

Trends in Higher Education Series

Trends in Student Aid **2017**





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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.

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Highlights

Postsecondary students received \$125.4 billion in grant aid to help pay for undergraduate and graduate education in 2016-17—74% more (in inflation-adjusted dollars) than a decade earlier. Even with an 11% increase in full-time equivalent (FTE) enrollment over 10 years, the \$8,440 in grant aid per undergraduate was 61% higher and the \$9,290 per graduate student was 39% higher than a decade earlier. (Table 3, Figure 1)

The sources of the grant aid supporting students have changed over time. In 2006-07, 43% of all grant aid came from the colleges and universities in which students enrolled and 28% came from the federal government. With the sharp increase in federal grants during the Great Recession, the federal share peaked at 44% in 2010-11, and the institutional share fell to 35%. But since then, institutional grant aid has increased rapidly, as both enrollment and federal grant aid have declined. In 2016-17, institutions provided 47% of all grant aid to postsecondary students. The impact of this \$58.7 billion tuition discount is best understood in the context of the increases in published prices reported in *Trends in College Pricing 2017*.

Trends in Student Aid 2017 reveals a continuing decline in annual education borrowing, which fell (in inflation-adjusted dollars) in 2016-17 for the sixth consecutive year. Federal education loans per FTE undergraduate student followed the same pattern, but the average amount borrowed by graduate students increased for the second year in a row—to \$17,710, almost four times as high as the \$4,620 in federal loans per undergraduate student. (Figure 1)

TYPES OF STUDENT AID

In 2016-17, undergraduate students received an average of \$14,400 per FTE student in financial aid: \$8,440 in grants, \$4,620 in federal loans, \$1,280 in education tax credits and deductions, and \$60 in Federal Work-Study (FWS). (Figure 1, Table 3)

- Graduate students received an average of \$27,950 per FTE student in financial aid: \$9,290 in grants, \$17,710 in federal loans, \$860 in tax credits and deductions, and \$90 in FWS. (Figure 1, Table 3)
- Undergraduate and graduate students received \$239.1 billion in grants from all sources, FWS, federal loans, and federal tax credits and deductions. In addition, students borrowed about \$12 billion from nonfederal sources. (Table 1)
- Total federal grant aid doubled in inflation-adjusted dollars between 2006-07 and 2016-17. Pell Grants increased by 75% but fell from 76% to 66% of federal grants; veterans' benefits, which rose by 300%, grew from 16% of federal grants in 2006-07 to 32% in 2016-17. (Table 1)
- Federal loans to undergraduates increased by 23% between 2006-07 and 2016-17, rising by 61% over the first five years, but declining by 23% between 2011-12 and 2016-17. (Table 1A)
- FWS and Federal Supplemental Educational Opportunity Grants (FSEOG) combined provided \$1.5 billion in 2016-17—1% of total aid to undergraduate students. (Table 1A)

SOURCES OF GRANT AID

Grant aid per FTE undergraduate student increased by \$1,020 (14%) in 2016 dollars between 2011-12 and 2016-17, after rising by \$2,180 (42%) over the preceding five years. (Figure 1)

- Grant aid per FTE graduate student increased by \$1,730 (23%) in 2016 dollars between 2011-12 and 2016-17, after rising by \$870 (13%) over the preceding five years. (Figure 1)
 - Almost all of the growth in grant aid between 2006-07 and 2016-17 was in the first half of the decade as FTE postsecondary enrollment increased by 18%. From 2011-12 to 2016-17, enrollment fell by 7% and grant aid increased by 8%, to \$125.4 billion. (Table 3, Figure 3)
 - States provided grant aid averaging \$790 per FTE undergraduate in 2015-16, \$60 (in 2015 dollars) more than a decade earlier. State grant aid per student ranged from under \$200 in 10 states to over \$1,000 in 14 states. (Figures 19A and 20A)
 - Only institutional grant aid grew rapidly between 2011-12 and 2016-17. Colleges and universities increased their aid by 32%, from \$44.4 billion (in 2016 dollars) in 2011-12 to \$58.7 billion in 2016-17. Over these five years, federal grant aid declined by 15%, and grant aid from states and from employers and other private sources rose by less than 10%. (Figure 3)
 - Between 2009-10 and 2014-15, the increase in average institutional grant aid for first-time full-time students at private nonprofit master's universities more than covered the increase in tuition and fees. Increases in grants covered 71% of the price increase at private doctoral and 97% at bachelor's institutions. (Figure 21)
 - The increase in average institutional grant aid from 2009-10 to 2014-15 covered 70% of the increase in tuition and fees at public doctoral and 52% at master's institutions. (Figure 21)
 - First-time full-time students at all types of private nonprofit four-year colleges and universities received more than 80% of their grant aid from their institutions in 2014-15. (Figure 14)
 - In 2014-15, 73% of first-time full-time undergraduates at private nonprofit doctoral universities, 92% at master's universities, and 84% at bachelor's colleges received institutional grant aid. In the public four-year sector, these percentages were 53% at doctoral universities, 45% at master's institutions, and 38% at bachelor's colleges. (Figure 21)
- ## PELL GRANTS
- Pell Grant expenditures rose from \$15.2 billion (in 2016 dollars) in 2006-07 to \$35.8 billion in 2011-12, but declined to \$26.6 billion by 2016-17.**
- The number of Pell Grant recipients fell in 2016-17 for the fifth consecutive year, but the 7.1 million recipients represented a 38% increase from 5.2 million in 2006-07. (Figure 15B)
 - The number of undergraduate students rose by 1.2 million between 2006-07 and 2016-17. The number of Pell Grant recipients increased by 1.9 million; 32% of undergraduates received Pell Grants in 2016-17. (Figure 15A)

- The average Pell Grant per recipient was \$2,420 (in 2016 dollars) in 1996-97. It increased to \$2,930 in 2006-07, peaked at \$4,230 in 2010-11, and fell to \$3,740 in 2016-17. (Figure 16)
- The maximum Pell Grant covered 59% of average public four-year tuition and fees and 17% at private nonprofit four-year institutions in 2017-18. (Figure 17)

DISTRIBUTION OF STUDENT AID

In 2015-16, 47% of Pell Grant recipients were dependent students. Seventy-three percent of this group came from families with incomes below \$40,000. (Figure 18B)

- In 2015-16, 21% of Pell Grant recipients were over the age of 30. (Figure 18A)
- The share of the savings from education tax credits and deductions going to households with adjusted gross income (AGI) below \$25,000 rose from 15% in 2004 to 24% in 2014. The share going to those with AGI over \$100,000 rose from 0% to 24%. (Figure 22A)
- In 1981-82 and before, virtually all state grant aid was based on students' financial circumstances. From 2004-05 to 2010-11, only 71% to 73% of state grant aid was need-based. In 2015-16, that percentage was 76%. (Figure 19A)
- In 2015-16, half of the states considered students' financial circumstances in awarding at least 95% of their state grants, but 16 states considered these circumstances when awarding less than half of their state aid. (Figure 19B)

STUDENT BORROWING

In 2016-17, annual education borrowing declined for the sixth consecutive year. Students and parents borrowed \$106.5 billion, down from \$125.6 billion (in 2016 dollars) in 2010-11. (Figure 4)

- Undergraduate students and parents borrowed 2% more (after adjusting for inflation) in 2016-17 than in 2006-07, but 18% less than in 2011-12. Graduate students borrowed 31% more in 2016-17 than in 2006-07, but 3% less than in 2011-12. (Tables 1A and 1B)
- The share of federal loans going to graduate students increased from 31% to 39% between 2001-02 and 2016-17. The percentage of FTE postsecondary students who were graduate students increased from 13% to 14% over these 15 years. (Figure 7A)
- Total annual borrowing of subsidized and unsubsidized loans from the Direct Loan program fell by 23% (\$21.7 billion in 2016 dollars) between 2011-12 and 2016-17, but was still 23% (\$13.2 billion) higher than in 2006-07. (Figure 4)

- In 2016-17, 30% of undergraduates borrowed an average of \$6,590 in subsidized and unsubsidized Direct Loans, a decline from 38% borrowing an average of \$6,660 in 2011-12, but an increase from 2006-07, when 29% of undergraduates borrowed an average of \$5,900. (Figures 9 and 7B)
- The number of parents borrowing PLUS Loans in 2016-17 was 12% of the number of undergraduates taking subsidized and unsubsidized Direct Loans, but the average parent loan was \$15,880, about 2.4 times as much as the average undergraduate student loan. Parents who took PLUS loans borrowed an average of 44% more in 2016-17 than in 2001-02. Average undergraduate student borrowing rose by 7% over these years. (Figure 7B)
- Borrowing through the Grad PLUS program rose by 21% between 2011-12 and 2016-17. (Figure 4)
- After increasing from \$33.7 billion in 2001-02 (in 2016 dollars) to \$45.7 billion in 2006-07, and to \$75.1 billion over the next five years, total annual federal borrowing by undergraduates and their parents declined to \$57.3 billion between 2011-12 and 2016-17. (Figure 7A)
- Nonfederal education loans fell from about \$24 billion (in 2016 dollars) in 2006-07 to \$9 billion in 2011-12, and rose to about \$12 billion in 2016-17. (Figure 4)


STUDENT DEBT

In 2017, 50% of the outstanding federal education loan debt is held by the 12% of borrowers owing \$60,000 or more. (Figure 8)



- In 2017, 57% percent of borrowers with outstanding federal education loan debt owe less than \$20,000. (Figure 8)
- In 2015-16, the 60% of bachelor's degree recipients from public and private nonprofit institutions who borrowed graduated with an average of \$28,400 in debt. Between 2010-11 and 2015-16, average debt among borrowers grew by \$2,500 (to \$27,000) at public four-year and by \$1,200 (to \$32,000) at private nonprofit colleges and universities. (Figure 12)
- In 2017, 28% of borrowers in repayment on federal Direct Loans were enrolled in plans that limit their monthly payments to an affordable percentage of their incomes. These borrowers held 48% of outstanding loan balances. (Figure 10A)
- Sixty percent of federal student loan borrowers entering repayment in 2010-11 and 2011-12 after earning a degree or certificate and 34% of noncompleters had paid down at least \$1 of loan principal after three years. Repayment rates ranged from 23% for independent students in the for-profit sector to 68% for dependent students in the private nonprofit sector. (Figure 11A)


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Additional figures on student debt and grant aid from the 2014 and 2015 reports are available online.

Introduction

Trends in Student Aid 2017 provides a detailed look at the sources and distribution of grants, loans, and other student aid for the most recent academic year and how this funding has changed over time. The federal government provided two-thirds of all student aid in 2016-17, but only one-third of the grant aid. In the context of uncertainty about the timing of the reauthorization of the Higher Education Act and the impact of federal budget changes on student aid, focusing on the evolving sources of grant aid and the distribution of that aid is critical to evaluating the effectiveness of the billions of dollars spent each year on making postsecondary education more accessible.

After increasing gradually in inflation-adjusted dollars from the mid-1990s through 2007-08, federal grant aid grew dramatically to a peak of \$52.2 billion (in 2016 dollars) in 2010-11. By 2016-17, it had fallen to \$40.2 billion, declining from 44% to 32% of all grant aid, but still a larger share than it was in 2006-07 at 28%. The institutional share of grant aid increased from 35% in 2010-11 to 47% in 2016-17, the largest share in at least 20 years. Grants from states, employers, and other private sources made up less of the total in 2016-17 than in 2006-07.

Institutional grant aid makes college more affordable for many students. But it represents a discount from the rising published tuition prices reported in *Trends in Student Aid's* companion publication, *Trends in College Pricing*. Together, the data in these reports provide a starting point for better understanding how much students are paying for college and how they are financing that investment.

At the same time that federal grants have declined as a share of all grant aid, the composition of federal grant aid has changed. Pell Grants declined from 75% of the total in 2010-11 to 66% in 2016-17; veterans' benefits increased from 21% to 32%. The recently enacted "Forever GI Bill" promises to reinforce this trend. In 2016-17, 7.1 million low-income recipients received Pell Grants averaging \$3,740; 793,000 students received an average of \$14,980 from the Post-9/11 GI Bill.

The data on loans reported in *Trends in Student Aid 2017* indicate that annual borrowing continues to decline, with federal education loans totaling \$94.9 billion in 2016-17, down from a peak of \$117.2 billion in 2010-11. Average federal borrowing for undergraduate students declined for the sixth consecutive year, but average federal loans per graduate student increased to \$17,710 per FTE student in 2016-17, compared with \$4,620 for undergraduates. The share of federal loans going to graduate students increased from 30% in 1996-97 to 35% in 2006-07 and to 39% in 2016-17. The impact of this borrowing, both in terms of increasing access to and success in higher education and in terms of affecting students' lives after they leave school, deserves the attention of policymakers and researchers, in addition to colleges and universities.

THE DISTRIBUTION OF STUDENT AID

The effectiveness of student aid in increasing educational opportunities depends to a great extent on how the funds are distributed to students in different financial circumstances. For students with limited resources, grant aid makes pursuing postsecondary education possible. For others, grant aid makes going to a particular institution or type of institution feasible. For the remaining students, aid is a pure subsidy, reducing the price of the educational paths they would take even without assistance.

In 2015-16, 47% of federal Pell Grant recipients were dependent students; almost three-quarters of these students came from families with incomes of \$40,000 or less, including 38% with family incomes of \$20,000 or less.

Unlike Pell Grants, federal tax credits and deductions, which now reach more than 13 million students at a total cost of about \$18 billion per year, are not targeted at low-income students. The shares of the benefits going to households at both the lower and upper ends of the income distribution have increased over time. In 2014, 24% of tax credits went to taxpayers with adjusted gross incomes between \$100,000 and \$180,000 and 24% went to those with incomes below \$25,000.

More than three-quarters of state grant dollars are allocated on the basis of financial need, but patterns vary considerably across states. Half of all states considered students' financial circumstances in allocating at least 95% of their state grant aid in 2015-16, while 16 states considered these circumstances for less than half of their aid. Monitoring the use of need-based and non-need-based grant aid by states and institutions is critical to ensuring the effectiveness of these funds in increasing educational opportunities and attainment.

THE STUDENT AID SYSTEM

Trends in Student Aid reports on a complex array of grant, loan, tax-based, and work programs that support postsecondary students. Grant aid and tax benefits lower the overall price of education for students and families, making the net price of college less than the published price. Education loans do not lower the price, but they do make it possible to spread payments out over time. The Federal Work-Study program is small relative to other federal programs: only 619,000 students benefited from the \$990 million federal allocation to this program in 2016-17. From the students' perspective, these dollars are compensation for their work, not financial assistance. Work-Study earnings frequently replace other earnings, but may increase the employment opportunities available for students.

Understanding how these forms of funding—grants, loans, tax benefits, and Work-Study aid—are distributed and how the distribution has changed over time is critical to understanding the effectiveness of the student aid system and evaluating potential changes.

The student aid system is continually evolving. Actions by Congress and the current administration may alter the amount, form, and distribution of available federal funds, as well as the institutions in which students enroll and where they use their federal aid. Monitoring impending policy changes is vital to the future of the federal funding available to support students' postsecondary pursuits, which totaled \$153.9 billion in 2016-17.

Similarly, state and institutional policies change over time. These sources provided \$10.6 billion and \$58.7 billion, respectively, in grant aid in 2016-17. If well designed and targeted, these funds can go a long way toward diminishing financial barriers to educational attainment.

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, which provides precise information about the volume of federal student aid disbursed. The figures for 2015-16 in *Trends in Student Aid 2017* are revisions of the numbers we published last year, based on the Department of Education's updated data. Next year we will revise the 2016-17 figures in accordance with their updates.

Some of the other figures reported here are less precise. For example, the latest data on federal tax credits and deductions are for calendar year 2015. We have developed a methodology to translate IRS data into estimates of the benefits of these policies 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 estimate of private grant aid on information from the 2012 National Postsecondary Student Aid Study and more recent information from the 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 trends.collegeboard.org. Please feel free to cite or reproduce the data in Trends for noncommercial purposes with proper attribution.

Total Student Aid

In 2016-17, undergraduate and graduate students received a total of \$239.1 billion in student aid in the form of grants from all sources, Federal Work-Study, federal loans, and federal tax credits and deductions.

TABLE 1 Total Student Aid and Nonfederal Loans in 2016 Dollars (in Millions), 2006-07 to 2016-17

	Academic Year										Preliminary 16-17	10-Year % Change	
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16			
Federal Aid													
Grants													
Pell Grants	\$15,157	\$16,956	\$20,011	\$33,515	\$39,381	\$35,763	\$33,676	\$32,427	\$30,935	\$28,797	\$26,562	\$26,562	75%
FSEOG	\$911	\$890	\$828	\$822	\$836	\$784	\$770	\$755	\$741	\$739	\$739	\$739	-19%
LEAP	\$76	\$75	\$70	\$70	\$67	—	—	—	—	—	—	—	—
Academic Competitiveness Grants	\$286	\$357	\$372	\$535	\$611	—	—	—	—	—	—	—	—
SMART Grants	\$242	\$237	\$219	\$401	\$478	—	—	—	—	—	—	—	—
Veterans and Military	\$3,225	\$3,278	\$3,763	\$8,650	\$10,851	\$10,710	\$12,255	\$12,368	\$12,479	\$12,733	\$12,900	\$12,900	300%
Total Federal Grants	\$19,898	\$21,792	\$25,262	\$43,994	\$52,224	\$47,257	\$46,701	\$45,550	\$44,154	\$42,269	\$40,201	\$40,201	102%
Loans													
Perkins Loans	\$1,914	\$1,598	\$1,052	\$914	\$946	\$1,010	\$1,061	\$1,207	\$1,172	\$1,054	\$1,054	\$1,054	-45%
Subsidized Stafford	\$29,580	\$33,617	\$36,134	\$42,542	\$44,828	\$43,219	\$29,201	\$27,241	\$24,911	\$23,145	\$21,715	\$21,715	-27%
Unsubsidized Stafford	\$28,793	\$31,643	\$44,225	\$52,038	\$52,080	\$50,018	\$59,341	\$56,995	\$53,261	\$51,141	\$49,852	\$49,852	73%
Parent PLUS	\$9,615	\$8,890	\$8,411	\$9,949	\$11,691	\$11,798	\$10,316	\$10,594	\$10,824	\$12,061	\$12,610	\$12,610	31%
Grad PLUS	\$2,472	\$3,557	\$4,733	\$6,352	\$7,682	\$7,967	\$7,987	\$8,353	\$8,433	\$8,913	\$9,630	\$9,630	290%
Total Federal Loans	\$72,374	\$79,305	\$94,555	\$111,794	\$117,227	\$114,013	\$107,906	\$104,389	\$98,601	\$96,314	\$94,862	\$94,862	31%
Federal Work-Study	\$1,152	\$1,125	\$1,066	\$1,087	\$1,075	\$1,036	\$1,014	\$1,010	\$991	\$990	\$990	\$990	-14%
Education Tax Benefits	\$8,850	\$8,910	\$13,530	\$21,010	\$23,710	\$21,480	\$19,350	\$19,010	\$18,150	\$17,860	\$17,860	\$17,860	102%
Total Federal Aid	\$102,274	\$111,132	\$134,413	\$177,885	\$194,236	\$183,785	\$174,971	\$169,959	\$161,897	\$157,432	\$153,912	\$153,912	50%
State Grants	\$8,719	\$9,123	\$9,211	\$9,756	\$10,051	\$9,854	\$9,865	\$10,096	\$10,419	\$10,596	\$10,596	\$10,596	22%
Institutional Grants	\$30,939	\$32,976	\$34,661	\$39,169	\$42,304	\$44,377	\$47,544	\$49,776	\$52,357	\$55,614	\$58,683	\$58,683	90%
Private and Employer Grants	\$12,350	\$13,310	\$13,600	\$13,900	\$14,670	\$15,010	\$15,170	\$15,250	\$15,320	\$15,680	\$15,940	\$15,940	29%
Total Federal, State, Institutional, and Other Aid	\$154,282	\$166,541	\$191,884	\$240,710	\$261,261	\$253,026	\$247,551	\$245,081	\$239,993	\$239,322	\$239,131	\$239,131	55%
Nonfederal Loans	\$23,900	\$25,800	\$12,700	\$9,100	\$8,400	\$8,700	\$9,600	\$9,900	\$10,300	\$11,000	\$11,600	\$11,600	-51%
Total Student Aid and Nonfederal Loans	\$178,182	\$192,341	\$204,584	\$249,810	\$269,661	\$261,726	\$257,151	\$254,981	\$250,293	\$250,322	\$250,731	\$250,731	41%

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. The latest available data for education tax benefits are for calendar year 2015. Later figures are estimates. 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. Components may not sum to totals because of rounding.

SOURCES: See page 30 for a list of sources for data included in Table 1.

- The federal government's share of total student aid increased from 66% in 2006-07 to 74% in 2010-11, but fell to 64% in 2016-17.
- Loans constituted 70% to 71% of federal student aid from 2006-07 through 2008-09. This share fell to 63% in 2009-10 and was between 60% and 62% from 2010-11 through 2016-17.
- The share of federal student aid in the form of grants increased from 19% in 2006-07 to 27% in 2010-11 and remained at 26% to 27% through 2016-17.
- Total federal grant aid doubled in inflation-adjusted dollars between 2006-07 and 2016-17. During this 10-year period, Pell Grants increased by 75% and veterans' benefits increased by 300%. Over the decade, Pell Grants fell from 76% to 66% as a share of federal grant aid and veterans' benefits increased from 16% to 32% of the total.

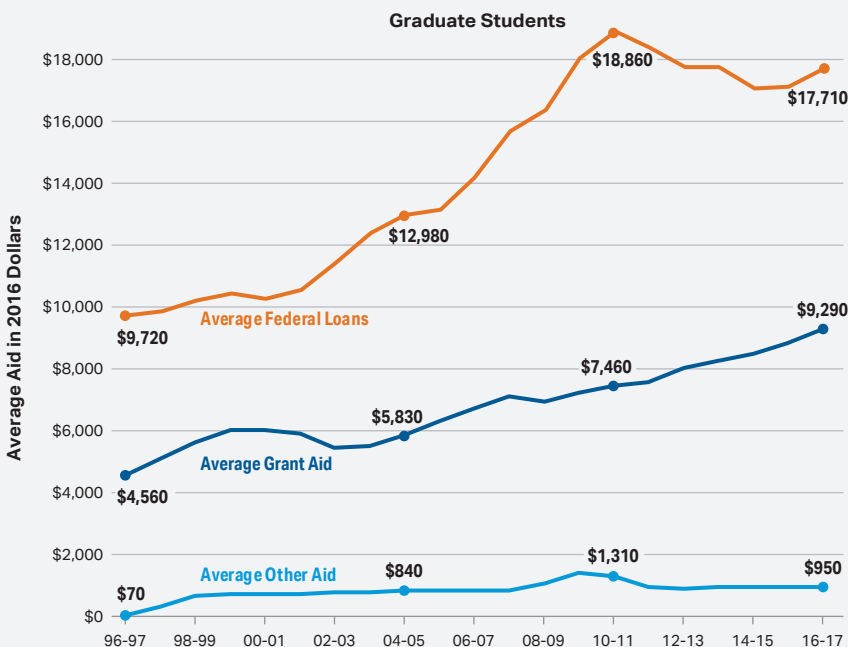
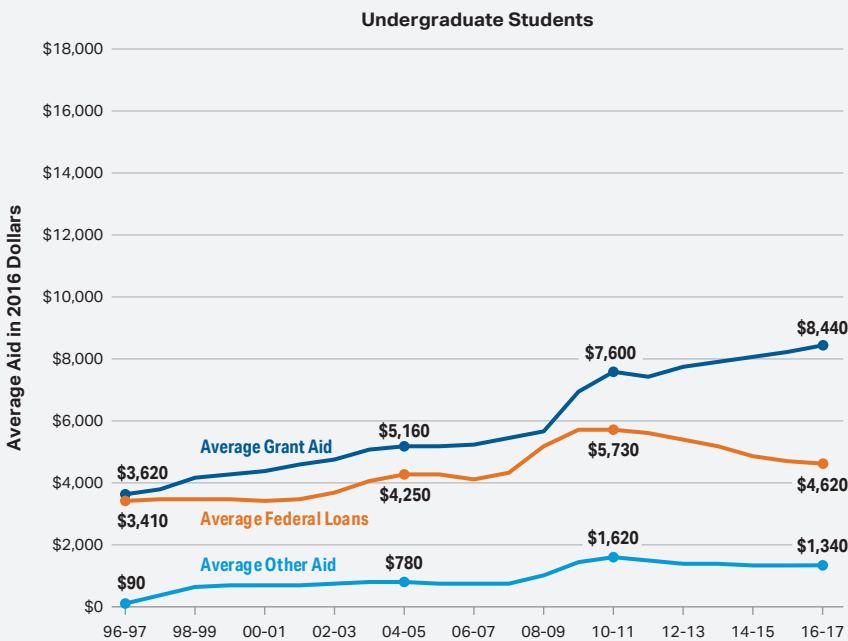
ALSO IMPORTANT:

- In 2016-17, undergraduate students received 76% (\$181.1 billion) of total student aid, including 97% of federal grants and 61% of federal loans. They received 85% of total grant aid from all sources and 64% of all loans, including nonfederal loans. The remainder of the aid funded graduate students. (Tables 1A and 1B online)

Aid per Student

In 2016-17, undergraduate students received an average of \$14,400 in aid per full-time equivalent (FTE) student, including \$8,440 in grants from all sources, \$4,620 in federal loans, and \$1,340 in a combination of tax credits and deductions and Federal Work-Study (FWS).

FIGURE 1 Average Aid per Full-Time Equivalent (FTE) Student in 2016 Dollars, 1996-97 to 2016-17



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. Dollar values are rounded to the nearest \$10.

SOURCE: *Trends in Student Aid* website (trends.collegeboard.org), Table 3.

- Federal loans per FTE undergraduate student peaked at \$5,730 (in 2016 dollars) in 2010-11, before declining for six consecutive years to \$4,620 in 2016-17.
- After a sharp increase from \$5,650 (in 2016 dollars) in 2008-09 to \$7,600 in 2010-11, grant aid per FTE undergraduate rose over the next six years to \$8,440 in 2016-17.
- In 2016-17, graduate students received an average of \$27,950 in aid per FTE student, including \$9,290 in grants from all sources, \$17,710 in federal loans, and \$950 in a combination of tax credits and deductions and FWS.
- Federal loans per FTE graduate student declined from \$18,860 (in 2016 dollars) in 2010-11 to \$17,020 in 2014-15, but rose in each of the next two years to \$17,710 in 2016-17.
- Grant aid per graduate student increased by \$1,830 (in 2016 dollars) between 2010-11 and 2016-17, primarily because of large increases in institutional grant aid. (Table 1B online)

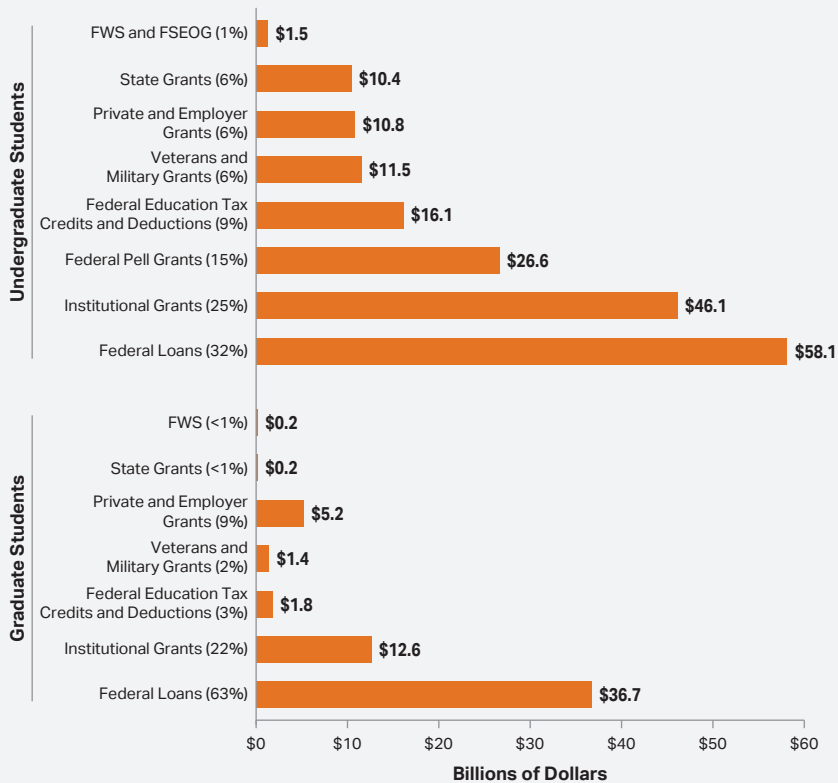
ALSO IMPORTANT:

- In 2016-17, 95% of the "Other Aid" for undergraduate students and 91% of the "Other Aid" for graduate students was from education tax credits and deductions. The remainder was from FWS.

Total Undergraduate and Graduate Student Aid by Type

In 2016-17, federal loans constituted 32% of all financial aid for undergraduates and 63% of the aid for graduate students.

FIGURE 2 Total Undergraduate and Graduate Student Aid by Source and Type (in Billions), 2016-17



- In 2016-17, institutions provided an estimated \$46.1 billion in grant aid to undergraduate students—25% of total undergraduate aid. Institutions provided \$12.6 billion in grant aid to graduate students—22% of total graduate student aid.
- In 2016-17, Federal Work-Study and Federal Supplemental Educational Opportunity Grants combined provided \$1.5 billion—1% of total aid to undergraduate students.

ALSO IMPORTANT:

- In fall 2015, 12.7 million (85%) of the 14.9 million full-time equivalent postsecondary students were undergraduates; 2.1 million (15%) were graduate students. (*Digest of Education Statistics 2016*, Table 303.60; calculations by the authors)
- In 2016-17, 73% of federal loans to graduate students were unsubsidized Direct Loans and 26% were Grad PLUS Loans. (Table 1B online)
- Some graduate students rely on assistantships provided by their universities that include stipends for living expenses. These stipends are not included in the \$12.6 billion of institutional grant aid in 2016-17.

NOTES: Percentages on the vertical axis represent each type of aid as a percentage of the total. Loans reported here include only federal loans to students and parents. Percentages may not sum to 100 because of rounding.

SOURCE: *Trends in Student Aid* website (trends.collegeboard.org), Tables 1A and 1B online.

Total Undergraduate and Graduate Student Aid by Source and Type in 2016 Dollars (in Millions), 1996-97 to 2016-17, Selected Years

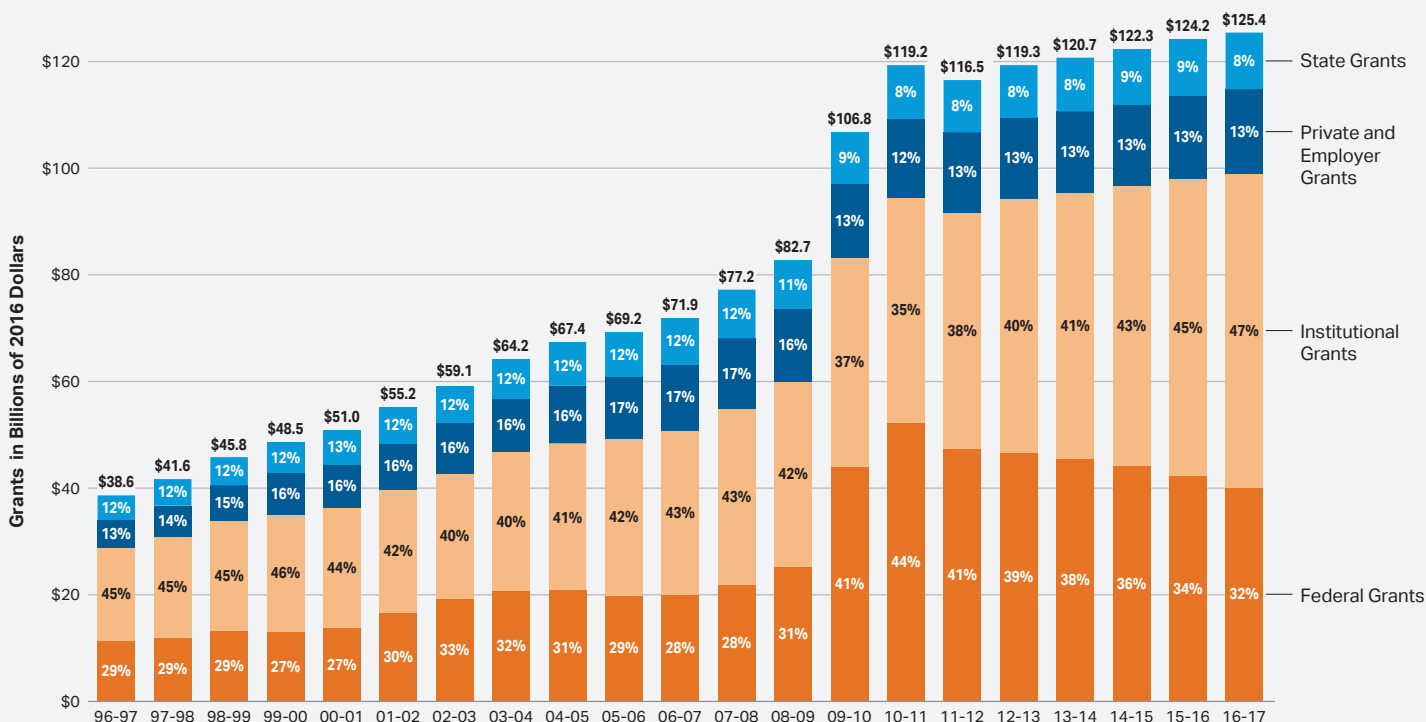
	Undergraduate Students					Graduate Students				
	1996-97	2006-07	2011-12	2015-16	Preliminary 2016-17	1996-97	2006-07	2011-12	2015-16	Preliminary 2016-17
Total Federal Grants	\$11,221	\$19,611	\$46,122	\$40,920	\$38,834	\$121	\$287	\$1,135	\$1,350	\$1,367
Total Federal Loans	\$30,574	\$47,143	\$75,941	\$60,373	\$58,128	\$13,118	\$25,231	\$38,071	\$35,941	\$36,734
Federal Work-Study	\$852	\$1,017	\$925	\$803	\$803	\$90	\$135	\$111	\$187	\$187
Education Tax Benefits	—	\$7,423	\$19,551	\$16,072	\$16,074	—	\$1,423	\$1,934	\$1,786	\$1,786
Total Federal Aid	\$42,647	\$75,193	\$142,539	\$118,167	\$113,838	\$13,329	\$27,076	\$41,251	\$39,263	\$40,074
State Grants	\$4,540	\$8,498	\$9,700	\$10,426	\$10,426	\$116	\$221	\$153	\$170	\$170
Institutional Grants	\$13,303	\$23,971	\$34,881	\$43,714	\$46,126	\$4,247	\$6,968	\$9,495	\$11,900	\$12,557
Private and Employer Grants	\$3,420	\$7,903	\$10,125	\$10,578	\$10,753	\$1,669	\$4,442	\$4,884	\$5,102	\$5,187
Total Federal, State, Institutional, and Private Aid	\$63,910	\$115,566	\$197,245	\$182,885	\$181,144	\$19,362	\$38,707	\$55,784	\$56,435	\$57,987

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

Sources of Grant Aid

The total amount of grant aid supporting postsecondary students increased by 86% between 1996-97 and 2006-07 (after adjusting for inflation) and by another 74% between 2006-07 and 2016-17, reaching a total of \$125.4 billion.

FIGURE 3 Total Grant Aid in 2016 Dollars by Source of Grant, 1996-97 to 2016-17



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

SOURCES: See page 30 for a list of sources for grants included in Figure 3.

- Federal grants fluctuated between 27% and 33% of all grant aid for undergraduate and graduate students between 1996-97 and 2006-07. This share rose to 44% in 2010-11, but it had declined to 32% of the total in 2016-17.
- Total federal grant aid more than doubled between 2006-07 and 2011-12—from \$19.9 billion (in 2016 dollars) to \$47.3 billion (as full-time equivalent [FTE] enrollment rose by 18%). Over the next five years, federal grant aid declined by 15% in inflation-adjusted dollars to \$40.2 billion (as FTE enrollment fell by 6%).
- Institutional aid is the only type of grant aid that grew rapidly between 2011-12 and 2016-17. Colleges and universities increased their aid by 32%, from \$44.4 billion (in 2016 dollars) in 2011-12 to \$58.7 billion in 2016-17. Over these five years, federal grant aid declined and grant aid from states, employers, and other private sources increased by less than 10%.

ALSO IMPORTANT:

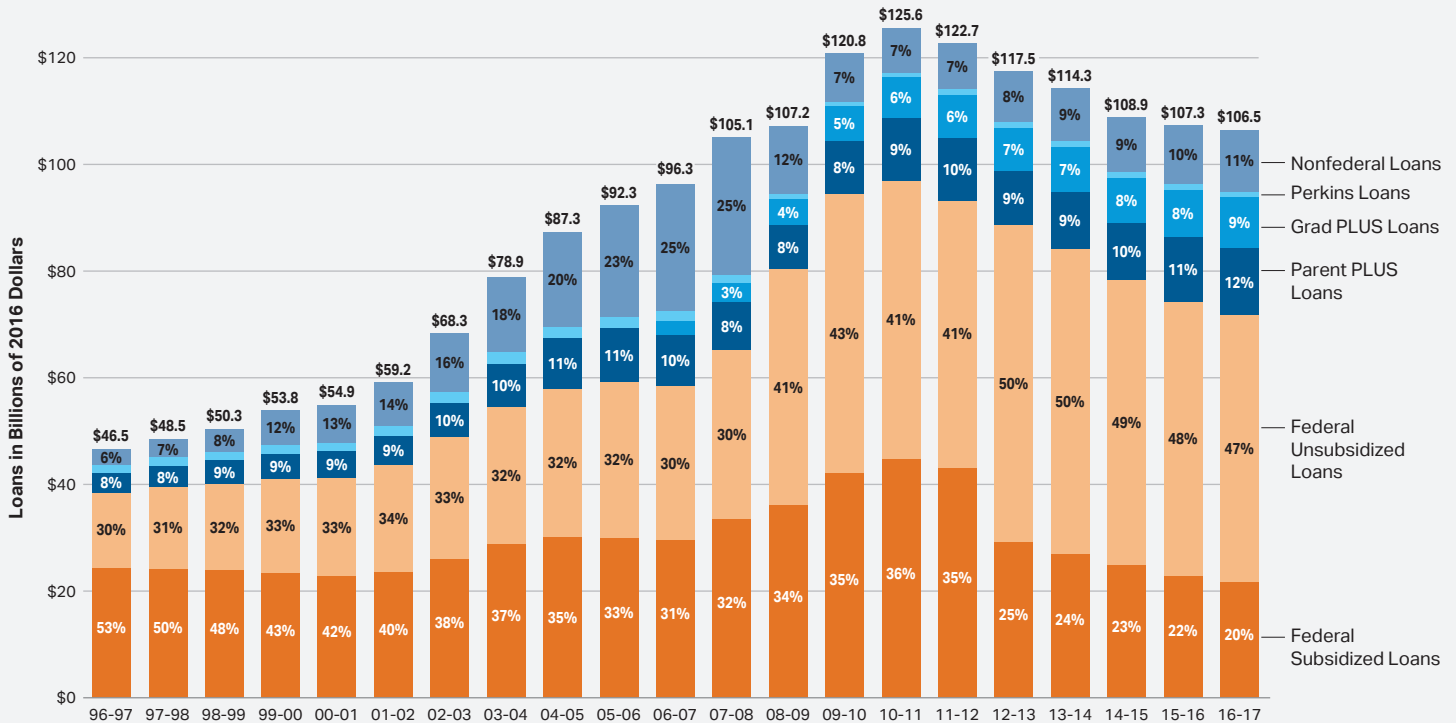
- The composition of grant aid for graduate students is quite different from that for undergraduate students—and from the totals in Figure 3. In 2016-17, 7% of graduate student grant aid came from the federal government, 65% from institutions, 27% from employers and other private sources, and 1% from states. For undergraduate students, these percentages were 37%, 43%, 10%, and 10%, respectively. (Tables 1A and 1B online)



Types of Loans

Total student and parent borrowing for postsecondary education declined (in inflation-adjusted dollars) for the sixth consecutive year, to \$106.5 billion in 2016-17.

FIGURE 4 Total Federal and Nonfederal Loans in 2016 Dollars, 1996-97 to 2016-17



NOTES: 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.

SOURCES: See page 30 for a list of sources for loans included in Figure 4.

- In 1996-97, 64% of Stafford Loans were subsidized loans, on which the government paid the interest while students were in school. This percentage declined to 51% in 2006-07 and to 46% in 2011-12. With graduate students no longer eligible for the program beginning in 2012-13, subsidized loans fell to 33% of all Stafford Loans in 2012-13 and to 30% in 2016-17.
- Between 2011-12 and 2016-17, total borrowing from the subsidized and unsubsidized Direct and Perkins Loan programs declined by 23%; total borrowing from the Parent PLUS Loan program increased by 7%.
- Between 2011-12 and 2016-17, graduate student borrowing through the PLUS Loan program, which supplements unsubsidized Direct Loans for graduate students, increased by 20% from \$8.0 billion to \$9.6 billion.
- Nonfederal education loans are loans students borrow 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 \$24 billion (in 2016 dollars) to \$9 billion between 2006-07 and 2009-10, but increased to \$12 billion by 2016-17.

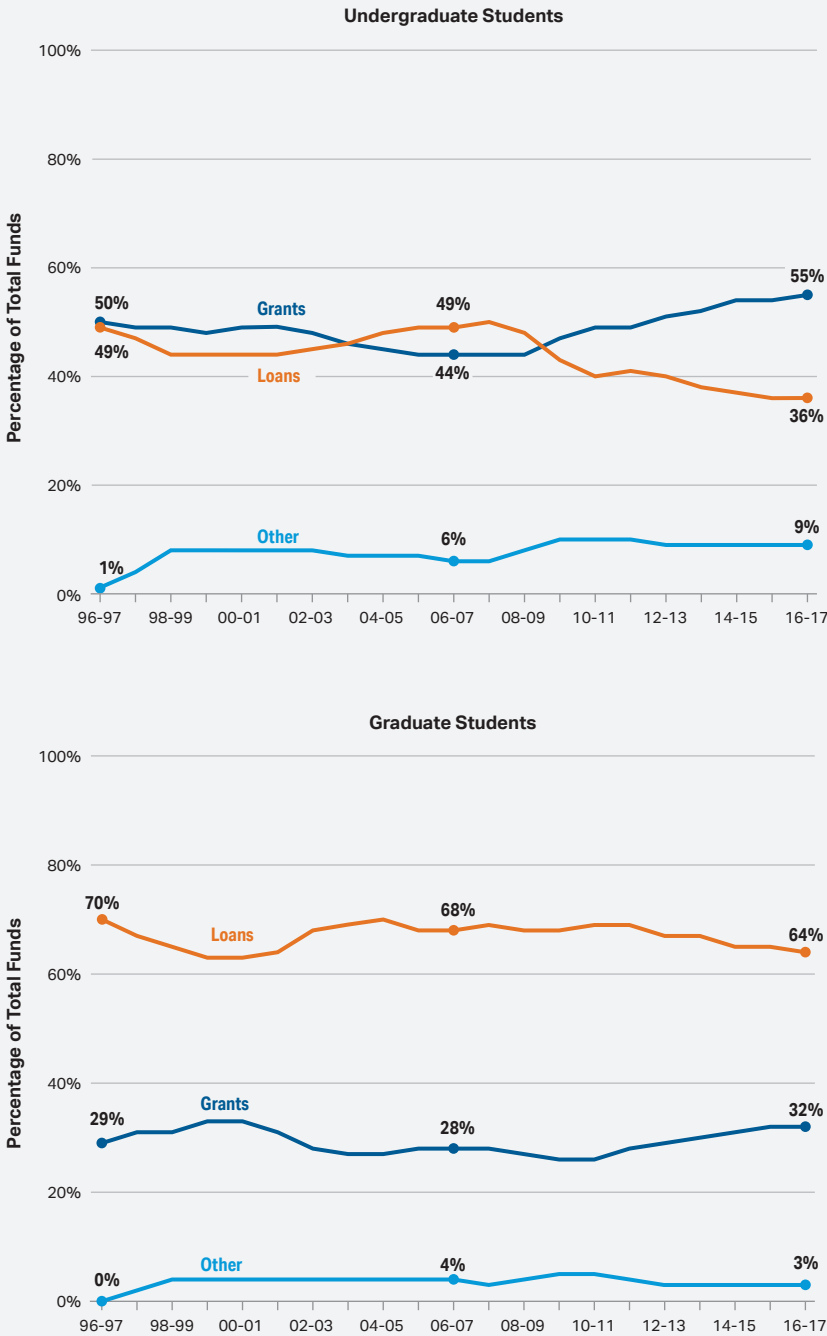
ALSO IMPORTANT:

- There are no credit requirements for subsidized and unsubsidized Direct Loans or Perkins 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.

Grants, Loans, and Other Aid

In 2015-16 and 2016-17, loans from federal and nonfederal sources combined constituted 36% of the funds used by undergraduates to supplement student and family resources—the lowest proportion in at least two decades.

FIGURE 5 Composition of Total Aid and Nonfederal Loans, 1996-97 to 2016-17



- In 2015-16 and 2016-17, grants constituted 55% of the funds used by undergraduates to supplement student and family resources, the highest proportion in at least the past two decades.
- In 2016-17, loans constituted 64% of the funds used by graduate students to supplement personal resources. This percentage was 70% in 1996-97 and 68% in 2006-07.
- In 2016-17, the combination of federal tax credits and deductions and Federal Work-Study (FWS) constituted 9% 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 77% and total loan volume increased by 2% between 2006-07 and 2016-17, after adjusting for inflation. (Table 1A online)
- For graduate students, total grant aid increased by 62% and total loan volume increased by 31% between 2006-07 and 2016-17. (Table 1B online)

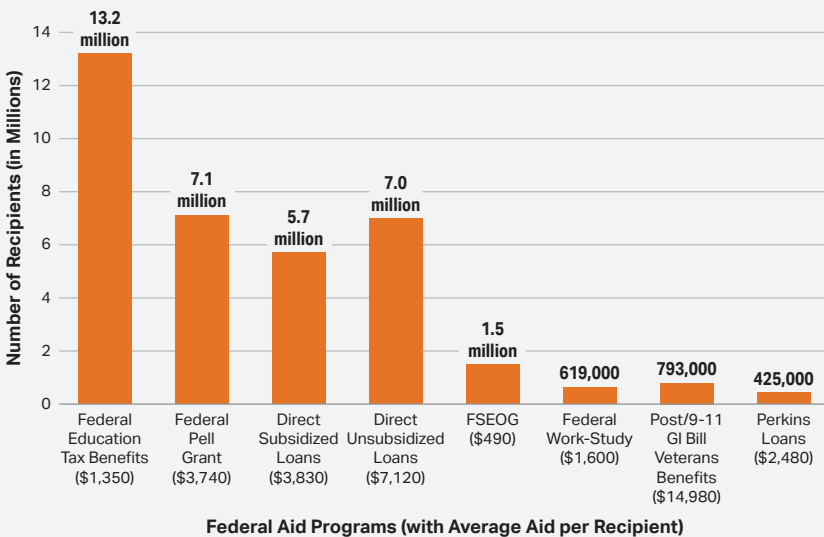
NOTES: Nonfederal loans are included as an indication of the total amounts of education loans students and parents borrow. "Other Aid" includes Federal Work-Study (FWS) and federal education tax credits and deductions.

SOURCE: *Trends in Student Aid* website (trends.collegeboard.org), Table 4.

Federal Aid

Federal education tax credits and deductions reach more students than subsidized and unsubsidized Direct Loans combined and almost twice as many students as the Pell Grant program.

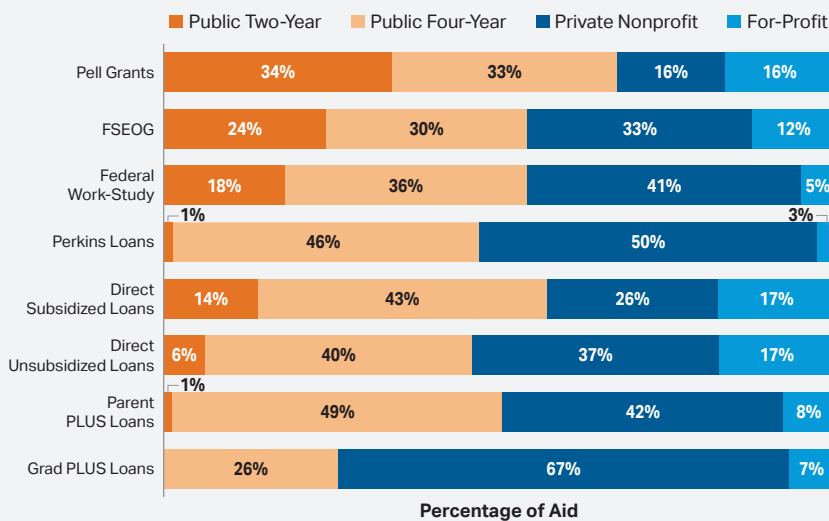
FIGURE 6A Number of Recipients by Federal Aid Program (with Average Aid Received), 2016-17



NOTES: Data on tax benefits are estimated for 2015-16. FSEOG and FWS amounts represent federal funds only. Institutions provide matching funds so the awards that students receive under these programs are larger than these federal aid amounts. Perkins Loans are made from revolving funds on campus. No new federal outlays have been provided since 2005-06, but originally the funds came partly from the federal government and partly from institutional sources.

SOURCES: See page 30 for a list of sources of data on federal aid programs.

FIGURE 6B Percentage Distribution of Federal Aid Funds by Sector, 2015-16



NOTES: 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.

SOURCES: See page 30 for a list of sources of data on federal aid programs.

- An estimated 13.2 million students benefited from federal education tax credits and deductions in 2015-16.
- In 2015-16, public two-year college students, constituting 32% of full-time equivalent (FTE) undergraduate enrollment, received 34% of Pell Grant funds. Students in this sector received less than their proportionate share of funds from all other federal student aid programs.
- In 2015-16, students in the private nonprofit sector accounted for 18% of undergraduate and 22% of total postsecondary FTE enrollment. They received 67% of Grad PLUS, 50% of Perkins Loans, and 41% of Federal Work-Study (FWS) funds.

ALSO IMPORTANT:

- In 2016-17, the total number of borrowers in the subsidized and unsubsidized Direct Loan programs was 8.2 million—less than the sum of the number of recipients in each program because almost half of all borrowers participated in both programs. (Table 6 online and Figure 9)
- 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, Perkins Loans, Direct Unsubsidized Loans, and Post-9/11 GI Bill benefits are available to both undergraduate and graduate students.
- The number of students receiving FWS funds declined from 695,000 in 2006-07 to 619,000 in 2016-17. (Table 5 online)
- In 2012-13, 41% of Post-9/11 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 2015 Enrollment by Sector

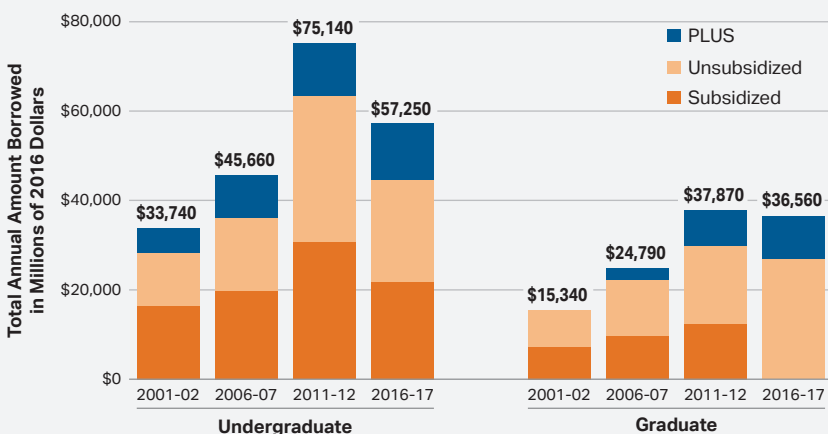
	FTE Undergraduate Students	All FTE Students
Public Two-Year	32%	27%
Public Four-Year	41%	42%
Private Nonprofit Four-Year	18%	22%
For-Profit	9%	9%

SOURCE: NCES, IPEDS Enrollment data.

Federal Loans: Annual Borrowing

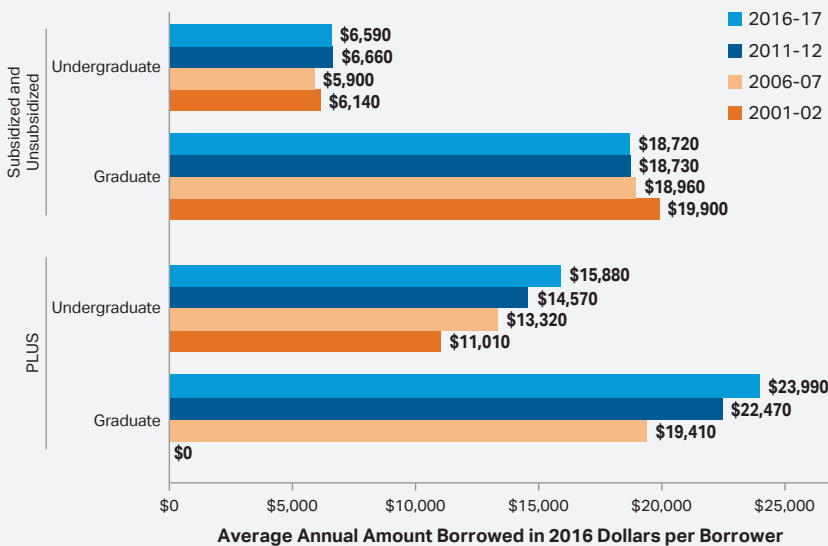
Total annual federal borrowing by undergraduates and their parents increased from \$33.7 billion to \$75.1 billion between 2001-02 and 2011-12, but declined to \$57.3 billion between 2011-12 and 2016-17.

FIGURE 7A Total Annual Amount Borrowed in Federal Subsidized, Unsubsidized, and PLUS Loans in Millions of 2016 Dollars, 2001-02 to 2016-17, Selected Years



- In 2016-17, undergraduates taking subsidized and unsubsidized Direct Loans borrowed an average of \$6,590—\$690 more (in 2016 dollars) than a decade earlier, but \$70 less than in 2011-12.
- The number of parents borrowing PLUS Loans in 2016-17 was 12% of the number of undergraduates taking subsidized and unsubsidized Direct Loans (794,000 vs. 6.8 million). However, the average parent loan was \$15,880, about 2.4 times as much as the average undergraduate student loan.
- Parents can borrow up to the full cost of attendance (less other financial assistance received) through the Parent PLUS program. Between 2001-02 and 2016-17, the average size of Parent PLUS loans increased by 44%. The average size of federal loans to undergraduate students, which are subject to strict borrowing limits, increased by 7%.

FIGURE 7B Average Annual Amount Borrowed in Federal Subsidized, Unsubsidized, and PLUS Loans in 2016 Dollars, 2001-02 to 2016-17, Selected Years



ALSO IMPORTANT:

- The share of federal loans going to graduate students increased from 31% to 39% between 2001-02 and 2016-17. The percentage of full-time equivalent (FTE) postsecondary students who were graduate students increased from 13% to 14% over these 15 years.
- 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 they are enrolled, they can borrow up to the full cost of attendance, including living expenses and books and supplies in addition to tuition and fees through the Grad PLUS program.

Number of Borrowers (in Thousands), 2001-02 to 2016-17, Selected Years

		2001-02	2006-07	2011-12	2016-17
Subsidized and Unsubsidized	Undergraduate	4,582	6,111	9,505	6,774
	Graduate	771	1,177	1,596	1,438
	Total	5,353	7,288	11,101	8,212
PLUS	Undergraduate	508	722	810	794
	Graduate	0	127	355	401
	Total	508	849	1,164	1,196

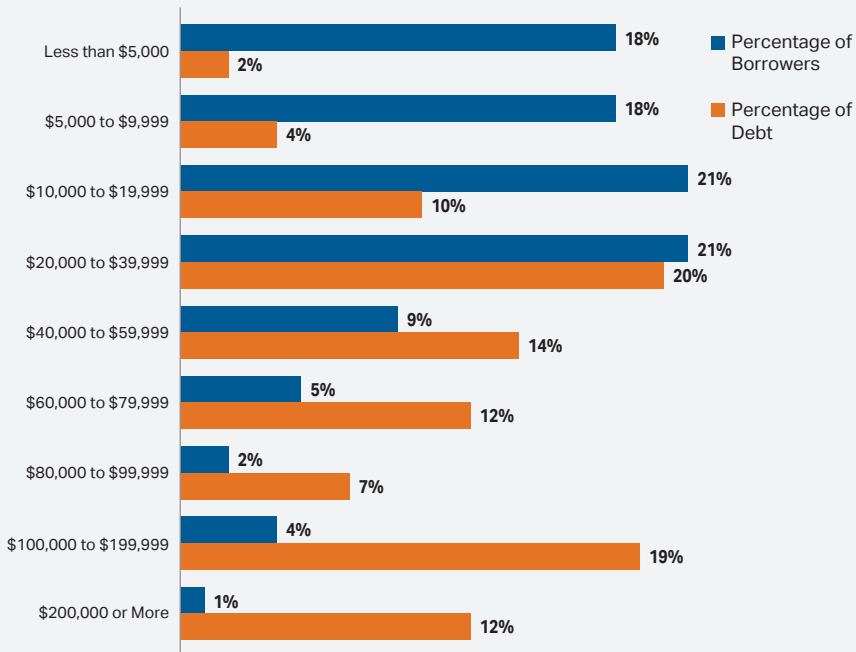
NOTE: Graduate students became eligible to borrow PLUS Loans in 2006-07.

SOURCE: *Trends in Student Aid* website (trends.collegeboard.org), Table 6.

Federal Loans: Borrowing and Balances

In 2017, 50% of the outstanding federal education loan debt is held by the 12% of borrowers owing \$60,000 or more.

FIGURE 8 Distribution of Borrowers and Debt by Outstanding Balance, 2017



NOTE: Includes both loans made under the Federal Direct Loan Program and loans made under the Federal Family Education Loan Program, which ended in 2009-10.

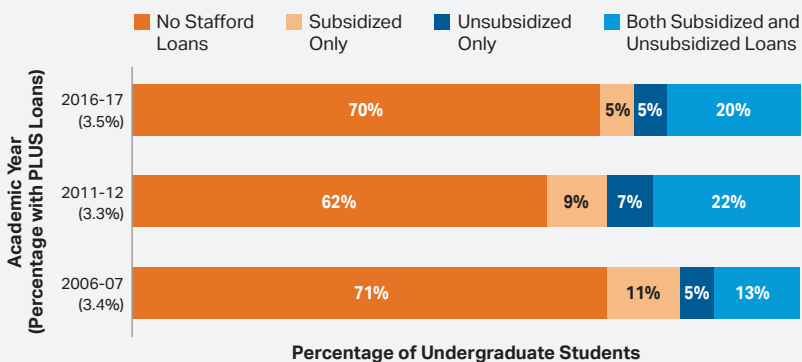
SOURCE: U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio.

- In 2017, 57% of borrowers owe less than \$20,000. These borrowers hold only 16% of the outstanding federal debt.
- The percentage of undergraduate students who did not borrow federal subsidized or unsubsidized Stafford Loans declined from 71% in 2006-07 to 62% in 2011-12, but increased to 70% in 2016-17.
- In 2016-17, 5% of undergraduate students borrowed subsidized loans only, 5% borrowed unsubsidized loans only, and 20% borrowed from both programs.

ALSO IMPORTANT:

- Figure 9 shows that only 30% of undergraduates took federal student loans in 2016-17. 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. Part-time students borrow at lower rates than full-time students and are less likely to graduate.

FIGURE 9 Percentage of Undergraduate Students Borrowing Federal Subsidized and Unsubsidized Student Loans, 2006-07, 2011-12, and 2016-17



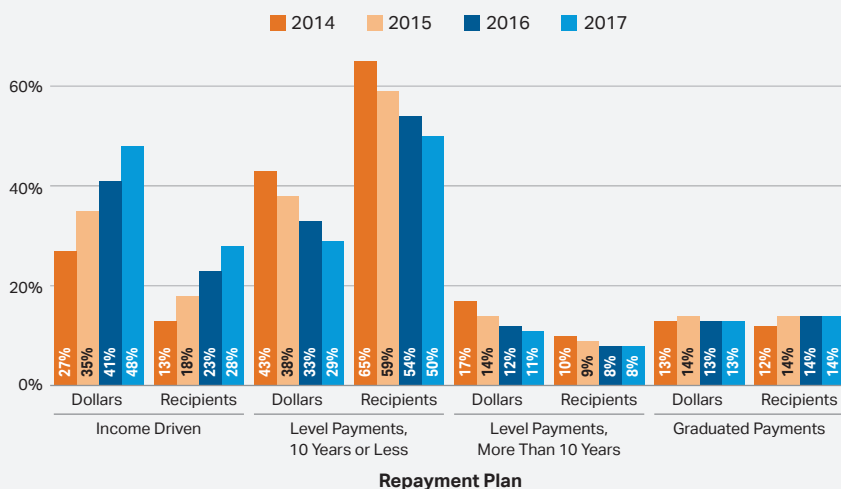
NOTES: IPEDS headcount enrollments are adjusted for the difference between total headcount, which counts students more than once if they are enrolled in more than one institution at the same time, and unduplicated headcount reported by the National Student Clearinghouse (NSC). Twelve-month undergraduate headcount for 2016-17 is estimated from NSC data.

SOURCES: NCES, *Postsecondary Institutions and Cost of Attendance in 2016-17; Degrees and Other Awards Conferred, 2015-16, and 12-Month Enrollment, 2015-16: First Look (Preliminary Data)* and earlier editions; National Student Clearinghouse, *Current Term Enrollment Estimates: Spring 2017*; Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

Outstanding Federal Loans

Participation in income-driven repayment plans for federal student loans has grown dramatically in recent years. In 2017, 28% of the borrowers in repayment on federal Direct Loans are in programs limiting their payments to an affordable percentage of their disposable incomes, up from 13% in 2014.

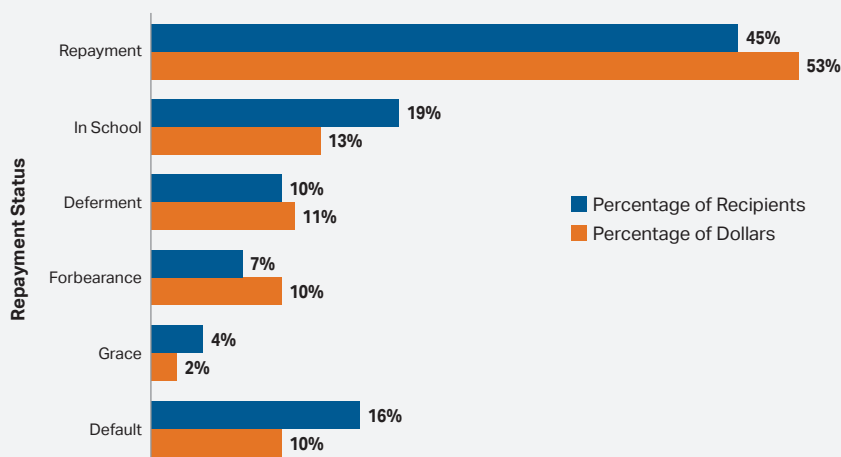
FIGURE 10A Distribution of Outstanding Federal Direct Loan Dollars and Recipients by Repayment Plan, Second Quarter FY2014 to FY2017



NOTES: 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 10 years or a different period of time. Under the graduated payment plan, monthly payments increase over time. The second quarter of FY2017 ended on March 31, 2017. Percentages may not sum to 100 because of rounding.

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

FIGURE 10B Repayment Status of Federal Education Loan Portfolio, Second Quarter FY2017



NOTE: Includes both loans made under the Federal Direct Loan Program and loans made under the Federal Family Education Loan Program, which ended in 2009-10. The second quarter of FY2017 ended on March 31, 2017.

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

- In March 2017, borrowers in income-driven repayment plans held 48% of the outstanding debt in repayment under the federal Direct Loan program, up from 27% in 2014.
- In March 2017, 16% of borrowers—but only 10% of outstanding dollars—were in default. In other words, defaulters have lower average balances than other borrowers.

ALSO IMPORTANT:

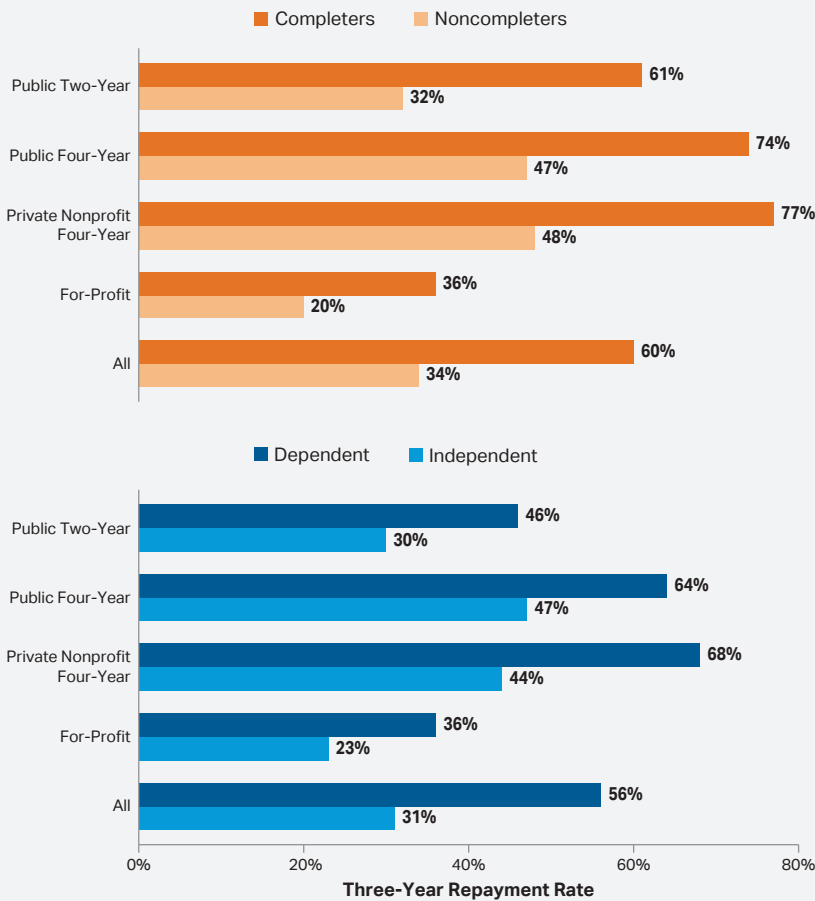
- Borrowers in income-driven repayment plans have higher average debt balances than those in level payment and graduated plans—\$52,900 versus \$22,800 in March 2017. (U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio)
- In March 2017, the average outstanding federal student loan debt was \$27,500. Averages were \$16,700 for loans in default, \$32,500 for loans in repayment, and \$40,500 for those in forbearance. (U.S. Department of Education, Federal Student Aid Data Center, Federal Student Loan Portfolio)
- There are several income-driven repayment plans. About half of borrowers and half of dollars in income-driven plans are in the Income-Based Repayment (IBR) plan. For new borrowers after July 2014, this plan limits payments to 10% of income above 150% of the poverty line and forgives the remaining debt after 20 years. For earlier borrowers, payments are limited to 15% of income and debt is forgiven after 25 years.
- Unlike these earlier plans that have strict eligibility limits, the newest income-driven plan, REPAYE, launched in December 2015, makes all federal Direct Loan borrowers eligible for income-driven repayment.
- In March 2017, 91% of the outstanding federal loan dollars were in the Direct Loan program, while the remaining 9% were in the Federal Family Education Loan program, which ended in 2009. Because some recipients hold loans from both programs, 91% of recipients have Direct Loans and 18% of recipients have Federal Family Education Loans. (Federal Student Aid Data Center, Federal Student Loan Portfolio)



Federal Loans: Repayment Rates

Sixty percent of federal student loan borrowers who entered repayment in 2010-11 and 2011-12 after earning a degree or certificate had paid down at least one dollar of their loan principal after three years. This repayment rate was 34% for noncompleters.

FIGURE 11A Federal Student Loan Three-Year Repayment Rate by Completion Status and by Dependency Status: Borrowers Entering Repayment in 2010-11 and 2011-12

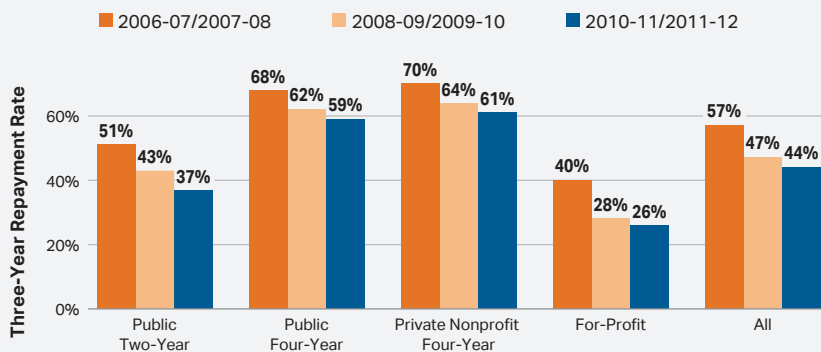


- Completers had higher repayment rates than noncompleters in all sectors, but completers in the for-profit sector had lower repayment rates than noncompleters in the public and private nonprofit four-year sectors.
- In all sectors, dependent students had higher repayment rates than independent students. Repayment rates ranged from 23% for independent students in the for-profit sector to 68% for dependent students in the private nonprofit sector.
- Fifty-seven percent of borrowers who entered repayment in 2006-07 and 2007-08 had paid down at least one dollar of principal after three years. This repayment rate declined to 47% for the 2008-09 and 2009-10 cohorts and to 44% for the 2010-11 and 2011-12 cohorts. The decline in the repayment rate was sharpest in the for-profit sector.
- Over the years covered in Figure 11B, the share of borrowers entering repayment from public and private nonprofit four-year institutions declined. The share of borrowers who were enrolled in public two-year and for-profit institutions increased.

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 financial circumstances.

FIGURE 11B Federal Student Loan Three-Year Repayment Rate by Sector: Borrowers Entering Repayment in 2006-07 to 2011-12



Distribution of Borrowers Entering Repayment by Sector

	2006-07/ 2007-08	2008-09/ 2009-10	2010-11/ 2011-12
Public Two-Year	20%	20%	24%
Public Four-Year	31%	30%	28%
Private Nonprofit Four-Year	17%	17%	15%
For-Profit	29%	31%	31%

NOTE: Three-year 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 three years.

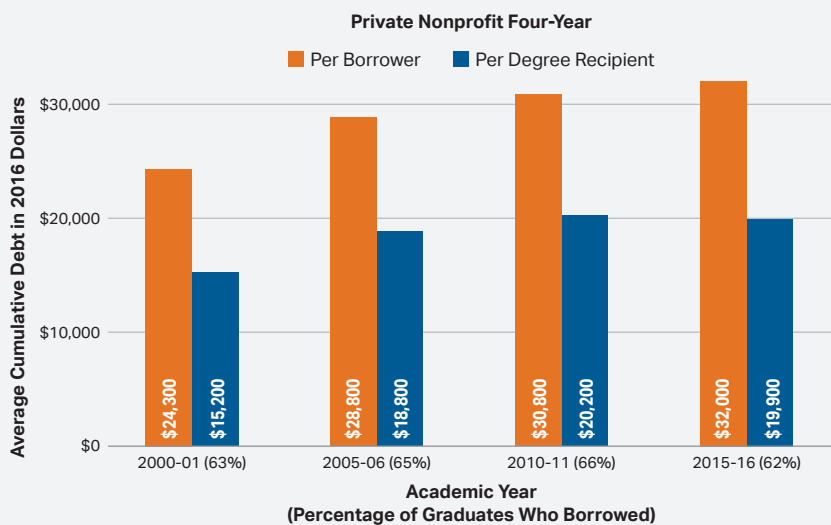
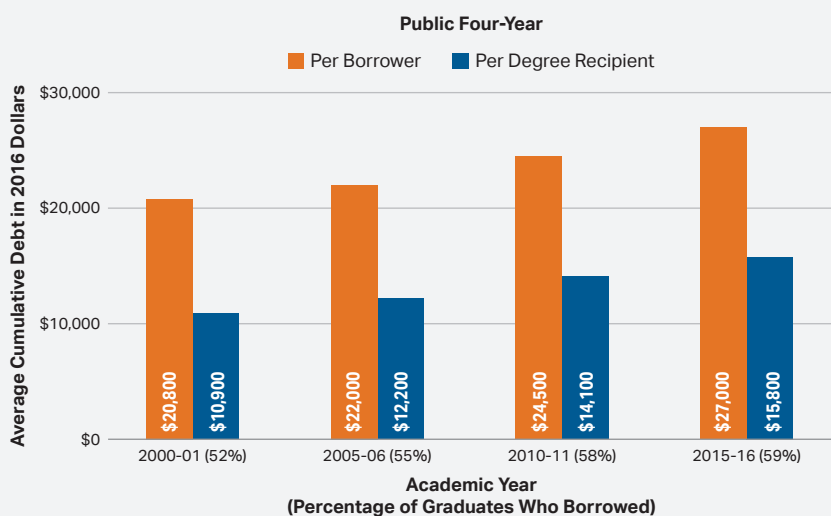
SOURCES: U.S. Department of Education, College Scorecard data; calculations by the authors.

NOTE: Components may not sum to 100% because some small institutional sectors are excluded.

Cumulative Debt: Bachelor's Degree Recipients

In 2015-16, the 60% of bachelor's degree recipients from public and private nonprofit institutions who borrowed graduated with an average of \$28,400 in debt.

FIGURE 12 Average Cumulative Debt Levels in 2016 Dollars: Bachelor's Degree Recipients at Four-Year Institutions, 2000-01 to 2015-16, Selected Years



NOTES: Figures 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 orange bars represent the average cumulative debt levels of bachelor's degree recipients who took student loans. The blue bars represent the average debt per bachelor's degree recipient, including those who graduated without student debt. Calculations are based on the number of bachelor's degrees awarded, which typically exceeds the number of students receiving degrees. The available data are not adequate to allow comparable calculations for for-profit institutions.

SOURCES: College Board, Annual Survey of Colleges, 2001 to 2016; calculations by the authors.

- In 2015-16, average debt per graduate, including both those who borrowed and those who did not, was \$16,900 for the two sectors combined.
- Average debt levels of public four-year college graduates grew rapidly between 2005-06 and 2015-16. After increasing by \$1,200 (in 2016 dollars) between 2000-01 and 2005-06, the average amount borrowed by those with student loans increased by \$2,500 between 2005-06 and 2010-11 and by another \$2,500 by 2015-16, when the 59% of graduates with student loans held, on average, \$27,000 in debt.
- Average debt levels of bachelor's degree recipients from private nonprofit colleges grew rapidly between 2000-01 and 2005-06, when the average debt of borrowers rose by \$4,500. Average debt increased by \$2,000 over the next five years and by \$1,200 between 2010-11 and 2015-16, to \$32,000 for the 62% of graduates with student loans.

ALSO IMPORTANT:

- Students who earn their bachelor's degrees at for-profit institutions, not included in Figure 12, are more likely to borrow and tend to accumulate higher average levels of debt than those who graduate from public and private nonprofit colleges.
- Figure 12 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.

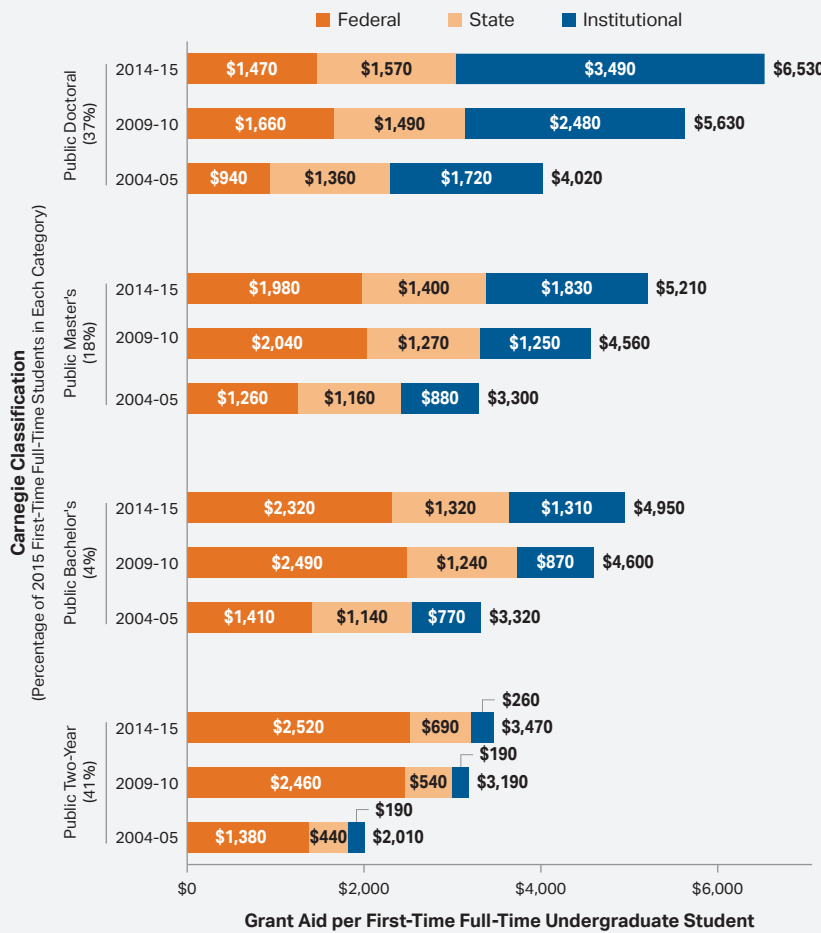
Average Cumulative Debt in 2016 Dollars: Bachelor's Degree Recipients at Public and Private Nonprofit Four-Year Institutions, 2000-01 to 2015-16, Selected Years

Academic Year	Percentage with Debt	Average Debt per Borrower	Average Debt per Graduate
2000-01	56%	\$22,100	\$12,300
2005-06	58%	\$24,400	\$14,200
2010-11	60%	\$26,400	\$15,800
2015-16	60%	\$28,400	\$16,900

Sources of Grant Aid: Public Institutions

On average, first-time full-time undergraduate students at public doctoral universities receive less federal grant aid, but more state and institutional grant aid, than students at other public institutions.

FIGURE 13 Sources of Grant Aid for First-Time Full-Time Undergraduate Students at Public Institutions in 2014 Dollars, 2004-05, 2009-10, and 2014-15



- In 2014-15, average total grant aid per first-time full-time student in public institutions ranged from \$3,470 at public two-year institutions to \$6,530 at public doctoral universities.
- In 2014-15, average institutional grant aid ranged from \$260 at public two-year colleges to \$3,490 at public doctoral institutions.
- Between 2004-05 and 2014-15, growth in total grant aid (adjusted for inflation) from all sources ranged from 49% at public bachelor's institutions (where only about 4% of public college students are enrolled) to 73% at public two-year colleges (where 41% of public college students are enrolled).
- Students at public four-year universities received larger shares of their grant aid from their institutions and smaller shares from state aid in 2014-15 than in 2004-05.

ALSO IMPORTANT:

- Most federal grant aid is awarded without respect to the institution in which a student enrolls. In contrast, states and institutions have their own policies for awarding grant aid.

Sources of Grant Aid at Public Institutions, 2004-05, 2009-10, and 2014-15

		2004-05	2009-10	2014-15
Public Doctoral	Federal	23%	29%	23%
	State	34%	26%	24%
	Institutional	43%	44%	53%
Public Master's	Federal	38%	45%	38%
	State	35%	28%	27%
	Institutional	27%	27%	35%
Public Bachelor's	Federal	42%	54%	47%
	State	34%	27%	27%
	Institutional	23%	19%	26%
Public Two-Year	Federal	69%	77%	73%
	State	22%	17%	20%
	Institutional	9%	6%	7%

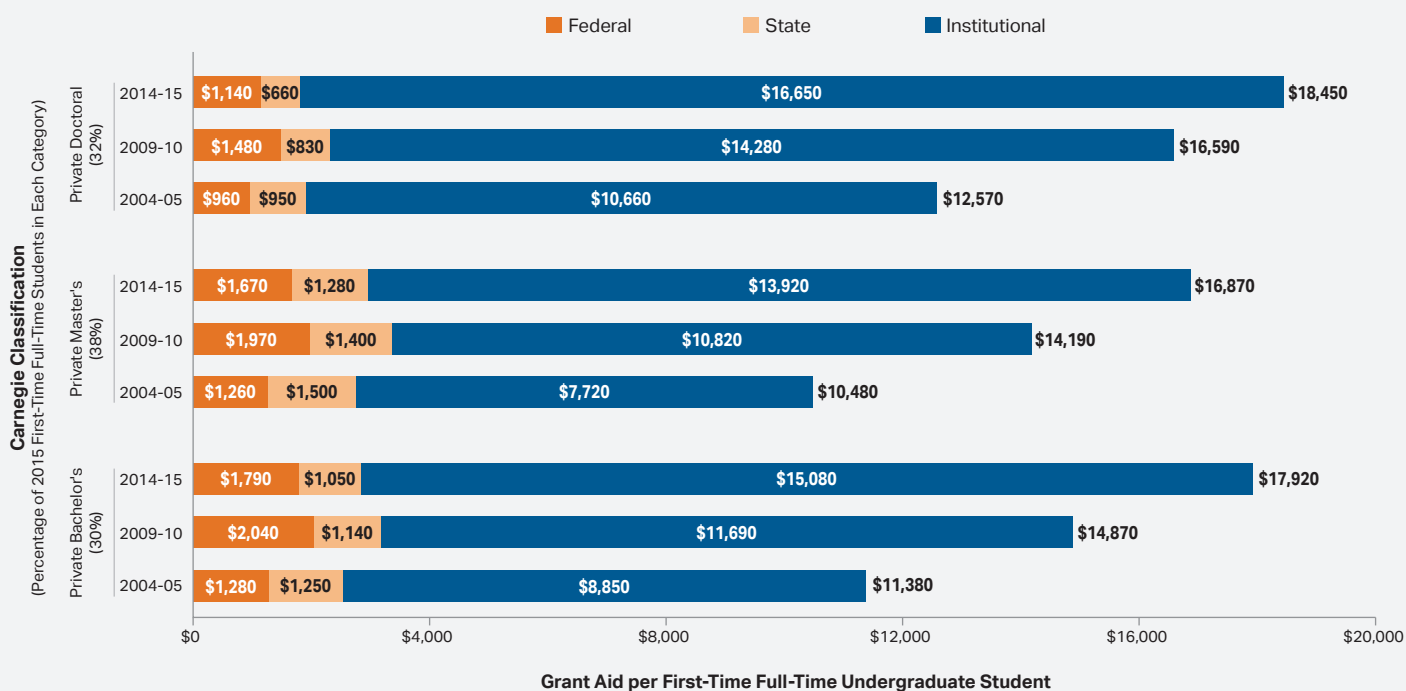
NOTES: Carnegie categories are based on the 2015 classification. Institutions without undergraduate enrollment are excluded. Percentages may not sum to 100 because of rounding.

SOURCES: NCES, IPEDS Student Financial Aid data, 2004-05, 2009-10, and 2014-15; calculations by the authors.

Sources of Grant Aid: Private Nonprofit Institutions

First-time full-time students at all types of private nonprofit four-year colleges and universities received more than 80% of their grant aid from their institutions in 2014-15.

FIGURE 14 Sources of Grant Aid for First-Time Full-Time Undergraduate Students at Private Nonprofit Institutions in 2014 Dollars, 2004-05, 2009-10, and 2014-15



Sources of Grant Aid at Private Nonprofit Institutions, 2004-05, 2009-10, and 2014-15

		2004-05	2009-10	2014-15
Private Doctoral	Federal	8%	9%	6%
	State	8%	5%	4%
	Institutional	85%	86%	90%
Private Master's	Federal	12%	14%	10%
	State	14%	10%	8%
	Institutional	74%	76%	83%
Private Bachelor's	Federal	11%	14%	10%
	State	11%	8%	6%
	Institutional	78%	79%	84%

NOTES: Carnegie categories are based on the 2015 classification. Institutions without undergraduate enrollment are excluded. Percentages may not sum to 100 because of rounding.

SOURCES: NCES, IPEDS Student Financial Aid data, 2004-05, 2009-10, and 2014-15; calculations by the authors.

- In 2014-15, first-time full-time students at private nonprofit doctoral universities received an average of \$18,450 in total grant aid, compared with \$6,530 for students at public doctoral universities. (Figure 13)
- In 2014-15, average institutional grant aid ranged from \$13,920 at private master's universities to \$16,650 at private doctoral institutions.
- Between 2004-05 and 2014-15, growth in total grant aid (adjusted for inflation) from all sources ranged from 47% at private doctoral institutions to 61% at private master's institutions.
- Students at all types of private nonprofit four-year institutions received larger shares of their total grant aid from their institutions in 2014-15 than in 2004-05.

ALSO IMPORTANT:

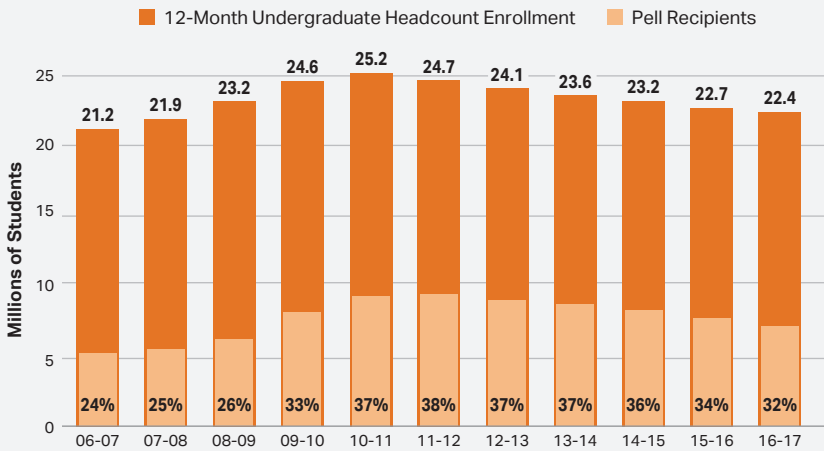
- In 2017-18, average annual published tuition and fee prices at private nonprofit doctoral universities are \$12,960 higher than at master's universities and \$9,470 higher than at private nonprofit bachelor's institutions. (*Trends in College Pricing 2017*, Table 1)



Pell Grants

Between 2006-07 and 2011-12, the total number of undergraduate students increased by 3.5 million; the number of Pell Grant recipients increased by 4.3 million. Over the next five years, both the number of undergraduate students and the number of Pell Grant recipients declined by 2.3 million.

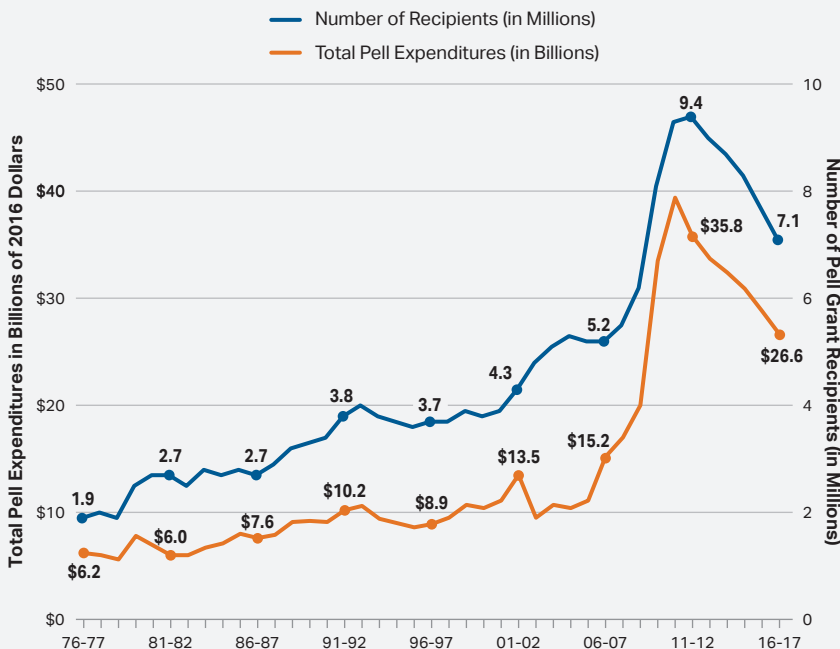
FIGURE 15A Undergraduate Enrollment and Percentage of Undergraduate Students Receiving Pell Grants, 2006-07 to 2016-17



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 2016-17 is estimated from NSC data.

SOURCES: NCES, *Postsecondary Institutions and Cost of Attendance in 2016-17; Degrees and Other Awards Conferred, 2015-16, and 12-Month Enrollment, 2015-16: First Look (Preliminary Data)* and earlier editions; National Student Clearinghouse, *Current Term Enrollment Estimates: Spring 2017*; *Federal Pell Grant Program End-of-Year Report 2015-16*; Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

FIGURE 15B Total Pell Grant Expenditures and Number of Recipients, 1976-77 to 2016-17



- The share of undergraduates receiving Pell Grants rose from 24% in 2006-07 to 38% in 2011-12. In 2016-17, 32% of undergraduates received a Pell Grant.
- Despite declines of about 25% between 2011-12 and 2016-17 in both the number of Pell Grant recipients and program expenditures, 38% more recipients received 75% more (in 2016 dollars) in 2016-17 than 10 years earlier.
- 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 38% in 1976-77 to 58% in 1996-97. This percentage was 53% in 2015-16.

Percentage of Recipients Who Were Independent, 1976-77 to 2015-16, Selected Years

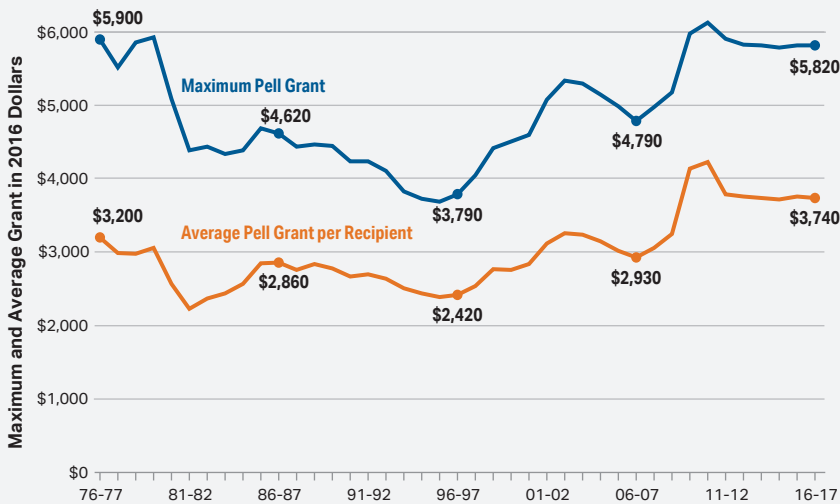
Year	Percentage of Recipients Who Were Independent
1976-77	38%
1986-87	54%
1996-97	58%
2006-07	58%
2011-12	59%
2012-13	58%
2013-14	56%
2014-15	55%
2015-16	53%

SOURCES: U.S. Department of Education, *Federal Pell Grant Program End-of-Year Report, 1981-82 through 2015-16*; Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

Pell Grants

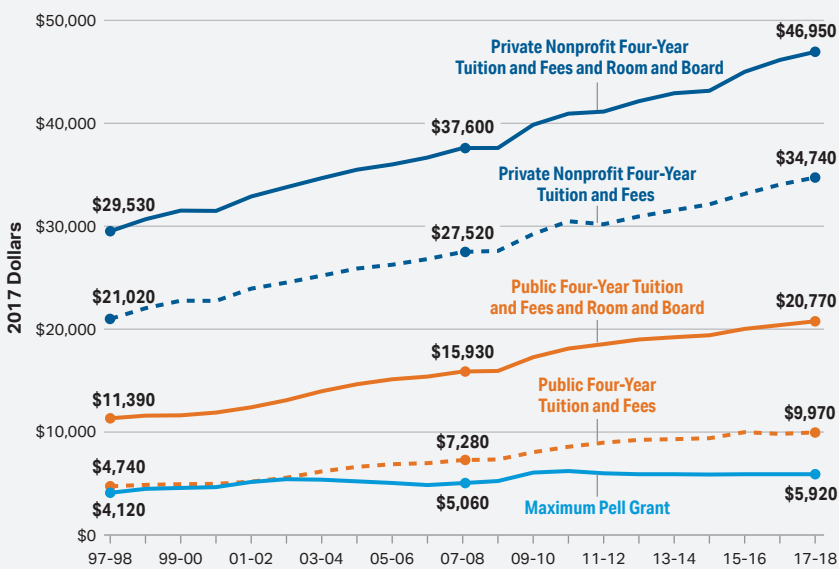
The maximum Pell Grant amount, which is legislated by Congress, has fluctuated over time. The \$5,820 maximum Pell Grant in 2016-17 was 54% higher in inflation-adjusted dollars than it was 20 years earlier, but about the same as it was 40 years earlier, in 1976-77.

FIGURE 16 Maximum and Average Pell Grants in 2016 Dollars, 1976-77 to 2016-17



SOURCES: U.S. Department of Education, *Federal Pell Grant Program End-of-Year Report, 1976-77 through 2015-16*; Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; calculations by the authors.

FIGURE 17 Inflation-Adjusted Maximum Pell Grant and Published Prices at Public and Private Nonprofit Four-Year Institutions in 2017 Dollars, 1997-98 to 2017-18



- The maximum Pell Grant is the most frequently cited measure of the 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 2016-17, when the maximum Pell Grant was \$5,820, the average grant was \$3,740.
- The percentage of average public four-year in-state published tuition and fees covered by the maximum Pell Grant declined from 87% in 1997-98 to 70% in 2007-08 and to 59% in 2017-18.
- The percentage of average private nonprofit four-year published tuition and fees covered by the maximum Pell Grant declined from 20% in 1997-98 to 18% in 2007-08 and to 17% in 2017-18.

ALSO IMPORTANT:

- The maximum Pell Grant for 2017-18 is \$5,920, about the same as in 2016-17 after adjusting for the 1.7% increase in the Consumer Price Index.
- In 2015-16, 27% of recipients received the maximum grant of \$5,775. (Federal Pell Grant Program End-of-Year Report 2015-16, Table 3A)
- Between 2007-08 and 2017-18, published tuition and fees increased by 3.2% per year at public four-year institutions and by 2.4% per year at private nonprofit institutions, while the maximum Pell Grant increased by 1.6% per year, after adjusting for inflation.

Maximum Pell Grant as a Percentage of Published Prices in 2017 Dollars, 1997-98 to 2017-18, Selected Years

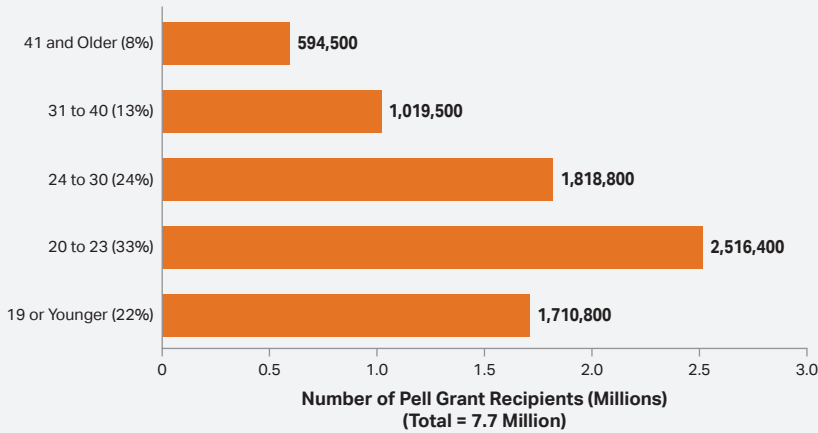
	Public Four-Year In-State		Private Nonprofit Four-Year	
	Tuition and Fees	Tuition and Fees and Room and Board	Tuition and Fees	Tuition and Fees and Room and Board
97-98	87%	36%	20%	14%
02-03	98%	41%	22%	16%
07-08	70%	32%	18%	13%
12-13	64%	31%	19%	14%
17-18	59%	29%	17%	13%

SOURCES: U.S. Department of Education, *Federal Pell Grant Program End-of-Year Report, 2015-16*; Federal Student Aid Data Center, Title IV Program Volume Reports and Aid Recipients Summary; College Board, *Trends in College Pricing 2017*.

Pell Grants

In 2015-16, 55% of Pell Grant recipients were younger than 24, 24% were between 24 and 30, and 21% were older than 30.

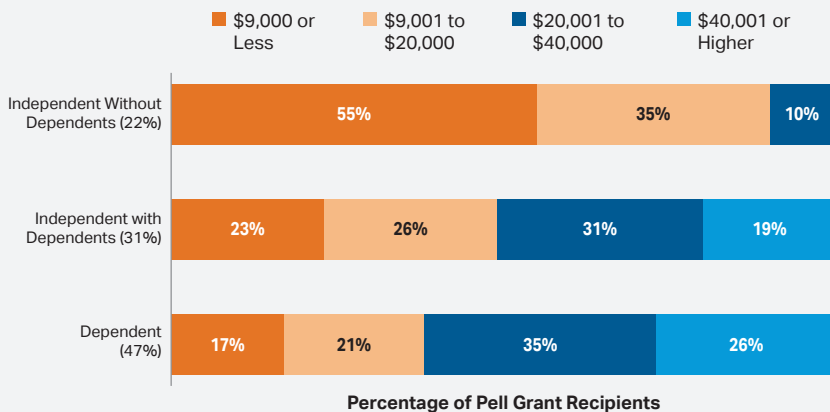
FIGURE 18A Distribution of Pell Grant Recipients by Age, 2015-16



NOTE: Percentages on the vertical axis represent percentages of recipients in each age group.

SOURCE: 2015-16 Federal Pell Grant Program End-of-Year Report, Table 11A.

FIGURE 18B Distribution of Pell Grant Recipients by Dependency Status and Family Income, 2015-16



NOTES: Percentages on the vertical axis represent percentages of recipients in each group. Percentages may not sum to 100 because of rounding.

SOURCE: 2015-16 Federal Pell Grant Program End-of-Year Report, Table 2.

- In 2015-16, 47% of Pell Grant recipients were dependent students; almost three-quarters of these students came from families with incomes of \$40,000 or less, including 38% with family incomes of \$20,000 or less.
- Fifty-three percent of 2015-16 Pell Grant recipients were independent students; 31% had dependents of their own; and 22% were independent students without dependents.
- Among independent Pell Grant recipients with dependents, 80% had family incomes of \$40,000 or less, including 49% with incomes of \$20,000 or less.
- Ninety percent of independent Pell Grant recipients without dependents had family incomes of \$20,000 or less. More than half had incomes of \$9,000 or less.

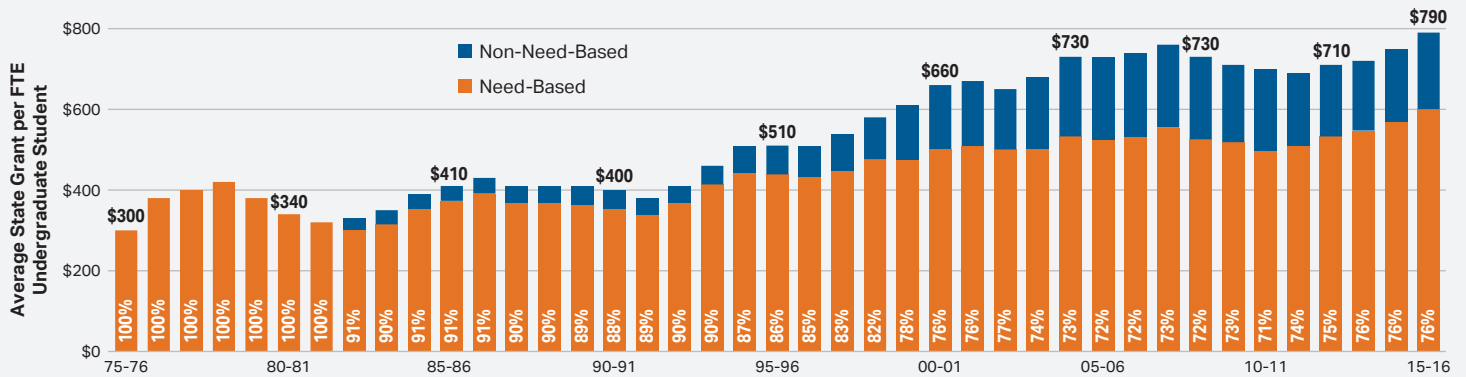
ALSO IMPORTANT:

- The percentage of Pell Grant recipients over age 30 has been stable since 1995-96. (*Federal Pell Grant Program End-of-Year Reports, 1995-96 through 2015-16*)
- In 2015-16, 64% of Pell Grant recipients had zero expected family contribution (EFC). This included 52% of dependent recipients, 64% of independent recipients without dependents, and 83% of independent recipients with dependents. (*2015-16 Federal Pell Grant Program End-of-Year Report, Table 2*)
- In 2015-16, 12% of dependent recipients received a Pell Grant of less than \$1,500 and 38% received \$5,400 or more. (*2015-16 Federal Pell Grant Program End-of-Year Report, Table 3B*)

State Grants

States provided grant aid averaging \$790 per full-time equivalent undergraduate student in 2015-16, surpassing prerecession levels.

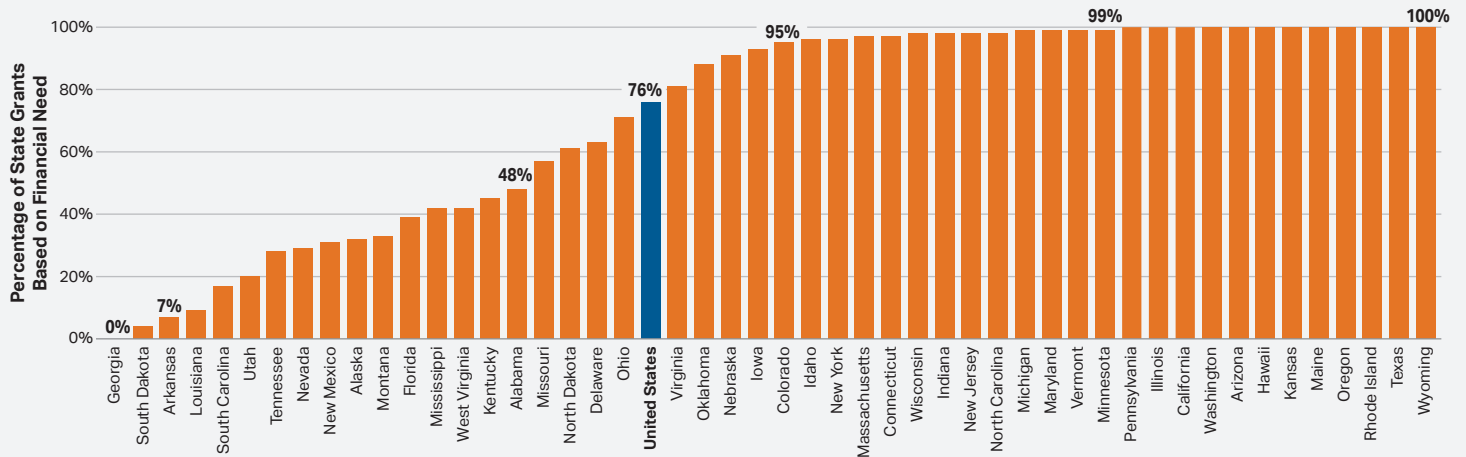
FIGURE 19A Need-Based and Non-Need-Based State Grants per Full-Time Equivalent (FTE) Undergraduate Student in 2015 Dollars, 1975-76 to 2015-16



NOTE: Percentages displayed represent percentages of total undergraduate state grant aid for which student's financial circumstances were considered.

SOURCES: National Association of State Student Grant and Aid Programs (NASSGAP) Annual Survey, 1975-76 to 2015-16, Tables 1 and 12.

FIGURE 19B Need-Based State Grant Aid as a Percentage of Total Undergraduate State Grant Aid by State, 2015-16



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 2015-16.

SOURCE: NASSGAP Annual Survey, 2015-16, Table 1.

- In 1981-82 and earlier years, virtually all state grant aid was based on students' financial circumstances. From 2004-05 to 2010-11, only 71% to 73% of state grant aid was need-based. In 2015-16, that percentage was 76%.
- In 2015-16, half of the states considered students' financial circumstances in allocating at least 95% of their state grant aid. Sixteen states considered students' financial circumstances when awarding less than half of their state grant aid.

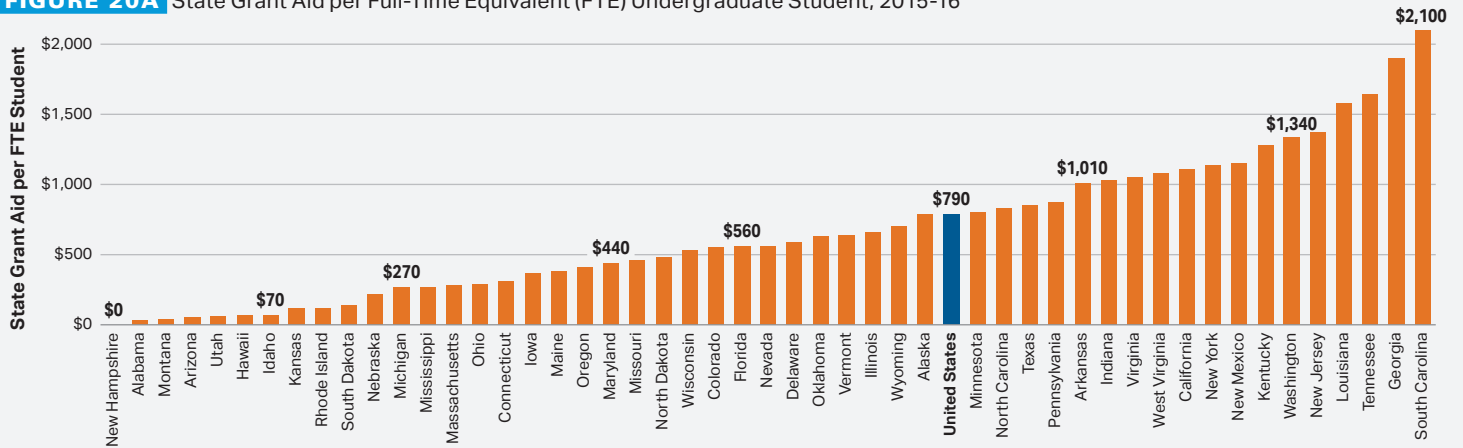
ALSO IMPORTANT:

- Total spending on state grant aid increased from \$8.3 billion (in 2015 dollars) in 2005-06 to \$10.0 billion in 2010-11, and to \$10.5 billion in 2015-16. (NASSGAP Annual Survey, 2005-06, 2010-11, and 2015-16)

State Grants

In 2015-16, state grant aid per full-time equivalent (FTE) undergraduate student ranged from under \$200 in 10 states to over \$1,000 in 14 states.

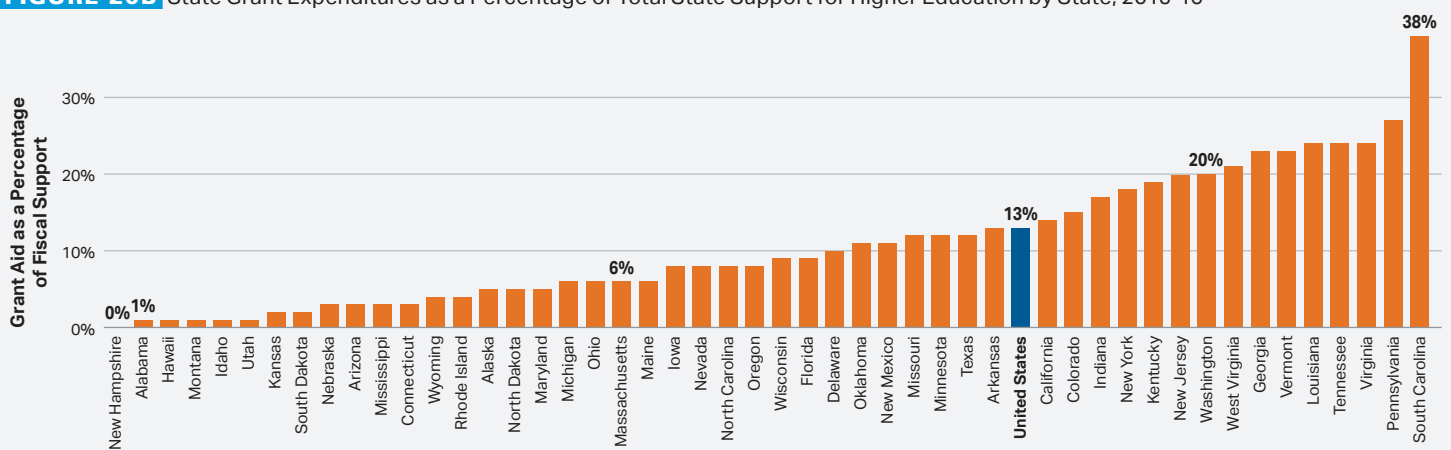
FIGURE 20A State Grant Aid per Full-Time Equivalent (FTE) Undergraduate Student, 2015-16



NOTES: Full-time equivalent students include both state residents and out-of-state students. States do not award grant aid to nonresidents.

SOURCES: NASSGAP Annual Survey, 2015-16, Tables 1 and 12; calculations by the authors.

FIGURE 20B State Grant Expenditures as a Percentage of Total State Support for Higher Education by State, 2015-16



NOTES: State grant expenditures include funding for both undergraduate and graduate students. Illinois is not included because state budget data are not available for 2015-16.

SOURCE: NASSGAP Annual Survey, 2015-16, Table 14.

- The four states with the highest grant aid per FTE student considered financial circumstances for between 0% and 28% of the aid awarded. (Figure 19B)
- South Carolina, with the highest grant aid per FTE undergraduate student, considered the financial circumstances of recipients for 17% of state grant funds in 2015-16. Georgia, the second most generous state, allocates its grant funds without regard to students' financial circumstances. (Figure 19B)
- Overall, state grant expenditures constituted 13% of total state support for higher education in 2015-16. Fourteen states devoted less than 5% of their funding to grant aid for students; 10 states directed 20% or more of their funding to grant aid for students.

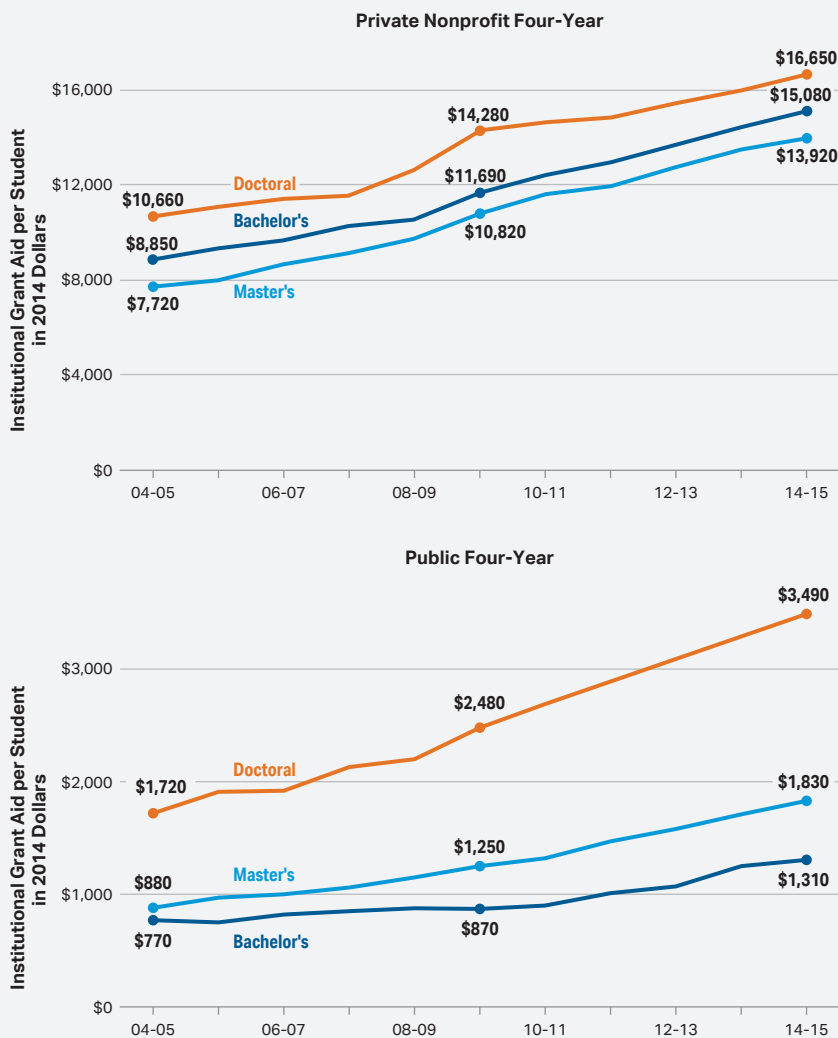
ALSO IMPORTANT:

- Four states provided 42% of all state grant aid dollars in 2015-16, with California contributing 18% and New York 9%.
- 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.

Institutional Grants

Between 2009-10 and 2014-15, the increase in average institutional grant aid for first-time full-time students at private nonprofit master's universities was large enough to more than cover the increase in tuition and fees.

FIGURE 21 Average Institutional Grant Aid per First-Time Full-Time Undergraduate Student in 2014 Dollars, 2004-05 to 2014-15



- Between 2009-10 and 2014-15, the increases in average institutional grant aid covered 71% and 97% of the price increases at private doctoral and bachelor's institutions, respectively.
- The increase in average institutional grant aid between 2009-10 and 2014-15 covered a smaller share of the tuition and fee increase at public master's universities than at other types of public and private nonprofit institutions.
- Between 2004-05 and 2014-15, in the private nonprofit sector, the percentage of first-time full-time undergraduates receiving institutional grant aid increased from 67% to 73% at doctoral universities, from 80% to 92% at master's universities, and from 74% to 84% at bachelor's colleges.
- Between 2004-05 and 2014-15, the percentage of first-time full-time undergraduates in the public four-year sector receiving institutional grant aid increased from 36% to 53% at doctoral universities, from 27% to 45% at master's universities, and from 23% to 38% at bachelor's colleges.

ALSO IMPORTANT:

- Average institutional grant aid is higher for first-time full-time students than for all students.
- At public colleges and universities, both tuition and fees and average institutional grant aid are higher for out-of-state students than for in-state students.

Published Tuition and Fees and Percentage of Students Receiving Institutional Grant Aid by Carnegie Classification, Selected Years

		Average Published Tuition and Fees in 2014 Dollars			Average Institutional Grant Aid in 2014 Dollars			Percentage of First-Time Full-Time Students Receiving Institutional Grant Aid		
		2009-10	2014-15	5-Year Change	2009-10	2014-15	5-Year Change	2004-05	2009-10	2014-15
Private Nonprofit	Doctoral	\$35,720	\$39,070	\$3,350	\$14,280	\$16,650	\$2,370	67%	72%	73%
	Master's	\$25,840	\$27,500	\$1,660	\$10,820	\$13,920	\$3,100	80%	85%	92%
	Bachelor's	\$26,020	\$29,530	\$3,510	\$11,690	\$15,080	\$3,390	74%	78%	84%
Public	Doctoral	\$8,640	\$10,080	\$1,440	\$2,480	\$3,490	\$1,010	36%	46%	53%
	Master's	\$6,840	\$7,960	\$1,120	\$1,250	\$1,830	\$580	27%	31%	45%
	Bachelor's	\$6,510	\$7,140	\$630	\$870	\$1,310	\$440	23%	27%	38%

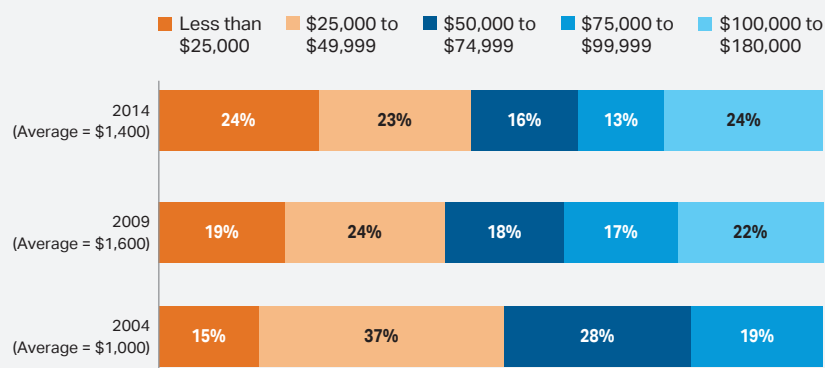
NOTES: Public tuition and fees are for in-state students. Carnegie categories are based on the 2015 classification.

SOURCES: NCES, IPEDS Student Financial Aid data, 2004-05 through 2014-15; College Board, *Trends in College Pricing*, 2010 through 2015; calculations by the authors.

Education Tax Credits and Tuition Deductions

The implementation of the American Opportunity Tax Credit in 2009 shifted a large share of the benefits of the education tax credits from filers with incomes between \$25,000 and \$100,000 to those with higher incomes and a small share to those with lower incomes.

FIGURE 22A Distribution of Education Tax Credits by Adjusted Gross Income, 2004, 2009, and 2014

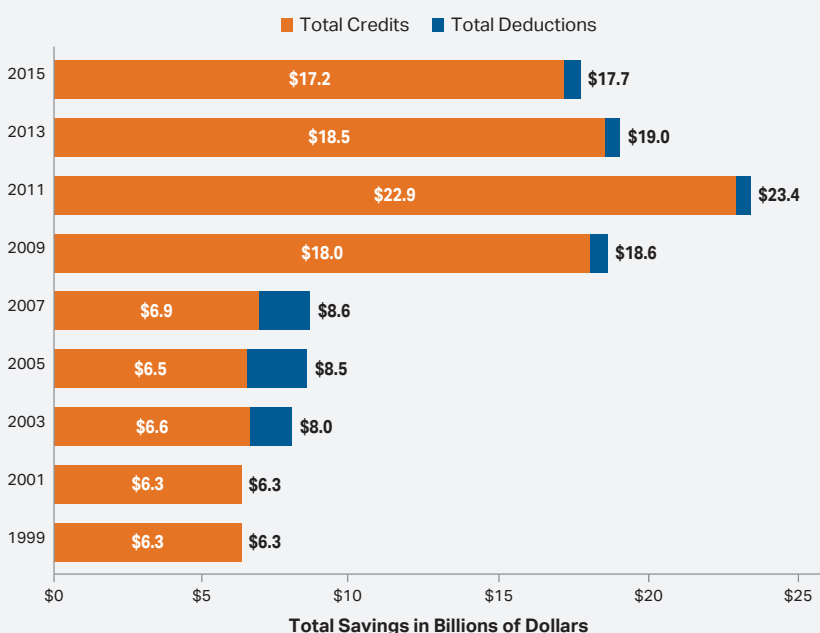


- In 2004, 15% of the credits went to filers with incomes below \$25,000. None of the credits went to filers with incomes of \$100,000 or higher. In 2014, 24% of the credits went to filers with incomes below \$25,000 and 24% went to those with incomes of \$100,000 or higher.
- In 2015, students and parents saved about \$17.7 billion on their federal income taxes through tax credits and deductions for education expenses. This form of subsidy was about \$8.5 billion (in 2015 dollars) in 2005 and \$18.6 billion in 2009.

ALSO IMPORTANT:

- Tax savings for students and parents receiving education tax credits averaged about \$1,400 in 2015.
- Education tax credits and deductions are “tax expenditures.” They reduce federal income tax liabilities and federal tax revenues, and have the same impact on the federal budget as direct expenditures such as Pell Grants.
- The American Opportunity Tax Credit, which accounts for most of the total credits and deductions, is available to taxpayers with adjusted gross incomes as high as \$180,000. The maximum benefit per filer is \$2,500, with up to \$1,000 of that amount available as a refund to filers with no tax liability.
- Because the credit is only partially refundable, low-income filers receive smaller average credits than higher-income filers, who have higher tax liabilities to offset the credit.
- About one quarter of undergraduates are ineligible for education tax credits because they do not pay tuition out of pocket. Many low-income students receive federal and state grant aid that covers tuition and fees; living costs are not qualifying expenses for education tax credits and deductions. (Delisle and Dancy, “A New Look at Tuition Tax Benefits,” 2015)
- In 2015, 12.6 million taxpayers deducted \$13.6 billion in student loan interest, generating about \$1.8 billion in tax savings. (Statistics of Income, 2015, Table 1; Fiscal Year 2017, Analytical Perspectives, Budget of the U.S. Government, Table 14-1)

FIGURE 22B Total Education Tax Credits and Savings from Tuition Deductions in Billions of 2015 Dollars, 1999 to 2015, Selected Years



NOTES: The total and average values of tax credits and deductions are best estimates based on data from the Internal Revenue Service. A portion of nonrefundable dollars claimed on nontaxable returns is excluded to account for credits and deductions that do not reduce tax liability. The value of tax deductions is estimated based on applicable marginal tax rates. Percentages may not sum to 100 because of rounding.

SOURCES: Internal Revenue Service, Statistics of Income 1999 to 2015, Tables 1, 1.3, 1.4, 2, 3.3; calculations by the authors.

Notes and Sources

Campus-Based Aid (FWS, Perkins, and FSEOG), Iraq and Afghanistan Service Grants, and ACG/SMART Grants:

U.S. Department of Education, Annual Federal Program Data Books. Federal Work-Study (FWS) 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 have been appropriated for new federal capital contributions to the Perkins Loan program since FY06 and the program is funded from past federal and institutional capital contributions as well as collections from borrowers.

Education Tax Benefits: Income Tax Returns, All Returns, Tables 1, 1.3, 1.4, 2, 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, with associated savings 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 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 2016-17 data (released in September 2017) using the average percentage change between July 2015 and July 2016 for the 2014-15 loan volume and between July 2016 and July 2017 for the 2015-16 loan volume.

Prior to 1993-94, federal loans 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 and parents. Beginning in 2010-11, all federal student loans are included in the Direct Loan program, either as subsidized and unsubsidized loans for students or PLUS loans for parents and graduate students.

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 Direct Loans or Grad PLUS Loans. Interest accrues on unsubsidized Direct Loans from the time they are disbursed.

Institutional Grants: IPEDS finance survey, estimated for 2015-16 and 2016-17. Estimated figures represent best approximations and are updated each year as additional information becomes available.

Nonfederal Loans: Estimates for 2011-12 through 2016-17 are based on data provided by the Consumer Bankers Association, MeasureOne, and the Consumer Financial Protection Bureau. Earlier data are based on information provided by lenders supplemented by data from annual reports and from NPSAS 2008. Estimates of institutional lending are based on NPSAS 2008 and 2012, as well as a survey of institutions conducted for the 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.

Pell Grant Program: 2015-16 and prior: *Federal Pell Grant Program End-of-Year Report*; 2016-17: Federal Student Aid Data Center, Title IV Program Volume Reports.

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 the College Board's Annual Survey of Colleges.

State Grant Programs: 20th through 47th Annual Survey Reports of the National Association of State Student Grant and Aid Programs (NASSGAP) for 1988-89 to 2015-16 and estimated for 2016-17.

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 Veterans Educational Assistance Program established in 2009-10 and all programs established earlier. The Iraq and Afghanistan Service Grants program began in 2010-11 and provide 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.

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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: trends.collegeboard.org.

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

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