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## **The Federal Student Loan Default System Keeps Families in Poverty. Here's How to Stop It.**

*At least twenty percent of federal student loan borrowers are at risk of having critical tax credits garnished.*





## Introduction

For too long, the dream of pursuing a college degree has turned into a nightmare of federal student loan default for millions of students. Default disproportionately affects Black students and first-generation students, and most of those who experience default entered college from a low-income background.

Student loan default is one of many ways that Americans facing economic hardship are [driven further into debt](#) by an [ever-mounting and self-defeating cycle](#) of punitive fees and penalties—such as traffic fines and court fees—that perpetuate rather than help resolve financial instability.

**Rather than helping struggling borrowers get back on their feet, the federal student loan default system plunges them deeper into poverty.**

## Who Struggles With Student Loan Default

-  The vast majority of those who experience student loan default have **faced persistent financial hardship**. As of 2017, roughly 90 percent of those who had defaulted within 12 years of enrolling in college received a Pell Grant at some point, meaning they likely entered college with an annual household income of less than \$40,000.<sup>i</sup>
-  Those who were the **first in their family to attend college** are also more likely to default: nearly a quarter (23 percent) of first-generation students defaulted on their loans within 12 years, compared to 14 percent of non-first-generation students.<sup>ii</sup>
-  Those who **started school but never completed a degree or credential** are at particular risk of default, as they have taken on debt but received no associated economic benefit. These borrowers—who represent about half of those who default—typically owe relatively small balances, with nearly two-thirds owing less than \$10,000 and more than one-third owing less than \$5,000.<sup>iii</sup>
-  **Black students also face persistent repayment distress.** The effects of systemic racism and the resulting racial wealth gap, along with employment and wage discrimination, mean that Black students are more likely to borrow for college and more likely to struggle with repayment. In addition, for-profit colleges that offer little to no payoff for their students target and disproportionately enroll Black students.<sup>iv</sup> As of 2017, nearly half of Black loan borrowers had defaulted within 12 years of entering college.

## How Default Keeps People in Poverty

Federal student loan default, which happens if a borrower misses payments for at least 270 days, comes with [severe consequences](#). The entire loan balance becomes immediately due and borrowers face ongoing damage to their credit score, along with a range of potential collection fees.

The federal government, states, and colleges can also impose a series of harsh penalties that are unrelated to collecting payments, including restricting access to further federal aid, withholding a student's academic transcripts, and [suspending professional and even driver's licenses](#).

These measures are not only punitive, they're self-defeating. In undermining someone's ability to cover basic expenses, return to school, keep their job, or even drive a car, the student loan default system makes it harder for someone who is already struggling to secure their financial footing. Borrowers also face significant bureaucratic hurdles in attempting to resolve a default; even those who successfully resolve a default may re-default within a few years.<sup>v</sup>

**In addition, through the Treasury Offset Program (TOP), the federal government wields its vast extra-judicial collection powers by garnishing wages and seizing social benefit payments (such as Social Security) and tax refunds, including critical family resources like the child tax credit (CTC) and the earned income tax credit (EITC).**

**By seizing these benefits, the federal government takes away critical financial lifelines that [reduce poverty](#) for millions of families. These involuntary collections can compound financial hardship for those who can least afford it.**

For more on how refundable tax credits help lift families out of poverty, see *Appendix A*.

## Potential Population of Borrowers Vulnerable to Tax Refund Garnishments for Student Loan Debt



The devastating impact of TOP seizures is well documented. However, due to data limitations, past analyses have struggled to pinpoint the number and characteristics of borrowers who might be subject to these garnishments or how many borrowers have been subject to them in the past.

Publicly available data show that the Education Department uses TOP seizures extensively.<sup>vi</sup> In 2018—prior to the emergency pause on student loan repayment and collections—the Education Department requested nearly one-third (29 percent) of **all** TOP seizures across the entire federal government (\$2.9 billion out of \$10.2 billion total).<sup>vii</sup>

To shed more light on the size of the population that is vulnerable to having their CTC and/or EITC refund seized, TICAS worked with the Tax Policy Center (TPC) at the Urban Institute to conduct an analysis examining how the population of federal student loan borrowers intersects with the population that receives refundable tax credits.<sup>viii</sup>

**The resulting analysis provides an estimate of how many federal student loan borrowers are at high risk of having their refundable tax credits garnished.** The analysis uses the Survey of Consumer Finances (SCF) and the Urban-Brookings Tax Policy Center Tax Simulation Model. (For more on how the survey of consumer finances defines student loan affordability, see *Appendix B*.) The full analytical tables accompanying the below findings are available in *Appendix D*.

Note: this analysis uses *tax units* rather than *families* or *households*. A *tax unit* is an individual or a married couple that files a tax return (or would file a tax return if their income were high enough), along with all dependents of that individual or married couple. For more on tax units, see *Appendix C*.

The full analytical tables accompanying the below findings are available in *Appendix D*.



### Key Findings:

- **More than 20 percent of tax units who hold federal student loan debt are eligible for refundable tax credits (5.1 million tax units out of 25 million), and nearly 11 percent of this population report that they are not making student loan payments because they cannot afford to do so.**
  - There are 25 million total tax units with federal student loan debt, 31.5 million tax units who are eligible for refundable tax credits, and 5.1 million tax units who both hold federal student loan debt and who are eligible for refundable tax credits. Tax units who are eligible for refundable tax credits are substantially more likely to be in the bottom two income groups (annual income under \$50,000) than all tax units.
  - Tax units who are eligible for refundable tax credits are also less likely to be married, more likely to have dependents, are younger, have lower incomes, and are more likely to have federal student loan debt than all tax units. The probability of being eligible for refundable tax credits declines with income, approaching zero for those with annual incomes at or above \$100,000.
- **Of those who report they are not making student loan payments because they cannot afford them, approximately one-third (600,000) are eligible for refundable tax credits. This population is at particularly high risk of having their tax refunds garnished.**
  - The median income of this population is \$20,590 (for comparison, the federal poverty level for a household of two is \$20,440).
  - Overall, approximately six percent of all tax units (1.6 million) who hold federal student loan debt report they are not making payments because they cannot afford to do so. For those whose annual income is less than \$25,000, the rate more than doubles (nearly 16 percent).
- **While the SCF (upon which these estimates are based) is the best available source of data on income, assets, and debt, because it samples primary economic units, it likely understates the population of student loan borrowers. As such, there may be more borrowers in distress than represented above. Therefore, this estimate may undercount the population of borrowers vulnerable to tax credit garnishment.**



## How Policymakers Can Better Protect Struggling Borrowers From Financial Harm

As long as student debt remains a reality for millions of Americans, policymakers must fundamentally rethink the structure of student loan default so that it no longer plunges families deeper into poverty. These reforms will build on the Biden Administration's ongoing work to reform the student loan repayment system and to strengthen pathways to loan relief.

In particular, [the SAVE Plan](#)—a new income-driven repayment (IDR) plan that provides more generous benefits to borrowers with low incomes—will provide meaningful financial relief to millions of borrowers and, as a result, should reduce default rates over time. Notably, the SAVE Plan aims to keep borrowers out of default by automatically enrolling those who are at least 75 days behind on their payments into the IDR plan that provides them with the lowest monthly payment.

As part of its implementation of the SAVE Plan, the Education Department is also newly allowing borrowers in default to access the existing income-based repayment (IBR) plan; borrowers in default who provide income information that shows they would have had a \$0 payment at the time of default will be automatically moved to good standing, allowing them to access the SAVE Plan. (Borrowers in default were previously not able to access an IDR plan).



### We urge policymakers to build on these efforts by making the below reforms:

- 1 Protect low-income borrowers from involuntary collections.** Policymakers should ban EITC and CTC garnishments for defaulted federal student loan debt. For all other offsets and garnishments (including wage garnishments and Social Security offsets), borrowers with low incomes should be entirely exempted. For all other borrowers, garnishments and offsets should, at minimum, be capped at a reasonable level.
- 2 Remove the mandate that borrowers pay their own collection costs; eliminate collection fees.** When a borrower makes payments to a collection agency on a defaulted student loan, a sizeable portion of their payment is typically applied to collection fees, which can be as high as 40 percent on some loans (note: it is unclear how this may change when defaulted loans are no longer transferred to private collection agencies). Policymakers should remove the mandate that borrowers pay these costs and should implement a statutory ban on charging fees to borrowers in default.
- 3 Prohibit transcript withholding.** Currently, some colleges and universities withhold students' academic transcripts if the student owes—or is alleged to owe—a debt to the institution. Withholding transcripts causes severe hardships for students, because a transcript is often required to secure a job, to apply or transfer to another school, or to obtain certain licenses. The Education Department recently announced further restrictions on this practice, but we urge policymakers to fully ban the practice.
- 4 Remove the record of default from a borrower's credit history once they resolve the default, regardless of how they resolved it.** Federal student loan borrowers can resolve a default through several avenues, including full repayment, loan rehabilitation, or loan consolidation. While each of these options resolves the default, only borrowers who complete the loan rehabilitation process will have the record of default removed from their credit history. A record of default on a borrower's credit history can have a severe and long-lasting impact. The default record should also be removed from the credit history of borrowers who resolve their default loan through repayment or consolidation.
- 5 Prohibit states from suspending, revoking, or denying state-issued professional licenses or issuing penalties due to student loan default.** Some state regulatory boards suspend professional licenses—and, in some cases, driver's licenses—if the holder defaults on a federal student loan. Predictably, suspending licenses decreases rather than increases the likelihood that the defaulted borrower will repay the loan, making these laws a catch-22 for borrowers. States should be prohibited from suspending, revoking, or denying state licenses solely because borrowers are behind on their federal student loan payments.
- 6 Allow real bankruptcy relief for student loan borrowers and reinstate a statute of limitations for student loans.** Federal bankruptcy law treats federal student loans even more stringently than other forms of consumer debt, excluding both from discharge except in exceedingly rare cases of proven "undue hardship." To remove barriers to relief for borrowers who are truly unable to repay, policymakers should restore borrowers' ability to discharge student debt through bankruptcy. Policymakers should also implement a reasonable statute of limitations on the collection of federal student loans.

## Appendix A: How Refundable Tax Credits Help Lift Families Out of Poverty

When someone files their taxes, they can claim certain credits to reduce their tax liability, potentially increasing their refund.

### There are two types of tax credits: refundable and non-refundable.

Most tax credits are non-refundable, which means the amount of the credit is capped at the filer's tax liability. If the amount of a non-refundable credit is more than the amount of income tax the person owes, they would owe \$0 in income tax, but would receive nothing more—the rest of the credit would not be paid out to them as a refund.

Refundable credits, however, can exceed the amount a person owes. As the name suggests, any amount of the credit that exceeds a person's tax liability is refunded to them. These cash refunds are a financial lifeline for millions of people.

The [earned income tax credit \(EITC\)](#), which is fully refundable, is targeted to benefit workers with low incomes. The majority of EITC benefits accrue to people with an adjusted gross income (AGI) under \$30,000, and about a third of benefits accrue to people with an AGI under \$15,000.<sup>ix</sup> (The [2023 federal poverty level](#) for a family of four is \$30,000.<sup>x</sup>)

The [child tax credit \(CTC\)](#) is available to taxpayers with dependent children under 17. It is partially refundable; the refundable portion is called the additional child tax credit (ACTC).

According to the Center on Budget and Policy Priorities, in 2018, the EITC alone lifted about 5.6 million people above the poverty line, including nearly three million children. The number of children living below the poverty line would have been more than one-quarter higher without the EITC. The credit reduced the severity of poverty for another 16.5 million people, including about six million children.<sup>xi</sup>

During the COVID-19 pandemic, the [American Rescue Plan Act of 2021](#) temporarily expanded the EITC and CTC. These expansions, which increased the credits for the 2021 tax year and made the credits more widely available, led to historic reductions in poverty—especially for children—in 2021.<sup>xii</sup>

While these expansions expired at the end of 2021, the EITC and CTC remain critical resources for families with low and moderate incomes.

## Appendix B: How the Survey of Consumer Finances Defines Student Loan Affordability

The [Survey of Consumer Finances \(SCF\)](#) is conducted every three years by the Federal Reserve Board.<sup>xiii</sup> Because the survey is relatively small, TPC used data from the two most recent surveys, 2019 and 2016. The SCF collects information on income, wealth, debt, and demographics.<sup>xiv</sup> The SCF asks detailed questions on student loans; the survey taker may include information for up to seven individual student loans.<sup>xv</sup>

The unit of analysis in the SCF is the primary economic unit (PEU), which consists of the “economically dominant single individual or couple (married or living as partners) in a household and all other individuals in the household who are financially interdependent with that individual or couple.” As discussed in the methods section, TPC split primary economic units headed by partners to construct units more consistent with the TPC tax model, and classified student loan characteristics for a PEU (e.g., whether the unit holds a federal or private loan) based on the unit's largest loan.<sup>xvi</sup>

TPC's analysis incorporates information from questions on outstanding loan balance, annual interest rate, whether a loan is federal or private, whether a borrower is in an income-driven repayment plan, whether a borrower is making loan payments, and—if a borrower says they are not making payments—the reason why. This analysis uses the questions about making payments to identify borrowers who report they are not making payments because they cannot afford to do so.<sup>xvii</sup>

## Appendix C: What is a Tax Unit?

A tax unit is an individual or a married couple that files a tax return (or would file a tax return if their income were high enough), along with all dependents of that individual or married couple.

In certain situations, a *tax unit* is different than a *family* or a *household*.

For example, a cohabiting couple constitutes one *household*, but if the individuals are not legally married, they would file separate tax returns and thus be considered two separate *tax units*.

As another example, a *family* could consist of a married couple and one partner's mother who lives with them, but the *family* would be considered two *tax units* since, if the mother had a large enough income, she would be required to file her own federal income tax return.

In general, the number of *tax units* tends to be larger than the number of *families* or *households* reported elsewhere.

## Appendix D: Analytical Tables

### General Distribution of Student Loans

Based on the SCF, there are a total of 29 million tax units with student loan debt and \$1.1 trillion in total outstanding student loan debt. The number of units with federal student loan debt and federal student loan dollars are about 87 percent of the totals for all loans (25 million units with federal student loan debt and federal student loan dollars of \$970 billion).

Compared to the full population, tax units with student loan debt (including private and federal) are less likely to be in the lowest (\$0-\$25,000) and highest (\$500,000+) income groups and are more likely to have incomes between \$25,000 and \$200,000.

**Table 1. Distribution of Student Loan Balances in Tax Model, 2019**

Adjusted Gross Income Level (thousands of dollars) <sup>1</sup>	All Tax Units		Tax Units With Student Loans		Student Loan Balances		Tax Units With Fed. Student Loans		Federal Student Loan Balances	
	Count (thousands)	Pct	Count (thousands)	Pct	Dollars (millions)	Pct	Count (thousands)	Pct	Count (thousands)	Pct
\$0-25	67,900	39.0	6,651	23.1	\$201,000	18.1	5,730	22.9	173,000	17.9
\$25-50	37,500	21.6	6,929	24.1	\$246,000	22.2	6,302	25.2	223,000	23.1
\$50-75	22,200	12.8	5,112	17.8	\$201,000	18.1	4,516	18.1	175,000	18.1
\$75-100	14,100	8.1	3,429	11.9	\$146,000	13.2	3,000	12.0	130,000	13.4
\$100-200	21,900	12.6	5,152	17.9	\$248,000	22.3	4,247	17.0	206,000	21.3
\$200-500	7,291	4.2	1,256	4.4	\$58,400	5.3	992	4.0	46,200	4.8
\$500+	1,717	1.0	135	0.5	\$9,250	0.8	118	0.5	7,940	0.8
<b>All</b>	<b>174,000</b>	<b>100.0</b>	<b>28,800</b>	<b>100.0</b>	<b>\$1,110,000</b>	<b>100.0</b>	<b>25,000</b>	<b>100.0</b>	<b>967,000</b>	<b>100.0</b>

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.  
<sup>1</sup>Tax units with negative income are excluded from the income categories but included in the "All" row.

**Table 2. Distribution of Federal Loan Amounts for Units with Federal Student Loans, 2019**

#### Federal Student Loan Balance

Mean	Percentile								
	1 <sup>st</sup>	5 <sup>th</sup>	10 <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	99 <sup>th</sup>
<b>\$38,634</b>	\$638	\$1,583	\$2,793	\$7,087	\$18,573	\$46,409	\$102,427	\$159,393	\$243,721

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.

**Table 3. Federal Student Loan Balance by Income Groups, 2019**

	Adjusted Gross Income Level (thousands of dollars) <sup>1</sup>							All
	\$0-25	\$25-50	\$50-75	\$75-100	\$100-200	\$200-500	\$500+	
<b>Mean</b>	\$30,193	\$35,383	\$38,753	\$43,329	\$48,502	\$46,586	\$67,251	\$38,680
<b>Median</b>	\$14,163	\$17,800	\$18,902	\$21,140	\$23,202	\$23,239	\$35,820	\$18,573

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.  
<sup>1</sup>Tax units with negative income are excluded from the income categories but included in the "All" row.

**Distribution of Federal Student Loan Debt and Refundable Tax Credits**

**Table 4. Distribution of Tax Units With Federal Student Loans and Refundable Tax Credits in Tax Model, 2019**

Adjusted Gross Income Level (thousands of dollars) <sup>1</sup>	All Tax Units		Units With Federal Student Loans		Units With Federal Student Loans, Not Making Payments Because Unable to Afford Them <sup>2</sup>		Units With Refundable Tax Credits <sup>3</sup>		Units With Federal Student Loans and Refundable Tax Credits <sup>2</sup>		Units With Federal Student Loans, Not Making Payments Because Unable to Afford Them and With Refundable Tax Credits <sup>2,3</sup>	
	Count (thousands)	Pct	Count (thousands)	Pct	Count (thousands)	Pct	Count (thousands)	Pct	Count (thousands)	Pct	Count (thousands)	Pct
<b>\$0-25</b>	67,900	39.0	5,730	22.9	893	55.5	18,300	58.1	2,278	44.2	369	66.9
<b>\$25-50</b>	37,500	21.6	6,302	25.2	387	24.1	10,300	32.7	1,990	38.6	149	27.1
<b>\$50-75</b>	22,200	12.8	4,516	18.1	209	13.0	2,224	7.1	739	14.3	28	5.1
<b>\$75-100</b>	14,100	8.1	3,000	12.0	74	4.6	294	0.9	93	1.8	3	0.5
<b>\$100-200</b>	21,900	12.6	4,247	17.0	33	2.0	73	0.2	15	0.3	0	0.0
<b>\$200-500</b>	7,291	4.2	992	4.0	-	0.0	10	0.0	1	0.0	-	0.0
<b>\$500+</b>	1,717	1.0	118	0.5	-	0.0	0	0.0	-	0.0	-	0.0
<b>All</b>	<b>174,000</b>	<b>100.0</b>	<b>25,000</b>	<b>100.0</b>	<b>1,607</b>	<b>100.0</b>	<b>31,500</b>	<b>100.0</b>	<b>5,154</b>	<b>100.0</b>	<b>551</b>	<b>100.0</b>

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.

<sup>1</sup>Tax units with negative income are excluded from the income categories but included in the "All" row.

<sup>2</sup>Defining unaffordable loan as borrower is not making payments and reports affordability as the reason. Imputed based on SCF questions asking whether borrower is making payments and the reason if not. Excludes borrowers not making payments because they are in income driven repayment with required monthly payment of zero.

<sup>3</sup>Defining having refundable tax credits as tax liability net of all credits is less than zero. Refundable tax credits are generally more than the refunds received at time of filing, because most tax filers over-withhold.

**Table 5. Percent of Federal Borrowers Not Making Payments Because Unable to Afford Them, 2019<sup>1</sup>**

	Adjusted Gross Income Level (thousands of dollars) <sup>1</sup>							All
	\$0-25	\$25-50	\$50-75	\$75-100	\$100-200	\$200-500	\$500+	
<b>All Units With Federal Student Loans</b>	15.6	6.1	4.6	2.5	0.8	0.0	0.0	6.4
<b>Units With Federal Student Loans and Refundable Tax Credits<sup>4</sup></b>	16.2	7.5	3.8	3.2	0.9	0.0	n/a	10.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.

<sup>1</sup>Defining unaffordable loan as borrower is not making payments and reports affordability as the reason. Imputed based on SCF questions asking whether borrower is making payments and the reason if not. Excludes borrowers not making payments because they are in income driven repayment with required monthly payment of zero.

<sup>2</sup>Tax units with negative income are excluded from the income categories but included in the "All" row.

<sup>3</sup>Income measure is consistent with Survey of Consumer Finances and includes wages, business income, rent, royalties, interest, dividends, capital gains, pensions and transfer income; It is not one of TPC's usual income measures.

<sup>4</sup>Defining having refundable tax credits as tax liability net of all credits is less than zero. Refundable tax credits are generally less than the refunds received at time of filing, because most tax filers over-withhold.

**Table 6. Percent of Tax Units With Refundable Tax Credits, 2019<sup>1</sup>**

	Adjusted Gross Income Level (thousands of dollars) <sup>1</sup>							All
	\$0-25	\$25-50	\$50-75	\$75-100	\$100-200	\$200-500	\$500+	
<b>All Units</b>	27.0	27.5	10.0	2.1	0.3	0.1	0.0	18.1
<b>All Units With Federal Student Loans</b>	39.8	31.6	16.4	3.1	0.3	0.1	0.0	20.6
<b>Units With Federal Student Loans and Refundable Tax Credits<sup>4</sup></b>	41.3	38.6	13.4	4.0	0.4	n/a	n/a	34.3

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.

<sup>1</sup>Defining having refundable tax credits as tax liability net of all credits is less than zero. Refundable tax credits are generally less than the refunds received at time of filing, because most tax filers over-withhold.

<sup>2</sup>Tax units with negative income are excluded from the income categories but included in the "All" row.

<sup>3</sup>Income measure is consistent with Survey of Consumer Finances and includes wages, business income, rent, royalties, interest, dividends, capital gains, pensions and transfer income; It is not one of TPC's usual income measures.

<sup>4</sup>Defining unaffordable loan as borrower is not making payments and reports affordability as the reason. Imputed based on SCF questions asking whether borrower is making payments and the reason if not. Excludes borrowers not making payments because they are in income driven repayment with required monthly payment of zero.

**Table 7.**  
**Demographic and Income Characteristics of Tax Units by Student Loan and Refundable Credit Status in Tax Model, 2019**

	All Tax Units	Units With Federal Student Loans	Units With Federal Student Loans, Not Making Payments Because Unable to Afford Them <sup>1</sup>	Units With Refundable Tax Credits <sup>2</sup>	Units With Federal Student Loans and Refundable Tax Credits <sup>2</sup>	Units With Federal Student Loans, Not Making Payments Because Unable to Afford Them and With Refundable Tax Credits <sup>1,2</sup>
Number of Units (millions)	174.0	25.0	1.6	31.5	5.2	0.6
Pct Married	36.0	43.2	19.6	23.8	36.2	13.9
Pct With Dependents	30.9	43.1	39.1	73.8	78.0	77.4
Mean Respondent Age	49.1	40.2	42.1	37.1	34.4	35.7
Pct Age Under 30	19.2	28.7	25.6	33.8	39.7	32.3
Pct Age 65+	23.8	5.7	8.3	2.2	0.8	0.3
Mean Income	\$80,083	\$76,281	\$32,910	\$28,055	\$33,892	\$23,687
Median Income	\$41,850	\$55,809	\$25,028	\$24,270	\$30,619	\$20,590
Pct With Federal Student Loans	14.4	100.0	100.0	16.4	100.0	100.0
Pct With Federal Student Loans, Not Making Payments Because Unable to Afford Them <sup>1</sup>	0.9	6.4	100.0	1.7	10.7	100.0
Pct With Refundable Tax Credits <sup>2</sup>	18.1	20.6	34.3	100.0	100.0	100.0
Pct With Refundable EITC	14.8	15.0	29.2	81.7	72.7	85.2
Pct With Refundable Child Tax Credit	11.5	14.4	24.1	63.5	69.9	70.1
Pct With EITC and Refundable CTC	9.3	10.4	21.0	51.2	50.4	61.4
Mean Loan Balance	\$5,558	\$38,634	\$30,692	\$5,006	\$30,603	\$26,538
Mean Refundable Tax Credits	\$576	\$644	\$1,332	\$3,180	\$3,125	\$3,884
Mean Refundable EITC	\$354	\$348	\$864	\$1,953	\$1,687	\$2,521
Mean Refundable ACTC	\$205	\$270	\$438	\$1,130	\$1,313	\$1,277

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0323-1) augmented with student loan imputations from 2019 and 2016 SCF.

<sup>1</sup>Defining unaffordable loan as borrower is not making payments and reports affordability as the reason. Imputed based on SCF questions asking whether borrower is making payments and the reason if not. Excludes borrowers not making payments because they are in income driven repayment with required monthly payment of zero.

<sup>2</sup>Defining having refundable tax credits as tax liability net of all credits is less than zero. Refundable tax credits are generally than the refunds received at time of filing, because most tax filers over-withhold.

## Appendix E: Methods

This analysis uses the SCF as the data source for student loan borrowers and the TPC tax model as the data source for refundable tax credits. To examine the intersection of student loans and refundable tax credits, TPC estimated statistical relationships in the SCF and then used those relationships to impute student loan information onto individual records in the tax model database.

### Survey of Consumer Finances (SCF)

The SCF is conducted every three years by the Federal Reserve Board.<sup>xviii</sup> The survey is relatively small, so this analysis uses data from the two most recent surveys, 2019 and 2016, which results in a sample of about 12,000 observations. The SCF collects information on income, wealth, debt, and demographics.

The SCF asks detailed questions on student loans; the survey taker may include information for up to seven individual loans.

The unit of analysis in the SCF is the primary economic unit (PEU), which consists of the “economically dominant single individual or couple (married or living as partners) in a household and all other individuals in the household who are financially interdependent with that individual or couple.”



TPC split primary economic units headed by partners to construct units more consistent with the TPC tax model and classify student loan characteristics for a PEU (e.g., does the unit hold a federal or private loan) based on the unit's largest loan.<sup>xi</sup>

This analysis incorporates information from questions on outstanding loan balance, annual interest rate, whether a loan is federal or private, whether a borrower is in income-driven repayment, whether a borrower is making loan payments, and, if a borrower says they are not making payments, the reason why. This analysis uses the questions about making payments to identify borrowers who report they are not making payments because they cannot afford to do so.

## **TPC Tax Model**

The TPC tax model produces estimates of how current and proposed tax policies will affect federal revenues and the distribution of tax burdens by income. The tax model can produce estimates for each year from 2011 to 2033. This analysis uses tax model data for 2019. The model's primary data source is the 2006 public-use file produced by the Statistics of Income Division of the Internal Revenue Service, which contains 145,858 records.

TPC adds information on other demographic characteristics and sources of income that are not reported on tax returns through a constrained statistical match with data from the U.S. Census Bureau's Current Population Survey (CPS). That match also generates a sample of individuals who do not file individual income tax returns (non-filers).

TPC then augments the TPC tax model by turning to other data sources to develop imputations for supplemental variables (including wealth, education, consumption, health insurance, retirement savings, and other variables) that are then applied to each record in the matched public-use CPS file. Finally, to extend the database to more recent and future years, TPC "ages" the data by using information from published tax data as well as projections from various sources. The unit of observation in the tax model is the tax unit, which consists of individuals filing tax returns together or who would file together if they were to file a return.<sup>x</sup>

The model can simulate most details of individual income taxes, including refundable tax credits such as the refundable portions of the earned income tax credit (EITC), the child tax credit, and the American Opportunity Tax Credit. The tax model has some information related to student loans, as tax filers with incomes below certain thresholds can claim a deduction for student loan interest paid, but until now did not include information about the level of outstanding student loan debt.

## **Preparing SCF for Estimation**

To get a sufficient sample to estimate relationships in the SCF, TPC pooled the 2016 and 2019 surveys. To make the 2016 survey compatible with 2019, TPC grew income dollar amounts and weights in the 2016 survey such that the weighted number of PEUs with and without student loans and average income and loan balances are the same as in the 2019 survey. TPC then combined the surveys and divided the weights in both surveys by two, resulting in a file with the same weighted tabulations of the number of units with and without student loans and the same average income and loan balances as the 2019 survey.

To make the unit of analysis in the 2016/2019 SCF file compatible with the unit of analysis in the tax model, TPC split primary economic units headed by partners into separate tax filing units. The SCF treats partnered individuals as a joint unit, i.e., combines their income and student debt, while tax data only combines individuals that are married and file joint tax returns. If TPC were to treat the partnered SCF units as married, their imputations would overstate the extent to which student borrowers are married. If it were to treat partnered units as single, the imputations would overstate the income and debt level of single student borrowers. TPC follows a process for splitting partnered PEUs into tax units developed by Kevin Moore at the Federal Reserve, with some modifications.<sup>xxi</sup>

While the SCF asks few individual-level questions, it does provide enough information to identify each partner's age, earnings, and business income. TPC divided other income items and dependents evenly between partners.<sup>xxii</sup> If a PEU had multiple student loans, they assigned the largest loan to one partner and all other loans to the other partner. If there was only one student loan, they randomly assigned the loan to one of the partners.

## **Imputing Student Loan Information Onto Tax Model Database**

TPC's general approach is to estimate statistical relationships between data on student loans and other variables in the SCF file, use those relationships to impute items onto observations in the tax model database, and then calibrate the imputations such that tabulations of the imputed items in the tax model match tabulations in the SCF by income group and marital status.

TPC sequentially imputed the presence of student loans, student loan balances, annual interest on the loan(s), interest rate(s) (which, combined with annual interest, implies loan balance), indicator for private loan, indicator for whether a borrower is in income-driven repayment,<sup>xxiii</sup> and indicator for borrowers not making payments because they report payments are unaffordable.

In the SCF sample, they estimate probit regressions for the dichotomous indicators and OLS regressions for interest amounts and interest rates. TPC then used the estimated coefficients and random draws to impute values onto units in the tax model. Explanatory variables in the regressions include age group, number of dependents, income, and indicators for negative income, capital gains, business income, [Schedule E income](#) (income from rent, royalties, partnerships, S corporations).<sup>xxiv</sup> Equations were estimated separately for married and

non-married units. Finally, they adjusted imputed values to match tabulations in the SCF by income and marital status.<sup>xxv</sup> Appendix tables 1-6 show tabulations of imputed values match the SCF closely.

One complication to this imputation method is that a tax filers with an income below certain thresholds can deduct up to \$2,500 of interest paid on student loans from their adjusted gross income.<sup>xxvi</sup>

Therefore, the method must incorporate that information, in addition to the other explanatory variables, in imputing student loans. While this complicates the imputation, it does ensure that tax filers that report taking the student loan interest deduction are assigned student loans and can improve the accuracy of our imputations.

**To incorporate that information and ensure that imputed loan information is consistent with the student interest deduction, TPC did the following:**

- Assigned imputed student loans to tax model units with the student interest deduction
- Used coefficients from the presence of student loan probit regressions to assign loans to other tax units so they match with tabulations from the SCF file
- Untruncated interest paid for tax model units with \$2,500 of student interest deduction by estimating OLS regressions of interest beyond \$2,500 for SCF units with \$2,500 and more of interest and then using the coefficients to impute excess interest onto truncated tax model units
- Imputed annual interest for tax units without the student interest deduction using coefficients from probit equations as described above
- Imputed annual interest rate for tax model units with imputed loans using OLS regressions described above
- Assigned loan balances based on imputed interest and imputed interest rates and calibrated to match SCF tabulations.

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The Institute for College Access & Success (TICAS) is a nonprofit, nonpartisan organization advocating for student-centered public policies that promote affordability, accountability, and equity in higher education. Visit us at [ticas.org](https://ticas.org) and follow us on X [@ticas\\_org](https://twitter.com/ticas_org) and on Instagram at [@ticas\\_org](https://www.instagram.com/ticas_org).

## Endnotes

<sup>i</sup> Center for American Progress. 2017. *Who Are Student Loan Defaulters?*. <https://bit.ly/3dod9z1>.

<sup>ii</sup> The Institute for College Access & Success. 2018. *Students at Greatest Risk of Loan Default*. <https://bit.ly/3yjdYTU>.

<sup>iii</sup> Center for American Progress. 2017. *Who Are Student Loan Defaulters?*. <https://bit.ly/3dod9z1>.

<sup>iv</sup> The Institute for College Access & Success. 2021. *Student Debt and the Class of 2020*. <https://bit.ly/3dOlrQU>; The Institute for College Access & Success. 2023. *Race and Economic Mobility (REM): College Value for Students of Color Across Sectors from Four-Year Colleges*. <https://bit.ly/497LSML>; The Institute for College Access & Success. 2023. *For-Profits Remain a Risky Investment for Black Students and the Proposed Gainful Employment Rule Can Help*. <https://bit.ly/3SEfXhq>.

<sup>v</sup> National Consumer Law Center. 2020. *Congress Must Provide Relief to Defaulted Student Loan Borrowers*. <https://bit.ly/33sbdE3>.

<sup>vi</sup> Due to data limitations, we cannot definitively categorize 100 percent of collections requested by the Education Department as seizures related to federal student loans.

<sup>vii</sup> Pre-pandemic data show that ED represents approximately 23 percent to 29 percent of all TOP seizures from 2013-2018, with most ED seizures happening in the first quarter of the year. In 2019, ED-requested seizures jumped significantly (from approximately \$2.9 billion to \$4.8 billion), representing 36 percent of all TOP seizures. See <https://fiscaldata.treasury.gov/datasets/treasury-offset-program/federal-collections> for more.

<sup>viii</sup> In response to the COVID-19 pandemic, the federal government paused student loan payments, interest, and collections from March 2020 until October 2023. The Education Department also halted default-related seizures of tax refunds and other federal benefit payments for an additional six months after the end of the pause. While this reprieve is critical, if the Education Department fails to provide more permanent protections, millions of borrowers are at risk of economic upheaval when it ends.

<sup>ix</sup> Tax Foundation. *The Earned Income Tax Credit (EITC): A Primer*. 2019. <https://taxfoundation.org/research/all/federal/earned-income-tax-credit-eitc/>

<sup>x</sup> The Center of Budget and Policy Priorities. 2023. *Policy Basics: The Earned Income Tax Credit*. <https://www.cbpp.org/research/federal-tax/the-earned-income-tax-credit>.

<sup>xi</sup> Ibid.

- <sup>xii</sup> Center on Poverty & Social Policy at Columbia University. 2023. *What We Know From the First 6 Months of the Expanded Child Tax Credit*. <https://www.povertycenter.columbia.edu/news-internal/2021/child-tax-credit-research-roundup>; Brookings. 2023. *The Antipoverty Effects of the Expanded Child Tax Credit Across States: Where Were the Historic Reductions Felt?* <https://www.brookings.edu/articles/the-antipoverty-effects-of-the-expanded-child-tax-credit-across-states-where-were-the-historic-reductions-felt/>.
- <sup>xiii</sup> For more information on the SCF, see <https://www.federalreserve.gov/econres/scfindex.htm>.
- <sup>xiv</sup> The amount of outstanding federal student debt reported from the SCF for 2019 (\$1.1 trillion) is lower than totals reported by the U.S. Department of Education (\$1.5 trillion). This is likely due to the SCF focusing on the PEU in households. The survey does not ask about student loans (or much of anything else) for household members not included in the PEU, which likely results in the survey missing borrowers, likely non-coupled, young adults. This likely biases down the estimate of the number of units with refundable tax credits. The impact on the percentage of loan units with refundable tax credits is harder to determine. While the missed population likely have lower incomes, it is also probably less likely to have minor children living at home, a key determinant of EITC and CTC eligibility and receipt.
- <sup>xv</sup> As is the case with all household surveys, estimates from the SCF are subject to sampling error and non-sampling error, including error due to self-reported responses. Still, the SCF is considered the gold standard for household data on assets and debt.
- <sup>xvi</sup> In addition to those reporting they cannot afford to make payments, the SCF also codes borrowers as not being able to afford to make payments because they are in income-driven repayment with a required monthly payment of zero. Those borrowers are excluded from this analysis' affordability measure.
- <sup>xvii</sup> Throughout this publication, such borrowers are referred to interchangeably as "borrowers who are not making payments because they cannot afford to do so" and "borrowers with unaffordable payments."
- <sup>xviii</sup> For more information on the SCF, see <https://www.federalreserve.gov/econres/scfindex.htm>.
- <sup>xix</sup> In addition to those reporting they cannot afford to make payments, the SCF also codes borrowers as not being able to afford to make payments because they are in income-driven repayment with a required monthly payment of zero. Those borrowers are excluded from this analysis' affordability measure.
- <sup>xx</sup> For more information on the TPC tax model, see <https://www.taxpolicycenter.org/resources/brief-description-tax-model>.
- <sup>xxi</sup> For more on TPC's code for creating tax units from SCF PEUs, see: <https://taxsim.nber.org/to-taxsim/scf27-32/code/frbscftax.sas>.
- <sup>xxii</sup> If there are an odd number of dependents, the analysis randomly assigns the extra dependent.
- <sup>xxiii</sup> While there are SCF units reporting private loans in income-driven repayment, the analysis only imputes income-driven repayment status to federal loans.
- <sup>xxiv</sup> Explanatory variables also include imputed loan characteristics from previous equations. For instance, explanatory variables for private loan status include imputed loan balance.
- <sup>xxv</sup> Imputed values are calibrated at each sequential step. For instance, imputations for presence of student loans are calibrated to match SCF tabulations before imputing loan balances.
- <sup>xxvi</sup> In 2019, joint tax filers with AGIs below \$165,000 and non-joint filers with incomes below \$80,000 could deduct at least some interest.