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Trends in Higher Education

The Trends in Higher Education publications include the annual Trends in College Pricing and Trends in Student Aid reports and the Education Pays series, along with other research reports and topical analysis 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.

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01469-066
November 2019
**Highlights**

*Trends in Student Aid 2019* reports on the funds students and families use to supplement their own resources to pay for the prices documented in *Trends in College Pricing 2019.*

Both total annual education borrowing and borrowing per full-time equivalent (FTE) undergraduate declined (after adjusting for inflation) in 2018-19 for the eighth consecutive year.

The federal government provided 62% of all student aid in 2018-19; the composition of that aid has changed over time, with a declining share distributed on the basis of financial need. As aid to veterans and active-duty military has increased, Pell Grants to low- and moderate-income students have fallen from 80% of federal grant aid in 1998-99 to 68% in 2018-19. The introduction of and growth in unsubsidized loans, PLUS loans for graduate students and parents of undergraduates, and the elimination of subsidized loans for graduate students have left less than a quarter of federal loans based on students’ financial circumstances. The implementation and expansion of education tax credits have reinforced this trend.

Similarly, state and institutional grant aid is allocated partially on the basis of students’ financial circumstances and partially on the basis of other criteria. Since 2011-12, about a quarter of state grant aid has been distributed without regard to financial need (Figure 23A); the same is true of a significant share of institutional grant aid (Figures 25A, 25B).

Some of the non-need-based aid—likely including much of the aid to veterans—does help meet financial need. But keeping this distinction—and the shift over time in the federal government’s approach—in mind is critical to putting the following data into context.

**TYPES OF STUDENT AID**

In 2018-19, undergraduate students received an average of $15,210 per FTE student in financial aid: $9,520 in grants, $4,410 in federal loans, $1,210 in education tax credits, and $70 in Federal Work-Study (FWS). (Figure 1, Table 3)

- Graduate students received an average of $28,140 per FTE student in financial aid: $8,920 in grants, $18,470 in federal loans, $700 in tax credits, and $50 in FWS. (Figure 1, Table 3)
- Grant aid per FTE undergraduate rose by 40% between 2008-09 and 2013-14 from $5,940 (in 2018 dollars) to $8,340, and by another 14% to $9,520 by 2018-19. (Figure 1)
- Grant aid per graduate student rose by 13% ($950 in 2018 dollars) between 2008-09 and 2013-14 and by another 9% ($710) between 2013-14 and 2018-19. Federal loans per graduate student rose by 8% ($1,440) over the first five years of the decade and fell by 1% ($100) over the next five years. (Figure 1)

- Undergraduate and graduate students received $246.0 billion in grants from all sources, FWS, federal loans, and federal tax credits in 2018-19. In addition, students borrowed about $13 billion from nonfederal sources. (Table 1)
- Undergraduate borrowing of federal loans was $5,400 (in 2018 dollars) per FTE student in both 2008-09 and 2013-14 and fell by 18% to $4,410 in 2018-19. (Figure 1)

**FEDERAL STUDENT AID**

In 2018-19, 33% of federal aid was based on students’ financial circumstances—a decline from 91% in 1988-89 and 58% in 1998-99. The introduction of unsubsidized student loans and education tax credits, followed by PLUS loans for parents and graduate students and the Post-9/11 GI Bill, outweighed increases in Pell Grants and smaller need-based programs. (Table 1)

- Total federal grant aid increased by 56% in inflation-adjusted dollars between 2008-09 and 2018-19. Pell Grants increased by 35% ($7.3 billion); veterans’ benefits, which rose by 214% ($8.4 billion), grew from 15% of federal grants in 2008-09 to 30% in 2018-19. (Table 1)
- In 2018-19, average benefits from the Post-9/11 Veterans’ Benefits program were $15,990, compared with $4,160 per Pell Grant recipient. Almost 10 times as many students received Pell Grants as veterans’ benefits—6.8 million vs. 699,000 in 2018-19. (Figure 7)
- Federal loans to undergraduates fell by 18% between 2008-09 and 2018-19, rising by 7% over the first five years, but declining by 23% between 2013-14 and 2018-19. (Figure 3)
- FWS and Federal Supplemental Educational Opportunity Grants (FSEOG) combined provided $1.7 billion to undergraduate students in 2018-19—1% of the total aid. (Figure 3)

**PELL GRANTS**

Pell Grant expenditures rose from $21.0 billion (in 2018 dollars) in 2008-09 to $41.2 billion in 2010-11 but declined to $28.2 billion by 2018-19. (Figure 20B)

- The number of Pell Grant recipients fell in 2018-19 for the seventh consecutive year, but the 6.8 million recipients represented a 10% increase from 6.2 million in 2008-09. (Figure 20B)
- The average Pell Grant per recipient was $2,900 (in 2018 dollars) in 1998-99. It increased to $3,400 in 2008-09, peaked at $4,430 in 2010-11, and fell to $4,160 in 2018-19. (Figure 21A)
- The $6,095 maximum Pell Grant in 2018-19 was 32% higher in inflation-adjusted dollars than it was 20 years earlier, but it was 1% lower than it was 40 years earlier, in 1978-79. (Figure 21A)
- The maximum Pell Grant covered 59% of the average public four-year tuition and fees and 17% of the average private nonprofit four-year price in 2019-20. (Figure 21B)
OTHER SOURCES OF GRANT AID
Between 2013-14 and 2018-19, institutional grant aid for undergraduate students increased by $10.8 billion (26%) in 2018 dollars, rising from 38% to 45% of total grants (and from 21% to 28% of total financial aid) to undergraduates. (Figure 3)

- Between 2013-14 and 2018-19, institutional grant aid rose by $12.5 billion (in 2018 dollars); federal grants declined by $6.3 billion. Total grant aid to postsecondary students increased by $9.2 billion (7%). (Figure 5)
- State grant aid per FTE undergraduate student rose for the sixth consecutive year in 2017-18, to $890—an increase of $180 (25%) since 2011-12. State grant aid per student ranged from under $200 in nine states to over $1,000 in 12 states. (Figures 23A, 24A)

DISTRIBUTION OF STUDENT AID
The share of dependent Pell Grant recipients from families with incomes below $30,000 (in 2014 dollars) rose from 50% in 2007-08 to 58% in 2015-16. (Figure 22A)

- In 2017-18, 27 states considered students’ financial circumstances in allocating at least 95% of their state grant aid. Thirteen states considered students’ financial circumstances when awarding less than half of their state grant aid. (Figure 23B)
- Between 2016-17 and 2017-18, need-based state grant aid per FTE undergraduate rose 5%, from $634 (in 2017 dollars) to $667; non-need-based aid rose 11%, from $196 to $218 per student. The share of state grant aid that was need-based declined from 76.4% to 75.4%. (Figure 23A)
- In 2015-16, 78% of full-time students at public four-year colleges and universities had to cover an average of $14,400 in expenses beyond their expected family contributions (EFCs) and grant aid from all sources. For 12% of students in this sector, grant aid exceeded their documented financial need. (Figure 18)
- In 2015-16, 80% of full-time students at private nonprofit four-year institutions had to cover an average of $20,770 in expenses beyond their EFCs and grant aid from all sources. For 16% of students in this sector, grant aid exceeded their documented financial need. (Figure 19)
- The 41% of 2016 tax filers benefiting from the student loan interest tax deduction who had adjusted gross income (AGI) below $50,000 received 29% of the tax savings. The 20% with AGI over $100,000 received 28% of the tax savings. (Figure 26B)

STUDENT BORROWING
After a decade of rapid growth in annual borrowing, total federal loans to undergraduate students declined by 22% from $69.8 billion (in 2018 dollars) in 2013-14 to $54.2 billion in 2018-19; federal loans to graduate students rose by 2% from $38.2 billion to $38.8 billion. (Figure 9A)

- In 2018-19, after the eighth consecutive decline in annual education borrowing, students and parents borrowed $106.2 billion, down from $131.7 billion (in 2018 dollars) in 2010-11. (Figure 6)
- Federal loans per FTE undergraduate student declined in 2018-19 for the eighth consecutive year—from $6,000 (in 2018 dollars) in 2010-11 to $4,410 in 2018-19. (Figure 1)
- Federal loans per FTE graduate student declined from a peak of $19,750 in 2010-11 to $17,850 in 2014-15, before rising to $18,470 in 2018-19. (Figure 1)
- The share of federal loans going to graduate students increased from 32% to 42% between 2003-04 and 2018-19. The percentage of FTE postsecondary students who were graduate students increased from 13% to 15% over these 15 years. (Figure 9A)
- The number of parents borrowing PLUS loans in 2018-19 was 12% of the number of undergraduates taking subsidized and unsubsidized Direct loans, but the average parent loan was $17,220, 2.6 times as much as the average undergraduate student loan. (Figure 9B)
- Borrowing through the grad PLUS program rose by 25% ($2.2 billion in 2018 dollars) between 2013-14 and 2018-19. (Figure 6)
- Nonfederal education loans fell from about $27 billion (in 2018 dollars) in 2007-08 to $9 billion in 2010-11 and 2011-12 and rose to about $13 billion in 2018-19. (Figure 6)

STUDENT DEBT
As of March 2019, 55% of borrowers with outstanding education debt owed less than $20,000; 43% of the outstanding federal education loan debt was held by the 10% of borrowers owing $80,000 or more. (Figure 10)

- In 2017-18, average debt per borrower among bachelor’s degree recipients from public and private nonprofit four-year institutions was $29,000—a 1% ($300) increase from $28,700 (in 2018 dollars) in 2012-13. Debt per bachelor’s degree recipient, including both those who borrowed and those who did not, was $16,800—3% ($500) lower than in 2012-13. (Figure 14)
- The shares of borrowers paying off at least one dollar of their loan principal within five years of entering repayment in 2010-11 and 2011-12 ranged from 26% for noncompleters in the for-profit sector to 79% and 80% for completers in the public and private nonprofit four-year sectors, respectively. (Figure 13B)
- Among the 60% of 2015-16 bachelor’s degree recipients who were age 23 or younger, 33% had no education debt; 11% borrowed $40,000 or more; 27% of those between the ages of 24 and 29 and 35% of those age 30 or older borrowed $40,000 or more. (Figure 15B)
- In 2015-16, 33% of black bachelor’s degree recipients accrued more. (Figure 15B)
- In 2015-16, 33% of black bachelor’s degree recipients accrued $40,000 or more in student debt, compared with 17% of white graduates, 13% of Hispanics, and 9% of Asians. (Figure 16)
- The shares of 2015-16 dependent students graduating with parent PLUS loans ranged from 3% at public two-year colleges to 32% in the for-profit sector. In all sectors, families with incomes below $35,000 were least likely and those with incomes of $70,000 or higher were most likely to have $40,000 or more in parent PLUS loans. (Figure 17)
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Figures and tables that are only available online at research.collegeboard.org/trends.
Introduction

*Trends in Student Aid 2019* provides detailed information about the different types and amounts of financial aid awarded to both undergraduate and graduate students over time. *Trends* examines the breakdown of aid into grants and tax benefits, which do not have to be repaid; loans, which students are responsible for repaying after they leave school; and work-study, which is compensation for work during the time students are enrolled. The data in this report also differentiate among the sources of aid—federal and state governments, colleges and universities, and employers and other private sources.

**MEETING FINANCIAL NEED**

Another key distinction is how the aid is distributed. It is common practice to divide aid into "need-based" and "non-need-based" aid. But these categories are not as clear as, for example, federal aid vs. institutional aid. In general, eligibility for need-based aid depends on students’ financial circumstances; non-need-based aid is distributed based on other criteria, such as high school grades, test scores, or athletic ability. But who receives the aid is a more meaningful indicator of its impact than how it was allocated. A grant based on academic achievement helps a student from a low-income family as much as a need-based grant of the same amount.

Moreover, basing aid on need is not the same as allocating it according to income or another measure of financial capacity. In the aid system, need is defined as the difference between students’ budgets and their ability to pay, as determined by a need-analysis formula. A student from a middle-income family might have documented need at a public university, but not at a community college. Many students who would not have financial need at public colleges and universities qualify for need-based aid at higher-price private institutions.

Some indicators in *Trends in Student Aid* document the share of aid allocated on the basis of financial circumstances. For example, every year the information on state grants includes a breakdown between need-based and non-need-based funding. Other indicators report on a range of programs, only a portion of which depend on need or financial capacity. An important trend emerging in the data is that the share of federal student aid based on financial circumstances is declining. Unsubsidized student loans and PLUS loans for parents and for graduate students—which do not depend on financial need—are outpacing subsidized student loans—which are available only to undergraduate students with documented financial need.

Pell Grants, which are awarded to students from low- and moderate-income households, have not kept up with military and veterans’ aid—which likely benefits many students with financial need, but is not restricted to such students. And education tax credits, while not restricted to such students. And education tax credits, while although not designed to aid students with financial need, have not kept up with military and veterans’ aid, which likely benefits many students with financial need, but is not restricted to such students.

The share of federal grants in need-based programs fell from 85% in 2008-09 to 70% in 2018-19. The share of federal loans that are need-based fell from 94% in 1988-89 to 56% in 1998-99, 39% in 2008-09, and 22% in 2018-19. And the need-based share of other aid (Federal Work Study and tax credits and deductions) fell from 100% in 1988-99 (when there was no education tax benefit) to 18% in 1998-99, 7% in 2008-09, and 6% in 2018-19. Overall, the share of federal aid in need-based programs fell from 91% in 1988-89 to 58% in 1998-99, 44% in 2008-09, and 33% in 2018-19.

This trend in federal student aid is noteworthy despite the fact that much of the non-need-based aid relieves significant financial strain on students and families. The students for whom financial aid is most critical for college access and success are those from the most financially constrained households. As the data in this report document, more than half of all states considered students’ financial circumstances in allocating at least 95% of their state grant aid in 2017-18, while 13 states considered these circumstances for less than half of their grant aid. Overall, the share of state grant aid allocated on the basis of financial need rose from a low of 71% in 2010-11 to 76% in 2016-17. But it remains to be seen whether the decline in that share to 75% in 2017-18 is the beginning of a reversal in that trend.

Institutional aid is a mix of need-based and non-need-based grants. In 2015-16, public four-year colleges and universities distributed less than half of their institutional grant aid to in-state students and 20% of aid to out-of-state students based on students’ financial need. Almost 60% of institutional aid at private nonprofit doctoral universities, just under half at bachelor’s colleges, and about a quarter at master’s institutions in the sector was need-based.

This year’s report also includes information on the shares of students whose grant aid from all sources leaves unmet need to be filled by loans, work, and other sources, and on the share whose grant aid exceeds the gap between their budgets and their documented ability to pay. In 2015-16, 78% of full-time students at public four-year colleges and universities had need remaining after grant aid and 12% received grant aid beyond their documented financial need; the remaining 10% had no need and received no grants or received just enough grant aid to cover their need. At private nonprofit four-year institutions, 80% of full-time students had need not met by grant aid and 16% received grant aid beyond their documented financial need.

A central goal of the *Trends in Student Aid* report is to monitor the amount of aid available to make college a realistic possibility in the face of the rising tuition prices documented in the companion publication, *Trends in College Pricing*. Focusing on the distribution of the growing amount of financial aid available to students is critical to gaining insight into this issue.

**STUDENT BORROWING**

Much of the public discussion about college affordability focuses on student debt. This report includes a wide range of information about annual borrowing, students’ cumulative debt, outstanding education debt, and repayment patterns. *Trends in Student Aid 2019* documents an eight-year decline in both total annual student borrowing (from
$131.7 billion in 2018 dollars in 2010-11 to $106.2 billion in 2018-19) and loans per full-time equivalent undergraduate student (from $6,000 in 2018 dollars in 2010-11 to $4,410 in 2018-19). After rapid increases between 2007-08 and 2012-13, the average debt per borrower graduating from public and private nonprofit four-year institutions rose by $300 between 2012-13 and 2017-18 and the average debt per graduate declined as the share of students with debt fell slightly. These patterns do not by any means signal the end of the problems too many students face with debt—particularly those who do not complete their programs, African American students, and those who attend for-profit institutions. But they are nonetheless encouraging.

THE DATA

Much of the data on which Trends in Student Aid is based comes from the Federal Student Aid office of the U.S. Department of Education (ED), which provides precise information about the volume of federal student aid disbursed. The figures for 2017-18 in Trends in Student Aid 2019 are revisions of the numbers published last year, based on ED’s updated data. Similarly, next year we will revise the 2018-19 figures. Some of the other figures reported here are less precise. For example, the latest data on federal tax credits are for calendar year 2017. We have developed a methodology to translate IRS data into estimates of these policies’ benefits for tax filers. Similarly, our estimate of the volume of nonfederal student loans is based on reports from MeasureOne and estimates of their share of the market. We base our current estimate of private grant aid on information from the 2016 National Postsecondary Student Aid Study and more recent information from College Board’s Annual Survey of Colleges. These and other figures represent best estimates of the amount of aid students receive, rather than exact reporting. Each year, we review our data sources and methodology and make some modifications.

The tables supporting all of the graphs in the Trends publications, PDF versions of the publications, PowerPoint files containing individual slides for all of the graphs, and other detailed data on student aid and college pricing are available on our website at research.collegeboard.org/trends. Please feel free to cite or reproduce the data in Trends for noncommercial purposes with proper attribution.
### Total Student Aid

In 2018-19, undergraduate and graduate students received a total of $246.0 billion in student aid in the form of grants from all sources, Federal Work-Study (FWS), federal loans, and federal tax credits.

#### TABLE 1
Total Student Aid and Nonfederal Loans in 2018 Dollars (in Millions), Undergraduate and Graduate Students Combined, 1988-89 to 2018-19, Selected Years

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<th>98-99</th>
<th>08-09</th>
<th>13-14</th>
<th>14-15</th>
<th>15-16</th>
<th>16-17</th>
<th>17-18</th>
<th>Preliminary 18-19</th>
<th>10-Year % Change</th>
<th>30-Year % Change</th>
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<td>Federal Aid</td>
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<tr>
<td>Grants</td>
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<td>Pell Grants</td>
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<td>$29,517</td>
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<td>197%</td>
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<td>$868</td>
<td>$791</td>
<td>$775</td>
<td>$774</td>
<td>$768</td>
<td>$755</td>
<td>$755</td>
<td>-13%</td>
<td>-13%</td>
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<td>LEAP</td>
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<td>—</td>
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<td>Academic Competitiveness Grants</td>
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<tr>
<td>SMART Grants</td>
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<tr>
<td>Veterans</td>
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<td>$12,015</td>
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<td>Loans</td>
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<td>$649</td>
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<td>$37,840</td>
<td>$28,527</td>
<td>$26,086</td>
<td>$24,239</td>
<td>$22,678</td>
<td>$21,529</td>
<td>$20,198</td>
<td>-47%</td>
<td>16%</td>
</tr>
<tr>
<td>Unsubsidized</td>
<td>—</td>
<td>$16,832</td>
<td>$46,313</td>
<td>$59,685</td>
<td>$55,773</td>
<td>$53,561</td>
<td>$52,276</td>
<td>$50,218</td>
<td>$49,002</td>
<td>6%</td>
<td>—</td>
</tr>
<tr>
<td>Parent PLUS</td>
<td>$1,192</td>
<td>$4,566</td>
<td>$8,808</td>
<td>$11,094</td>
<td>$11,335</td>
<td>$12,631</td>
<td>$13,161</td>
<td>$13,125</td>
<td>$12,898</td>
<td>46%</td>
<td>982%</td>
</tr>
<tr>
<td>Grad PLUS</td>
<td>—</td>
<td>—</td>
<td>$4,957</td>
<td>$8,747</td>
<td>$8,833</td>
<td>$9,338</td>
<td>$10,100</td>
<td>$10,599</td>
<td>$10,957</td>
<td>121%</td>
<td>—</td>
</tr>
<tr>
<td>Total Federal Loans</td>
<td>$20,403</td>
<td>$48,233</td>
<td>$99,019</td>
<td>$109,317</td>
<td>$103,254</td>
<td>$100,873</td>
<td>$99,143</td>
<td>$96,120</td>
<td>$93,056</td>
<td>-6%</td>
<td>356%</td>
</tr>
<tr>
<td>Federal Work-Study</td>
<td>—</td>
<td>—</td>
<td>$999</td>
<td>$10,300</td>
<td>$10,300</td>
<td>$10,300</td>
<td>$10,300</td>
<td>$10,300</td>
<td>$10,300</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Education Tax Benefits</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total Federal Aid</td>
<td>$34,031</td>
<td>$69,311</td>
<td>$140,759</td>
<td>$178,005</td>
<td>$169,591</td>
<td>$164,303</td>
<td>$158,485</td>
<td>$156,046</td>
<td>$151,720</td>
<td>8%</td>
<td>346%</td>
</tr>
<tr>
<td>State Grants</td>
<td>$3,647</td>
<td>$5,692</td>
<td>$8,811</td>
<td>$10,721</td>
<td>$11,115</td>
<td>$11,339</td>
<td>$11,507</td>
<td>$12,288</td>
<td>$12,589</td>
<td>28%</td>
<td>245%</td>
</tr>
<tr>
<td>Institutional Grants</td>
<td>$8,464</td>
<td>$21,417</td>
<td>$36,297</td>
<td>$52,126</td>
<td>$54,768</td>
<td>$57,720</td>
<td>$60,612</td>
<td>$62,984</td>
<td>$64,666</td>
<td>78%</td>
<td>664%</td>
</tr>
<tr>
<td>Private and Employer Grants</td>
<td>$1,490</td>
<td>$7,030</td>
<td>$14,240</td>
<td>$15,980</td>
<td>$16,340</td>
<td>$16,610</td>
<td>$17,030</td>
<td>$17,040</td>
<td>$17,040</td>
<td>20%</td>
<td>1044%</td>
</tr>
<tr>
<td>Total Federal, State, Institutional, and Other Aid</td>
<td>$47,632</td>
<td>$103,451</td>
<td>$201,107</td>
<td>$256,772</td>
<td>$251,453</td>
<td>$249,703</td>
<td>$247,215</td>
<td>$248,348</td>
<td>$246,016</td>
<td>22%</td>
<td>416%</td>
</tr>
<tr>
<td>Nonfederal Loans</td>
<td>—</td>
<td>$4,500</td>
<td>$13,300</td>
<td>$10,300</td>
<td>$10,700</td>
<td>$11,300</td>
<td>$11,800</td>
<td>$12,300</td>
<td>$13,100</td>
<td>-2%</td>
<td>—</td>
</tr>
<tr>
<td>Total Student Aid and Nonfederal Loans</td>
<td>$47,632</td>
<td>$107,951</td>
<td>$214,407</td>
<td>$267,072</td>
<td>$262,153</td>
<td>$261,003</td>
<td>$259,015</td>
<td>$260,648</td>
<td>$259,116</td>
<td>21%</td>
<td>444%</td>
</tr>
</tbody>
</table>

**NOTES:** Table 1 excludes 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. 2018-19 FSEOG, FWS, tax benefits, state grants, institutional grants, private and employer grants, and nonfederal loans are estimated from earlier data. Components may not sum to totals because of rounding.

**SOURCES:** See page 34 for a list of sources for data included in Table 1.

- The federal government’s share of total student aid increased from 70% in 2008-09 to 74% in 2010-11 but fell to 62% in 2018-19.
- Need-based federal aid programs, including Pell Grants and some smaller grant programs, subsidized student loans, Perkins loans, and FWS accounted for 91% of total federal aid in 1988-89. That share fell to 58% in 1998-99, after the introduction of unsubsidized student loans and education tax credits. By 2018-19, growth in unsubsidized loans and tax credits, combined with PLUS loans for parents and graduate students and the Post-9/11 GI Bill, outweighed increases in federal need-based aid to reduce the share of federal aid based on need to 33%.
- Total grant aid rose by 56% (in inflation-adjusted dollars) to $135.6 billion from 2008-09 to 2018-19. Institutional grants grew most rapidly, increasing by 78% to $64.7 billion.
- Total loans declined by 5% (in inflation-adjusted dollars) between 2008-09 and 2018-19, to $106.2 billion. Throughout the decade from 2008-09 through 2018-19, nonfederal loans made up 7% to 12% of total education borrowing.

**ALSO IMPORTANT:**
- In 2018-19, undergraduate students received 76% ($186.9 billion) of total student aid, including 96% of all federal grants and 58% of federal loans. They received 86% of total grant aid from all sources and 62% of all loans, including nonfederal loans. The remainder of the aid funded graduate students. (Table 1 online)
Aid per Student

Federal loans per full-time equivalent (FTE) undergraduate student declined in 2018-19 for the eighth consecutive year. Loans per student declined from $6,000 (in 2018 dollars) in 2010-11 to $4,410 in 2018-19.

Federal loans per FTE graduate student declined from a peak of $19,750 in 2010-11 to $17,850 in 2014-15 before rising to $18,470 in 2018-19.

The $18,470 average federal loan per FTE graduate student in 2018-19 was more than four times as large as the $4,410 average per undergraduate student. In 2008-09, federal loans per graduate student were about three times as large as federal loans per undergraduate student.

Average total grant aid per FTE undergraduate student rose by 36% between 1998-99 and 2008-09 and by another 60% between 2008-09 and 2018-19. Average federal loan per FTE undergraduate student rose by 48% between 1998-99 and 2008-09 and fell by 18% between 2008-09 and 2018-19.

Average total grant aid per FTE graduate student rose by 24% between 1998-99 and 2008-09 and by another 23% between 2008-09 and 2018-19. Average federal loan per FTE graduate student rose by 60% between 1998-99 and 2008-09 and by another 8% between 2008-09 and 2018-19.

ALSO IMPORTANT:

In 2018-19, most of the “Other Aid” for both undergraduate and graduate students was from education tax credits. About 6% was from FWS.

NOTES: 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: Trends in Student Aid website (research.collegeboard.org/trends), Table 3.
Grants, Loans, and Other Aid

Loans (including both federal and nonfederal) fell from 47% of the funds undergraduate students used to supplement their own and their family resources in 2008-09 to 38% in 2013-14 and to 33% in 2018-19.

- Grants rose from 45% of total undergraduate funding in 2008-09 to 53% in 2013-14 and to 59% in 2018-19.
- In contrast, between 1998-99 and 2018-19, loans consistently made up 63% to 70% of the funds graduate students used to supplement their own resources to finance their studies.
- Grants have been the source of 26% to 33% of funding for graduate students over this 20-year period.
- In 2018-19, the combination of federal tax credits and Federal Work-Study (FWS) made up 8% of all student aid and nonfederal loans for undergraduate students and 3% for graduate students.

**ALSO IMPORTANT:**

- For undergraduate students, total grant aid increased by 60% and total loan volume fell by 15% between 2008-09 and 2018-19, after adjusting for inflation. (Table 1 online)
- For graduate students, total grant aid increased by 35% and total loan volume increased by 16% between 2008-09 and 2018-19. (Table 1 online)

NOTES: 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: Trends in Student Aid website (research.collegeboard.org/trends), Table 4.
Total Undergraduate Student Aid by Type

Between 2013-14 and 2018-19, institutional grant aid for undergraduate students increased by $10.8 billion (26%) in 2018 dollars, rising from 21% to 28% of total financial aid to undergraduates.

**FIGURE 3** Total Undergraduate Student Aid in 2018 Dollars by Source and Type (in Billions), 1998-99 to 2018-19

- Total institutional grant aid to undergraduates rose by 48% ($13.4 billion in 2018 dollars) between 2008-09 and 2013-14 and by another 26% ($10.8 billion) between 2013-14 and 2018-19.
- In 1998-99, federal loans made up the largest share of aid to undergraduates—42%; institutional grants were 20% and Pell Grants were 14%. In 2008-09, these shares were 44%, 19%, and 14%, respectively. By 2018-19, federal loans had fallen to 29% of the total, institutional grants had risen to 28%, and Pell Grants were 15% of the total.
- Federal loans rose by 7% ($4.5 billion in 2018 dollars) between 2008-09 and 2013-14 before declining by 23% ($16.6 billion) over the next five years.
- Pell Grants rose by 62% ($13.0 billion in 2018 dollars) between 2008-09 and 2013-14 before declining by 17% ($5.7 billion) over the next five years.
- The largest percentage growth in aid to undergraduates between 2008-09 and 2018-19 was in veterans’ benefits, which almost tripled, from $3.6 billion (in 2018 dollars) in 2008-09 to $10.5 billion in 2018-19.

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

**SOURCE:** Trends in Student Aid website (research.collegeboard.org/trends), Table 1 online.

**ALSO IMPORTANT:**
- Figure 3 reports total aid amounts to undergraduate students. The number of FTE undergraduate students rose from 12.3 million in 2008-09 to 13.1 million in 2013-14, but had fallen back to 12.3 million by 2018-19. Between 2008-09 and 2018-19, total grant aid to undergraduate students increased by 60% and total aid (including grants, loans, and other aid) increased by 23%. Over this decade, grant aid per undergraduate student increased by 60% ($3,580) and total aid per undergraduate student increased by 23% ($2,810). (Table 3 online)
For detailed data behind the graphs and additional information, please visit: research.collegeboard.org/trends.

Grant aid increased from 28% of total aid for graduate students in 2008-09 to 32% in 2018-19. Loans ranged from 66% to 68% of the total over the decade.

Grant aid made up 34% to 35% of graduate student aid from 1998-99 through 2001-02, when loans were between 60% and 62% of the total.

Between 1998-99 and 2008-09, federal loans for graduate students more than doubled, increasing from $14.7 billion to $32.7 billion in 2018 dollars. Federal loans for these students grew by another 19% over the next decade to $38.8 billion in 2018-19.

Between 1998-99 and 2008-09, institutional grants for graduate students rose by 48%, from $5.5 billion to $8.1 billion in 2018 dollars. Institutional grants grew by another 51% over the next decade to $12.2 billion in 2018-19.

Between 2013-14 and 2018-19, institutional grant aid for graduate students increased by $1.7 billion (16%) in 2018 dollars, rising from 18% to 21% of total financial aid to graduate students.

In 1998-99, federal loans made up the largest share of aid to graduate students—62%; institutional grants were 23% and private and employer grants were 10%. In 2008-09, these shares were 67%, 17%, and 11%, respectively. In 2018-19, federal loans were 66% of the total, institutional grants had risen to 21%, and private and employer grants were 7% of the total.

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

**SOURCE:** Trends in Student Aid website (research.collegeboard.org/trends), Table 1 online.

**ALSO IMPORTANT:**
- Between 2008-09 and 2018-19, graduate enrollment increased by 10% while total grant aid to graduate students increased by 35% and total aid (including grants, loans, and other aid) increased by 21%. Over this decade, grant aid per graduate student increased by 23% ($1,660) and total aid per graduate student increased by 10% ($2,600). (Table 3 online)
Sources of Grant Aid

Between 2013-14 and 2018-19, institutional grant aid rose by $12.5 billion (in 2018 dollars); federal grants declined by $6.3 billion. Total grant aid to postsecondary students increased by $9.2 billion (7%).

The total amount of grant aid supporting postsecondary students increased by 81% (after adjusting for inflation) between 1998-99 and 2008-09 and by another 56% between 2008-09 and 2018-19, reaching a total of $135.6 billion.

Almost all of the growth in total grant aid over the last decade occurred between 2008-09 and 2013-14, during which full-time equivalent (FTE) enrollment increased by 7%. Between 2013-14 and 2018-19, FTE enrollment declined by 5%.

Federal grants fluctuated between 27% and 32% of all grant aid for undergraduate and graduate students between 1998-99 and 2008-09. This share rose to 44% in 2010-11 but declined to 30% in 2018-19.

From 1998-99 to 2008-09, state grant aid was between 11% and 13% of all grant aid. From 2009-10 to 2018-19, it was between 8% and 9% of all grant aid. Total state grant aid grew by 72% (after adjusting for inflation) between 1998-99 and 2008-09 and by another 28% over the decade ending in 2018-19.

Grants from employers and other private sources were between 12% and 17% of total grant aid to postsecondary students for the two decades from 1998-99 through 2018-19 and were 13% of the total in 2018-19.

ALSO IMPORTANT:

Grant aid for veterans, which grew from $3.9 billion (in 2018 dollars) to $12.4 billion over the decade, increased from 15% of federal grant aid in 2008-09 to 30% in 2018-19. At the same time, Pell Grants, which rose from $21.0 billion to $28.2 billion, declined from 79% to 68% of the total. (Table 1)

The composition of grant aid for graduate students is quite different from that for undergraduate students—and from the totals in Figure 5. In 2018-19, 10% of graduate student grant aid came from the federal government in the form of aid to veterans, 65% from institutions, 23% from employers and other private sources, and 2% from states. For undergraduate students, the percentages were 34% federal, 45% institutional, 11% private and employer, and 10% state. (Table 1 online)
Types of Loans

Total annual student and parent borrowing for postsecondary education declined by 5% ($6.2 billion in 2018 dollars) between 2008-09 and 2018-19.

**FIGURE 6** Total Federal and Nonfederal Loans in 2018 Dollars by Type of Loan, 1998-99 to 2018-19

- Total annual education borrowing declined for the eighth consecutive year in 2018-19.
- Federal Direct student loans fell by $15.0 billion over the decade. Much of this decline was balanced by increases in the programs without fixed borrowing limits: grad PLUS rose by $6.0 billion and parent PLUS rose by $4.1 billion.
- In 1998-99, 60% of Federal Direct loans were subsidized loans—for which interest is paid by the government while students are in school. In 2018-19, 29% of these loans were subsidized.
- Borrowing through the Federal Direct student loan program (subsidized and unsubsidized combined) fell by 32% ($32.3 billion in 2018 dollars) between 2010-11 and 2018-19, falling from 77% to 65% of total education borrowing. Between 1998-99 and 2010-11, borrowing through this program increased by 142% ($59.5 billion).
- 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 $27 billion (in 2018 dollars) in 2007-08 to $10 billion in 2009-10, but increased to about $13 billion by 2018-19, when they accounted for about 12% of all education loans.

**ALSO IMPORTANT:**

- There are no credit requirements for federal subsidized and unsubsidized 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 2018-19, average benefits from the Post-9/11 GI Bill program were nearly $16,000, compared with just over $4,000 per Pell Grant recipient.

Almost 10 times as many students received Pell Grants as veterans’ benefits—6.8 million vs. 699,000 in 2018-19.

In 2018-19, the total number of borrowers in the subsidized and unsubsidized Direct Loan programs was 7.6 million—less than the sum of the number of recipients in each program because more than half of all borrowers (and almost two-thirds of undergraduate borrowers) participated in both programs.

In 2017-18, public two-year college students, who made up 32% of full-time equivalent (FTE) undergraduate enrollment, received 33% of Pell Grant funds. Students in this sector received less than their proportionate share of funds from all other federal student aid programs.

In 2017-18, students in the private nonprofit sector accounted for 19% of undergraduate and 22% of total FTE enrollment. They received 68% of Grad PLUS, 45% of Perkins loans, and 42% of 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. The authority for schools to make new Perkins loans ended on Sept. 30, 2017, and final disbursements were permitted through June 30, 2018.
- The number of students receiving FWS funds declined from 744,000 in 1998 to 678,000 in 2008-09 and to 613,000 in 2018-19. (Table 5 online)
- In 2012-13, 41% of Post-9/11 GI Bill veterans’ benefits went to students in the for-profit sector (U.S.Senate HELP Committee, 2014, “Is the New G.I. Bill Working?”). In 2017, Congress passed legislation known as the “Forever GI Bill,” increasing the generosity of education benefits for veterans.

Distribution of Fall 2017 Enrollment by Sector

<table>
<thead>
<tr>
<th>Type of Aid</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE Undergraduate</td>
<td>32%</td>
</tr>
<tr>
<td>All FTE Students</td>
<td>27%</td>
</tr>
<tr>
<td>Public Two-Year</td>
<td>32%</td>
</tr>
<tr>
<td>Public Four-Year</td>
<td>43%</td>
</tr>
<tr>
<td>Private Nonprofit Four-Year</td>
<td>19%</td>
</tr>
<tr>
<td>For-Profit</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: NCES, IPEDS Enrollment data.
For detailed data behind the graphs and additional information, please visit: research.collegeboard.org/trends.

Federal Loans: Annual Borrowing

After a decade of rapid growth in annual borrowing, total federal loans to undergraduate students declined by 22% ($15.6 billion in 2018 dollars) between 2013-14 and 2018-19; federal loans to graduate students rose by 2% ($620 million).

- The share of federal education loans going to graduate students (who constitute about 15% of all postsecondary students) rose from 32% ($21.1 billion out of $65.6 billion in 2018 dollars) in 2003-04 to 42% ($38.8 billion out of $93.1 billion) in 2018-19.
- In 2018-19, undergraduates taking subsidized and/or unsubsidized loans borrowed an average of $6,660—$1,110 less (in 2018 dollars) than a decade earlier and $660 less than in 2013-14.
- The number of parents borrowing parent PLUS loans in 2018-19 was 12% of the number of undergraduates taking subsidized and unsubsidized Direct loans (749,000 vs. 6.2 million). However, the average parent loan was $17,220, 2.6 times as much as the average undergraduate student loan.
- In 2018-19, 422,000 graduate students borrowed through the grad PLUS program; 1.4 million borrowed unsubsidized loans. The average amount borrowed through the PLUS program was $6,700 higher than the average unsubsidized loan ($25,950 vs. $19,250).

ALSO IMPORTANT:
- The aggregate federal student loan limit for dependent undergraduate students is $31,000. 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.

SOURCE: Trends in Student Aid website (research.collegeboard.org/trends), Table 6.
Federal Loans: Borrowing and Balances

As of March 2019, 43% of the outstanding federal education loan debt was held by the 10% of borrowers owing $80,000 or more.

### FIGURE 10
Distribution of Borrowers and Debt by Outstanding Balance, Second Quarter of FY2019

<table>
<thead>
<tr>
<th>Outstanding Borrower Debt Balance</th>
<th>Percentage of Borrowers</th>
<th>Percentage of Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $5,000</td>
<td>1%</td>
<td>17%</td>
</tr>
<tr>
<td>$5,000 to $9,999</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>$10,000 to $19,999</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>$20,000 to $39,999</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>$40,000 to $59,999</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>$60,000 to $79,999</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>$80,000 to $99,999</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>$100,000 to $199,999</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td>$200,000 or More</td>
<td>2%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**NOTES:** Includes both loans made under the Federal Direct Loan Program (FDLP) and loans made under the Federal Family Education Loan (FFEL) Program, which ended in 2009-10. Data were as of March 31, 2019, the end of the second quarter of FY19.

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

### FIGURE 11
Percentage of Undergraduate Students Borrowing Federal Subsidized and Unsubsidized Student Loans, 2008-09, 2013-14, and 2018-19

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>No Direct Loans</th>
<th>Subsidized Only</th>
<th>Unsubsidized Only</th>
<th>Both Subsidized and Unsubsidized Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-19</td>
<td>72%</td>
<td>5%</td>
<td>5%</td>
<td>18%</td>
</tr>
<tr>
<td>2013-14</td>
<td>66%</td>
<td>6%</td>
<td>4%</td>
<td>24%</td>
</tr>
<tr>
<td>2008-09</td>
<td>69%</td>
<td>6%</td>
<td>5%</td>
<td>20%</td>
</tr>
</tbody>
</table>

**NOTES:** 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 2018-19 is estimated from NSC data. Percentages may not sum to 100 because of rounding.

**SOURCES:** NCES, IPEDS 12-month enrollment data; National Student Clearinghouse, Current Term Enrollment Estimates: Spring 2019; U.S. Department of Education, Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

### ALSO IMPORTANT:

- As of March 2019, 55% of borrowers owed less than $20,000. These borrowers held 14% of the outstanding federal debt.
- In 2018-19, 28% of undergraduate students borrowed Federal Direct student loans, down from 31% in 2008-09 and 34% in 2013-14.
- In 2018-19, 5% of undergraduate students borrowed subsidized loans only, 5% borrowed unsubsidized loans only, and 18% borrowed from both programs. In other words, about two-thirds of the 28% who borrowed Direct student loans took both subsidized and unsubsidized loans.
- 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 23% in 2001-02 to 38% in 2011-12. Since 2011-12, the share borrowing has declined each year, to 28% in 2018-19.
- Figure 11 shows that 28% of undergraduates took federal student loans in 2018-19. This percentage is lower than the share of students who graduate with debt for a number of reasons. Many students who borrow do not borrow every year. In 2015-16, among enrolled students who had borrowed at some point as undergraduates, 66% borrowed federal student loans. (NPSAS, 2016)
- Part-time students borrow at lower rates than full-time students. In 2015-16, about half of all full-time undergraduates borrowed federal student loans, compared with just 18% of those who were enrolled exclusively part time. (NPSAS, 2016)
Outstanding Federal Loans

Half of the debt owed by student loan borrowers in repayment is now in Income-Driven Repayment (IDR) plans that limit monthly payments to an affordable share of income.

In March 2019, 30% of borrowers in repayment on federal Direct loans were in IDR plans, up from 11% in 2013.

In March 2019, 18% of borrowers—and 12% of outstanding dollars—were in default. The average balance on defaulted loans was $19,800, compared with $30,700 for all outstanding loans.

Forbearance is a provision that temporarily suspends or reduces payment because of financial hardship. In March 2019, 7% of borrowers in repayment were in forbearance. Because their average debt was $45,000—significantly higher than the overall average debt—these borrowers held 10% of outstanding balances.

Also Important:

In March 2019, borrowers in IDR plans had higher average balances than those in other repayment plans—$59,200 vs. $25,000.

Many borrowers face administrative hurdles to enrolling in IDR plans and are moved, at least temporarily, into other repayment plans if they do not recertify their incomes on time in the prescribed manner. (B. Miller and M. Thompson, 2016, “Annual Paperwork Should Not Stand in the Way of Affordable Student-Loan Payments,” Center for American Progress)

Average Federal Loan Balance, Number of Borrowers, and Total Balance by Repayment Status, Second Quarter 2019

<table>
<thead>
<tr>
<th>Repayment Status</th>
<th>Average Balance (in Millions)</th>
<th>Number of Borrowers (in Millions)</th>
<th>Total Balance (in Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repayment</td>
<td>$36,500</td>
<td>19.4</td>
<td>$708.5</td>
</tr>
<tr>
<td>In-School</td>
<td>$19,700</td>
<td>7.0</td>
<td>$138.2</td>
</tr>
<tr>
<td>Deferment</td>
<td>$35,800</td>
<td>3.7</td>
<td>$132.4</td>
</tr>
<tr>
<td>Forbearance</td>
<td>$45,000</td>
<td>2.8</td>
<td>$126.0</td>
</tr>
<tr>
<td>Grace</td>
<td>$18,500</td>
<td>1.3</td>
<td>$24.0</td>
</tr>
<tr>
<td>Default</td>
<td>$19,800</td>
<td>7.5</td>
<td>$148.3</td>
</tr>
<tr>
<td>Other</td>
<td>$48,000</td>
<td>0.2</td>
<td>$9.6</td>
</tr>
<tr>
<td>Total</td>
<td>$30,700</td>
<td>41.9</td>
<td>$1,287.0</td>
</tr>
</tbody>
</table>

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

Notes:

- Data were as of the end of the second quarter (March 31) for FY2016 and FY2019 and the end of the third quarter (June 30) for FY2013. Includes Direct loan borrowers in repayment, deferment, and forbearance. 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.

- Includes both loans made under the Federal Direct and Federal Family Education Loan (FFEL) programs and held by the Department of Education. Excludes the $183 billion in outstanding FFEL loans not held by the federal government. The second quarter of FY2019 ended on March 31, 2019.

Source:

- U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio.
Federal Loans: Repayment Rates

The share of borrowers paying off at least one dollar of their loan principal within five years of entering repayment was lower for the 2010-11 and 2011-12 cohorts than for the 2006-07 and 2007-08 cohorts in all sectors.

- The declines in the overall five-year repayment rates were largest in the public two-year (54% to 43%) and for-profit (43% to 34%) sectors—the sectors that already had the lowest repayment rates.
- Two-thirds of public and private nonprofit four-year college students who entered repayment in 2010-11 and 2011-12 had paid down at least one dollar of their loan principal five years later. Only one-third of for-profit students had reduced their loan balances.
- Within each sector, completers have higher repayment rates than noncompleters. Completers from the for-profit sector have lower repayment rates than noncompleters from the public and private nonprofit four-year sectors.
- The lowest repayment rate was among noncompleters in the for-profit sector. This rate fell from 34% for the 2006-07 and 2007-08 cohorts to 26% for the four more recent cohorts. The highest five-year repayment rate was 85% for borrowers who completed degrees at public four-year institutions and entered repayment in 2006-07 and 2007-08.

**ALSO IMPORTANT:**

- Borrowers can be in good standing without paying down the principal owed. They may be enrolled in an Income-Driven Repayment (IDR) plan. Some may have no required payments, and for others, the required payments may be too small to cover the interest charged, leading to increases in the balance owed. In addition, borrowers may be in deferment or forbearance and not required to make payments in their current circumstances.

**NOTES:** The repayment rate is defined as the percentage of borrowers in each repayment cohort whose payments reduced the loan principal by at least one dollar after the specified number of years. Repayment status on each loan is attributed to the school for which the borrower took the loan. Therefore, a student can be counted in the repayment cohorts of more than one institution.

**SOURCES:** U.S. Department of Education, College Scorecard data; calculations by the authors.
Cumulative Debt: Bachelor’s Degree Recipients

Average cumulative student debt levels of bachelor’s degree recipients from public and private nonprofit four-year colleges and universities were stable between 2012-13 and 2017-18, after increasing rapidly over the previous five years.

In 2017-18, average debt per borrower among bachelor’s degree recipients in these two sectors was $29,000—a 1% ($300) increase from $28,700 (in 2018 dollars) in 2012-13.

In 2017-18, average debt per bachelor’s degree recipient, including both those who borrowed and those who did not, was $16,800 for the two sectors combined, 3% ($500) lower than in 2012-13.

Average debt per borrower at public four-year colleges increased by 1% ($200 in 2018 dollars) between 2012-13 and 2017-18, following a 21% ($4,600) increase over the previous five years. Average debt per graduate (including those who did not borrow) fell by 3% ($500) between 2012-13 and 2017-18, following a 28% ($3,500) increase between 2007-08 and 2012-13.

Average debt per borrower at private nonprofit colleges and universities increased by 2% ($800 in 2018 dollars) between 2012-13 and 2017-18, following a 13% ($3,700 in 2018 dollars) increase over the previous five years. Average debt per graduate fell by 2% ($500) between 2012-13 and 2017-18, following an 11% ($2,100) increase between 2007-08 and 2012-13.

The share of public four-year bachelor’s degree recipients graduating with debt rose from 53% in 2002-03 to 59% in 2012-13, but fell to 57% in 2017-18. The share of private nonprofit four-year bachelor’s degree recipients graduating with debt rose from 63% in 2002-03 to 65% in 2007-08, but fell to 61% over the following decade.

Also Important:

- Students who earn their bachelor’s degrees at for-profit institutions, not included in Figure 14, are more likely to borrow and accumulate higher average levels of debt than those who graduate from public and private nonprofit four-year colleges. (Trends in Student Aid 2018, Figure 16)
- Figure 14 includes 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.
Cumulative Debt by Family Income and Age: Bachelor’s Degree Recipients

Students from higher-income families are less likely than others to finance their bachelor’s degrees through borrowing. Across all income groups, about 10% of dependent students graduated with $40,000 or more in student debt in 2015-16, and about half of these students borrowed $50,000 or more.

Independent students are most likely to graduate with high levels of debt: 28% borrowed at least $40,000, including 17% who graduated with $50,000 or more in debt.

Only 2% of dependent students earned their bachelor’s degrees from for-profit institutions, compared with 17% of independent students. Dependent students from families with incomes of $120,000 or higher were most likely to have attended private nonprofit colleges.

Among the 60% of 2015-16 bachelor’s degree recipients who were age 23 or younger, 33% did not have education debt; 11% borrowed $40,000 or more.

About a quarter of those who graduated between the ages of 24 and 29 did not borrow; 27% of those who were between the ages of 24 and 29 and 35% of those who were 30 years of age or older borrowed $40,000 or more.

Over one-quarter of those who earned their bachelor’s degrees at age 30 or older attended for-profit institutions; 3% of those who earned their bachelor’s degrees at age 23 or younger were from this sector.

Also Important:

- Dependent students can borrow a lifetime maximum of $31,000 in Direct loans for undergraduate study. Independent students (and undergraduate students whose parents are not eligible for PLUS loans) can borrow up to $57,500.
- For 14% of 2015-16 bachelor’s degree recipients, total debt included private loans, which do not carry the same repayment protections as federal loans. (NPSAS, 2016).

Notes: Percentages on the vertical axis are shares of bachelor’s degree recipients in each dependency and income group in Figure 15A and shares of those in each age group in Figure 15B. Age was as of December 2015. Includes both federal and nonfederal borrowing for degree recipients who were U.S. citizens or permanent residents. Excludes parent PLUS loans. Includes students who transferred as well as students who received their degrees at for-profit and two-year institutions. Percentages may not sum to 100 because of rounding.

Sources: NCES, National Postsecondary Student Aid Study (NPSAS), 2016; calculations by the authors.
Cumulative Debt by Race/Ethnicity: Bachelor’s Degree Recipients

In 2015-16, 33% of black bachelor’s degree recipients accrued $40,000 or more in student debt, compared with 17% of white graduates, 13% of Hispanics, and 9% of Asians.

- Only 14% of black graduates did not borrow. Among white, Asian, and Hispanic bachelor’s degree recipients, 30% or more graduated without debt.
- The circumstances of black graduates differ from other racial groups in ways that may make them more likely to rely on student debt to fund their education. In 2015-16:
  - Black graduates were disproportionately represented in the for-profit sector, where debt levels were highest (Trends in Student Aid 2018, Figure 16). Eighteen percent of black graduates earned their degrees in the for-profit sector; 12% of Hispanic and 7% of Asian and white graduates earned their bachelor’s degrees in this sector.
  - On average, black graduates were older than members of other racial and ethnic groups and were more likely to be independent students and to have dependents of their own. Dependent black students came disproportionately from lower-income families. In addition, on average, the time between beginning postsecondary study and earning a bachelor’s degree was longer for black students than for others. As shown in Figures 15A and 15B, older and independent students tend to accumulate more debt. The same is true of those who take longer to complete their degrees.

Also Important:
- Because of small sample sizes in this survey, it is not possible to report separately on American Indian students or other small racial and ethnic groups.
- On average, black and Hispanic households have less wealth than those from other racial and ethnic groups. In 2014, when median net worth was $130,800 for white households and $156,500 for Asian households, it was $17,500 for Hispanic households and $9,600 for black households. (U.S. Census Bureau, Wealth and Asset Ownership, https://www.census.gov/data/tables/2014/demo/wealth/wealth-asset-ownership.html)
Undergraduate Debt: Parent PLUS Loans

The shares of 2015-16 dependent degree and certificate recipients graduating with parent PLUS loans ranged from 3% at public two-year colleges to 32% in the for-profit sector.

### FIGURE 17 Share of Dependent 2015-16 Graduates with Parent PLUS Loans, by Income

<table>
<thead>
<tr>
<th>Income Range</th>
<th>All Dependent Students</th>
<th>Public Two-Year (28%)</th>
<th>Public Four-Year (41%)</th>
<th>Private Nonprofit Four-Year (20%)</th>
<th>For-Profit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 to $9,999</td>
<td>2%</td>
<td>1%</td>
<td>6%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>$10,000 to $39,999</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>$40,000 or More</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**NOTES:** Percentages in parentheses on the vertical axis represent shares of dependent graduates in each sector and shares of dependent graduates in the sector in each family income group. Components may not sum to totals because of rounding.

**SOURCES:** NCES, NPSAS, 2016, calculations by the authors.

- In all sectors, families with incomes below $35,000 were least likely to have $40,000 or more in parent PLUS loans. Those with incomes of $70,000 or higher were most likely to have borrowed this much.
- The share of graduates whose parents had $40,000 or more in PLUS loans was 2% or less among all income groups at public two-year colleges and the lowest-income students at public four-year institutions. This share was between 8% and 13% among students from families with incomes of $35,000 or higher at private nonprofit and for-profit institutions.
- More than half of the lowest-income parent PLUS loan borrowers in the public four-year and for-profit sectors accrued less than $10,000 in PLUS loans over their undergraduate years. In the private nonprofit four-year sector, 31% of low-income borrowers had debt levels this low.

**ALSO IMPORTANT:**

- Overall, the parents of 15% of 2015-16 degree and certificate recipients had borrowed through the parent PLUS program.
- In contrast to the Direct Loan program for students, parent PLUS loan eligibility depends on financial standing; some parents are ineligible for federal parent PLUS loans because of adverse credit histories.
- Eligible parents can borrow up to their children's full cost of attendance (including books and supplies and living expenses in addition to tuition and fees) less grant aid received for as long as their children are dependent undergraduate students.
- Like the interest rates on federal student loans, interest rates for new PLUS loans change each year and are fixed for the life of the loan. For loans issued in 2019-20, the interest rate on Direct Subsidized and Unsubsidized loans for undergraduate students is 4.53% (U.S. Department of Education, Federal Student Aid: https://studentaid.ed.gov/sa/types/loans/interest-rates#rates).
Grant Aid: Meeting Need—Public Institutions

In 2015-16, 78% of full-time students at public four-year colleges and universities had need remaining after grant aid, averaging $14,400; 12% received grant aid averaging $6,170 beyond their documented financial need. The remaining students either had no need and received no grants or had their need exactly met by grant aid.

In 2015-16, 82% of full-time students at public two-year colleges had need averaging $9,760 not met by grant aid; 8% of students received grant aid averaging $3,600 beyond their documented financial need.

Both the share of students with need remaining after grant aid and the average amount of this remaining need were highest for lower-income dependent students and independent students.

At public four-year institutions, 96% of full-time dependent students from families with incomes below $70,000 had financial need averaging about $14,800 that had to be met through loans, work, or other sources; 42% of those from families with incomes of $200,000 or more received grant aid averaging $7,860 in excess of their documented financial need.

At both two-year and four-year public institutions, fewer than 5% of dependent students from families with incomes below $70,000 and of independent students received grant aid that more than covered their financial need.

ALSO IMPORTANT:

- Financial need is defined as the difference between students’ total budgets (including tuition and fees, room and board, books and supplies, transportation, and other expenses) and their EFCs.
- Unmet need is usually defined as need remaining after grant aid, federal loans, and federal work-study—a smaller amount than the need remaining after grant aid reported in Figure 18.

Distribution of Full-Time Students, 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Public Four-Year</th>
<th>Public Two-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Students</td>
<td>17%</td>
<td>34%</td>
</tr>
<tr>
<td>Dependent Students</td>
<td>83%</td>
<td>66%</td>
</tr>
<tr>
<td>Less than $35,000</td>
<td>26%</td>
<td>35%</td>
</tr>
<tr>
<td>$35,000 to $69,999</td>
<td>21%</td>
<td>29%</td>
</tr>
<tr>
<td>$70,000 to $119,999</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>$120,000 or More</td>
<td>28%</td>
<td>12%</td>
</tr>
<tr>
<td>$120,000 to $199,999</td>
<td>19%</td>
<td>—</td>
</tr>
<tr>
<td>$200,000 or More</td>
<td>9%</td>
<td>—</td>
</tr>
</tbody>
</table>

NOTES: Percentages on the horizontal axis are shares of students in each income/dependency group with unmet need or with grant aid exceeding need. Students who had no need and received no grant aid or received just enough grant aid to cover their need are not shown in the figure. Includes full-time undergraduate students who were U.S. citizens or permanent residents. N/A and missing bars indicate that sample sizes are too small to yield reliable results.

SOURCES: NCES, NPSAS, 2016; calculations by the authors.

For detailed data behind the graphs and additional information, please visit: research.collegeboard.org/trends.
In 2015-16, almost all full-time dependent students from families with incomes below $70,000 at private nonprofit and for-profit institutions had need remaining after grant aid. That need averaged about $20,000 at nonprofit and $28,000 at for-profit institutions.

- In 2015-16, 80% of full-time students at private nonprofit four-year institutions had need averaging $20,770 not met by grant aid; 16% of students received grant aid averaging $13,490 beyond their documented financial need. The remaining students either had no need and received no grants or had their need exactly met by grant aid.

- Only 2% of full-time students at for-profit institutions received grant aid exceeding their documented need; for 97%, the combination of grant aid and expected family contributions left an average of $25,850 in expenses to be covered by loans, work, or other sources.

- In 2015-16, 61% of full-time dependent students with family incomes of $200,000 or higher at private nonprofit four-year institutions received an average of $15,370 more than their documented financial need in grant aid; 24% of students from this income group had an average of $15,890 in need remaining after grant aid.

- One-third of full-time dependent students with family incomes between $120,000 and $199,999 at private nonprofit four-year institutions received an average of $12,900 more than their documented financial need in grant aid; 66% of students from this income group had an average of $19,170 in need remaining after grant aid.

**Also Important:**

- Unmet need is usually defined as need remaining after grant aid, federal loans, and federal work-study—a smaller amount than the need remaining after grant aid reported in Figure 19.

### Distribution of Full-Time Students, 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Private Nonprofit Four-Year</th>
<th>For-Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Students</td>
<td>20%</td>
<td>75%</td>
</tr>
<tr>
<td>Dependent Students</td>
<td>80%</td>
<td>25%</td>
</tr>
<tr>
<td>Dependent Students:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents’ Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $35,000</td>
<td>19%</td>
<td>49%</td>
</tr>
<tr>
<td>$35,000 to $69,999</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>$70,000 to $119,999</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>$120,000 or More</td>
<td>38%</td>
<td>9%</td>
</tr>
<tr>
<td>$120,000 to $199,999</td>
<td>23%</td>
<td>—</td>
</tr>
<tr>
<td>$200,000 or More</td>
<td>15%</td>
<td>—</td>
</tr>
</tbody>
</table>

**Notes:** Percentages on the horizontal axis are shares of students in each income/dependency group with unmet need or with grant aid exceeding need. Includes full-time undergraduate students who were U.S. citizens or permanent residents. N/A and missing bars indicate that sample sizes are too small to yield reliable results.

**Sources:** NCES, NPSAS, 2016; calculations by the authors.
Pell Grants

The share of undergraduate students receiving Pell Grants rose from 26% in 2008-09 to a peak of 38% in 2011-12. It then declined steadily to 31% in 2018-19.

- The number of undergraduates declined by 2.9 million (12%) between 2011-12 and 2018-19. The number of Pell Grant recipients declined by 2.7 million (28%) over these seven years.
- Total Pell Grant expenditures were 35% higher in 2018-19 than in 2008-09 ($28.2 billion vs. $21.0 billion in 2018 dollars). The number of Pell Grant recipients was 10% higher (6.8 million vs. 6.2 million) in 2018-19 than in 2008-09.
- The percentage of Pell Grant recipients who are independent students, with eligibility determined by their own financial circumstances rather than those of their parents, increased from 37% in 1978-79 to 55% in 1998-99. This percentage declined from 59% in 2008-09 and 2012-13 to 48% in 2017-18.

**ALSO IMPORTANT:**
- Changes in Pell Grant expenditures result from changes in the legislated maximum grant, the formula for determining expected family contributions, the number of enrolled students, the share of students enrolling full time, and the financial circumstances of students and families.

### Percentage of Recipients Who Were Independent, 1978-79 to 2017-18, Selected Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Recipients Who Were Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978-79</td>
<td>37%</td>
</tr>
<tr>
<td>1988-89</td>
<td>58%</td>
</tr>
<tr>
<td>1998-99</td>
<td>55%</td>
</tr>
<tr>
<td>2008-09</td>
<td>59%</td>
</tr>
<tr>
<td>2013-14</td>
<td>56%</td>
</tr>
<tr>
<td>2014-15</td>
<td>55%</td>
</tr>
<tr>
<td>2015-16</td>
<td>53%</td>
</tr>
<tr>
<td>2016-17</td>
<td>51%</td>
</tr>
<tr>
<td>2017-18</td>
<td>48%</td>
</tr>
</tbody>
</table>

**SOURCES:** U.S. Department of Education, Federal Pell Grant Program End-of-Year Report, 1978-79 through 2017-18; 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 $6,095 maximum Pell Grant in 2018-19 was 32% higher in inflation-adjusted dollars than it was 20 years earlier, but it was 1% lower than it was 40 years earlier, in 1978-79.

The maximum Pell Grant is the most frequently cited measure of per-student subsidies 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 2018-19, when the maximum Pell Grant was $6,095, the average grant was $4,160.

In 2019-20, the maximum Pell Grant covers 59% of average published tuition and fees and 28% of average tuition, fees, room, and board at public four-year colleges and universities.

In 2019-20, the maximum Pell Grant covers 17% of average published tuition and fees and 12% of average tuition, fees, room, and board at private nonprofit four-year colleges and universities.

**Also Important:**

- In 2017-18, 30% of recipients received the maximum grant of $5,920. (U.S. Department of Education, Federal Pell Grant Program End-of-Year Report 2017-18, Table 3A)

- Between 2009-10 and 2019-20, published tuition and fees increased by 2.2% per year at public four-year institutions and by 1.9% at private nonprofit institutions, while the maximum Pell Grant fell by 0.3% per year after adjusting for inflation.

### Maximum Pell Grant as a Percentage of Published Prices in 2019 Dollars, 1999-00 to 2019-20, Selected Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Four-Year In-State</th>
<th>Private Nonprofit Four-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tuition and Fees</td>
<td>Tuition and Fees and Room and Board</td>
</tr>
<tr>
<td></td>
<td>Tuition and Fees</td>
<td>Tuition and Fees and Room and Board</td>
</tr>
<tr>
<td>99-00</td>
<td>93%</td>
<td>39%</td>
</tr>
<tr>
<td>04-05</td>
<td>79%</td>
<td>36%</td>
</tr>
<tr>
<td>09-10</td>
<td>76%</td>
<td>35%</td>
</tr>
<tr>
<td>14-15</td>
<td>63%</td>
<td>30%</td>
</tr>
<tr>
<td>19-20</td>
<td>59%</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Sources:**


- College Board, Trends in College Pricing 2019, Table 2 online; U.S. Department of Education, Federal Student Aid Data Center.
Pell Grants

The share of dependent Pell Grant recipients from families with incomes below $30,000 (in 2014 dollars) rose from 50% in 2007-08 to 58% in 2015-16. The share of Pell dollars going to this group rose from 60% to 66%.

**FIGURE 22A** Distribution of Pell Grant Recipients and Dollars by Dependency Status and Income, Selected Years

![Bar chart showing distribution of Pell Grant recipients and dollars by dependency status and income for selected years 2007-08, 2011-12, and 2015-16.]

**NOTE:** Income levels are in 2014 dollars; Pell eligibility for 2015-16 was based on 2014 income.


- In 2007-08, the 15% of dependent Pell Grant recipients from families with incomes above $50,000 received 8% of Pell funds; in 2015-16, the 14% of recipients with incomes this high received 8% of Pell funds.

- The share of Pell Grant recipients who were independent students fell from 58% in 2007-08 and 59% in 2011-12 to 53% in 2015-16. The share of Pell funds going to independent students was 55% in 2007-08, 56% in 2011-12, and 49% in 2015-16.

- Between 1987-88 and 2017-18, the share of Pell Grant recipients who were age 19 or younger fluctuated between 19% and 24%. The share over the age of 30 rose from 19% to 24% between 1987-88 and 2012-13, but fell to 19% in 2017-18.

**FIGURE 22B** Distribution of Pell Grant Recipients by Age, Selected Years

![Bar chart showing distribution of Pell Grant recipients by age for selected years 2017-18, 2012-13, 2007-08, 1997-98, and 1987-88.]


**ALSO IMPORTANT:**

- In 2007-08, 68% of dependent students from families with incomes below $30,000 (in 2014 dollars), 48% of those from families with incomes between $40,000 and $50,000 and 2% of those from families with incomes of $60,000 or higher received Pell Grants. (NPSAS, 2008).
State Grants

Total state grant aid per full-time equivalent (FTE) undergraduate student rose 7%, from $830 (in 2017 dollars) in 2016-17 to $890 in 2017-18. Non-need-based aid rose more rapidly than need-based aid.

FIGURE 23A  Need-Based and Non-Need-Based State Grants per Full-Time Equivalent (FTE) Undergraduate Student in 2017 Dollars, 1977-78 to 2017-18

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

SOURCES: National Association of State Student Grant and Aid Programs (NASSGAP) Annual Survey, 1977-78 to 2017-18, Tables 1 and 12.

FIGURE 23B  Need-Based State Grant Aid as a Percentage of Total Undergraduate State Grant Aid by State, 2017-18

NOTES: 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. New Hampshire did not award state grant aid to undergraduate students in 2017-18.

SOURCE: NASSGAP Annual Survey, 2017-18, Table 1.

■ The share of state grant aid that was need-based rose from a low of 71% in 2010-11 to 76% in 2016-17. Between 2016-17 and 2017-18, need-based aid per FTE undergraduate rose 5%, from $634 (in 2017 dollars) to $667; non-need-based aid rose 11%, from $196 to $218 per student.

■ In 2017-18, 27 states considered students’ financial circumstances in allocating at least 95% of their state grant aid. Thirteen states considered students’ financial circumstances when awarding less than half of their state grant aid.

ALSO IMPORTANT:

■ Total spending on state grant aid increased from $9.3 billion (in 2017 dollars) in 2007-08 to $10.0 billion in 2012-13 and to $11.7 billion in 2017-18. (NASSGAP Annual Survey, 2007-08, 2012-13, and 2017-18)
State Grants

In 2017-18, state grant aid per full-time equivalent (FTE) undergraduate student ranged from under $200 in nine states to over $1,000 in 12 states.

**FIGURE 24A** State Grant Aid per Full-Time Equivalent (FTE) Undergraduate Student, 2017-18

- South Carolina, with the highest grant aid per FTE undergraduate student, considered the financial circumstances of recipients for only 17% of state grant funds in 2017-18. Georgia, the second most generous state, allocates its grant funds without regard to students’ financial circumstances. (Figure 23B)
- Overall, state grant expenditures constituted 14% of total state support for higher education in 2017-18. Thirteen states devoted less than 5% of their higher education funding to grant aid for students; ten states directed at least 20% of their funding to individual students rather than to institutions.

**ALSO IMPORTANT:**
- In 2017-18, four states accounted for 41% of all state grant aid dollars, with California accounting for 18% of the total.
- Some state-funded grant aid is in the form of “tuition set-aside” programs through which a portion of tuition revenues at public institutions—or of increases in tuition—is dedicated to grant aid. Some of these funds are included in reported state grant aid, but others are not. Tuition remission dollars, not always reported as state grant aid, are sizable in several states.
In 2015-16, full-time dependents from families with incomes below $35,000 at private nonprofit doctoral universities received almost twice as much institutional aid as those from families with incomes of $120,000 or more. At master’s universities, the two groups received similar amounts of institutional aid.

**FIGURE 25A** Average Need-Based and Non-Need-Based Institutional Grant Aid at Private Nonprofit Four-Year Institutions by Dependency Status and Family Income, 2015-16

![Graph showing institutional grant aid by dependency status and family income.]

**FIGURE 25B** Average Need-Based and Non-Need-Based Institutional Grant Aid at Public Four-Year Institutions by State Residency, Dependency Status, and Family Income, 2015-16

![Graph showing institutional grant aid by state residency, dependency status, and family income.]

At private nonprofit institutions, the share of institutional grant aid that is need-based is highest at doctoral and lowest at master’s universities.

In 2015-16, the average published tuition and fee price was $12,190 higher for out-of-state than for in-state dependent students ($22,460 vs. $10,270); the difference in institutional grant aid ($5,380 vs. $1,930) narrowed this gap by $3,450.

Full-time out-of-state students at public four-year institutions were less likely to be independent than in-state students (11% vs. 18%). Out-of-state dependent students were more likely to be from families with incomes of $120,000 or higher than in-state students (44% vs. 25%).

**ALSO IMPORTANT:**

- About three-quarters of full-time undergraduates at private nonprofit doctoral, master's, and bachelor's institutions received institutional grant aid in 2015-16.
- In 2015-16, 39% of full-time in-state and 54% of out-of-state students at public four-year colleges and universities received institutional grant aid.

**Share of Tuition and Fees Covered by Institutional Grant Aid, 2015-16**

<table>
<thead>
<tr>
<th>Private Nonprofit Four-Year</th>
<th>Public Four-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent</strong></td>
<td><strong>Doctoral</strong></td>
</tr>
<tr>
<td><strong>$0 to $35,000</strong></td>
<td>21%</td>
</tr>
<tr>
<td><strong>$35,000 to $69,999</strong></td>
<td>44%</td>
</tr>
<tr>
<td><strong>$70,000 to $119,999</strong></td>
<td>62%</td>
</tr>
<tr>
<td><strong>$120,000 or More</strong></td>
<td>30%</td>
</tr>
</tbody>
</table>

**NOTES:** Includes full-time students attending one institution in 2015-16. Percentages in parentheses are shares of undergraduate students in each group. Averages include students who did not receive institutional grants. Does not include federal, state or other grant aid.

**SOURCES:** NCES, NPSAS, 2016; calculations by the authors.
Education Tax Benefits

In 2018-19, federal education tax credits reduced individual income taxes students and parents paid by an estimated $16.3 billion.

The tuition tax credits provide the largest federal tax-based subsidy to students and families, but other provisions including the deduction for interest on student loans and the exemption of earnings on designated college savings accounts also reduce taxes for filers paying for college.

Prior to the 2017 tax changes that eliminated the personal exemption, parents were allowed to claim their children ages 19 to 23 as dependents if they were full-time students, reducing tax payments and revenues by over $4 billion a year.

Tax filers with adjusted gross income below $50,000 represented 41% of the filers claiming the deduction for student loan interest in 2016; these filers received 29% of the tax savings from this provision. The relationship was the opposite for the deduction’s wealthiest recipients, with those earning more than $100,000 representing 20% of filers claiming the deduction, but 28% of tax savings because the income excluded from taxation would have been subject to a higher tax rate.

ALSO IMPORTANT:

- Qualified Tuition Programs are 529 savings plans that accumulate earnings on a tax-deferred basis. Withdrawals are not subject to federal taxation if used for qualified higher education expenses, which include some room and board expenses, books, supplies, computers, and up to $10,000 annually in K–12 tuition, in addition to college tuition and fees. As of June 30, 2018, 13.6 million 529 accounts held total assets of $329 billion—averaging $24,200. (College Savings Plan Network, 529 Plan Data, 2018)

- Taxpayers may claim a deduction of up to $2,500 on interest paid on education loans. The maximum deduction is phased out for taxpayers with AGI between $135,000 and $165,000 if married filing jointly ($65,000 and $80,000 for other taxpayers). The value of the deduction depends on the filer’s marginal tax rate.

NOTES: The federal government produces multiple estimates of tax expenditures using different methodologies. Estimates are projections of the future cost to the federal budget of specific tax code provisions. Estimates of tax credits and deductions are not strictly comparable to those in Table 1, which are based on Statistics of Income reports from the IRS through 2017 and estimated for later 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 2018-19 data (released in September 2019) using the average of the percentage change between July 2016 and July 2017 in the reported 2015-16 loan volume, the percentage change between July 2017 and July 2018 in the reported 2016-17 loan volume, and the percentage change between July 2018 and July 2019 in the reported 2017-18 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: 2016-17 and prior: IPEDS Finance data. Estimated for 2017-18 and 2018-19. 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 MeasureOne. 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 NPSAS. Estimates of institutional lending 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 changes in MeasureOne’s methodology and data availability issues.


Private and Employer Grants: Estimates are based on data included in NPSAS and on National Scholarship Providers Association surveys of major private student grant providers, supplemented by information from annual reports of selected scholarship providers, data from institutional financial aid offices, and College Board’s Annual Survey of Colleges.

State Grant Programs: 20th through 49th Annual Survey Reports of the National Association of State Student Grant and Aid Programs (NASSGAP) for 1988-89 to 2017-18 and estimated for 2018-19.

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.
Trends in Student Aid was authored by Sandy Baum, nonresident senior fellow at the Urban Institute; Jennifer Ma, senior policy research scientist at College Board; Matea Pender, policy research scientist at College Board; and CJ Libassi, senior policy research analyst at College Board.

CONTACT INFORMATION FOR THE AUTHORS
sandybaum73@gmail.com
trends@collegeboard.org

Trends in Student Aid and its companion report, Trends in College Pricing, are supplemented by a website that makes detailed data available for reference and downloading. The PDF versions of these reports, along with PowerPoint slides of all the graphs, are available on the web: research.collegeboard.org/trends.

Hard copies may be requested by contacting trends@collegeboard.org.

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