



Higher Education Student Loan Debt

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A primer on higher education student loan debt.

Student loans play a crucial role in ensuring access to affordable higher education for millions of American students. In fact, 62% of students who graduated in the 2015–16 academic year borrowed from the federal government to finance their education at some point during their postsecondary education.ⁱ

Currently, the U.S. Department of Education offers federal loans to students and their families to help them meet their postsecondary education expenses. These loans include Subsidized and Unsubsidized Loans through the Direct Loan program, Stafford Loans, Perkins Loans, and PLUS Loans. The [College Board](#) estimates that undergraduate and graduate students and their families borrowed \$83.7 billion in federal loans for the 2020–21 academic year.

The amount that students may borrow from the federal government is limited. Undergraduate students may borrow Direct Loans up to statutorily established annual loan limits (e.g., \$5,500 for a first-year dependent student or \$9,500 for a first-year independent student). Graduate students may borrow up to \$20,500 in Direct Unsubsidized loans and up to the cost of attendance (minus other aid) through the Grad PLUS loan program.ⁱⁱ In addition, non-federal sources, such as states and private lenders, allow students and their families to take out loans for school. Borrowers took out \$12.2 billion in non-federal student loans in the 2020–21 school year.ⁱⁱⁱ

In total, U.S. households owe about \$15.84 trillion in outstanding debt according to the Federal Reserve Bank of New York's March 2022 report. Mortgage debt represents the largest component of household debt (\$11.18 trillion), followed by student loan debt (\$1.59 trillion).

As one might imagine, \$1.59 trillion in outstanding student loan debt has piqued the interest of economists, policymakers, and others. This paper examines trends in student loan debt, what impacts student loan repayment, perceptions of student loan debt, and whether there is a student debt crisis.

Trends in Student Debt

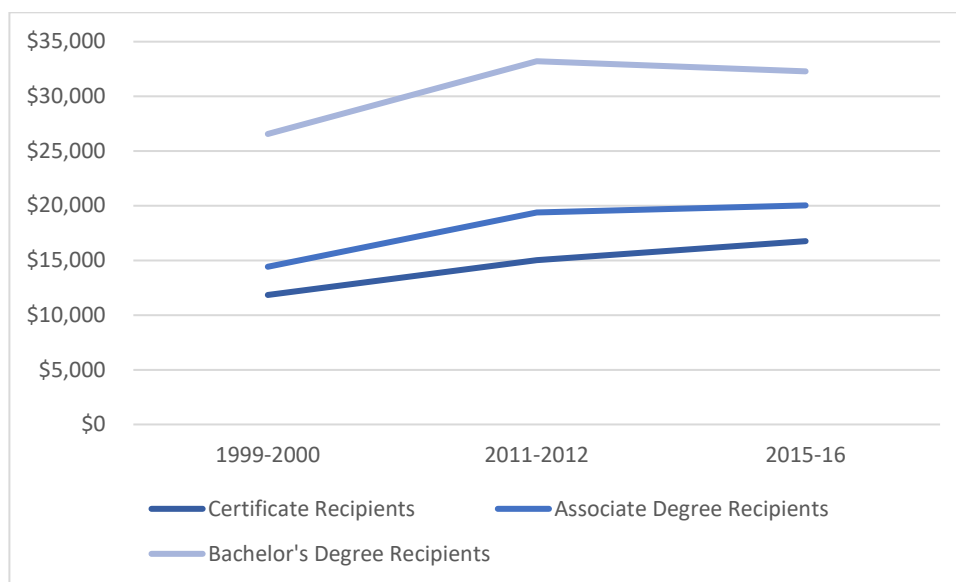
How has the amount of student loan debt held by recent college graduates changed over time? How does it vary by sector? How does it vary by demographics and educational level? Answers to these questions are presented here.

Changes in Student Loan Debt Over Time

Most four-year college graduates have student loan debt. According to federal survey data, 69% of students graduating with a bachelor's degree in 2015–16 took out student loans,^{iv} an increase from 1999–2000 when 62% of students graduating from a bachelor's degree program took out student loans. Most undergraduate certificate recipients have student loan debt. Sixty-eight percent of certificate recipients in 2015–2016 took out student loans, up from 44% in 1999–2000. Fewer associate degree recipients have student loan debt than bachelor's degree recipients. Forty-eight percent of associate degree recipients in 2015–16 had student loan debt, up from 40% in 1999–2000.

Student loan debt per college graduate with debt has steadily increased. The average cumulative debt of certificate recipients and associate degree recipients increased 140% in constant 2019–20 dollars between 1999–2000 and 2015–16. Certificate recipients' cumulative debt (in 2019–20 dollars) increased from an average of \$11,840 in 1999–2000 to \$16,760 in 2015–16. The average cumulative debt (in 2019–20 dollars) of associate degree recipients increased from \$14,420 in 1999–2000 to \$20,030 in 2015–2016. Bachelor's degree recipients' cumulative debt (in 2019–20 dollars) increased from \$26,560 in 1999–2000 to \$32,290 in 2015–16. Figure 1 below details the cumulative debt of certificate, associate degree, and bachelor's degree recipients over time.

Figure 1. Cumulative Debt of Certificate, Associate Degree, and Bachelor's Degree Recipients Over Time in 2019–2020 Dollars



Source: National Center for Education Statistics, Digest of Education Statistics 2020, [Table 331.95](#)

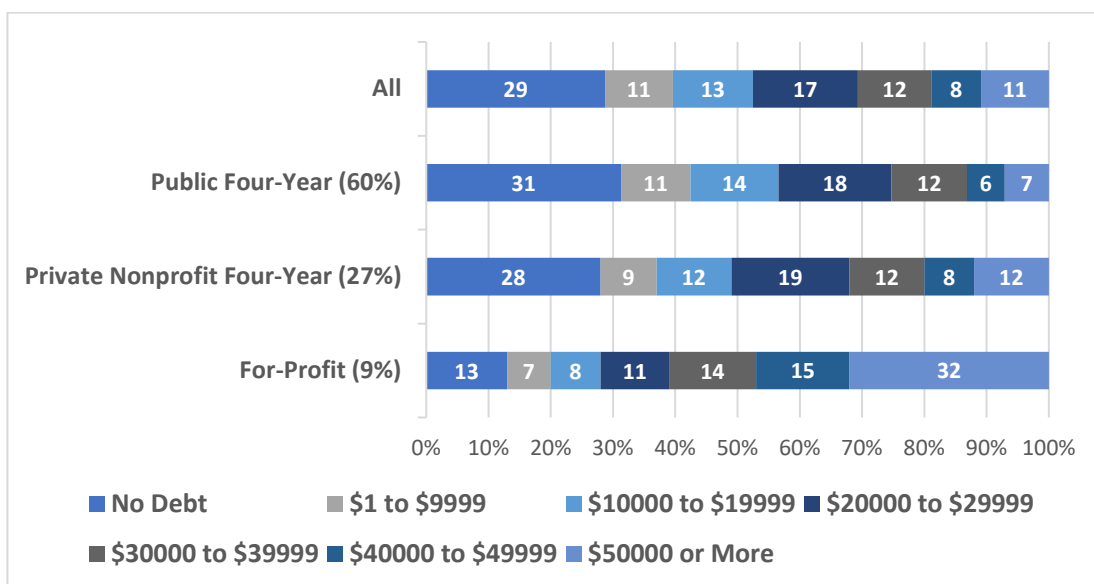
Most borrowers do not have high levels of student loan debt. As of March 31, 2022, only 7% of borrowers had debt balances of more than \$100,000 and 16% had balances over \$60,000. Fifty-three percent of borrowers had less than \$20,000 in student debt.

Variation in Debt by Sector

Whether a college graduate has student loans varies by sector (the type of college or university attended). National Postsecondary Student Aid Study (NPSAS) data shows that students attending for-profit institutions are most likely to borrow student loans, and those attending public two-year institutions are least likely to take on student loans. Analysis of 2016 NPSAS data shows that more college graduates who attended for-profit institutions (83%) had student loans than those who attended private non-profit institutions (67%) or public four-year institutions (60%).

The cumulative student loan debt levels of college graduates also vary by sector. Forty-seven percent of 2015–16 bachelor’s degree recipients from for-profit institutions borrowed \$40,000 or more; however, only 20% of those from private non-profit institutions and 13% of those from public institutions had this much debt. Additional cumulative debt levels are shown in Figure 2.

Figure 2. Cumulative Debt of Bachelor’s Degree Recipients in 2016 Dollars by Sector



Source: National Postsecondary Student Aid Study. Figure by College Board.

Variation in Student Loan Debt by Demographic Factors

In addition to varying by sector, student loan debt levels also vary by demographic factors, such as dependency status, age, race, and income level.

Dependency Status:

Data shows that [independent students](#) are more likely to borrow and have more student loan debt than dependent students, in part because they are eligible for higher loan limits. Thirty-four percent of dependent 2015–16 bachelor's degree graduates did not have any debt, compared with 27% of independent students.^v Among 2015–16 bachelor's degree recipients, about 41% of independent students borrowed more than \$30,000, compared with about 22% of dependent students who did.^{vi}

Age:

Students who earned their bachelor's degree in 2015–16 at age 24 or older (all of whom are considered independent students) were more likely to borrow and have higher student loan debt levels than their younger peers. Thirty-three percent of graduates aged 23 and younger did not borrow at all, similar to 34% of those aged 24–29. Forty-one percent of graduates aged 24–29 had more than \$30,000 in student debt, compared with 13% of graduates younger than age 23.^{vii}

Income Level:

While it may seem counterintuitive, high-income households hold more student loan debt than low-income households. People from high-income households are more likely than those from low-income households to attend college, and more likely to attend more expensive institutions. They are also more likely to attend graduate school, where loan balances tend to be higher. Households in the top income quartile (income greater than \$97,000 per year) held 34% of outstanding student loan debt, compared to 12% held by households in the lowest income quartile (income less than \$27,000 per year).^{viii}

College graduates who received Pell Grants, typically indicating a family income of under \$40,000, *borrowed* at a higher rate and in greater amounts than their peers who did not receive Pell Grants.

Specifically, 84% of bachelor's degree completers in 2015–16 who had received a Pell Grant had student loans, compared with 51% of non-Pell Grant bachelor's degree completers. Pell Grant recipients with student loans were nearly \$31,200 in debt on average, compared with \$26,700 for all non-Pell Grant recipients with student loans.^{ix}

Race and Ethnicity:

With regard to race, Black college graduates had more student loan debt than graduates from other racial and ethnic groups. While 29% of all 2015–16 college graduates with a bachelor's degree had not taken out student loans, only 14% of Black graduates did not take out student loans. In addition, while the average debt per bachelor's degree graduate who borrowed was \$29,000, the average debt per graduated Black borrower was over \$34,000.^x

One study found that among bachelor's degree recipients, Black borrowers had \$7,400 more in student loan debt at graduation than white graduates. Four years later, Black borrowers had \$25,000 more in student loan debt than white borrowers.^{xi} Of borrowers who began in 2003–04, the median student loan debt Black borrowers owed after 12 years was 113% of their original loan balance. No other racial group owed more than 83% of their original loan balance, and the overall median was 80%.^{xii}

Graduate Student Loan Debt:

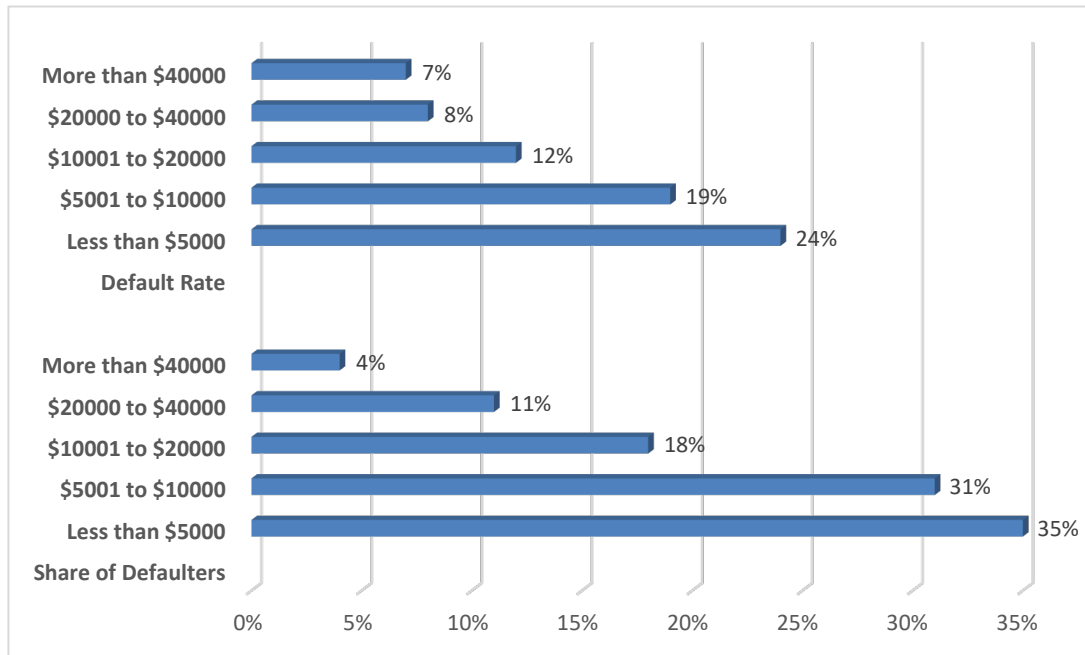
Graduate students tend to borrow more than undergraduate students since current law allows graduate students to borrow up to the cost of attendance (minus other financial aid) for as long as they are in school. The average federal student loan debt was \$70,980 for students who only borrowed for graduate school and who graduated in 2015–16. Data shows that graduate students with high levels of debt are more likely to be pursuing professional degrees with high expected earnings.^{xiii}

Factors that Impact Repayment & Default

This section examines some of the factors that influence whether a borrower remains in repayment or enters default. These factors include the amount of the original loan balance and a student's completion status, income level, and institution attended.

High student loan debt is often falsely equated with a high likelihood of default. Counterintuitively, most borrowers who default on their federal student loans have relatively low balances. As Figure 3 shows, more than one-third (35%) of defaulters had a loan balance of less than \$5,000. Another 31% of defaulters had a balance of between \$5,001 and \$10,000. This means that, cumulatively, two-thirds of defaulters had a balance of less than \$10,000. Only 4% of defaulting borrowers had a balance of more than \$40,000. Borrowers with low loan balances are more likely to have dropped out without completing a credential, leaving them with debt but without the means to a higher income.

Figure 3: Share of Defaulters and Three-Year Federal Student Loan Default Rate Among Borrowers Entering Repayment in 2010–11, by Loan Balance



Source: [College Board 2016](#)

Historical trend data from 2009–10 through 2015–16 shows that loan repayment rates are consistently lower for borrowers who attended two-year public and for-profit institutions.^{xiv}

Income is also a factor in default rates. In 2019, [Federal Reserve Bank of New York](#) researchers looked at the average income in the ZIP code where borrowers lived when they first originated their student loan and found that borrowers in the lowest-income ZIP codes were more likely to be delinquent and default on student loans than borrowers from areas with the highest average income, despite similar borrowing rates and debt loads.

A 2015 [study](#) showed a 30% default rate among non-traditional borrowers.^{xv} In comparison, 13% of traditional undergraduate borrowers and 3% of traditional graduate borrowers defaulted. Analysis showed that the background of students, their labor market outcomes, and the schools they attended explained about 50–66% of the increase in default rates from 2000 to 2011. The rest of the increase in default rates cannot be explained by observable factors and may depend on the quality of education received, students’ satisfaction with their institutions, or other financial difficulties specific to non-traditional borrowers.

Perceptions of Student Loan Debt

With about 13% of student loan borrowers in default,^{xvi} it is worth considering students' perceptions of their debt. In 2014, [New America](#) commissioned a survey to examine students' perceptions of financing a college education with loans and found that the borrowing levels that students deemed reasonable did not match their expected borrowing level. For example, students deemed \$10,000 as the median amount *reasonable* to borrow over four years of college. However, when students were asked how much they *expected* to borrow, the median amount was \$15,000 over four years.

This gap between reasonable and expected borrowing varied by age, race, and gender. For example, white students believed that a higher amount of student loan debt was reasonable (\$19,862 on average) than Black students (\$12,459) and Hispanic students (\$16,845).^{xvii} White students also expected to borrow more on average (\$27,450) compared to Black students (\$16,902) or Hispanic students (\$23,934).

The New America survey also found that 55% of students were concerned that they would have difficulty repaying their student loans. Forty-seven percent of those who anticipated borrowing thought that their monthly payment would be \$250 or higher.

In contrast to this perception, the [Brookings Institution](#) found that 50% of households paid less than \$160 per month in student loan payments. Seventy-five percent of households devoted less than 7% of their monthly income to repaying student loan debt, equivalent to a \$242 average monthly payment on student loans. Moreover, the Brookings analysis found the typical household spends more per month on housing (\$1,407), transportation (\$750), and food (\$588) than on monthly student loan payments. Monthly spending on entertainment (\$217), apparel (\$145), and health care (\$296) track more closely to the typical household's average monthly student loan repayment. In fact, the median monthly loan payment has not changed from 1992 to 2013, ranging from about 3% to 4% of monthly earnings.

It is also worth examining borrowers' understanding of their own debt. Surprisingly, [research](#) from the Brookings Institution has shown that first-year college students who took out federal student loans did not know how much they borrowed (even within months of signing the promissory note for their loans).^{xviii} Only 24% of students reported their total amount borrowed within a 10% range of the correct amount. About half (51%) thought they had less debt and the remaining 25% overestimated their borrowing. The same survey found that a whopping percentage (42%) of first-year students with federal loans reported not having any federal debt or student loan debt at all.

Are we facing a student loan crisis?

With \$1.5 trillion in outstanding student loans and minimal understanding of student loan debt by some borrowers, it has been suggested that the U.S. faces a student loan crisis, similar to the housing crisis

that began in 2007. In “Game of Loans,”^{xix} economists Beth Akers and Matthew M. Chingos make the case that student loans are “too small of a market and too isolated from the private sector... to take down the U.S. economy.”

Even if we are not facing a student loan crisis, some have observed that there are alarming trends in student loan borrowing and repayment that could impact the greater U.S. economy. A September 2016 Federal Reserve study found that:

“The trends in the student debt market we observed and the default rate patterns we have described paint a sobering picture of trends in higher education loans. If these outcomes do not improve substantially over the near future as the economy continues to recover, these may serve as a drag on the financial well-being of the nation.”^{xx}

On the individual level, the return on an investment in college can vary by borrower. Akers and Chingos cite work from the Hamilton Project at Brookings that found average lifetime earnings by college major vary from \$800,000 to \$2 million. Additional research has shown that each additional [\\$10,000 in student loans](#) held by a borrower causes the borrower to “achieve the nation’s median net worth 26% slower than a college graduate without that debt.” Given the differences in student loan borrowing patterns across income levels and race, these findings indicate further negative impact on borrowers from certain backgrounds.

In addition, the financial future and personal well-being of borrowers who experience a low return on their college investment may be significant. A paper on [“Debt and Subjective Well-being”](#) found that student loan debt had effects similar to income levels on financial worry and life satisfaction for college graduates who had been paying off their student loan debt for at least seven years.

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Sources

ⁱ National Center for Education Statistics, Digest of Education Statistics 2020, Table 331.95. Retrieved from https://nces.ed.gov/programs/digest/d20/tables/dt20_331.95.asp

ⁱⁱ For additional background information on federal student aid, see PNPI's [primer](#).

ⁱⁱⁱ College Board, Trends in College Pricing and Student Aid 2021. Retrieved from: <https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf>

^{iv} The NPSAS is a survey conducted every four years and its data only includes college graduates (not drop-outs). The most recent NPSAS data was released in 2018 (covering the 2015–16 school year). More information is available at <http://nces.ed.gov/surveys/npsas/about.asp>.

^v National Center for Education Statistics, Digest of Education Statistics 2020, Table 331.95. Retrieved from https://nces.ed.gov/programs/digest/d20/tables/dt20_331.95.asp

^{vi} NPSAS Data Set.

^{vii} College Board, Trends in College Pricing and Student Aid 2020. Retrieved from <https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2020.pdf>

^{viii} The Urban Institute, Which Households Hold the Most Student Debt? Retrieved from: <https://www.urban.org/urban-wire/which-households-hold-most-student-debt>

^{ix} The Institute for College Access and Success, Quick Facts About Student Debt. Retrieved from https://ticas.org/files/pub_files/qf_about_student_debt.pdf

^x The Institute for College Access and Success, Quick Facts About Student Debt. Retrieved from https://ticas.org/files/pub_files/qf_about_student_debt.pdf

^{xi} Brookings Institute, Black-white disparity in student loan debt more than triples after graduation. Retrieved from: <https://www.brookings.edu/research/black-white-disparity-in-student-loan-debt-more-than-triples-after-graduation/>

^{xii} Center for American Progress, New Federal Data Show a Student Loan Crisis for African American Borrowers. Retrieved from: <https://www.americanprogress.org/issues/education-postsecondary/news/2017/10/16/440711/new-federal-data-show-student-loan-crisis-african-american-borrowers/>

^{xiii} National Center for Education Statistics, Digest of Education Statistics 2020, Table 332.45. Retrieved from https://nces.ed.gov/programs/digest/d20/tables/dt20_332.45.asp

^{xiv} College Board, Trends in Student Aid Resource Library. Retrieved from: <https://research.collegeboard.org/trends/student-aid/resource-library>

^{xv} This study used a unique data set that matched four million U.S. Department of Education student borrower records to de-identified tax records from the U.S. Department of Treasury. “Non-traditional borrower” refers to older, independent students who often enroll less than full time.

^{xvi} As of June 30, 2021, 13% of Direct Loan borrowers were in default. In March 2020, the Department of Education moved all Direct Loan accounts into a temporary administrative forbearance, in which payments are suspended through January 31, 2022, and interest rates are set to 0%. Because borrowers are not required to make payments on their accounts, no new accounts will default while the administrative forbearance is in place.

^{xvii} Brookings analyzed the 2010 Survey of Consumer Finances, a nationally representative survey administered by the Federal Reserve Board.

^{xviii} See Akers, E. and Chingos, M. (2014, December). *Are College Students Borrowing Blindly?* [Report].

Washington, D.C.: Brown Center on Education Policy at Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/Are-College-Students-Borrowing-Blindly_Dec-2014.pdf

^{xix} See Akers, B. and Chingos, M. (2016). *Game of Loans: The Rhetoric and Reality of Student Debt*. Princeton, NJ: Princeton University Press.

^{xx} See Chakrabarti, R., Lovenheim, M. and Morris, K. (2016, September 9). Who Falts at Student Loan Payback Time? [Blog Post]. New York, NY: Federal Reserve Bank. Retrieved from <http://libertystreeteconomics.newyorkfed.org/2016/09/who-falters-at-student-loan-payback-time.html>.