



# Budget Model

## Forgiving Student Loans: Budgetary Costs and Distributional Impact

---

[Click here for analysis of President Biden's Student Loan Forgiveness Plan.](#)

**Summary:** We estimate that forgiving federal college student loan debt will cost between \$300 billion and \$980 billion over the 10-year budget window, depending on program details. About 70 percent of debt relief accrues to borrowers in the top 60 percent of the income distribution.

### Key Points

- Vice President Harris recently stated that the Biden Administration will soon announce its policy on forgiving federal college student loan debt.
- We estimate that a one-time maximum debt forgiveness of \$10,000 per borrower will cost around \$300 billion for borrowers with incomes less than \$125,000. This cost increases to \$330 billion if the program is continued over the standard 10-year budget window. Eliminating the borrower income limit threshold produces a 10-year cost of \$344 billion. Increasing the maximum amount forgiven to \$50,000 per borrower increases the total cost to as much as \$980 billion.
- Between 69 and 73 percent of the debt forgiven accrues to households in the top 60 percent of the income distribution.

### Introduction

President Biden has previously expressed support for wide-scale federal college student loan debt forgiveness of up to \$10,000 per borrower, potentially with some income eligibility qualification. Some members of Congress have expressed support for canceling up to \$50,000 per borrower. [Vice-President Harris recently stated](#) that the Biden Administration will soon announce their intended policy on forgiving federal college student loan debt.

The United States already has [several income-based repayment \(IBR\) programs](#) that cover major sources of federal college lending, including many forms of direct Stafford, direct PLUS, and FFEL loans.<sup>1</sup> We estimate that actual take-up rates in income-based repayment plans range from 6 percent to 50 percent, depending on

the loan size (see [Appendix](#)). Some previous studies that attempt to estimate the budgetary cost of debt forgiveness do not include any participation in IBR programs. Those studies, therefore, tend to over-estimate the total cost of debt forgiveness since the government will recoup some costs from lower future IBR subsidy rates. Alternatively, some previous studies assume full participation in existing IBR programs, which, conversely, tends to under-estimate the total cost of debt forgiveness.

Our estimate includes the income-based repayment programs under current law using current take-up rates. We also consider the cost of “one time” forgiveness of existing student debt as well as the cost of continuing forgiveness over the next decade.

## Conventional Costs

Table 1 reports the 10-year budgetary cost estimates for the broad student debt forgiveness.<sup>2</sup> Based on current discussions, we assume that any forgiveness starts in the year 2022, which is potentially retroactive by the time that legislation is passed. The first column in Table 1 considers different maximum income thresholds that qualify a borrower for debt forgiveness. The second column considers different maximum debt forgiveness per borrower. The column for year 2022 indicates the estimated cost if the program were “one time” and never renewed. The subsequent columns consider the case where new borrowers become eligible over the subsequent years of the budget window. Those costs are substantially smaller since each borrower can have their debt forgiven up to the amount shown in column 2 over their lifetime. So, new eligible borrowers arise from students separating from eligible post-secondary education and no longer having their debt payments deferred.

Consider the first row of results in Table 1. For universal coverage (i.e., maximum income per borrower equal to None) and debt forgiveness capped at \$10,000, we estimate that the budgetary cost for the current year (2022) is \$311 billion. If the program is renewed in future years, it costs about \$3.5 billion per year, totaling \$344 billion over the 10-year budget window.

Table 1 shows that the effect on total costs from changing the maximum income limit is much smaller than the impact of changing the maximum amount of debt forgiven.

With a maximum individual annual income limit of \$150,000 (or \$250,000 for families), the current year cost decreases to \$298.4 billion, and the 10-year total cost is \$329.7 billion. Limiting income threshold from \$150,000 to \$125,000 (or \$250,000 for families) has very little impact on the cost, reducing the 10-year budgetary cost to \$329.1 billion.

Table 1. Conventional Budget Estimates of the Broad Student Debt Forgiveness, FY2022 - 2031

*Billions of Dollars*[DOWNLOAD DATA](#)

Maximum provision limits		Year											Budget Window
Max income per borrower	Max debt forgiven per borrower	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031		
None	\$10K	311.0	3.7	3.3	3.3	3.6	3.4	3.9	3.9	4.1	4.2	344.3	
None	\$50K	820.3	17.3	16.1	15.8	16.2	16.3	18.5	18.7	19.3	20.1	978.6	
\$150k	\$10K	298.4	3.4	3.1	3.1	3.3	3.2	3.6	3.7	3.8	4.0	329.7	
\$150K	\$50K	785.8	16.3	15.2	14.9	15.3	15.3	17.4	17.6	18.2	18.9	934.9	
\$125K	\$10K	297.8	3.4	3.1	3.1	3.3	3.2	3.6	3.7	3.8	4.0	329.1	
\$125K	\$50K	784.1	16.3	15.2	14.9	15.3	15.3	17.4	17.6	18.2	18.9	933.2	

Increasing the amount of debt forgiveness from \$10,000 to \$50,000 per borrower also increases the current year (2022) total cost from \$311 billion to \$820.3 billion for the case of universal coverage without a maximum income limit. That cost rises to \$978.5 billion if the program is renewed over the budget window. Imposing a \$150,000 annual income threshold reduces the current year cost to \$785.8 billion and the 10-year total cost to \$934.9 billion. Similarly, changing the income threshold from \$150,000 to \$125,000 does not significantly affect the budgetary cost, as shown in Table 1.

## Distributional Effects

Table 2 presents distributional analysis under two different assumptions about the age spectrum of households. As shown, the reader can toggle between the two tables.

Table 2A presents the distributional impact of student debt forgiveness across all ages for the year 2022. The amount of debt relief that targets the bottom income quintile varies from 10 percent to 12 percent, depending on the specific policy. Between 69 percent and 72 percent of the debt forgiven accrues to the debt borrowers in the top 60 percent of the income distribution. While the age range shown in Table 2A is standard, many of the households included are outside of the normal age range where the household might have student debt.

Table 2B now restricts the distributional analysis to the population who are between ages 25 and 35 in the year 2022, since most of the debt forgiven accrues to borrowers of this age range. This table, therefore, might potentially control better for "lifecycle effects" associated with age and household income. Still, the overall

distributional picture is unchanged. The debt relief targeting the bottom income quintile is between 7 percent and 9 percent, whereas the top 60 percent income borrowers get about 69 to 73 percent of the debt forgiveness benefit.

Table 2. Student Debt Forgiveness Benefit Distribution, FY2022

[DOWNLOAD DATA](#)

- 2A: All Ages
- 2B: Age 25-35

2A: All Ages						
Income Group	Forgive \$10K without income cap	Forgive \$50K without income cap	Forgive \$10K with \$150K income cap (\$250K for family)	Forgive \$50K with \$150K income cap (\$250K for family)	Forgive \$10K with \$125K income cap (\$250K for family)	Forgive \$50K with \$125K income cap (\$250K for family)
Bottom quintile	11.28%	10.01%	11.59%	10.63%	11.63%	10.65%
Second quintile	19.06%	18.37%	19.59%	19.52%	19.65%	19.56%
Middle quintile	25.92%	25.39%	26.64%	26.98%	26.72%	27.03%
Fourth quintile	26.98%	26.50%	27.73%	28.15%	27.62%	28.08%
80-90%	11.86%	12.37%	11.94%	12.68%	11.88%	12.64%
90-95%	3.84%	4.93%	2.50%	2.03%	2.51%	2.03%
95-99%	0.92%	2.15%	0.00%	0.00%	0.00%	0.00%
99-99.9%	0.15%	0.28%	0.00%	0.00%	0.00%	0.00%
Top 0.1%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Notes: Estimate household income percentile thresholds for 2022 all age: 20%: \$28,784; 40%: \$50,795; 60%: \$82,400; 80%: \$141,096; 90% \$212,209; 95%: \$321,699; 99%: \$961,711; 99.9%: \$3,668,499.

**2B: Age 25-35**

<b>Income Group</b>	<b>Forgive \$10K without income cap</b>	<b>Forgive \$50K without income cap</b>	<b>Forgive \$10K with \$150K income cap (\$250K for family)</b>	<b>Forgive \$50K with \$150K income cap (\$250K for family)</b>	<b>Forgive \$10K with \$125K income cap (\$250K for family)</b>	<b>Forgive \$50K with \$125K income cap (\$250K for family)</b>
Bottom quintile	8.55%	7.88%	9.38%	8.75%	9.42%	8.78%
Second quintile	18.13%	20.04%	19.90%	22.25%	19.98%	22.32%
Middle quintile	23.20%	23.52%	25.46%	26.11%	25.56%	26.20%
Fourth quintile	27.11%	25.25%	29.75%	28.04%	29.47%	27.82%
80-90%	14.54%	13.99%	14.89%	14.50%	14.95%	14.55%
90-95%	5.77%	6.32%	0.62%	0.34%	0.62%	0.34%
95-99%	2.55%	2.77%	0.00%	0.00%	0.00%	0.00%
99-99.9%	0.15%	0.24%	0.00%	0.00%	0.00%	0.00%
Top 0.1%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Notes: Estimate household income percentile thresholds for 2022 age 25–35: 20%: \$29,348; 40%: \$53,052; 60%: \$88,043; 80%: \$153,513; 90% \$233,655; 95%: \$363,464; 99%: \$1,090,391; 99.9%: \$4,503,788.

## Future Work

If student loan debt forgiveness is ongoing, students might eventually reorganize their financing toward additional borrowing. Moreover, more students might choose to attend qualifying education providers, including students who might otherwise have a harder time with repayment. The inclusion of these two effects could, to some extent, make the program a bit more progressive while increasing budgetary costs. A third effect could also emerge: some of the benefit from debt forgiveness might be captured by colleges themselves in the form of higher prices (both tuition and net). We will continue to examine these issues as specific legislation proceeds.

## Appendix: Method Overview

We estimate the FY2022 budget cost in several steps.

First, based on the federal student loan portfolio by debt size [data](#) from the Department of Education, we sum up dollar amounts across eligible federal student debt relief, up to the relevant threshold (\$10K or \$50K). For FY2023-2031, we apply the five-year moving average growth rate on the historical data to project the future debt outstanding and number of borrowers under the same categories. For policies with an income cap, we estimate eligibility rates (both for dollar amount and borrower number) for each debt size category using the data of the 2019 [Survey of Consumer Finances](#) (SCF) and apply them to reduce the total cost for the budget window.

Second, we calculate the income-based repayment program (which includes PAYE, REPAYE, and others) take-up rates under each debt size category using IBR portfolio [data](#) from the U.S. Department of Education. Under these IBR programs, the student debt would typically be forgiven after 20-25 years of repayments, which would cause double counting of the budgetary cost if these estimated costs were not included. At the same time, as shown in Table 3, IBR participation is well less than 100%, ranging from 6% to 50% depending on the debt size. The average IBR repayment rate, which reflects the amount being repaid during the 20-25 years versus the total debt outstanding amount, is around 15% based on 2019 SCF data. Our estimates take both IBR and repayment rates into account.

Table 3. Income-based Repayment Program Take-Up Rates By Debt Size, FY2022

[DOWNLOAD DATA](#)

<b>Debt Size</b>	<b>Income-based repayment program take-up rate</b>
Less than 5K	6%
5K to 10K	8%
10K to 20K	14%
20K to 40K	22%
40K to 60K	30%
60K to 80K	35%
80K-100K	36%
100K to 200K	42%
200K+	50%

Notes: PWBM calculation based on FY2022 Q2 federal education debt portfolio and income-based repayment programs portfolio data from the U.S. Department of Education.

*This analysis was produced by [Junlei Chen](#) under the guidance of [Kent Smetters](#). Prepared for the website by [Mariko Paulson](#).*

1. Private loans and Parent PLUS loans are not covered. ↩
2. For maximum transparency, Table 1 reports the accounting cost in the year forgiven consistent with changes in the government's net present value. As noted in SFFAS 7, Paragraph 313, the actual timing is governed by an act of Congress and existing laws including the 1990 Credit Reform Act. Actual legislation, therefore, might dictate a different timing of costs over the budget window. PWBM future analysis may, therefore, revisit the timing of costs that we display based on actual legislative text and generally accepted scoring practices. ↩