RESEARCH REPORT

Income-Driven Repayment of Student Loans

Logic, History, and the Need for Reform

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Income-Driven Repayment of Student Loans

Much of the policy debate emerging from concerns over student debt has focused on the structure and operation of income-driven repayment (IDR). After a slow start in the early 1990s, the federal government has increasingly relied on adjusting repayment expectations to fit borrowers’ financial circumstances to address unmanageable debt burdens.

As the number of available IDR plans and the share of borrowers enrolling in these plans has increased, the system has become more confusing and difficult to navigate. IDR has not prevented default problems, as early supporters hoped, or silenced the voices arguing that student debt is destroying the lives of too many borrowers. As demands for reducing the loan amounts borrowers must repay get stronger, it is useful to examine the logic behind IDR, the repayment system’s strengths and weaknesses, and the reforms that could create a more sustainable and equitable public policy framework.

After reviewing the history of support for IDR among policy experts and the gradual and haphazard development of current policies, this report analyzes potential reforms. We look at proposals from other observers and analyze of the impacts of alternative approaches on borrowers in different circumstances and taxpayers, discussing the pros and cons of various modifications to the current system.

Key Problems with the Current System

Developing programs that link required student loan payments to borrowers’ current income has not solved all the problems associated with the system. That is not an indictment of the basic approach but of design details and implementation failures. IDR allows a portion of public subsidies to college students to be based on borrowers’ postcollege circumstances rather than the precollege circumstances that determine eligibility for grant aid. IDR has the potential to prevent most borrowers from facing unaffordable payments and to dramatically reduce the default rate.

Over time, most IDR parameters have become more generous, creating a tension between a financially stable program with limited taxpayer subsidies and generous treatment of borrowers—and with little apparent decline in borrowers’ struggles. Moreover, recent changes have introduced
unintended consequences that policymakers may wish to address. Yet the current debate tends to focus on making payments easier still for borrowers, often with proposals to add even more options and complicated features. Advocacy focuses on combining lower payments with less time in repayment (Bishop and Davis 2021). Senators support changes that would lower payments for borrowers but not changes that would reduce public subsidies to borrowers who can afford to repay. The Biden administration plans to implement another IDR plan soon—with additional eligibility rules—that will offer many borrowers lower payments. Other potential reforms have received less attention but may help the program achieve its goals.

A more constructive approach to reform will address the current system’s central shortcomings, rather than focusing only on lowering payment obligations. The next section highlights problems reforms could address.

Key Problems to Address

Borrowers face problems understanding, enrolling in, and staying in IDR.

- **The IDR system is too complicated, with multiple plans and a dizzying array of details.** Borrowers face a long and complicated list of choices about the best way to repay their federal student loans. The array of plans and the bureaucratic barriers to accessing them contribute to the difficulties many borrowers face in navigating the system.

- **Too many struggling borrowers are not enrolled in IDR.** Many borrowers are not aware of the IDR option or do not understand its benefits. Lack of communication from the US Department of Education, lack of loan counseling at institutions, and loan servicers’ failure to reliably guide students through the available options all contribute to this problem.

- **The enrollment process is difficult, and staying enrolled is even more challenging.** The application process and the required documentation of income are difficult. The need to annually verify income leads many borrowers to fall out of the program after they have enrolled.

Borrowers enrolled in IDR still face repayment challenges.

- **Even when enrolled in IDR, some borrowers are delinquent on their loans.** About 5 percent of borrowers are 90 or more days delinquent six months after enrolling (Conkling and Gibbs 2019, 26). Among borrowers who began repaying their loans in 2012, those who enrolled in IDR by
the end of 2013 were about half as likely as those in fixed payment plans to default on their loans by 2017, but about 19 percent of undergraduate borrowers in IDR did default (Karamcheva, Perry, and Yannelis 2020a, figure 2.6).

- Many borrowers see their balances increase, even as they remain in good standing in IDR. Required payments are often lower than the interest charged, and the government covers that interest only in limited circumstances. Even without interest, borrowers with $0 required payments would not make progress on reducing their balances. The system's design creates questions about both fairness and sustainability.

- Borrowers with low loan balances and low incomes may remain in repayment for 20 or 25 years before having their debts forgiven. Much of the hardship surrounding student debt is concentrated among those who borrow small amounts and who do not stay long in school. The system lacks a provision for relieving these borrowers of long-term debt.

- Unless borrowers repay the full loan amount with interest before reaching the time for forgiveness, the amount they repay is a function only of their incomes and not of the amount they borrowed. Borrowers do not benefit from limiting the amount of debt they accrue if they reach forgiveness with outstanding balances. They have forgone a subsidy provided to students in similar circumstances who accepted larger loans.

- Small differences in borrower circumstances may result in large changes in repayment expectations. For example, under Revised Pay As You Earn (REPAYE), a small amount of borrowing for graduate school can significantly increase the amount a borrower will be required to repay before reaching forgiveness. Two borrowers who received the same amount of loan funding may repay very different amounts depending on when in their careers as students they borrowed.

- The largest subsidies go to borrowers with large amounts of debt. Borrowers with the largest debts generally attained a high level of education and have relatively high incomes. A large share of the subsidy is associated with graduate school debt.

- The projected cost of the program to taxpayers threatens its long-term future. The program aims to provide borrowers insurance against poor outcomes, using public subsidies to support borrowers whose financial circumstances are not strong enough to support loan repayment—not to absolve a large share of borrowers of responsibility for repaying the funds they received.
Lower payments have unintended consequences. Lower payments lead to fewer borrowers retiring their debts, increasing incentives for borrowers to take on more debt and moving the program closer to a broad-based subsidy for higher education when such benefits could be more fairly and efficiently provided through grants. Lower payments also mean more borrowers face increasing balances from unpaid interest, causing disillusionment with the loan system.

Key Principles for IDR Design

1. IDR should be widely available to all borrowers.

2. Across the loan program as a whole, most borrowers should ultimately repay their loans so that IDR does not subsidize higher education broadly through loan forgiveness.

3. Loan forgiveness should be available, however, for borrowers who experience prolonged financial hardship or whose postenrollment earnings are unexpectedly low for the education they pursued. And IDR should target subsidies and benefits to borrowers who need them most, including borrowers with the lowest incomes.

4. The amount a borrower repays should be linked to the amount borrowed, not just to income.

5. The payment structure should avoid the cliff effects that create big gaps in payment and loan forgiveness among students in similar circumstances.

6. Benefits provided in IDR should not be the main source of aid for students or a one-size-fits-all solution to every borrower situation. The program should allow borrowers facing unusual circumstances to qualify for additional relief or an alternative repayment plan.
Analytical Underpinnings

The Higher Education Act of 1965 introduced the Guaranteed Student Loan program, with loans originated by private lenders but guaranteed by the federal government. Borrowers repaid their loans with fixed monthly payments over 10 years. But over time, the idea of offering borrowers the option to pay based on their income gained appeal among academics and policymakers.

Nobel Prize–winning economist Milton Friedman, a strong skeptic of government involvement in the economy, had articulated the logic for IDR as early as 1955 in an essay entitled “The Role of Government in Education” (Friedman 1955). He argued for a system in which lenders would essentially buy shares in students’ future earnings. A portion of the profit from borrowers who ended up with high earnings would go toward subsidizing those whose earnings fell short. The program would be self-sustaining and would not involve government subsidies.

This concept received considerable academic attention in the 1960s. And another Nobel Prize–winning economist with very different ideological leanings, James Tobin, incorporated similar ideas into his design for Yale University’s Tuition Postponement Option in 1971. Like Friedman’s ideal system, the program depended on some students subsidizing others, a characteristic that contributed to its failure.

By the early 1990s, the economic underpinnings of IDR had broadened to include the idea that an IDR system should involve public subsidies. Alan Krueger and William Bowen (1993) wrote in the widely read (in the profession) Journal of Economic Perspectives about the importance of providing insurance for student borrowers against the possibility of low future earnings and ensuring that required payments be matched with ability to pay. Like Friedman and Tobin, Krueger and Bowen were concerned about the variation in returns on postsecondary education that exists alongside a high average return. But these authors also expressed concern about the adverse selection that would be associated with the type of program Friedman and Tobin conceived—students who expected high earnings would be unlikely to participate. Krueger and Bowen suggested capping payments for high-earning students to counter this difficulty, a strategy that would involve government subsidies for borrowers with low earnings.

From the beginning, federal IDR programs have been built on the concept of the federal government, rather than other borrowers, subsidizing those who cannot repay. No borrower is asked to repay more than the amount borrowed plus interest. Taxpayers are responsible for any costs not covered by borrowers, who may have unpaid debts forgiven after a specified period.
The History of Income-Driven Repayment

The Original Income-Contingent Repayment Program

IDR took the first big step from academic concept to actual policy when President Bill Clinton included the policy in his 1992 campaign platform. That jump-started proposals in Congress, though initial drafts included few details on what the payment terms should be. Instead, most proposals gave the Department of Education the discretion to set these terms, though many early supporters thought the terms should be set to achieve a cost-neutral program for the government (Schenet 1995). Lawmakers may have felt that designing such terms was something only the Department of Education could accomplish, given the information and analyses it would require. Few supporters, however, argued that loan forgiveness should be a central feature of this program, with many considering it an afterthought.

A Clinton administration official’s 1993 testimony illustrates the thinking at the time:

As to what the cost of [income-driven repayment] would be, we see it as a wash. You would have some increased costs, obviously, in stretching out the loan and servicing that loan and all the administrative needs that go with that, but you would also have some savings in that you would eventually get paid, and even if you get paid $10 a week, it’s better than getting paid nothing [when borrowers default]. So that is an advantage. And two, there would be interest charged on that, so it isn’t like you are getting a free ride. The hard part is when do you cut it off [forgive the loan]. One possibility is when do you cut it off [forgive the loan]. One possibility is around 25 years or so.

Congress ultimately enacted a bill in 1993 that largely reflected this thinking, granting the secretary of education the authority to create an IDR option with total discretion to set the amount borrowers would be required to pay monthly. The only major restriction was that borrowers should have their debts forgiven no later than 25 years after entering the program. The Internal Revenue Service (IRS) was to provide the Department of Education with the tax return information necessary to calculate repayment amounts annually (Schenet 1995), but this feature was never implemented.

Using this new authority in 1994, the Department of Education set out to design the Income-Contingent Repayment (ICR) program, the first IDR program. As the original ICR program was being designed, the interaction of the program parameters was salient, and debates emerged about the optimal structure. A 1994 Congressional Budget Office memorandum argued that four basic
parameters describing an IDR program are interrelated: the amount of debt covered, the length of the repayment period, the share of income required for payments, and the interest rate (Noell and Rhind 1994). A financially sustainable program requires balance among these factors. If debt levels are higher, borrowers must repay for a longer time and/or pay a larger share of their incomes.

Reducing the share of income required for payments will lead to unpaid debts unless the covered debt amounts are lower, borrowers repay for a longer period, or the interest rate is lower. (A lower interest rate might generate an automatic subsidy from taxpayers to borrowers.) The plan's details were controversial because of the tension between keeping the monthly payment amounts low and concern over payments not covering interest charges (Schenet 1995). If one parameter is changed without another modification to balance it, the amount of unpaid debt and the required subsidy will grow.

The Department of Education settled on a version of ICR where borrowers would pay 20 percent of their incomes above an exemption equal to the federal poverty level based on household size and would have debts forgiven after 25 years. Under those terms, only borrowers with very low incomes would qualify for reduced payments or loan forgiveness. The plan also limited interest capitalization to 10 percent of the original principal amount, after which interest still accrued but was not added to the principal balance. A complicated formula in this original plan linked payments to a borrower’s loan balance to discourage excessive borrowing and allowed borrowers with low balances to pay less per month than under the 20 percent formula. It remains part of the current ICR plan, albeit with some modifications.

This ICR plan designed and implemented by the Clinton administration in the 1990s remained the only IDR option in the loan program until 2009. Probably because of the program’s complexity, limited eligibility, relatively high expected payments, and lack of awareness of the program, ICR did not attract many takers. Only about 9 percent of Direct Loan borrowers were enrolled in the late 1990s (US General Accounting Office 1997). More recent data suggest that enrollment may have declined after that. About 40 percent of these borrowers had been placed in this plan because they were in default (US General Accounting Office 1997).

Income-Based Repayment

In the mid-2000s, observers worried that student debt burdens were increasing and argued that ICR should better protect borrowers from unaffordable payments. A 2006 paper by the Project on Student Debt, for example, suggested that the income exemption in the ICR plan should be larger, that payments
should be a lower share of income, and that borrowers with lower loan balances should qualify for loan forgiveness earlier than after 25 years (Shireman et al. 2006). The paper framed these arguments in part by noting that borrowers who defaulted on their student loans were allowed to make lower payments through involuntary wage garnishment than borrowers using ICR who were current on their loans.\(^\text{16}\)

Policymakers responded to ideas such as these by enacting a new IDR program, Income-Based Repayment (IBR), in 2007, with terms that partly matched those in the Project on Student Debt paper.\(^\text{17}\) The new program raised the income exemption from 100 percent to 150 percent of the federal poverty level adjusted for household size, and payments fell from 20 percent to 15 percent of income above the exemption.\(^\text{18}\) Congress left the loan forgiveness term at 25 years for all borrowers but added Public Service Loan Forgiveness (PSLF), a new 10-year loan forgiveness benefit for borrowers employed in public service jobs.\(^\text{19}\) Additionally, in IBR, borrowers’ payments are capped at the monthly payment under a 10-year fixed amortization plan set on the original loan balance. If a borrower’s income would cause their payments to exceed this amount, the borrower pays the 10-year fixed payment amount instead. These borrowers may remain enrolled in IBR, and their payments count toward the loan forgiveness threshold.

IBR first became available in early 2009 and did not replace ICR, nor did lawmakers rescind the authority they gave to the secretary of education to design an ICR plan. Rather, Congress created IBR as a new program and left in place the prior law with respect to ICR. This meant the government would offer more than one IDR option. The original ICR program remains one of several IDR options.

Notably, the new IBR program did not include the IRS’s role in providing the information for setting payments that was part of the original ICR. Nor did the IBR program link payments to a borrower’s debt balance, as ICR did, and there appears to have been no discussion of the merits of such a feature when policymakers were considering the 2007 law. Ironically, such a feature may have been even more relevant, given IBR’s generous terms relative to ICR and its interaction with key changes policymakers had made to borrowing limits under separate reforms.

Specifically, the Grad PLUS program (enacted in 2006, just before IBR) allows graduate and professional students to borrow up to the full cost of attendance without an annual or lifetime limit. Previously, these students could borrow $20,500 per year in federal student loans and were subject to a lifetime aggregate limit. The new policy, when combined with IBR’s relatively low monthly payments (and earlier loan forgiveness, which was added in 2010) greatly increased borrowers’ odds of having very large debts forgiven, even if they earn high incomes. The debt-based payment formula in ICR aimed to guard against this outcome.
Obama-Era Reforms

The Obama administration continued adding new versions of IDR plans on top of the older ones, creating a complex and bewildering array of choices.

In 2010, shortly after IBR became available, President Barack Obama proposed reducing payments in the program to 10 percent of income above the exemption and shortening the loan forgiveness time to 20 years (Obama 2010). Congress quickly enacted these changes in early 2010 but limited them to new student loan borrowers in 2014 and thereafter.20

But in 2012, the Obama administration developed a workaround to those restrictions by creating another IDR plan. The administration used the authority under the original 1993 legislation creating ICR to design a new plan (Pay As You Earn, or PAYE) that matched the terms for IBR that Congress had enacted in 2010 and made it available to borrowers dating back to 2007, thus making the IBR terms Congress had enacted for future borrowers retroactive.

The Obama administration repeated this process a few years later to create the Revised Pay As You Earn plan, which provided the new IBR terms to all borrowers regardless of when they took out their loans. Unlike IBR and PAYE, REPAYE does not require borrowers to show “partial financial hardship.” Borrowers are eligible regardless of the relationship between their incomes and their monthly payments.

In contrast to the general trend, REPAYE includes a few adjustments that lead to higher payments for some borrowers. Payments are not capped at the level of the standard 10-year plan, and married borrowers’ payments are based on the combined incomes of the spouses even if they file separate income tax returns. Moreover, borrowers with debt from graduate school qualify for loan forgiveness after 25 years of payments, not 20. Though that makes the program less generous for some borrowers, another feature makes the program more generous than the other options, creating a potentially complicated trade-off for borrowers trying to choose the best plan. For all borrowers in REPAYE, if monthly payments are not high enough to cover accruing interest, half the unpaid amount is immediately canceled.21
Current Policy

Because policymakers have added new options to the program without ever eliminating others, the IDR program includes all the plans we have discussed so far. This creates complexity for borrowers to navigate, and it may be difficult for borrowers to understand which plan is best for their circumstances.

The reasons policymakers have not sunset any IDR plans or consolidated all plans into one simplified plan appear to be both legal and practical. Borrowers in the existing plans may have a legal right to use those plans, as the options are often listed in the contract the borrower signs when taking out the loan. Removing plans from borrowers—as any consolidation would likely require—might violate the terms of the contract the borrower signed. To overcome these potential hurdles, policymakers may be required to offer borrowers new terms on a single IDR plan that match those on any plan they were forced to give up. Given the complicated set of benefits that exist across the plans now, that sets up a challenge for policymakers, one that may pose a sufficient disincentive to consolidate IDR plans. Of course, policymakers could sidestep these issues and adopt a policy that restricts future borrowers from using all but one plan, but even then, borrowers with loans issued prior would remain eligible for the old plans until all earlier loans were repaid.

For now, trends appear headed in the direction of more plans, not consolidation. The Biden administration announced in 2021 that it would create yet another plan using the authority under the original 1993 ICR legislation. This plan, the Expanded Income Contingent Repayment (EICR), is expected to be available to borrowers beginning in 2022. The terms of EICR are similar to those President Biden proposed in his campaign. Payments under EICR would be the lowest of all the IDR plans. Borrowers would not make payments until their incomes exceeded 200 percent of the federal poverty level. They would pay 5 percent of their income between 200 and 300 percent of the federal poverty level and 10 percent of income above that level. In this program, which would apply only to undergraduate debt, remaining balances would be forgiven after 20 years. The plan also includes additional features that differ from the other IDR plans.
Key IDR Trends and Statistics

Enrollment in IDR has grown rapidly following the introduction of more generous plans under the Obama administration (table 1). In 2013, 1.6 million borrowers were repaying $72 billion in loans in an IDR plan, with an average balance of $45,759. (The average balance in the other repayment plans was $20,381.) Almost 60 percent of these borrowers were enrolled in IBR. By 2021, IDR enrollment had increased to 8.3 million borrowers with $515 billion of debt. The average balance enrolled in IDR had climbed to $62,123 while the average balance in other repayments was $33,593. Only one-third of IDR borrowers were enrolled in IBR; 40 percent were in the newest REPAYE plan (figure 1).

TABLE 1
IDR Balances and Recipients
Average balance in IDR and other plans

<table>
<thead>
<tr>
<th>Year</th>
<th>IDR dollars outstanding (billions)</th>
<th>IDR recipients (millions)</th>
<th>IDR Share in IDR</th>
<th>Average Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IDR</td>
<td></td>
<td></td>
<td>IDR</td>
</tr>
<tr>
<td>2013</td>
<td>$72.3</td>
<td>1.6</td>
<td>20%</td>
<td>$45,759</td>
</tr>
<tr>
<td>2014</td>
<td>$121.3</td>
<td>2.5</td>
<td>26%</td>
<td>$48,327</td>
</tr>
<tr>
<td>2015</td>
<td>$193.4</td>
<td>3.9</td>
<td>34%</td>
<td>$49,845</td>
</tr>
<tr>
<td>2016</td>
<td>$269.0</td>
<td>5.3</td>
<td>40%</td>
<td>$51,044</td>
</tr>
<tr>
<td>2017</td>
<td>$336.8</td>
<td>6.3</td>
<td>44%</td>
<td>$53,631</td>
</tr>
<tr>
<td>2018</td>
<td>$402.7</td>
<td>7.1</td>
<td>47%</td>
<td>$56,879</td>
</tr>
<tr>
<td>2019</td>
<td>$457.8</td>
<td>7.7</td>
<td>49%</td>
<td>$59,843</td>
</tr>
<tr>
<td>2020</td>
<td>$506.8</td>
<td>8.2</td>
<td>50%</td>
<td>$61,956</td>
</tr>
<tr>
<td>2021</td>
<td>$515.0</td>
<td>8.3</td>
<td>47%</td>
<td>$62,123</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on data from the US Department of Education Federal Student Loan Portfolio.

Note: IDR = income-driven repayment.
FIGURE 1
IDR Participation by Repayment Plan, 2013–21

Source: US Department of Education Federal Student Loan Portfolio.
Notes: IBR = income-based repayment; ICR = income-contingent repayment; IDR = income-driven repayment; PAYE = Pay As You Earn; REPAYE = Revised Pay As You Earn. Data are for the third quarter of each year and exclude the IDR borrowers who hold Federal Family Education Loans (5 percent of the total in 2021).

IDR enrollment growth has greatly outpaced the increase in total outstanding federal student loans and now accounts for about half of outstanding debt. In 2015, 18 percent of borrowers were repaying 34 percent of all direct loan balances in IDR plans. By 2021, those figures had increased to 32 percent of borrowers repaying 54 percent of all Direct Loan balances (figure 2).
Program Costs

One consequence of policymakers continually reducing payments in IDR without changing any other terms is that the program is projected to provide significant amounts of loan forgiveness in the coming years. Typical payments in IDR are now well below what borrowers would need to pay off their debts within 20 years before loan forgiveness (or 10 years in the case of PSLF). The average balance in IDR would require consistent $410 monthly payments to fully repay in 20 years. Yet documents from the Department of Education suggest that typical monthly payments across all IDR plans range from $91 to $154.24

The budgetary costs of IDR have also increased exponentially. Costs in IDR are the result of borrowers having their loans forgiven, including under PSLF (costs for which are rarely reported separately in budget documents), and having interest canceled, such as when payments are too small to cover accruing interest.25
When IBR was enacted in 2007, budget estimates put average annual costs at $443 million.\(^2^6\) (No cost estimates for the original ICR program are available.) But changes to IDR that reduced payments and increased loan forgiveness, combined with an increase in enrollment and lower assumptions about earnings in the program, have caused estimated costs to increase substantially. The Congressional Budget Office projected in 2020 that the program’s annual cost will average $8.3 billion over the next decade (figure 3).\(^2^7\)

**FIGURE 3**
Projected Cost of Income-Driven Repayment Plans

![Projected Cost of Income-Driven Repayment Plans](chart)

- **Undergraduate**
- **Graduate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$3.2</td>
<td>$2.1</td>
</tr>
<tr>
<td>2021</td>
<td>$4.4</td>
<td>$2.6</td>
</tr>
<tr>
<td>2022</td>
<td>$4.9</td>
<td>$2.9</td>
</tr>
<tr>
<td>2023</td>
<td>$5.1</td>
<td>$3.0</td>
</tr>
<tr>
<td>2024</td>
<td>$5.2</td>
<td>$3.1</td>
</tr>
<tr>
<td>2025</td>
<td>$5.4</td>
<td>$3.2</td>
</tr>
<tr>
<td>2026</td>
<td>$5.8</td>
<td>$3.3</td>
</tr>
<tr>
<td>2027</td>
<td>$5.7</td>
<td>$3.4</td>
</tr>
<tr>
<td>2028</td>
<td>$6.0</td>
<td>$3.5</td>
</tr>
<tr>
<td>2029</td>
<td>$6.5</td>
<td>$3.5</td>
</tr>
</tbody>
</table>


**Note:** Costs reflect the lifetime present-value costs for loans disbursed in the year shown.

In addition to the cost to taxpayers that loan forgiveness creates, the current payment system generates ballooning balances for many borrowers, resulting in anger, frustration, and potentially significant barriers to accessing other forms of credit. Seventy-five percent of borrowers who were enrolled in IDR in 2010 did not make payments large enough to cover the accruing interest on their loans and owed more on their debts in 2017 than they did seven years earlier (Karamcheva, Perry, and Yannelis 2020b). At the median, borrowers who enrolled in IDR in 2012 owed 128 percent of their original loan balance five years later (Karamcheva, Perry, and Yannelis 2020b).
Graduate versus Undergraduate Debt

Enrollment and benefits in IDR are skewed heavily toward borrowers with debt from graduate and professional school. Loans for graduate school account for about two-thirds of all balances enrolled in IDR and a similar share of the program's budgetary costs. Current estimates suggest that $16.7 billion in graduate student debt and $4.0 billion in undergraduate debt will be forgiven annually (Karamcheva, Perry, and Yannelis 2020a).²⁸

Graduate students are better positioned than undergraduates to take advantage of IDR’s loan forgiveness benefits because graduate students may borrow more than undergraduates but qualify for similar repayment terms in IDR. Undergraduates are subject to annual and aggregate borrowing limits as low as $5,500 for a first-year dependent student, whereas graduate students can borrow up to the full cost of attendance with no annual or aggregate limit.

More than half of all debt that graduate and professional students took out in recent years is being repaid through IDR (Karamcheva, Perry, and Yannelis 2020a). The average balance for a graduate borrower enrolled in IDR was $128,333 in 2017. The average balance among undergraduates was $33,261.

FIGURE 4
Total Undergraduate and Graduate Debt Enrolled in Income-Driven Repayment, 2010–17


Note: Data are not inflation adjusted.
Reforming IDR

The current structure of IDR that sets monthly payments, manages interest charges, and determines if and when loan balances will be forgiven is flawed. Feasible modifications would make the program more equitable for both borrowers and taxpayers. But even a perfect structure would not solve the problems many borrowers face without changes to enrollment and servicing.

We begin by proposing reforms that would make IDR function more smoothly and then detail recommendations for modifying the rules defining borrower payments.

Improving the Bureaucratic Processes

Consolidating Plans: Automatic IDR Enrollment

Borrowers must choose from among multiple repayment plans with a wide range of differing provisions. A simpler system could eliminate difficult choices and ease enrollment. There appears to be broad consensus on the need to consolidate the multiple IDR plans, even as the Biden administration intends to implement yet another. Reading the different provisions is confusing even to someone familiar with the issues. Everyone seems to agree there should be one IDR plan. The difference of opinion is about whether there should also be a separate standard 10-year repayment plan.

Most reform proposals would keep the standard 10-year plan in addition to one IDR plan. (An exception is Kreisman [2021]).

But the logic for maintaining this plan is weak, and the added complexity would be significant. The most common argument for keeping the alternative is that some people would be better off repaying their loans more quickly or might prefer knowing from the start exactly how much they will pay each month.

But borrowers can choose to pay more than the required amount under IDR. One IDR plan with appropriate communication about the option to make larger payments, the payments that would be required under a 10-year fixed payment plan, and the pros and cons of making payments larger than the required amount would be preferable to having students choose between plans.
If there were only one plan, students would automatically be enrolled in IDR, which would simplify the process and stop borrowers from having to make complicated calculations to figure out which choice to make. All borrowers would be aware of the IDR option. Borrowers would no longer rely on servicers to guide their enrollment process, a system that has been plagued by serious problems.29

Only a system that automatically enrolls borrowers in IDR and allows them to easily authorize automatic IRS income verification will prevent large numbers of struggling borrowers from being confused about their options and responsibilities, grappling with bureaucratic problems, and missing deadlines to update their income information.

Enrolling all borrowers in IDR will require a simplified income verification system to set payment levels. Relying on IRS data, with provisions for non–tax filers, will keep borrowers in the repayment plan, even if they do not submit the appropriate documentation of income each year.

**Recommendation.** Create one federal income-driven student loan repayment plan into which borrowers are automatically enrolled. Provide ongoing information about the option of making larger payments to cover interest payments or to pay off the debt more quickly. Ensure the system keeps income information up to date with minimal effort on the part of borrowers.

**Payroll Withholding**

Reformers disagree about the benefits of requiring borrowers to withhold IDR payments from their paychecks instead of depending on active monthly payments from borrowers through their servicers. Proponents of this plan argue that income-based payments make payroll withholding a logical approach (Australia and England use it). These proponents believe this reform would make the payments less administratively burdensome and reduce delinquency and default. Perhaps the greatest advantage of payroll withholding is that borrowers’ payments track their incomes in real time because payments are collected as income is earned. The current IDR program generally relies on borrowers’ past income because it uses income reported on a tax return. It requires borrowers to submit documentation of their current income (i.e., pay stubs) if they do not have a tax return or if their income has changed. Borrowers who lose their jobs must submit this documentation to a loan servicer to change their payments in IDR. Under payroll withholding, payments stop automatically as the result of a job loss or adjust based on any other change in earnings.

A common argument against this change is that payroll withholding forces borrowers to prioritize their student loan payments. But the system will not withstand the high costs of defaults and
delinquencies—for both borrowers and taxpayers. The payment structure will never ensure every borrower can make the required payments without undue difficulty, but the entire premise of the IDR system is that payments will be affordable. Provisions for appeals and payment reductions under appropriate circumstances would be a critical part of such a system. As long as there is an appeal process for unusual circumstances (and appropriate mechanisms for handling such issues as closed schools and fraud), the system should expect borrowers to meet their obligations within the bounds of what their incomes will support.

Implementing a payroll withholding system for IDR payments would require overcoming additional hurdles and would create new administrative tasks for borrowers, which could undermine some of the reform’s benefits. The W-4 form employees fill out to determine income tax withholding amounts would have to include a question about whether the individual or spouse holds federal student loans. As is the case with income tax payments, the borrower would be responsible for reconciling the amount withheld over the course of the year with the correct amount due on a new schedule on their tax returns. Some borrowers would get refunds, and others could have large payments due when they file their taxes. Moreover, making it possible for borrowers to check their loan payment history and current balances regularly would require innovation in IRS processes.

**Recommendations.** Maintain one well-designed IDR plan as the standard structure for repaying federal student loans. (As noted above, it may not be legally possible to sunset all existing plans immediately.) Borrowers would have the option of making larger payments to retire their debt more quickly (as is currently the case). The current option of an alternative plan for borrowers with special circumstances should be maintained, with a simple appeal process.

Move toward an effective system for payroll withholding of estimated IDR payments due.

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**Reforming the Payment Structure**

**Setting Payments in IDR**

**DEFINING AFFORDABLE PAYMENTS**

Today’s IDR program allows borrowers to make substantially lower monthly payments than earlier versions. For example, a single borrower earning $50,000 annually pays $256 monthly under the most generous IDR terms (10 percent of income above 150 percent of the federal poverty level). That is down
from $384 under the terms that became available under IBR in 2009. And it is a fraction of the $619 maximum monthly payment that would be required under ICR.\textsuperscript{30}

Even as policymakers have enacted ever-lower payments in IDR, few have discussed how to gauge what borrowers can afford on their loans and how to set payments accordingly. Varied individual circumstances make it impossible to develop a formula that will allow all borrowers to repay their loans without “undue” hardship while ensuring borrowers with the financial capacity to meet their obligations will be required to do so. It will always be necessary to have an accessible appeal process and policies that allow borrowers in IDR to suspend payments temporarily alongside the formula for payments so that, for example, borrowers with unusually large medical expenses can receive appropriate treatment.

But aside from these exceptions, how can we develop an evidence-based approach to payment affordability? In a paper that contributed to the design of IBR, Baum and Schwartz (2006) pointed out that mortgage lender standards are not appropriate for this purpose because those definitions of excessive debt burden focus on default or delinquency, not on subjective feelings of burden or the sacrifices required to meet payment obligations.

Baum and Schwartz examined potential approaches based on defining discretionary income after meeting basic needs, the concept of ability-to-pay embodied in the financial aid need analysis system, subjective reports of debt burden from surveys, and, notably, the earnings premium of a college education, which is the maximum a borrower could spend on debt payments without being worse off than if she had not gone to college. The authors concluded that borrowers with higher incomes can reasonably devote a larger share of their incomes to debt repayment and that older borrowers or those who have greater family obligations will have more difficulty than others at any fixed percentage of income. Geographic differences in the cost of living are also important, and students from low-income families are likely to have greater difficulty than others managing debt.

There will never be one answer to what constitutes an affordable payment. But preventing borrowers from being worse off than they would have been if they had not gone to college is a reasonable goal. That outcome requires an income threshold for loan payment that is at least as high as the typical earnings of high school graduates and an assessment rate that allows a significant share of income beyond that level to fund increased consumption. It seems difficult to argue that adding 90 percent of additional income (based on a 10 percent assessment rate) that typically would not have been available without the investment in college to the funds available for living expenses is inadequate.
CHANGING MONTHLY PAYMENT LEVELS

Advocates and policymakers have proposed several changes to the payment calculation in IDR. Most would reduce payments. There may be a sound rationale for some of these changes, but the trade-offs involved, such as increased loan forgiveness and how those benefits are distributed, are rarely discussed. Below, we examine some of these proposals and consider the trade-offs.

The most straightforward ways to modify monthly payments are to change the income level below which no payments are due or to change the assessment rate (i.e., the share of income above the threshold that is required for payment).

**Payment threshold.** Several proposals would reduce the amount borrowers pay by increasing the income exemption in IDR to a larger multiple of the federal poverty level. For example, the Department of Education’s 2021 proposal for the negotiated rulemaking process would raise the threshold to 200 percent of the federal poverty level. Several bills introduced in Congress would raise the exemption to 250 percent of the federal poverty level ($32,200 for a single person in 2021) from the current 150 percent. A Student Borrower Protection Center proposal would raise the threshold to 400 percent of the federal poverty level ($51,520 for a single person) and include an adjustment based on the borrower’s location. Proponents of these changes argue that the current threshold does not exempt enough of a borrower’s basic living expenses. These proposals do not change the share of income used to calculate payments, leaving it at 10 percent.

Under an exemption set to 250 percent of the federal poverty level, a single borrower with a $35,000 adjusted gross income would see their $131 monthly payment under IDR’s current terms drop to just $23. Payments over the life of the loan would not be high enough to repay the original principal balance on an initial $30,000 loan; the borrower would also have some $25,000 of interest forgiven. A Congressional Budget Office estimate projects the proposal would increase the cost of the IDR program by about $10 billion a year for future cohorts, nearly doubling the program’s cost.

**BOX 1**

**Understanding the Threshold Income Level**

The threshold is the level of income below which no one should be expected to make any payment. Some criticism of the threshold is couched in terms that make it sound as though the threshold is the level of income on which borrowers are expected to live. But if discretionary income is assessed at 10 percent, borrowers have 90 percent of any income above the threshold to devote to items other than student loan payments.
The federal poverty level defines a basic subsistence level. Requiring anyone to add student loan payments to their budget with an income below the federal poverty level would make those payments unaffordable. If the poverty guideline were a reasonable metric for assessing the ability to live at an acceptable basic living standard, using a threshold of 150 percent of the federal poverty level or higher would allow a cushion for spending on basic necessities and provide accommodation for borrowers living in locations with high costs of living and borrowers with unusual demands on their budgets.

The table below shows 2021 income levels below which no payments are required and how those levels would change if the threshold were increased to 200 percent or 250 percent of the federal poverty level. At 250 percent, about half of borrowers who completed associate degrees and about 30 percent of those who completed bachelor’s degrees would have $0 monthly payments, regardless of how much debt they had accrued.

Share of Borrowers Earning below the Alternative Thresholds
By educational attainment

<table>
<thead>
<tr>
<th>Share of FPL</th>
<th>Family size = 1</th>
<th>Some college, no degree</th>
<th>Associate degree</th>
<th>Bachelor’s degree</th>
<th>Bachelor’s degree or higher</th>
<th>Family size = 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>150%</td>
<td>$19,320</td>
<td>39%</td>
<td>31%</td>
<td>20%</td>
<td>18%</td>
<td>$26,130</td>
</tr>
<tr>
<td>200%</td>
<td>$25,760</td>
<td>48%</td>
<td>41%</td>
<td>25%</td>
<td>22%</td>
<td>$34,840</td>
</tr>
<tr>
<td>250%</td>
<td>$32,200</td>
<td>59%</td>
<td>50%</td>
<td>31%</td>
<td>29%</td>
<td>$43,550</td>
</tr>
</tbody>
</table>


Notes: FPL = federal poverty level. Based on 2021 poverty levels and 2020 incomes.

Estimating how much debt borrowers at different income levels would be able to repay in 20 years helps us assess the impact of lowering the share of discretionary income required for payments or the threshold above which payments are required (table 2). For example, under the current system (10 percent of income above 150 percent of the federal poverty level, or “10 percent/150 percent”), a bachelor’s degree recipient with starting income equal to the median for adults ages 25 to 34 with that level of education could pay off about $65,000 in debt over 20 years. If the threshold were raised to 200 percent of the poverty level (10 percent/200 percent), that amount would fall to about $58,000. If the assessment rate were lowered to 5 percent (5 percent/150 percent), that amount would fall to about $33,000. And if both changes were implemented (5 percent/200 percent), a borrower with a starting income of $51,823 could repay about $28,000 of debt over 20 years, with any remaining amounts forgiven.
TABLE 2
Estimated Maximum Debt Paid Off over 20 Years with Alternative Parameters

<table>
<thead>
<tr>
<th>Median income ages 25–34</th>
<th>Estimated Maximum Debt Paid Off in 20 Years with 4% Annual Income Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Starting income 10%/150% 10%/200% 10%/250% 5%/150% 5%/200% 5%/250%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>$32,109 $30,000 $20,000 $10,000 $15,000 $10,000 $5,000</td>
</tr>
<tr>
<td>Associate degree</td>
<td>$36,494 $37,000 $28,000 $18,000 $19,000 $14,000 $9,000</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>$51,823 $65,000 $58,000 $46,000 $33,000 $28,000 $23,000</td>
</tr>
<tr>
<td>Bachelor’s degree or</td>
<td>$55,370 $72,000 $63,000 $52,000 $37,000 $32,000 $26,000</td>
</tr>
<tr>
<td>higher</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
Notes: 10%/150% = 10 percent of income above 150 percent of the federal poverty level. Data are based on a 4 percent interest rate, 4 percent annual income growth, and a 2 percent annual increase in threshold for payments.

With average debt of bachelor's degree recipients at about $30,000, a 5 percent assessment rate and a threshold of 200 percent or 250 percent of the federal poverty level would lead to significant subsidies for a large share of borrowers.

**Raising the threshold versus lowering the assessment rate.** Raising the payment threshold reduces payments by the same number of dollars for all borrowers (except those whose incomes are below the new threshold). With a 10 percent assessment rate, lowering the threshold would reduce all annual payments by 10 percent of, for example, $6,440 (the difference between 150 percent and 200 percent of the federal poverty level for a single individual).

In contrast, lowering the assessment rate cuts payments by the same percentage for all borrowers. Reducing the assessment rate from 10 percent to 5 percent would cut all required payments in half, generating large dollar savings for high-income borrowers and small savings for low-income borrowers, whose payments are already small.

Lowering the assessment rate only on the first dollars of discretionary income would eliminate this problem. For example, borrowers could pay 5 percent of the first $10,000 of discretionary income and 10 percent above that level, reducing payment by $500 a year for all borrowers owing $10,000 or more.
BOX 2
Understanding the Assessment Rate

It is easy to think of 10 percent (the assessment rate) as the share of income borrowers are required to devote to loan payments. But because of the threshold below which income is not assessed, for most borrowers, the required percentage is far lower.

The table below shows the share of income required for borrowers at different income levels in a system with a 10 percent assessment rate and a payment threshold of 150 percent of the federal poverty level.

Effective Assessment Rates on Income in the 10 Percent/150 Percent System

<table>
<thead>
<tr>
<th>Income</th>
<th>Household size</th>
<th>Share of income required</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,000</td>
<td>1</td>
<td>3.6%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>$50,000</td>
<td>1</td>
<td>6.1%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4.8%</td>
</tr>
<tr>
<td>$60,000</td>
<td>1</td>
<td>6.8%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.

A useful approach to setting the threshold might be ensuring that borrowers are at least as well off as if they had not gone to college. In 2020, median earnings for a high school graduate ages 25 to 34 working full time year-round were $37,263, and the median for all high school graduates in this age range was $32,109. These values are 2.2 and 1.9 times the federal poverty level for a single individual that year (Karamcheva, Perry, and Yannelis 2020a). This suggests that using a threshold of 200 percent of the federal poverty level for beginning student loan payments would be appropriate.

Recommendations. The current combination of 10 percent and 150 percent does not lead to unreasonable amounts for debt repayment for most borrowers. But there is a strong argument for raising the threshold to 200 percent of the federal poverty level to ensure borrowers make payments only out of income that exceeds the earnings of typical high school graduates. This could be combined with lowering the assessment rate from 10 percent to 5 percent on the first $10,000 of debt. An alternative would be the approach the Department of Education has proposed, which would make the assessment rate 5 percent on income between 200 and 300 percent of the federal poverty level and 10 percent on the income above that level. To provide borrowers added flexibility for managing financial...
hardships, the program could also allow borrowers to suspend their required payments in IDR for a few months, possibly while continuing to make progress toward loan forgiveness.

**Time to Forgiveness**

Under the current IDR system, borrowers with similar income paths make the same total payments before having remaining balances forgiven, regardless of how much they borrowed (unless they repay in full and end their payments early). This structure is both inequitable and inefficient. Borrowers who choose to work more hours, live at home, or attend a less expensive school to minimize their debt make the same payments as those who borrow (and spend) more while in college.

Adjusting time to forgiveness is a more reasonable structure for IDR than adjusting monthly payment amounts depending on the amount borrowed. The basic principle of IDR is that borrowers should not be asked to pay more than they can reasonably afford but that those who can afford to repay their debts should do so. Asking borrowers with higher debt levels to pay more than they can afford—or expecting low payments that lead to subsidies for borrowers who could afford to repay their debts—violates this principle.

Modifying the system to provide forgiveness more quickly for those with small debts and making time in repayment sensitive to the amount borrowed would both relieve the burden on borrowers with small debts and require borrowers who received (and spent) more federal funds to make more payments before having the balances they cannot afford to repay forgiven.

Such an approach could apply to any level of undergraduate borrowing currently permitted under the federal student loan system. But it would generate very long repayment periods if extended to the debt levels permitted under the Grad PLUS program. Capping the total level of debt eligible for forgiveness, as recommended below, would eliminate this concern and diminish the large share of subsidies now going to those who borrowed for graduate school (Congressional Budget Office 2020).

A system relating time to forgiveness to the amount borrowed could begin with a short repayment period for small debts and add months incrementally as the amount borrowed increases. A borrower with $6,000 of debt might repay for only five years before reaching forgiveness. The time a borrower with the average debt of bachelor’s degree recipients—about $30,000—would have to repay before forgiveness would fall from 20 to 15 years (table 3). Each additional $200 of debt would add one month of payments, and each $200 reduction would shorten the repayment period by one month.
Borrowers with $6,000 of debt earning at least a $28,000 starting income would repay the full amount within the five years before forgiveness. A $40,000 starting income would lead to full repayment of a $30,000 debt after 14 years, as in the current system. But borrowers with lower incomes with $30,000 of debt would have remaining balances forgiven after 15 years.

Borrowers owing $54,000, close to the maximum amount of federal debt for independent undergraduate students, would be in repayment for up to 25 years. Those with starting incomes exceeding $40,000 would repay their entire debts.

### TABLE 3
Years Until Debt Is Either Paid Off or Forgiven

<table>
<thead>
<tr>
<th>Income</th>
<th>Debt</th>
<th>Years in Repayment</th>
<th>Years in Repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current system</td>
<td>Reformed system</td>
<td>Reformed system</td>
</tr>
<tr>
<td>$20,000</td>
<td>$6,000</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>$18,000</td>
<td>20</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>$30,000</td>
<td>20</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>$42,000</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>$54,000</td>
<td>20</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>$66,000</td>
<td>20</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>$40,000</td>
<td>$6,000</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>$18,000</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>$30,000</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>$42,000</td>
<td>19</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>$54,000</td>
<td>20</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>$66,000</td>
<td>20</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
Note: Assumes 4 percent interest, a 2 percent annual increase in the threshold for making payments, and 4 percent annual income growth.

**Recommendations.** Adjust time in repayment before forgiveness to depend on the level of debt.

Loan forgiveness could begin after a short repayment period for small debts and add months incrementally as the amount borrowed increases. Remaining balances on $6,000 debts would be forgiven after 5 years. Borrowers owing $30,000 could have balances forgiven after 15 years, with time to forgiveness adjusted by one month for each additional $200 borrowed.

**Interest**

Under the current system with multiple IDR plans, there is a confusing array of treatments of interest even across different loans held by the same borrower. In some cases, the government forgives all or some of the unpaid interest each month. In some cases, the unpaid interest accrues but is not capitalized into the loan principal, so the borrower does not have to pay interest on that interest. In other cases, the
interest is capitalized and is treated as though it were an additional amount borrowed. In some cases, the amount capitalized is limited to 10 percent of the loan principal. This array of options cannot be optimal.

Observers have offered various proposals to prevent borrowers from seeing their balances grow because their required monthly payments do not cover the interest charged. One suggestion is to make the REPAYE program—which forgives all unpaid interest on subsidized loans for three years and half of all other unpaid interest each month—the standard (Cheng and Thompson 2017). Other suggestions include eliminating interest or eliminating the capitalization of interest.

Potential strategies for addressing unpaid interest include the following:

- Change the treatment of unpaid interest that can accrue because required payments do not cover interest charges.
  - Allow interest to accrue but never capitalize it into the principal so borrowers never pay interest on the interest.
  - Limit the interest that can accrue (or capitalize) to a specified share of the original amount borrowed.
  - Forgive a specified share or dollar amount of monthly interest the required payments do not cover.
  - Forgive all interest when monthly payments are $0 (or below some other level).

- Change the interest rates charged.
  - Lower the interest rate charged. It could be as low as 0 percent or 0 percent real (beyond the rate of inflation).
  - Make the interest rate on loans variable so borrowers will not pay interest rates higher than those prevailing in the economy if they happen to have borrowed when interest rates were higher.
  - Charge interest only on debt above a certain level. (For example, 0 percent interest on the first $10,000 of debt, 1 percent on the next $10,000, and so on, up to the standard levels being charged.)

TREATMENT OF INTEREST CHARGES
It may seem appealing to forgive the interest monthly payments do not cover, but this would lead to large subsidies for borrowers with high levels of debt, even if they have relatively high incomes or
temporarily earn low incomes but earn high incomes later in their repayment terms. IDR requires borrowers to pay for a set amount of time before loan forgiveness to prevent borrowers whose debts are only temporarily unaffordable from receiving loan forgiveness. Forgiving interest makes no such distinction because it works like immediate loan forgiveness.

**TABLE 4**
Income Required to Cover Interest Payments in the 10 Percent/150 Percent IDR System

<table>
<thead>
<tr>
<th>Debt</th>
<th>Monthly interest</th>
<th>Income required to cover interest payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10,000</td>
<td>$25</td>
<td>$22,320</td>
</tr>
<tr>
<td>$20,000</td>
<td>$50</td>
<td>$25,320</td>
</tr>
<tr>
<td>$30,000</td>
<td>$75</td>
<td>$28,320</td>
</tr>
<tr>
<td>$40,000</td>
<td>$100</td>
<td>$31,320</td>
</tr>
<tr>
<td>$50,000</td>
<td>$125</td>
<td>$34,320</td>
</tr>
<tr>
<td>$60,000</td>
<td>$150</td>
<td>$37,320</td>
</tr>
<tr>
<td>$70,000</td>
<td>$175</td>
<td>$40,320</td>
</tr>
<tr>
<td>$80,000</td>
<td>$200</td>
<td>$43,320</td>
</tr>
<tr>
<td>$90,000</td>
<td>$225</td>
<td>$46,320</td>
</tr>
<tr>
<td>$100,000</td>
<td>$250</td>
<td>$49,320</td>
</tr>
<tr>
<td>$150,000</td>
<td>$375</td>
<td>$64,320</td>
</tr>
<tr>
<td>$200,000</td>
<td>$500</td>
<td>$79,320</td>
</tr>
</tbody>
</table>

Source: IDR = income-driven repayment.

Moreover, borrowers with graduate debt will receive the largest monthly subsidies, and they can receive these benefits even if they earn enough to pay off their debts before loan forgiveness. For example, a borrower with $200,000 of debt and a $50,000 income would have $244 in interest forgiven monthly, far more than the subsidy any undergraduate borrower would receive because undergraduates have loan limits and lower balances. Medical students in residency programs, who will likely earn enough to repay their debts, are often advised to use REPAYE to have interest forgiven while their earnings are temporarily low.\(^{35}\)

Forgiving interest charges for borrowers with $0 IDR payments sounds like a subsidy for borrowers whose incomes are at least temporarily low. But borrowers with incomes just above the payment threshold would still see their balances grow and would be significantly worse off than those with slightly lower incomes whose interest would be forgiven (table 5).
TABLE 5
Forgiving Interest for Borrowers with $0 Payments

<table>
<thead>
<tr>
<th>Debt</th>
<th>Monthly interest (4%)</th>
<th>Income</th>
<th>Payment</th>
<th>Interest charged</th>
<th>New balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20,000</td>
<td>$66.67</td>
<td>$19,000</td>
<td>$0</td>
<td>$0</td>
<td>$20,000</td>
</tr>
<tr>
<td>$20,000</td>
<td>$66.67</td>
<td>$20,000</td>
<td>$6</td>
<td>$67</td>
<td>$20,061</td>
</tr>
</tbody>
</table>

Source: Authors' calculations.

Recommendations. It is hard to argue that continuing to capitalize unpaid interest is worth the frustration it causes borrowers. Eliminating the practice would have only a small impact on costs to the government and what borrowers are required to pay. For example, a borrower with $30,000 of debt and a 4 percent interest rate who makes no payments for 10 years would accrue about $12,000 of interest, ultimately owing $42,000. If the interest is capitalized annually, that borrower will owe an additional $2,407 at the end of 20 years. We need a better solution.

A well-targeted subsidy would forgive up to a certain dollar amount in unpaid interest each month. Setting forgiveness in terms of dollars instead of percentages of interest owed prevents awarding the largest subsidies to borrowers with the highest debt levels, who generally have the highest levels of education. For example, the government could forgive up to $50 a month in unpaid interest. This would be up to the full interest charged on a $20,000 debt. Other unpaid interest could accrue but not be capitalized into the principal.

SETTING INTEREST RATES
A related question is whether the federal government should charge interest at all on its loans and, if so, how high that interest rate should be. Zero percent nominal interest rates would involve very large subsidies to graduate school borrowers, unless the amount they are allowed to borrow from the federal government is limited, as it is for undergraduate borrowers. One possibility is to charge 0 percent real interest (accounting for inflation).

Interest-free loans provide larger subsidies the more a student borrows. All students would have an incentive to borrow as much as possible. If they invested the money—even if they put it in a savings account—they would profit from the loans. Limiting unpaid interest is, therefore, a better approach.

Graduated interest rate. Charging 0 percent interest on the first $10,000 of debt and gradually increasing the interest rate on additional borrowing would prevent ballooning loan balances for low-income borrowers who have small amounts of debt without generating outsized subsidies for graduate school borrowers. With a 4 percent interest rate, borrowers with $10,000 of debt and $0 monthly
payments for 20 years would owe about $11,000 (about $8,000 when payments are discounted 3 percent annually) in interest in addition to the full loan principal by the time they reached forgiveness (appendix table A.1). Under the graduated interest rate system, borrowers would not owe interest and would still owe just the original $10,000. If these borrowers made $100 monthly payments, they would pay off their debt in 11 years, having paid about $2,400 in interest (or, discounted, about $2,100) with a flat 4 percent interest rate. Under the graduated plan, they would repay in 9 years with no interest.

Interest charges would be significantly lower for all undergraduate borrowers, and even with a maximum 5 percent interest rate on balances above $50,000, borrowers with $100,000 of debt would pay slightly less than with a 4 percent flat interest rate.

It might be more difficult for borrowers to understand a graduated interest system, but eliminating interest accrual without making large no- or low-interest loans to students without regard to their financial circumstances is likely worth the trade-off.

**Fixed or variable interest rates?** Aside from the controversy over where to set the interest rate—which is beyond the scope of this report—it is appropriate to question the long-standing approach of fixing student loan interest rates, even as the rate on new loans changes each year with market conditions. The debate about refinancing student loans would be unnecessary if interest rates were variable, adjusting each year to the rate being charged on new loans.

The downside of this approach is that borrowers would not know in advance exactly how much they would be expected to repay. Under the standard 10-year payment plan, this is a problem because either monthly payments would have to increase or the 10 years would have to be extended if interest rates rose. But under IDR, this is less of a problem. Monthly payments do not depend on the interest rate. And the repayment term is not fixed—except for the amount of time before forgiveness, which would not have to change.

**Recommendations.** Forgive up to a fixed dollar amount of interest each month (e.g., $50) for IDR borrowers whose required monthly payments do not cover their interest charges.

Allow unpaid interest to accrue but not be capitalized into the principal.

Make the interest rate on student loans variable so all borrowers with outstanding debt pay the same interest rate each year as new borrowers. This policy could include a cap on the interest rates charged on student loans.
Graduate and Undergraduate Debt

The current IDR system treats undergraduate and graduate debt similarly, with the exception of the 25-year time to forgiveness for graduate borrowers under REPAYE. The effective lack of limits on the PLUS loans available to graduate students and the debt they can enroll in IDR leads to large potential subsidies for graduate borrowers relative to undergraduate borrowers. Addressing the treatment of graduate student debt is a critical part of reforming the IDR system.

The approach in REPAYE creates a sharp cliff. A borrower with $50,000 of undergraduate debt and $5,000 of graduate debt must repay for an additional five years because of the extra $5,000. Two borrowers with similar debt levels, one of whom borrowed for undergraduate school and the other of whom avoided that debt but borrowed for graduate school, can end up with quite different repayment obligations. It would be more logical and equitable to base time to forgiveness on the level of debt.

Allowing the basically infinite amount of Grad PLUS debt to be enrolled in IDR makes some solutions that might work well for lower levels of debt unworkable.

President Donald Trump included a proposal in his budget request to Congress under which undergraduates would qualify for loan forgiveness after 15 years of payments but graduate borrowers would qualify after 30 years (US Department of Education 2017). The Project on Student Debt (part of The Institute for College Access and Success) also proposed a shorter, 15-year loan forgiveness term for undergraduates in its original 2006 papers outlining what became the first IBR program (Shireman et al. 2006). But these policies create sharp distinctions (cliff effects) in the amount repaid among students who borrowed similar amounts to finance their postsecondary education.

Recommendations. Eliminate the longer time to forgiveness for borrowers with any graduate debt currently in REPAYE. Instead, use longer repayment rates for higher debt levels to increase the payments of many graduate students. Limit the amount of debt graduate or undergraduate borrowers can enroll in IDR.

Treatment of Married Borrowers

Some IDR plans consider only the borrower’s income—and not a spouse’s income—in setting payment levels if the couple files income taxes separately. The REPAYE program eliminates this provision.

As is the case with the income tax system, any structure will involve inequities. If payments are set without regard to the spouse’s income and debt levels, borrowers in single-earner families may escape
repayment, despite high household income levels. If payments depend on joint income, borrowers with high levels of debt and low incomes may face a significant marriage penalty.

Some countries treat all adults as individuals for tax purposes, but not the US. Only 6 percent of married couples file their taxes separately. This would make it infeasible to run an IDR system based on the individual income levels of married borrowers.

**Recommendation.** IDR payments should be based on the combined incomes of married couples and their combined federal student loan amounts, with payments credited proportionately to their debts.

### Parent PLUS Loans

Current policy excludes parent loans from IDR, with the exception that ICR (the least generous plan) is available if these loans are consolidated. Some proposals recommend allowing Parent PLUS borrowers regularly to participate in any IDR plan. The logic behind IDR does not apply to parents, whose ability to repay is not a function of the return on investment in education (Baum, Blagg, and Fishman 2019). Forgiving parent debt is not an acceptable substitute for increasing Pell grants. And parents should not be encouraged to borrow with the expectation of forgiveness if they anticipate low incomes, either because of low current earnings or plans to retire.

**Recommendations.** Do not allow IDR to include loans to parents. Increase Pell awards to reduce the loan burden on future parents. Consider forgiving PLUS debt for parents who received these loans when their incomes were at or near the federal poverty level on the grounds that the federal government should never had made these loans.

### Public Service Loan Forgiveness

In addition to the obvious problem that such a small share of borrowers who think they have met the requirements have been approved for forgiveness under PSLF, the program’s structure is problematic.

Some recent adjustments should be made permanent, such as those that expand eligible payments to more loan types to address borrowers inadvertently failing to qualify for PSLF. Bureaucratic errors should not prevent borrowers from qualifying for forgiveness.

But the program should continue to require repayment through IDR. Borrowers can repay through an extended repayment plan that requires smaller payments than they would make in IDR, but these payments do not count for PSLF (except temporarily under a waiver). Allowing these payments to count
for PSLF lets borrowers qualify for more loan forgiveness when their incomes would otherwise have prevented that outcome.40

If the IDR system is reformed and works well, a separate system of public service loan forgiveness should not be necessary. It will always be difficult to define which jobs qualify and which do not. Should a school social worker be excluded because the school contracts out social work to a for-profit company? Should an accountant employed by a nonprofit hospital qualify? Only a clear legal distinction such as employer tax status will avoid ambiguous definitions, but the division will never be between those doing “public service” and those whose employment has less social value.

Given the low likelihood of eliminating PSLF as a separate program, it is worth improving the program by moving from total forgiveness after 10 years to gradual forgiveness. Borrowers who devote 3 or 5 years to public service deserve some subsidy if a large subsidy is available to others after 10 years.

The system should gradually forgive fixed dollar amounts. For example, all borrowers in qualifying employment could receive $5,000 of forgiveness after two years. This system would be more equitable than forgiving a fixed share of debt each two years, allowing high-debt borrowers to receive large subsidies quickly.

Recommendations. Simplify the definition of qualifying work for PSLF so it is based on clear legal criteria, eliminating ambiguity about which jobs qualify.

Forgive, for example, $5,000 of debt after each 2 years of public service. (It would still be possible to forgive all remaining debt after 20 years of qualifying work.)

Can the Individual Plan Modifications Stand on Their Own, or Do They Require a Redesigned System?

The most obvious policy change that would ease the implementation of other improvements to IDR is to limit the amount of debt students can enroll in the program or limit how much students can borrow for graduate and professional education. Removing outsized subsidies to borrowers with hundreds of thousands of dollars of graduate debt would make it more feasible to subsidize unpaid interest, implement an adjustable time to forgiveness, and strengthen PSLF for other borrowers.
Decisions about lowering the assessment rate cannot be separated from decisions about the income threshold for making payments. But the other recommendations included here would improve the system even if made alone.
Conclusion

A student loan repayment system that bases required payments on borrowers’ current circumstances could significantly mitigate the difficulties associated with unaffordable education debt. Despite its high average rate of return, higher education does not pay off well for everyone, which makes insurance against poor outcomes a critical component of a system offering meaningful educational opportunities. An IDR system aims not to eliminate responsibility for repaying borrowed funds but to allocate subsidies to borrowers whose postcollege financial circumstances do not support full repayment—supplementing a grant system that bases subsidies on precollege circumstances.

The IDR system’s development has been characterized by piecemeal reforms that have created a complicated, poorly functioning system that leaves too many borrowers in untenable circumstances, even while it generates large and growing costs to taxpayers and sizeable subsidies to some borrowers in strong financial situations.

Successful system reform will involve a comprehensive review that considers the interaction of program elements and focuses on equity across borrowers and between borrowers and taxpayers. The goal cannot be simply to lower expected payments. Payments must be manageable, and subsidies must be distributed equitably and efficiently.

Most borrowers should fully repay their loans, but those who cannot repay should be relieved of this responsibility in a timely manner. Borrowers in similar circumstances should receive similar treatment, and subsidies should depend on those circumstances. Borrowers who took out larger debts should repay more than borrowers in similar financial circumstances who received less federal money to finance their education.

The student loan repayment system should be simple to understand and easy to navigate. Some of the recommendations in this report may add complexity to the system. There might be more than one interest rate on the debt students take out, and borrowers may not be able to predict how long they will have to repay before reaching forgiveness until they know the total amount they will borrow over their academic careers. But ensuring that such approaches are designed in the most straightforward way possible and explained clearly can ensure that the advantages outweigh any added confusion.

Grants and direct appropriations are better mechanisms for broad-based subsidies than loan forgiveness. Providing aid before the bills come due diminishes the barriers students with limited resources face in financing college without creating complicated and difficult requirements after they
leave school. Grants are based on students’ circumstances before and at the time of college enrollment. They are transparent and easy to understand.

Income-driven repayment allows some subsidies to be based on financial circumstances after college. Regardless of the circumstances in which they started out, borrowers whose education did not pay off financially need support. But borrowing is not in and of itself a reasonable criterion for distributing subsidies, particularly in a system that provides the same amount of credit to all students, regardless of their financial circumstances.

Most design features have strengths and weaknesses. No system will be perfect. But the following design elements would significantly strengthen the income-driven repayment system:

- **Program structure**
  - Automatically enroll borrowers in a single income-driven repayment plan.
  - Work toward an efficient system of payroll withholding to facilitate monthly payments.
  - Maintain an accessible appeal process to serve students with unusual financial obligations other than federal student loans.

- **Payment provisions**
  - Set the threshold for requiring any payments at 200 percent of the federal poverty level based on household size.
  - Require payments of 10 percent of income above the threshold, possibly with a 5 percent rate on the first portion of income above the threshold.
  - Combine both the incomes and the debts of married borrowers to determine required payments.
  - Link time in repayment to the starting debt level, allowing borrowers with small amounts of debt to quickly reach forgiveness if their incomes do not support debt repayment.
  - Charge no or low interest on the first dollars of debt.
  - Forgive up to a fixed amount of interest (e.g., $50) not covered by payments each month to slow the increase in balances for low-income borrowers.
  - Base payment requirements on total amount borrowed, not whether the funds were borrowed for undergraduate or graduate study.
  - Limit the amount graduate students can borrow from the federal government or the amount of debt borrowers can enroll in IDR.
  - Do not include Parent PLUS loans in IDR.
» Modify PSLF to forgive a fixed amount of debt (e.g., $5,000) for every two years of qualifying public service employment.
## TABLE A.1
Graduated Interest Rate

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<th>Debt</th>
<th>Simple Sum 4%</th>
<th>0% to 5%</th>
<th>Discounted at 3% 4%</th>
<th>0% to 5%</th>
<th>Amount Forgiven 4%</th>
<th>0% to 5%</th>
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<table>
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<th>Debt</th>
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<th>Discounted at 3% 4%</th>
<th>0% to 5%</th>
<th>Amount Forgiven 4%</th>
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</tbody>
</table>

Source: Authors’ calculations.

Note: The 0 to 5 percent option is 0 percent on the first $10,000 of debt, 1 percent on debt between $10,000 and $20,000, 2 percent between $20,000 and $30,000, 3 percent between $30,000 and $40,000, 4 percent between $40,000 and $50,000, and 5 percent on debt above $50,000.
Notes

1 The US Department of Education has not lowered its projection of lifetime default rates since the advent of more widely available and more generous IDR plans, even as enrollment in these plans has swelled. For example, in the fiscal year 2008 budget, the department projected a lifetime default rate of 16.7 percent for the Direct Loan Program. The same documents for the fiscal year 2019 budget show that the agency projects the same lifetime default rate (16.7 percent) for loans issued in recent years. See OMB (2008, 2019).


4 Precise data on the share of borrowers successfully recertifying their incomes on time are not available. Estimates from federal sources range from 32 percent to 69 percent (Conkling and Gibbs 2019, 41). A Consumer Financial Protection Bureau analysis suggests that about 40 percent of those who do not recertify are successfully making payments in another plan six to eight months later. About a quarter have managed to recertify by this time, and about one-third are in forbearance, are in deferment, or are delinquent (Conkling and Gibbs 2019, 42).

5 Borrowers are categorized as repaying through IDR if they enrolled in an IDR plan in their first or second year of repayment.

6 Under the National Defense Student Loan program, introduced in 1958, the repayment period was 11 years, and a graduated payment plan was available.

7 In 1986, the federal government initiated a demonstration income-contingent program at 10 postsecondary institutions. The project never achieved much support from students, colleges, or policymakers and was terminated with the 1992 amendments to the Higher Education Act (Noell and Rhind 1994).

8 A 1968 National Tax Journal article (Shell et al. 1968) analyzed the idea of an Educational Opportunity Bank that would make loans to students in exchange for the pledge of a given percentage of annual gross income for a fixed number of years after graduation. The share of income charged would depend on the amount borrowed. The program would be coordinated with the federal income tax, minimizing costs of collection and making it feasible to collect income-contingent repayments over 30 or 40 years.

9 In 1986, the federal government initiated a demonstration income-contingent program at 10 postsecondary institutions. The project never achieved much support from students, colleges, or policymakers and was terminated with the 1992 amendments to the Higher Education Act (Noell and Rhind 1994).

10 Student Loan Reform Act of 1993, S. 920, 103rd Cong. (1993); and Hearing of the Committee on Labor and Human Resources to Amend the Higher Education Act of 1965, 103rd Cong. (1993).

11 For example, the National Commission on Responsibilities for Financing Postsecondary Education, which was established in federal law, issued a report to inform discussions around student loan reform in 1993. Although the final report discusses income-contingent loans, it never mentions loan forgiveness (Kramer et al. 1993). A collection of essays written by individuals involved in creating the Direct Loan Program in 1993, including members of Congress, mentions loan forgiveness in connection with public service, per President Clinton’s proposal, but never as a broad feature of income-contingent repayment (Jennings 1994).
The Department of Education estimated at the time that 12 percent of borrowers using ICR would reach the 25-year repayment term and have debt canceled (Schenet 1995).


Relative to ICR, the wage garnishment rule allowed borrowers to exempt more of their income from the payment calculation, and payments were set at 15 percent of income above the exemption, compared with ICR’s 20 percent rate. The paper also argued that an income-based repayment option should be available in both loan programs, not just the Direct Loan Program, as was the case for ICR. Borrowers in the Federal Family Education Loan Program could not use ICR unless they filled out paperwork to move their loans into the Direct Loan Program.


The new IBR program was also available to borrowers in the Federal Family Education Loan Program, which Congress ended in 2010.

Another feature in the program applies only to subsidized Stafford loans. Borrowers whose payments do not cover the interest on these loans each month have that interest forgiven, but this benefit lasts only three years, after which interest does accrue.


All interest is forgiven on subsidized loans for three years.


This information is derived from two sources. One source was provided by the US Department of Education in response to questions Senator Patty Murray (D-WA) submitted to former education secretary Betsy DeVos following 2019 Senate testimony. (A copy of the document is available from the authors upon request.) It shows that for borrowers using REPAYE, average payments are $91. This plan sets payments at 10 percent of discretionary income and thus is a useful proxy for typical payments in IDR. But the mix of borrowers enrolled in the plan may differ from the overall mix across all IDR plans. The second source is a document provided by the US Department of Education during a 2016 conference. It shows that across all IDR plans in 2016, average payments were $154 a month; for borrowers with the largest debt-to-income ratios in those plans, payments were $92 a month (Foss and Hoblitzell 2016). Conkling and Gibbs (2019) found that payments averaged $97 a month.

A Congressional Budget Office (2020) report shows that eliminating PSLF would reduce federal spending by $2.8 billion annually.

This figure reflects an estimate from an early draft of the bill that ultimately won passage. That version differed slightly with respect to PSLF. The Congressional Budget Office provided an itemized score for only the draft (the College Cost Reduction and Access Act of 2007, H.R. 2669), not the final bill. The cost cited here is the sum of both IDR and the PSLF benefit lines from the score and is the annual average cost (Kalcevic et al. 2007).

These estimates do not account for the offsetting effect of any tax revenue the government collects from forgiven debt under the program because budgeting conventions treat tax and spending estimates separately (Karamcheva, Perry, and Yannelis 2020a). The Department of Education recently reduced income projections for IDR enrollees by 35 percent based on an analysis of borrowers’ actual incomes (FSA 2020).

Forgiveness amounts exceed the annual budgetary costs, which are net of interest payments borrowers make while enrolled in IDR.


ICR’s balance-based payment formula could produce a payment lower than any of the other plans if the borrower has less than $35,000 of debt. For example, the borrower earning $50,000 a year would pay about $160 a month if their loan balance is $20,000 and their interest rate is 4.5 percent. But once their debt exceeds about $35,000, their payment would be higher than required under the 10 percent payment formula under IBR or PAYE.

The example assumes 2 percent inflation, 4 percent annual income growth, a 4 percent interest rate, and a single individual in the household.

We obtained this unpublished estimate that was provided to committee staff members. It is available upon request. This figure excludes the additional cost of making Direct PLUS Loans for parents eligible for IDR. That provision would add $2 billion to the proposal’s annual cost.


As noted earlier, the IDR plans include different features to mitigate some of this effect, but the features are limited to certain loans, or are time limited, or do not apply to all accruing interest. The Biden proposal would add yet another feature to limit interest accrual. Borrowers who do not need to make payments in the new plan...
would have all accruing interest waived on their Subsidized Stafford loans, a subset of undergraduate loans (OPE 2021).


36 Borrowers with variable-rate mortgages see their monthly payments change when the interest rate on the loan adjusts. The share of homeowners choosing this form of financing was as high as 70 percent in the mid-1990s (Moench, Vickery, and Aragon 2010) but is now about 10 percent (Michele Lerner, “Adjustable Rate Mortgages Are Becoming More Popular with Buyers,” Washington Post, February 14, 2019, https://www.washingtonpost.com/business/2019/02/14/adjustable-rate-mortgages-are-becoming-more-popular-with-buyers/).

37 IRS Statistics of Income 2020, table 1.3.


References


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