Balancing Risk and Responsibility

Reforming Student Loan Repayment

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Executive Summary

As federal student loan debt has grown, policymakers have put forward a number of ideas designed to help struggling borrowers keep up with their monthly payments. Many certainly need the help; nearly a quarter of federal loan borrowers will default over the life of their loan, and estimates suggest that five-year default rates among the latest cohort of students reached almost 30 percent.

However, the urgency to do something has led policymakers to put forward shortsighted and ill-conceived reforms that are appealing on the surface but fail to effectively address these challenges. The goal of this paper is therefore to step back from the overheated rhetoric and more clearly articulate potential solutions to the problems many student borrowers face.

We argue that because higher education is an expensive and risky investment that lacks collateral, federal loan programs should feature common-sense protections that safeguard borrowers from downside risk. Unfortunately, the existing array of protections and repayment plans comes up short. Borrowers in need of assistance face a number of complicated options and bureaucratic hurdles, and many continue to fall through the cracks. Furthermore, poorly designed loan forgiveness and interest-subsidy policies provide (or would provide) significant benefits to the borrowers with the largest debts, many of whom are not at risk of default. Recent proposals to help student borrowers might actually encourage tuition inflation, thereby ensuring that more borrowers need help in the future.

The paper goes on to argue that properly designed income-driven repayment (IDR) plans offer a better path forward because they ensure borrowers have manageable payments while targeting aid to those who need it. However, existing federal IDR plans have several shortcomings that limit their effectiveness: generous loan forgiveness creates significant moral hazard; low-income borrowers may experience negative amortization; and the plans impose significant administrative burden on borrowers, which likely deters many from using them.

Income-driven plans could be improved, however. In the paper, we consider a number of ideas that have not received sufficient attention:

- Conditioning loan forgiveness on the amount borrowed—that is, making high-debt borrowers pay for longer—would alleviate some of the concerns associated with moral hazard.

- Basing the percentage of income that borrowers must pay on how much they borrow could have a similar effect.

- Replacing interest rates with a one-time loan surcharge would make repayment more predictable and could address policymakers' concerns about both interest accrual and forgiveness.

- Capping the amount of interest that can accrue on a loan is another option policymakers should include in their toolbox.

Fundamentally, income-driven plans offer the most promise in terms of aiding borrowers at risk of default, but we must learn from the flaws in the current system. The current options fall short not because they are income driven but because they are poorly designed. It is possible to design such plans so as to protect borrowers while avoiding perverse incentives for borrowers and institutions. The reforms discussed here represent one set of tools policymakers can consider in creating a repayment system that is effective and fiscally responsible.

Balancing Risk and Responsibility: Reforming Student Loan Repayment

The media is awash with stories about student loan borrowers struggling to repay their debts. A CNN Money article from March 2015 tells the story of Rhea, who at 26 years old had $54,000 in student loan debt from her undergraduate degree—an obligation that consumes half of her paycheck as a production assistant at a television studio.[1] In May 2012, a "Degrees of Debt" series in the *New York Times* profiled Kelsey Griffith, a recent graduate of Ohio Northern University with $120,000 in student loans.[2] And a 2011 piece by Business Insider describes how Steve went $100,000 into debt for a game art and design program that did little to prepare him for a career in video-game design.[3] Every week, it seems, we hear a new story about a former student with crippling debt.

Because the federal government holds or backs most of the $1.2 trillion in outstanding student loan debt, policymakers are scrambling to solve what many see as a student loan crisis.[4] The most prominent effort is the Obama administration's repeated expansion of federal income-based repayment (IBR) programs, which allow qualified borrowers to tie loan repayment to their income. This patchwork collection of programs got its start in the mid-1990s and has gradually expanded, culminating in President Obama's Pay as You Earn (PAYE) program, under which borrowers are able to cap their monthly payments at 10 percent of their discretionary income. Any debt outstanding after 20 years is then forgiven (10 years for those in public-sector jobs, including most nonprofit organizations).[5]

Others have suggested that high interest rates are the problem and have called for lowering rates on all new federal loans and allowing existing borrowers to refinance at current federal loan rates. Sen. Elizabeth Warren (D-MA) has championed both ideas in Congress, and they are now a key piece of Hillary Clinton's higher education plan. As is often the case, all these solutions have been or would be grafted on top of an existing array of repayment options and protections already available to federal borrowers.[6]

Unfortunately, urgency and anecdote often lead to shortsighted policymaking, and these proposals are no exception. To be sure, data do suggest that an increasing number of borrowers are failing to repay their loans. The official, three-year cohort default rate has declined somewhat, but the Department of Education estimates that nearly seven million borrowers have not made a loan payment in 360 days.[7] A recent paper from the Brookings Institution found that the five-year default rate among borrowers who entered repayment in 2009 was 28 percent; at for-profit and two-year public colleges, it was 47 percent and 38 percent, respectively.[8]

In proposing solutions, however, policymakers have not done enough to carefully articulate the goals—as well as potential costs and unintended consequences—of the various approaches to helping those who struggle to repay their loans. As a consequence, debt-relief ideas are often ill-conceived, designed in such a way that they simultaneously benefit many students who do not need help while failing to actually help those who do.[9] In addition, protections that look effective to existing borrowers may well affect the behavior of others, encouraging prospective students to borrow more than they ought to and enabling colleges to raise tuition even further. Finally, given the size of the loan program, debt-relief efforts have significant fiscal consequences, something policymakers are rightfully concerned about in an era of tight budgets.

In this brief, we take a step back from the flurry of reform proposals, which seem to emerge every month,

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and instead flesh out some important questions and assumptions policymakers often seem to take for granted. We start by identifying the goals that policymakers are—or should be—pursuing with respect to struggling borrowers. In short, we argue that policymakers should aim to help students avoid default in a way that is fiscally responsible and minimizes perverse incentives for students and institutions. In light of these goals, we then examine current protections available to borrowers—such as forbearance, deferment, and the variety of repayment options—and conclude that, in theory, income-driven plans that link borrowers' monthly payments to an affordable percentage of their income are the most effective mechanism to protect borrowers from downside risk.

Critically, though, we also explore how *existing* income-driven repayment plans are poorly designed to help those who are truly struggling in a fiscally responsible way. The last section of the paper therefore focuses on reform ideas for income-driven repayment that have received far too little attention in the current debate.

Defining the Problem: The Risk of Borrowing for Higher Education

Why do borrowers need protections at all? Because investing in education is uniquely risky relative to other types of consumer borrowing. Four characteristics of borrowing for higher education stand out.

1. **Students are borrowing against an uncertain future income—not current income.** Most personal loans—mortgages, car loans, credit cards—evaluate borrowers based on their current ability to pay. But students borrowing for higher education are betting on their future income, which can be highly uncertain. While the returns to a college degree remain robust on average, the payoff is highly variable across students and programs of study. One recent analysis estimated that bachelor's degree holders in the 25th percentile of the earnings distribution among college graduates earned no more than high school graduates and have not since the 1970s.[10] The payoffs attached to different fields of study also vary considerably and can be heavily influenced by macroeconomic trends.[11] And, most importantly, it is difficult for students to detect these differences a priori.

2. **Education investments are unsecured.** Loans that finance a home or car purchase come with physical collateral the bank can repossess in the event of default, freeing the borrower from the obligation but damaging his or her credit. Education has no such collateral; the lender cannot repossess a student's education. Short of bankruptcy, which is difficult to obtain with student debt, a student borrower has essentially no means to escape a student loan obligation that he or she cannot afford to repay.

3. **Education is expensive.** One analysis shows that four-year college graduates who borrowed to attend college in 2015 left school with an average of $35,000 in student loan debt, not too far from the average first-year salary among college graduates ($45,000).[12] Graduates who experience lower earnings than expected can find it difficult to afford standard monthly payments on debts of that size; dropouts may have difficulty keeping up with payments on much smaller balances. In the worst cases, borrowers will not keep up with interest, causing their loan balances to balloon over time.

4. **The payoff from education can be long-term and volatile.** Even if a borrower does well overall, the payoff from a degree can occur over a very longtime horizon, with individuals frequently earning less initially and more as they progress in their career. Furthermore, that payoff can involve many bumps along the way, such as periods of unemployment, unexpected job changes, or lower-than-expected earnings.[13] This is especially true during an individual's early years in the labor market.[14]

In short, students pursuing higher education are making a large and risky investment, one that lacks any collateral that could help cushion the shock if the investment does not pan out.

How should federal policy protect borrowers, if at all, in light of these risks? First, we should clarify what we mean by "struggling borrower." After all, many students are dissatisfied—even anxious or uncomfortable—with the debt they have amassed. But it is important to identify the outcomes repayment reforms are trying to avoid.

Who counts as having trouble repaying? While researchers have proposed different benchmarks, we define struggling borrowers as those who cannot afford their monthly payments while still affording basic necessities such as food, housing, and transportation.[15] Others will have slightly different definitions, but our arguments are applicable to many alternatives.

Even with better front-end tools in place, however, investing in higher education is still both risky and, on average, worthwhile.

More controversial, of course, is the question of how best to help borrowers who may wind up in those circumstances. Some argue that the best protection is no protection at all.[16] If borrowers knew the consequences of making a bad investment, perhaps they would invest more carefully. That may well be true, but there are trade-offs to this approach.

First and foremost, the risks of taking on debt under these terms would deter some students who have a good chance of being successful from enrolling at all. Some evidence suggests that students are already quite debt averse when it comes to student loans.[17] Rolling back protections may increase the incidence of debt aversion, leading some to underinvest.

Meanwhile, in the absence of any protections, students who do borrow would risk defaulting from even temporary spells of low earnings, many of which are a function of macroeconomic conditions. Collecting on defaulted loans, in turn, costs the government money. And borrowers who earn a poor return on their educational investment may be unable to keep up with accruing interest, putting them in an increasingly deep hole and further raising the probability of default.

To be clear, policymakers should take steps on the front-end to limit this risk. Providing students with better information about the costs and outcomes of different programs, for instance, would help students avoid bad investments. Policymakers could also give institutions greater incentive to help students complete a degree by holding institutions accountable for loans that go bad.[18] These ideas, and others, would help students avoid poor investments from the start and create greater incentive for institutions to contain their costs.

Even with better front-end tools in place, however, investing in higher education is still both risky and, on average, worthwhile. As University of Virginia economist Sarah Turner has argued, enrolling in college is akin to "signing up for a lottery with large expected gains."[19] As such, a complementary approach to front-end reforms would seek to limit the downside risk of borrowing for higher education through the repayment process. That means consciously building policies that protect borrowers facing temporary setbacks and those who persistently struggle throughout their working life.

In doing so, though, policymakers must acknowledge two important caveats. First, providing some protection for borrowers does not mean holding those borrowers harmless when their education does not pan out. Said differently, policymakers must avoid offering protections so generous that they encourage imprudent borrowing.

Second, policymakers should be sure to target any safeguards to those borrowers who truly need the help. Targeting would help those at risk of default. It would also ensure that debt-relief plans do not jeopardize funding for other, more important priorities—such as grant aid for qualified low-income students who are striving for a higher level of education.[20]

Current Tools to Help Struggling Borrowers

Unfortunately, existing federal efforts to facilitate repayment have strayed far from these goals in important ways. Policymakers have added a number of well-intentioned protections in a haphazard and short-sighted manner. As a result, these options often provide too little help to the worst off, benefit borrowers who

do not need it, and undermine students' incentives to borrow responsibly. At best, these policies are wasteful and ineffective; at worst, they risk the system's sustainability for future generations.

What protections already exist? By default, federal student loan borrowers repay under a 10-year repayment plan with fixed payments that are large enough to repay their principal with interest over 10 years. Borrowers have a range of other repayment plans to choose from as well, including numerous deferment and forbearance options.[21] Because the terms for these plans and options are complex, this section does not attempt to describe each option in detail but instead outlines the main thrust of each.

Traditional Repayment Plans. Federal loan borrowers can currently extend the term of repayment for up to 30 years, depending on the level of debt.[22] Additionally, the graduated repayment plan allows a borrower to make fixed payments that are lower initially and then grow over time, such that he or she repays the loan over its term.[23]

This type of flexibility is important because education is typically a long-term investment and, in many cases, does not pay off evenly over time. Thus, forcing borrowers to make fixed payments over a short time horizon can lead to unnecessary economic hardship. However, these plans still do not guarantee affordable payments and, because they simply push a student's obligation further into the future, offer limited help to those with persistently low earnings throughout their working life.

Forbearance and Deferment. Borrowers can also elect to defer repayment or enter into forbearance, both of which temporarily suspend a borrower's payment obligation during periods of low earnings.[24] These tools are a problematic way to provide relief, however. They are all or nothing, meaning they suspend a borrower's payments entirely rather than calibrating them to what the borrower can afford at any given moment.

More importantly, deferments and forbearances only delay repayment, and in most cases interest continues to accrue while payments are suspended. These temporary reprieves can therefore leave borrowers worse off when repayment resumes.[25]

Interest Subsidies. Interest subsidies are another tool policymakers use to help borrowers afford their loan payments. For example, students from low-income families are eligible to take out subsidized Stafford loans, on which the government will pay the interest while the student is in school or during any other deferment period. Other examples include Hillary Clinton's plan to lower interest rates on new student loans or Sen. Warren's proposal to allow existing borrowers to refinance their federal loans at lower rates, which Clinton has also endorsed.

Interest subsidies are a poor tool for protecting borrowers. They simply lower everyone's payments, and borrowers with the highest debt get the largest benefit whether they are having trouble repaying or not. Existing research suggests that those with the largest debts are actually the least likely to default because they tend to be degree completers who also attended graduate school.[26]

A broad interest subsidy—such as Warren's refinancing plan—would help this group the most. Meanwhile, borrowers with lower balances and lower earnings will get very little help—perhaps a few dollars off their monthly payment. And because broad interest-rate reductions apply to almost all eligible borrowers regardless of need, they are very costly.[27]

Income-Driven Repayment Plans. A variety of income-driven repayment (IDR) plans are available to borrowers. These plans all have a similar structure, though terms vary: borrowers' monthly payments are set at a percentage of their income, often with a cap such that a borrower's payments cannot exceed what they would have been under the standard 10-year payment plan. Borrowers continue to make payments until they have either paid down their loan or, after a certain number of years, they are eligible to have any remaining balance forgiven. Thus, a borrower's monthly payment and length of repayment term adjusts to his or her income.

One virtue of having a well-designed IDR plan as the default option is that it adjusts payments to reflect a borrower's changing circumstances—lowering them when income drops and extending the payment term as needed—but it does so without requiring the borrower to actively switch plans or engage deferments

and forbearances. It would extend a borrower's repayment term beyond 10 years as needed and would adjust accordingly if a graduate earns less income early in his or her career and more later—as most people do. And like a deferment or forbearance, an income-driven plan provides relief in periods of temporarily low earnings. But instead of suspending a borrower's entire obligation—which can cause interest to balloon unnecessarily—an income-driven plan tailors a borrower's payments to his or her current circumstances.

Just as importantly, such a plan provides a framework for protecting borrowers who persistently struggle to pay down their loan balance over their working life. Existing federal income-driven plans accomplish this by forgiving a borrower's outstanding balance after a certain number of years—a topic we return to in the next section. In contrast, all the other repayment protections simply postpone a borrower's obligation in some way.

For these reasons, the basic concept of IDR has a long track record of support from researchers and policymakers across the political spectrum, going back decades. It started with Nobel Laureate economist Milton Friedman and continued through the Reagan, Clinton, and Obama administrations.[28] As the next section highlights, however, while there is support on both sides of the aisle for the basic idea underlying IDR, policymakers quickly diverge on questions such as loan forgiveness, where unintended consequences could outweigh the benefits of an otherwise helpful program.

Economic Hardship Forbearance

Because an IDR plan adapts to a borrower's income, it can make many existing deferment and forbearance options obsolete. That said, borrowers should still have access to some kind of forbearance option for cases of documented economic hardship where a borrower's payments are still unaffordable even under an income-driven plan. After all, as mentioned earlier, the formula for an income-driven plan represents an approximation of the fraction of income borrowers can afford to pay. For example, a family suffering from catastrophic health care costs would be a good candidate for a temporary reprieve under such a forbearance provision.

Interest Subsidies versus IDR

Another way to understand how an IDR plan targets aid to struggling borrowers is to compare its effect to a simple reduction in interest rates. As the analysis in appendix 1 shows, a blanket reduction in interest rates provides subsidies to borrowers at all income levels, while a fiscally equivalent IDR plan targets aid in a progressive fashion—that is, with the lowest-earning graduates receiving the most benefit.

The Challenges of Existing Income-Driven Plans

As highlighted earlier, IDR could serve as a more efficient and effective tool to protect borrowers, but existing federal plans suffer from three main design flaws: moral hazard, concerns about interest accrual, and administrative hurdles.

Moral Hazard: Incentives for Borrowers and Institutions. One concern with income-driven plans is moral hazard. That is, if an income-driven plan is not well designed, it can significantly undermine students' incentives to borrow prudently. This would not only contribute to overborrowing but would also likely reduce pressure on institutions to contain tuition. Thus, policymakers must balance back-end protections with terms that do not distort borrower (and institutional) incentives on the front-end.

The 2010 changes to the federal IBR program—which reduced the percentage of income borrowers must pay from 15 percent to 10 percent and offered forgiveness after 20 years of repayment instead of 25—exemplify these concerns about moral hazard. As researchers at New America have pointed out:

> New IBR significantly reduces or eliminates the financial consequences a borrower would bear in incurring additional federal student loan debt once he reaches a debt level around $30,000—even if he expects to eventually earn a middle income or even a high income. Moreover, institutions of higher education have a disincentive to keep tuition, fees, and other costs low because New IBR means that their students will not incur all of those costs if they finance their educations with federal student loans.[29]

In other words, PAYE may well help borrowers on the back-end, but its flawed design likely exacerbates the problems that contribute to borrower struggles in the first place: tuition inflation and excessive borrowing.

IBR enrollments are skewed toward high-debt borrowers, many of whom presumably borrowed for graduate school.

Comprehensive data on loan forgiveness will not be available for years. But new evidence suggests that IBR enrollments are skewed toward high-debt borrowers, many of whom presumably borrowed for graduate school. The latest Department of Education data, for instance, show that borrowers enrolled in IBR and PAYE have larger balances than the average borrower. Though these borrowers represent 16 percent of those repaying direct loans, their balances account for 30 percent of the total amount of outstanding direct loan debt. In contrast, those repaying under the traditional 10-year plan represent 56 percent of direct loan borrowers in repayment but just 33 percent of the outstanding balance.[30]

Borrowers with larger balances tend to be those who attended graduate school, and they disproportionately benefit from loan forgiveness. For instance, the recent Government Accountability Office report indicates that 41 percent of borrowers enrolled in the Public Service Loan Forgiveness program—which offers forgiveness after 10 years for borrowers employed in public-sector jobs, including most nonprofits—owed more than $70,000. Furthermore, 26 percent had balances greater than $100,000.[31] Given undergraduate loan limits, these balances must be partly because of graduate school. Graduate school borrowers will have large debts forgiven despite being among the most educated people in the country. This will cost taxpayers billions of dollars and likely encourage more borrowing.

Interest Accrual and Negative Amortization. Another concern is that borrowers may end up paying for longer than the default 10-year repayment option, thus paying more interest than they otherwise would have. In more extreme cases, borrowers who have particularly low incomes relative to their debt levels will experience negative amortization, meaning their loan balances will grow rather than shrink even if they are meeting their required income-based payments.

It is important to carefully parse this concern. Enrolling in an IDR plan will not necessarily cause a borrower to pay over a longer term. If we removed the current cap on a borrower's monthly payments, which limits income-based payments to what they would be under the standard 10-year plan or lower, his or her payments under an income-driven plan could be lower or higher than those under the standard plan. Furthermore, to the degree that a borrower pays longer than 10 years under an income-driven plan, he or she likely could not afford to pay the loan over a shorter term. Of course, borrowers who feel they can make larger payments certainly can prepay their loans without penalty, avoiding additional interest.

That said, under current income-driven options, those who pay for more than 10 years will accrue more interest than they otherwise would have. This affects how much borrowers with different earnings ultimately end up paying for their education.[32] Borrowers with very low incomes will get a good deal of the accruing interest and the original principal forgiven. High-income graduates will repay their loans quickly and thus accrue less interest along the way. Those in the middle of the income distribution will pay the most interest, because they repay for longer than 10 years but not long enough to receive forgiveness.

Thus, an income-driven plan that uses an interest rate to cover costs recovers the most money from middle-income graduates. This "donut hole"

effect—shown in more detail in appendix 2—may concern policymakers because it means middle-income borrowers ultimately pay more for their education than either the low- or high-income graduates. Said differently, the cost of the forgiveness benefit that protects the lowest-earning graduates is disproportionately borne by the borrowers just above them in terms of post-graduate earnings.

Administrative Challenges. A third concern is the administrative hoops students have to jump through to take advantage of existing IDR plans. Part of this complexity is not intrinsic to the plans themselves; instead, it relates to the complex web of repayment options students must navigate to find an income-driven plan for which they are eligible. As the previous section argued, many of these options are superfluous in a system with a well-structured IDR plan. Therefore, simply taking steps to improve IDR while eliminating obsolete options would be an improvement to the status quo.

However, any IDR plan does bring additional administrative challenges. Specifically, these plans require a process that verifies income and ties payments to that income, ideally mirroring changes as closely as possible so borrowers are protected in times of hardship. Existing plans require annual paperwork and, in certain circumstances, further documentation, such as when a borrower's income drops in the middle of the year because of a stretch of unemployment. This additional red tape raises transaction costs and likely leads some borrowers to opt out even though the income-based protections would help them avoid default.

While not the subject of this paper, it is important to note that more streamlined income-driven models do exist. Great Britain, Australia, and New Zealand, for instance, use systems that build on payroll-withholding processes to eliminate most of the paperwork associated with income documentation.[33] Some policymakers have proposed a similar repayment model for federal loans, but those proposals have thus far made little progress, and analysts have raised concerns about the complexity of payroll withholding.[34] Therefore, IDR plans could be simpler, but existing options in the federal loan program are not.

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These challenges are significant and must be addressed for income-driven plans to work as intended. But given the potential benefits of IDR, it would be a mistake for policymakers to abandon the idea. Instead, leaders should think more creatively about how to address these concerns via reforms to the repayment process. The next section discusses a variety of new approaches that have received less attention in current policy debates.

New Approaches to IDR

In this section, we discuss a set of changes policymakers could consider. The goal is to present a menu of options, along with an assessment of each option's benefits and trade-offs, such that policymakers can then choose the combination of options they wish. We first discuss two smaller-scale reforms that could help mitigate these challenges; we then move to two more innovative approaches, which could simultaneously address concerns about interest accrual and the moral hazard associated with forgiveness.

Given the potential benefits of IDR, it would be a mistake for policymakers to abandon the idea.

Basing Loan Forgiveness Terms on the Amount Borrowed. Loan forgiveness has become a fault line in debates about IDR. We believe policymakers can reduce the moral hazard that results from loan forgiveness while still limiting the length of time students might ever have to repay. For example, policymakers could include longer forgiveness terms for those who borrow in greater amounts, as a legislative proposal from Sens. Mark Warner (D-VA) and Marco Rubio (R-FL) would do.[35] Under their plan, borrowers who take on less than $57,500 in loans have remaining balances forgiven after 20 years; those who borrow more must pay for 30 years.

Capping the amount graduate students can borrow would also help limit moral hazard; borrowing under the PLUS program is currently unlimited up to the cost of attendance. Even with such reforms, however, some

policymakers will feel that offering forgiveness to borrowers after a defined period still creates unacceptable incentives to borrow more.

Tying the Percentage of Income You Pay to How Much You Borrow. Another reform that could help limit moral hazard would be to tie the percentage of income borrowers pay to how much they borrow. For example, if a borrower's payments were set at 1 percent of income for every $3,000 borrowed, a student borrowing $12,000 would pay 4 percent of his or her income. Such terms could be set so borrowers taking out the maximum allowable amounts would still pay only an affordable fraction of their income, such as 10 or 15 percent.

Under current income-driven plans, borrowers pay the same percentage of income regardless of the amount borrowed. Thus, two students who borrow different amounts will end up with the same monthly payments if their incomes are the same; one will simply pay for a longer time. In contrast, under this proposal the student who borrowed more would pay a larger fraction of his or her income (up to the maximum allowed by policymakers); both, however, would still have affordable payments.

A Bolder Solution: Origination Fees as an Alternative to Interest. Many of the challenges discussed earlier have their roots in the interest that accrues on a traditional loan. Specifically, the potential for unchecked interest growth is one reason many policymakers and researchers argue for—and have created—some sort of forgiveness after a specific number of years. It also underpins concerns about how much borrowers might pay overall should their payment term run longer than 10 years.

Therefore, considering alternatives to a traditional interest-rate structure could help address both issues. One such alternative, proposed recently by Alexander Holt of New America, is to impose a one-time surcharge on loans in place of interest.[36] Rather than charging interest, the federal government would simply charge a fixed percentage of the amount borrowed, adding that to the loan balance when the loan is issued. For example, if a student were to borrow $1,000 with a 4 percent origination fee, the student would start with a principal balance of $1,040.

Table 1. Effective Rate Paid by Borrowers Depending on Repayment Time *(20 Percent Origination Fee)*

Length of Repayment	Effective Interest Rate
1 year	20.0%
2 years	13.1%
3 years	9.7%
4 years	7.7%
5 years	6.4%
6 years	5.5%
7 years	4.7%
8 years	4.2%
9 years	3.8%
10 years	3.5%

Note: For simplicity, the table assumes fixed, annual payments.
Source: Authors' calculations.

With an origination fee and no interest, the length of time over which a student pays would determine the cost of the loan. That is, students who repay quickly would pay a higher effective interest rate. In contrast, students who repay more slowly would pay a lower effective rate because the net present value of his or her payments—which are further off into the future—would be lower. As an example, table 1 shows the loan cost for a student who borrows $1,000 at a 20 percent origination fee and repays over different lengths of time.

Holt points out that combining an origination fee with an income-driven plan leads to the following result: students who take the longest to repay—those with the highest burden of repayment—get the cheapest loans. Thus, borrowers have the protections of an income-driven plan but without the concerns of interest accrual and negative amortization. To see a more detailed comparison of this structure and one using an interest rate, see appendix 2.

In addition, without the potential for unchecked interest growth, forgiveness after a certain number of years becomes far less important—and arguably unnecessary.[37] For example, in one of the primary student loan programs in Australia, borrowers pay an origination fee equal to 25 percent of the amount borrowed and then pay their loans back according to an income-driven plan with interest set at the inflation rate.[38]

Borrowers are not eligible for forgiveness after any specific period of time and thus continue to make income-driven payments until they have paid the loan's balance.

Origination fees in lieu of interest pose their own challenges, however. First, students may react as negatively to a large fee as they do to interest, potentially deterring some who would benefit from further education from enrolling. Some sticker shock is likely inevitable, but the origination fee approach also improves predictability. Holt points out that students can feel misled when they begin repayment after graduation and their loan balance is far higher than what they thought they borrowed while in school.[39] With a fee, students get an honest accounting of how much they will owe, and that amount will only decrease over the repayment period.

Second, an origination-fee loan becomes cheaper the longer a student repays, so policymakers must limit existing repayment plans, such as extended and graduated plans, which can let borrowers pay smaller amounts (not tied to their income) than they would pay under an income-driven plan. If left in place, such extended repayment options would increase the program's costs by allowing borrowers to stretch out their repayment term—and thus get less expensive loans—even though they could afford to pay more quickly. In theory, policymakers should not need to provide extended repayment plans with income-driven options and should recognize that offering them would increase overall program costs.

Capping the Amount of Interest That Can Accrue. If policymakers are concerned about imposing a large surcharge, they could also consider charging interest while limiting its growth.[40] Specifically, they could impose a limit on the aggregate amount of interest, paid and unpaid, that can accrue on a borrower's loans. For example, legislation introduced by Rep. Tom Petri (R-WI) and Rep. Jared Polis (D-CO) would have capped overall interest at 50 percent of the loan's balance when it entered repayment.[41]

Consider a borrower who enters repayment with $10,000 in debt. If an interest accrual cap were set at 50 percent of the loan's balance, as in the Petri-Polis legislation, this borrower could never accrue more than $5,000 in interest, including interest already paid. If he or she ever reached that point, interest would simply stop accruing, and he or she would pay down the balance at that point as a 0 percent interest loan.

In this arrangement, borrowers who repay their loans more quickly pay the stated interest rate—that is, the cap has no effect. However, borrowers who struggle will eventually hit the cap. As a result, they will pay a lower effective rate the longer it takes them to pay—exactly the same way an origination fee works. As in the Australian example highlighted earlier, the Petri-Polis legislation did not include forgiveness after any set period of time, potentially reducing the moral-hazard problems.

Combining Approaches. Policymakers need not rely exclusively on one of these approaches. For example, while relying on an origination fee in lieu of interest has a lot of appeal, eliminating interest entirely while trying to keep the reforms revenue neutral might require an extremely large surcharge.

Instead, policymakers could consider blending both an origination fee and an interest rate in a single loan, which would enable a lower fee and a lower rate. Policymakers should be cognizant, however, that if they choose terms that include a real interest rate, they should also consider tools such as an interest accrual cap to help protect borrowers who persistently struggle to pay down their loan balance.

This represents just one example of how to combine these approaches. While current IBR options suffer from significant—and costly—flaws, policymakers can pursue reforms that allow borrowers to tie payments to their income while avoiding perverse incentives. In other words, policymakers can mix these reforms in a variety of ways while still adhering to two important caveats: (1) protect borrowers without holding them harmless in terms of how much they borrow, and (2) target protections where they are most needed. Current programs fall short on these fronts, not because they are income driven but because they are poorly designed.

With these reform ideas and basic principles to guide them, Republicans and Democrats—both of whom have touted IDR as a more effective way to structure student loans—can make progress in helping struggling borrowers. Fixing repayment is just one necessary step to reforming higher education, but it is both tractable and worthwhile.

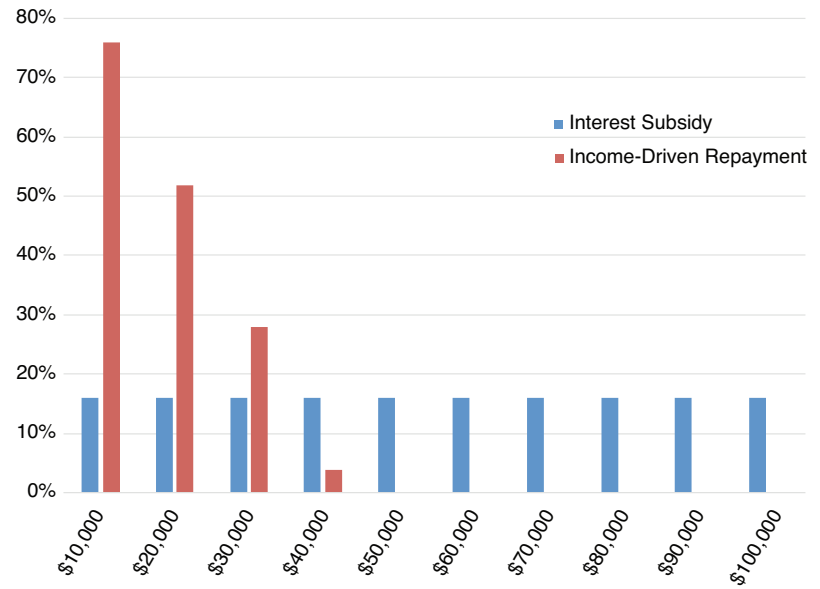
Appendix 1.
Comparing an Income-Driven Plan to Interest Subsidies

Another way to understand how IDR targets aid to struggling borrowers is to compare its effect with the effects of simply reducing interest rates. Figure A1 shows how the benefits of both a blanket reduction in interest rates and a fiscally equivalent IDR plan are distributed across borrowers with $10,000 in debt and different income levels.[42]

As figure A1 shows, an income-driven plan provides specific, targeted subsidies to low-income borrowers while an interest-rate reduction provides equal subsidies to all borrowers, regardless of income. In contrast, as figure A2 shows, the most poorly targeted choice is to provide interest subsidies when borrowers already have access to IDR.

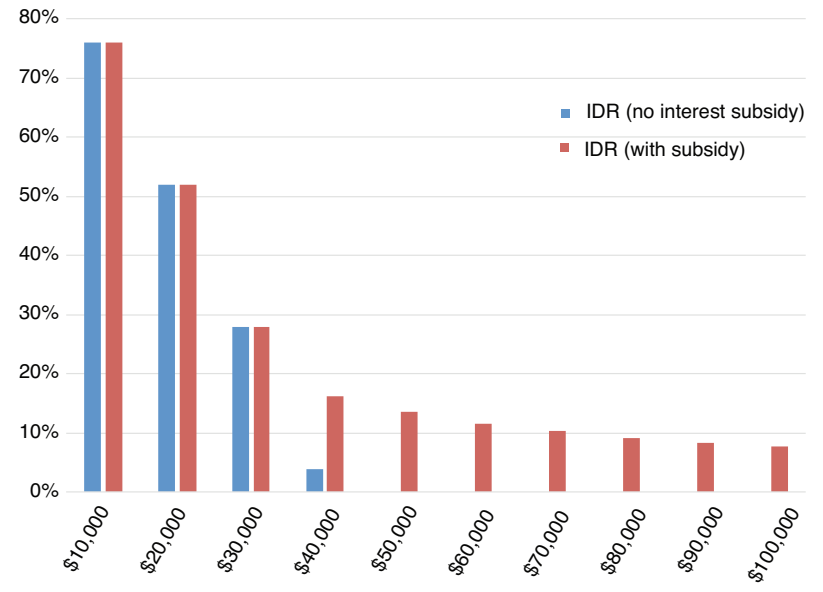
Providing an interest subsidy when borrowers already have access to IDR provides no additional benefit to low-earning graduates. The sole effect is to help higher-earning graduates.[43]

Figure A1. Loan Subsidy by Borrower's Starting Salary, Interest Subsidy versus IDR



Source: Authors' calculations. We assumed salaries grow 4 percent annually.

Figure A2. Loan Subsidy by Borrower's Starting Salary, IDR (No Interest Subsidy) versus IDR (with Subsidy)



Source: Authors' calculations. We assumed salaries grow 4 percent annually.

Appendix 2.
Distributional Impact of an Interest Rate versus a Surcharge under IDR

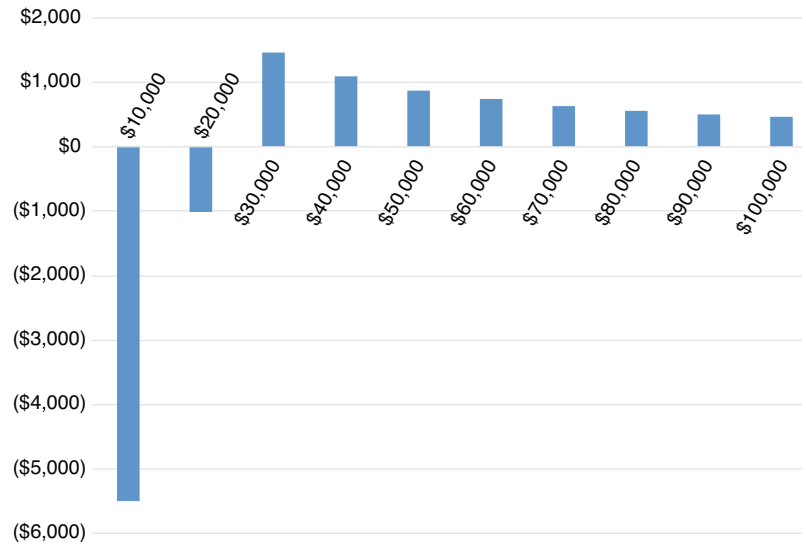
The terms of an income-driven plan can significantly affect how the costs of a loan program are distributed across borrowers with different after-school earnings profiles.[44] The following two figures use a simplified IDR plan to emphasize this point.

To start, figure A3 shows an income-driven plan where the government charges roughly a 4 percent interest rate to cover its borrowing costs—assumed to be 2.5 percent in this case—and the costs associated with forgiveness (administrative costs are assumed to be zero in this example).[45] Under these terms, the government recoups more than its borrowing costs from some borrowers while receiving significantly less from those receiving forgiveness.

Next, figure A4 displays an identical plan except that in lieu of charging interest the government uses a one-time surcharge of 25 percent to cover its costs.[46]

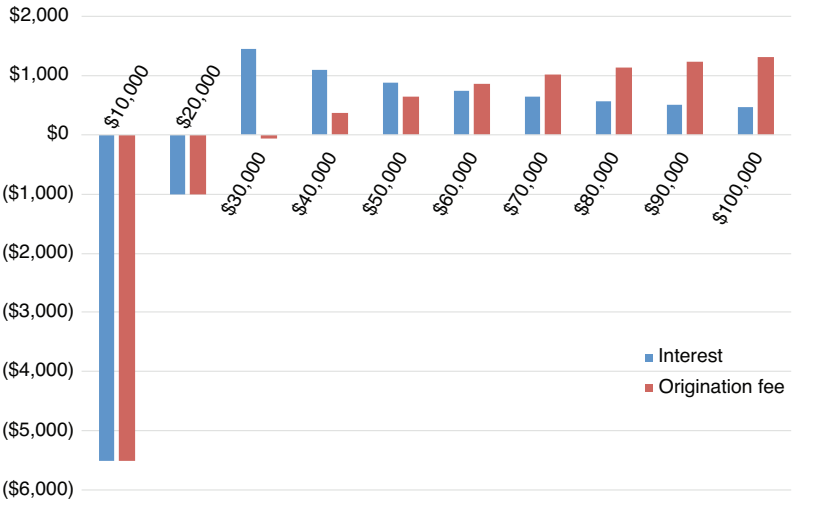
As figure A4 shows, with an origination fee, the distribution of payments and benefits across borrowers is significantly more progressive than it is with an interest rate.[47] In summary, as this simplified hypothetical shows, the terms policymakers choose under an income-driven plan can significantly alter the distribution of the program's costs across different borrowers.

Figure A3. Over- and Underpayments for Each Borrower by Starting Salary



Source: Authors' calculations. Assumes borrowers take $10,000 loans and salary growth of 4 percent annually.

Figure A4. Over- and Underpayments for Each Borrower by Starting Salary



Source: Authors' calculations. Assumes borrowers take $10,000 loans and salary growth of 4 percent annually.

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6. For an exhaustive list, see Federal Student Aid, "Repayment Plans," https://studentaid.ed.gov/sa/repay-loans/understand/plans.

7. Josh Mitchell, "School-Loan Reckoning: 7 Million Are in Default," *Wall Street Journal*, August 21, 2015, www.wsj.com/articles/about-7-million-americans-havent-paid-federal-student-loans-in-at-least-a-year-1440175645.

8. Adam Looney and Constantine Yannelis, "A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and in the Institutions They Attended Contributed to Rising Loan Defaults" (conference paper, Brookings Institution, Washington, DC, September 2015), www.brookings.edu/~/media/projects/bpea/fall-2015_embargoed/conferencedraft_looneyyannelis_studentloandefaults.pdf.

9. An August 2015 Government Accountability Office (GAO) report on federal student loans shows that 73 percent of borrowers in IBR are making roughly $20,000, which suggests that current programs are providing relief to many borrowers with low incomes. However, the same GAO report showed that 26 percent of borrowers enrolled in Public Service Loan Forgiveness borrowed more than $100,000—a balance that indicates graduate school enrollment. These borrowers will disproportionately benefit from 10-year loan forgiveness despite being among the most-educated Americans. Borrowers with smaller balances and lower levels of educational attainment will benefit less from loan forgiveness. See United States Government Accountability Office, *Federal Student Loans: Education Could Do More to Help Ensure Borrowers Are Aware of Repayment and Forgiveness Options,* August 2015, www.gao.gov/assets/680/672136.pdf. In addition, new research suggests that existing protections fail to reach large numbers of students; the five-year default rate (for the cohort entering repayment in 2009) was 28 percent, indicating that many struggling borrowers fall through the cracks. See Looney and Yannelis, "A Crisis in Student Loans?."

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13. Peter Gottschalk and Robert Moffitt, *The Growth of Earnings Instability in the U.S. Labor Market,* Brookings Institution, 1994, www.brookings.edu/~/media/Projects/BPEA/1994-2/1994b_bpea_gottschalk_moffitt_katz_dickens.PDF.

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16. George Leef, "How 'Gentle' Repayment Terms for Student Loans Hurt Everybody," See Thru Edu, September 30, 2014, www.seethruedu.com/updateshow-gentle-repayment-terms-student-loans-hurt-everybody/.

17. Angela Boatman, Brent Evans, and Adela Soliz, *Applying the Lessons of Behavioral Economics to the Federal Student Loan Programs: Six Policy Recommendations*, Lumina Foundation, April 2014, www.luminafoundation.org/files/publications/ideas_summit/Applying_the_Lessons_of_Behavioral_Economics_to_improve_the_Federal_Policy_Loan_Programs.pdf.

18. Another step would be putting loan limits in place for federal loans, specifically by repealing or capping the PLUS loan program, which allows parents of dependent undergraduates and graduate students to borrow without limit up to an institution's costs.

19. Christopher Avery and Sarah Turner, "Student Loans: Do College Students Borrow Too Much—Or Not Enough?" *Journal of Economic Perspectives* 26, no. 1 (Winter 2012): 165–92.

20. Administrative simplicity should also be a goal of any repayment process. However, this paper focuses solely on the terms of federal loans, not their administrative aspects.

21. Again, for a summary of repayment options available to federal student loan borrowers, see Federal Student Aid, "Repayment Plans."

22. Ibid.

23. Ibid.

24. Ibid.

25. Again, the only exception is with subsidized Stafford loans under a deferment. As the interest-rate subsidy section details, however, this is an extremely inefficient way to provide targeted relief to struggling borrowers.

26. Beth Akers, *How Much Is Too Much? Evidence on Financial Well-Being and Student Loan Debt*, American Enterprise Institute, May 2014, www.aei.org/wp-content/uploads/2014/05/-how-much-is-too-much_100837569045.pdf.

27. The Congressional Budget Office estimated that Sen. Elizabeth Warren's refinancing legislation, for example, would increase direct spending by $58 billion over 10 years. See Douglas W. Elmendorf, "Letter from Congressional Budget Office to the Honorable Elizabeth Warren," Congressional Budget Office, June 6, 2014, www.cbo.gov/publication/45433.

28. Kevin J. James, "Fixing Student-Loan Repayment," *National Affairs* 25 (Fall 2015), www.nationalaffairs.com/publications/detail/fixing-student-loan-repayment.

29. Jason Delisle and Alexander Holt, *Safety Net or Windfall? Examining Changes to Income-Based Repayment for Federal Student Loans,* New America Foundation, October 2012, https://static.newamerica.org/attachments/2332-safety-net-or-windfall/NAF_Income_Based_Repayment.18c8a688f03c4c628b6063755ff5dbaa.pdf.

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31. United States Government Accountability Office, *Federal Student Loans.*

32. It is important to note that how each borrower perceives this additional interest cost will differ depending on his or her own subjective discount rate.

33. For background information on these countries' systems, see Erin Dillon, *Affordable at Last: A New Student Loan System,* Education Sector, 2011.

34. See, for instance, Dynamic Repayment Act of 2014, Public Law 2612, 113th Congress (July 16, 2014), www.congress.gov/bill/113th-congress/senate-bill/2612; and New America, Young Invincibles, and National Association of Student Financial Aid Administrators, *Promise and Compromise: A Closer Look at Payroll Withholding for Federal Student Loans,* October 2015, https://static.newamerica.org/attachments/10370-promise-and-compromise/Payroll-Withholding.7f8090065bc04a5b9d7543e2fb84211a.pdf.

35. Under the terms of the bill, students who borrow less than $57,500 are eligible for forgiveness after 20 years. Those who

borrow more than that amount are only eligible for forgiveness after 30 years, however. See Dynamic Repayment Act of 2014.

36. For additional analysis on using an arrangement such as an origination fee, see Nicholas Barr, *Designing Student Loans to Protect Low Earners,* Policy Exchange, October 2010, www.policyexchange.org.uk/images/publications/designing%20student%20loans%20to%20protect%20low%20earners%20-%20oct%2010.pdf; and Alexander Holt, "Student Loans Don't Need Interest Rates," New America Foundation EdCentral, February 13, 2015, www.edcentral.org/eliminateinterestrates/.

37. Some policymakers would probably still prefer to have forgiveness to simply limit the number of years any borrower would ever have to repay his or her loan; however, in our opinion, with the prospect of significant negative amortization taken off the table, forgiveness becomes no longer necessary.

38. Australian Government Study Assist, "FEE-HELP," http://studyassist.gov.au/sites/studyassist/helppayingmyfees/fee-help/pages/fee-help-.

39. Holt, "Student Loans Don't Need Interest Rates."

40. Policymakers would likely need to consider changes to the interest rate to keep such a reform revenue neutral.

41. ExCEL Act of 2013, H.R. 1716, 113th Congress, April 23, 2014, www.congress.gov/bill/113th-congress/house-bill/1716.

42. This example uses a group of 10 students, each of whom borrowed $10,000 at a 5 percent rate of interest and must pay it off according to a 20-year, fixed-payment schedule. We then applied two different scenarios to see the effects on different types of borrowers. In the first scenario, we lowered each borrower's interest rate by 2 percentage points to 3 percent. In the second scenario, we kept each borrower's interest rate at 5 percent but had each borrower pay according to an income-driven plan requiring them to pay 1.36 percent of their income, with no exemption, until they repay the loan or reach 20 years, whichever comes first. The fact that the terms of the income-driven plan in this example do not match the current IBR option does not change the basic point. We chose the terms in this example such that each scenario would have the same fiscal impact, thus ensuring a fair comparison. We assume salary growth at 4 percent annually.

43. For a much more thorough analysis of the inefficiency of interest subsidies, see Nicholas Barr and Alison Johnston, *Interest Subsidies on Student Loans: A Better Class of Drain,* London School of Economics, May 2010, https://econ.lse.ac.uk/staff/nb/BarrJohnston_Interestsubsidies100528.pdf.

44. For a longer discussion of how the terms of an income-contingent loan affect different hypothetical borrowers, see D. Bruce Johnstone, *New Patterns for College Lending: Income Contingent Loans* (New York, NY: Columbia University Press, 1972).

45. This figure was generated using 10 borrowers who each borrow $10,000 and each of whom has a different starting salary after school (assumed 4 percent growth). Each borrower pays 2 percent of his or her income with no cap under the income-driven plan, with forgiveness available after 20 years. In this example a 4.2 percent interest rate covers the government's borrowing costs—assumed to be 2.5 percent in this example—and the costs of forgiveness under the IDR plan.

46. The parameters in this example are identical to those of the earlier one, except there is an origination fee of 24.3 percent and an interest rate of zero.

47. An income share agreement (ISA), where a student agrees to pay a percentage of income for a set period of time after school, is the most progressive type of financing arrangement, because ISAs shift the burden of repayment even further onto high-income graduates and, correspondingly, off low-income graduates.