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Kelly D. Edmiston, Lara Brooks, and Steven Shepelwich
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# Student Loans: Overview and Issues (Update)* 

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Kelly D. Edmiston ${ }^{\dagger}$<br>Federal Reserve Bank of Kansas City<br>Lara Brooks<br>Oklahoma State University<br>Steven Shepelwich<br>Federal Reserve Bank of Kansas City

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#### Abstract

This paper provides a detailed overview of the student loan market, presents new statistics that highlight student loan debt burdens and delinquency rates, and discusses current concerns among many Americans about student loans, including their fiscal impact. The report is intended to enhance awareness of the state of student loan debt and delinquency and highlight issues facing borrowers, creditors, the federal government, and society at large. The clear message is that student loans present problems for some borrowers that are well worth addressing. At the same time, the analysis suggests that student loans do not yet impose a significant burden on society from their fiscal impact.


## Student Loans: Is There a Crisis?

Student loan debt has been increasing at a rapid pace in the last decade, climbing from about $\$ 346$ billion in the fourth quarter of 2004 to $\$ 996$ billion in the fourth quarter of 2012 (Federal Reserve Bank of New York), a rate of 13.7 percent annually (compounded). Along with this increase in debt has been an increase in default rates. High debt levels, coupled with high default rates, present a number of challenges for individual student loan borrowers, but do not necessarily pose a substantial burden on society at large.

This report seeks to provide a detailed overview of the student loan market, presents new statistics that highlight student loan debt burdens and delinquency rates, and discusses current concerns among many Americans about student loans, including their fiscal impact. The report is intended to enhance awareness of the state of student loan debt and delinquency and highlight issues facing borrowers, the federal government, and to some degree, society at large.

## 1. The Market for Student Loans

The market for student loans, with its combination of government, consumer, and private sector players, is unlike any other. This section provides an overview of the market and recent trends and innovations.

## Market Structure

The market for student loans is complex, with a wide range of institutions, products and relationships. An overview of the market is presented in Figure 1. The stylized map provides a visual guide to the key actors, products and relationships discussed in this report. ${ }^{1}$ The map underscores the complexity of the market from both the institutional and consumer perspectives.

[^1]The student loan market is made up of federal and "private" student loans. Federal student loans are those that are listed under Title IV of the Higher Education Act. Private student loans are those made by depository and non-depository financial institutions (banks) and nonprofit lenders (states). Further, some schools fund loans to their students. In the 2010-2011 academic year, private student loan originations were $\$ 7.9$ billion, with financial institutions comprising $\$ 6$ billion (Consumer Financial Protection Bureau, 2012). This sum accounts for only seven percent of the nearly $\$ 112$ billion total (College Board Advocacy \& Policy Center, 2011). Because much of the loan volume is federal, this report focuses largely on those loans.

The federal loan program is by far the most commonly used federal financial aid program for higher education, accounting for about 75 percent of total aid in the 2013 U.S. Department of Education budget request. Half of students enrolled in four-year public colleges and universities received federal student loans in 2009-2010 (Table 1) (U.S. Department of Education, 2011a). For private non-profit institutions, the figure was 63 percent, and for for-profit institutions, it was 86 percent.

Student loans are but one part of an extensive federal student aid system that also includes grants and work-study. Federal Pell grants are available only to lower-income undergraduate students who do not already have a degree. The maximum award per year is \$5,550. For students deemed to need the most assistance, Federal Supplemental Educational Opportunity Grants (FSEOG), with a range of $\$ 100$ to $\$ 4,000$, are available in addition to Pell grants. Students who have lost a parent or guardian in Iraq or Afghanistan could be eligible for the Iraq \& Afghanistan Service Grant, which has a annual maximum of \$5,500. Teacher Education Assistance for College and Higher Education (TEACH) grants are available at

[^2]participating schools for students working towards elementary or secondary education degrees. Federal work-study programs are also based on need. Students can receive \$100-\$4,000 annually. Grants and work-study aid do not have to be repaid, but many of the programs are limited by budget appropriations and are currently underfunded. ${ }^{2}$ Finally, federal tax rules allow for a variety of deductions and credits for higher education expenses. States also offer a variety of financial aid programs, most of which are based on financial need.

The federal student loan market recently has undergone substantial reform, the impetus largely being effects of the recent recession and changes in the federal government's role and programs. The broader turmoil faced by financial markets beginning in late 2007 had a significant effect on the student loan market. Private lenders faced difficulty raising funds for federally guaranteed student loans as investors began to demand higher returns because of tightening credit markets. Legislative caps prevented returns from rising. This problem was exacerbated by the further lowering of caps in September, 2007. Many private lenders exited the market.

In response to the changing market, as well as debate about the federal government's role in supporting student financing, the federal government stopped guaranteeing student loans made through private lenders in July, 2010. ${ }^{3}$ The loan guarantee program was replaced with a direct loan program.

## Loan Products

Federal financing of higher education is available through the William D. Ford Federal Direct Loan Program (FDLP), which, unlike the Federal Family Education Loan (FFEL)

[^3]program it replaced, makes loans directly to borrowers. The FFEL program guaranteed loans made by private lenders. Loans made through the FFEL program had terms similar to those of the FDLP, but the two programs were funded and administered very differently. Private loans continue to be available to students, but they are not guaranteed by the federal government or otherwise subsidized. Subsidized student loans from revolving loan funds controlled by educational institutions also continue to be available.

Federal student loans are largely made up of "Perkins loans" and "Stafford loans." Perkins loans and almost half of all Stafford loans are termed "subsidized," indicating that borrowers are not charged interest while in school or in certain other periods. ${ }^{4}$ The subsidized loans are made based on the student's financial need as determined through a uniform application for college aid, the Free Application for Federal Student Aid, or FAFSA. Annual and aggregate borrowing limits are set based on the student's dependency status and year in school. The interest rate and terms are the same for all borrowers within individual programs.

Another federal loan program, "PLUS loans," are made to parents of undergraduates and graduate and professional students who have reached the borrowing limits for Stafford loans. While these loans require that the borrower has no adverse credit history, pricing and terms are the same for all borrowers. Loans can be made up to the full cost of attendance with no overall aggregate borrowing limit.

The standard repayment term for federal loans is 10 years with fixed payments. Other alternatives, such as loan consolidations and Income-Based Repayment plans, are available but less widely used. The Income-Based Repayment plan allows a borrower in good standing to make repayments based on income and family size. Any remaining loan balance after 25 years

[^4]of repayment, or 10 years for certain public sector employment, is forgiven. Eligibility and repayment amounts are reestablished each year. Income-Based Repayment plans have not been widely used because the 10 year fixed option is most often presented as the default, the annual eligibility test requires additional steps, and it cannot be used once a borrower becomes delinquent.

Federal student loans may be cancelled for teacher service, public service, and certain school-related issues (among these are some cases where the school is closed before the borrower graduated and in cases of forgery or fraud). Federal student loans may be discharged if the borrower is determined to be totally and permanently disabled (with certain requirements met), in the case of death, or in very limited cases, bankruptcy (see "Delinquency" below).

Private student loans are often taken out by students to finance the gap between the cost of education and federal student loan limits. Most often, these private student loans are in the form of for-profit financial institution loans, which are not guaranteed or subsidized by the federal government. These loans are also obtained outside of the university’s financial aid office. The price and terms are set based on credit underwriting standards and can vary widely between lenders. Because of the limited credit histories of most students, co-signers are often required.

With the consideration of credit information, the initial interest rates on private student loans can vary substantially between borrowers. During the loan process, lenders also consider future ability to repay, while federal student loans do not. Federal student loans typically have fixed interest rates, while private student loans most often have variable rates. In general, the price will be higher than federal loan programs, with less flexibility for forbearance or deferment.

## 2. Debt and Delinquency

Debt burdens, and their associated payments, are the chief concern for most people lamenting the student loan "crisis." Indeed, debt has increased at a rapid rate over the last several years, and there are thousands of borrowers with six-figure debt. However, a deeper analysis of student loan debt suggests that while individual student loan debt is a hefty burden on a significant number of borrowers, most of the increase in aggregate debt has come from an increase in the number of borrowers, which mitigates some general concerns. Delinquencies are very high compared to delinquencies on many other forms of debt, however, which impairs the credit of a substantial share of borrowers and prevents them from accessing other forms of student aid, including additional student loans.

## Student Loan Debt

Mounting student loan debt has placed a substantial financial burden on many U.S. consumers, especially young adults. High payments on the debt restrict discretionary purchasing power and may reduce access to other forms of credit. Especially burdensome payments frequently lead to delinquency and default, which present a host of problems to the individual borrower.

Student loan debt has increased dramatically over the last several years, from about \$346 billion in the fourth quarter of 2004 to $\$ 996$ billion in the fourth quarter of 2012 (Federal Reserve Bank of New York, 2013), a rate of growth of 13.7 percent annually (compounded) (Figure 2). By comparison, total credit card debt was $\$ 679$ billion and auto debt was $\$ 783$ billion (Federal Reserve Bank of New York, 2013). While student loan debt has been rising at a rapid pace, total U.S. outstanding debt (including mortgages) has fallen by approximately $\$ 1.3$ trillion since reaching its peak in the third quarter of 2008 (Federal Reserve Bank of New York, 2013).

Increasing levels of debt have been driven largely by growth in the number of borrowers, rather than growth in the average debt levels of individual borrowers (Howes, 2012) (Figure 3), but average debt has also increased moderately, and individual debt has become an increasing burden in light of the recent performance of the national economy.

The median borrower holding student loan debt in the fourth quarter of 2012 owed \$13,924 in student loan debt (Table 2). ${ }^{5}$ The average amount of student loan debt across all consumers with student loan debt was $\$ 24,699$. The difference in average and median reflects the existence of borrowers at the top of the distribution with especially large amounts of student loan debt. About 3.1 percent borrowers have six-figure student loan debt, while 0.5 percent have debt over \$200,000 (Brown, Haughwout, Donghoon, Mabutas, \& van der Klaauw, 2012). 25 percent of borrowers held more than \$29,846 in student loan debt in the fourth quarter of 2012, while another 25 percent held less than $\$ 6,003$ in student loan debt. ${ }^{6}$

The Federal Reserve Bank of New York, in a recent post in its Liberty Economics blog, provides a variety of student loan figures using the credit report-based data set employed throughout this report (Brown et al., 2012). The post reports numbers that reveal an interesting age pattern in student loan balances and delinquencies. Surely surprising to many is that less than 40 percent of borrowers with student loan debt are under 30 years of age (holding about 34 percent of balances). Almost one-third of borrowers are over the age of 40. There are a number of reasons why older borrowers may hold student loan debt. Some have pursued college credit at a nontraditional age. Some owe PLUS loans for their children or were cosigners on their child's debt that has not been repaid. Others have pursued graduate education and began repayment later than traditional undergraduate students. A person who received a doctorate, for example, is

[^5]not likely to complete his or her education until near 30 or beyond, even if $s /$ he graduates from college at 22. Finally, the repayment period can be extended as long as 25 years beyond initial entry into repayment.

## Debt Burden by State

Student loan debt varies significantly across states (Figure 4). Among the factors that can influence levels of student loan debt are the demographic make-up of the state, the socioeconomic position of the state, the cost of in-state higher education, and the generosity of statebased financial aid.

Wyoming and the District of Columbia (D. C.) are standouts in terms of average outstanding student debt. The average debt in Wyoming was $\$ 16,157$. By contrast, the average student loan debt burden in the next lowest state (South Dakota) was just over \$20,000. Average student loan debt for D.C. was over $\$ 39,000 .^{7}$ The average student loan debt in the next highest state (Georgia) was $\$ 27,766$.

Both states provide good examples of how various factors work to explain differences across states. Residents in the District of Columbia are much more likely to hold college degrees (48.5 percent) than in any other state. The next highest state was Massachusetts, where 38.2 percent hold college degrees (U.S. Census Bureau , 2012). The District of Columbia also has the largest share of residents holding advanced degrees. Wyoming has a single four-year public institution (the University of Wyoming), with relatively low tuition costs. Wyoming also has a very generous financial aid program for in-state students, many of whom choose to stay in Wyoming upon graduating. Other factors also likely play a large role in explaining substantial differences in student debt burdens across states. Among these are economic conditions; tuition

[^6]and fee costs; and enrollment patterns, including the shares of students enrolling in private and for-profit institutions, which vary significantly by state.

A commonly cited 2011 report from the Project on Student Debt (2011b) revealed a very different ranking of states. That report uses figures that (a) reflect debt levels from individual classes of graduates receiving bachelor’s degrees, most recently the class of 2010; and (b) represent the debt of students who have graduated from schools within the state. By contrast, the figures here reflect student loan borrowers who live in the state (as indicated by mailing address), irrespective of where they attended school, what degree they received, or in what class they graduated. The numbers in the two reports, therefore, are not comparable.

Unsurprisingly, the Project on Student Debt report revealed states in the northeast, with some of the more expensive private colleges and universities, to have the highest averages of student loan debt. Average student loan debt is not necessarily tied directly to college costs, as some very expensive schools have especially generous financial aid programs, but they are correlated. The state with the highest average student debt among 2010 graduates attending schools within the state, as reported in the Project on Student Debt (2011b) report, was New Hampshire, for which the average graduate in 2010 held about $\$ 31,000$ in student loan debt. The analysis for this report also found relatively high student debt loads in most northeastern states.

## Factors Affecting Student Loan Debt Accumulation

The burden of large student loan debts can remain for a prolonged period of time. Typically borrowers have 10 to 25 years to repay their federal student loans. The 10-25-year payment horizon is considerably longer than the payment term for most other forms of unsecured debt. Further, the burden can be extended by deferment, forbearance, and delinquency, which are discussed below.

An important factor in the recent climb in student loan debt, both in terms of the larger number of borrowers and the moderate increase in average debt upon leaving school, is the rising cost of higher education. Costs for tuition, fees, room, and board for full-time students has increased steadily over the last decade, even after adjusting for inflation (Figure 5). An exception to this trend is for-profit institutions, which have seen declines in average costs. ${ }^{8}$ Typically, the cost of attending a four year institution is higher than that of a two year institution, again with the exception of for-profit universities. Public institutions have the lowest cost, while private not-for-profit universities have the highest cost.

State and federal support to universities has declined over time, forcing universities to pass the increased burden to students in the form of increased tuition and fees. Some argue that subsidization of college education by the federal government through its grants and student loan program also has lead to increased costs to students by encouraging colleges and universities to raise prices and/or reduce institutional grant aid (Singell \& Stone, 2007; Martin \& Gillen, 2011; Turner, 2012). Others have found little or no effect of financial aid on tuition and fees (Long, 2006).

Credit Profile. The average total debt of student loan borrowers is significantly higher than that of consumers who do not hold student loans, but the difference is the student loan debt (Table 2). The average total debt for student loan borrowers, which includes mortgages, was $\$ 82,994$ in the first quarter of 2012, compared to $\$ 66,227$ for consumers (with credit reports) who did not hold student loans. ${ }^{9}$ Thus, once student loan debt, which averaged $\$ 24,699$, is

[^7]subtracted from the total, remaining debt is lower, on average, for student loan borrowers. Revolving debt also is lower among those who hold student loan debt.

The student loan debt picture suggests that student loan debt may lessen other forms of borrowing, but not to a great degree. But other factors could be at play as well. For example, student loan borrowers may have average incomes that differ from those without student loan debt, and the difference in incomes would likely be reflected in the amount of debt. Those with higher incomes tend to have more debt, all else equal.

Heavy debt burdens have implications for borrowers beyond the burden of making potentially large payments every month, which can significantly curtail other spending. An especially critical implication is reduced access to other forms of credit. In particular, more limited discretionary income with which to make payments on new debt typically would substantially reduce the likelihood of credit approval.

Because credit bureaus do not collect income information on consumers, debt burden itself is not a factor in determining credit standing, except for the case of revolving debt, where debt burden is measured against credit limits. But delinquency rates typically account for about 35 percent of most credit scores, and delinquency rates for student loans are very high relative to other forms of debt, as discussed below. Due in part to high delinquency and default rates for student loans, student loan borrowers as a group have much lower credit scores than consumers in general. In the fourth quarter of 2012, the average Equifax risk score for student loan borrowers was 625 , compared to an average of 696 for all consumers. ${ }^{10}$ The tendency of student loan borrowers to be younger could play a role in this difference, as older consumers typically have longer credit histories.

[^8]It is important to keep in mind in reviewing these figures, however, the counterfactual of credit profile and consumption in the absence of student loan borrowing, if the absence of borrowing implies not having attended college at all or not graduating. Incomes and employment security are markedly higher for those with college degrees than for those without college degrees.

The College Board estimates that lifetime earnings for those with a bachelors degree are 66 percent higher than those with only a high school diploma (Baum, Ma, \& Payea, 2010). Another recent report estimated that the median lifetime earnings by those with only a high school diploma to be just over \$1.3 million, compared to nearly $\$ 2.3$ million for those who have a bachelor’s degree (Carnevale, Rose, \& Cheah, 2011). This variance increases for advanced degrees. Even considering lost wages while completing a four year degree and paying for the degree, traditional students typically meet this break-even point by age 33 (Baum, Ma, \& Payea, 2010).

As detailed below, those with bachelor's degrees and beyond face lower unemployment rates than their counterparts with only high school diplomas. Consequently, bachelor's degree holders in 2008 reported a poverty level of four percent, compared to 12 percent for those with only a high school diploma ((Baum, Ma, \& Payea, 2010). More bachelor’s degree holders also reported having employer-provided health insurance (68 percent) than those with high school diplomas (50 percent). Several health measures, including smoking, obesity, and exercise, all favor college graduates in comparison to high school graduates.

## Payments and Delinquency

The median minimum monthly payment on student loans, per borrower, was $\$ 193$ in the fourth quarter of 2012 (excluding those in forbearance or deferment). ${ }^{11}$ For 25 percent of borrowers, the payment exceeded $\$ 397$ per month. When compared to monthly earnings from work (gross of taxes) for recent students with student loans, which is estimated to have been around $\$ 2,500$ in the first quarter of 2012, ${ }^{12}$ the payments are clearly a financial burden to some borrowers. Payments can significantly limit discretionary for income-constrained borrowers, but for an increasing number, payments are an insurmountable burden, leading to delinquency rates that are considerably higher than those on other forms of debt.

In the fourth quarter of 2012, the latest date at which data are available, about 9.7 percent of student loan accounts were at least 30 days past due (Figure 6), down from 10.6 percent in the first quarter of 2012. ${ }^{13}$ The large majority of these delinquent loans were over 120 days past due (7.9 percent). These figures may understate the problem of delinquency, however, because those in deferment or forbearance are included in the numbers of loans outstanding, but are not included in the number of loans currently past due. Account for this potential bias was undertaken in a couple of ways. First, delinquencies were computed only for student loans with a minimum payment above zero. With that accounting, 17.4 percent of all student loans borrowers in repayment were past due. Another option was to eliminate all loans from the calculation in which balances remained the same or increased between the third and fourth quarters of 2012, but which were not considered past due. This approach aims to eliminate loans

[^9]in forbearance or deferment, or for those who are still in school. Under this approach, the share of outstanding share of those with student loan debt who were delinquent in the fourth quarter of 2012 was about 23 percent. ${ }^{14}$

If a payment is not made within (typically) 270 days, and arrangements with the lender have not been made, the loan is considered to be in default. In 2010, the latest date at which numbers are available, the default rate for all institutions was 9.1 percent. This number is a cohort default rate, as reported by the U.S. Department of Education. The cohort default rate is the percentage of borrowers who enter repayment in a fiscal year and default by the end of the next fiscal year. Public universities had a cohort default rate of 5.2 percent, compared to 4.5 percent for private, non-profit institutions and 15.4 percent for for-profit institutions. The projected lifetime default rates, according to the U.S. Department of Education, on loans originated in 2013 are 23.3 percent for subsidized Stafford loans, 16.6 percent for unsubsidized Stafford loans, and 9.7 percent for PLUS loans (U.S. Department of Education, 2012). Default rates were extraordinarily high in the late 1980s, but have since dropped rather dramatically (Figure 7). ${ }^{15}$ The recent recession and moderate recovery put default rates again on an upward trajectory, but recently delinquency rates have fallen, suggesting that cohort default rates may have fallen since the latest data was released for the 2010 class of those entering repayment.

When a private student loan reaches 120 days past due, it is considered to be in default. Private student loan holders had a default rate of more than 10 percent for the cohort that borrowed in 2005 and started repayment in 2006 through 2009.

[^10]Delinquency Across States. Delinquency rates vary substantially across states (Figure 8). North Dakota had the lowest delinquency rate at 5.2 percent in the fourth quarter of 2012, while Mississippi has the highest rate at 16.0 percent. ${ }^{16}$ Over half of states have rates below 10 percent. A number of factors explain differences in student loan delinquency rates across states. Among these are the relative performance of the state economy and student loan debt levels. Some states also have peculiarities in the way the student loan market operates there.

Issues Behind High Delinquency Rates. Delinquency rates on student loans are considerably higher than delinquency rates on other forms of credit (Figure 9), with the exception of mortgages, for which delinquency rates have skyrocketed over the last five years. Student loan delinquency rates have increased for the last few years, until recently, although not to the degree that delinquencies on some other forms of debt were increasing. Much of this increase in student loan delinquency owes itself to the recent harsh recession and moderate recovery, in which young college graduates have been hit especially hard. But student loan delinquencies tend to be relatively high even when the economy is doing well. A number of factors play a role in explaining especially high delinquency and default rates for student loans (Gross, Cekic, Hossler, \& Hillman, 2009).

A critical recent factor in burdening payments and high delinquency rates has been high unemployment. Unemployment clearly reduces income, usually very substantially, which makes any payment a considerable burden for most. Moreover, a large fraction of unemployed borrowers default on their student loans. A 2002 study of California borrowers showed a student loan default rate of 23.2 percent for those who had filed for unemployment compensation, compared to 9.7 percent for those who had not (Woo, 2002). Most likely, many of the unemployed who did not default received a deferment or forbearance.

[^11]Unemployment rates climbed rapidly during the recent recession and have come down only moderately since (Figure 10). But unemployment has been especially high for younger adults, especially for those in their early twenties, who commonly hold student loan debt. The unemployment rate among those aged 20 to 24 peaked at 17.2 in April, 2010 (seasonally adjusted), when the rate for the nation as a whole was 9.9 percent. While the unemployment rate for this age group has declined since the peak, a larger than typical gap still remains. The most recent unemployment rate for those 20-24 at the time of writing was 13.1 percent (February, 2013), compared to 7.7 percent for all age groups.

Official unemployment figures in many ways do not present a complete picture of the employment difficulties of young people. For example, discouraged workers who would like to work but have given up their job searches are not counted in the official rate, nor are part-time workers who would like to work full-time but are unable to find full-time work for economic reasons. The most recent national unemployment rate at the time of writing jumps to 14.3 percent when these struggling workers are included (February, 2013). In addition, a number of other workers are employed full time but in jobs that are below their skill levels and pay well below their training and pre-graduate expectations. Underemployment is an especially severe problem for recent college graduates. A recent analysis by the Associated Press suggests that over 50 percent of recent college graduates are either unemployed or underemployed by this definition (Peralta, 2012).

Others are employed but face the challenge of lower-than-expected incomes. Again, much of this owes to the recent recession and moderate recovery. The 2002 California study found significantly higher default rates among those with the lowest incomes (Woo, 2002).

Less than 60 percent of those who enroll in a post-secondary institution complete their program of study within six years (U.S. Department of Education, 2011c). Student loan repayment often is especially burdensome on students who borrow and do not finish their degrees or certificate programs. Much of this pattern likely arises from better economic prospects among graduates, although other factors also are at play. The most recent unemployment rate in the U.S. at time of writing (February, 2013) was 3.8 percent for workers with college degrees, compared to 6.7 percent for those with "some college," but no degree (or an associate degree). Wages and salaries also are substantially higher for college graduates. In 2011, college graduates earned 36 percent more, on average, than those with some college, but no degree. ${ }^{17}$ Borrowers who drop out of school make up a substantial share of all defaulted borrowers. Specifically, borrowers who dropped out with student debt had a default rate of 16.8 percent compared to a default rate of 3.7 percent for borrowers who completed their degree (Nguyen, 2012).

Delaying enrollment after high school, attending college only part-time, and working full-time while enrolled are all high risk factors for not completing degrees (Gladieux \& Pena, 2005).

Many policy analysts have addressed recent changes in the post-secondary landscape and questioned if the growth in for-profit institutions is a contributor to present student loan default concerns. Enrollment in for-profit universities increased nearly 335 percent from 2000-2011, compared to less than 30 percent increases in enrollment in more traditional colleges and universities over the same period (Figure 11).

Low completion rates of for-profit institutions are a troubling aspect of this increase in for-profit matriculation. Completion rates within six years of beginning a bachelor degree

[^12]program are about 28 percent for for-profit colleges and universities, compared to 56 percent for four-year, public institutions and 65 percent for four-year, private, not-for-profit institutions. Graduates from for-profit institutions also are more likely to be unemployed and tend to make lower incomes upon leaving than do those from more traditional institutions, whether or not they have graduated (Deming, Goldin, \& Katz, 2012).

Another, perhaps especially critical factor in explaining student loan delinquency and default is that federal student loan lending criteria do not consider either current or future repayment capacity. The student loan market's complexity and uncertainty make it difficult for both lenders and students to make fully informed transactions. Federal programs limit information through use of a uniform application that looks at financial need and student status, but not on capacity to repay. All students receive the same terms regardless of the potential earning capacity of the profession or career path being studied. Private lenders mitigate and price for risk through underwriting criteria that most often results in a co-signer who is unable to discharge the debt through bankruptcy.

Students require considerable information to make informed decisions about financing options for education. Federal loans are presented within the context of a broader financial aid package as determined by the educational institution. Such award letters vary greatly among institutions in both content and presentation, making it difficult to assess individual aid packages or compare across institutions.

Students must also assess the overall value of the chosen institution and course of study on future capacity to repay. The U.S. Department of Education's College Affordability and Transparency Center is developing a College Scorecard to assist with this comparison. Information on specific courses of study and potential employment and earnings projections are
available as well. However, these tools are complex and often difficult to locate by students (The Institute for College Success, 2011).

Finally, student loans are complicated and difficult to compare. Loan counseling is required before a student receives his or her initial federal loan, which can be done in a web-based format. Similar counseling is not required for private loans. Some studies show that undergraduate students and their parents often do not know the difference between federal and private loans or read disclosure information (Jensen, 2008). Anecdotal reports have also shown that some students take on private loans while still eligible for subsidized federal loans (The Project on Student Debt, 2011a). The primary reason is the failure to fill out the Free Application for Federal Student Aid, but a significant number who completed the form but did not apply for Stafford Loans when eligible (The Project on Student Debt, July 2011a)."

Consequences of Delinquency and Default. Delinquencies on student loan payments, especially when resulting in a default, have serious consequences for the borrower. If a loan goes into default, the entire unpaid amount of the loan immediately becomes due. Defaulted borrowers may be sued, tax refunds may be intercepted, and/or wages may be garnished. The defaulted borrower is responsible for paying collection fees, costs, court costs, and attorney fees. Defaulted borrowers also can be denied a professional license. Eligibility for future loan deferments is withdrawn, as well as eligibility for other federal student aid under federal benefit programs. Finally, student loan delinquencies are reported to the major credit bureaus. An often overlooked aspect of individual student debt problems is the psychological burden it imposes on delinquent borrowers.

A number of options are available to student loan borrowers who are unable to make payments on their debt. In general, these terms are much more generous than options that are
available with other forms of debt. Among these are modified repayment plans, deferment, and forbearance. Generally borrowers are not allowed to discharge student loan debt in bankruptcy.

Deferment allows borrowers to stop making loan payments if they are enrolled in school at least half time; currently serving on active duty (including performing qualifying National Guard duty during a war, other military operation, or national emergency); engaged in a full-time rehabilitation training program; or in cases of economic hardship, including unemployment, receipt of public assistance, Peace Corps service, and certain income limitations.

Forbearance allows those who do not qualify for a deferment to stop making student loan payments, temporarily make smaller payments, or extend the time for making payments. Common reasons for forbearance listed, according to the Department of Education, are illness, financial hardship, or serving in a medical or dental internship or residency. A forbearance can be automatically granted while processing a deferment, forbearance, cancellation, change in repayment plan, or consolidation, or if the borrower is involved in a military mobilization or emergency. Interest does not accumulate under deferment, while it does under forbearance.

According to the Department of Education's terms for federal student loans, bankruptcy is listed as an option for discharging or cancelling a loan. However, this type of cancellation is rare and only occurs if it can be proven that repayment of the loan would cause an undue hardship. "Undue hardship" is difficult to prove. The courts have identified a three part standard: (1) the debtor cannot both repay the student loan and maintain a minimal standard of living based on current income and expenses, (2) this situation is likely to persist for a significant portion of the repayment period of the student loan, and (3) the debtor has made good faith efforts to repay the loans (Brunner 1987).

Private student loans have fewer options for distressed borrowers. Income-based repayment options are not available for most private student loans. Forbearance and deferment are uncommon as well. Similar to federal student loans, private student loans follow strict guidelines for discharging a loan through bankruptcy. In a 2012 report by the Consumer Financial Protection Bureau, a recommendation was included to further analyze potential relief options for private student loan borrowers including further investigation of bankruptcy for private student loans (Consumer Financial Protection Bureau, 2012).

## 3. Fiscal Impact

While much of the concern about student loans is focused on borrower impacts, some analysts have expressed concern about the potential for increased costs on the federal government (Toby, 2011; Hogberg, 2012). Data suggest that while the student loan program does impose some cost to the federal government under certain accounting methods, the costs are a small share of the federal budget. Various reform options that have been proposed, such as debt forgiveness, could change that dynamic, however.

The net costs of student loan programs are recorded in the federal budget on an accrual basis in the year the loan is disbursed (Congressional Budget Office, 2010). The cost is calculated as the net present value of the federal government's expected cash flow over the life of the loan (or loan guarantee). Included in these estimates are initial disbursements, subsidies, and receipts over the payment period, including interest and principal repayment. These estimates do not account for the costs of administering the programs, such as those associated with origination, servicing, and collection, which are treated separately in the budget on a cash basis. They do account for the risk of default or exercise of options to prepay or to seek
forbearance or deferral. The cost estimates under the former FFEL program also accounted for payments to lenders.

Because the lifetime net cost of outstanding student loans and loan guarantees have already been recorded in previous years' budgets (in the year of origination), there is no specific accounting of their costs on an annual basis. However, the Congressional Budget Office (CBO) utilizes Department of Education reestimates of default rates for the outstanding loan portfolio to make allowances in the current budget for any difference in expected costs to the federal government.

Although default rates on student loans are very high relative to default rates on other forms of debt, such as auto loans and credit cards, recovery rates are considerably higher, which limits the fiscal impact of student loan defaults. The projected cash recovery rate for defaulting Stafford loans originated in FY2013 is 109.8 percent, meaning that the collection of principal, interest, and penalty fees would more than offset the dollars that were defaulted (U.S. Department of Education, 2012). This number has led many to believe (erroneously) that the federal government benefits when borrowers default on their student loans (Field, 2011). But the cash recovery rate does not reflect collection costs paid to collection agencies and the time value of money. The net present value of principal, interest, and fees collected, net of collection costs that are paid to collection agencies, yields a recovery rate of 81.8 percent, which, nonetheless, is exceptional.

Recent federal budget estimates project a negative net cost for the direct loan program, meaning that the federal government profits from the program over time. According to the federal government's most recent budget for FY2013, which was prepared under procedures outlined in the Federal Credit Reform Act of 1990 (FCRA), federal student loan programs
resulted in an actual net cost of -\$47.3 billion in FY2011. Estimates for FY 2012 and FY2013 are - $\$ 34.3$ billion and $-\$ 32.2$ billion, respectively. The estimated net cost of Federal Perkins loans is -\$648 million for FY2013.

While federal budget numbers suggest that the federal government profits from the student loan program, more widely accepted accounting methodologies reflect a net cost. Under the FCRA, expected costs are discounted to present value using the Treasury's borrowing rates, and thus, at that risk-free rate, they do not reflect the risk that default rates could be higher than projected (U.S. Government Accountability Office, 2005). Thus, the figures that appear in the federal budget likely underestimate the cost (or overestimate the return) of the student loan program.

Fair-value estimates, which make additional adjustments for risk and also include administrative costs, provide a more complete picture of the cost of federal student loan programs. Fair-value estimates calculated in a March, 2010 CBO report projected a net cost of about 11 percent of lending for 2012. ${ }^{18}$ New direct loan volume is projected to be $\$ 121$ billion in FY2013, yielding a net budget cost of $\$ 13.3$ billion. About $\$ 28$ billion in consolidation loans is expected, which would likely add an additional \$3 billion. Using fair-value accounting principles, the student loan program would account for about 0.4 percent of the president's FY2013 budget outlay request of $\$ 3.8$ trillion.

A final, indirect fiscal impact of the student loan program is the role that student lending plays in making higher education available to people who may not otherwise be able to attend college and the subsequent effect on federal, state, and local tax collections. The College Board

[^13]estimates that lifetime earnings for those with a bachelors degree are 66 percent higher than those with only a high school diploma (Baum, Ma, \& Payea, 2010). These higher earnings generally translate into higher tax collections. Further, college graduates typically impose less cost on the government from public assistance, crime, and other sources. On the other hand, at least a portion of student loan interest is deductible on personal income tax returns for most borrowers in repayment. ${ }^{19}$

To date, student loan debt and delinquency have not posed a significant fiscal burden on taxpayers. But while net costs are negative by current government accounting standards, and small relative to total budgetary outlays when fair-value accounting standards are employed, continued increases in default rates could pose a more substantial burden. A large number of borrowers current are still in school, in forbearance, or have deferred making payments. As these borrowers enter repayment in the next few years, the number of defaulted borrowers is likely to increase substantially. At the same time, more borrowers will be paying their loans back. Unclear is the net impact on the student loan fiscal burden of this trend. Recent trends in student loan defaults do not suggest a continuation of increasing student loan defaults, however. Indeed, the delinquency rate of student loans fell between the first and fourth quarters of 2012 from 10.6 percent of all outstanding loans to 9.7 percent. ${ }^{20}$

Some of the more aggressive student loan reform efforts that have been proposed, such as debt forgiveness, recently proposed by U.S. congressman Hansen Clarke (H.R. 4170, 2012), may have a considerable burden (Equal Justice Works, 2012). The cost of current student loan

[^14]forgiveness programs, such as those for certain types of public or military service, are not specifically indicated in the federal budget, so little basis is available for estimating the potential costs of broader loan forgiveness programs.

## 4. Conclusions

This paper reveals a substantial burden to some borrowers from student loan debt. A number of issues were discussed around these burdens, including debt loads, high payments for some borrowers relative to incomes, and delinquencies and defaults. While the report did not offer specific suggestions on how to address the problems it highlighted, it does suggest some areas of concern to think about as policymakers consider student loans, and what some term to be the associated "crisis" around them. The clear message is that student loans present problems for some borrowers. At the same time, the analysis suggests that student loans do not yet impose a significant burden on society from their fiscal impact.

High student loan debt and its associated payment burdens have left many wondering if the value of a college education outweighs the costs. The preponderance of the research suggests that it does. College graduates, on average, have higher incomes and greater financial stability.

Another substantial impact of those with college degrees is the impact to society. Those with college degrees are more likely to volunteer in their community and vote in elections and were less likely to receive public assistance in the forms of Medicaid, food stamps, and free and reduced lunches (Baum, Ma, \& Payea, 2010). In addition, college graduates cost tax payers fewer dollars in terms of saved incarceration spending (Carroll \& Erkut, 2009).

## References

Baum, S., Ma, J., \& K. Payea. (2010). Education pays 2010: The benefits of higher education for individuals and society. New York, NY: The College Board Advocacy \& Policy Center.

Brown, M., Haughwout, A., Donghoon, L., Mabutas, M., \& W. van der Klaauw. (2012, March 5). Grading Student Loans. Liberty Street Economics. Retrieved July 18, 2012, from http://libertystreeteconomics.newyorkfed.org.

Brown, M., A. Houghout,, D. Lee, J. Scally, and W. van der Klaauw (2013, February). Just Released: Press Briefing on Household Debt and Credit. Retrieved March 27, 2013 from http://libertystreeteconomics.newyorkfed.org/2013/02/just-released-press-briefing-on-household-debt-and-credit.html.

Brunner v. New York State Higher Education Services Corp., 831 F.2d 395 (2d Cir. 1987), aff'g 46 B.R. 752 (Bankr. S.D.N.Y. 1985).

Carnevale, A.P., Rose, S.J., \& B. Cheah. (2011). The college payoff: Education, occupations, and lifetime earnings. Washington D.C.: The Georgetown University Center on Education and the Workforce.

Carroll, S.J. \& E. Erkut. (2009). The benefits to tax payers from increases in students' educational attainment. Santa Monica, CA: RAND Corporation.

College Board Advocacy \& Policy Center. (2011). Trends in Student Aid. New York, NY : Author.

Congressional Budget Office. (2010). Costs and policy options for federal student loan programs (Publication No. 4101). Washington D.C.: Author.

Consumer Financial Protection Bureau. (2012, July 20). Private Student Loans. Washington D.C.: Author.

Deming, D.J., Goldin, C., \& L.F. Katz. (2012). The for-profit postsecondary school sector: Nimble critters or agile predators? The Journal of Economic Perspectives, 26(1), 139-164.

Equal Justice Works. (2012, March 21). Learn what the student loan forgiveness act could mean for you. U.S. News \& World Report. Retrieved October 1, 2012 from http://www.usnews.com/education/.

Federal Reserve. (2013,March). Consumer Credit. Series G.19. April 2012. Retrieved March 26, 2013 from http://www.federalreserve.gov/releases/g19/current/default.htm.

Federal Reserve Bank of New York. (2013). Quarterly Report on Household Debt and Credit. New York, NY (downloadable data). Retrieved March 26, 2013 from http://www.newyorkfed.org/householdcredit/index.html’

Field, K. (2011, February 14). Government doesn’t profit from student-loan defaults, budget analysis shows. Chronicle of Higher Education. Retrieved October 1, 2012, from http://chronicle.com/article/Budget-Footnote-Government/126373/

Gladieux, L. \& L. Pena. (2005). Borrowers who drop out, a neglected aspect of the college student loan trend (National Center Report No. 05-2). San Jose, CA: The National Center for Public Policy and Higher Education.

Gross, J.P.K, Cekic, O., Hossler, D., \& N. Hillman. (2009). What matters in student loan default: A review of the research literature. Journal of Student Aid, 39(1), 19-29.

Hogberg, D. (2012, May 9). Taxpayers on hook for $\$ 850$ billion in student loans. Investor's Business Daily. Retrieved October 2, 2012 from http://news.investors.com/050912-610919-is-higher-ed-bubble-1-tril-set-to-burst-.aspx?p=full

Howes, C. (2012). Student Loans: The dark side of "good" debt. New York, NY: Barclays
Jensen, C.A. (2008). Private loan counseling for undergraduate students: The role of college financial aid counselors. Unpublished doctoral dissertation, University of Nebraska, Lincoln.

Long, B.T. (2006, December 5). College tuition pricing and federal aid: Is there a connection? Testimony before the U.S. Senate Committee on Finance. Hearing "Report card on tax exemptions and incentives for higher education: Pass, fail, or need improvement. Retrieved October 3, 2012 from http://www.finance.senate.gov/

Martin, R.E., \& A. Gillen. (2011, March). How college pricing undermines financial aid. Center for College Affordability and Productivity. Retrieved October 4, 2012 from http://centerforcollegeaffordability.org/

Nguyen, M. (2012, February 23). Degreeless in debt: What happens to borrowers who drop out? Retrieved July 18, 2012, from http://www.educationsector.org.

Peralta, E. (2012, April 23). AP analysis: Half of recent college grads are jobless or underemployed. National Public Radio. Retrieved September 28, 2012 from http://www.npr.org/blogs/thetwo-way/

Podgursky, M., Ehlert, M., Monroe, R., \& D. Watson. (2002). Student loan defaults and enrollment persistence. Journal of Student Financial Aid, 32(2), 27-42.

The Institute for College Success. (2011, March). Adding it all up: An early look at net price calculators. Retrieved September 27, 2012 from http://ticas.org

The Project on Student Debt. (2011a, July). Private loans: Facts and trends. Retrieved September 28, 2012 from http://projectonstudentdebt.org/

The Project on Student Debt. (2011b, November). Student Debt and the Class of 2010. Retrieved October 1, 2012 from http://projectonstudentdebt.org/

Singell, L., Jr., \& J.A. Stone. (2007). For whom the pell tolls: The response of university tuition to federal grants-in-aid. Economics of Education Review, 26, 285-295.

Student Loan Forgiveness Act of 2012. H.R. 4170, $112^{\text {th }}$ Cong., 2nd Sess. (2012).
Toby, J. (2011, October 4). Student loans for dummies. The American, the online magazine of the American enterprise institute. Retrieved July 16, 2012 from http://american.com.

Turner, N. (2012). Who benefits from student aid? The economic incidence of tax-based federal student aid. Economics of Education Review, 31(4), 463-481.
U.S. Government Accountability Office. (2005, September). Federal student loans: Challenges in estimating federal subsidy costs (GAO-05-874). Washington D.C.: Author.
U.S. Census Bureau (2012, February). Educational Attainment in the United States: 2009.
U.S. Department of Education, National Center for Education Statistics. (2011a). Integrated Postsecondary Education Data System (IPEDS): Spring 2002 through spring 2011, student financial aid component [Data file]. Available from http://nces.ed.gov/ipeds/
U.S. Department of Education, National Center for Education Statistics (2011b), Integrated Postsecondary Education Data System (IPEDS): Fall Enrollment Survey (IPEDS-EF:8699) and Institutional Characteristics Survey (IPEDS-IC: 86-99); IPEDS Spring 2001 through Spring 2011, enrollment component, and IPEDS Fall 2000 through Fall 2010, Institutional Characteristics Component [Data file]. Available from http://nces.ed.gov/ipeds/
U.S. Department of Education, National Center for Education Statistics. (2011c). Integrated Postsecondary Education Data System (IPEDS): Spring 2002 through spring 2011, graduation rates component [Data file]. Available from http://nces.ed.gov/ipeds/
U.S. Department of Education. (2012). Student loans overview. FY2013 Department of Education Justifications of Appropriation Estimates to the Congress. Retrieved October 2, 2012 from www.ed.gov.

Woo, J.H. (2002). Clearing accounts: The causes of student loan default. Rancho Cordova, CA: EdFund

## Tables and Figures

| Tercent of Students who Receive Student Loans, by University Type <br> (first time, full-time students) |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public |  |  |  |  |  |  |  | Private, not-for-profit |  | Private, for profit |
| Academic Year | 4 year | 2 year | 4 year | 2 year | 4 year | 2 year |  |  |  |  |
| $2000-2001$ | 40.7 | 15.3 | 58.1 | 49.5 | 57.7 | 67.3 |  |  |  |  |
| $2005-2006$ | 44.4 | 19 | 59.8 | 55.9 | 67.2 | 73.4 |  |  |  |  |
| $2006-2007$ | 43.8 | 19.6 | 59.4 | 53.5 | 52 | 76.4 |  |  |  |  |
| $2007-2008$ | 45.2 | 19.4 | 60.3 | 54.1 | 68.7 | 77.9 |  |  |  |  |
| $2008-2009$ | 46.9 | 21.1 | 60.6 | 58.1 | 81.4 | 77.5 |  |  |  |  |
| $2009-2010$ | 50 | 23.7 | 63 | 58.6 | 86.1 | 77.5 |  |  |  |  |

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2002 through Spring 2011, Student Financial Aid component

Table 2
Profile of Student Loan Borrower Credit Conditions, Fourth Quarter, 2012

|  | Student Loan Borrowers |  |  |  | Non-Student Loan Borrowers |  |  |  |
| :--- | :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Credit Item | Average | Median | First <br> Quartile | Third <br> Quartile | Average | Median | First <br> Quartile | Third <br> Quartile |
| Student Loan Debt | $\$ 24,699$ | $\$ 13,924$ | $\$ 6,003$ | $\$ 29,846$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Total Debt $\dagger$ | 82,503 | 25,682 | 7,654 | 103,240 | $\$ 65,855$ | $\$ 3,675$ | $\$ 0$ | $\$ 67,884$ |
| Consumer Debt $\dagger^{*}$ | 33,132 | 19,196 | 6,387 | 42,709 | 14,239 | 1,481 | 0 | 14,050 |
| Revolving Debt $\dagger$ | 6,622 | 645 | 0 | 4,312 | 7,548 | 314 | 0 | 3,424 |

[^15]Figure 1
The Market for Student Loans


Figure 2
Outstanding Student Loan Debt


Source: Federal Reserve Bank of New York

Figure 3
Total Fall Enrollment in Degree-Granting Institutions, 1970 - 2011


Source: National Center for Educations Statistics, Digest of Education Statistics, Table 216

Figure 4
Average Student Loan Debt per Borrower Across States Fourth Quarter, 2012


Source: Authors’ calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel / Equifax.

Figure 5
Average Undergraduate Tuition, Fees, Room, and Board for Full-Time Students in DegreeGranting Institutions, Constant 2011-2012 Dollars


Source: U.S. Department of Education, Institution of Education Services, National Center for Education Statistics, Digest of Education Statistics 2012 (Advanced Release), Table 349.

Figure 6
Delinquency on Student Loan Accounts
U.S., Fourth Quarter, 2012


Source: Authors' calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax

Figure 7
Student Loan Cohort Default Rates


Source: U.S. Department of Education
Note: The cohort default rate is the percentage of borrowers who enter repayment in a fiscal year and default by the end of the next fiscal year. Lifetime default rates are consierably higher, and is projected at 23.3 percent for loans originated in FY2013.

Figure 8
Student Loan Delinquency Rates Across States
Fourth Quarter, 2012


Source: Authors’ calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel / Equifax.

Figure 9
Delinquency on Student Loans and Other Credit Accounts
U.S., Fourth Quarter, 2012


Source: Authors’ calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax and Lender Processing Services, Inc.

Figure 10
Unemployment Rates for Younger Workers


Source: U.S. Bureau of Labor Statistics

Figure 11
Enrollment Growth by Control of Institution


Source: U.S. Department of Education, Institution of Education Services, National Center for Education Statistics, Digest of Education Statistics 2012 (Advanced Release), Table 198.


[^0]:    * This report reflects the views of the authors and does not necessarily reflect the views of the Federal Reserve Bank of Kansas City or the Federal Reserve System. The authors would like to think Sandy Baum; colleagues at the Kansas City Fed, the New York Fed, Equifax, and the Congressional Research Service; seminar participants at the University of Denver; and participants at the 2012 State Higher Education Officers Association Annual Conference for very useful comments and suggestions.
    ${ }^{\dagger}$ Primary contact (816) 881-2004; kelly.edmiston@kc.frb.org

[^1]:    ${ }^{1}$ The reader can start at any point in the chart and follow the connections from the lender, borrower, servicer, etc. For example, the Department of Education provides Stafford loans, which are disbursed to students, from who

[^2]:    money flows to the university, or if in repayment, to private servicers. Money then either stays with the university, or in the case of repayment, flows back to the Department of Education.

[^3]:    ${ }^{2}$ They are underfunded in the sense that funds are insufficient to fully fund all who qualify to the maximum amounts they are entitled under existing regulations.
    ${ }^{3}$ This change is noted in Figure 1 by the dotted green line connecting the Department of Education to private lenders.

[^4]:    ${ }^{4}$ The terms "subsidized" and "unsubsidized" refer to the terms of the loans, as all federal loans incur subsidy costs on the part of the federal government.

[^5]:    ${ }^{5}$ Authors’ calculations based on data from the Federal Reserve Bank of New York Consumer Credit Panel.
    ${ }^{6}$ Authors’ calculations based on data from the Federal Reserve Bank of New York Consumer Credit Panel.

[^6]:    ${ }^{7}$ There were significantly fewer observations of consumers holding student loan debt in the District of Columbia. .

[^7]:    ${ }^{8}$ Limited data are available on for-profit costs, and much of that is dominated by the University of Phoenix, which is an especially large institution with nearly 600,000 students enrolled.
    ${ }^{9}$ There are a number of consumers represented in the consumer credit reports database who do not have any open credit accounts, all of whom, of course, do not have student loans. Further, student loan borrowers, who tend to be younger, are less likely to be homeowners who have mortgage balances. A myriad of factors determine the difference in credit balances between student loan borrowers and those without student loan balances, some of which are not directly related to student loans.

[^8]:    ${ }^{10}$ Authors' calculations based on data from the Federal Reserve Bank of New York Consumer Credit Panel.

[^9]:    ${ }^{11}$ Authors' calculations based on data from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax.
    ${ }^{12}$ The earnings estimate is based on a statistical estimate for 2009 earnings in David J. Deming, Claudia Goldin, and Lawrence F. Katz, 2012, "The For-Profit Postsecondary School Sector: Nimble Critters or Agile Predators?" Journal of Economic Perspectives, 26(1), 139-164. That number was grossed up by the rate of growth in earnings between the first quarters of 2009 and 2012, as reported by the U.S. Bureau of Economic Analysis, and then converted to a monthly figure.
    ${ }^{13}$ Authors’ calculations based on data from the Federal Reserve Bank of New York Consumer Credit Panel.

[^10]:    ${ }^{14}$ The New York Fed found moderately higher numbers using a similar approach, but a smaller sample. See Brown et al. (2013).
    ${ }^{15}$ The Default Prevention and Management Initiative created a mandate that was implemented in 1991 that includes mandated sanctions (including revocation of federal student loan eligibility). Since implementation, almost 1,200 schools have lost their eligibility. With the latest release of data, five schools were in the questionable area, four were for-profit.

[^11]:    ${ }^{16}$ Excludes loans considered "severe derogatory."

[^12]:    ${ }^{17}$ Authors' calculations based on data from the U.S. Bureau of Labor Statistics

[^13]:    ${ }^{18}$ The CBO estimates also show the direct loan program to be considerably less costly than the former loan guarantee program ( 20 percent of lending costs). Fair-value accounting, if utilized across the entire federal budget, would make a significant difference in budget deficit projections. A recent CBO estimate of $H R 3581$, which would apply fair-value accounting principles to all direct loans and loan guarantees made by the federal government, estimated that the change would add $\$ 55$ billion to the federal deficit for FY2013.

[^14]:    ${ }^{19}$ The limit in student loan interest that may be deducted was $\$ 2,500$ for the 2011 tax year. The deduction is available even to those who do not itemize deductions, but there are income limitations. For single borrowers in the 2011 tax year, the deduction was phased out beyond income of $\$ 60,000$ and eliminated after $\$ 75,000$. For borrowers who were married and filing jointly with their spouses, the phase out began at $\$ 120,000$ and the deduction was eliminated at $\$ 150,000$. Borrowers who are married but file separately from their spouses are not allowed to take the student loan interest deduction.
    ${ }^{20}$ Authors' calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel / Equifax.

[^15]:    $\dagger$ Includes those with zero balances.

    * Total debt less first mortgage.

    Source: Authors' calculations using data from the Federal Reserve Bank of New York Consumer Credit Panel / Equifax

