
**SOURCE:** U.S. Department of Education, Education Stabilization Fund, Higher Education Emergency Relief (HEER) Fund, 2021 Report (Reporting Period: January 1, 2021 to December 31, 2021); NCES, IPEDS Fall Enrollment and Student Financial Aid data, 2021.

- HEERF I, which totaled \$14 billion, was authorized as part of the March 2020 Coronavirus Aid, Relief, and Economic Security Act. The Coronavirus Response and Relief Supplemental Appropriations Act, signed into law on December 27, 2020, authorized \$21.2 billion in HEERF II funding for higher education. The American Rescue Plan, signed into law on March 11, 2021, provided \$39.6 billion in HEERF III funding for higher education.
- Within each sector, the average HEERF funding per FTE student was higher at institutions with larger shares of Pell enrollments. Average HEERF funding per FTE was \$1,230 at public four-year institutions with Pell enrollments less than 30% of the undergraduate student body, while it was \$3,380 at institutions where Pell enrollment was 50% or higher.
- The public two-year sector enrolled 24% of all FTE students and received 35% of HEERF funding. Public four-year institutions accounted for 46% of all FTE enrollment and received 46% of funding.

## ALSO IMPORTANT:

- In 2021, institutions distributed a total of \$19.5 billion in Emergency Financial Aid Grants through HEERF funds to 12.7 million students. Almost half of the enrolled students and about 80% of Pell recipients in 2021 received these grants. (Higher Education Emergency Relief Fund: 2021 Annual Performance Report)

**FIGURE SA-22B** Distribution of HEERF I, II, and III Funding and Full-Time Equivalent Students, by Sector



**NOTE:** Four-year institutions include only those where more than 50% of degrees/certificates awarded are bachelor's degree or higher.

**SOURCE:** U.S. Department of Education, Education Stabilization Fund, Higher Education Emergency Relief (HEER) Fund, 2021 Report (Reporting Period: January 1, 2021 to December 31, 2021); NCES, IPEDS Fall Enrollment.

# Notes and Sources: Trends in College Pricing

## THE ANNUAL SURVEY OF COLLEGES

Prices for the public two-year, public four-year, and private nonprofit four-year sectors in this report are based on data collected through College Board's Annual Survey of Colleges. Tuition and fee figures are based on charges to full-time first-year undergraduate students over the course of a nine-month academic year of 30 semester hours or 45 quarter hours.

## ENROLLMENT-WEIGHTED AND UNWEIGHTED DATA

This report provides enrollment-weighted average tuition prices. Charges of institutions with larger full-time enrollments are weighted more heavily than those of institutions with smaller enrollments.

Enrollment-weighted and unweighted averages describe different phenomena. The weighted averages may be more helpful to students and families in anticipating future education expenses. Some researchers, policy analysts, and academic administrators find unweighted averages useful in studying longitudinal trends and evaluating a particular institution's practices against a larger set. Thus, we compute both weighted and unweighted averages. Tables reporting unweighted average tuition data can be found online at [research.collegeboard.org/trends](https://research.collegeboard.org/trends).

Weighted averages of tuition prices are based on relevant populations:

- In-state tuition and fees are weighted by full-time undergraduate enrollment.
- Out-of-state tuition and fees are calculated by adding the nonresident premium, weighted by full-time out-of-state enrollment, to average in-state tuition and fees.

In *Trends in College Pricing 2019* and earlier editions, room and board charges as well as other expenses were weighted by the number of undergraduate students residing on campus for four-year institutions and by the number of commuter students for public two-year institutions. Books and supplies were weighted by full-time undergraduate enrollment. For 2020 and after, these budget items are calculated by applying the average one-year percent change to the previous year's sector averages.

## LONGITUDINAL DATA

In online Table CP-2, tuition averages for years prior to 1987-88 are from the Integrated Postsecondary Education Data System (IPEDS). The two data sets, IPEDS and College Board's Annual Survey of Colleges, track very closely, but IPEDS averages are weighted by full-time equivalent enrollments, while the Annual Survey of Colleges prices are weighted by full-time enrollments. In addition, IPEDS tuition and fee data may be based on 24 semester hours while the Annual Survey of Colleges data are based on 30 semester hours.

## NET PRICE CALCULATIONS

Average net prices shown in Figures CP-8, CP-9, and CP-10 are calculated by subtracting from published prices average grant aid per first-time full-time undergraduate student in each sector. Prices are from College Board's Annual Survey of Colleges. Average grant aid is calculated using IPEDS Student Financial Aid survey. Grant aid includes federal, state, and institutional grants.

This year's net prices are not comparable with those reported in *Trends in College Pricing 2019* and earlier editions because of changes in methodology.

## INFLATION ADJUSTMENT

We use the annual Consumer Price Index for all urban consumers (CPI-U) to adjust for inflation. Because the annual 2023 CPI is not yet available at the time of analysis, we estimate the 2023 CPI by assuming an annual inflation rate equal to the percent change in the average January to August 2023 CPI from the same months in 2022. In 2020 and earlier, we used July CPI to adjust for inflation. See [www.bls.gov/data/](https://www.bls.gov/data/) for changes in the CPI-U over time. Online Table CP-A1 provides CPI data used to adjust for inflation.

# Notes and Sources: Trends in Student Aid

**Campus-Based Aid (FWS, Perkins, and FSEOG) and ACG/SMART Grants:** U.S. Department of Education, Annual Federal Program Data Books; Federal Student Aid Data Center, Title IV Program Volume Reports. Federal Work-Study and Federal Supplemental Educational Opportunity Grant (FSEOG) amounts include allocated federal funds only. Institutional matching funds required since 1989-90 for FSEOG are reported under institutional grants. No funds were appropriated for new federal capital contributions to the Perkins loan program after FY06 and the authority for schools to make new Perkins loans ended on September 30, 2017.

**Federal Tax Credits and Deductions:** Statistics of Income, Individual Income Tax Returns, Line Item Estimates 2020 (Publication 4801) and Complete Report (Publication 1304), Tables 1.3, 1.4, and 3.3. Data on education tax credits are authors' estimates based on IRS data on the volume of Hope, Lifetime Learning, and American Opportunity credits for tax years 1998 and later. A portion of nonrefundable dollars claimed on nontaxable returns is excluded to account for credits that do not reduce tax liability. Tax deductions are based on IRS Statistics of Income Table 1.4. The savings from the tuition tax deduction are estimated by the authors based on the marginal tax rates applied to the taxable income of the taxpayers in each income bracket claiming the deduction on taxable returns. Calendar year amounts are split between the two associated academic years.

**Federal Subsidized and Unsubsidized Student Loans:** 2009-10 and prior: unpublished data provided by the U.S. Department of Education staff; 2010-11 and after: Federal Student Aid Data Center, Title IV Program Volume Reports. Because the Federal Student Aid Data Center will continue to update the loan volume after each academic year ends, we adjusted the 2022-23 data (released in late 2023) using the average of the percentage changes between: (1) July 2022 and July 2023 for the reported 2021-22 loan volume; (2) July 2021 and July 2022 for the reported 2020-21 loan volume; and (3) July 2020 and July 2021 for the reported 2019-20 loan volume.

Prior to 1993-94, federal Subsidized and Unsubsidized loans for students were made by banks and other private lenders and guaranteed by the federal government. From 1994-95 through 2009-10, the guaranteed loan program, known as the Federal Family Education Loan Program (FFELP), continued alongside the Federal Direct Loan Program (FDLP), which lends federal funds to students. Beginning in 2010-11, all of the loans are Federal Direct Subsidized or Unsubsidized loans.

Subsidized loans are need-based student loans for which the federal government pays the interest while the student is in school and during a six-month grace period thereafter. Prior to June 2012, these loans were available to both undergraduate and graduate students, but the Budget Control Act of 2011 eliminated the program for graduate students, whose federal loans are now all Unsubsidized or grad PLUS loans. Interest accrues on Unsubsidized loans from the time they are disbursed.

**Institutional Grants:** 2020-21 and prior: IPEDS Finance data. Estimated for 2021-22 and 2022-23. Estimated figures represent best approximations and are updated each year as additional information becomes available.

**Nonfederal Loans:** Estimates of nonfederal borrowing rely on data from Enterval Analytics. Between 2011-12 and 2016-17, we supplemented these data with information from the Consumer Bankers Association and the Consumer Financial Protection Bureau. Earlier data are based on information provided by lenders supplemented by data from annual reports and from National Postsecondary Student Aid Study (NPSAS). Estimates of institutional lending for earlier years are based on NPSAS, as well as a survey of institutions conducted for College Board by the National Association of Student Financial Aid Administrators (NASFAA). We no longer report state and institutional loans separately from private loans because of data availability.

**Pell Grant Program:** 2020-21 and prior: *Federal Pell Grant Program End-of-Year Report*; 2021-22 and 2022-23: Federal Student Aid Data Center, Title IV Program Volume Reports.

**Private and Employer Grants:** Estimates are based on data included in NPSAS and College Board's Annual Survey of Colleges.

**State Grant Programs:** 20th through 53rd Annual Survey Reports of the National Association of State Student Grant and Aid Programs for 1988-89 to 2021-22 and estimated for 2022-23.

**Veterans' Benefits:** Benefits Program series (annual publication for each fiscal year), U.S. Department of Veterans Affairs, Office of Budget and Finance. Veterans' benefits are payments for postsecondary education and training to veterans and their dependents, including the Post-9/11 GI Bill established in 2009-10 and all programs established earlier. The Iraq and Afghanistan Service Grants program, begun in 2010-11, provides non-need-based grants for students whose parent or guardian was a member of the Armed Forces who died in Iraq or Afghanistan as a result of performing military service after Sept. 11, 2001. Estimates include benefits for active duty military members.

## About College Board

College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success—including the SAT® and the Advanced Placement Program®. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools. For further information, visit [www.collegeboard.org](http://www.collegeboard.org).

## Trends in Higher Education

The Trends in Higher Education publications include *Trends in College Pricing* and *Trends in Student Aid, Education Pays*, and other research briefs. These reports are designed to provide a foundation of evidence to strengthen policy discussions and decisions.

*The tables supporting all of the graphs in this report, a PDF version of the report, and a PowerPoint file containing individual slides for all of the graphs are available on our website [research.collegeboard.org/trends](http://research.collegeboard.org/trends).*

*Please feel free to cite or reproduce the data in this report for noncommercial purposes with proper attribution.*

For inquiries, please contact: [trends@collegeboard.org](mailto:trends@collegeboard.org).

© 2023 College Board. College Board, Advanced Placement Program, SAT, and the acorn logo are registered trademarks of College Board. All other marks are the property of their respective owners.

Visit College Board on the web: [collegeboard.org](http://collegeboard.org).

