

Advisor information presented at November 4, 2021 Negotiated Rulemaking

1. IDR Simulations: Understand implications of changes to income assessments and income protection at various levels of income and debt

2. Supplementary documents
 - Pew Charitable Trusts letter: Scenarios using historical data for income, debt, income growth, and family sizes
 - Methodology details available here: <https://www.pewtrusts.org/en/research-and-analysis/speeches-and-testimony/2021/10/27/pew-calculates-potential-effects-of-income-driven-repayment-reform>
 - Dr. Lesley Turner: The Importance of “Choice Architecture” for Student Loan Repayment Decisions & Outcomes
 - Dr. Dominique Baker: Race, Racism, and Student Loans

Note: This document was prepared by Dr. Rajeev Darolia, Advisor for economic and higher education policy analysis and data, for the 2021 Affordability and Student Loans Committee Meetings as part of the 2021-22 US Department of Education Negotiated Rulemaking for Higher Education. Please forgive any errors in analyses produced in an expeditious manner.

I appreciate research assistance from Emily Wilcox and benefitted from input from Lexi West at the Pew Charitable Trusts.

Fictional borrower example (Miles): Caveats and Inputs/Assumptions

CAVEATS

- Estimates are approximations for illustrative purposes about individual repayment scenarios
- Does not incorporate common repayment events that can affect borrower outcomes, such as periods of unemployment, nonpayment, forbearance, deferment, etc.
- Assumes no capitalized interest during the repayment period; Assumes no subsidized unpaid interest; Counts all unpaid interest as forgiven at the end of the period.
- Not modeling eligibility restrictions for IBR plans
- Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency.

INPUTS & ASSUMPTIONS

- Income: 15K, 25K, 35K, 45K, 55K
- Income growth assumption: 2.5% annually
- Student loan debt: \$30,000
- Household size: 1
 - Larger household sizes will have higher income protection
- Interest rate: 3.73%
- Inflation assumption: 2.4% annually

Fictional borrower example (Miles), Under Various Income Protection Assumptions

Student loan debt = \$30,000; Income = \$25,000

	Standard Repayment	IBR (2014) Current Case	1	2	3	4
Income Protection (%)	N/A	150%	175%	200%	250%	300%
Monthly payment	\$300	\$47-\$80	\$20-\$38	\$0	\$0	\$0
% of Discretionary Income	N/A	10%	10%	"10%"	"10%"	"10%"
% of Gross Income	14%-9%	2.4%-2.3%	1.2%-1.0%	0%	0%	0%
Total paid	\$35,988	\$15,003	\$6,860	\$0	\$0	\$0
Total forgiven	\$0	\$37,377	\$45,520	\$52,380	\$52,380	\$52,380
Payments	120	240	240	"240"	"240"	"240"
Interest-only payments	0	240	240	0	0	0

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period.

At this income level, IBR leads to lower total amount paid and a larger amount of forgiveness, but longer repayment periods. As income protection gets higher than 200%, at this level of income, Miles would get little to no benefit from higher levels of income protection.

Fictional borrower example (Miles), Under Various Income Protection Assumptions

Student loan debt = \$30,000; Income = \$45,000

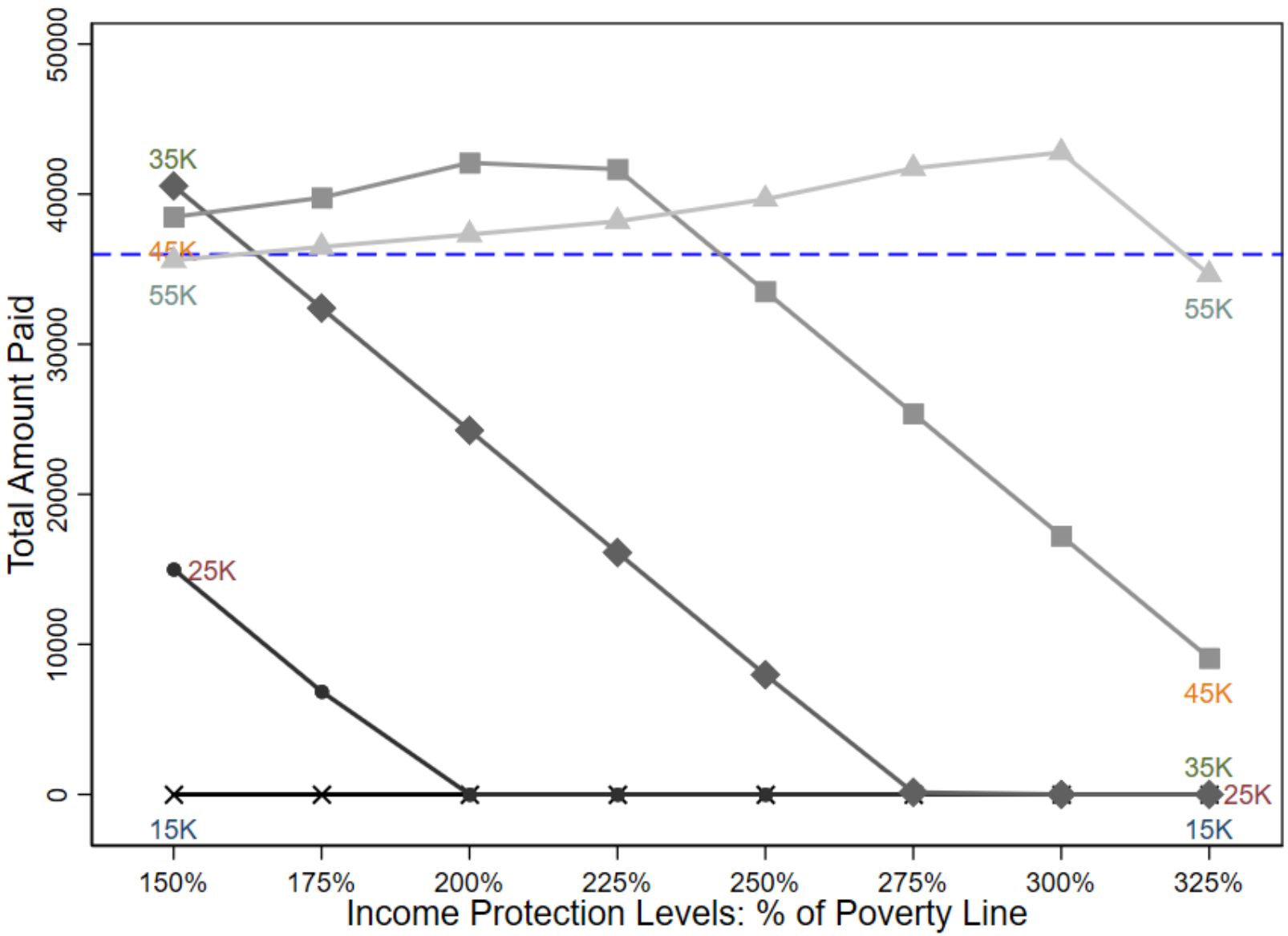
	Standard Repayment	IBR (2014) Current Case	1	2	3	4
Income Protection (%)	N/A	150%	175%	200%	250%	300%
Monthly payment	\$300	\$214-\$290	\$187-\$268	\$160-\$249	\$107-\$178	\$53-\$94
% of Discretionary Income	N/A	10%	10%	10%	10%	10%
% of Gross Income	8%-5%	5.8%-5.7%	5.1%-5.0%	4.4%-4.3%	3.0%-2.8%	1.6%-1.4%
Total paid	\$35,988	\$38,480	\$39,764	\$42,088	\$33,520	\$17,234
Total forgiven	\$0	\$0	\$0	\$0	\$15,114	\$35,146
Payments	120	154	177	210	240	227
Interest-only payments	0	0	0	0	0	13

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period.

At this level of income, with lower income protection, IBR plans lower monthly payments, but lead to higher total paid and longer repayment. As income protection gets higher than 225%, at this level of income, Miles would get benefits from higher levels of income protection in the form of lower payments, lower total amount paid, and greater loan forgiveness. At the relatively highest levels of income protection, may even start to make a series of interest-only payments.

Fictional borrower example (Miles), Under Various Income Protection Assumptions

Student loan debt = \$30,000, Total Paid



Blue dashed line is total amount paid under standard repayment plan

Markers are total amount paid for a borrower with a specified level of income (plotted lines) and income protection (x-axis)

Relatively low-income borrowers
 At all income protection levels → Generally better off in IBR plans
 Little to no marginal benefit as income protection gets to higher levels

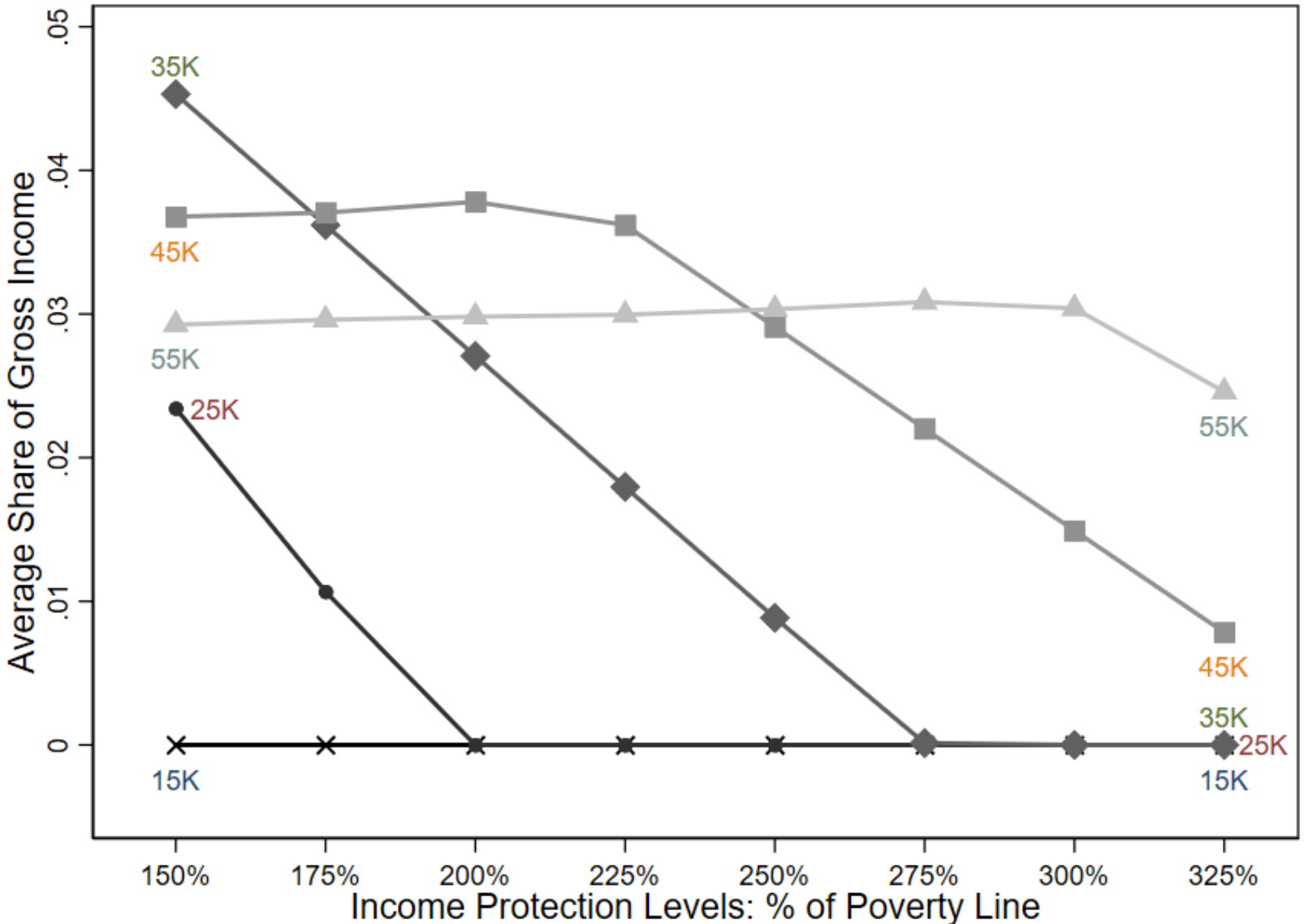
Relatively high-income borrowers
 At lower income protection levels → May be better off in the standard plan
 Payments may be higher in IBR and they would pay more in total
 (And may not qualify for IBR)
 At higher income protection levels → payments may drop below standard plan

As income protection increases to relatively high levels, benefits largely accrue to higher income borrowers
 Less paid, Higher levels of loan forgiveness

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period.

Fictional borrower example (Miles), Under Various Income Protection Assumptions

Student loan debt = \$30,000, Average Monthly Payment as a % of Gross Income



For relatively low-income borrowers, little to no marginal benefit as income protection gets to higher levels

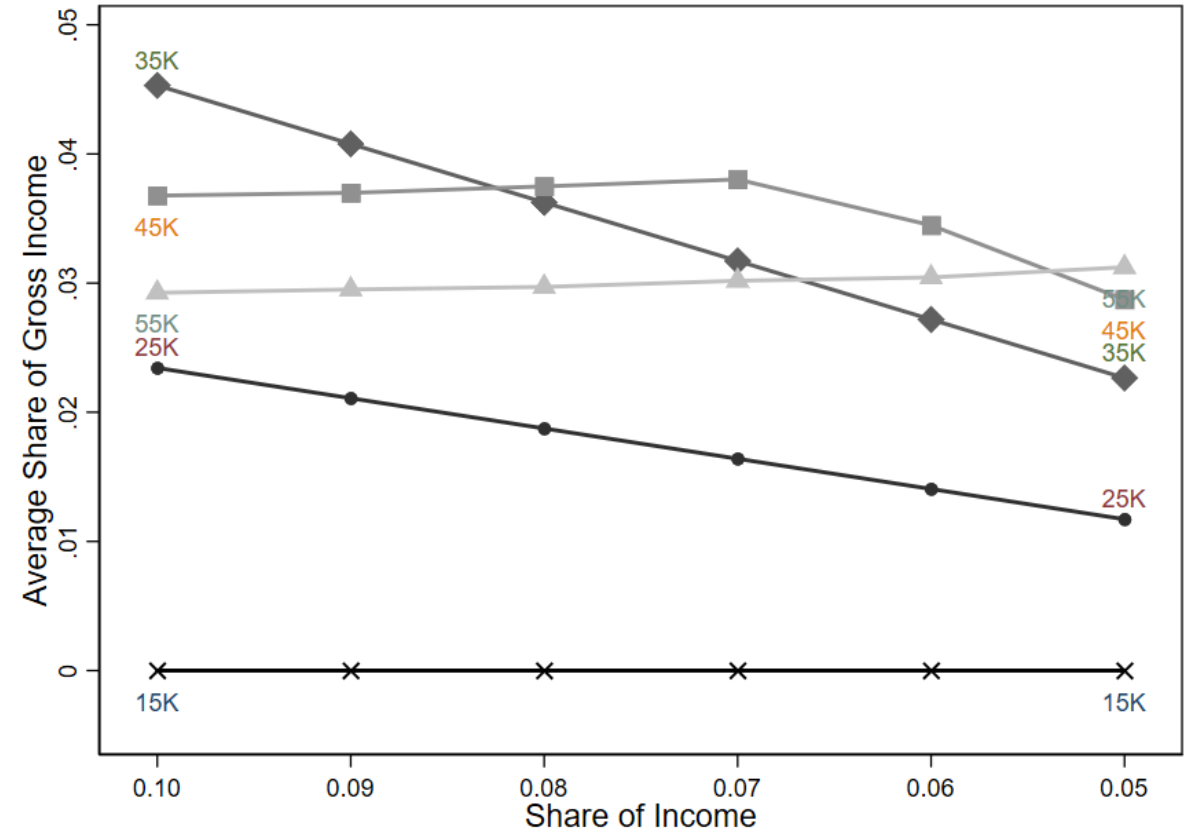
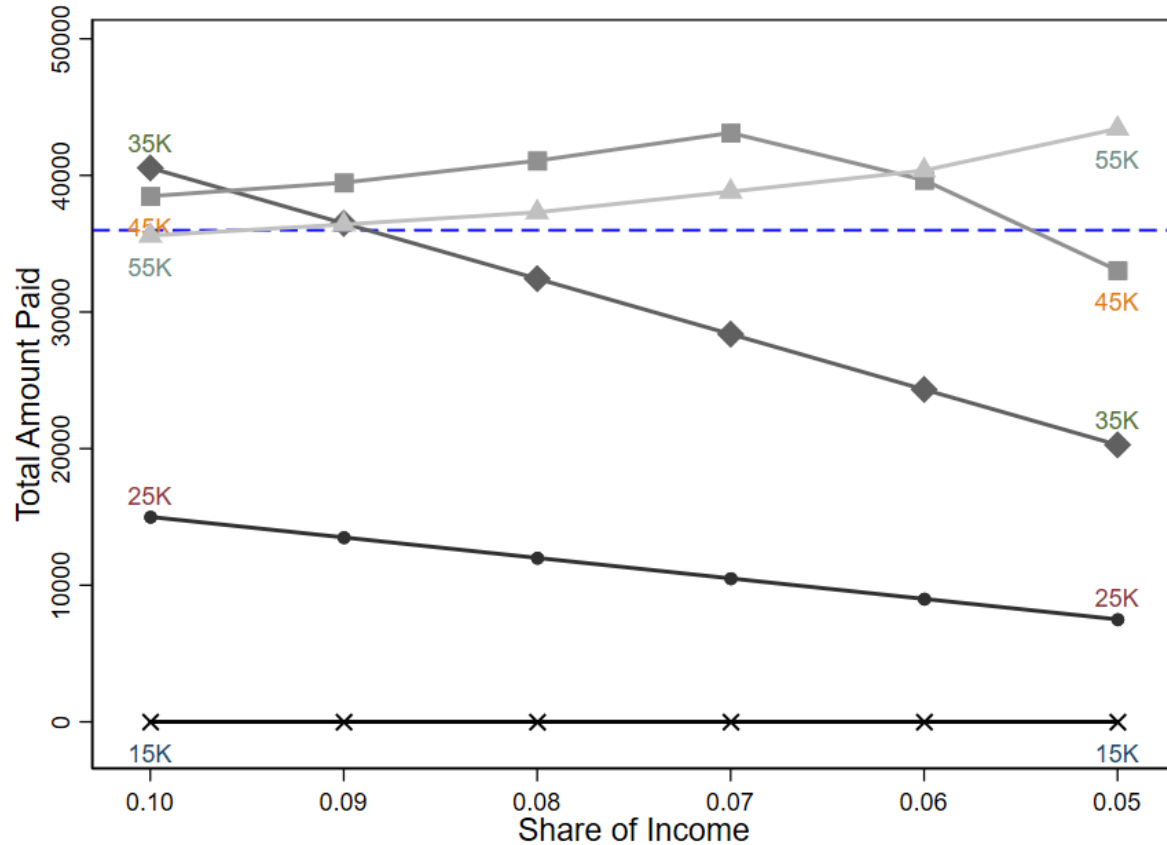
Payments get relatively small for higher income borrowers

May lead people to pay a smaller portion of their incomes and having longer repayment periods

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Fictional borrower example (Miles), Under Various **Income Share** Assumptions

Student loan debt = \$30,000



Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period.

Blue dashed line is total amount paid under standard repayment plan. Markers are total amount paid for a borrower with a specified level of income (plotted lines) and income protection (x-axis)

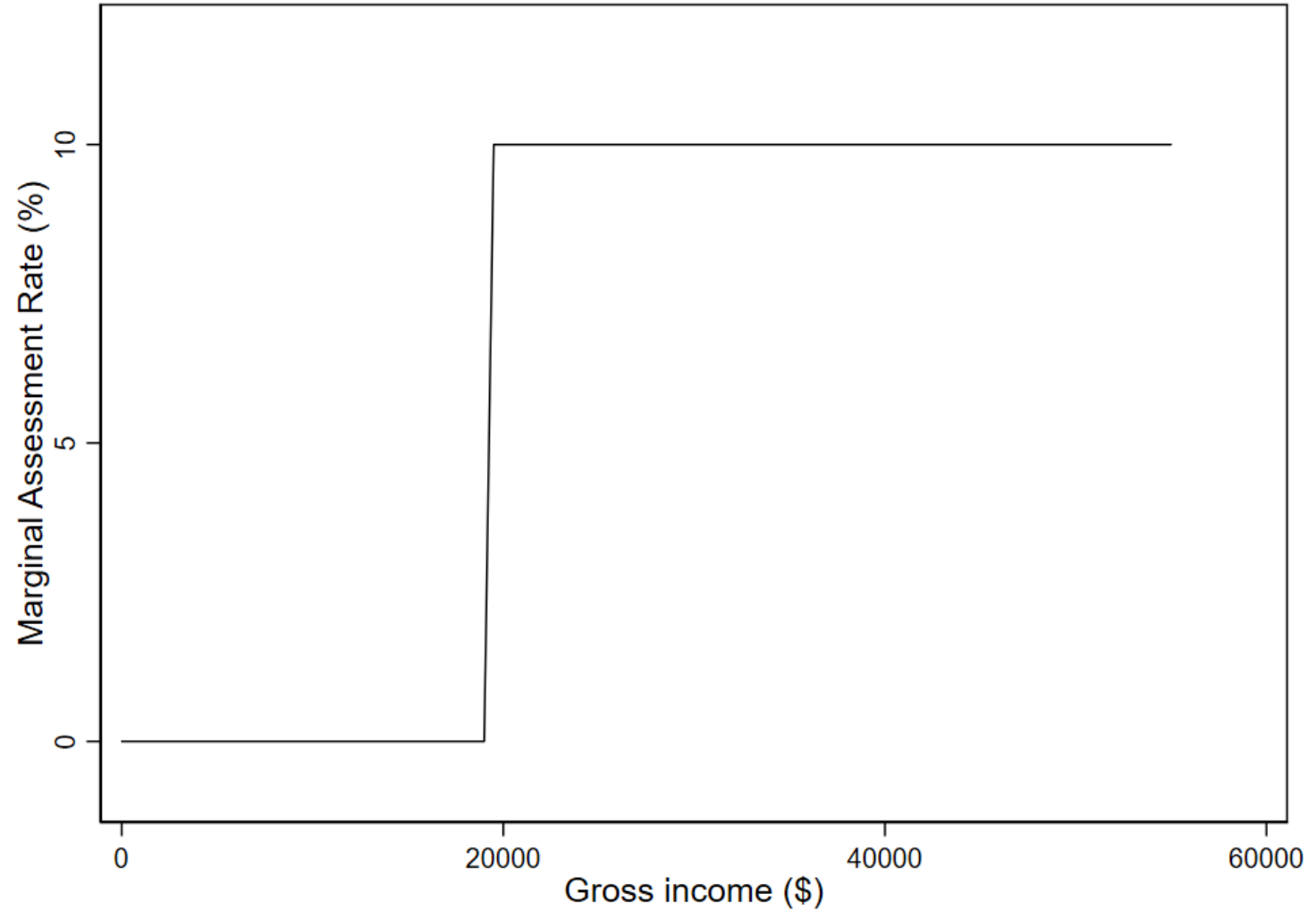
Changes to Income Share and/or Income Protection?

- Increasing the income protection or reducing the income share will reduce the monthly payment
 - Typically will lead to longer repayment length and higher total amount paid
 - At high levels of debt, this could also mean that payments do not cover interest
 - Potentially leading to growing balances, longer repayment length, and higher total amount paid
 - All else equal, raising income protection can lead to a larger number of “zero payment” borrowers
 - Because income protection can be larger than borrower income
 - As income protection increases to relatively high levels, benefits largely accrue to higher income borrowers
 - And may lead to higher income people to be in debt for longer, and making interest only payments
- Consider goals and design principles

Assessment schedule

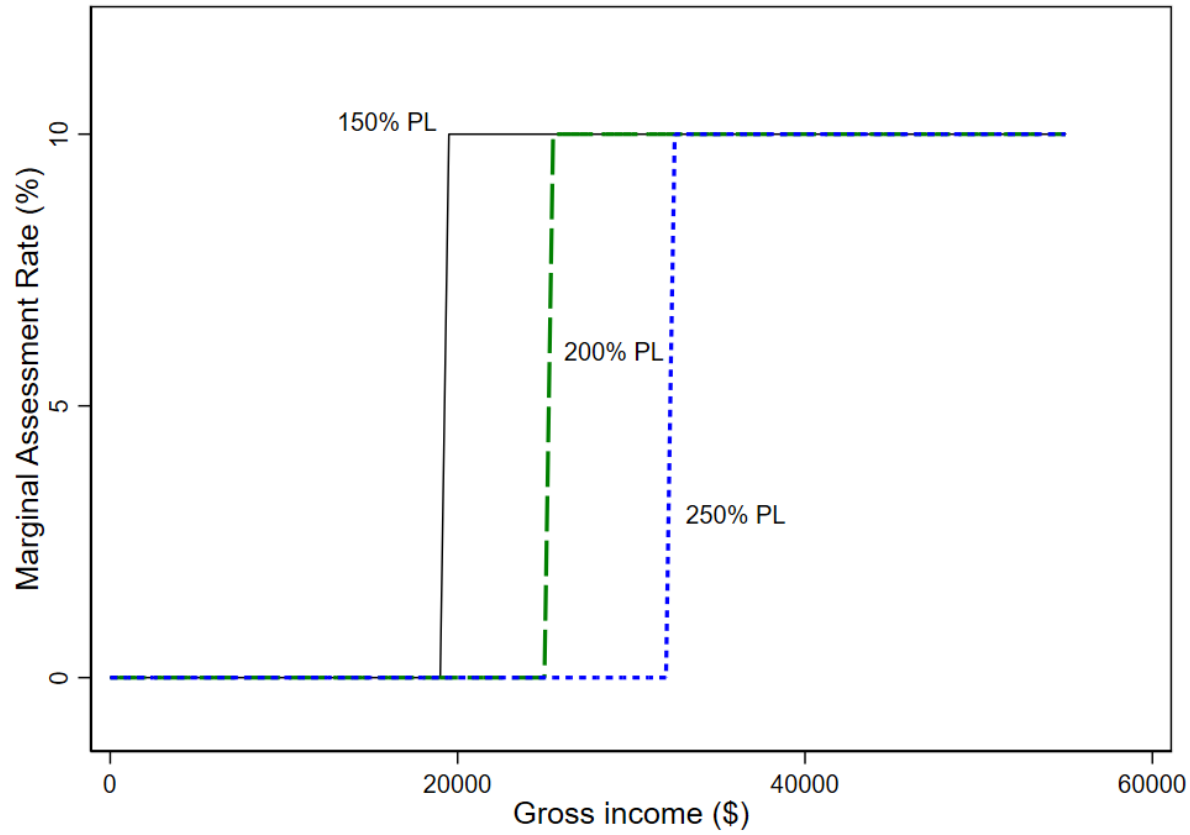
- Marginal assessment rates: rate paid on the next dollar of income

Income level as % of Poverty Line	<i>Marginal</i> Assessment Rate
Income \leq 150%	0%
Income $>$ 150%	10%

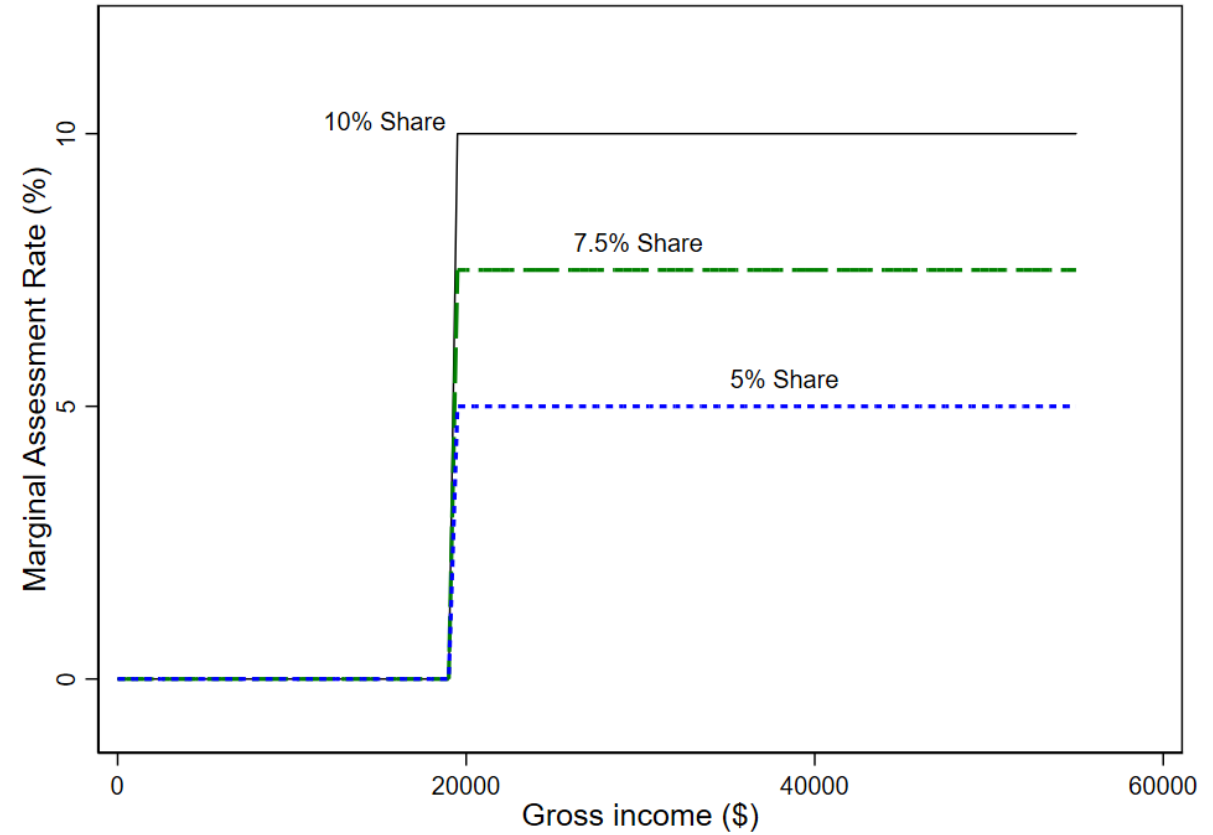


Changes to income protection or income share

Income Protection

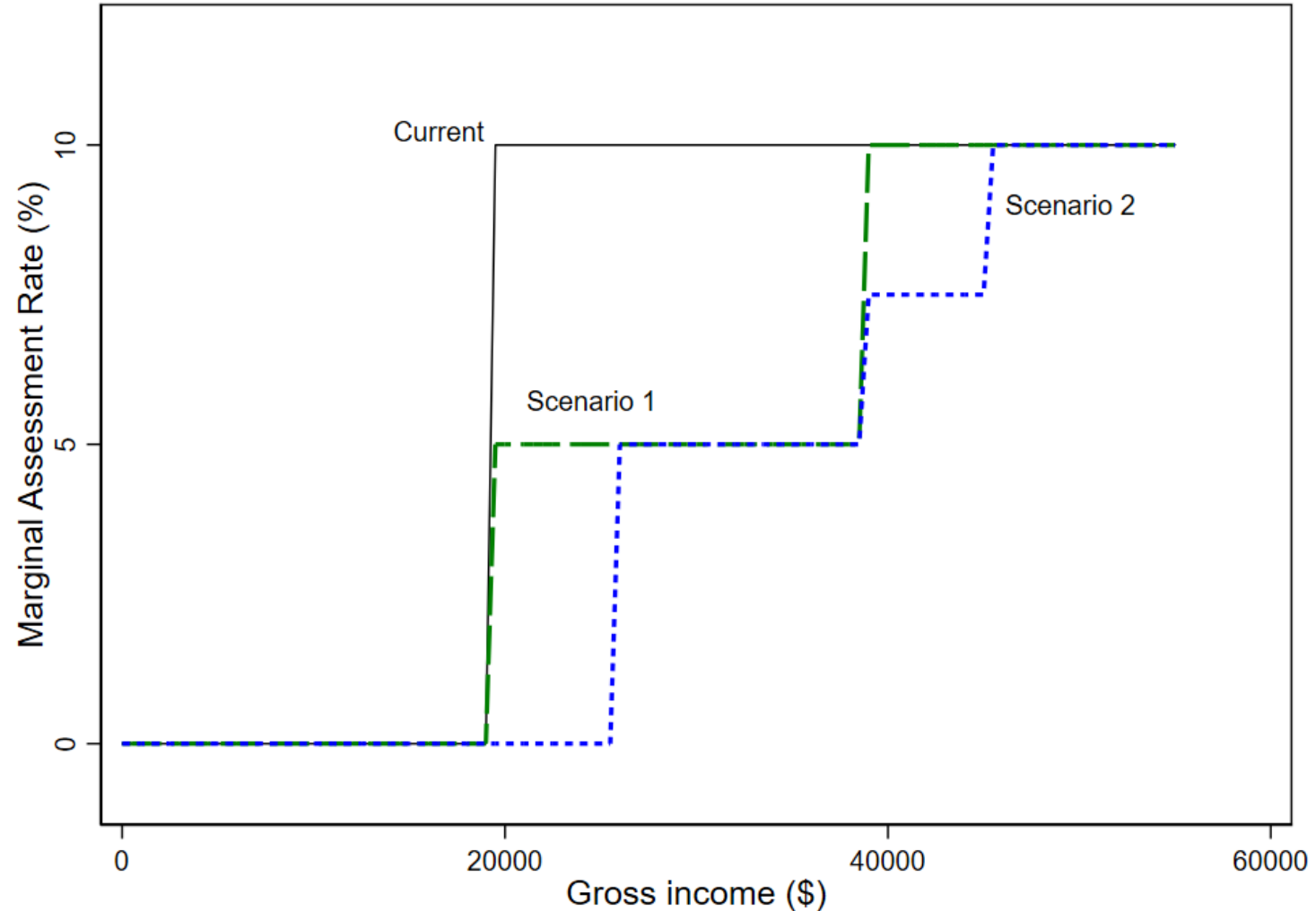


Income Share



Changes to income protection and income share

Income level as % of Poverty Line	Marginal Assessment Rate
Current	
Income \leq 150%	0%
Income > 150%	10%
Scenario 1	
Income \leq 150%	0%
150 < Income \leq 300%	5%
Income > 300%	10%
Scenario 2	
Income \leq 200%	0%
200 < Income \leq 300%	5%
300 < Income \leq 350%	7.5%
Income > 350%	10%

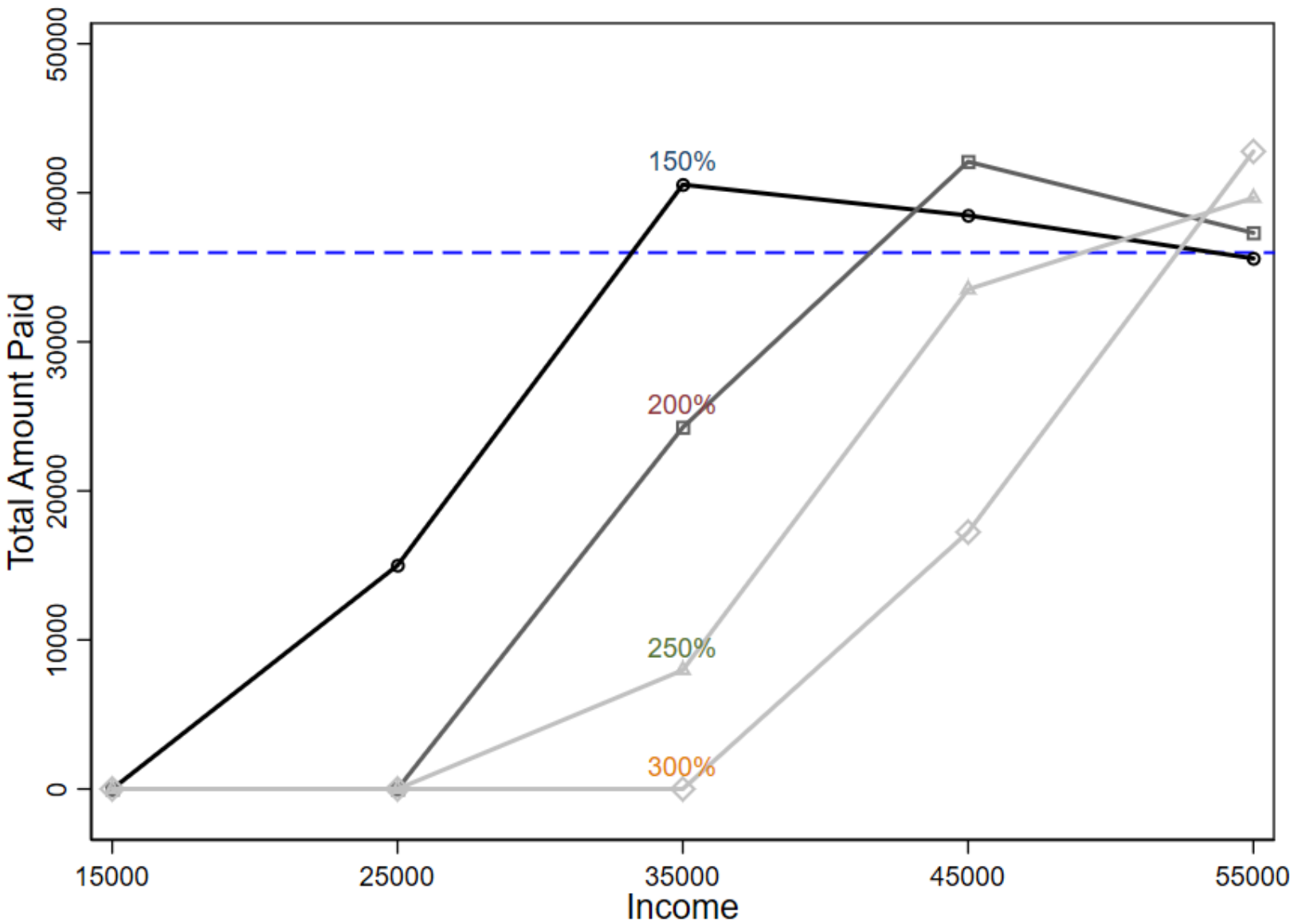


In these scenarios, no one does worse than current plan
 Could make an already complicated system even more complicated

Assumptions: Household size = 1

Additional figures & tables

Fictional borrower example (Miles), Under Various Income Protection Assumptions
Student loan debt = \$30,000, Total Paid – Alternative View with Income on X-axis



Blue dashed line is total amount paid under standard repayment plan

Markers are total amount paid for a borrower with a specified level of income (x-axis) and income protection (plotted lines)

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period.

Fictional borrower example (Miles), Under Various Income assumptions

Student loan debt = \$15,000

	Standard Repayment	IBR (2014) Current Case	1	2	3	4
Income	N/A	\$15,000	\$25,000	\$35,000	\$45,000	\$55,000
Monthly payment	\$150	\$0	\$47-\$80	\$131-\$169	\$214-\$293	\$297-\$329
Total paid	\$17,994	\$0	\$15,003	\$18,343	\$16,933	\$16,473
Total forgiven	\$0	\$26,190	\$10,098	\$0	\$0	\$0
Payments	120	“240”	240	124	74	53
Interest-only payments	0	0	240	0	0	0

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period. Under current rules, in some scenarios relatively high-income borrowers would not be eligible for IBR because payments would be higher than under standard repayment plans.

Fictional borrower example (Miles), Under Various Income assumptions

Student loan debt = \$30,000

	Standard Repayment	IBR (2014) Current Case	1	2	3	4
Income	N/A	\$15,000	\$25,000	\$35,000	\$45,000	\$55,000
Monthly payment	\$300	\$0	\$47-\$80	\$131-\$214	\$214-\$290	\$297-\$364
Total paid	\$35,988	\$0	\$15,003	\$40,548	\$38,480	\$35,596
Total forgiven	\$0	\$52,380	\$37,377	\$4,950	0	0
Payments	120	“240”	240	240	154	108
Interest-only payments	0	0	240	0	0	0

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period. Under current rules, in some scenarios relatively high-income borrowers would not be eligible for IBR because payments would be higher than under standard repayment plans.

Fictional borrower example (Miles), Under Various Income assumptions

Student loan debt = \$45,000

	Standard Repayment	IBR (2014) Current Case	1	2	3	4
Income	N/A	\$15,000	\$25,000	\$35,000	\$45,000	\$55,000
Monthly payment	\$450	\$0	\$47-\$80	\$131-\$214	\$214-\$347	\$297-\$413
Total paid	\$53,982	\$0	\$15,003	\$40,458	\$66,092	\$58,741
Total forgiven	\$0	\$78,570	\$63,567	\$36,331	\$0	\$0
Payments	120	“240”	240	240	240	167
Interest-only payments	0	0	240	36	0	0

Estimates only. Assumed inputs: Income growth = 2.5% annually; Household size = 1; Interest rate = 3.73%; Inflation = 2.4% annually. Results differ from the FSA loan simulator because of simplified assumptions regarding inflation and because of other simplifying assumptions like no assumed grace period or temporary repayment flexibilities due to the COVID-19 Emergency. Does not take into account eligibility rules. Assumes no capitalized interest during the repayment period; Counts all unpaid interest as forgiven at the end of the period. Under current rules, in some scenarios relatively high-income borrowers would not be eligible for IBR because payments would be higher than under standard repayment plans.

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