A Rescue or a Trap?—An Analysis of Parent PLUS Student Loans*

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Abstract

While college education can potentially generate higher returns later in life, parents who borrow loans for children may face excessive repayment burden. This paper examines the experience of Parent Loan for Undergraduate Students (PLUS) borrowers using administrative records of a large student loan guaranty agency. We find that parent PLUS loans in general outperform loans borrowed by students but parent borrowing has its own risks and the outcome varies among borrowers. Parent borrowers whose children attended Minority Serving Institutions (MSIs) likely have paid down less debt and are more likely to default than those supporting children who attend non-MSIs. Through interviews with borrowers, we find that PLUS borrowers have more experience handling debt than their children but may not have fully expected the repayment obligations nor had sufficient communications with their children regarding the financial responsibility. This study sheds light on an understudied aspect of college financing.

Keywords Parent PLUS, Repayment Behavior, Minority Serving Institutions

* The views expressed in the paper are the authors' and do not represent the views of the Federal Reserve Bank of Dallas or the Federal Reserve System.

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Introduction

For many young Americans, college is a gateway to higher earnings, lower unemployment, and better benefits. It is also a rite of passage into adulthood, a time to transition into responsibilities previously borne by parents. Parents naturally are willing to help their children pay for college but they don't always have enough savings to do so. While the federal government has encouraged human capital development through loans to students since the 1950s, the Federal Parent Loan for Undergraduate Students (PLUS) program was created in 1980 for parents to also borrow in order to assist in paying for college.

Parent PLUS loans comprise an increasing proportion of federal aid to students and their families. About 15.3 percent of the federal undergraduate loans originated in the 2017-18 academic year were parent PLUS. The share was almost doubled of the share two decades ago (The College Board, 2018). As of the fourth quarter of 2018, about 3.6 million parent PLUS borrowers (8.4% of the 42.9 million federal education loan borrowers) together held $89.9 billion, or 6.2% of the $1.44 trillion outstanding federal student loan debt.[1]

Parent PLUS borrowers default less often than other student loan borrowers and are the only federal education loan program that generates profits and offset other student loan program cost. Parent PLUS are estimated to create $20.6-billion profits between 2018 and 2028 for the federal government, if the current system continues.[2] As the share increases, parent PLUS could shift more cost burden from the federal government to parents. Like other student loans, parent

[1] Department of Education data (https://studentaid.ed.gov/sa/about/data-center/student/portfolio).

[2] Based on Table 2 and Table 6 in the April 2018 CBO estimate, https://www.cbo.gov/sites/default/files/recurringdata/51310-2018-04-studentloan.pdf

PLUS is usually non-dischargeable in bankruptcy. Borrowers may also have their wages, tax refund and social security garnished if they default on the loans.

With more parents taking out PLUS loans, the repayment burden and well-being of borrowers become more worrisome. Studies of parent PLUS have been limited, largely because the relatively small share of parent PLUS in the student loan market, the generally lower default rate, and scant PLUS loan data available. This paper provides an overview of the parent PLUS program, and uses administrative loan records of a large student loan guaranty agency to examine how parents' investment in their children's education affects their own financial behavior. In addition, because studies have shown disparity in borrowing and repayment of student loan debt among demographic groups, we compare parent PLUS borrowers with student borrowers, and compare parent PLUS borrowers with children attending minority serving institutions (MSIs) and those whose children did not attend MSIs. To supplement the data analysis, we selected parent and student borrowers and interviewed them about their borrowing experience. The parents' and students' expectations and retrospective thoughts on the repayment experience provide a more complete picture of the intergenerational relationship with regards to college financing.

Background

History of parent PLUS program

To finance college education, students face a diverse and complex array of student aid options that include grants, scholarships, subsidized work, and loans from federal, state, nongovernmental organizations, employers, and institutional sources each with their own eligibility criteria, terms and conditions. Most federal education loans are loans to students. The

federal "Stafford Loans Program" is the largest education loan program that offers loans that may be subsidized depending on the level of need determined through federal formulas that use data supplied by students through the Free Application for Federal Student Aid (FAFSA). As of the fourth quarter 2018, there were 29.6 million subsidized and 28.7 million unsubsidized loan recipients together holding $767 billion out of the $1.44 trillion outstanding federal education loans.[3] While educational loans from private lenders typically are risk-priced, Federal Stafford loans are available to borrowers regardless of credit score (although owing federal tax or other debt may disqualify a borrower) and usually have a flat interest rate.[4] Federal Stafford loans do, however, have annual and aggregate borrowing limits.[5] With rising college prices and high demand from mid- and lower-income families, the Stafford loan limits were increased in 2008 and have not been adjusted since then. Financial aid programs do not keep pace and leave funding gaps that many students have to fill through savings, paid work, and contributions from parents and friends.

The 1980 Amendments to the Higher Education Act established the Federal PLUS loan program that allows parents to borrow for their children. Parent PLUS loans have less generous

[3] Department of Education data (https://studentaid.ed.gov/sa/about/data-center/student/portfolio).

[4] Subsidized and unsubsidized loans have the same interest rate and fees. But students who demonstrate financial need and qualify for subsidized loans do not have the loan interest accrued while in school or grace period. https://studentaid.ed.gov/sa/types/loans/subsidized-unsubsidized. Private lenders price the loan based on cosigner's credit record.

[5] The aggregate limits are $31,000 for dependent undergraduate students and $57,500 for independent student and dependent students whose parents cannot borrow PLUS loans.

terms than Stafford Loans and are intended for families who have already exhausted student borrowing options to access affordable credit for expensive institutions.[6] Since 1992, an earlier parent PLUS loan borrowing limit was modified to have more flexible limits so that parents could borrow up to the difference between the total cost of attendance and other financial aid, regardless of expected family contribution, as long as the borrowers do not have an adverse credit history.[7] This modification provided parents with the ability to borrow much larger amounts. The average amount taken out by parents was $16,450 in the 2017-18 academic year, and two and half times of the average amount of total Stafford subsidized or unsubsidized loans, which is $6,570 (The College Board, 2018).

Parents can potentially borrow either a federal parent PLUS or a private loan to fill the gap in college financing. However, parents with lower credit scores cannot easily obtain a private loan, which involves more rigorous underwriting. While private lenders tend to target students attending top-quality schools or savvy consumers with good-credit cosigners, the non-need-

[6] PLUS loan interest rate is 7.6% as of July 1, 2018, and the loan fee at disbursement is 4.248% as of October 1, 2018, higher than those of Stafford loans, which are 5.05% and 1.062%, respectively. PLUS loan borrowers are expected to repay the loan immediately following disbursement but can request deferment while the students are in school or grace period but the interest accrues during deferment and does not get waived.

[7] Initially, PLUS loan limits were set to be $3,000 per year and $15,000 in total for undergraduate years, but were increased in 1986 and then removed in 1992. Parents need to pass the PLUS loan credit check, see https://studentaid.ed.gov/sa/sites/default/files/plus-adverse-credit.pdf.

based parent PLUS loans were designed to support education for families of any income level (College Ave, 2017; Rocha, 2017; Zumeta, 2001). However, the program has attracted low-income borrowers and those who are not able to obtain affordable loans from private lenders, a phenomenon that grew more acute with tightened underwriting following the Great Recession. Some families borrow also because of the repayment flexibility federal loan program offers. Parent PLUS borrowers can consolidate their loans and participate in the Income-Contingent Repayment Plan (ICR). Although it is less generous than most other Income-Based Repayment (IDRs) plans available to students, participants only need to make monthly payment up to a proportion of their earnings.[8] Parent borrowers can also have their loans forgiven after 10 years of on-time payments if they sign up for ICR and work in a job that qualifies them for the Public Service Loan Forgiveness (PSLF).

The future legislature has debated the potential changes to the student loan program, which may change the limits for student and parent loan limits, and reduce the need or access for parents to borrow for their children.

Literature review on parent borrowing

Student loans allow more individuals with limited resources to pursue college education, but borrowing involves risks. Studies show that young adults holding student loan debt may save less, postpone household formation, home purchase or business starts (Addo, 2014; Ambrose,

[8] See https://studentaid.ed.gov/sa/repay-loans/understand/plans/income-driven. It is possible for some parent borrowers to benefit more than student borrowers because the income calculation exclude nontaxable income, such as Social Security benefits, child support, etc.

Cordell and Ma, 2015; Bleemer, et al., 2017; Gicheva, 2016; Mezza, et al., 2016; and Munnell, Hou, and Webb 2016), debt can have adverse influence on older borrowers as well. Parent PLUS borrowers are on average around 50 years old and at or close to their prime earning age. Parents transfer assets and other resources to help their credit-constrained children, so children can save more, consume more, and get better educated. Potentially, parents and children can both benefit and the average welfare improves in the short run and in the long run (Soares, 2015). However, if parents do not have enough savings and need to take out loans for their child's education, then they are likely to sacrifice their own financial comfort with the additional debt obligations. The accumulated retirement savings tend to be lower for those who carry a credit card balance forward and those who have installment debt (Cavanagh and Sharpe, 2002). For older borrowers, debt could affect their decision on major purchases, spending on healthcare, and ultimately their retirement security.

Parent PLUS borrowers who default on their debt can get into further hardship if debt collection reduces their social security benefits. In 2015, 18 percent of 50 to 64 year-old student loan borrowers in default held parent PLUS loans at the time of initial withholding of social security benefits, or "offset" (Government Accountability Office, 2016).[9] For borrowers 65 and

[9] ED collects repayment from older borrowers (age 50 and older) who default on federal student loans by withholding a portion of their Social Security benefits, also called an "offset".

older, 33 percent held Parent PLUS loans. For some of these older borrowers, the benefits they received after the offset fell below the federal poverty guidelines.[10]

The three-year cohort default rates for parent PLUS are published by the Department of Education (ED) only for fiscal years 2006 to 2010 (Table 1).[11] The default rate increased from 1.8 percent in fiscal year 2006 to 5.1 percent in fiscal year 2010, more than doubled across proprietary, private non-profit and public institutions during the period, with the rate at proprietary institutions the highest. Recent official data are not available, but the Federal Reserve Bank of New York Consumer Credit Panel /Equifax (CCP/Equifax) shows that the serious delinquency rate (90+ day) of older student loan borrowers have increased.[12] The majority of older borrowers' student loans are for their children's education (CFPB, 2017).

In October 2011, following the discontinuation of the guaranteed loan program in 2010, the Department of Education (ED) reconciled the differences in the PLUS credit check between

[10] The American Association of Retired Persons (AARP) has started to advocate for the older borrowers who defaulted on their loans by pressuring the federal government to stop garnishing the Social Security benefits from them (Stratford, 2018).

[11] A cohort default rate (CDR), the standard measure of federal education loan performance, is the percentage of borrowers who enter repayment during a particular federal fiscal year (FY), October 1 to September 30, and default or meet other specified conditions prior to the end of the third fiscal year. The PLUS Loan three-year CDR are published at: https://www2.ed.gov/policy/highered/reg/hearulemaking/2012/programintegrity.html.

[12] The CCP/Equifax data does not differentiate PLUS loans from other student loan types nor between federal and private loans. https://www.newyorkfed.org/studentloandebt/index.html

the federal direct loan and guaranteed loan programs. The accounts in collection or charged offs in the previous five years were considered as "adverse credit history" in the credit check for new parent PLUS loans after this reconciliation (Fishman, 2018).[13] This change tightened the parent PLUS loan credit check rules and the parent PLUS denial rate went up by 10 percentage points the year after. For some Historically Black Colleges and Universities (HBCU) or predominantly black colleges, the denial rate went as high as 75 percent (Nelson, 2012). This is linked to a steep college enrollment decline in 2011, especially in HBCUs, which tend to be low-resourced schools with limited institutional grant funds to support their disproportionately economically disadvantaged students. The gap in student aid is often filled through PLUS borrowing at these institutions. With the policy change, parents with children at HBCUs—and other low-resourced schools serving low-income students—couldn't pay for college. ED later loosened the standard to allow more families to be able to borrow parent PLUS loans again.[14]

While borrowing Stafford loans can provide access to higher education and potentially generate higher returns later in life for students, parent PLUS loan borrowers do not share the same earnings boost prospect. The Texas Work Force Commission provided earnings and unemployment insurance data for a random sample of PLUS loan borrowers and Stafford loan borrowers in this study. The records showed that parent PLUS loan borrowers have a slower

[13] Loans are charged off when lenders declare that the loans in severe delinquency cannot be collected and can be written off.

[14] ED now set the minimum total debts with adverse conditions to be over $2,085 (inflation adjusted based on 2015 dollar). It was zero before, so fewer borrowers will be disqualified.

wage growth than students and are less likely to be unemployed but once unemployed, stayed out of job longer.

Families with large unmet need borrow PLUS loans but are the most likely to struggle to repay. Some universities include parent PLUS in the financial aid award package, which might steer parents into PLUS borrowing (Fishman, 2014). That may help institutions avoid federal funding reduction as a penalty for high student loan defaults, because parent PLUS performance is not used to calculate institution's Cohort Default Rate. Parent loans, a tool to level the playing field of education disparity, under certain circumstances could exacerbate the gap by adding the debt burden for low-wealth families (Fishman, 2018).

Potential contribution of the study

This study will help better understand the parent PLUS loan borrowing pattern and how the borrowers interact with the repayment system by examining the borrower-level Trellis data. The data provide a rich account of institutional characteristics, borrowers' children's academic achievement, and labor market outcome of the parent and children. The interviews of parent PLUS loan borrowers and their children supplement the analysis with personal experience and richer explanation for the payment behavior observed. In addition, the comparisons of the experience of parent PLUS and student borrowers present evidence for their different incentives. The differences will inform policymakers on the effectiveness and implications of college loan financing for these two types of borrowers, especially in the recent discussion of student loan system reform. Finally, a closer look at the repayment behavior and student outcome by institution type and in particular by its minority population served offer insights into the various challenges faced by borrowers in different demographic groups.

Rationale for PLUS borrowing and repayment

Parent PLUS borrowers are fully responsible for repaying the loans. Nevertheless, parents still proceed because of various motives. Altruistic parents consider the improvement of children's wellbeing as their own (Soares, 2015). College education typically leads to a host of financial and other lifetime benefits (Carnevale et al., 2016). There could be gains for parents as well. Parents' net lifetime income may increase as a result of incurring PLUS debt—if a child completes a college degree, the subsequent higher income may offset the need for other future support from parents and leads to contributions from children to parents at old age. Silverstein et al (2002) studied the behavior of adult children providing support to their older parents and found that economic and social exchange as well as altruism all motivate intergenerational reciprocity.

When it comes to college choice, families usually take into account of the expected value of the education, family's financial capacity, risk preference, and student's academic promise. Students who are academically capable and aspirational may be able to get financial aid without borrowing much. Students who come from families that are financially stable, familiar with college or comfortable with debt (regardless of students' aptitude) may pick more selective colleges or programs and borrow a higher amount of debt if needed. Students going to these colleges are more likely to complete with a degree and land a job successfully. But if students are not sufficiently college-prepared, the investment does not bring good returns and families may have trouble to repay the debt. Moreover, many uncertainties are unresolved at the time of choosing schools and borrowing. Students and parents unsure about academic or financial outcome may choose less selective and inexpensive programs and borrow less. However, repayment can still be a burden even with lower debt, especially for students who fail to

complete the degree, or take certain career path that can't afford to repay the debt. Therefore, borrowers for children to attend programs that do not generate sufficient earnings may still have trouble repaying even if the students complete college.

Data

The data of parent PLUS borrowers by the Trellis Company, a nonprofit student loan guarantor that helped administer the Federal Family Education Loan Program in Texas since 1979, allow us to examine the trends, patterns and the experience of parental borrowing.

The dataset covers 62,449 parent PLUS recipients who entered repayment between October 2004 and September 2010. We only look at those with children attending Texas institutions, because less than 10 percent of loans in Trellis' portfolio were in other states. During the fiscal years 2009 and 2010, the majority of Trellis' PLUS loans were transferred ("put") to the portfolio of the Department of Education to allow more liquidity for the guaranteed loan program following the financial crisis. The borrowers entering repayment in 2009 or 2010 therefore accounted for less than 5% of all parent PLUS recipients in the data and the loans remaining in the portfolio generally outperformed those in other years. In addition, during the seven years following the start of repayment, about 7.3% of observations were removed ("purged") from the dataset after being closed, usually due to being paid in full, for six years. Those in deferment or forbearance were likely to remain in the data.

Most (55%) parent borrowers took out one PLUS loan, about a fifth had two and 11% had three parent PLUS loans. The average is two and the total principal balance was $18,898 at origination. The children of 92% of these parent borrowers also borrowed loans guaranteed by Trellis Company and on average they took out five Stafford loans totaling $18,673. About 10.5%

of the parent PLUS borrowers took out loans for their own education as well with an average balance of $12,255 (and a higher drop-out rate). The average highest interest rate among multiple PLUS loans was 7.4%. The average parent PLUS recipient was 49 years old when entering repayment. The age of their oldest student ranges from 15 to 50 and the average is about 20. In 4.4% of the cases, both parents borrowed to support the students.

The data track borrowers' repayment behavior from the date of first entering repayment for seven years or until the loans were paid-in-full, consolidated and changed guarantor, or defaulted. At the end of the seven years for borrowers who entered repayment between September 2005 and August 2011, 76.6% were still in repayment. About 31.7% of the borrowers were delinquent at some point, with 12.7% were past due only once. Among all, about 73.8% had paid down some principal amount and have not consolidated or defaulted on the loan after seven years in repayment while 6.5% did not manage to do so. About 38.9% had their loans either in deferment or forbearance at some point in the first seven years of repayment, and 11.2% consolidated and no longer in Trellis' portfolio afterwards. The seven year-default rate was 8.6%, with 7.5% defaulted on all PLUS loans and 1.1% defaulted on some PLUS loans.

About 86% of the parent PLUS borrowers have children enrolled in four-year colleges; only 3.8% enrolled in 2-year and 5.9% in proprietary institutions. The rest of the 4.3% enrolled in multiple types of schools (Figure 1a). About 3% of the students attended Historically Black Colleges and Universities (HBCU) or predominantly black colleges, and 28.3% attended Hispanic Serving Institutions (HSIs). These minority-serving institutions (MSIs) were defined

according to Integrated Postsecondary Education Data System (IPEDS) data, and some of which are eligible for Title III federal funding under the Higher Education Act of 1965.[15]

Unlike Stafford subsidized loans, parent PLUS borrowers' repayment responsibility starts when the loans are disbursed. Parent PLUS borrowers can request a deferment when students are in school, but typically begin repayment before the student leaves school. For students whose enrollment status was reported (88% of them did) seven years into repayment, 47.7% have graduated, 7.6% were still enrolled full time, 3.7% were enrolled half time, 2% were enrolled less than half time and about 26.1% had dropped out from school (Figure 1b). About 38.2% of the borrowers took out the loan to fund the children's first year college and 23.6% funded the fourth year, while the shares of parent taking out PLUS loans were smaller.

[Insert Figure 1 here]

Methods and results

PLUS Repayment Behavior

Table 2 compares the loan characteristics and education experience by parent PLUS default status. Borrowers who defaulted obtained fewer loans with smaller beginning balances, paid down less of the balance and had higher levels of delinquency, deferment and forbearance than those not in default. Parent borrowers who defaulted mostly supported students who achieved lower academic levels. Relative to borrowers not in default, the children of those in arrears were

[15] In Trellis data, the largest historically black colleges and universities in Texas include Texas Southern University and Prairie View A&M University; the largest Hispanic-serving institutions include the University of Texas at San Antonio and the University of North Texas at Dallas.

more likely to enroll in a two-year public college, a for-profit proprietary (private) school or a minority-serving institution and less likely to attend a four-year public or nonprofit private college and to have graduated.

We use a linear probability model to examine how some of these factors explain the probability of a parent PLUS default. The results are presented in Table 3. Other things equal, PLUS borrowers are more likely to default if the borrowers take out more loans, support a student at older age, the students also borrow large amounts for themselves, have dropped out of college without a degree or enroll in a four-year private, proprietary or minority-serving institution. PLUS borrowers are less likely to default if they enter repayment with a higher beginning balance or older age, the loans having higher interest rate, funding more children or children who completed more years of college, enrolled part time or graduated from college. The default rate increased throughout the Great Recession and decline afterwards. Parents' default probability is much more related to their children's college experience and do not increase with PLUS loan characteristics such as size and price. Of course, the experience could be affected by family wealth, students' academic aspiration and risk preference, which are not observed in the data. Borrowers with higher expectation for education return may be willing to take out more loans and are not too sensitive to the loan price.

MSIs versus Non-MSIs

Parent borrower experience may be different at an under-resourced institution serving predominantly lower-income minority students. Comparing to parent PLUS loan borrowers whose children did not attend Minority Serving Institutions (MSIs), those whose children did attend MSIs tended to take out fewer loans, on average had $7,698 lower initial balance, and paid a 9 basic-point lower interest rate. They had paid down less and had a higher rate of

delinquency, deferment, forbearance, defaults and lower rate of principal reduction and consolidation. Students going to MSIs with parents borrowing are more likely to have enrolled in a public institution and less likely to have attended a non-profit four-year private institution, less likely to have graduated and more likely to have withdrawn and work part time while in school than those attending non-MSIs.

Controlling for other factors, PLUS borrowers with children going to MSIs are 2.9 percentage-point more likely to default after seven years into repayment. The third column of Table 3 presents the regression coefficients incorporating interactions of MSI with PLUS loan balance, institution type, enrollment pattern, and college attainment. For parent PLUS borrowers whose children attend MSI, again higher balance is associated with lower default rate. Those with children going to public two-year MSIs are less likely to default than those with children going to public two-year non-MSIs. However, parent PLUS borrowers sending children to four-year private MSIs are more likely to default on their loans than those whose children went to four-year private non-MSIs. Having children graduated from college or working part time while in school helps reduce the chance of default further for parent PLUS borrowers sending children to MSIs.

Alternative Specifications

There are multiple outcomes observed among the parent PLUS borrowers. We run a multinomial logit regressions of four outcomes—paying down the debt, consolidating the loan, non-reduction in principal and defaults. The odd ratios are presented in column 2-4 in Table A1. Unlike the results for default, higher parent loan balance, completion, withdrawal and part-time enrollment are associated with higher probability of debt consolidation. We also run an ordered

logit model, which considered these four outcomes to rank from good to bad. The results are presented in the fifth column of Table A1.

Seven years into repayment, parent PLUS loan borrowers whose children attended MSIs were 53.8 percentage points more likely to default, 66.1 percentage points more likely to fail to pay down principal, and 16 percentage points more likely to consolidate the loans than those whose children attended non-MSIs, other things equal. Parent borrowers whose children attended MSIs tended to struggle more with repayment.

The above correlations are by no means causal. We do not observe the incomes, net worth, and other characteristics of the borrowers, which may explain families' choices of institutions to enroll, amounts to borrow, and determine their repayment capacity. Other factors such as student's ability and aspiration in pursuing a college degree can also affect their achievement and financial outcome. Further exploration of potential instrument variables is needed to address the endogeneity problem.

Parents versus Student Borrowers

The Trellis Company also guaranteed subsidized or unsubsidized Stafford loans. Using the data on a subset of parent PLUS and Stafford loan borrowers for the same period of time—fiscal years 2007, 2008 and 2009, when the data overlapped, we compared the two types of borrowers. There are in total 337,362 Stafford borrowers and 24,407 PLUS borrowers.

Parent PLUS borrowers tend to take out fewer loans, but a higher balance. On average they paid 2.4 percentage point higher interest on the loans than student borrowers when entering repayment. After seven years of repayment, parent PLUS borrowers paid down an average $6,295, or 53.5% of their initial balance, while students only paid down 21.4% at the end of five years into repayment. Children of parent PLUS borrowers were more likely than student

borrowers to attend four-year public or private institutions instead of two-year institutions or proprietary schools, had a higher rate of graduation, enroll full time, and much less likely to drop out of college. We calculated the seven-year default and consolidation rate for Stafford loans based on the dates to the events that are available in the data (other performance measures did not have the exact event dates)[16]. Since parents tend to be more financially stable and more experienced with debt, it is not surprising that PLUS loans have better repayment outcomes than Stafford loans (Figure 2). Performance of parent PLUS in the subsample is similar to that of the whole sample.

[Insert Figure 2]

Controlling for other factors, unlike parent PLUS borrowers, student borrowers are more likely to default if they obtained more loans, larger balances, started repayment at an older age, paid higher interest, attended a two-year public institution, enrolled part-time or withdrew without a degree[17]. Attending a for-profit proprietary college or an MSI is associated with higher probability of default for both student and parent borrowers, however, attending a private non-profit college is associated with lower defaults for student borrowers. Parent borrowers had a

[16] PLUS loan repayment can start within 60 days of loan disbursement, although the borrowers can request deferment while their children still are enrolled in school with no grace period upon graduation. Stafford loan borrowers usually do not need to start repayment until a six-month grace period end after graduation. The performance of loans are therefore not strictly comparable even if we examine the same length of repayment period. Part of the loan performance data were based on the snapshot of seven years into repayment for PLUS loan and five years into repayment of Stafford loans.

[17] Results are not shown in this draft but available upon request.

generally much lower rate of defaults and their children were less likely to enroll in a two-year public institution. Likely because parents do not benefit directly from educational outcome, children working part time or having withdrawn from college seem to alleviate the repayment burden for parents, and with children having graduated however increased the probability of default for PLUS loan borrowers. The comparison suggested that these factors influence parent and student borrowers differently.

Texas Workforce Commission wage records show that parent PLUS loan borrowers have a slower wage growth than students.[18] Parent PLUS loan borrowers were less likely to be unemployed but once unemployed, stayed out of job longer and received unemployment insurance for a longer period of time. The intergenerational transfer through parent borrowing may offset reduction in other forms of financial support stemming from having children with higher levels of education, and presumably, higher earnings and lower unemployment.

Borrower experience in retrospect

We interviewed 49 parents who had borrowed parent PLUS loans for their children and 36 children whose parents had borrowed loans for them (see the survey and interview procedure in Appendix 2). All the children had also borrowed student loans in their own names. These in-depth interviews allowed us to learn about their expectations and experience with the repayment process, and how student debt may have impacted financial decisions.

[18] The Work Force Commission provided earnings and unemployment insurance data on a random sample of parent PLUS loan borrowers and Stafford loan borrowers in this study.

Among both parents and children, most expected the parents to repay the parent PLUS loans and did not expect the children to contribute. Other expectations included that children would contribute a certain amount or take on payments in full either immediately or after a particular event, such as graduating from college, getting settled in a job, or paying off their own student loans. The children who had attended MSIs less commonly said that they would contribute to repayment compared to the children who had attended non-MSIs. All the children were more likely to mention lack of discussion around the issue of repayment compared to the parents, indicating that sometimes parents perhaps felt there was an understanding where there really was not.

Given the repayment expectation, it is not surprising that most children reported that they did not feel an impact when the parent PLUS loans entered repayment. Of those who did report feeling an impact, children who attended MSIs tended to be contributing to, or fully making, payments while children who attended non-MSIs talked about parents having less money to spend on things like college care packages and family vacations. Parents whose children attended a non-MSI more commonly said that entering repayment had a bigger impact compared to parents whose children attended an MSI.

The children generally reported feeling a higher impact on their finances due to their own student loan repayment compared to parents with the parent PLUS loans, particularly with regards to major purchases and other goals. Parents most commonly said that the parent PLUS loans had a low or no impact on their major purchases or other goals. Parents generally felt that the parent PLUS loans either had no impact on their ability to save or had a high impact, with fewer responses between those two extremes. The children were also more likely to say that the financial impacts of their loans were not what they expected, compared to the parents who may

have been more experienced with consumer debt. Many of the children also commonly said that they had no expectations, a comment not made by the parents. Parents most commonly said that the impacts were as expected, and other common responses included comments about money (e.g., borrowed more than anticipated) and that it had taken longer to repay than expected. The parents generally described a medium comfort level with their retirement savings, and also described a generally medium impact of the parent PLUS loans on their ability to save for retirement.

Overall, most parents reported being supportive of their children and most children reported feeling supported by their parents throughout college. Parents whose children attended MSIs more commonly, compared to parents whose children attended non-MSIs, described some waning support over time. Some parents were dismayed about how long it took their children to get through college and some believed their children didn't take higher education seriously enough. Children who didn't feel as supported talked about their parents' reluctance to borrow and feeling like they were supported only if they followed a parent-approved educational plan.

Borrowing to pay for a child's education represents a significant moment in the relationship between a parent and child. The investment and associated risks reflect a deep commitment to the child, one that is entered into with some sense of the consequences including the understanding that their own earning power would be unaffected by their child's education. Retrospectively, some parents were surprised at how long their children took to earn a degree or were disappointed when they children withdrew from schools without a degree. When parent finances became precarious, especially if they were related to a slower pace towards degree attainment, students reported a transition of financial responsibilities that they may not have expected nor been prepared for. The decision to pay for college through parent loans may not

always come with thoughtful discussions with their children about explicit academic expectations and implied reciprocal on-going financial obligations. The collegiate pathway to adulthood, when parental borrowing is involved, seems to come with parental sacrifice and an improvised transfer of financial responsibility.

Conclusion

While college is an investment that generally yields benefits over a student's lifetime in the form of higher wages, more stable employment and better benefits, parents who borrow to support children's education can be burdened by the repayment and fall short on their retirement saving. This paper examines the experience of parent borrowers of federal PLUS loans using administrative records of a large student loan guaranty agency. We find that parent PLUS loans in general outperform loans borrowed by students but parent borrowers' repayment behavior largely depends on their children's college experience. Parent borrowers whose children attended Minority Serving Institutions (MSIs) likely have paid down less debt and are more likely to default than those supporting children who attend non-MSIs. Two-year public institutions seem to bring lower repayment troubles for parent borrowers while four-year private institutions may add some. Overall, finishing college helps repayment of loans. The findings are robust across different specifications but are not causal.

The study is also supplemented by phone interviews with parent and student borrowers whose parents also borrowed PLUS. The conversations suggested that parent PLUS borrowers may not have fully expected the repayment obligations nor had sufficient communications with their children regarding the financial responsibility despite that they have more experience handling debt than student borrowers.

References

Addo, Fenaba R. "Debt, cohabitation, and marriage in young adulthood." Demography 51.5 (2014): 1677-1701.

Addo, Fenaba R., Jason N. Houle, and Daniel Simon. "Young, black, and (still) in the red: Parental wealth, race, and student loan debt." Race and Social Problems 8.1 (2016): 64-76.

Ambrose, Brent W., Lawrence R. Cordell, and Shuwei Ma. 2015. The impact of student loan debt on small business formation. Federal Reserve Bank of Philadelphia Working Paper No. 15-26.

Bleemer, Z., Brown, M., Lee, D., Strair, K., & Van der Klaauw, W. (2017). Echoes of rising tuition in students' borrowing, educational attainment, and homeownership in post-recession America.

Carnevale, A. P., Jayasundera, T., & Gulish, A. (2016). America's Divided Recovery: College Haves and Have-Nots. Georgetown University Center on Education and the Workforce.

Cavanagh, J. A., & Sharpe, D. L. (2002). The impact of debt levels on participation in and level of discretionary retirement savings. *Financial Counseling and Planning*, 13(1), 47-62.

College Ave, College Ave Student Loans, proprietary report, March 2017.

College Board, Trends in Student Aid 2017. https://trends.collegeboard.org/student-aid.

Consumer Financial Protection Bureau (CFPB), Snapshot of Older Consumers and Student Loan Debt, Office for Older Americans & Office for Students and Young Consumers, 2017.

Fishman, Rachel. The Parent Trap. (2014). New America Foundation, January, 2014. https://static.newamerica.org/attachments/748-the-parent-trap/Corrected-20140110-ParentTrap.pdf.

Fishman, Rachel. The Wealth Gap PLUS Debt, How Federal Loans Exacerbate Inequality for Black Families, New America Foundation, May 2018. https://s3.amazonaws.com/newamericadotorg/documents/Wealth_Gap_Plus_Debt_FINAL.pdf.

Gicheva, Dora. 2016. Student loans or marriage? A look at the highly educated. Economics of Education Review, 53: 207-216.

Government Accountability Office, Social Security Offsets, Improvements to Program Design Could Better Assist Older Student Loan Borrowers with Obtaining Permitted Relief. December 2016.

Mezza, Alvaro A., Daniel R. Ringo, Shane M. Sherlund, and Kamila Sommer (2016). Student Loans and Homeownership," Finance and Economics Discussion Series 2016-010. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2016.010rl.

Munnell, Alicia H., Wenliang Hou, and Anthony Webb. 2016. Will the explosion of student debt widen the retirement security gap? 2016. Center for Retirement Research, Boston College.

Michael Stratford, Why the AARP is worried about student loans, the powerhouse lobby has its eye on a growing drag on old-age savings. Politico, 2018. https://www.politico.com/agenda/story/2018/06/07/student-loans-debt-aarp-000666

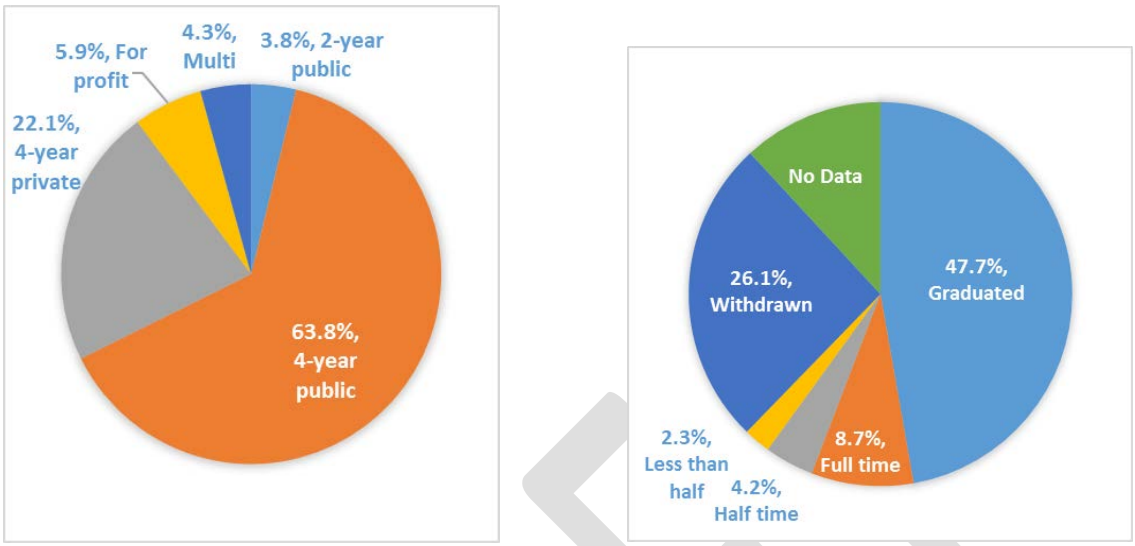
Nelson, Libby A. Cracking Down on PLUS Loans, Insider Higher ED, 2012. https://www.insidehighered.com/news/2012/10/12/standards-tightening-federal-plus-loans?

Rocha, C. Private Education Loan Market Overview, SallieMae, proprietary report, 2017

Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002). Reciprocity in parent–child relations over the adult life course. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 57(1), S3-S13.

Soares, J. (2015). Borrowing constraints, parental altruism and welfare. Journal of Macroeconomics, 45, 1-20, and Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002).

Zumeta, W. (2001). State policy and private higher education. In M. B. Paulsen, & J. C. Smart, The Finance of Higher Education: Theory, Research, Policy, and Practice (pp. 396-416). New York: Agathon Press.



(a) (b)

Figure 1. Enrollment Pattern and Education Attainment of Children Supported by Parent PLUS, Seven Years into Repayment

Source: Authors' calculation based on Trellis Data Fiscal Years 2005-2010

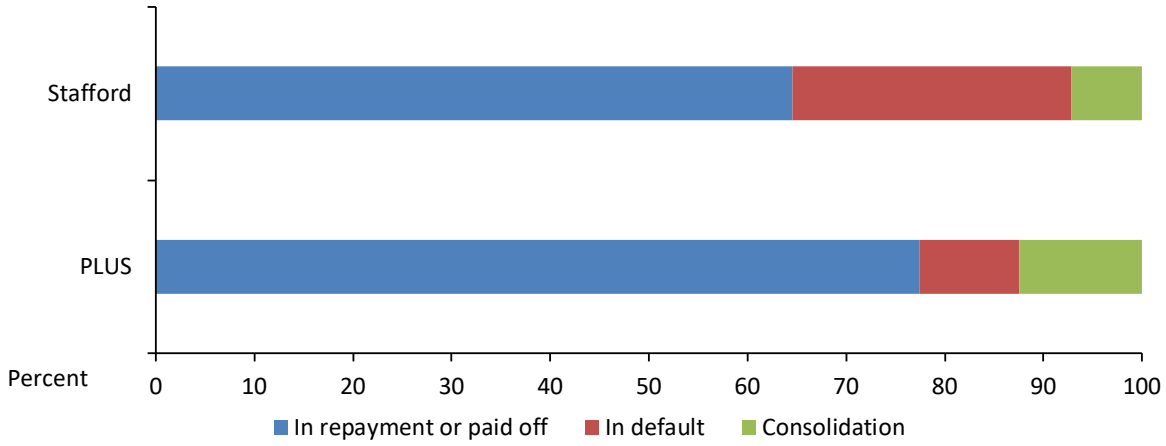


Figure 2. PLUS Loans Outperform Stafford Loans Seven Years after Repayment Begins

Source: Authors' calculation based on Trellis data for fiscal 2007, 2008 and 2009.

Table 1. Parent PLUS Loan Defaults Increases Throughout the Recession

Three-Year Cohort Default Rates	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Parent PLUS Overall (%)	1.8	2.2	2.6	3.4	5.1
Parent PLUS Proprietary (%)	4.7	5.5	6.3	8.3	13.3
Parent PLUS Private Non Profit (%)	1.2	1.6	2.0	2.5	3.4
Parent PLUS Public (%)	1.2	1.6	1.9	2.2	3.1

NOTE: Rates calculated based on borrowers entering repayment after in-school deferment.
SOURCE: Department of Education, 2012.

Table 2. Loan Characteristics and Education Experience by Parent PLUS Loan Default Status

Variables	Borrowers not in default	Borrowers in default
PLUS loan characteristics:		
Average number of PLUS loans	2.0	1.5
Highest interest among PLUS borrowings percent)	7.4	7.2
PLUS loan beginning balance ($)	19,509	12,403
PLUS loan performance:		
PLUS loan amount paid down ($)	8,080	109
Delinquency (percent)	25.7	96.1
Deferment (percent)	14.2	17.2
Forbearance (percent)	31.8	56.5
Student borrowing, enrollment and education attainment:		
Children's Stafford loan amount ($)	18,831	17,015
2nd year funded by PLUS loan (percent)	19.3	20.2
3rd year funded by PLUS loan (percent)	17.8	13.5
4th year funded by PLUS loan (percent)	24.6	12.6
5th year funded by PLUS loan (percent)	1.5	0.7
2-year public (percent)	3.7	5.0
4-year public (percent)	64.4	57.5
4-year private (percent)	22.4	20.1
Proprietary (percent)	5.0	14.8
Minority serving institution (percent)	30.2	44.0
Graduated (percent)	48.8	36.8
Withdrawn (percent)	25.1	37.1

NOTE: Shown in nominal dollars. Borrowers entered repayment in fiscal 2005-10
SOURCE: Trellis Co., authors' calculations.

Table 3. Linear Probability Model of Parent PLUS Defaults

	(1)	(2)
Number of loans	0.00356***	0.00342***
	(0.00126)	(0.00126)
Highest interest	-0.00594***	-0.00583***
	(0.00111)	(0.00111)
Repayment age	-0.00312***	-0.00311***
	(0.000241)	(0.000240)
Number of students	-0.0111***	-0.0123***
	(0.00364)	(0.00364)
Age of the oldest student	0.00829***	0.00857***
	(0.00108)	(0.00108)
Log (Beginning balance)	-0.0124***	-0.00717***
	(0.00163)	(0.00169)
Log (Parent own balance)	-0.00205***	-0.00201***
	(0.000413)	(0.000413)
Both parents borrowing	0.00377	0.00420
	(0.00533)	(0.00533)
Log(student balance)	0.00397***	0.00398***
	(0.000387)	(0.000387)
Two-year public	-0.00889	0.0282***
	(0.00705)	(0.0105)
Four-year private	0.0131***	0.00928***
	(0.00271)	(0.00283)
Proprietary	0.167***	0.161***
	(0.0261)	(0.0260)
Graduated	-0.0228***	-0.0152***
	(0.00290)	(0.00316)
Part-time	-0.0123**	-0.00566
	(0.00523)	(0.00599)
Withdrawn	0.0192***	0.0156***
	(0.00361)	(0.00402)
Enrolled in other	-0.0344***	-0.0347***
	(0.0100)	(0.0100)
2006	0.0102***	0.0101***
	(0.00313)	(0.00313)
2007	0.0376***	0.0372***
	(0.00416)	(0.00416)
2008	0.0290***	0.0283***
	(0.00485)	(0.00485)
2009	-0.0121*	-0.0126**
	(0.00627)	(0.00627)
2010	-0.0174**	-0.0182**
	(0.00784)	(0.00784)
Grade 2	-0.0168***	-0.0166***

	(0.00362)	(0.00361)
Grade 3	-0.0306***	-0.0309***
	(0.00408)	(0.00408)
Grade 4	-0.0464***	-0.0472***
	(0.00457)	(0.00457)
Grade 5	-0.0492***	-0.0516***
	(0.00821)	(0.00820)
Minority Serving Institution (MSI)	0.0293***	0.191***
	(0.00266)	(0.0275)
MSI× Log (Beginning balance)		-0.0162***
		(0.00280)
MSI × Two-year public		-0.0741***
		(0.0140)
MSI × Four-year private		0.0167**
		(0.00753)
MSI × Graduated		-0.0254***
		(0.00673)
MSI × Part-time		-0.0190*
		(0.0115)
MSI × Withdrawn		0.00811
		(0.00808)
Constant	0.202***	0.144***
	(0.0288)	(0.0293)
Observations	58,733	58,733
R-squared	0.032	0.034

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4. Stafford versus PLUS Defaults Seven Years into Repayment

VARIABLES	(1)	(2)
Minority Serving Institution (MSI)	0.0309***	0.0311***
	(0.00150)	(0.00150)
Number of loans	0.00959***	0.00970***
	(0.000397)	(0.000398)
Log (Beginning balance)	0.0157***	0.0155***
	(0.00127)	(0.00128)
Highest interest	0.0164***	0.0160***
	(0.000727)	(0.000728)
Repayment age	0.000924***	0.000845***
	(0.000111)	(0.000111)
Two-year public	0.0408***	0.0430***
	(0.00262)	(0.00266)
Four-year private	-0.00105	-0.000786
	(0.00198)	(0.00213)
Proprietary	0.121***	0.128***
	(0.00944)	(0.00970)
Graduated	-0.00462	-0.00441
	(0.00359)	(0.00359)
Part-time	-0.0231***	-0.0289***
	(0.00261)	(0.00294)
Withdrawn	0.0425***	0.0440***
	(0.00325)	(0.00350)
PLUS	-0.228***	-0.218***
	(0.00456)	(0.00675)
PLUS × two-year public		-0.0818***
		(0.0111)
PLUS × Four-year private		-0.000595
		(0.00526)
PLUS × Proprietary		-0.0336
		(0.0406)
PLUS ×.Graduated		0.0422***
		(0.00594)
PLUS ×.Part-time		-0.0341***
		(0.00996)
PLUS × Withdrawn		-0.0649***
		(0.00698)
Constant	0.0469***	0.0499***
	(0.0105)	(0.0106)
Observations	318,804	318,804
R-squared	0.123	0.124

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Appendix 1

Table A1. Multinomial Logit and Ordered Logit Models of PLUS Repayment Outcomes

	Multinomial Logit			Ordered Logit
VARIABLES	Consolidated	No_Pay_Down	Default	
Minority Serving Institution (MSI)	1.160***	1.661***	1.538***	1.410***
	(0.0311)	(0.0803)	(0.0426)	(0.0378)
Number of loans	1.056***	1.151***	1.050*	1.102***
	(0.0139)	(0.0269)	(0.0281)	(0.0159)
Highest interest	1.010	1.011	0.887***	0.974***
	(0.0167)	(0.0195)	(0.0187)	(0.00998)
Repayment age	0.994***	0.969***	0.955***	0.973***
	(0.00192)	(0.00337)	(0.00256)	(0.00144)
Number of students	0.571***	0.589***	0.751***	0.643***
	(0.0457)	(0.0466)	(0.0593)	(0.0388)
Age of the oldest student	1.138***	1.169***	1.152***	1.145***
	(0.0213)	(0.0175)	(0.0192)	(0.0159)
Log (Beginning balance)	1.805***	1.845***	0.936*	1.346***
	(0.0331)	(0.0549)	(0.0328)	(0.0379)
Log (Parent own balance)	1.086***	1.088***	0.994	1.046***
	(0.00754)	(0.00938)	(0.00734)	(0.00580)
Both parents borrowing	1.270***	1.446***	1.125	1.237***
	(0.0406)	(0.0820)	(0.146)	(0.0637)
Log(student balance)	1.032***	1.115***	1.081***	1.064***
	(0.00619)	(0.0109)	(0.0104)	(0.00632)
Two-year public	1.182***	1.044	0.898*	1.015
	(0.0599)	(0.129)	(0.0566)	(0.0558)
Four-year private	1.035	1.102***	1.204***	1.132***
	(0.0326)	(0.0380)	(0.0602)	(0.0365)
Proprietary	0.953	0.714	2.687***	2.098***
	(0.129)	(0.151)	(0.550)	(0.417)
Graduated	1.142***	0.781***	0.697***	0.867***
	(0.0363)	(0.0345)	(0.0336)	(0.0246)
Part-time	1.229**	1.076	0.877***	1.032
	(0.0999)	(0.0665)	(0.0365)	(0.0530)
Withdrawn	1.228***	1.015	1.259***	1.187***
	(0.0652)	(0.0492)	(0.0661)	(0.0446)
Enrolled in other	0.892	1.386**	0.536***	0.940
	(0.121)	(0.208)	(0.0961)	(0.0609)
2006	1.220***	0.983	1.314***	1.136***
	(0.0276)	(0.0308)	(0.0637)	(0.0250)
2007	0.919	1.347***	1.997***	1.266***
	(0.0612)	(0.0524)	(0.160)	(0.0243)
2008	0.781***	1.947***	1.825***	1.304***
	(0.0488)	(0.0879)	(0.135)	(0.0320)

2009	0.967	2.847***	1.007	1.306***
	(0.127)	(0.209)	(0.0916)	(0.0631)
2010	1.290***	3.344***	0.901	1.474***
	(0.124)	(0.431)	(0.125)	(0.0722)
Grade 2	0.932	0.733***	0.802***	0.812***
	(0.0566)	(0.0337)	(0.0279)	(0.0282)
Grade 3	0.716***	0.554***	0.621***	0.638***
	(0.0399)	(0.0403)	(0.0361)	(0.0260)
Grade 4	0.631***	0.375***	0.442***	0.506***
	(0.0547)	(0.0360)	(0.0301)	(0.0299)
Grade 5	0.542***	0.364***	0.404***	0.462***
	(0.0738)	(0.0782)	(0.0594)	(0.0493)
/cut1				196.6***
				(56.16)
/cut2				418.4***
				(122.5)
/cut3				841.9***
				(252.3)
Constant	5.98e-05***	2.38e-05***	0.143***	
	(2.11e-05)	(6.59e-06)	(0.0507)	
Observations	58,733	58,733	58,733	58,733

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix 2 Trellis Borrower Survey and Interview

A2.1 Survey Sample Selection

Trellis emailed a short survey to parent PLUS borrowers and student borrowers whose parents had borrowed parent PLUS loans for them. The survey asked for demographic information and assessed interest in participating in an in-depth telephone interview.

The Trellis security policy on its administrative databases requires that records of borrowers who have fully repaid their loans be de-identified six years following full repayment. Email addresses are deleted as part of the de-identification process, so Trellis no longer has email contact information for borrowers who fully repaid their loans six or more years prior to October 2017, the time this portion of the study was conducted. Borrowers with invalid email addresses were also removed. These conditions removed approximately 33 percent of parent PLUS borrowers and 41 percent of student borrowers from the datasets of potential respondents. After removing these groups, the survey was sent to 41,663 parent PLUS borrowers and 39,532 student borrowers whose parents borrowed PLUS loans for them. There was a 21 percent bounce rate for parent borrowers and a 14 percent bounce rate for student borrowers. The survey was successfully sent to 31,902 parent borrowers and 33,459 student borrowers. An additional 1 percent of parent borrowers and 1 percent of student borrowers unsubscribed after receiving the survey invitation.

The response rate was 2.33 percent for parent borrowers (742 completers) and 2.46 percent for student borrowers (823 completers). Borrowers that responded to the survey were not necessarily representative of the full sample. The primary purpose of the survey was to secure volunteers for the in-depth telephone interview. Twenty-eight percent of the parent borrower

respondents volunteered (209 parent volunteers) and 57 percent of the student borrower respondents volunteered (470 student volunteers).

Table A2 Summary Statistics of Parents

Repayment Group	Full Sample		Completers		Volunteers	
	Number	Percent	Number	Percent	Number	Percent
Consolidation	4,354	10%	97	13%	23	11%
DF/FB and Default	2,614	6%	71	10%	26	12%
DF/FB and Repay	10,530	25%	186	25%	56	27%
Delinq and Default	1,357	3%	24	3%	5	2%
Delinq and Repay	2,978	7%	36	5%	13	6%
No Reduction	3,329	8%	79	11%	21	10%
Successful	16,501	40%	249	34%	65	31%
Total	41,663	100%	742	100%	209	100%

Table A3 Summary Statistics of Students

Repayment Group	Full Sample		Completers		Volunteers	
	Number	Percent	Number	Percent	Number	Percent
Consolidation	4,293	11%	101	12%	60	13%
DF/FB and Default	2,530	6%	40	5%	26	6%
DF/FB and Repay	10,083	26%	217	26%	111	24%
Delinq and Default	1,432	4%	33	4%	21	4%
Delinq and Repay	2,717	7%	50	6%	25	5%
No Reduction	3,082	8%	70	9%	44	9%
Successful	15,395	39%	312	38%	183	39%
Total	39,532	100%	823	100%	470	100%

A2.2 In-depth telephone interview

Trellis review the survey respondents who volunteered to be interviewed and selected 49 parent borrowers and 36 student borrowers, spanning across the identified repayment groups. The interviewees had a variety of characteristics (such as gender, income category, age at time of

repayment, school type, graduated status). This selection of borrowers was not meant to be representative of all borrowers or even of the full study sample, but was selected to ideally hear from people with different experiences.

Trained interviewers conducted one interview per participant that lasted a median of 34 minutes for parent borrowers and 37 minutes for student borrowers. The interviewer asked questions relating to student loan knowledge and decisions made prior to and during college, an assessment of expectations compared to reality regarding costs and the impact of loan repayment, and the impact the loans had on areas like savings and major purchases.

The telephone calls were recorded, transcribed, and coded using software. The coding scheme was developed using common themes, then refined as coding progressed and further patterns and relationships were defined.