



RESEARCH REPORT

Underwater on Student Debt

Understanding Consumer Credit and Student Loan Default

Kristin Blagg

August 2018



ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is a leading research organization dedicated to developing evidence-based insights that improve people's lives and strengthen communities. For 50 years, Urban has been the trusted source for rigorous analysis of complex social and economic issues; strategic advice to policymakers, philanthropists, and practitioners; and new, promising ideas that expand opportunities for all. Our work inspires effective decisions that advance fairness and enhance the well-being of people and places.

Contents

Contents	iii
Acknowledgments	iv
Executive Summary	v
Underwater on Student Debt	1
Data and Methods	2
Patterns of Student Loan Default	6
Characteristics of Defaulters	9
Predicting the Likelihood of Default	15
Credit Effects of Default and Recovery	17
Policy Recommendations	23
Conclusion	26
Appendix A. Additional Figures	27
Notes	34
References	35
About the Authors	37
Statement of Independence	38

Acknowledgments

This report was funded by Smith Richardson Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the author and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at urban.org/fundingprinciples.

I thank Matthew Chingos, Sandy Baum, Erica Blom, Jason Delisle, Preston Cooper, Cody Christensen, and Judith Scott-Clayton for helpful comments on earlier drafts of this report.

Executive Summary

Even with a multitude of repayment and debt deferment options, about 250,000 federal direct loan borrowers see their loans go into default every quarter, and an additional 20,000 to 30,000 borrowers default on their rehabilitated federal student loans. In this report, I describe the relationship between a borrower's credit profile and student loan default in a nationally representative sample of student loan borrowers, over the first four years of repayment.

My results indicate that the likelihood of student loan default is positively correlated with holding other collections debt (e.g., medical, utilities, retail, or bank debt). About 59 percent of borrowers who defaulted on their student loans within four years had collections debt in the year before entering student loan repayment (compared with 24 percent among nondefaulters). Those who will default on their student loans are more likely to reside in neighborhoods that have more residents of color and fewer adults with a bachelor's degree or higher, but a borrower's personal credit profile is a stronger predictor of default than the neighborhood where she resides.

Borrowers experiencing a student loan default see an average credit score drop of about 50 to 90 points in the year or two before the default. But those who default typically have poor to fair credit scores, even in the year before entering student loan repayment. Borrowers who default make less progress than nondefaulters in paying down their student loans (as a share of the initial balance), though those with smaller balances (less than \$5,000) make more progress than those with higher balances (\$20,000 or higher), a trend that also holds true among nondefaulters.

These findings point to several policy recommendations:

- **Investigate the effect of debt and collections obligations on student loan repayment.** Borrowers who default are more financially distressed by other collections debt than nondefaulting borrowers in their cohort. In these circumstances, borrowers might rationally address or pay down other debt obligations before addressing their student loans. Policymakers and researchers should gather more information on borrowers' financial circumstances at the point of default.
- **Use credit scores to better target student loan repayment assistance.** Federal student loans generally do not require underwriting, and a low credit score should not keep a student from getting a loan—indeed, these borrowers might benefit most from access to credit to enroll in higher education. Instead, credit scores could be used as an impartial way to provide additional assistance for borrowers at a higher risk of default as they enter repayment.

- **Consider reshaping the way deferred, delinquent, and defaulted loans increase a borrower's total student loan balance.** Interest on a student loan is designed as an incentive for borrowers to begin paying down their loan. But many borrowers put their loans into deferment or forbearance, or do not make payments, thus rather than paying down their debt, they quickly build up additional debt. Policymakers should reexamine the ways interest and fees accrue on student loan debt and consider adjustments that encourage, rather than discourage, repayment.
- **Focus on discharge remedies that reach the highest-need borrowers.** Few student loan borrowers file for bankruptcy. Making it easier to discharge student loans in bankruptcy will likely not provide relief for borrowers who do not have the time or funds to go through the bankruptcy process. Policymakers who want to provide relief for the most distressed borrowers should consider other measures of a borrower's inability to make payments. For example, policymakers could consider a full or partial discharge of loans for borrowers with a record of spending several years in a social safety net program, such as the Supplemental Nutrition Assistance Program or Temporary Assistance for Needy Families, after leaving school.
- **Develop better measures of student loan acquisition and repayment.** The cohort model of tracking student loan repayment is valuable and is employed in this paper. But the diversity of paths a borrower can take in managing her student debt means that following only one cohort of borrowers fails to tell the whole story. For example, many borrowers avoid default but prolong repayment through multiple deferment and repayment options. Researchers and policymakers should consider new ways to segment and analyze student loan borrowers, such as by default behavior or by the use of deferment and forbearance.

Underwater on Student Debt

Roughly a quarter million federal direct loan borrowers see their loans go into default for the first time every quarter, and an additional 20,000 to 30,000 borrowers default on their rehabilitated student loans.¹ These defaults occur even though borrowers can put their loans into deferment or forbearance, and nearly all federal loan borrowers can take advantage of income-driven repayment plans that allow borrowers with incomes below 150 percent of the federal poverty level to make payments of \$0.

Previous research shows that the probability of a student loan default is higher for certain borrowers. Borrowers who go to for-profit schools and those who leave school without obtaining a degree are most likely to default (Hillman 2014; Looney and Yannelis 2015). Students from low-income families are also more likely than others to default (Herr and Burt 2005; Steiner and Teszler 2005). Students of color, particularly black students, have a higher probability of default than their white peers, and black borrowers tend to hold more debt than white borrowers, even after holding the borrower's family resources and other factors constant (Addo, Houle, and Simon 2016; Grinstein-Weiss et al. 2016; Jackson and Reynolds 2013; Scott-Clayton 2018).

Compared with the amount of research conducted on the socioeconomic, demographic, and institution-level factors affecting student loan defaults, researchers have conducted less research on the noneducation debts that student loan borrowers hold or the approach that student loan borrowers may take toward managing their debt. Undergraduate students who are financially at risk because of high credit card debt or credit card delinquency tend to have higher student loan balances while enrolled in school, and these students tend to predict that they will pay off credit cards before student loans (Pinto and Mansfield 2006). Borrowers who are delinquent on student loans are also more likely to be delinquent on credit card, auto, and mortgage debt relative to nondelinquent borrowers (Brown et al. 2015).

In this analysis, I describe the correlates and consequences of student loan default in a nationally representative sample of student loan borrowers over the first four years of repayment. I provide data on the different types of debt borrowers hold in the first year of student loan repayment to understand the credit profiles of borrowers who let their loans go into default relative to those who stay current or make late payments (i.e., delinquency). I show which credit-based factors are the most predictive of default in the four years after entering repayment. Finally, I show the credit consequences of student loan default and illustrate the changes in overall debt composition among borrowers who do and do not default.

Data and Methods

I use deidentified longitudinal data from one of the nation's three national credit bureaus. These data are a random 2 percent sample of US consumers with a credit record and are available for seven years (captured each August from 2010 to 2016). Each borrower's student loans are collapsed into a single set of data points, indicating the value of student loans that are in deferment, in repayment, and in collections (I do not have access to individual "tradelines," or loan-level data on amount owed and delinquency of each separate loan). These student loans include debt incurred for any educational program, which could include both undergraduate- and graduate-level debt and debt acquired for children or grandchildren (e.g., Parent PLUS Loans). About 10 to 15 percent of federal loan borrowers were the recipients of Grad PLUS or Parent PLUS loans in the past five years (Baum et al. 2017). These student loan records also include both private and federal student loan debts. Although I cannot distinguish the source of the loan, less than 10 percent of student loan volume in the past five years was nonfederal loans (Baum et al. 2017).

For most borrowers in most years, these data also include the zip code of the borrower's current contact address. I connect this zip code to demographic information from the American Community Survey averaged across five years (2011–16), including share of residents by race and ethnicity, education level, and household income level. I also connect zip codes to information on annual average home prices for all homes in the zip code, using data from the Zillow Home Value Index.

I follow a set of borrowers from the first year they enter repayment, rather than looking at a cross-section of student loan borrowers in each year. This method allows me to better describe credit events that happen before and during student loan repayment and after a borrower's first default. To identify those who enter repayment for the first time, I look at borrowers who have no history of student loan repayment in the prior two years on their credit record (students may have student loans in deferment or forbearance in the previous years but should not be actively making payments in these years). I exclude borrowers who meet these criteria but also have a marker on their credit record of a previous student loan default within the past two years, as this indicates the student loan might have entered repayment after a period in student loan collections.

BOX 1

A Primer on Student Loan Terms and the Credit Bureau Dataset

The following are terms that have a specific meaning in relation to a borrower's credit profile and to the credit dataset I use:

Credit score. This is a score indicating a consumer's credit risk. I use VantageScore 3.0 credit scores, which range from 300 to 850 and are used by the three credit agencies (Experian, Equifax, and TransUnion). A score of 700 or above is generally considered to be a good score (i.e., the borrower will likely receive competitive rates for credit), and consumers with scores below 550 are unlikely to be approved for credit.^a

Default. This term refers to unpaid debt that will be transferred to a third-party collector. Federal student loans are classified as in default ("400" status) after 270 or 360 days of nonpayment and are typically sent to a collection agency after 420 days.^b

Deferment. In my credit bureau dataset, student loans in deferment are any student loans that are held by the borrower but are not in active repayment or in collections. In practice, these loans may be either in deferment (e.g., while the borrower is in school, experiencing financial hardship, or in the military) or in forbearance (e.g., in a residency program, in teaching service for loan forgiveness, experiencing high student loan debt burden or financial difficulties, or serving in the National Guard).^c

Delinquency. Student loans are delinquent once the borrower misses a monthly payment. Delinquency, as reported in credit bureau data, is categorized in terms of days past a payment due date (e.g., 30, 60, or 90 days late). Student loan servicers vary in when they report late payments to credit bureaus. Some offer a grace period, but all federal loan servicers report delinquencies of more than 90 days.^d

Exit default. Federal student loan borrowers can exit default by paying off their defaulted debt (either in lump sum or installments), rehabilitating their loans (making nine monthly payments toward the loan), or consolidating their loans (paying off the defaulted loans by making three on-time monthly payments and then taking out a new direct consolidation loan).

Expected monthly payment. This is the monthly amount due on student loans for each borrower in my dataset. In a standard plan, the minimum monthly payment is \$50, though borrowers may have lower monthly payments through such plans as income-driven repayment.

Tradeline. This is a line of credit for a given debt or loan. Each student loan is given its own tradeline, though borrowers typically pay down the balance on federal student loan tradelines together. In my data, all tradeline balances are bundled together into debt balances that are in deferment, repayment, or collections.

Worst-ever status. In my credit bureau dataset, the worst-ever status refers to the most delinquent status that a borrower's student debt has reached over the previous 24 months. A borrower can have a status of current (indicated with a "1"), delinquent (by 30, 60, 90, or more days), or default (indicated with a "400").

^a"What Is a Good Credit Score?" Experian, accessed July 30, 2018, <https://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score/#s2>.

^bUS Treasury, "Report on Initial Observations from the Fiscal-Federal Student Aid Pilot for Servicing Defaulted Student Loan Debt" (Washington, DC: US Treasury, n.d.).

^c"Deferment and Forbearance," US Department of Education, Office of Federal Student Aid, accessed July 30, 2018, <https://studentaid.ed.gov/sa/repay-loans/deferment-forbearance>.

^d"Default Rates," US Department of Education, Office of Federal Student Aid, accessed July 30, 2018, <https://studentaid.ed.gov/sa/about/data-center/student/default>.

Using this method, I identify roughly 80,000 borrowers in each year of my sample (from 2012 to 2016, as the 2010 and 2011 years are used for identification) who appear to be entering student loan repayment for the first time. My analysis focuses on borrowers who entered student loan repayment in the 2012 measurement year (i.e., first started repayment between August 2011 and August 2012). I select this year for my analysis because it provides the greatest window in which to track ensuing student loan delinquency and default. But later cohorts of borrowers appear to have similar characteristics and exhibit similar trends as the 2012 cohort (albeit over a shorter time frame).

I define *student loan default* as having a worst-ever student loan status of “default” and having at least a dollar of student loans recorded in collections in the same year. Although it is uncommon in my dataset, borrowers can default on a student loan and have other student loans not defaulted (i.e., in deferred status or in repayment status). I count any borrower with at least one defaulted loan as a student loan defaulter.

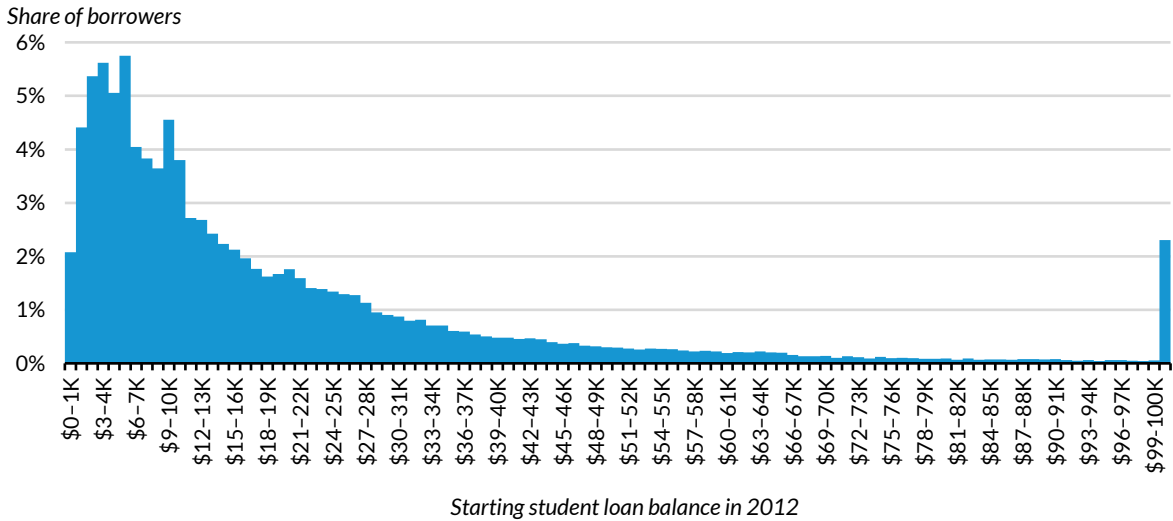
Borrowers in the 2012 cohort have an average loan balance upon entering repayment of about \$20,860, though balances vary substantially (figure 1). A quarter of these borrowers have less than \$5,500 in student loan debt, and the median debt is about \$11,700. In line with previous evidence, I observe a low prevalence of high student debt; 9.0 percent of borrowers enter student loan repayment with more than \$50,000 in debt, and just 2.3 percent of borrowers in my sample enter repayment with loans larger than \$100,000.

The distribution of expected monthly payment—the amount that the borrower has agreed to pay under her payment plan—for my cohort of borrowers is more “lumpy” than the distribution of student loan balances (figure 2). The minimum monthly payment for a standard 10-year federal student loan repayment plan is \$50, and I observe a cluster of borrowers who are recorded as owing this amount each month. About 10 percent of borrowers in my sample owe less than \$50 a month (possibly because of opting into income-driven or graduated repayment plans), and 11 percent of borrowers in my sample owe *exactly* \$50. Just 7 percent of borrowers in my sample have a monthly payment of more than \$500.

FIGURE 1

Student Loan Balance Measured in First Repayment Year

Distribution of borrowers from 2012 cohort by student loan balance



URBAN INSTITUTE

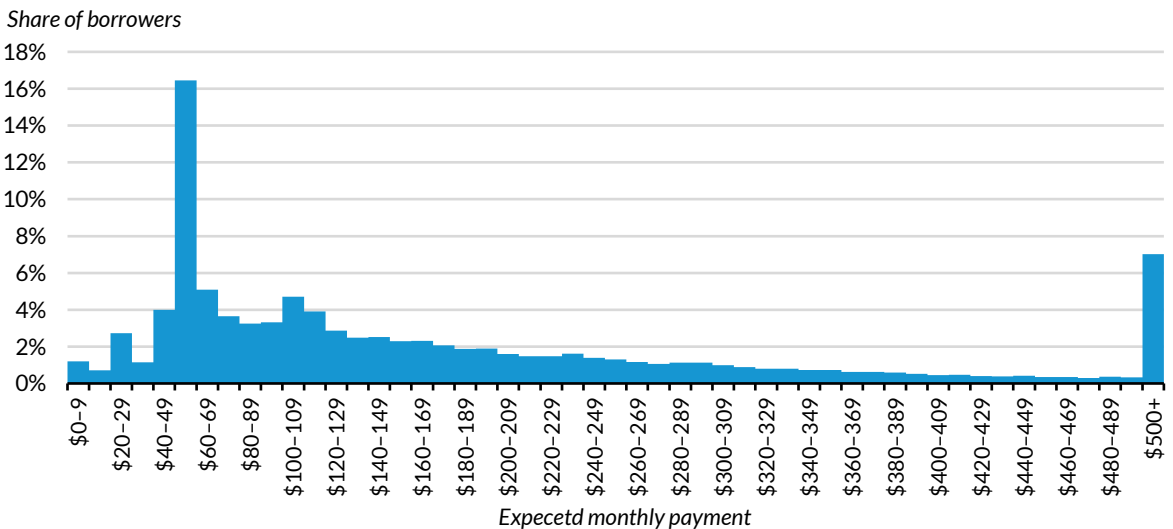
Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. The “\$0-1K” category includes loans up to \$999, the “\$1-2K” category includes loans from \$1,000 to \$1,999, and so on.

FIGURE 2

Expected Monthly Payment Measured in First Repayment Year

Distribution of borrowers from 2012 cohort by expected monthly payment



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012.

Patterns of Student Loan Default

By following the 2012 cohort, we can better understand how borrowers progress in their student loan repayment over the next four years. Because my dataset records loan data at a single point during the year, some borrowers are recorded as delinquent (30 or more days late on payments) in the first year of repayments. These borrowers entered repayment at some point in the prior year and already missed payments on at least one student loan by August. I observe this delinquency at the same time I observe they have entered repayment.

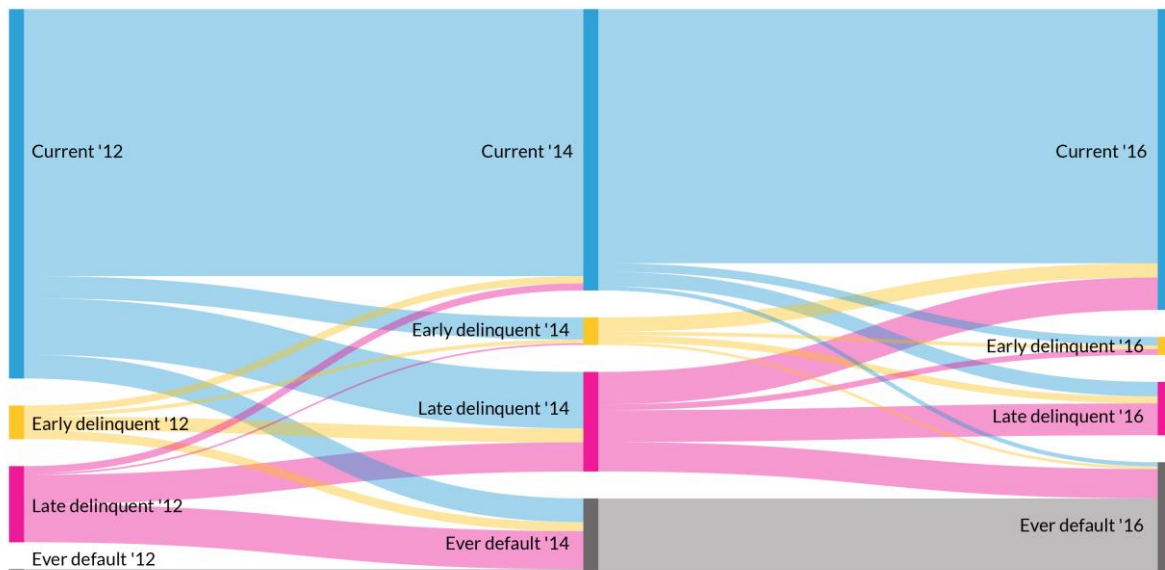
Less than 1 percent of borrowers in my sample cohort are in default in their first year of repayment (i.e., in 2012). Defaults on a federal student loan typically take at least a year to be recorded in credit bureau data, but defaults on private student loans can take less time. Borrowers who default in less than a year are less likely to have an indicator of having federal debts, which suggests that many of these first-year defaults are likely on private student loans.

Figure 3 shows the flow of worst-ever student loan status in my data over the first four years of repayment (upon entering repayment, after two years, and after four years). “Worst-ever” status indicates the most delinquent status on a consumer’s student loan over the previous two years. For this analysis, borrowers who default on their student loans during the period are marked as staying in default for the remainder of the 2012–16 period (i.e., I consider defaulters to have exited their first repayment attempt, even if they recovered from default). Borrowers who enter repayment and put their loans into deferment or forbearance continue to be counted, as are students who pay off their loans within this four-year period.

FIGURE 3

Status of Student Loans over Time

Worst-ever status on student loans, 2012 cohort



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. “Worst-ever” status is the most delinquent status of a student loan in the previous 24 months. Early delinquency is 30, 60, or 90 days late, and late delinquency is 120 or more days late. Borrowers who default continue to be reported as “ever default,” even if they resolve the default. Includes borrowers who enter repayment and subsequently pay off their debts or put their loans into deferment.

After two years of repayment, in 2014, about 58 percent of student loan borrowers are recorded as current on their credit record (no delinquency or default in the previous two years), and 15 percent of borrowers have at least one defaulted student loan. By 2016, 62 percent of borrowers in our cohort are current and 22 percent have had a default in the previous four years.

Borrowers who enter only early delinquency—that is, who missed a maximum of three monthly payments—are rare. In 2014, 6 percent of borrowers have had at least one loan in early delinquency (marked as 30, 60, or 90 days delinquent), while 21 percent of borrowers have had at least one loan enter late delinquency (120 or more days delinquent). Among borrowers in late delinquency in 2014, about 30 percent default by 2016 and about 33 percent return to current status by 2016.

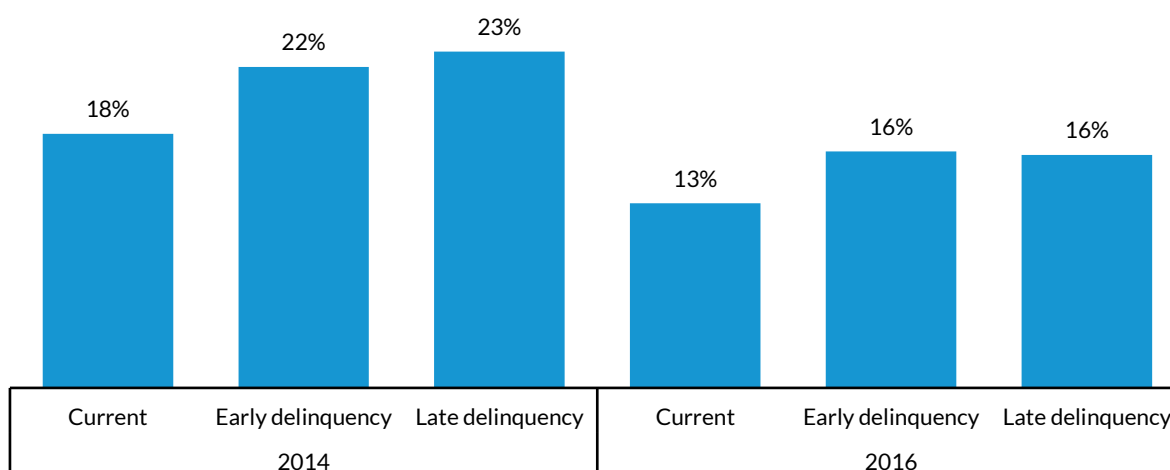
A substantial portion of borrowers entered deferment or forbearance on their student loans after starting repayment in 2012. This status could indicate that the borrower has returned for another enrollment in school (e.g., a dropout returns to college or a college graduate enrolls in graduate school) or is engaged in active-duty military service but could also indicate that the borrower is unemployed or

cannot make payments because of low income or financial difficulties. Within the 2012 cohort, about 18 percent of current borrowers in 2014 and 13 percent of current borrowers in 2016 had put their loans into deferment (or forbearance) during that year (figure 4). Deferment is slightly more common among borrowers who have a record of delinquency; about 22 percent of borrowers with previously delinquent loans had put those loans into deferment in 2014, and 16 percent of previously delinquent borrowers had deferred their loans in 2016.

FIGURE 4
Share of Borrowers with Debt in Deferment

By worst-ever status, 2012 cohort

Share of borrowers who have at least \$1 of debt in deferment



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

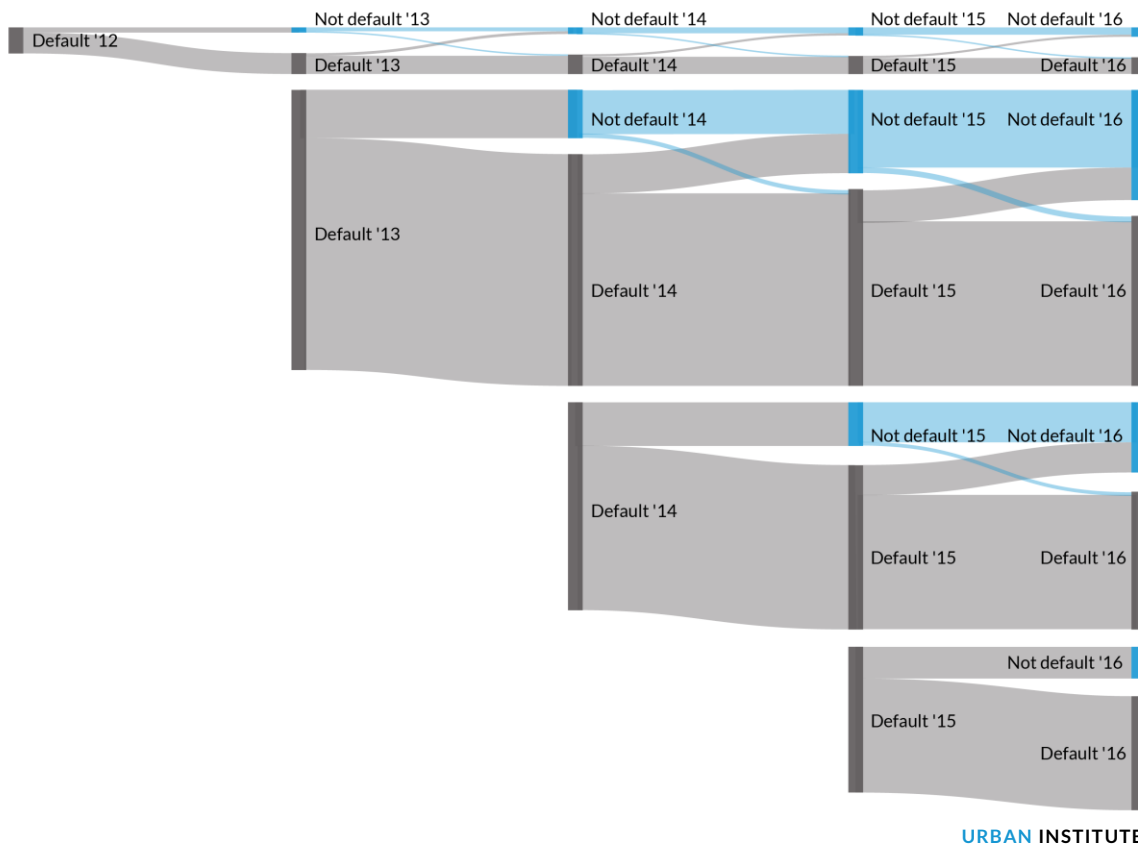
Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Early delinquency is 30, 60, or 90 days late, and late delinquency is 120 or more days late. Borrowers are assumed to be in deferment if they have no student loans in active repayment and at least a dollar of open deferred student loan debt.

In figure 3, I show the progress of borrowers who appear to have entered their first repayment in 2012. Borrowers who have had their loans enter default are presumed to stay in default. But some borrowers in my sample do exit default during this period. Borrowers can exit default by paying the loan off in full, rehabilitating the loan, or consolidating the loan. In the 2012 repayment cohort, 22 percent of borrowers defaulted on a student loan at least once during the first four years. Of these defaulters, about 29 percent appeared to have exited from default status (i.e., have no student debt in collections) by 2016, the last year of my panel. Roughly 20 percent of student loan defaulters recovered from default within one year, and an additional 10 to 14 percent recovered within two years. A small portion of borrowers (2 to 4 percent of previous defaulters each year) redefault (figure 5).

FIGURE 5

Defaults and Default Exits over Time

Status of defaults and default exits, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. “Not default” status indicates a borrower who has no student loans in collections after a prior record of default.

In the next sections, I describe the characteristics of student loan borrowers who default, looking at their characteristics before starting repayment and then following them through default and exit from default.

Characteristics of Defaulters

Borrowers who eventually default have substantially different debt profiles and appear to come from less wealthy neighborhoods than borrowers who do not default. Knowing which borrowers default within four years, I can look back at the credit context of these borrowers before they entered repayment.

I use credit data from 2011, before the cohort entered repayment on their student loan debt. This allows me to capture the credit health of borrowers while they are still in deferment or, in a small number of cases, before they have taken out the student loan. About 93 percent of my 2012 cohort have a credit record for the previous year.² For information on contextual neighborhood variables, I use data from the first year of repayment (2012) to better account for the students who may move from campus to a new neighborhood for a career.

Most Defaults Are Concentrated among Low-Balance Borrowers, but High-Balance Borrowers Are Not Immune to Default

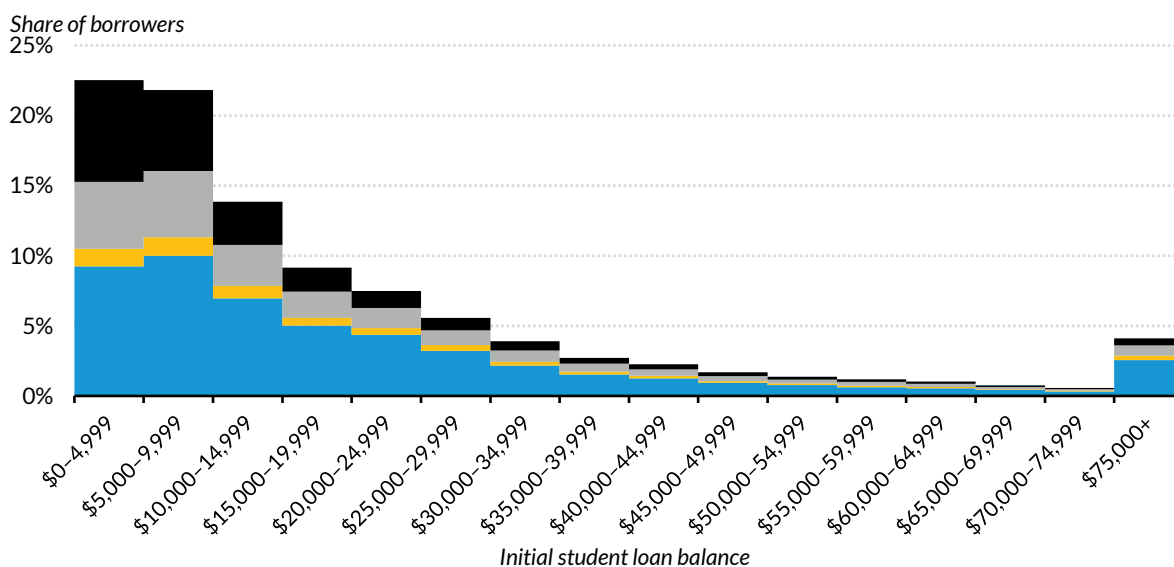
Borrowers who owe less than \$5,000 at the start of repayment are the most likely to default within four years; 32 percent of these borrowers defaulted at least once. But high-balance borrowers sometimes default. About 15 percent of borrowers who owed more than \$35,000 at the start of repayment defaulted on at least one loan over the next four years. But the proportion of borrowers with a large debt load is small (figure 6).

FIGURE 6

Status of Student Loans by Balance

By worst-ever status on student loans over four years, 2012 cohort

■ Stayed current ■ Early delinquency ■ Late delinquency ■ At least one default



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Early delinquency is 30, 60, or 90 days late, and late delinquency is 120 or more days late. Includes borrowers who enter repayment and subsequently pay off their debts or put their loans into deferment.

Figure 6 also shows the worst delinquency status (e.g., the latest that borrowers have been on their loan payments) that nondefaulted borrowers reached over the ensuing four years. About 6 percent of borrowers who owed less than \$5,000 were 30, 60, or 90 days delinquent at some point during the four-year period; 21 percent of the same group of borrowers entered late delinquency (more than 90 days delinquent but did not default). Unlike default, the share of borrowers who reach early or late delinquency over four years are similar across levels of student debt. Eight percent of borrowers who owed more than \$35,000 reached early delinquency, and 20 percent of these borrowers reached late delinquency.

Student Loan Defaulters Are More Likely to Hold Certain Types of Debt before Entering Repayment

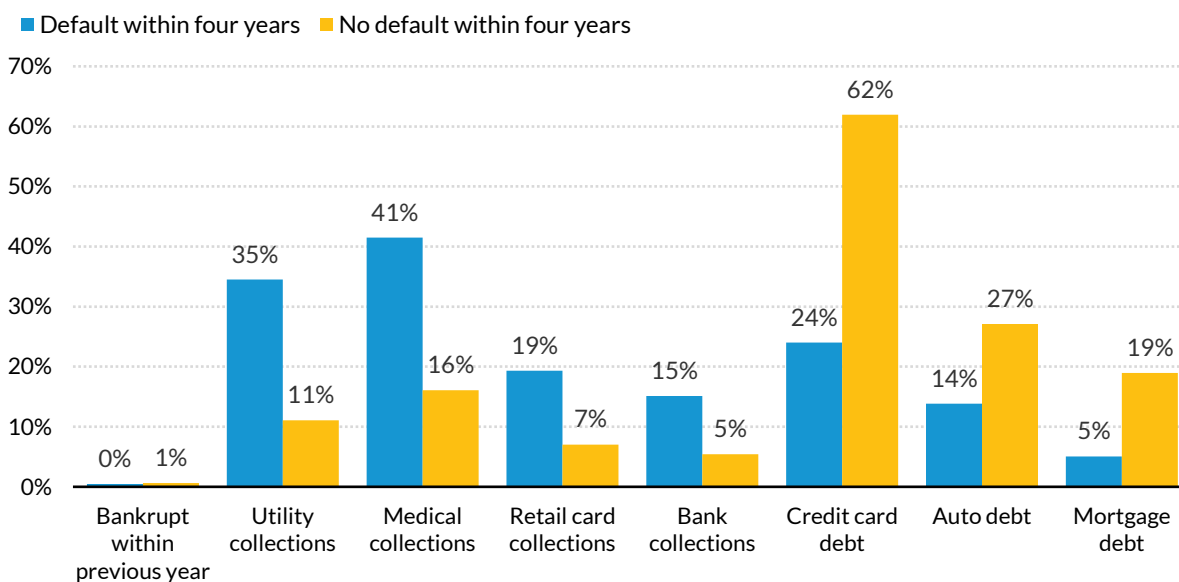
In the year before entering repayment, student borrowers who default are less likely to hold any household debt (e.g., a mortgage, auto loan, or credit card balance) and are more likely to be in collections on some other type of financial obligation (figure 7). Student loan defaulters are more likely to have utilities collections debt and medical debt. In addition, a small portion of student loan defaulters are in collections on retail debt or bank debt. Borrowers who do not default in four years are more likely than defaulters to have credit card debt, auto debt, and mortgage debt in the year before repayment. There is essentially no difference between defaulters and nondefaulters in the likelihood of having declared bankruptcy in the previous year.

Of those who carry debt, the median levels of debt are similar between the two groups, but there are some noticeable differences, particularly for medical debt and household debt (appendix figure A.1). The median medical collections debt for a defaulter is nearly twice the median for a nondefaulter (\$926 versus \$560). Before repayment, the median credit card balance of nondefaulters with credit card debt was \$7,400, while the median debt for defaulters was \$1,500. Median auto loan and mortgage debts are also higher for nondefaulters. In line with previous literature, defaulters hold less student debt at the median than nondefaulters.

FIGURE 7

Debt Holdings of Borrowers in the Year before Entering Student Loan Repayment

By default status four years after entering repayment, 2012 cohort



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Credit card debt is having any debt on a credit card at the point of measurement.

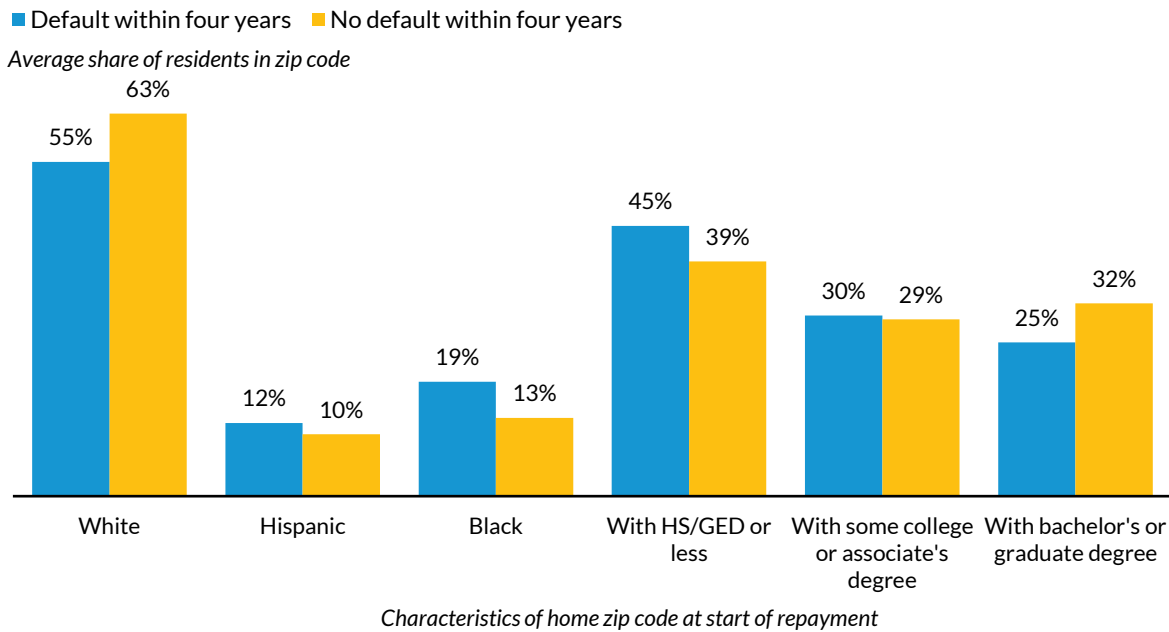
Some differences in the debt profiles of defaulters and nondefaulters may be because of age. Younger borrowers may be less likely to have a mortgage or have medical conditions that yield substantial amounts of collections debt. To understand this dynamic, I divide my sample into borrowers who were 24 or younger upon entering repayment and those who were older than 24 (appendix table A.1). The trends that are present in my full sample persist even when I divide my sample by age, particularly when looking at utilities and medical collections. Although younger borrowers are less likely to have utilities and medical collections, defaulters are more than twice as likely to have these collections debts than nondefaulters, regardless of age.

Student Loan Defaulters Live in Different Neighborhood Environments Than Nondefaulters

The credit bureau data do not contain borrower characteristics, but I can obtain some understanding of the background of these student loan borrowers by observing the demographic characteristics of the zip code in which they live. Upon entering repayment, borrowers who will eventually default lived in neighborhoods with a smaller proportion of white residents and a higher proportion of black and

Hispanic residents (figure 8). Borrowers who will default were also more likely to live in a neighborhood with a less educated population. In the average defaulter’s neighborhood, 45 percent of adults had a high school diploma, GED, or less, compared with an average of 39 percent in nondefaulter neighborhoods.

FIGURE 8
Neighborhood Characteristics of Borrowers in the Year Entering Student Loan Repayment
By default status four years after entering repayment, 2012 cohort



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau, American Community Survey, and Zillow Home Value Index data.

Notes: HS/GED = high school diploma or equivalency credential. White people and black people are non-Hispanic. Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Education levels are for adults 25 and older.

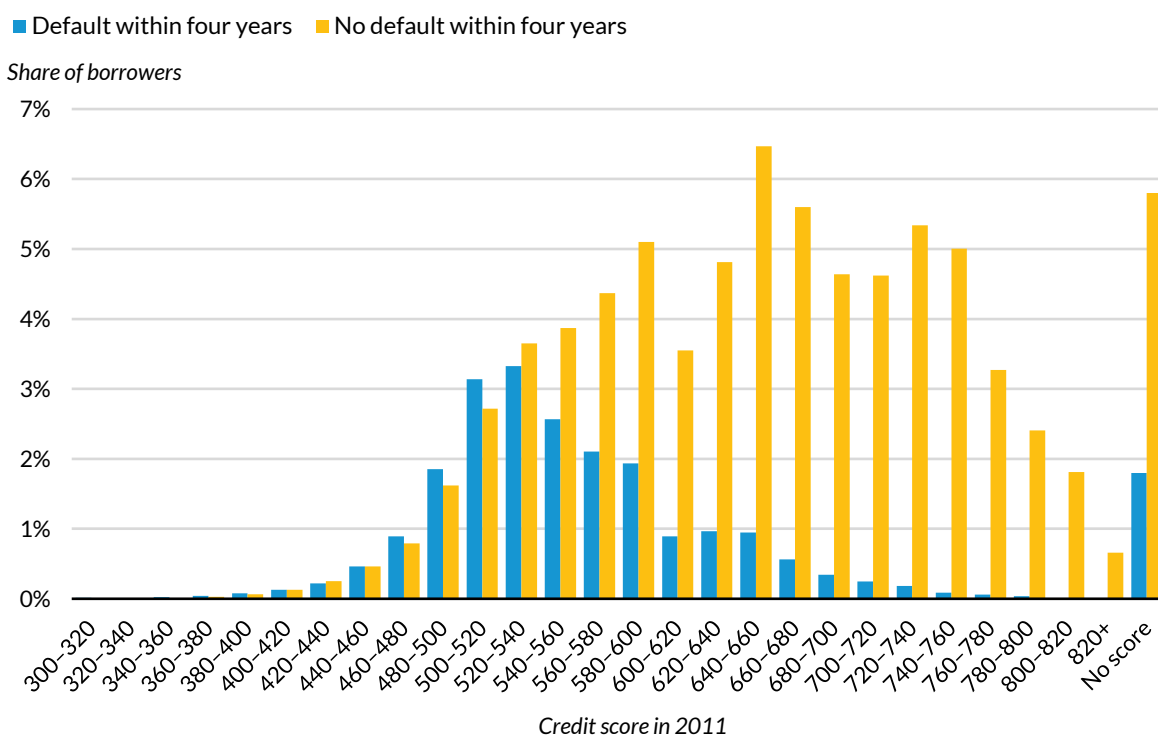
Borrowers who will default within four years also lived in neighborhoods that, on average, have less income and housing wealth. The median household income is \$51,194 in the average neighborhood where a defaulter lives, but the median household income in the neighborhood of a nondefaulter is more than \$10,000 higher (\$61,318). Likewise, median home prices (as measured by the Zillow Home Value Index) in the average neighborhood where a defaulter resides are lower (\$159,152 versus \$203,217).

Before Entering Repayment, Borrowers Who Default Have Lower Credit Scores

As might be expected given their other debt characteristics, borrowers who will default tend to have much lower credit scores in the year before entering repayment than borrowers who do not default. The differences in the distribution of credit scores are stark (figure 9). The 90th percentile of defaulter credit scores (647) is still six points lower than the median nondefaulter credit score.

Fifty-two percent of borrowers with a credit score below 500 in 2011 defaulted at least once by 2016. A small portion of borrowers—about 8 percent of the total sample—had no credit score in the year before repayment, but the likelihood of default is not substantially worse or better for those who enter repayment without a credit history compared with those who have one. About 76 percent of borrowers with no credit score stay current for the first four years after entering repayment, a similar proportion to the 77 percent of borrowers with a credit score who stay current.

FIGURE 9
Distribution of Credit Score for Borrowers in the Year before Entering Student Loan Repayment
By default status four years after entering repayment, 2012 cohort



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012.

Predicting the Likelihood of Default

These results indicate that, even at the point of entering repayment, student loan defaulters look substantially different from those who do not default within four years of entering repayment. Regression analysis can provide a better sense of the factors that may be most predictive of student loan default in this period. I do not have access to information about the type of loan a borrower received, the institution they attended, or whether they completed their education. Instead, I rely only on a limited set of data from their credit file. To conduct this analysis, I layer on student loan characteristics (expected monthly payment and student loan balance at start of repayment), characteristics of the borrower's neighborhood, the borrower's debt profile, her credit score, and a state-level dummy variable to account for differences in state collections and higher education financial aid policies. Full results of this probit analysis are available in appendix table A.2.

In line with previous evidence, higher student loan balances are associated with a decreased likelihood of default, even when there are controls for the borrower's location and pre-repayment period credit background. This might be because high loan balances are associated with length of time enrolled in school as well as enrollment in graduate school (Dynarski 2016). Expected monthly payment, controlling for student loan size, is positively associated with the likelihood of default, but the magnitude of this effect is small. Holding all factors constant at their mean values, a \$100 increase in a monthly payment is associated with a 0.1 percentage-point increase in the likelihood of default.

Previous research has shown that neighborhoods with proportionally more Hispanic and black adults also have higher levels of student loan delinquency and default.³ Layering on the demographic characteristics of the neighborhoods where student loan borrowers live at the start of repayment, I observe similar trends. Living in a neighborhood with a higher proportion of black adults is associated with an increased risk of default (at the mean values of the sample, a 10 percentage-point increase in the share of black adults is associated with a 1.3 percentage-point increase in the likelihood of default). Educational attainment in a borrower's neighborhood is also associated with a borrower's likelihood of default. A 10 percentage-point increase in the proportion of adults with a bachelor's degree or higher is associated with a 3.3 percentage-point decline in default risk.

But as we continue to add data on the borrower's neighborhood and her personal credit file, these neighborhood demographic differences begin to fade in magnitude and significance in correlating with default. Adding median household income and median home price in the borrower's zip code substantially reduces the association between the proportion of black or bachelor's-plus neighbors and

likelihood of default. When the borrower's own debt holdings and credit score are added, the association of neighborhood demographics with likelihood of default grows even smaller.

With a full set of controls (including state dummies), the borrower's credit factors, rather than the size of her monthly payments, her loan balance, or her neighborhood characteristics, stand out as the most substantial correlates of default:

- Credit score in the year before entering student loan repayment is highly correlated with student loan default. A 10-point increase in credit score is associated with a 1.3 percentage-point decrease in likelihood of default at the mean values of other variables in the sample.
- Holding any auto, mortgage, or credit card debt before entering student loan repayment is associated with a reduced likelihood of default (2.7, 7.0, and 7.3 percentage-point reductions, respectively, at mean sample values).
- Having utilities or medical debt collections before entering student loan repayment is associated with an increased likelihood of default (3.4 and 4.0 percentage-point increases, respectively, at mean sample values).

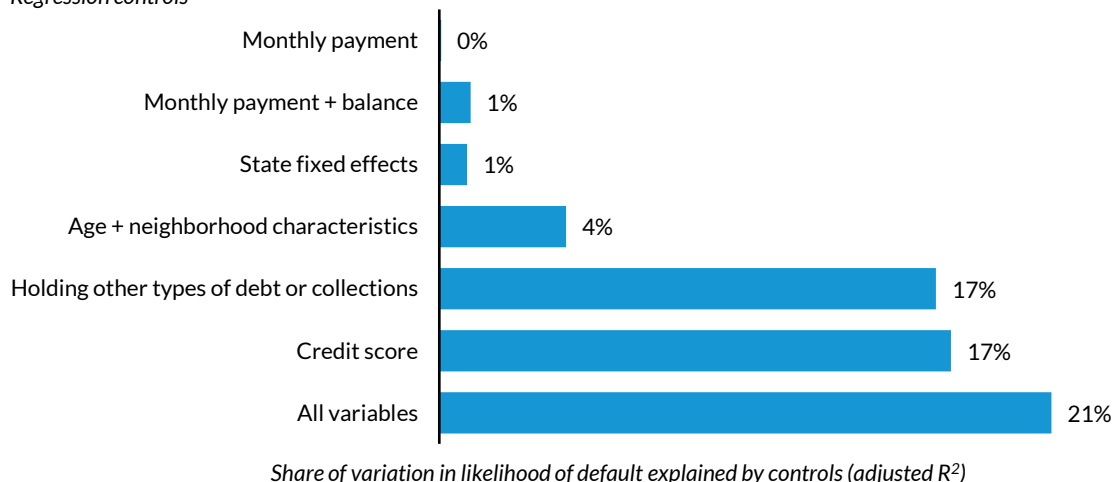
Credit scores rely on a borrower's personal credit history. Credit bureaus do not use any information on race and ethnicity, gender, income, location, or other personal characteristics in calculating a credit score (Board of Governors of the Federal Reserve System 2007). But accounting for a borrower's credit score and the presence of different types of debt in the year before repayment is a much stronger correlate of default than the borrower's neighborhood characteristics or the characteristics of the student loan (e.g., monthly payment and balance) (figure 10).

FIGURE 10

Variation in Default Likelihood Explained by Controls

Default likelihood within four years, 2012 cohort

Regression controls



URBAN INSTITUTE

Source: Urban Institute analysis of credit bureau, American Community Survey, and Zillow Home Value Index data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Based on a linear ordinary least squares regression.

These results demonstrate that a substantial portion of the variation in the likelihood of student loan default is associated with the other types of debt that borrowers hold, even before they enter repayment. Debts that indicate financial distress, especially medical and utilities debt collections, are correlated with a higher likelihood of default, but debts that typically require underwriting or risk assessment, such as mortgage, auto, or credit card debt, are correlated with lower levels of default.

Credit Effects of Default and Default Exit

Until this point, I have looked only at a borrower's circumstances at or just before repayment. But it is important to understand how financial circumstances change for borrowers, up to and beyond the point of student loan default. For example, changes in the proportion of borrowers who have debt in collections, or hold current household debt, could indicate broader changes in the financial status of borrowers.

Borrowers Are More Likely to Have Collections Debt in the Year of Default

At the point of default, student loan borrowers are increasingly likely to have debts that indicate financial distress. Borrowers are more likely to have utilities and medical collections debt in the year when they have their first default, relative to the year before they started repayment. For example, those who defaulted two years after entering repayment experienced a 13 percentage-point increase in the likelihood of having utilities debt in collections and an 11 percentage-point increase in having medical collections debt (appendix table A.3).

In contrast, borrowers who never default are more likely to take on debt that relies on underwriting, or credit risk assessment, over the four years in my panel. Four years after repayment, the share of nondefaulters who have a credit card balance increases 17 percentage points, the share of those who have auto debt increases 20 percentage points, and the share of those with a mortgage increases 9 percentage points.

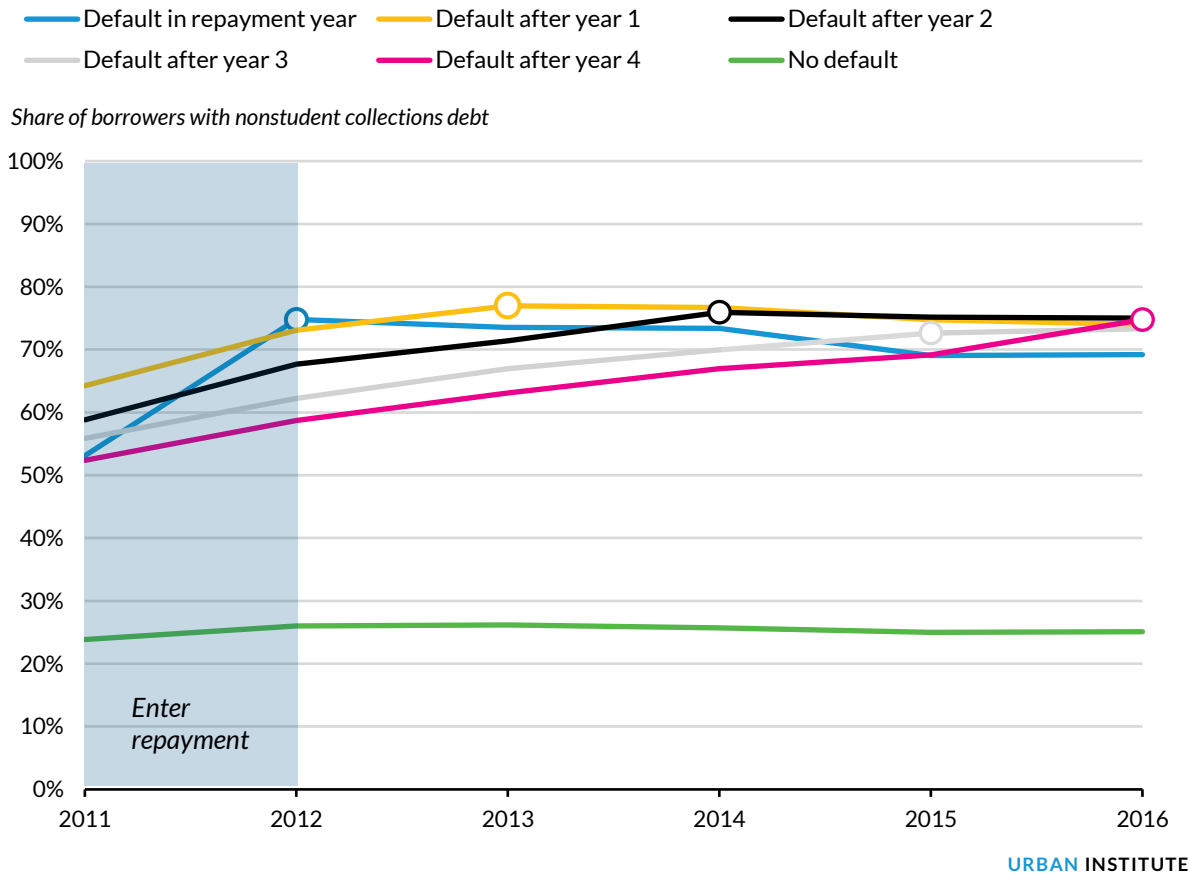
One way of visualizing these changes is to show the share of borrowers with nonstudent debt collections (utilities, medical, retail, or bank) and nonstudent household debt (including credit card, auto, mortgage, and home equity line of credit) over time. The differences in credit profiles become more stark as borrowers approach default. As a cohort, nondefaulters increasingly acquire household debts (66 percent held some other nonstudent household debt in 2011, and 83 percent held this debt by 2016) (appendix figure A.3). But the cohort of those who default tend not to take on much additional household debt over time (roughly 33 to 40 percent of defaulters held some other nonstudent household debt in 2011, and roughly 40 to 52 percent held this debt by 2016). This could potentially be because of an inability to acquire debt (e.g., not being eligible for a credit card because of a low credit score).

The likelihood of holding nonstudent loan collections debt (medical, utilities, retail, or bank) among defaulting borrowers increases in the years leading up to default (figure 11). Roughly 75 percent of defaulting borrowers had some other debt in collections in the year they defaulted on their student debt (up from about 52 to 64 percent in the year before entering repayment). In contrast, borrowers who stay current see relatively little change in the likelihood of having collections debt, holding steady with about 25 percent of the cohort holding collections debt in any given year.

FIGURE 11

Share of Student Loan Borrowers with Collections Debt over Time

By default status four years after entering repayment, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. A hollow circle indicates default in the given year for the defaulting cohort. Collections debt is having one or more collections for medical, utilities, bank, or retail debt.

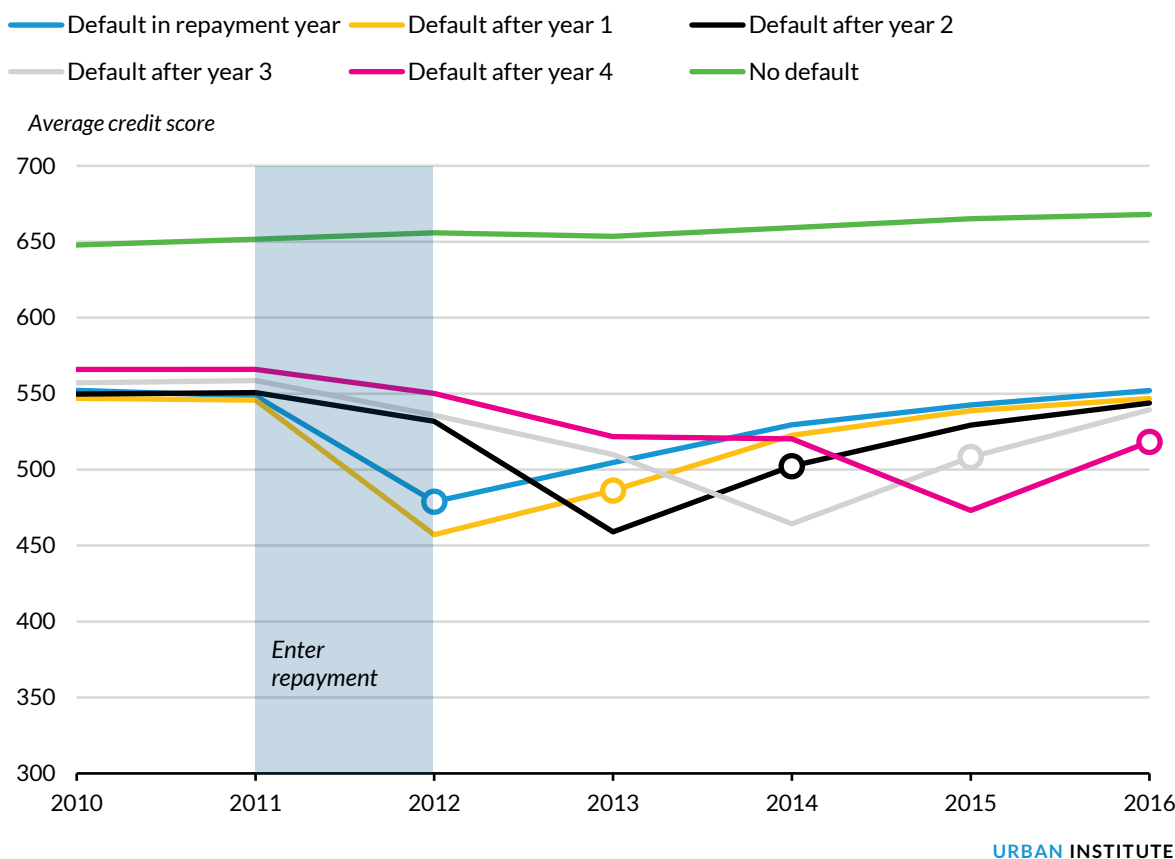
Borrowers See a Credit Score Decline in the Year before Default

On average, defaulting student loan borrowers see their credit score decline in the year before their student loan default (figure 12). This could be because of the reporting of the borrower’s delinquency status (i.e., 30, 60, 90, or 120 days late) in the year leading up to the student loan default or because of the accumulation of other delinquent or defaulted collections in the years leading up to the student loan defaults. In the year of default, the average defaulter’s credit score is roughly 30 to 40 points higher than in the previous year but still about 45 to 60 points lower than in the year before they entered repayment.

FIGURE 12

Average Credit Score of Student Loan Borrowers over Time

By default status four years after entering repayment, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. A hollow circle indicates default in the given year for the defaulting cohort.

Early defaulters—borrowers who default within the first two years of entering repayment—have an average credit score that approaches their pre-repayment score by 2016. Despite this recovery, defaulters maintain the relatively low credit scores that they had in the period before repayment, with an average credit score around 550. In contrast, borrowers who do not default see a slight increase in their average credit score, going from an average of 652 in the year before repayment to 668 in 2016.

Part of the bounce back in average credit score among defaulters may be because of the borrowers who exit default. Borrowers who eventually pay off their loan or return their loan into repayment were less likely to have collections debt in the year they entered default (appendix figure A.3). Those who exited default by 2016 were 5 percentage points less likely to have utilities debt in collections and 5 percentage points less likely to have medical debt in collections. Borrowers who exited default were

also more likely to hold other household debts in the year they defaulted. Those who exited default were 6 percentage points more likely to hold credit card debt, 5 percentage points more likely to hold auto debt, and 2 percentage points more likely to have mortgage debt. In the years after default, those who paid off their defaulted debt or returned their student debt to good standing tended to have credit scores that were 30 to 50 points higher than those who still had student loans in default.

Borrowers See Their Balances Grow Substantially in the Default Year

In the year of their default, student loan borrowers see their overall student debt balances rise (figure 13). In this case, I characterize a borrower's student loan balance as the total amount of student debt in deferment, in collections, and in active repayment. At the median, a borrower who defaults in the first year of repayment will see her overall student loan balance rise 9 percent (equivalent to about \$696 at the median) from the time of repayment. Defaulters in subsequent years see even higher increases in loan balance relative to their starting repayment balance. This could be because of accumulated interest during a period of forbearance or deferment on an unsubsidized loan, the accumulation of interest during default, or the acquisition of additional new student loans.⁴ In the years following the default, the median balance tends to either stay roughly the same or grow slightly larger.

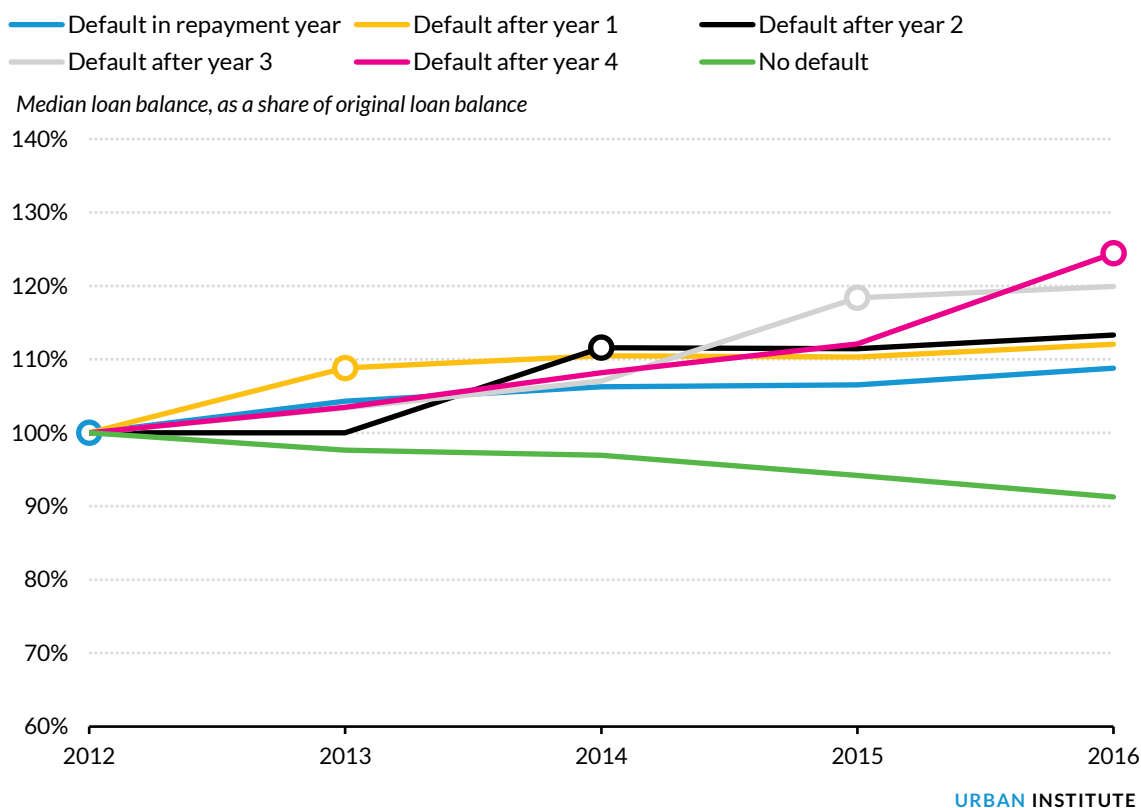
At the median, borrowers who stay out of default make some progress paying down their loans, with a loan balance that is roughly 10 percent lower in 2016 than the amount they held in 2012. For both defaulters and nondefaulters, the median progress on paying down the overall student loan balance is correlated with the total amount of debt the borrowers started with in 2012.

Borrowers who had less than \$5,000 in loans in 2012 tended to make the most progress reducing their overall loan balance by 2016. The median nondefaulter with less than \$5,000 in student loans had a loan balance that was 38 percent lower (equivalent to a median reduction of \$971) by 2016 (appendix figures A.4 and A.5). Even among those who defaulted in 2013, the median borrower who had less than \$5,000 in debt paid down 7 percent of the original debt (a median reduction of \$139) by 2016.

FIGURE 13

Median Student Loan Balance over Time

By default status four years after entering repayment, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. A hollow circle indicates default in the given year for the defaulting cohort. A borrower’s student loan balance is the total student debt in deferment, in collections, and in active repayment.

In contrast, the median nondefaulting borrower with \$25,000 to \$49,999 in debt in 2012 saw a decline of just 4 percent of their debt by 2016 (equivalent to a median reduction of \$1,270), and a nondefaulting borrower with \$50,000 or more in debt saw a slight 1 percent increase in their balance (a median increase of \$1,021). Among those who had a default in 2013, these numbers are more stark. Borrowers who defaulted a year after entering repayment on debt between \$25,000 and \$49,999 experienced an 18 percent increase (\$5,636) in their overall balance by 2016, and those with \$50,000 or more in debt saw a 19 percent increase (\$12,914).⁵

These findings are in line with previous research on repayment rates, which find slower or reduced repayment rates among large-balance borrowers (Looney and Yannelis 2018). There are many potential reasons for these pay-down differences. Borrowers with small debts may have required payments that put them on track to pay off their debt in less than the standard 10-year period. Or borrowers with high

balances may opt for repayment plans with longer periods, have interest rates that are not subsidized, or have private or graduate school loans with higher interest rates. Some of these pay-down differences may also be because of a decision to reenter school (thereby deferring loans or even taking on more debt) or to the use of repayment plans that result in negative amortization (e.g., using an income-driven repayment plan where the payments do not cover interest accumulation and thus cause balances to increase) (Conzelmann, Lacy, and Smith 2018).

Policy Recommendations

This report provides an in-depth analysis of the credit characteristics of student loan borrowers as they enter repayment. Findings from these data provide new insights for policymakers as to why student loan borrowers may default on their loans and potential avenues for reducing defaults and the consequences of default. My data suggest five potential policy interventions.

Investigate the Effect of Debt and Collections Obligations on Student Loan Repayment

In the year before entering repayment, and increasingly up to the point of default, student loan defaulters appear to be more financially distressed in terms of collections debt than nondefaulting borrowers in their cohort. Roughly 70 to 80 percent of defaulting borrowers have one or more medical, utilities, bank, or retail collections debts on their record in the year they default.

Because these other debts are an indicator of financial distress, policymakers and researchers should collect more data about the other debt obligations that borrowers, especially low-income borrowers, are holding and the actions they take to resolve them. In some cases, it may be rational for borrowers to pay down or resolve other collections debts more quickly than a student loan debt (Delisle and Holt 2015). Borrowers with utilities debt in collections, for example, may be at risk of losing their utilities services or may face a higher deposit requirement when reestablishing service. Those with medical debt in collections may face wage garnishment or other consequences.

Repayment plans that reduce the size of a borrower's monthly payment, such as income-driven repayment plans, are designed to ensure that borrowers pay a reasonable amount of their income each month (typically 10 percent above a poverty exception based on household size). But borrowers trying to enter income-driven repayment plans may face difficulties obtaining information about these plans or remaining enrolled in them over time (CFPB 2016). Just as borrowers may prioritize the pay-down of

other debts first, the hurdle of paperwork to enter a more affordable plan before or after exiting default may also be a barrier.

Use Credit Scores to Better Target Student Loan Repayment Assistance

Generally, federal student loans are not subject to an underwriting process, because underwriting tends to exclude low-income borrowers who might benefit most from access to credit to enroll in higher education (Kelly and James 2016).⁶ Although borrowers with low credit scores are more likely to default, a low credit score should not preclude getting a student loan. More than half of borrowers with a credit score between 520 and 540 did not default, and roughly three-quarters of borrowers without a credit score stayed out of default in the four years after first entering repayment.

Rather than using credit profiles to assess the up-front risk of lending to students, policymakers should instead consider the use of credit scores to assess risk of default or nonpayment. The use of credit scores could take a few different forms. For example, credit scores could be used to identify borrowers at highest risk of default. These “high-risk” borrowers could be offered more specialized or extensive loan counseling services, which are required upon entrance to and exit from a Title IV institution. Credit scores could also be used in the development of new reimbursement incentives for student loan servicers. For example, policymakers could offer additional dollars for servicers who ensure that high-risk borrowers are consistently enrolled in an income-driven repayment plan or for servicers who keep “high-risk” borrowers out of default.

Alter the Way Deferred, Delinquent, and Defaulted Loans Increase a Borrower’s Total Student Loan Balance

At the median, a borrower’s total student loan balance is substantially higher at the point of default than when she first entered repayment. It is possible that much of this increase is in the form of accrued interest and fees during periods of deferment, delinquency, and default. Although federal subsidized loans are not subject to accruing interest during periods of deferment, unpaid interest is generally capitalized after deferment on federal unsubsidized loans, and after forbearance on nearly all federal loans. In addition, student loans can be subject to substantial collection costs in default.

Assessing interest on student loans is important; the prospect of accumulated interest helps push borrowers to begin to pay down their debt, rather than put it into deferment or forbearance. At the same time, implementing too harsh a financial penalty could discourage borrowers from paying down

their loans. Before entering default, federal student loans can potentially acquire up to a year's worth of accumulated interest (e.g., roughly \$500 to \$760 on a \$10,000 federal loan) and could also incur an additional 18–40 percent in collection fees. Policymakers should investigate whether these penalties encourage or discourage positive borrower behavior in the period leading up to and after default.

Focus on Discharge Remedies That Reach the Highest-Need Borrowers

It is difficult to discharge student loan debt when filing for bankruptcy, but the US Department of Education and other policymakers are currently reviewing whether to loosen the “undue hardship” requirement for student loan discharge (ED 2018). My data show that very few student loan borrowers file for bankruptcy (roughly 1 percent) and that there is little difference in likelihood of bankruptcy filing among those who do and do not default on their loans.

Because filing for bankruptcy itself costs money, allowing student loan discharge in bankruptcy is likely to be a regressive policy, with the benefits of discharge accruing to those who have the time and funds to go through the bankruptcy process. Policymakers could, however, consider other potential remedies for distressed or defaulted borrowers. For example, policymakers could develop a measure of long-term financial hardship as a means of assessing candidates for student loan discharge. This measure of financial hardship could be defined using administrative data, such as being enrolled in a social safety net program such as the Supplemental Nutrition Assistance Program or Temporary Assistance for Needy Families for a period of several years after entering repayment on a student loan.

Develop Better Measures of Student Loan Acquisition and Repayment

Borrowers in my data follow many different paths to and through student loan repayment. Borrowers exercise different options for deferment and forbearance, acquire new student loans, and even emerge out of student loan default through a variety of paths (lump sum payment, rehabilitation, or consolidation). Consequently, relatively few borrowers are on track to repay their loan within a standard 10-year repayment window.

As students increasingly turn to loans to finance their education, particularly for graduate school, and increasingly select into different repayment plans, the consequences for borrowers and taxpayers grow harder to estimate (GAO 2016). Many current measures use a cohort model, similar to what I use in this paper, to analyze the pay-down of debt over time. But it might also be useful to look at different segments of student loan borrowers to better describe, understand, and predict borrower behavior. For

example, researchers could develop descriptive data on borrowers who default or enter forbearance multiple times, to better understand how interest and fees may pile up on top of an original balance.

Conclusion

Student loans are a unique form of debt, with unique consequences for default. But many borrowers who default on student loans are already familiar with the consequences of delinquency and default on other types of debt. For many of those who default on student debt, the risk of a lower credit score—or penalties such as wage garnishment—may be risks that they have already encountered from other debt obligations.

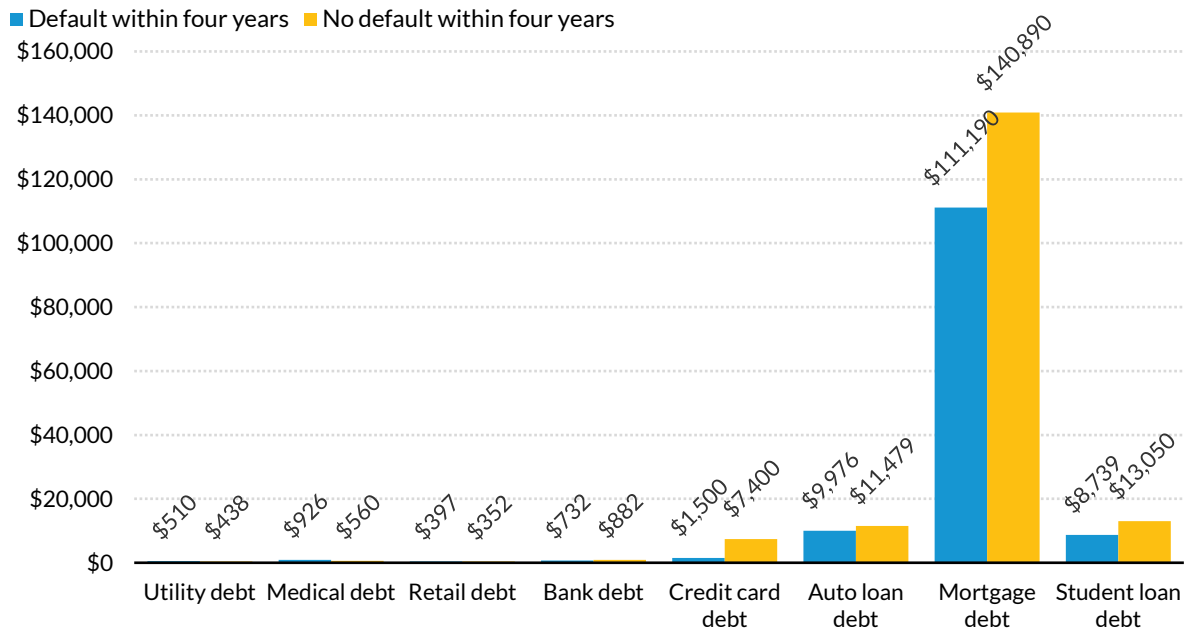
These data show that student loan defaulters are likely to be financially vulnerable, but my results should encourage policymakers to do more to help borrowers manage their debts, rather than to limit access to loans. Student loans are a key part of broadening access to higher education, and students take on a great deal of risk when they sign their promissory note for a student loan. It is up to policymakers to ensure that borrowers have access to a solid and fair safety net when life gets in the way of repayment.

Appendix A. Additional Figures

FIGURE A.1

Median Debt Amount in the Year before Entering Student Loan Repayment

Among borrowers holding debt, by default status four years after entering repayment, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Credit card debt is having any debt on a credit card at the point of measurement.

TABLE A.1

Debt Holdings, by Age Group, in the Year before Entering Student Loan Repayment*By default status four years after entering repayment, 2012 cohort*

	24 or Younger at Repayment		Older than 24 at Repayment	
	Default within four years	No default within four years	Default within four years	No default within four years
Sample size	6,758	21,535	11,562	40,058
Bankrupt within previous year	0%	0%	1%	1%
Utilities collections	18%	5%	44%	15%
Medical collections	25%	9%	51%	20%
Retail collections	8%	2%	26%	10%
Bank collections	5%	2%	21%	8%
Credit card debt	21%	51%	26%	68%
Auto debt	7%	13%	18%	35%
Mortgage debt	0%	1%	8%	29%
Median debt levels among those holding debt				
Utilities collections	\$443	\$409	\$529	\$444
Medical collections	\$666	\$449	\$1,022	\$601
Retail collections	\$426	\$375	\$389	\$349
Bank collections	\$699	\$710	\$739	\$910
Credit card debt	\$1,000	\$2,500	\$2,000	\$11,600
Auto debt	\$9,353	\$9,516	\$10,156	\$11,978
Mortgage debt	\$107,762	\$106,005	\$111,190	\$141,734
Student loan debt	\$6,340	\$10,805	\$9,920	\$14,577

Source: Urban Institute analysis of credit bureau data.**Notes:** Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Credit card debt is having any debt on a credit card at the point of measurement.

TABLE A.2

Probit Analysis of the Predictors of Default within Four Years*Coefficients expressed as average marginal effects*

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016
Expected monthly payment (\$100) (2012)	-0.00218* (0.00125)	0.00134*** (0.000500)	0.00136*** (0.000457)	0.00135*** (0.000452)	0.00117*** (0.000408)	0.00116*** (0.000381)
Student loan balance (\$1,000) (2012)		-0.00209*** (0.000106)	-0.00161*** (9.81e-05)	-0.00160*** (9.75e-05)	-0.000734*** (8.18e-05)	-0.000452*** (7.50e-05)
Age (2012)			-0.00251*** (0.000132)	-0.00241*** (0.000133)	-0.000993*** (0.000152)	-0.000381** (0.000150)
Share of white residents in zip code (0-100) (2012)			-0.000319** (0.000133)	-0.000774*** (0.000152)	-0.000749*** (0.000142)	-0.000443*** (0.000136)
Share of Hispanic residents in zip code (0-100) (2012)			0.000193 (0.000210)	-0.000332 (0.000221)	-0.000349* (0.000211)	-0.000306 (0.000201)
Share of black residents in zip code (0-100) (2012)			0.00129*** (0.000152)	0.000431** (0.000172)	-0.000350** (0.000163)	-0.000391** (0.000155)
Share of adults with BA or more in zip code (0-100) (2012)			-0.00334*** (0.000270)	-0.00193*** (0.000291)	-0.00166*** (0.000277)	-0.000788*** (0.000265)
Share of adults with HS/GED or less in zip code (0-100) (2012)			0.000302 (0.000292)	-0.000266 (0.000301)	-0.000479* (0.000289)	0.000121 (0.000275)
Median HH income in zip code (\$1,000) (2012)				-0.00170*** (0.000127)	-0.000702*** (0.000121)	-0.000578*** (0.000116)
Median home price in zip code (\$1,000) (2012)				-7.16e-05*** (2.20e-05)	-2.34e-05 (1.93e-05)	-1.57e-05 (1.83e-05)
Have auto debt (2011)					-0.0405*** (0.00412)	-0.0273*** (0.00395)
Have mortgage debt (2011)					-0.0868*** (0.00582)	-0.0707*** (0.00568)
Have credit debt (2011)					-0.154*** (0.00357)	-0.0742*** (0.00362)
Have utilities collections (2011)					0.0884*** (0.00433)	0.0357*** (0.00404)
Have medical collections (2011)					0.101***	0.0392***

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016	Defaulted by 2016
					(0.00387)	(0.00370)
Have retail collections (2011)					0.0345***	0.00361
Have bank collections (2011)					(0.00515)	(0.00468)
					0.0366***	0.00363
Bankrupt in past year (2011)					(0.00560)	(0.00505)
					-0.0420**	-0.0714***
Credit score (2011)					(0.0203)	(0.0187)
State-fixed effect						-0.00127***
						(2.31e-05)
Observations	63,201	63,201	63,201	63,201	63,201	63,201

Source: Urban Institute analysis of credit bureau, American Community Survey, and Zillow Home Value Index data.

Notes: BA = bachelor's degree; HH = household; HS/GED = high school diploma or equivalency credential. Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Default by 2016 is expressed as a 0-1 indicator. Credit card debt is having any debt on a credit card at the point of measurement. Robust standard errors in parentheses.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

TABLE A.3

Change in Debt Holdings in the Year before Entering Student Loan Repayment and at Point of Default

By default status over four years after entering repayment, 2012 cohort

		Share of Borrowers Who Have						
		Utilities collections	Medical collections	Retail collections	Bank collections	Credit card debt	Auto debt	Mortgage debt
Default after year 1	Before repayment	38%	45%	20%	22%	22%	14%	5%
	At default	46%	56%	23%	18%	18%	16%	4%
	Change	8%	10%	3%	-4%	-4%	2%	0%
Default after year 2	Before repayment	34%	42%	19%	23%	23%	12%	5%
	At default	47%	53%	19%	18%	18%	18%	4%
	Change	13%	11%	0%	-5%	-5%	5%	0%
Default after year 3	Before repayment	33%	39%	19%	25%	25%	14%	5%
	At default	45%	51%	14%	23%	23%	22%	5%
	Change	13%	12%	-5%	-3%	-3%	8%	-1%
Default after year 4	Before repayment	28%	36%	18%	30%	30%	16%	6%
	At default	45%	49%	15%	30%	30%	27%	6%
	Change	17%	13%	-3%	0%	0%	11%	0%
Nondefault after year 4	Before repayment	11%	16%	7%	62%	62%	27%	19%
	After 4 years	12%	17%	5%	79%	79%	47%	28%
	Change	1%	1%	-2%	17%	17%	20%	9%

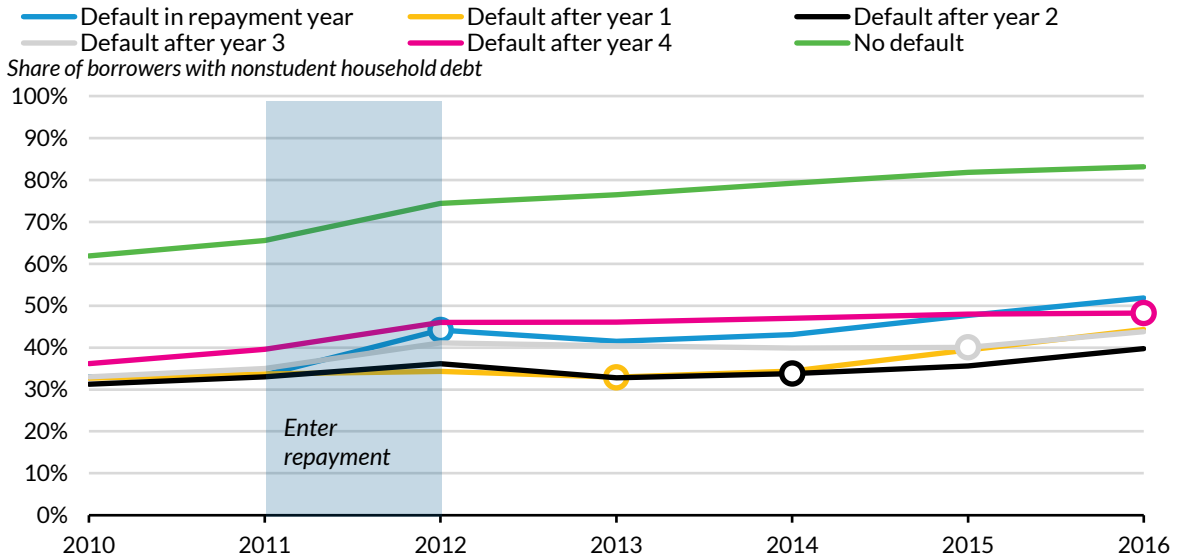
Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Credit card debt is having any debt on a credit card at the point of measurement.

FIGURE A.2

Share of Student Loan Borrowers with Nonstudent Household Debt over Time

By default status four years after entering repayment, 2012 cohort



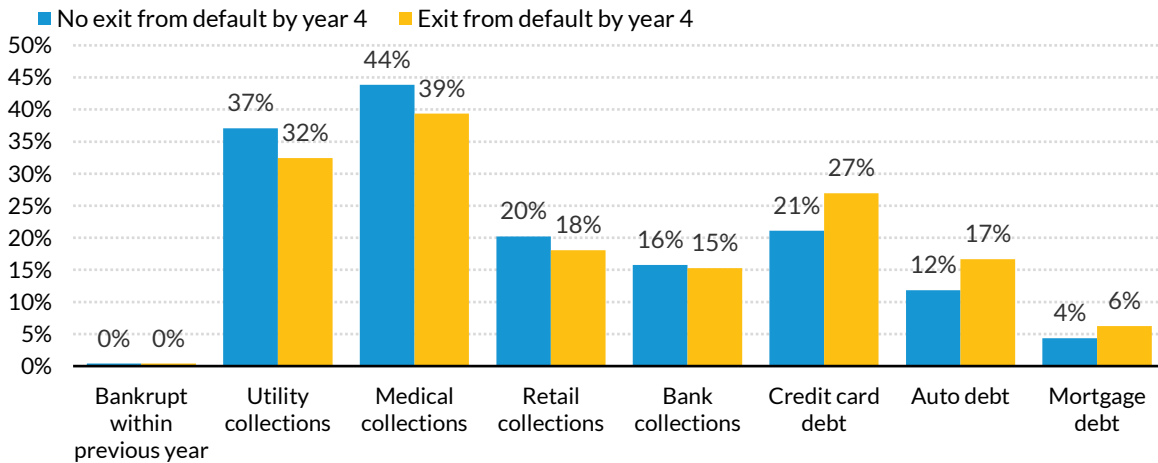
Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. A hollow circle indicates default in the given year for the defaulting cohort. Nonstudent household debt is having one or more debts for credit cards, an auto loan, or a mortgage. Credit card debt is having any debt on a credit card at the point of measurement.

FIGURE A.3

Debt Holdings of Borrowers in the Year before Entering Student Loan Repayment

By default exit status four years after entering repayment, 2012 cohort



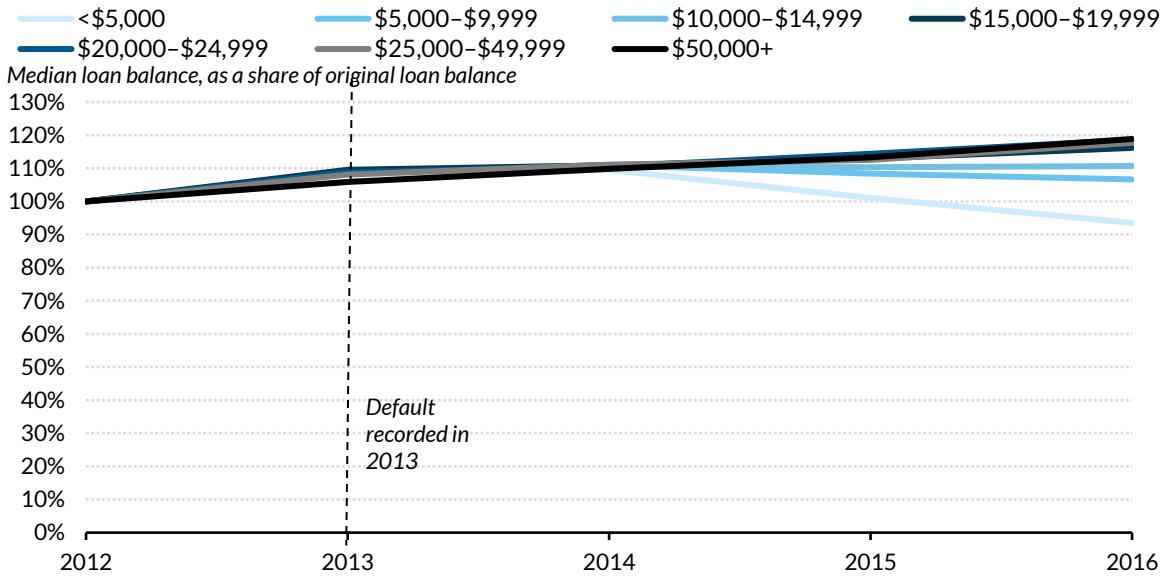
Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012. Credit card debt is having any debt on a credit card at the point of measurement.

FIGURE A.4

Loan Balance over Time, as a Share of Balance at Repayment

For borrowers who defaulted in 2013, by size of original balance, 2012 cohort



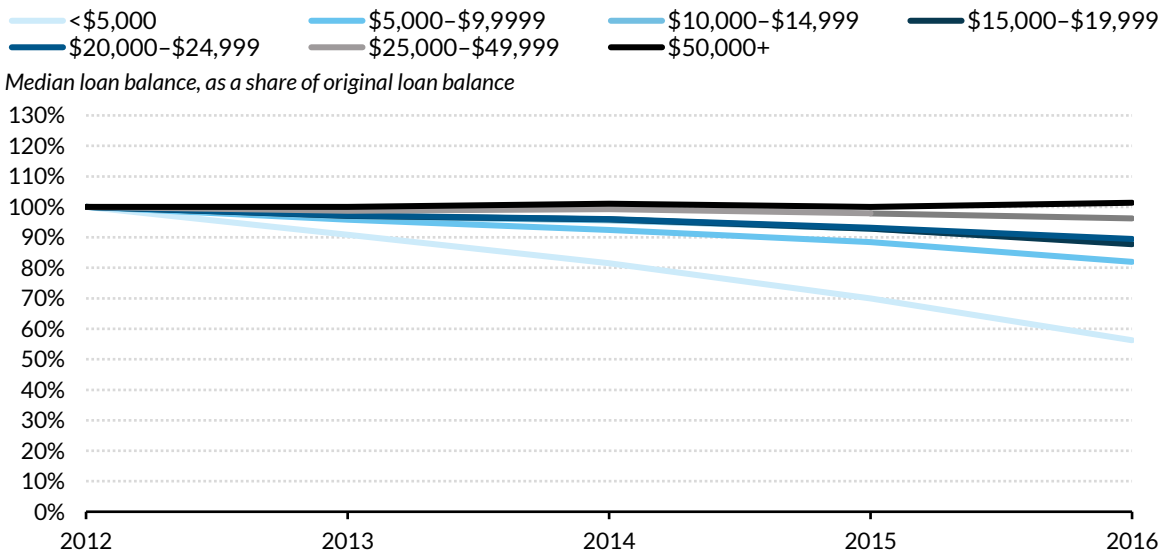
Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012.

FIGURE A.5

Loan Balance over Time, as a Share of Balance at Repayment

For nondefaulters, by size of original balance, 2012 cohort



Source: Urban Institute analysis of credit bureau data.

Notes: Includes private and federal student loans. The 2012 cohort are borrowers who first entered repayment between August 2011 and August 2012.

Notes

- ¹ “Default Rates,” US Department of Education, Office of Federal Student Aid, accessed July 30, 2018, <https://studentaid.ed.gov/sa/about/data-center/student/default>.
- ² As a sensitivity check, I also ran this analysis on the credit data from 2012 (when borrowers enter repayment). The results are qualitatively similar.
- ³ “Mapping Student Debt: How Borrowing for College Affects the Nation,” Washington Center for Equitable Growth, accessed July 30, 2018, <http://www.mappingstudentdebt.org/#/map-2-race>; “Debt in America: An Interactive Map,” Urban Institute, last updated May 16, 2018, <https://apps.urban.org/features/debt-interactive-map/>.
- ⁴ Borrowers in default on a federal student loan cannot obtain additional Title IV aid (including loans) until the default is resolved.
- ⁵ Sample sizes are 546 for borrowers with \$50,000 or more in starting loan balance who defaulted in 2013 and 806 for borrowers who had \$25,000 to \$49,999 in debt and defaulted in 2013. These are the smallest sample sizes in my dataset.
- ⁶ Federal Direct PLUS loans, which are provided to parents and for graduate/professional education are the one exception. To qualify for a Direct PLUS loan, borrowers must not have an adverse credit history: as of April 2015, this was defined as debts greater than \$2,085 in collections or more than 90 days delinquent in the previous two years or certain collections actions (e.g., a foreclosure, repossession, tax lien, or wage garnishment) in the previous five years. Borrowers with an adverse credit history may obtain a Direct PLUS loan if they secure an endorser without an adverse credit history or if they document extenuating circumstances. See FSA (2015).

References

- Addo, Fenaba R., Jason N. Houle, and Daniel Simon. 2016. "Young, Black, and (Still) in the Red: Parental Wealth, Race, and Student Loan Debt." *Race and Social Problems* 8 (1): 64–76.
- Baum, Sandy, Jennifer Ma, Matea Pender, and Meredith Welch. 2017. *Trends in Student Aid 2017*. New York: College Board.
- Board of Governors of the Federal Reserve System. 2007. *Report to the Congress on Credit Scoring and Its Effects on the Availability and Affordability of Credit*. Washington, DC: Board of Governors of the Federal Reserve System.
- Brown, Meta, Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw. 2015. "Measuring Student Debt and Its Performance." In *Student Loans and the Dynamics of Debt*, edited Brad Hershbein and Kevin M. Hollenbeck, 37–52. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- CFPB (Consumer Financial Protection Bureau). 2016. *Midyear Update on Student Loan Complaints: Income-Driven Repayment Plan Application Issues*. Washington, DC: CFPB.
- Conzelmann, Johnathan G., T. Austin Lacy, and Nichole D. Smith. 2018. "Another Day, Another Dollar Metric? An Event History Analysis of Student Loan Repayment." *Education Finance and Policy* 13 (4).
- Deslisle, Jason, and Alexander Holt. 2015. *Why Student Loans Are Different: Findings from Six Focus Groups of Student Loan Borrowers*. Washington, DC: New America.
- Dynarski, Susan M. 2016. "The Trouble with Student Loans? Low Earnings, Not High Debt." Washington, DC: Brookings Institution.
- ED (US Department of Education). 2018. "Request for Information on Evaluating Undue Hardship Claims in Adversary Actions Seeking Student Loan Discharge in Bankruptcy Proceedings." Washington, DC: ED.
- FSA (US Department of Education, Office of Federal Student Aid). 2015. "Direct PLUS Loans and Adverse Credit." Washington, DC: FSA.
- GAO (US Government Accountability Office). 2016. *Federal Student Loans: Education Needs to Improve Its Income-Driven Repayment Plan Budget Estimates*. Washington, DC: GAO.
- Grinstein-Weiss, Michal, Dana C. Perantie, Samuel H. Taylor, Shenyang Guo, and Ramesh Raghavan. 2016. "Racial Disparities in Education Debt Burden among Low- and Moderate-Income Households." *Children and Youth Services Review* 65:166–74.
- Herr, Elizabeth, and Larry Burt. 2005. "Predicting Student Loan Default for the University of Texas at Austin." *Journal of Student Financial Aid* 35 (2): 27–49.
- Hillman, Nicholas W. 2014. "College on Credit: A Multilevel Analysis of Student Loan Default." *Review of Higher Education* 37 (2): 169–95.
- Jackson, Brandon A., and John R. Reynolds. 2013. "The Price of Opportunity: Race, Student Loan Debt, and College Achievement." *Sociological Inquiry* 83 (3): 335–68.
- Kelly, Andrew P., and Kevin J. James. 2016. *Looking Backward or Looking Forward? Exploring the Private Student Loan Market*. Washington, DC: American Enterprise Institute.
- Looney, Adam, and Constantine Yannelis. 2015. *A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and in the Institutions They Attended Contributed to Rising Student Loan Defaults*. Washington, DC: Brookings Institution.
- Looney, Adam, and Constantine Yannelis. 2018. *Borrowers with Large Balances: Rising Student Debt and Falling Repayment Rates*. Washington, DC: Brookings Institution.

- Pinto, Mary Beth, and Phylis M. Mansfield. 2006. "Financially At-Risk College Students: An Exploratory Investigation of Student Loan Debt and Prioritization of Debt Repayment." *Journal of Student Financial Aid* 36 (2): 22–32.
- Scott-Clayton, Judith. 2018. "What Accounts for Gaps in Student Loan Default, And What Happens After." Washington, DC: Brookings Institution.
- Steiner, Matt, and Natali Teszler. 2005. *Multivariate Analysis of Student Loan Defaulters at Texas A&M University*. Round Rock, Texas: Trellis Company.

About the Authors



Kristin Blagg is a research associate in the Education Policy Program at the Urban Institute. Her research focuses on K–12 and postsecondary education. Blagg has conducted studies on student transportation and school choice, student loans, and the role of information in higher education. Blagg spent four years as a math teacher in New Orleans and New York City. In addition to her work at Urban, she is pursuing a PhD in public policy and public administration at the George Washington University. Blagg holds a BA in government from Harvard University, an MEd from Hunter College, and an MPP from Georgetown University.

STATEMENT OF INDEPENDENCE

The Urban Institute strives to meet the highest standards of integrity and quality in its research and analyses and in the evidence-based policy recommendations offered by its researchers and experts. We believe that operating consistent with the values of independence, rigor, and transparency is essential to maintaining those standards. As an organization, the Urban Institute does not take positions on issues, but it does empower and support its experts in sharing their own evidence-based views and policy recommendations that have been shaped by scholarship. Funders do not determine our research findings or the insights and recommendations of our experts. Urban scholars and experts are expected to be objective and follow the evidence wherever it may lead.



2100 M Street NW
Washington, DC 20037

www.urban.org