Jain Family Institute

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Student Debt Relief for Borrowers with Negative Amortization

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View JFI's series of reports on Millennial Student Debt here.

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Introduction

In July 2023, shortly after the US Supreme Court struck down President Biden's broad student debt cancellation measure, the Department of Education initiated a negotiated rulemaking session on the topic of Student Loan Debt Relief. At the conclusion of this lengthy process, which includes days of negotiations between stakeholders and input from the public and field experts, the Department can make regulatory changes to programs authorized by the Higher Education Act. As the process unfolds, stakeholders learn in real time where the Department's priorities lie when it comes to mitigating systemic student debt burdens. In September 2023, the Department released an issue paper that spells out their policy considerations "to create a path to debt relief for student loan borrowers in need." It outlines five categories of borrowers who will be targeted for debt relief. In this report, we focus on the first group of borrowers described in the issue paper: those who currently owe more than they originally borrowed. (The other categories are borrowers who have been in repayment for more than 25 years, who should have already been eligible for income-driven repayment and/or cancelation but missed the opportunity, borrowers defrauded by their institution, and borrowers experiencing 'hardship.')

The Department's question prompt for the first category of student debtors is as follows:

> *Many borrowers have seen their balances grow due to the accrual of unpaid interest such that many borrowers now have overall balances higher than what they originally borrowed. Are there ways to help borrowers who are in this situation that could put them on a better path for successful repayment?*

The Jain Family Institute's student debt researchers have a unique capacity to analyze this group of student debtors. We have thrice unearthed troubling trends on systemic student debt non-repayment, its inequitable effects, and the consequences of mounting balances. This paper aims to build on those studies by providing more data on the phenomena of non-repayment and negative amortization, which describes when balances rise rather than fall while a loan is "in repayment." We want to provide stakeholders with analysis that will maximize the beneficial outcomes of this negotiated rulemaking session and improve the financial circumstances of borrowers facing precarity.

Our answer to the policy question asked by the Department is as follows: since borrowers experiencing negative amortization once they're in repayment are unlikely ever to reverse that trend and repay their loans, the total balance on federal student loans should be capped at the origination amount. That policy would extend the logic of the SAVE

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repayment plan, which implicitly recognizes that negative amortization is typically not a transitory event in a borrower's life cycle, while also preventing debt from spiraling by proactively stopping the onset of debt accumulation cycles.

Data

In each calendar year, we observe an independent cross-section of one million student borrowers between the ages of 18 and 35. In order to properly evaluate how borrowers experience repayment distress, we group borrowers based on the year they entered repayment. First, we filter out any borrower who is still in a deferral status (like in-school deferral or forbearance), then we categorize the remaining borrowers into repayment cohorts. The cohort for each borrower is the year after their most recent student loan was opened, not counting consolidated, refinancing, or transferred student loans. For example, a borrower in the June 2019 sample with no loans in deferment and whose most recent loan was opened in June 2018 is assumed to have started repayment. Although the loan itself is one year old, the repayment is assumed to have started six months after origination, in January 2019. Under these circumstances, the borrower would be categorized within the "zero" cohort group (e.g.: "0 years since entering repayment") in June 2019. This implies that the origination date of the borrower's most recent student loan falls within a range of twelve to twenty-three months prior.

Our datasets provide student loan-level data for every consumer in the sample. Some borrowers have only one student loan, others over a dozen. For data on originations and balances due, this brief aggregates across the entire portfolio of student loans that a borrower is observed to be carrying. After aggregating student loan data at the consumer-level, we aggregate consumer-level data to the cohort-level (i.e: the year a group of borrowers entered repayment). We then perform trend analysis on our 2019 and 2023 cross-sectional data.

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Analysis

For each consumer, we aggregate all their student loans to compute a ratio of their total outstanding student loan balance compared to the corresponding total origination amount. If this ratio for a borrower is equal to zero, it means the borrower has fully repaid all their student loans. If this ratio is equal to one, it means the borrower owes exactly the amount they originally borrowed. If the ratio is over one, it means the borrower has accumulated interest on top of their original loan amounts and, thus, owes more debt than originally borrowed. We plot the distribution of this ratio across repayment cohorts in Figure 1 for the 2019 sample, and in Figure 2 for the 2023 sample. In our box-and-whisker plots, the central line represents the median ratio, the borders of the "box" represent the 25th and 75th percentiles, and the horizontal lines that delineate the tails or "whiskers" correspond to the 10th and 90th percentiles. The plots further report the share of borrowers in each cohort that have a repayment ratio greater than one—those who owe more than their origination amount.

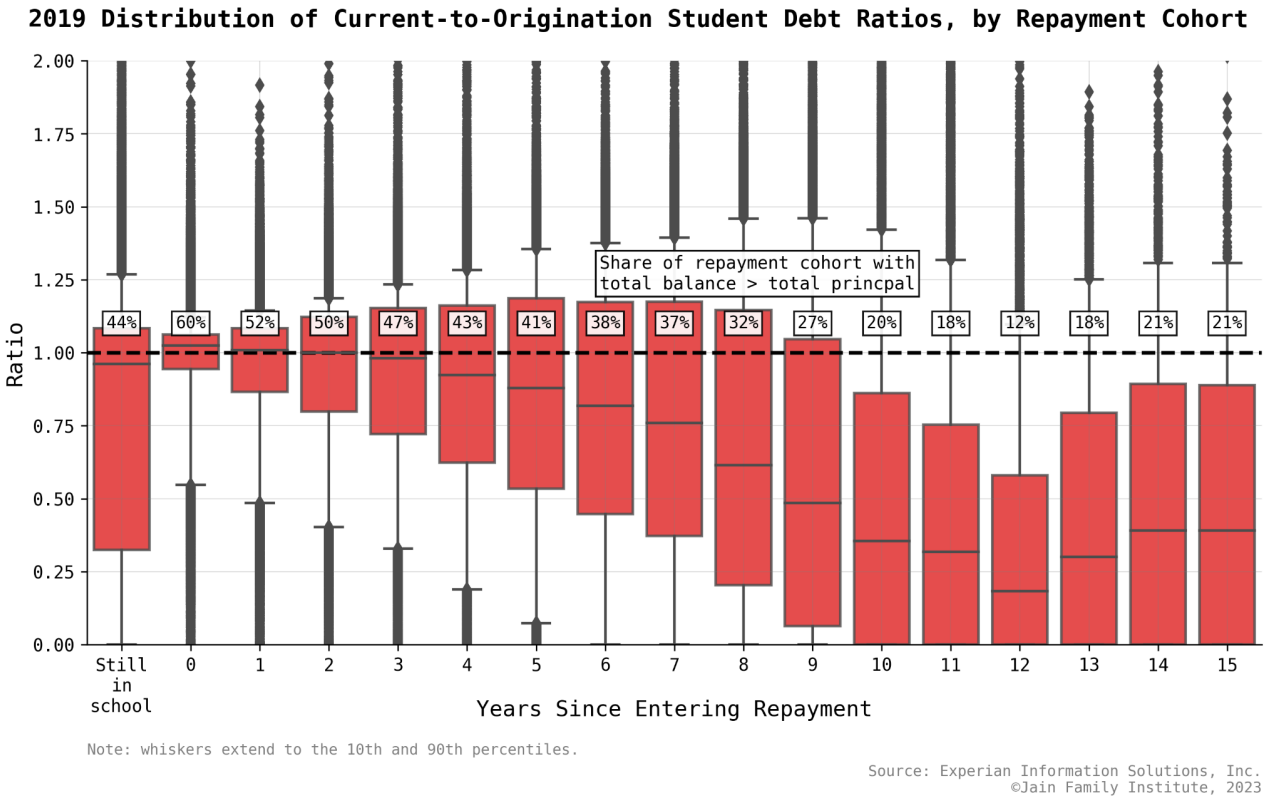

Figure 1: *2019 Distribution of Student Debt Balance Ratios (Current-to-Origination-Balance), by Repayment Cohort*

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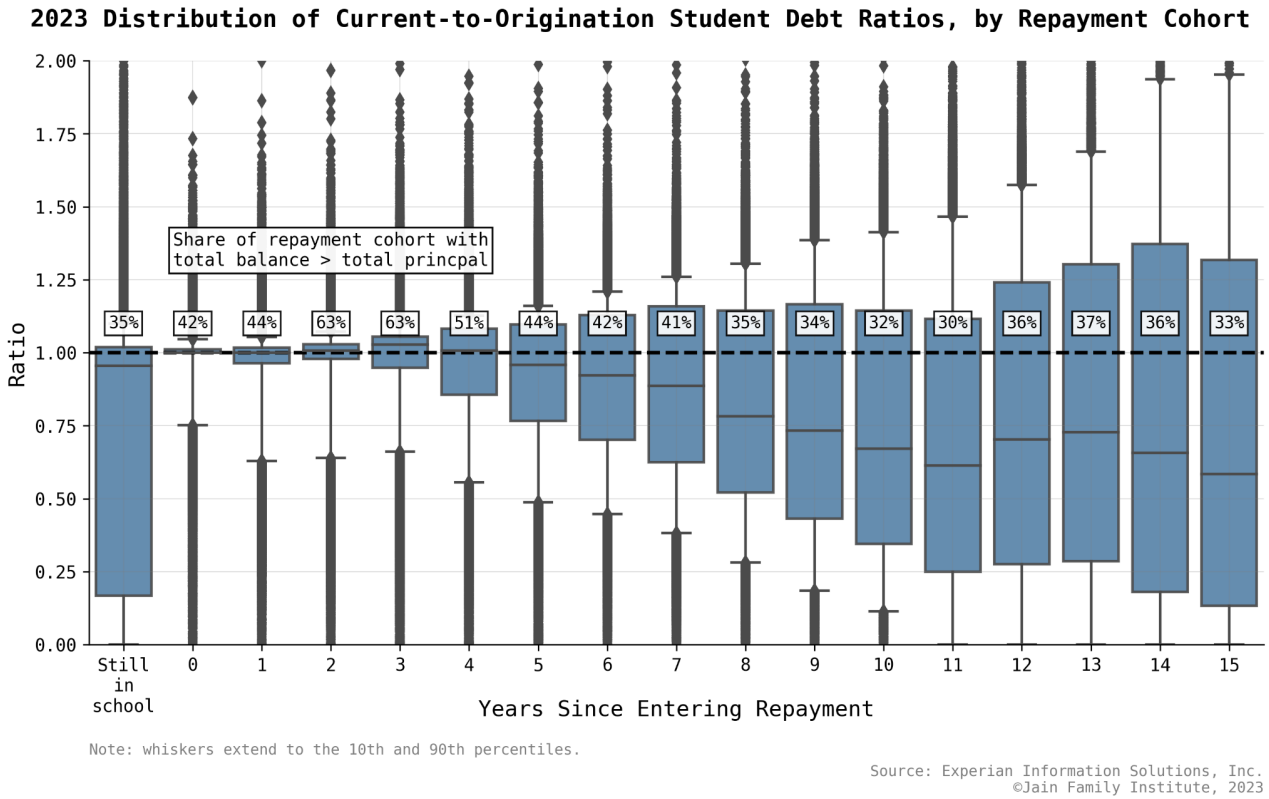

Figure 2: *2023 Distribution of Student Debt Balance Ratios (Current-to-Origination-Balance), by Repayment Cohort*

Across both the 2019 and 2023 cross-section, the typical borrower in each repayment cohort is making progress on their student loan balances, albeit slower than required under a typical ten-year repayment plan. As with other student loan trends and characteristics, repayment progress for older cohorts has slowed in 2023 compared with the older cohorts in 2019. The worsening repayment ratios for repayment cohorts more than twelve years into repayment likely represent a selection effect: borrowers who fully repay within the intended ten-year window are out of the sample, so the remaining members of the repayment cohort skew toward borrowers who aren't making progress toward repayment.

We next compute repayment/negative amortization in terms of dollar amounts as opposed to ratios. This captures how much progress borrowers have made in dollar terms or alternatively, how much more student debt has accumulated above original balances. Much like in terms of the balance-to-origination ratio trends, the repayment cohorts and the typical dollar amount difference between outstanding debt and origination amount is more negative for older cohorts. The typical borrower who has been in repayment longer will owe less than they originally borrowed.

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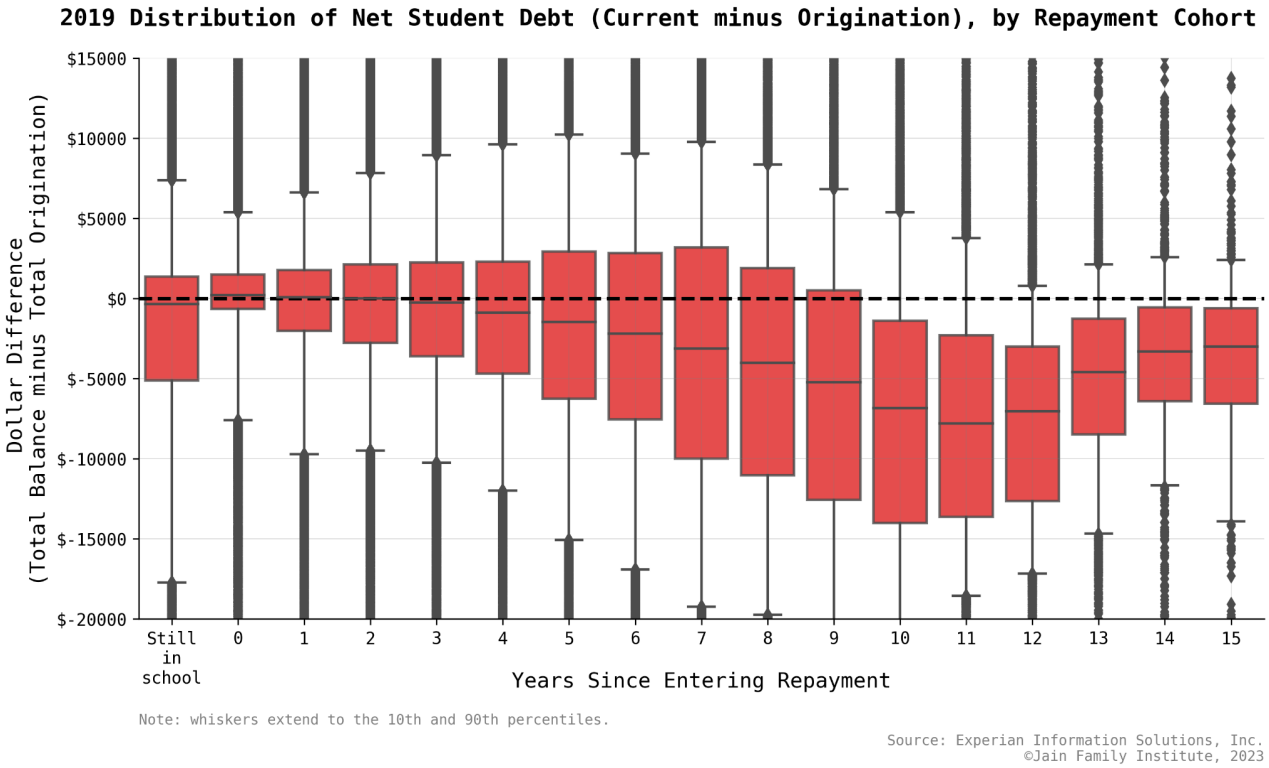

Figure 3: *2019 Distribution of Net Student Debt Balance (Current minus Origination), by Repayment Cohort*

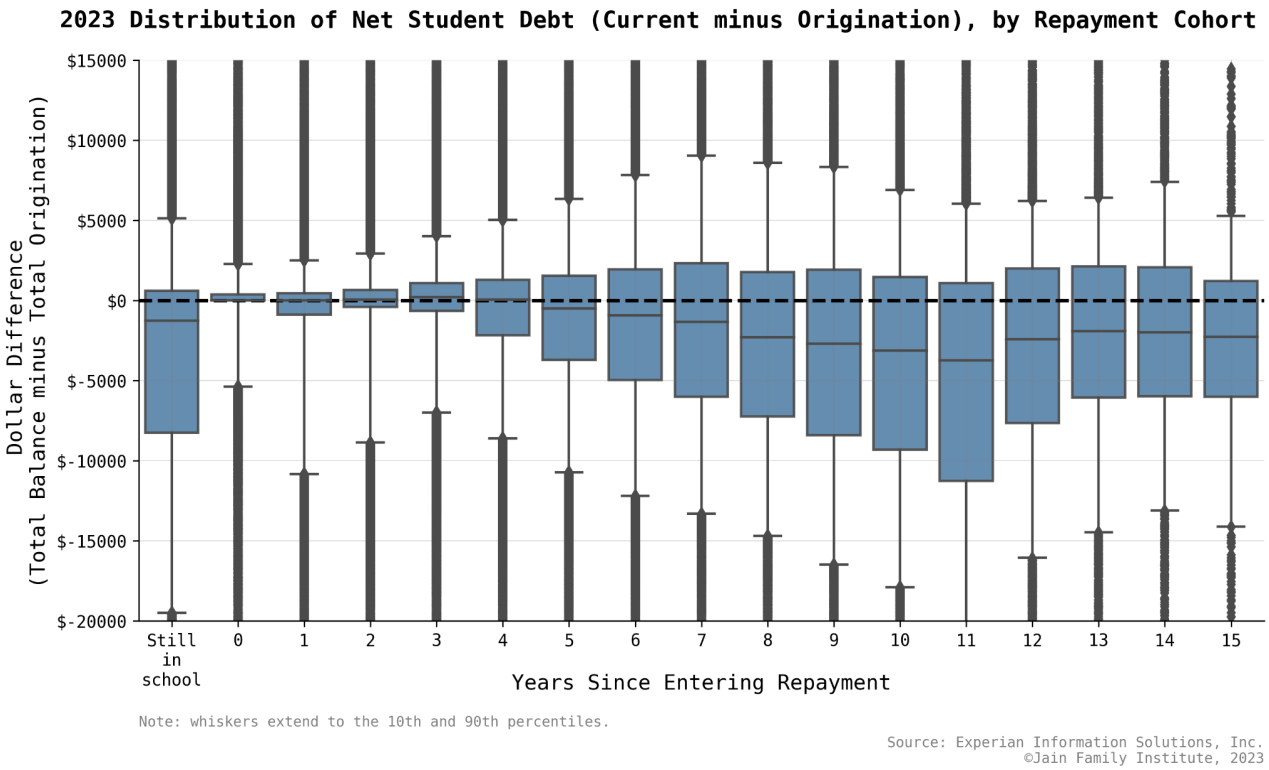

Figure 4: *2023 Distribution of Net Student Debt Balance (Current minus Origination), by Repayment Cohort*

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While this is true in both the 2019 and 2023 cross-section, there are distinct differences in the trends. First, younger cohorts in 2019 are much more likely to have mounting balances than their equivalent in 2023, also attributable to the benefits of the repayment pause. Second, older cohorts in 2023 are making less progress towards repayment than their equivalent in the 2019 sample. This reflects a long-running trend in student debt: time-to-repayment is lengthening. Third, the typical difference within and across repayment cohorts is more concentrated in 2023, indicating that the repayment pause has improved repayment equity both across and within cohorts. The policy, then, disproportionately helped borrowers whose balances would otherwise have been increasing.

A closer look at the 2019 and 2023 samples reveals further variances among the student debtors. Figure 5 below compares the share of borrowers in 2019 and 2023 that have a total outstanding balance exceeding the total origination amount borrowed. Again, we see that newer cohorts in 2023 will have a drastically different repayment trajectory then their equivalents in 2019. While the repayment pause helped all borrowers avoid mounting interest, the trend of non-repayment among older cohorts continued between 2019 and 2023. Another key distinction is evident when comparing Figure 5, which depicts trends in consumer-level debt, to Figure 1.4 from our June 2023 report, which focuses on loan-level debt trends. Even though very few loans that came into existence during the pause show rising balances while the pause was in effect, non-repayment among younger repayment cohorts continued to be an issue—as reflected in the relatively high share of borrowers in the 2023 sample between 0 and 3 years in repayment who experienced negative amortization.

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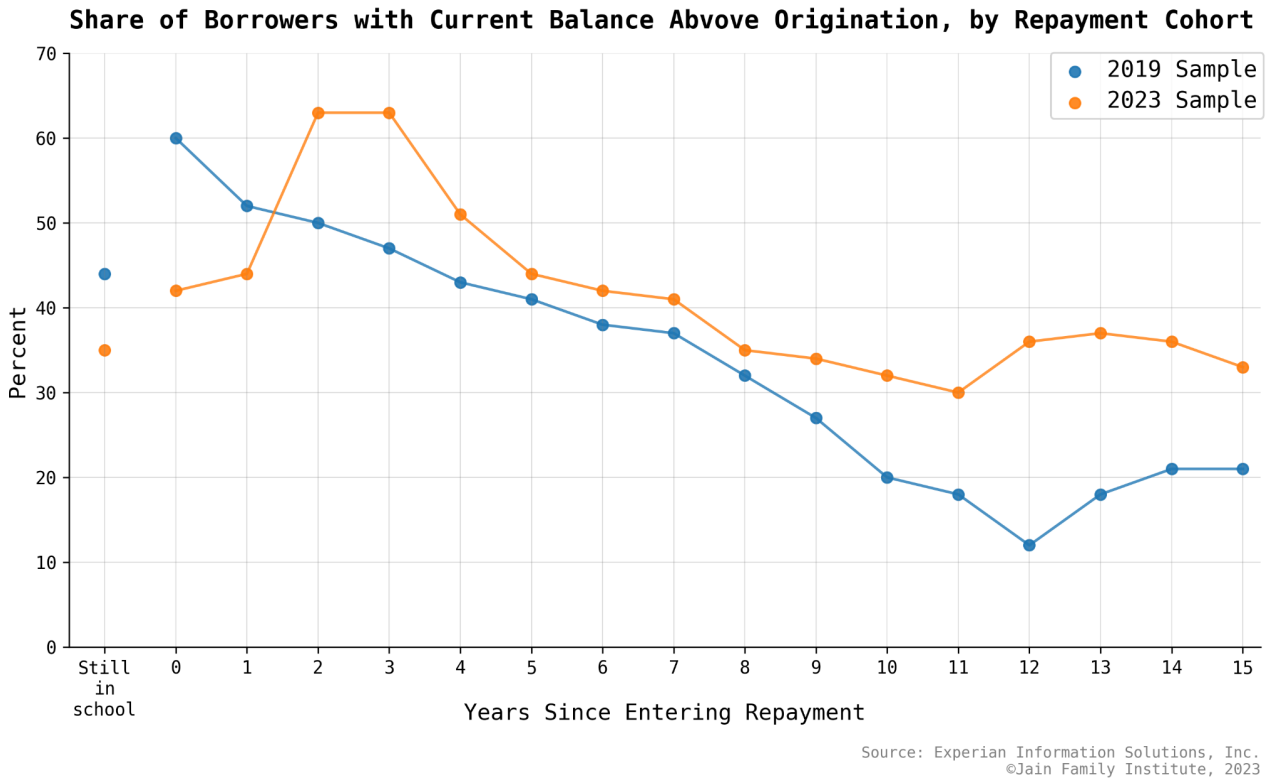

Figure 5: *Share of Student Debtors with Current Balance Above Origination in 2019 and 2023, by Repayment Cohort*

A positive sign is that the overall share of borrowers with negative amortization decreases as repayment cohorts age and some borrowers repay their loans. Countering this trend, however, is the absolute dollar amounts owed by borrowers who are not making progress toward repayment. Figure 6 below reports the share of total student debt held by each repayment cohort that is in excess of the origination amount. This share is increasing as a function of time in repayment. These two dueling facts imply that the share of borrowers experiencing negative amortization decreases as a function of time in repayment, but the total amount of debt above origination increases, meaning that a minority of borrowers become trapped in a cycle of non-repayment and sees balances spiral out of control. Those who initially struggle with mounting balances are likely to be plagued by rising balances indefinitely. That pattern motivates our policy recommendation in response to the Department of Education's question posed above: borrowers should be spared from rising balances before they get out of hand, by capping the total amount of debt they can have outstanding at the total original principal value of their loans, thus eliminating negative amortization.

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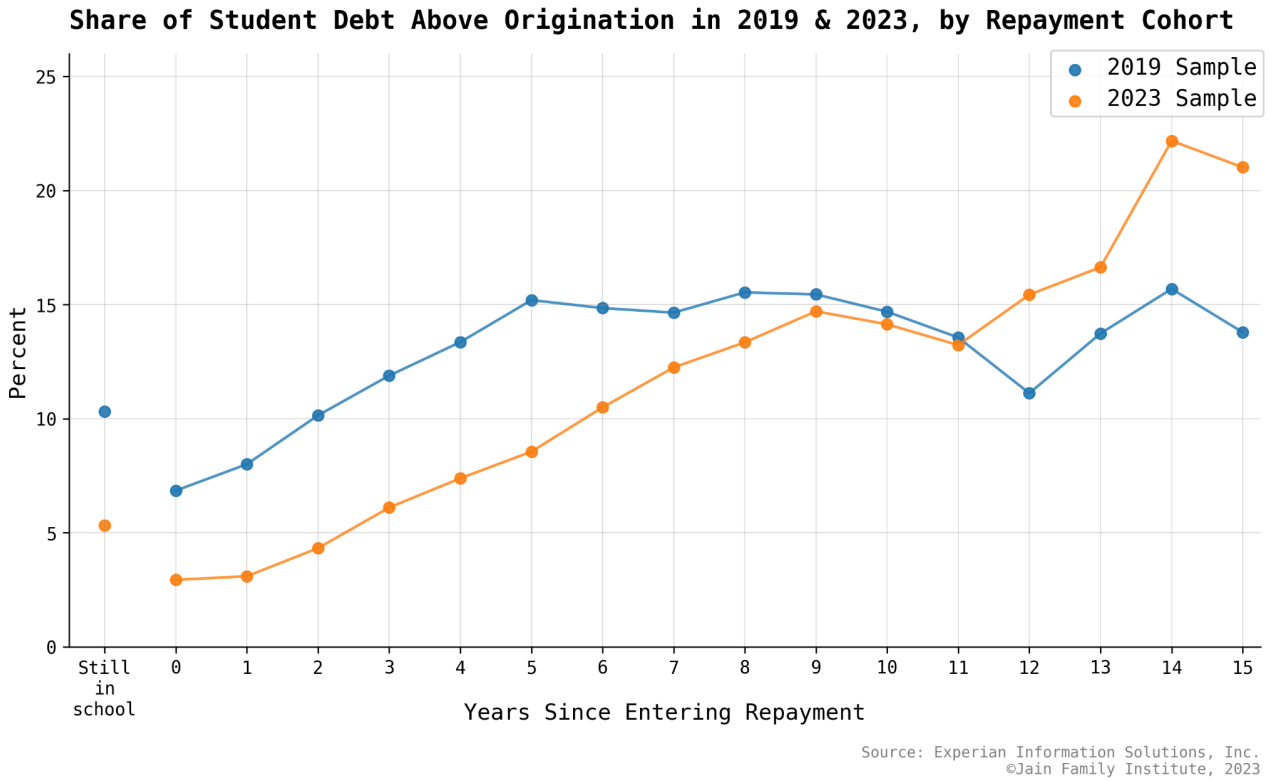

Figure 6: *Share of Outstanding Student Debt Above Origination Balance, by Repayment Cohort*

The next chart, Figure 7, shows the value of the repayment pause: the share of outstanding debt that is accumulated above original balances has been falling for the last several years. This trend will reverse now that the repayment pause has ended and interest is re-accumulating. The existing policy that would mitigate the reversal of the positive trend is the new SAVE repayment plan, which waives accumulating interest for borrowers whose income is too low to make full current payments. But uptake of the SAVE plan will be less complete than it was for the repayment pause, which did not require borrowers to enroll or demonstrate their qualification.

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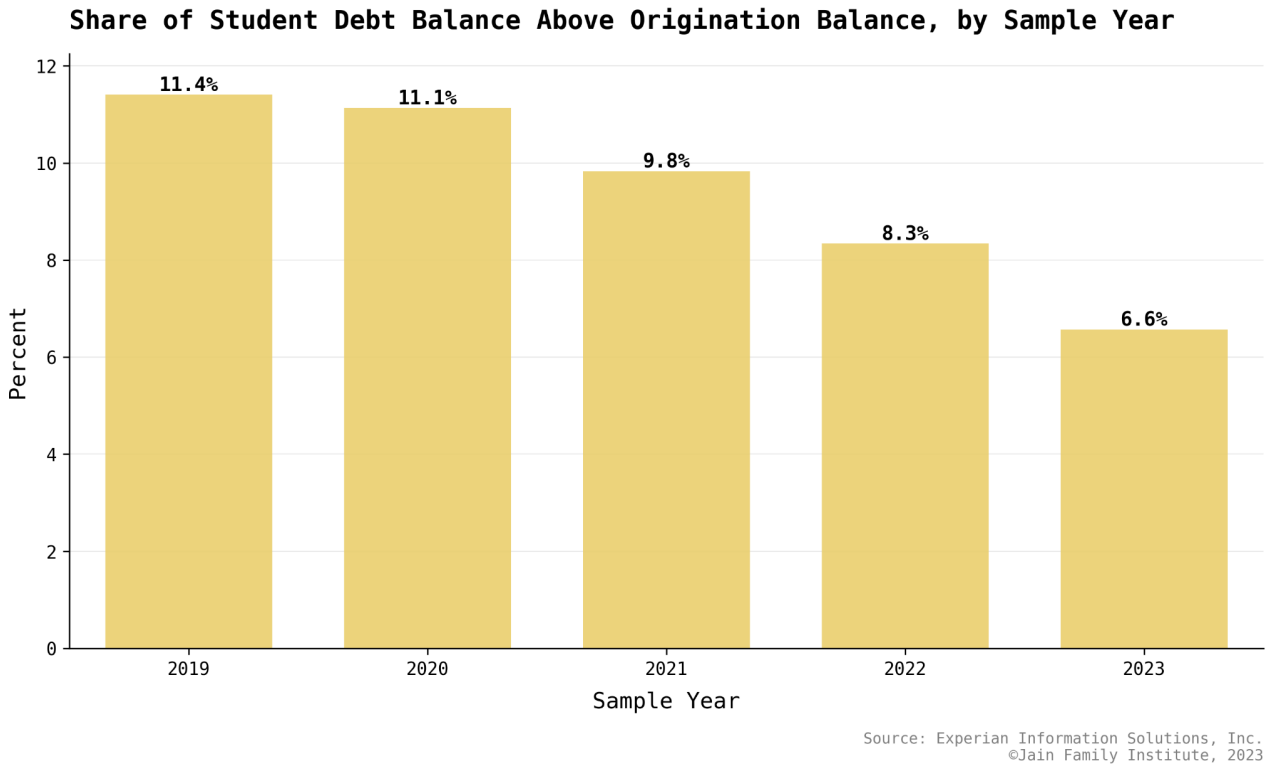

***Figure** 7: Share of Outstanding Student Debt Above Origination Balance, by Sample Year*

We next look more specifically at borrowers with negative amortization: what would happen to their balances if all their payments went towards their principal balance instead of interest and fees? The following charts, Figure 8 for the 2019 sample and Figure 9 for the 2023 sample, visualizes this, isolating all the borrowers who owe more in total student debt than they originally borrowed, calculating the total amount of payments they have made in the previous 12 months, and subtracting it from their observed balance a year before our sampling date. The final amount is what we call the borrower's hypothetical current balance, which represents their balance if previous year's payments had not gone towards interest or fees, but instead fully amortized principal. We then plot the difference between the borrower's actual balance and what it would have been in the case all their payments went toward principal.

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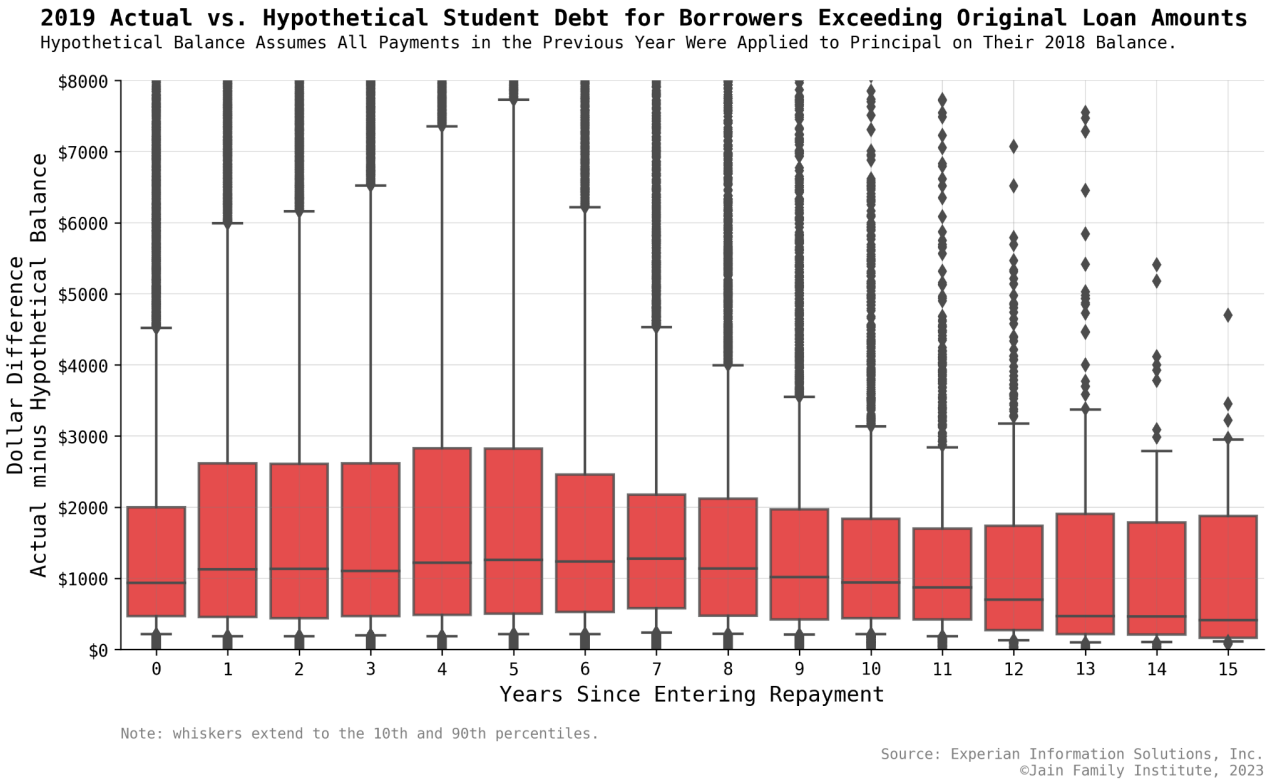

Figure 8: *Actual vs. Hypothetical Student Debt in 2019 for Borrowers Owing More Than Original Loan Amount*

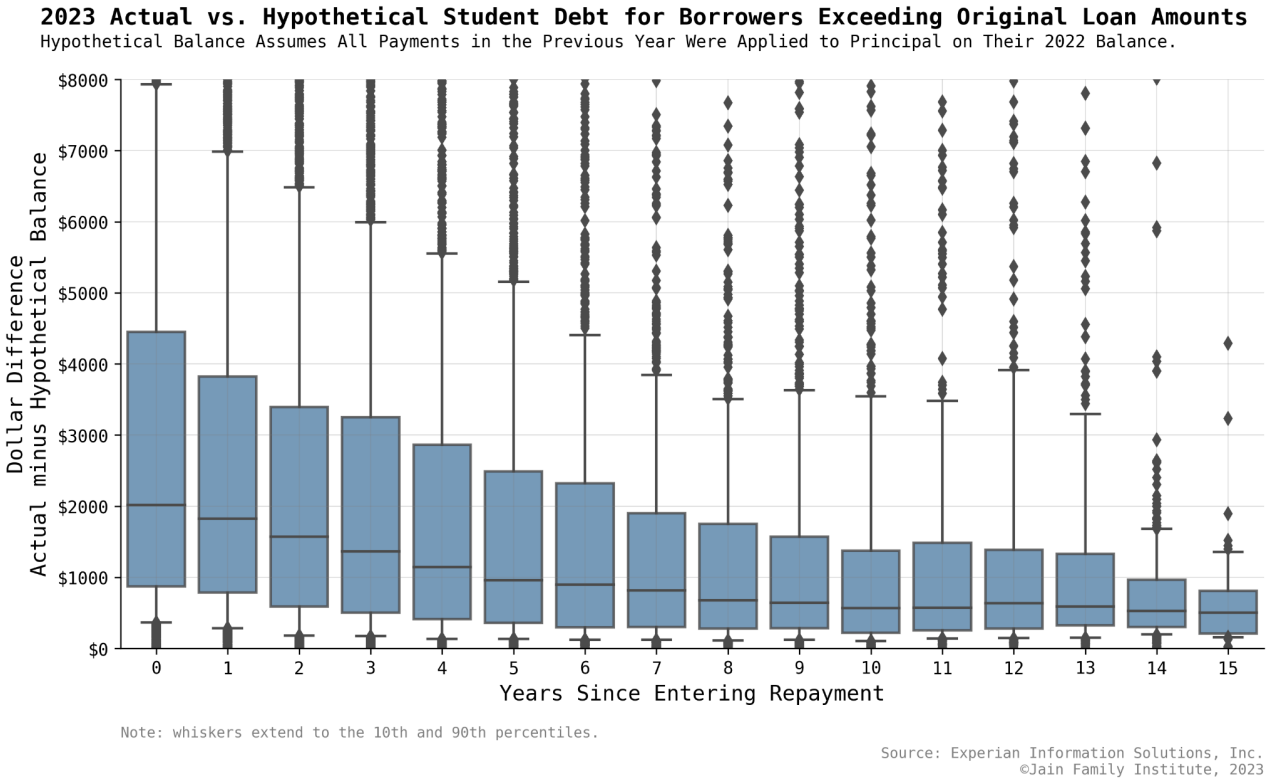

Figure 9: *Actual vs. Hypothetical Student Debt in 2023 for Borrowers Owing More Than Original Loan Amount.*

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In the 2019 sample, as shown in Figure 8, about 17 percent of the one-million person sample were making payments on student loans where the balance has grown higher than the origination amount. These borrowers typically owed around $34,000. But over $1,000 of annual payments typically go to interest or fees every year instead of principal. This amount is independent of time in repayment, which further implies that once a borrower is on a negative-amortization trajectory, they're not ever able to make payments sufficient to escape. The repayment pause set interest rates to zero percent on federally-held student loans, so only about 3 percent of the 2023 sample were both dealing with interest and fees and also owed more than originally borrowed. These 2023 borrowers typically owed about $64,000, which scales appropriately to higher absolute payments attributable to interest for those borrowers than borrowers in 2019. Both of these charts visualize how interest rates and fees stifle repayment rates, all the worse for borrowers whose balances have climbed past the original loan amount.

Conclusion

Our analysis shows that as borrowers spend more time in repayment, most are able to make progress repaying their loans. The repayment pause proved beneficial as borrowers who entered repayment during this period had much lower accumulated balance above their origination amount, thanks to the interest waiver. However, a substantial minority suffer from negative amortization, and their condition is unlikely to be reversed. Consequently, the share of outstanding loan balances that reflects unpaid interest increases as a share of all balances as cohorts age in repayment. The borrowers who are able to repay their loans eventually do; the ones who are left never will. Consequently, the Department should ameliorate the burden of un-repayable debt by capping the total amount of student debt a borrower can carry at the original principal balance. The Department must be proactive, refusing to "wait and see" if borrowers experiencing negative amortization can dig themselves out of a hole of debt. We find that the debt is not repaid, and thus the policy should prevent negative amortization before it begins.

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