



FINANCIAL HARDSHIP AMONG STUDENT BORROWERS

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Student Loan
Law Initiative

ABOUT THE STUDENT LOAN LAW INITIATIVE

Founded in 2018 and led by University of California-Irvine Law Professor Dalié Jiménez and University of California-Berkeley Law Professor Jonathan Glater, the Student Loan Law Initiative (SLLI) is a partnership between the University of California and the Student Borrower Protection Center to build a body of rigorous academic work around the future of student loans.



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Introduction

The U.S. Department of Education (“the Department” or “ED”) is currently engaged in a process to cancel outstanding student debt via executive rule-making. As part of that process, the Department asked researchers and the public, “What are potential types of hardship that borrowers may continue to face [in spite of existing Income-Driven Repayment and cancellation policies] and how might the Department address those cases of hardship?”

To answer these questions, we used the credit reports of student debtors to measure the relationship between student-debt-to-income ratios, on the one hand, and various measures of borrower hardship, on the other. We used the University of California Consumer Credit Panel’s national 2 percent sample of individuals with an Experian credit report,ⁱ in two quarters: 2020Q1, before the onset of the COVID-19 pandemic and the resulting student loan repayment pause, and 2023Q2, the most recent available data. All of our analysis was conducted at the individual borrower level, where the sample was restricted to borrowers who have student loans, and variation in our measures of student indebtedness is based on aggregating over all of a borrower’s outstanding student loans.

For borrowers in the bottom half of the income distribution, having any amount of student debt is associated with significantly greater hardship in all the measures we observe.

Based on this analysis, we propose two policy recommendations to address and ameliorate borrower hardship:

- **First, reduce student debt to zero for borrowers in the bottom half of the income distribution of student borrowers, corresponding to household incomes below \$71,000. For them, having any amount of student debt is associated with significantly greater hardship in all the measures we observe.**
- **And second, reduce student-debt-to-income ratios to at most 30 percent for borrowers between the median and the 90th percentile of the income distribution of student borrowers, corresponding to household incomes between \$71,000 and \$131,500.**

The repayment pause that was in place from March 2020 through September 2023 significantly alleviated the hardship associated with carrying student debt.ⁱⁱ In addition to reducing interest rates to zero and making principal payments voluntary, it also changed the status of all previously-delinquent and defaulted loans to ‘current.’ These policies radically reduced the hardship associated with carrying student debt. This impact was likely temporary, however. As payment obligations return, we expect that in the coming months, student borrowers’ finances will revert to where they were before the pause began. Thus, the 2020Q1 time period is more informative about what student

borrowers' credit reports will look like going forward, following a period of adjustment. The difference between the two samples is instructive in several ways, including in providing a counterfactual about what student borrowers' credit outcomes would look like if they didn't have to make payments on their student loans. That is why throughout this report, we make use of both samples.

We do not observe borrower income in the credit reporting data, but we do observe each borrower's residential location at the level of the Census tract, as well as the borrower's age. Hence, for the purpose of this analysis we have imputed borrower income from Census-tract-by-age median household income from the American Community Survey's five year pooled sample, dated to 2021. We expect this imputation to overestimate borrower income, since other research has shown that conditional on educational attainment and age, student borrowers have lower incomes than non-student-borrowers, and the household income concept is more inclusive than individual borrower income, or income reported on tax returns.

The table below reports summary statistics for each of the two quarters of the sample.

Summary statistics for the main analysis sample		
	2020Q1	2023Q2
<i>Number of Borrowers</i>	572,455	824,480
<i>Median Income (in 2021 \$)</i>	\$70,235	\$71,860
<i>Median Student Loan Balance (\$)</i>	\$20,377	\$20,330
<i>Median student-debt-to-income ratio</i>	0.297	0.289

Throughout our analysis, we divide the sample by income quantile: bottom 50 percent of the income distribution, next 40 percent, and top 10 percent. The table below reports mean income and max income within each of these quantiles in the two analysis quarters.

Income distribution by income quantile				
Income Quantile	2020Q1		2023Q2	
	Mean	Upper limit	Mean	Upper limit
Bottom 50p	\$48,017	\$70,235	\$49,072	\$71,860
Next 40p	\$94,291	\$131,591	\$95,584	\$131,731
Top 10p	\$162,944	\$250,000	\$162,392	\$250,000

(Note that ACS income is top-coded, hence the maximum observed income of individual households and aggregations of households is capped at \$250,000.)

We recognize that our estimates of borrower household income do not necessarily capture the full spectrum of student borrower wellbeing. We do not have measures of household wealth or of social mobility in the credit reporting data or from alternative geographically-disaggregated data sources like ACS. Intergenerational wealth, or rather the lack thereof, generates additional hardship. Therefore, it may make sense for policymakers to augment eligibility for alleviating student debt burdens that induce hardship with a measure of or proxy for having lacked access to intergenerational wealth, such as Pell grant reciprocity.

The measure of borrower-level variation in student indebtedness that we use throughout this report is student-debt-to-income ratio at the borrower level, aggregating across all student loans. The entire purpose of this report is to investigate where student indebtedness corresponds to worsened risk of hardship (defined below). Hence, we are engaged in a line-drawing exercise, seeking to determine what level of student indebtedness is associated with worse

outcomes for borrowers. Because our income measure is an over-estimate, we are probably under-stating actual student-debt-to-income ratios. Hence, where we observe hardship worsening for borrowers with a 30 percent debt-to-income ratio, for example, the true value of the ratio associated with worsening hardship is probably less than 30 percent (because true income is lower than measured income).

Throughout this analysis, the outcome of interest—various measures of hardship—appears on the vertical axis of each chart. We plot the relationship between student indebtedness and the average value for each measure of hardship within a cell defined by income quantile (three different series) and student debt-to-income ratio (plotted on the horizontal axis). The measures of hardship we analyze are:

1. **Credit score;**
2. **Homeownership**, as measured by whether a borrower has a home mortgage outstanding;
3. **Unsecured credit utilization**, the total outstanding balance on unsecured credit lines as a share of the total credit limit on unsecured lines of credit;
4. **Severe delinquency**: at least one source of credit on which payment is at least 90 days past due;
5. **Adverse legal proceedings**, which include bankruptcy, foreclosure, suits for alimony/child support, and other types of civil actions; and
6. **Auto loan amortization**: the ratio of the current balance to the original loan amount for any auto loans, a measure of progress toward repayment on secured loans.

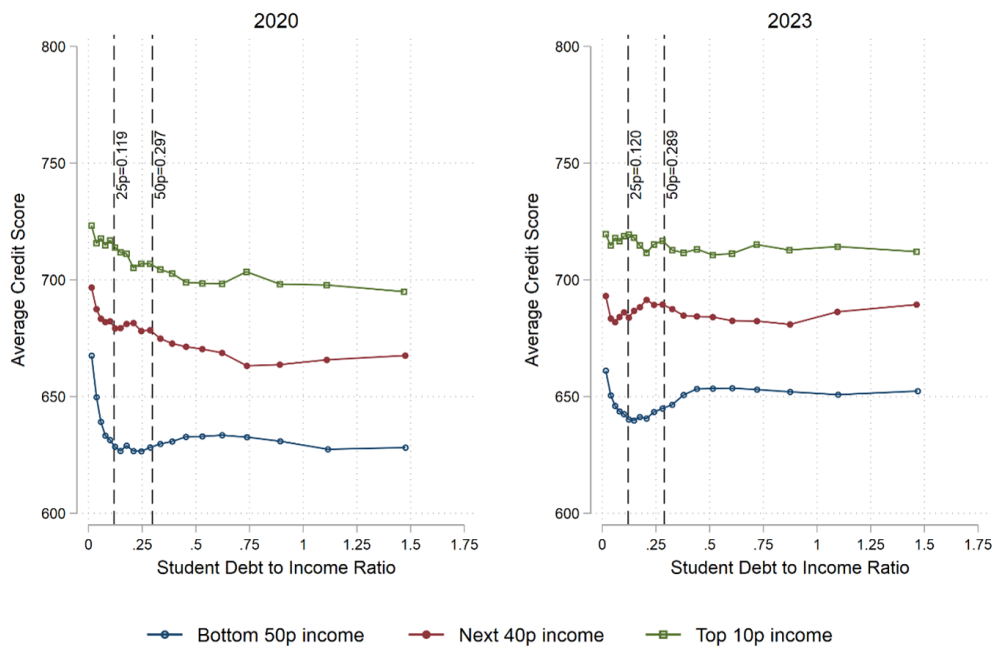
We choose these measures because they are observable in the credit reporting data and correspond to received indicators of financial hardship (or conversely, of financial wellbeing). It's important to note that these are not exhaustive indicators of borrower hardship, and also that hardship is multiplicative: delinquency can lead to inability to pay rent, which can lead to eviction and other forms of cascading distress. The purpose of the analysis is to recover the tip of the iceberg of hardship, that which is visible in the credit reporting data. And the purpose of the policy recommendation is to prevent such cascades from occurring in the first place.

Measures of Hardship

Credit Score

Our first measure of borrower hardship is credit score. The analysis shows that the credit scores of student borrowers improved markedly during the pandemic. Other analysis has shown that this was a general improvement in the credit score distribution for the entire population, likely reflecting the improvement in household balance sheets thanks to both progressive pandemic support policies like stimulus payments and supplemental unemployment insurance, as well as labor market tightness that increased worker bargaining power and thereby real wages, especially at the bottom of the labor income distribution.ⁱⁱⁱ But the pandemic repayment pause was a particular relief to student borrowers. Hence, the right-hand panel in the figure above shows higher credit scores across the board, for all three income quantiles (though particularly for the bottom quantile) and the whole range of student borrower debt-to-income ratios.

Figure 1. Credit Score



The effect of student debt on credit scores is dramatic at the bottom of the range: any amount of student loan debt is associated with a dramatic decrease in credit scores for borrowers in the bottom 90 percent of the income distribution. For reference, a credit score of 650 is at the 10th percentile of credit scores for individuals who qualify for a home mortgage, and 750 is the median credit score of borrowers who qualify for a home mortgage.^{iv} The implication of

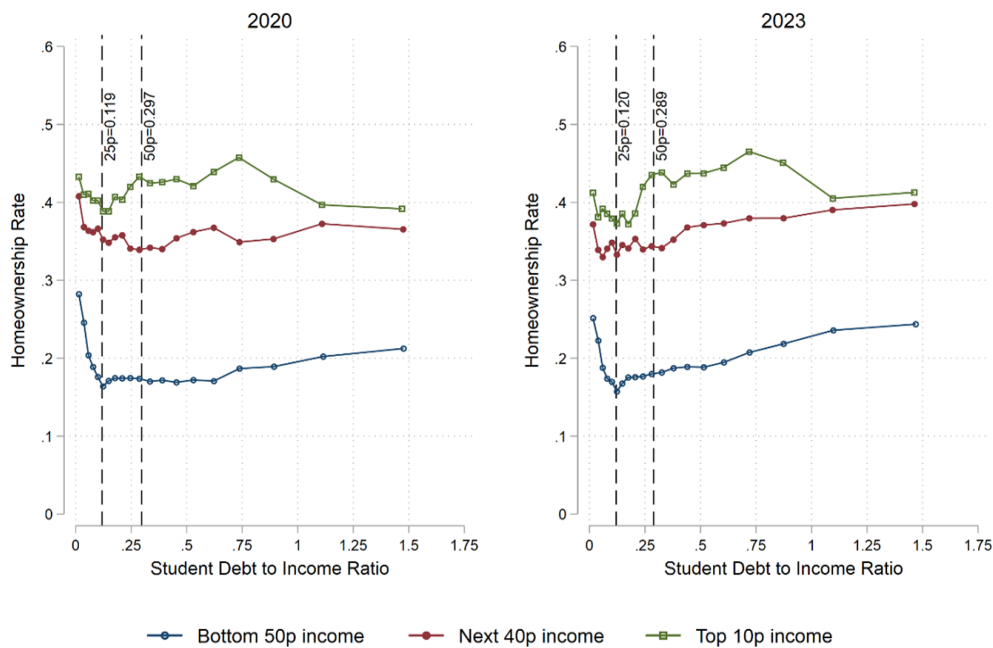
this analysis is that student borrowers in the bottom 50 percent of the income distribution would need to reduce their student debt almost to zero to hit a credit score of 650, especially since student borrower credit scores will probably decrease in the coming months and years as repayment fully resumes. In other words, practically all student borrowers are in the bottom half of the credit score distribution for homeowners.

Homeownership

We need not speculate about the effect of student debt on whether a borrower can qualify for a home mortgage, since that is an outcome we observe directly. And indeed, for borrowers in the bottom 50 percent of the income distribution, all of the negative effect of increased debt burdens on this measure of homeownership occurs below the 25th percentile of the student-debt-to-income ratio, which is about 0.12.

There is little variation in the outcome of interest for borrowers with higher debt-to-income ratios, and relatively little variation for borrowers in the top half of the income distribution. Hence, this outcome is not very informative about hardship for the top half of the income distribution of student borrowers, but quite informative for the bottom half. Specifically, having any student debt at all significantly reduces the probability that someone in the bottom half of the income distribution qualifies for a mortgage.

Figure 2. Homeownership

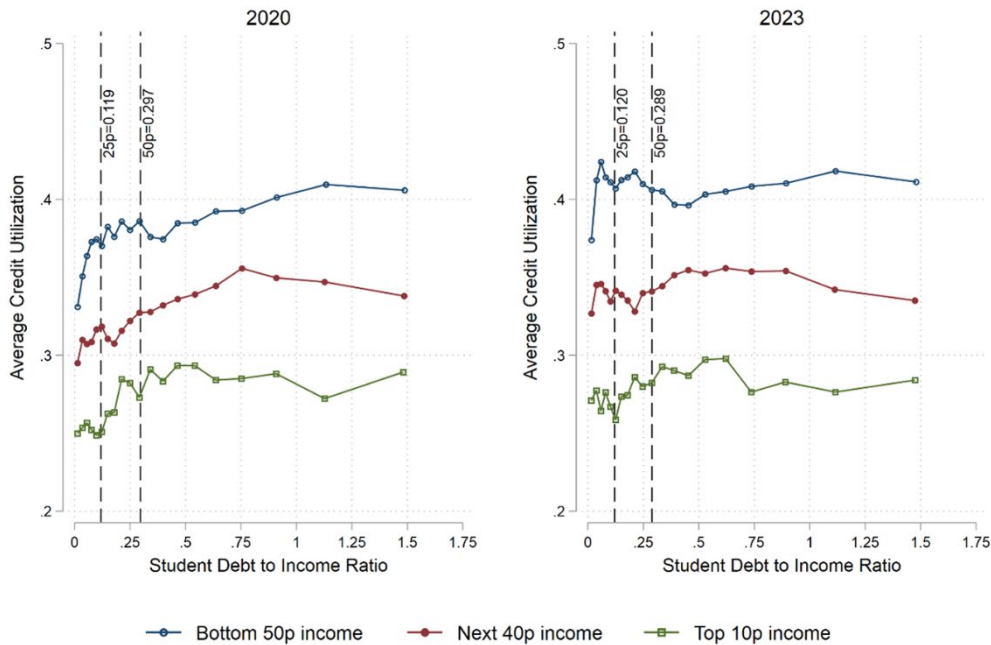


Credit Utilization

One early warning sign of credit distress is high credit utilization rates, meaning the ratio of the total balance on lines of credit to each line’s credit limit. A utilization rate of 30 percent or higher is associated with declining credit score, because it prefigures difficulty with repayment.^v

For each student loan borrower, we compute the total outstanding balance on unsecured lines of credit to the borrower’s total limit across all unsecured lines of credit to create the following chart.

Figure 3. Credit Utilization



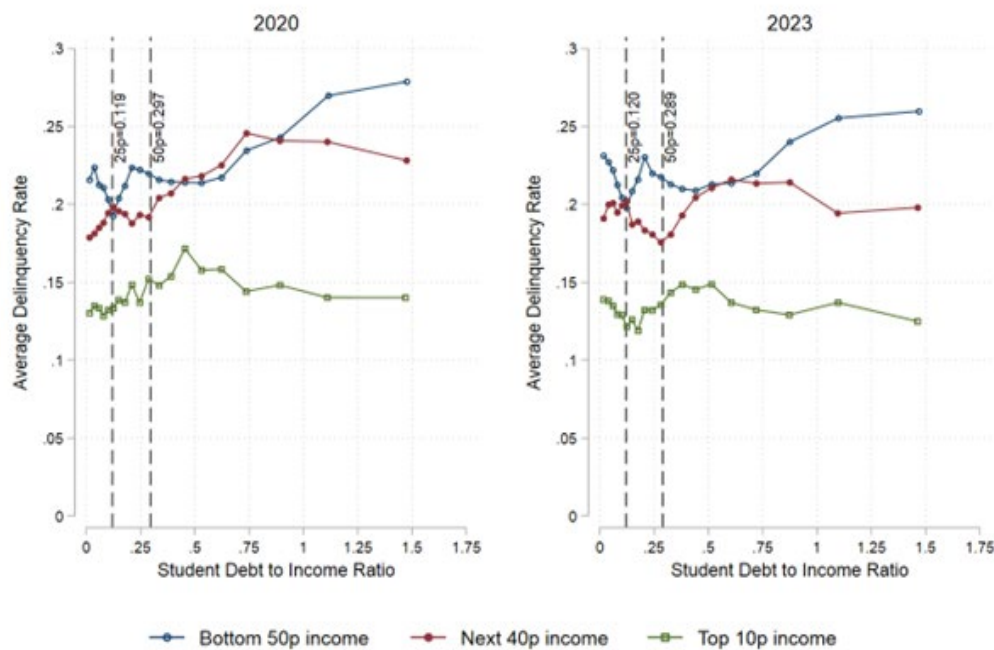
Credit utilization increases rapidly at the bottom of the range of student indebtedness, especially for the bottom half of borrowers. One interesting thing about this outcome is that credit utilization increased for student borrowers during the repayment pause. This is consistent with other findings that one thing borrowers did when they did not have to make payments on their student loans was increase balances on other types of credit.^{vi}

Nonetheless, virtually all student borrowers in the bottom 90 percent of the income distribution have credit utilization rates above 30 percent. Reducing student loan balances to zero would bring them to that utilization threshold, or just above, based on the 2020Q1 sample.

Severe Delinquency

We define severe delinquency as being at least 90 days past due on a payment obligation. We report the share of borrowers with a given amount of student debt that has at least one such severely delinquent loan in the following figure.

Figure 4. Severe Delinquency



Most of the variation in the rate of severe delinquency for borrowers in the bottom 90 percent of the income distribution appears in the top half of the student indebtedness distribution. In particular, for borrowers in the middle 40 percent of the income distribution, a student-debt-to-income ratio of 30 percent appears to be a threshold for increasing probability of severe delinquency. For that reason, hardship as defined by risk of severe delinquency would be meaningfully mitigated by reducing student loan balances to 30 percent of income for borrowers in the middle 40 percent of the income distribution.

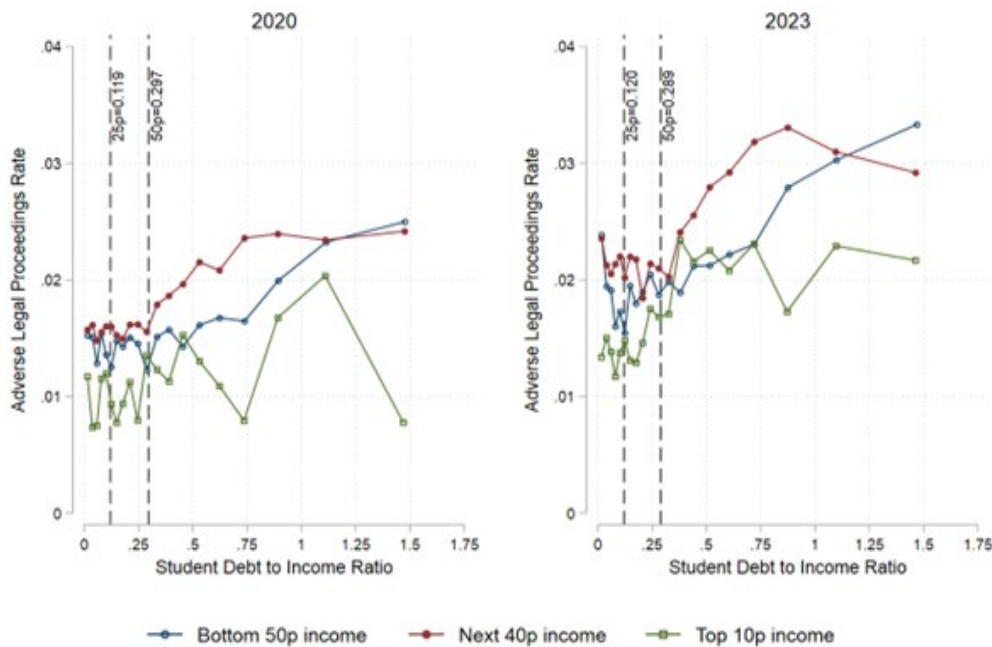
Adverse Legal Proceedings

We are able to track legal proceedings against a given borrower in the form of “public records” that appear on an individual’s credit report. These are civil actions in which the borrower evidences some form of financial distress: most commonly a bankruptcy filing for protection against creditors or a tax lien. These could also include a judgment of foreclosure, suits for alimony or child support, or a small claims suit, but those are far less common.^{vii} Our measure of

adverse legal proceedings is an indicator for whether the borrower’s credit report includes any type of legal proceeding filed against the borrower in the previous three years (leading up to the archive date of the credit reporting dataset).

As with the severe delinquency outcome, the threshold for worsened probability of facing adverse legal proceedings for borrowers in the middle 40 percent of the income distribution is a 30 percent student-debt-to-income ratio. That suggests that capping student-debt-to-income ratios at 30 percent would significantly reduce the hazard of facing any adverse legal proceeding.

Figure 5. Adverse Legal Proceedings

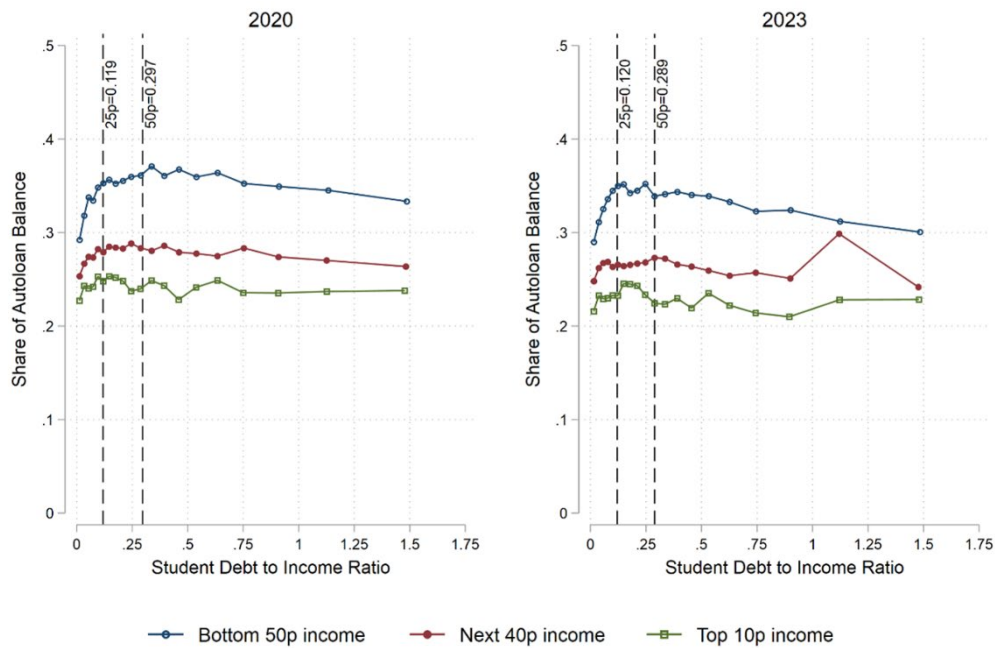


It should also be noted that with respect to this outcome, for a public record to appear on an individual’s credit report, the court records have to be both available electronically and individually-identified with either birthdate or social security number. For many types of legal proceedings, including eviction, that information is not likely to be made public by a court, and therefore evictions will not appear on credit reports as ‘public records’ even if they have been filed. Hence, we think we are significantly under-counting the actual adverse legal proceedings faced by student borrowers. And even further: filing suit against a debtor (or alternatively, filing for bankruptcy) reflects some significant period of non-payment, so the existence of a public record should be taken as a severe, acute instance of hardship spiraling out of control.

Auto Loan Amortization

Finally, we want to investigate the degree to which student indebtedness inhibits repayment/amortization of secured loans. We use auto loans as the paradigmatic example since the term is shorter and the age profile of borrowers is more similar to student debt than mortgages are. We compute the average ratio of current balance on auto loans to original loan balance, which tracks the degree to which the borrower has paid off the loan.


Figure 6. Auto Loan Amortization



Tellingly, auto loan amortization worsens dramatically for borrowers in the bottom 50 percent of the income distribution for any student-debt-to-income ratio above zero, while the amortization rates for borrowers in the top 50 percent of the income distribution is relatively independent of student debt burden. This pattern motivates our recommendation to reduce student debt to zero for student debtors in the bottom 50 percent of the income distribution of student debtors.

Conclusion

We used credit reporting data to look at various measures of financial hardship among student borrowers as a function of the amount of student debt they carry, measured by student-debt-to-income ratios. For all the measures, hardship increases with student debt, meaning that a policy that reduces the burden of student debt would mitigate borrower financial hardship. It is also worth re-stating the premise of targeting student debt forgiveness to borrower



hardship: inability to repay loans can lead to a downward spiral of forfeited drivers licenses, eviction, job loss, family dissolution, and even imprisonment for non-payment in extreme cases. We don't directly observe any of those outcomes in the credit reporting data. The signs of hardship we do observe are selected because they prefigure that kind of downward spiral, and the purpose of our policy recommendations is to prevent such a downward spiral from happening in the first place thanks to student debt.

For credit score, homeownership, credit utilization, and auto loan amortization, the threshold of student indebtedness where hardship worsens for borrowers in the bottom half of the income distribution is zero. For severe delinquency and adverse legal proceedings, that threshold is 30 percent student-debt-to-income ratio for borrowers in the middle 40 percent of the income distribution. That pattern is what gives rise to our policy recommendations to alleviate borrower hardship: zero student debt for borrowers in the bottom half of the income distribution of student borrowers, and a debt-to-income ratio capped at 30 percent for borrowers in the middle 40 percent of the income distribution of student borrowers. For the latter recommendation, we reiterate the caveat that we are probably over-estimating income, which means the "true" threshold ratio where hardship intensifies is probably less than 30 percent.

Endnotes

ⁱ University of California Consumer Credit Panel (UC-CCP), California Policy Lab (2023), <https://www.capolicylab.org/data-resources/university-of-california-consumer-credit-panel/> (last visited Nov 2023). The UC-CCP was created in 2020 through a partnership between the California Policy Lab, the Student Borrower Protection Center, and the Student Loan Law Initiative.

ⁱⁱ Student Loan Law Initiative. (2023) The Student Loan Payment Pause: Assessing Financial Distress in California, <https://slli.org/databrief1> [<https://perma.cc/HN8X-2GA9>], California Policy Lab. (2023) Who benefits from the student loan payment pause and what will happen when it ends?, <https://www.capolicylab.org/who-benefits-from-the-student-loan-payment-pause-and-what-will-happen-when-it-ends/> [<https://perma.cc/B3LE-D84V>], ends/, Federal Reserve. (2022) Student Loan Repayment During the Pandemic Forbearance, <https://libertystreeteconomics.newyorkfed.org/2022/03/student-loan-repayment-during-the-pandemic-forbearance/> [<https://perma.cc/QV98-TWVG>]

ⁱⁱⁱ Mangrum, D., Scally, J. and Wang, C. (2022) *Three key facts from the Center for Microeconomic Data's 2022 student loan update*, Federal Reserve Bank of New York. Available at: <https://libertystreeteconomics.newyorkfed.org/2022/08/three-key-facts-from-the-center-for-microeconomic-datas-2022-student-loan-update/> [<https://perma.cc/K7GF-XMC5>]; Autor, D., Dube, A. and McGrew, A. (2023) *The Unexpected Compression: Competition at Work in the Low Wage Labor Market*, NBER Working Paper Series: Paper 31010. Available at: https://www.nber.org/system/files/working_papers/w31010/w31010.pdf. [<https://perma.cc/WBX4-7Y9Y>]

^{iv} Nilaj, E. (2021) *Homeownership & the student debt crisis*, *Phenomenal World*. Available at: <https://www.phenomenalworld.org/analysis/homeownership-student-debt/>. [<https://perma.cc/P2A9-7BDF>]

^v Talty, A. (2023) *A 60-second guide to Credit Utilization*, *Forbes*. Available at: <https://www.forbes.com/advisor/credit-score/guide-to-credit-utilization/> [<https://perma.cc/E3AL-FCBT>]; *30% credit utilization rule: Truth or myth?* (no date) *NerdWallet*. Available at: <https://www.nerdwallet.com/article/finance/30-percent-ideal-credit-utilization-ratio-rule> [<https://perma.cc/5QTH-5Q9E>]

^{vi} Dinerstein, M., Yannelis, C. and Chen, C.-T. (2023) *Debt moratoria: Evidence from student loan forbearance*, *SSRN*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4448298. [<https://perma.cc/ZG7M-4GQP>]

^{vii} The three nationwide credit bureau companies used to report additional types of adverse legal proceedings but following a settlement with over 30 states attorneys general records can only be reported if the records contain the consumer's name, address, and a Social Security number or date of birth. <https://www.consumerfinance.gov/about-us/blog/removal-public-records-has-little-effect-consumers-credit-scores/> [<https://perma.cc/UHS8-TNLU>]

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