



RESEARCH REPORT

# Strengthening Federal Student Aid

**An Assessment of Proposals for Reforming Federal Student Loan  
Repayment and Federal Education Tax Benefits**

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# Executive Summary

Proposals to reform the federal student loan repayment system and education tax credits and deductions emerge from a general consensus on the importance of a simpler student aid system that is better targeted to students facing financial barriers to college access and success. In our review of studies, reports, Congressional bills, and recently proposed policy changes, we find many ideas that would make the system more equitable and efficient. However, the details of these approaches vary considerably, and some would likely generate unintended consequences that would not serve the interests of students or taxpayers.

Moreover, many of the suggestions are quite complicated. Examining the details of the proposed reforms makes it easier to understand not only how the existing system became so complex, but how important it is for policymakers to develop simple programs that will be transparent to students and families at the same time they improve the targeting and effectiveness of the student aid system.

Key observations emerging from our review and evaluation of detailed proposals to strengthen income-driven repayment (IDR) of federal student loans and consolidate tax credits and deductions are below.

## Strengthening Income-Driven Repayment of Federal Student Loans

Income-driven loan repayment provides insurance to student borrowers against unforeseen financial hardships. Limiting the number of repayment plans and removing bureaucratic barriers to accessing program benefits would help the system achieve its goals. The broad consensus that borrowers should automatically be placed in an IDR plan and that payments should be made through payroll withholding is consistent with a simpler system, but the details of the program are critical.

Alternative designs for payment determination, treatment of unpaid interest, and loan forgiveness have significant implications for equity and efficiency. Sharp eligibility cutoffs create *cliff effects*, large differences in payments for people in similar circumstances that are both unfair and inefficient; some payment schedules and loan forgiveness provisions generate disproportionate benefits for higher-income borrowers; and unlimited borrowing creates perverse incentives for

both borrowers and institutions. Of particular importance, the goal should be the equitable and efficient allocation of repayment obligations among borrowers as well as taxpayers, not to ensure that all borrowers have the lowest possible payment requirements.

The design of the program involves many judgment calls. The most important considerations are that the policy be simple and easy to understand, not create noticeably different treatments for students in similar circumstances, and target subsidies to borrowers most in need. A program that forgives high percentages of debt will not be sustainable, but a program that allows the debts of low-income borrowers to grow to unmanageable levels over time will not serve the basic purpose of IDR.

1. **Enrollment in IDR should be universal and automatic, whether or not there is an alternative payment plan available.** Making IDR the automatic or only repayment option would simplify the process for borrowers and ensure access to all who may benefit. Borrowers should receive clear information on the implications of speeding up or slowing down repayment, and those who prefer to pay their debts off more quickly should have that option.
2. **Automatic payroll withholding could simplify the system and improve efficiency.** In an IDR system, the federal government must be able to quickly and accurately adjust payments when incomes change. Current procedures for income verification are burdensome for borrowers and many fall out of the program as a result. Collecting income-driven payments using employer-withholding procedures already in place for payroll taxes would also address delinquency among those who neglect their student loans despite having the income to pay. The system should be designed to minimize the burden on the Internal Revenue Service, which is operating under significant resource constraints.
3. **There are pros and cons to forgiving outstanding balances after a specified period of repayment.** If forgiveness is incorporated into a universal IDR plan, policymakers should choose assessment rates high enough and income exclusions low enough that most borrowers would be expected to fully repay their loans. Forgiveness should safeguard against unexpected difficulties, not provide an incentive for overborrowing. Designs that incorporate sharp cutoffs between groups are not a fair or effective way to limit the cost of forgiveness. A better design might instead limit the amount of debt forgiven. An alternative to general loan forgiveness is to forgive unpaid interest, preventing balances from growing while borrowers' incomes are insufficient to support repayment.
4. **Interest rates, income exclusions, required payment levels, and time to forgiveness affect borrowers with different income patterns over time quite differently.** The extent to which borrowers benefit from IDR depends on their ratios of debt to income, but both the level

and the timing of income are significant. Income exclusions are particularly important to lower-income borrowers; lower interest rates have most impact on borrowers with larger debts; and the treatment of unpaid interest most affects borrowers who struggle early in repayment but fully repay later.

5. **Making payments affordable is not the same as reducing total dollars paid.** A concern with making IDR universal is that lengthening the repayment period increases the total dollar amount repaid. However, this occurs only for borrowers for whom repaying sooner would require unaffordable payments. Moreover, the total amount paid must be discounted to account for both inflation and the value of holding money in the present. Depending on interest rates, borrowers could actually save or make money by extending their repayment period despite paying more dollars in total interest.
6. **The plan must work for older borrowers as well as young adults.** About 40 percent of postsecondary students are age 25 or older.<sup>1</sup> IDR reduces repayment difficulties for those whose incomes do not support their debt, but because older students have less time to repay prior to retirement, forgiveness may be a particularly important safeguard for these borrowers. Income exclusions based on poverty guidelines, which take family size into account, may also be more important for older borrowers, who are more likely to support dependents.

## Consolidating Education Tax Credits and Deductions

The American opportunity tax credit (AOTC), lifetime learning credit, and tuition and fees deduction cost the government more than nearly \$18 billion each year, but they are rarely included in measures of student aid that reduce the net price of college for students and their families (Baum et al. 2015). Although these credits and deductions provide dollars to students and cost the government as much as the same amount of grant aid, these subsidies are complex, poorly timed, and less targeted than other federal financial aid.

The broad consensus that the multiple tax credits and deductions for tuition expenses should be consolidated into one credit is consistent with the principle that a simpler student aid system will be more effective. However, some of the proposed modifications would lead to a single credit that is very difficult to understand. Some critics would argue that eliminating these benefits would be the best policy, but all the proposals we reviewed support consolidating the multiple higher education credits and deductions if they are maintained.

1. **A consolidated credit should be simpler than the existing credits.** The current structure of the refundable AOTC—a credit equal to 100 percent of the first \$2,000 spent and 25 percent of the next \$2,000, then requiring multiplying by 40 percent to determine the refundable portion—is unnecessarily complicated.<sup>2</sup> The credit could be equal to 100 percent of eligible expenditures up to a limit and fully refundable. If qualifying expenses are expanded to include transportation or child care, allowing a fixed amount per student would avoid increased complexity.
2. **The consolidated credit should be better targeted than the existing credits.** Tax credits and deductions are the major source of nonloan federal aid for middle-income families whose incomes are too high to qualify for the Pell grant program. This situation does not, however, justify providing a smaller benefit to lower-income students than to those with similar college expenses but higher incomes. In addition to making the credit fully refundable, allowing grant aid to be applied first to nontuition expenses that are not covered by the tax credit would improve targeting. It would also be reasonable to lower income eligibility limits, or at least not adjust them for inflation.
3. **A lifetime dollar limit could distribute subsidies more equitably.** Currently, disadvantaged students who attend colleges with lower tuition often do not spend enough, especially after accounting for grant aid, to claim the maximum AOTC each year. Replacing the current four-year limit with a lifetime dollar limit would enable students to use remaining amounts to complete their undergraduate education.
4. **Although a consolidated credit may serve an important function, expanding it is not the optimal use of federal dollars for subsidizing students.** Allowing income limits and credit amounts to decline in real terms over time may be a politically palatable way to diminish these expenditures.



# Introduction

Proposals for reforming the federal student aid system to reduce its complexity and increase its effectiveness are proliferating. There is broad consensus about some of the most constructive directions for improvement, but reformers disagree on other issues. Moreover, even agreement on broad outlines is marked by conflicting views on the details. This report reviews and analyzes a wide range of recent proposals for reforming federal student loan repayment and federal education tax credits and deductions.<sup>3</sup>

We begin our analysis by summarizing the basic principles for student aid reform on which there is broad consensus. We then introduce some basic principles of public policy design to provide a framework for evaluating the alternatives before addressing the specifics of proposed reforms of loan repayment and tax aid. Our discussion of these two policy areas emphasizes both basic structures and design details. Simulations of some of the alternatives proposed for both loan repayment and tax aid illustrate the potential fiscal and distributional effects of these policy options.

Many recent policy proposals, as well as recent policy changes, would make income-driven student loan repayment more accessible and would consolidate existing education tax credits and deductions. We find these changes can potentially improve the equity and efficiency of the financial aid system. However, some of the specific suggestions on the table would likely have significant negative unintended consequences. Some of the efforts to ensure equity end up generating provisions at least as complicated as the ones now in place. As policymakers consider next steps, they should carefully evaluate the pros and cons of competing proposed designs.

## Broad Consensus

Proposals to reform federal student aid are generally in agreement on broad principles such as simplifying and streamlining aid, expanding aid targeted to low-income students, improving timing, and improving institutional accountability for student outcomes. Tables A.1 and A.2 in appendix A list which detailed proposals support the ideas discussed throughout this report. The discussion below includes more detailed information about the tables' contents.

## **Simplify the System**

Virtually all reformers consider the federal student aid system's complexity a design flaw that prevents effective aid delivery. The call for simplification applies to the array of programs with differing rules on eligibility and coverage, as well as the application process and the loan repayment system.

Most proposals for income-driven repayment (IDR) would eliminate the variety of complex repayment options in favor of a single improved IDR plan or would maintain one income-driven plan and one fixed payment plan. Proposals to simplify tax credits and deductions usually involve eliminating deductions and preserving a single improved version of the refundable American opportunity tax credit (AOTC). Some reformers, however, would do away with tax credits and deductions for higher education expenses completely.

## **Improve Targeting**

Reformers call for improved targeting of federal aid to low-income or otherwise disadvantaged students. Those reformers most concerned about college access cite evidence that aid can be the deciding factor in low-income students' decisions to enroll, but that higher-income students are less price-sensitive. They argue that it is neither equitable nor efficient to reward higher-income students with more generous financial aid for enrolling in higher-priced colleges. Some reformers propose redirecting aid from higher- to lower-income students and families by, for example, eliminating tax credits and transferring the savings to the Pell grant program. Others reformers, concerned about college affordability even for middle- and upper-income families, suggest improving targeting by increasing aid to low-income students while maintaining benefits for students at higher income levels who would likely attend without the aid, but incur higher debt.

There is near-unanimous agreement among reformers that the current system of tax aid in the form of credits and deductions is poorly targeted and has limited, if any, impact on college enrollment. Suggested ways of improving targeting include increasing refundability and lowering the income limits for eligibility.

Targeting income-driven loan repayment applies to postcollege financial circumstances rather than precollege incomes. In this case, it is disproportionate subsidies to graduate students, particularly those borrowing to attend professional school, that raise concerns. Reformers might limit IDR eligibility to undergraduate borrowing or otherwise restrict forgiveness for graduate student borrowers.

## Improve Timing

Critics argue that the timing of aid determination through the Free Application for Federal Student Aid (FAFSA) limits its effectiveness.<sup>4</sup> But the education tax credits and deductions distributed through the tax system are even more poorly timed, putting money in people's pockets many months after they have to pay the bills. Timing is also central to student loan repayment. Because earnings tend to rise over the course of a career, many borrowers whose incomes can support their debt payments over the long run struggle when they first enter repayment. Proposals to make IDR the norm address this problem.

## Hold Institutions Accountable

Many proposals call for greater institutional accountability for improving student outcomes. Reformers suggest several ways to hold institutions accountable, from reporting requirements to risk sharing. For example, the federal government might require more disclosure of student outcomes, or colleges could face financial consequences for their students' inability to make loan payments. Institutions might be ineligible for federal grants and loans, or even for tax credits, if student outcomes and debt repayment do not meet specified standards.

# Principles of Policy Design

Some basic principles of public policy design provide important background for considering the variety of ideas recently proposed for reforming the federal student aid system. Most fundamentally, the policies should be evaluated for their efficiency and equity. Policymakers should articulate their goals, develop strategies for accomplishing these goals as well as possible with the least expenditure possible, and evaluate the likely impact of the proposed policy on people in different circumstances. They should also be mindful of phaseout schedules that can create *cliff effects* in the program, the unintended consequences that might arise from policy shifts, and how changes may play out over time.

## Equity

Although evaluations of equity are subjective, a framework for making such judgments is an important starting point. Policies are horizontally equitable if they treat people in similar

circumstances similarly, without making arbitrary distinctions among people. For example, a federal financial aid policy might reasonably provide different subsidies to people with different incomes, but not to people with similar incomes who have different religious beliefs. Policies are vertically equitable if they treat people in different circumstances appropriately differently. For example, it may be equitable for a federal program to provide larger subsidies for education to students whose parents have lower incomes, but the reverse pattern is harder to justify. These concepts raise the question of which characteristics are valid grounds for differential treatment. Although there is not one right answer, posing the question of equity in this way can improve the evaluation of policy proposals.

## **Efficiency**

Most tax and subsidy programs are designed to change behavior. The basic premise of federal financial aid programs is that, without public subsidies, we will not reach the socially optimal level of postsecondary education. Financial aid should diminish the financial barriers that prevent some students from enrolling in college, completing their studies, and repaying loans. If the goal is to generate the largest possible social benefit at the lowest possible cost, it is important to distinguish pure subsidies that transfer funds without changing outcomes from subsidies that effectively improve our collective well-being.

## **Cliff Effects**

Some policy designs generate both equity and efficiency problems. For example, cliff effects exist when small differences in individual circumstances lead to large differences in taxes or subsidies. If everyone with an income below \$40,000 receives a \$10,000 grant and those with incomes of \$40,000 or higher receive no subsidy, a \$1 increase in income could lead to a \$10,000 loss in subsidy—the potential recipient “falls off the cliff.” This policy design is both unfair and inefficient, as it would cause people to manipulate their incomes to receive the subsidy.

## **Unintended Consequences**

Even policies that achieve their stated goals may have other effects that are neither intended nor desirable. For example, an income-driven loan repayment program might succeed in mitigating the problems of borrowers with unexpectedly low incomes. But at the same time, it may have the

unintended consequence of students borrowing more because they are less worried about repayment. This is an example of *moral hazard*, which refers to the tendency to take greater risks when there are safeguards against undesired outcomes. Generous loan forgiveness might also lead to higher tuition as institutions worry less about increasing students' debt burdens. Such a consequence would cause students who do not benefit from repayment assistance to be worse off and would impose an unjustified burden on taxpayers.

### **Long- and Short-Term Effects**

Policies may accomplish their short-term goals but generate new problems in the longer run. For example, extending the time over which students can repay their loans might support financial stability in the years after college, but diminish the amount they save to finance their children's education. The reduction in loan default resulting from IDR may relieve public pressure on states and institutions to lower tuition. Rising tuition and borrowing combined with a policy of forgiveness after 20 years would mean the cost to taxpayers could be postponed for decades.

# Income-Driven Repayment

Federal student loans made up about 60 percent of all federal student aid in 2014–15, down from a peak of over 70 percent in 2007–08 (Baum et al. 2015). Although their primary purpose is to provide liquidity for student investments in higher education, federal loans subsidize students with lower interest rates and more generous repayment protections than the market would provide. Many reform proposals are designed to strengthen these protections through improvements in IDR.

Insurance on postcollege labor market outcomes is one way of characterizing IDR plans, which assist students by reducing payments to a percentage of discretionary income and often forgiving loans after a period of years. The federal government implemented a small-scale income-contingent loan repayment plan in 1993,<sup>5</sup> and in 2009 it introduced the simpler and more generous Income-Based Repayment (IBR) plan.<sup>6</sup> Although enrollment in this plan and the newer Pay as You Earn (PAYE) plan has grown considerably, only 19 percent of Federal Direct Loan borrowers (holding 34 percent of balances) participate.<sup>7</sup> [See appendix A, table B.5, for more information on IDR plan enrollment as of the third quarter of fiscal year (FY) 2015].

Various factors contribute to low participation, including lack of awareness as well as bureaucratic hurdles. Borrowers are automatically placed in the standard 10-year repayment plan unless they actively choose an alternative. In addition, borrowers must demonstrate partial financial hardship to qualify for IBR or PAYE,<sup>8</sup> although this requirement, along with restrictions on who can participate based on the timing of their loan originations, is eliminated in the recently released rules for the revised PAYE (REPAYE), the latest version of IDR.<sup>9</sup> Many students who have qualified for IDR plans fall out of them because they fail to verify their incomes on an annual basis.<sup>10</sup> Finally, even in the absence of any barriers to enroll and remain enrolled in IDR, there are borrowers who are unconvinced of its benefits.<sup>11</sup> Concerns over unmanageable student debt and default and the potential for an improved IDR system to address the problems have led many advocates, researchers, and policymakers to argue for expanding and improving IDR.

## Arguments for and against Income-Driven Repayment

Although most borrowers have manageable payments under the standard 10-year repayment plan, a growing minority finds their incomes too low to support the expected monthly payments while maintaining an acceptable standard of living. For some of these borrowers, the magnitude of debt is

disproportionate to long-term income. But for many, the problem is that they are being asked to repay too much at the beginning of their careers, when their incomes are lowest. As Dynarski and Kreisman (2013, 6) point out, to the extent that default is concentrated among young borrowers with smaller than average loans, “we do not have a debt crisis but rather a repayment crisis.” Allowing borrowers to postpone the bulk of their payments until their incomes can reasonably support them will alleviate pressures on borrowers while diminishing the burdens of delinquency and default for both the government and borrowers.<sup>12</sup> Some reformers argue that universal and automatic IDR implemented through payroll withholding might entirely prevent student loan default.

A system that automatically links payments to ability to pay will solve the liquidity problems facing many borrowers. However, solving the problems of those who have already incurred debt may increase the number of people who borrow amounts they are unlikely to be able to repay. A program that assures people they cannot get in over their heads regardless of their borrowing patterns is likely to encourage overborrowing and increase in cost over time. The potential impact on the federal budget is highlighted by recent budget revisions. Increases in the generosity of the IBR and PAYE plans and revisions to predicted participation led to an increase of more than \$12 billion in the estimated FY 2015 cost of applying these provisions to both new and outstanding loans.<sup>13</sup> Plans to expand access to PAYE are expected to cost another \$9 billion (US Department of Education 2015). Over the long run, after students adjust their borrowing patterns to the new reality, the impact is likely to be much larger. Policymakers should seek solutions that provide the desired protection against unforeseen circumstances without turning IDR into an expensive and ill-targeted subsidy.

## Designing Income-Driven Repayment

A properly designed IDR system will protect borrowers against unforeseen financial difficulties. It will accommodate the variation in incomes associated with the range of returns to postsecondary education and the vicissitudes of the economy. At the same time, it will not encourage students to borrow excessively or support institutions charging tuition unreflective of program quality. It will target its subsidies to low- and moderate-income borrowers, rather than to those with relatively high incomes and unusually high levels of debt.

The way to design such a system is not obvious, with plenty of room for debate among higher education experts and advocates who recognize its challenges. Hillman and Gross (2014), who do not oppose IDR, rightly note there is no good evidence about the effectiveness of IDR in achieving

the goals of efficiency, effectiveness, and equity. As another group of authors points out in their collaborative proposal, the repayment system should provide protection for unexpected problems, but it should not be a routine way to pay for part of college (Young Invincibles et al. 2014, the "Automatic for the Borrower" proposal). These authors recognize that the most generous provisions—the highest possible income exclusion, the lowest assessment rate on discretionary income, and the shortest time to loan forgiveness—may not be best for borrowers in the long run.

## Who Should Benefit from Income-Driven Repayment?

Under its current design, IDR can provide large subsidies to relatively high-income borrowers, such as lawyers with very high graduate school debt, who might end up with significant balances forgiven. Such large subsidies for borrowers who are not needy by any reasonable definition and whose difficulties might well have been foreseen will become expensive for taxpayers and could easily lead to a scaling back of the program for all participants. Particularly when remaining loan balances are forgiven after a specified period of time, the program is likely to subsidize not only borrowers for whom the policy is intended, but also others who are not the target population.

### **Intended beneficiaries include borrowers who**

- experience delayed income growth in their first jobs out of college;
- graduate during a recession and face limited employment options;
- find their training out-of-date because of technological change;
- live in areas with a weak labor market; or
- choose lower-paying occupations in public service.

### **Unintended beneficiaries may include borrowers who**

- accumulate high levels of debt because they enroll in higher-priced colleges, do not work for pay while they are in college, or spend more years in school to earn higher degrees;
- choose lower-paying occupations that do not involve social service; or
- opt out of the labor force.

In general, IDR is intended to benefit people who run into unexpected difficulties in paying off student loans. It is not intended to benefit people who choose to pay more or to earn less, except for those choosing low compensation in social service occupations.

# Comparing Proposals

The discussion that follows synthesizes a variety of proposals for expanding IDR in the United States by detailing and analyzing key design elements. We focus first on basic characteristics of IDR policies and then move to more detailed issues. Appendix A, table A.1, lists and compares the proposals we have reviewed, the two most widely used existing income-driven plans in the United States, and examples of IDR designs in Australia, New Zealand, and the United Kingdom.

## 1. One Loan Repayment Plan

Authors of detailed proposals agree that borrowers should be placed automatically in an IDR plan, but they disagree about whether even a well-designed IDR program should be the only plan available. In proposals advocating IDR as the only repayment option, borrowers would be subject to minimum payments based on their incomes, but they would still be allowed to make larger monthly payments to repay more quickly. Other proposals would make IDR the default option but would maintain the existing 10-year fixed payment plan as an alternative.<sup>14</sup>

About half the proposals we reviewed advocate automatically placing people in a newly designed IDR program with no opt out.<sup>15</sup> From their perspective, ensuring borrowers can choose to make larger payments obviates the need for alternative payment plans. Among those proposals that would offer alternative plans in addition to an improved IDR plan, most would offer the standard 10-year plan as the alternative. The Dynamic Repayment Act (2014) would have an option for borrowers to choose a repayment schedule based on the number of years they would like to take to repay their federal loans. IHEP (2013) (not shown in table A.1) suggests that IDR be the default option but that students be automatically switched to the standard 10-year plan if it becomes more financially beneficial.

TICAS (2013, 2014b) explicitly dissents from the general consensus in favor of placing all borrowers in IDR, expressing concern that IDR lengthens the amount of time borrowers are in repayment and can increase the amount they pay over the life of the loan.<sup>16</sup> TICAS also argues that universal IDR would take pressure off governments and institutions to keep prices down, that mechanisms other than default rates would be necessary for institutional accountability, and that consumer choice would be limited. For these reasons, they advocate automatic IDR for delinquent borrowers, but not for all, and not to the exclusion of other repayment options.

## ANALYSIS

Some borrowers will prefer to repay their loans more quickly than an IDR formula would require. However, as long as borrowers are easily able to make higher payments than required, there is no need to provide a structured alternative payment plan.

If IDR is the only option, borrowers should understand its terms and possible reasons for choosing to make higher payments. Providing clear information about the discounted present value of total payments and the amount of time it will take to pay under different payment scenarios will facilitate borrower decision making.

## 2. Loan Forgiveness

### A. SHOULD THERE BE LOAN FORGIVENESS AFTER A SPECIFIED PERIOD OF TIME?

Loan forgiveness is a longstanding and significant component of income-driven loan repayment in the United States. The original IBR plan forgives unpaid balances after 25 years, but all newer plans forgive after 20 years. Borrowers repaying through these plans can qualify earlier for public service loan forgiveness (PSLF), which requires just 120 monthly payments, or a 10-year period of repayment.<sup>17</sup> Loan forgiveness comes at a high cost to taxpayers. The Department of Education estimates one-quarter of borrowers in IBR will receive loan forgiveness, worth an average of \$41,000 on original loan balances averaging \$39,500.<sup>18</sup> The president's fiscal year 2016 budget (US Department of Treasury 2015) estimates the subsidy rate on an unsubsidized Stafford loan issued in 2016 and repaid through IDR at 14 percent; a loan repaid through the standard repayment plan has a subsidy rate of -24 percent.<sup>19</sup>

There are strong differences of opinion about whether outstanding loan balances should be forgiven after a period of time and if so, what that period of time should be. Akers and Chingos (2014) would eliminate or reduce the generosity of forgiveness provisions, arguing that high costs to taxpayers and unintended consequences outweigh the benefits. They estimate forgiving unpaid balances would account for about half the cost to the government of a universal IDR plan, and yet the goal of the plan—making monthly payments affordable—does not depend on this provision.<sup>20</sup> Moreover, they are concerned that loan forgiveness provides incentives for students to borrow more and institutions to charge more.<sup>21</sup>

The ExCEL Act (2015) and Sheets and Crawford (2014) also propose IDR without forgiveness provisions. Sheets and Crawford (2014) argue that loan forgiveness should be replaced by capping interest accumulation, as well as adjusting loan principal for systemic risks outside the control of

either borrowers or institutions, such as economic downturns and labor market shifts. They advocate a self-financing loan program, with subsidies transferred to grant programs.

Other proposals, however, would incorporate some type of forgiveness provisions as part of IDR. For example, TICAS (2013) proposes universal 20-year forgiveness, and Dynarski and Kreisman (2013) would forgive unpaid balances after 25 years. James and Kelly (2015) propose lengthening the time to forgiveness for borrowers with higher debt levels to reduce the incentive for students to borrow more knowing the additional debt will be forgiven. Of the three foreign examples of IDR shown in appendix A, table A.1, only the United Kingdom provides loan forgiveness, and the time period to forgiveness is 30 years, at the long end of proposals for universal IDR in the United States.

### **Analysis**

If the goal of IDR is to make payments manageable, forgiveness may be unnecessary. If determined necessary, any loan forgiveness provision in a universal IDR program should be carefully designed and implemented. Cautions about the potential expense of this approach and the targeting of its benefits are critical, because the incentives for overborrowing and for raising tuition levels in the face of unlimited forgiveness could be strong. The appropriate design will protect borrowers with lifetime incomes too low to support their debts in the long run without directing significant subsidies to those who are relatively well off but have accumulated very large debts. Loan forgiveness should not become a widespread grant program covering a significant portion of college costs.<sup>22</sup>

When considering the magnitude of forgiven balances, it is important to adjust dollars paid 20 years in the future to their present value. In appendix B, table B.1, and in the tables that follow, we discount the forgiven balances at a rate of 3 percent per year to account for the higher value of receiving \$5,000 today compared to 20 years from today. As examples of the impact of this discounting, \$4,158 forgiven in 20 years is equal to \$2,302 in present value terms, and \$24,791 forgiven in 20 years is equal to \$13,726 in present value. Just as the tables focus on the present discounted value of loan payments made over time, they also report only these discounted present values of loan forgiveness.

### **B. SHOULD LOAN FORGIVENESS BE LINKED TO THE ORIGINAL AMOUNT BORROWED?**

Some reformers worry that a uniform number of years before forgiveness regardless of amount borrowed would skew benefits toward students who borrow excessively. For this reason, they would extend periods before forgiveness beyond 20 years to 25 or 30 years for those with larger original loan balances.

All the reformers proposing longer time periods before forgiveness, as shown in appendix A, table A.1, would continue to allow forgiveness after 20 years for loans up to a certain amount. That amount is typically the current limit on Stafford loans for independent undergraduates. Burd and colleagues (2013), in the “NAF” (New America Foundation) proposal, and HCM Strategists (2013), however, suggest \$40,000, and the Young Invincibles and partners (2014) put forward either \$50,000 or \$60,000. For higher original loan balances, most proposals would extend forgiveness to 25 years, with two 30-year forgiveness proposals.<sup>23</sup>

Recent negotiated rulemaking aimed at settling on provisions for REPAYE, a revised version of PAYE, began with a proposal to extend the loan forgiveness period from 20 to 25 years for borrowers with more than \$57,500 in debt—the maximum any undergraduate student can borrow. In response to concerns that this design would involve a cliff effect, the Department of Education modified the proposal so the forgiveness period would be extended from 20 to 25 years for borrowers with graduate school debt. This is the structure embodied in the newly implemented regulations for REPAYE.<sup>24</sup>

### **Analysis**

Proposals that suggest longer payment periods before forgiveness for larger loan balances should be examined critically to avoid undesirable cliff effects. For example, it would not be equitable to forgive the remaining loan balance of a student who borrowed \$30,000 after 20 years, but to require a similar student who borrowed \$31,000 to repay for an additional five years.

Dividing borrowers into separate categories for very different treatment is problematic. The REPAYE structure will create inequities for borrowers who have significant undergraduate debt but borrow small amounts for graduate school. An alternative to requiring a longer repayment period for borrowers with high debt levels or with graduate school debt would be to place a limit on the amount of debt that can be forgiven. Borrowers with larger debts would not lose the benefit of loan forgiveness, but there would be a clear limit on how much anyone could benefit from this provision. This approach would best be accompanied by imposing limits on borrowing under the Grad PLUS program, which currently allows graduate and professional students to borrow up to the full cost of attendance (including living expenses) less any other financial aid received.<sup>25</sup>

### **C. SHOULD FORGIVEN LOAN BALANCES BE TAXED AS INCOME?**

All proposals for universal income-driven loan repayment that address the question of taxing forgiven balances advocate removing this tax.<sup>26</sup> However, apart from the president’s budget (US Department of Treasury 2015), recently proposed legislation to implement universal IDR does not

address this issue. The United Kingdom's IDR program, the only foreign example we review with loan forgiveness, does not tax the forgiven balance.

### **Analysis**

Taxes due on forgiven balances may be substantial given the Department of Education's estimated average balance of \$41,000 per borrower receiving forgiveness. Assuming the forgiveness is well targeted, those who benefit should be unable to pay the associated tax bills. There is no actual income associated with the loan forgiveness out of which the tax payment could be made. Given the likelihood of the inability of most people to pay the tax, eliminating this provision would be a low-cost yet needed reform.

## **3. Payment Determination**

### **A. SHOULD THE DEFINITION OF INCOME BE ADJUSTED GROSS INCOME OR AN ALTERNATIVE?**

Income-driven plans currently rely on adjusted gross income (AGI) as the definition of income for determining IDR payments, and only proposals incorporating automatic adjustment through payroll withholding would depart from this definition. The ExCEL Act (2015) and Dynamic Repayment Act (2014) would use total income—a slightly more comprehensive measure—as the basis for payment determination and would treat nonwage income differently in defining the income exclusion. The Young Invincibles and partners (2014) would also rely on total income, arguing that it would more closely match wage income than would AGI, and Dynarski and Kreisman (2013) would define income as earnings only.

In a recent paper, some authors of the Automatic for the Borrower (Young Invincibles et al. 2014) collaborative proposal further consider how to treat nonwage income in a payroll withholding system (New America, Young Invincibles, and NASFAA 2015). They suggest a design similar to that of the ExCEL Act (2015), Dynamic Repayment Act (2014), and the UK's IDR program—defining income as total income, but excluding a fixed amount of nonwage income (\$5,000) to reduce the administrative burden of collecting additional payments outside payroll withholding.<sup>27</sup>

### **Analysis**

If income were defined as wages and salaries only, payroll withholding would match payments due most closely. Other income definitions are also compatible with payroll withholding provided

under- or overpayments are reconciled once a year, but reconciliation processes are complicated and could cause borrowers to unexpectedly owe lump sum IDR payments at the end of the year. A problem with assessing payments due on wage or salary income only is that borrowers who own small businesses or have significant interest and dividend incomes might have wage and salary incomes that understate their financial capacities. When combined with loan forgiveness, borrowers with ample resources could end up having their loan principal forgiven after 20 or 25 years if only wage and salary income were considered.

The choice of income definitions is an example of the trade-offs involved in designing the details of an IDR system. The goals include making the system easily understandable and predictable, making payroll withholding match payments actually due as closely as possible, and treating borrowers with different forms of income equitably. Particularly in a system allowing forgiveness of unpaid balances after a fixed number of years, excluding nonwage income from payment determination is not equitable. Relying on AGI for defining both the income exclusion and payments due is probably the best compromise.

Some proposals attempt to minimize under- or overpayments through payroll withholding by basing payments on total income, but excluding a fixed amount of nonwage income. In this design, only borrowers with significant nonwage income will need to pay outside of the payroll withholding system. Although this design may best complement payroll withholding, AGI is a much more familiar concept, and the difference in required payments due to defining income as AGI instead of total income is not likely to be large. For example, average total income was 2 percent higher than average AGI among tax units with nonzero AGI in 2013, and just 1 percent higher for those with AGI between \$20,000 and \$200,000.<sup>28</sup> These percentage differences mean that for a borrower with AGI of \$40,000, assessing total income rather than AGI would mean owing about \$3.3 more per month, or \$40 more per year (using a 10 percent assessment rate).<sup>29</sup>

#### **B. IS THERE AN INCOME LEVEL BELOW WHICH NO PAYMENT SHOULD BE REQUIRED?**

Under the current IBR and PAYE plans, borrowers are not required to make monthly payments until and unless their incomes exceed 150 percent of the federal poverty level for their family size. In 2015, the income exclusion for a single individual was \$17,655 and for a family of four, \$36,375. Only income above the appropriate exclusion is subject to the assessment rate. For example, while a recent college graduate is looking for a job, she is not required to make loan payments. If she lands a job paying \$29,655 per year, she will have to make payments of \$100 per month (equal over a year to 10 percent of the \$12,000 by which her income now exceeds the threshold).

All but one of the proposals reviewed for this study would maintain the current income exclusion, with some disagreement on whether to treat earned and unearned income differently as well as whether the exclusion should change with family size and with income. Two bills recently proposed in Congress, the ExCEL Act (2015) and the Dynamic Repayment Act (2014), would distinguish between wage or salary income and other income. In these designs, the standard income exclusion would apply only to income from employment, with a smaller exclusion of a few thousand dollars for other income. For example, the Dynamic Repayment Act (2014) would exclude \$10,000 of earned income as well as up to \$3,000 of other income, for a maximum \$13,000 exclusion.<sup>30</sup> Dynarski and Kreisman (2013) are the only authors reviewed who propose IDR with no income exclusion—in order to avoid too long a repayment period or assessment rates that are too high. They propose a low 3 percent assessment rate on the first \$10,000 earned, up to a maximum of 10 percent of earnings above \$25,000.

Universal IDR plans in other countries tend to incorporate income exclusions that are more generous and do not vary by family size (e.g., \$45,000 in Australia and \$35,000 in the United Kingdom). New Zealand's, at about \$15,500, is more similar to the US exclusion for single individuals.

### **Analysis**

Incorporating an income exclusion effectively postpones repayment for borrowers earning below the threshold and makes the required monthly payment for all borrowers lower than simply the assessment rate times income. Exclusions matter more for lower-income borrowers, making IDR progressive even with a flat assessment rate: higher-income borrowers may pay the same percentage of discretionary income, but they pay a higher percentage of total income. An exclusion that phases out with higher incomes increases that progressivity. Excluding additional income from other sources adds complexity and provides an unnecessary benefit to borrowers with extra resources.

Table 1 illustrates the powerful impact of different approaches to income exclusions. Eliminating the exclusion and reducing the assessment rate from 10 to 4 percent would generate monthly payments similar to those under PAYE for single borrowers with incomes of \$30,000 (about \$100 under either design), but the same changes would increase the monthly payments for borrowers in families of three with incomes of \$40,000 from \$82 to \$133 while reducing payments for similar families with incomes of \$60,000 from \$249 to \$200. A 6.5 percent assessment rate would maintain payment levels for single individuals with incomes of \$50,000 at their PAYE levels, but it would increase payments for those with incomes of \$30,000 from \$103 to \$163. Table 1 also

shows the higher assessment rates on incomes that would be required to maintain PAYE payment levels for borrowers of different incomes with an income exclusion of \$25,000.

In all universal IDR designs, borrowers can choose to make higher monthly payments. The downside of low payments, aside from the extended repayment time, is that some borrowers will see their loan balances increase from the accrual of unpaid interest charges. For example, appendix B, table B.1 shows the impact of a higher income exclusion (200 percent of the federal poverty level instead of 150 percent of the poverty level) for borrowers with different combinations of debt and income. Increasing the income exclusion reduces total payments over 20 years of repayment, especially for low-income borrowers, but it also dramatically increases the size of debt remaining and subject to forgiveness.

Clearly there are trade-offs. When incomes are too low to support the most basic standard of living, borrowers are unlikely to be willing and able to make loan payments. A high income exclusion can prevent delinquency and default, taking the place of loan deferment or forbearance for borrowers with incomes too low to support payments. A central goal of the IDR system is to come as close as possible to eliminating default and to prevent student loans from making life financially unmanageable. Because requiring payments on incomes below the federal poverty level would interfere with these goals, an income exclusion tied to the federal poverty level is a reasonable provision.

TABLE 1

## Hypothetical Monthly Payments under Alternative Income Exclusions and Assessment Rates

Income exclusion	Family size	Assessment	Income					
			\$10,000	\$20,000	\$30,000	\$40,000	\$50,000	\$60,000
150% of FPL (PAYE)	Single (\$17,655)	Income assessed	\$0	\$2,345	\$12,345	\$22,345	\$32,345	\$42,345
		10% monthly Income assessed	\$0	\$20	<b>\$103</b>	\$186	<b>\$270</b>	\$353
	Family of 3 (\$30,135)	Income assessed	\$0	\$0	\$0	\$9,865	\$19,865	\$29,865
		10% monthly	\$0	\$0	\$0	<b>\$82</b>	<b>\$166</b>	<b>\$249</b>
No exclusion	All	Income assessed	\$10,000	\$20,000	\$30,000	\$40,000	\$50,000	\$60,000
		4% monthly	\$33	\$67	<b>\$100</b>	<b>\$133</b>	<b>\$167</b>	<b>\$200</b>
		6.5% monthly	\$54	\$108	<b>\$163</b>	\$217	<b>\$271</b>	\$325
		10% monthly	\$83	\$167	\$250	\$333	\$417	\$500
\$25,000	All	Income assessed	\$0	\$0	\$5,000	\$15,000	\$25,000	\$35,000
		10% monthly	\$0	\$0	\$42	\$125	\$208	\$292
		13% monthly	\$0	\$0	\$54	\$163	\$271	\$379
		25% monthly	\$0	\$0	\$104	\$313	\$521	\$729

Source: Authors' calculations.

Notes: Values are based on 2015 poverty guidelines. Bold values are referenced in the text. FPL = federal poverty level.

### C. WHAT PERCENTAGE OF INCOME OR DISCRETIONARY INCOME SHOULD BE REQUIRED FOR PAYMENTS?

Most proposals for universal IDR suggest a percentage of discretionary income required for payments, or an assessment rate, of around 10 percent, but none have strong analytical arguments for the recommended rate. In IBR and PAYE, this rate is applied to all discretionary income above the income exclusion regardless of the borrower's income level. Some IDR designs would maintain this approach,<sup>31</sup> but others suggest a more progressive design.

Among those proposing progressive rates, Dynarski and Kreisman (2013) and the Repay Act of 2015 (Repay Act 2015), a Senate bill distinct from the new REPAYE plan, would apply progressively higher rates to borrowers' incomes; HCM Strategists (2013) and the NAF proposal (Burd et al. 2013) would apply a higher rate for higher-income borrowers. Dynarski and Kreisman (2013), whose design assesses earnings rather than all income and also lacks the built-in progressivity of the income exclusion, propose three rates: 3 percent on the first \$10,000 in earnings, 7 percent on earnings between \$10,000 and \$25,000, and 10 percent on remaining earnings. The Repay Act

(2015) suggests an assessment rate of 10 percent of the first \$25,000 of income plus 15 percent of remaining income. HCM Strategists (2013) and the NAF proposal (Burd et al. 2013) recommend 10 percent for households below 300 percent of the federal poverty level and 15 percent for those with higher incomes.

Although they do not propose a progressive rate, TICAS (2013) would effectively implement one by gradually phasing out the income exclusion for high-income borrowers. Borrowers with AGIs of \$250,000 or more would have their monthly payments calculated as 10 percent of their total AGI, and borrowers with AGIs below \$100,000 would not be assessed on income below the exclusion of 150 percent of the poverty guideline. Between \$100,000 and \$250,000 of AGI, the income exclusion would decrease from 150 to 0 percent of the federal poverty level—1 percent for each \$1,000 increase in AGI.

Three assessment rate design options proposed in the Automatic for the Borrower proposal (2014) highlight the connection between the income exclusion and the assessment rate. The first design would have a high exclusion with a high assessment rate: all borrowers with incomes below \$25,000 would be exempt from payments, with 18 percent of discretionary income required beyond that income level. The low-exclusion, low-rate option would have a low \$10,000 income exclusion with a 10 percent repayment rate. The third multiple-rate option is progressive, with exclusions of \$12,000 for individuals and \$18,000 for families of two or more. The assessment rates would increase from 10 percent on discretionary income up to \$40,000, to 12.5 percent on additional income up to \$70,000, and 15 percent on income above \$70,000.

### **Analysis**

Selecting the appropriate percentage of discretionary income required for repayment cannot be isolated from the question of an income exclusion or from the questions of whether and after how long remaining balances will be forgiven. A low assessment rate combined with a short time period before forgiveness will lead to an expensive program that heavily subsidizes borrowers. Policymakers can avoid this problem by choosing assessment rates high enough and income exclusions low enough that most borrowers will fully repay their loans.

Some of the proposed assessment schemes are quite complicated and would be difficult for borrowers to understand. Moreover, although a progressive assessment rate can be vertically equitable, some proposed designs suffer from cliff effects. As described above, some designs specify one rate on all income below a certain level and a higher rate on incomes above that level, following the model of the progressive income tax rate structure. However, other proposals suggest one rate for households with incomes below a certain level and a higher rate for households with higher

incomes, which would create a sharp change in subsidy at the income cutoff. For a single person, the income exclusion of the NAF (Burd et al.2013) and HCM Strategists (2013) proposals, at 300 percent of the federal poverty level, would require 10 percent of discretionary income for single borrowers with incomes below \$35,310 and 15 percent for those with higher incomes. An increase in annual income from \$35,305 to \$35,315 would increase the required monthly payment from \$147 to \$221.<sup>32</sup>

In thinking about an appropriate rate, it is important to consider targeting. Lowering the assessment rate on discretionary income is most helpful to borrowers with higher incomes and higher debts. As Delisle and Holt (2012) point out, the change in assessment rates from IBR (15 percent) to PAYE (10 percent) does not help lower-income borrowers, who make little or no payments under either plan. The change helps middle-income borrowers only if they borrowed at least the maximum allowed for dependent undergraduates. Graduate students, in contrast, can benefit enormously from the lower assessment rate. Because graduate borrowing is limited only by cost of attendance, even borrowers with incomes well above \$100,000 could see significant loan forgiveness.

Table 2 shows the approximate debt levels that would be required to meet the IBR and PAYE financial hardship criterion at a 5 percent interest rate. For example, under IBR's 15 percent assessment rate, borrowers with incomes of \$30,000 will have lower payments than under the 10-year fixed repayment plan only if their debt exceeds \$34,800. Under PAYE's 10 percent assessment rate, borrowers with the same incomes but with debts exceeding \$23,200 will be eligible for the same reason: they would pay less each month and would take longer to retire their obligations under PAYE than under the standard 10-year plan. The largest differences in annual payment between the two assessment rates are for borrowers with higher incomes and higher amounts of debt, many of whom have borrowed for graduate school.

As table 3 illustrates, for single individuals with incomes of \$17,655 or less in 2015, the income exclusion reduces discretionary income to zero, so lowering the assessment rate from 15 percent to 10 percent has no effect. This situation holds for a significant percentage of borrowers. In 2014, 30 percent of individuals ages 25 to 34 with at least some college had incomes below \$17,500.<sup>33</sup> Among those ages 18 and older, 39 percent had incomes this low.<sup>34</sup> Lowering the repayment rate therefore benefits those who are significantly above the bottom of the income distribution.

TABLE 2

### Minimum Debt Levels Creating the Financial Hardship Required to Benefit from and Qualify for PAYE and IBR

*Lowering the assessment rate reduces payments significantly for borrowers with higher debts and higher incomes*

Annual discretionary Income	PAYE		IBR	
	Annual payment: 10% assessment rate	Minimum debt to qualify (5% interest)	Annual payment: 15% assessment rate	Minimum debt to qualify (5% interest)
\$10,000	\$1,000	\$7,800	\$1,500	\$11,600
\$20,000	\$2,000	\$15,500	\$3,000	\$23,200
\$30,000	\$3,000	\$23,200	\$4,500	\$34,800
\$40,000	\$4,000	\$30,900	\$6,000	\$46,400
\$50,000	\$5,000	\$38,700	\$7,500	\$58,000
\$60,000	\$6,000	\$46,500	\$9,000	\$69,500

**Source:** Authors' calculations.

**Notes:** IBR refers to the original Income-Based Repayment Plan, implemented in 2009. "Minimum debt to qualify" refers to the amount of debt that would place the borrower in partial financial hardship, a circumstance in which the standard 10-year payment would exceed the required income-driven payment.

TABLE 3

### Impact of Lowering the Assessment Rate on Payment as a Percentage of Monthly Income

*Lowering the assessment rate on discretionary income is most helpful to borrowers with higher incomes*

Annual income	Discretionary income	Monthly discretionary income	15% of discretionary income	10% of discretionary income	Change in monthly payment	Change as percentage of monthly income
<\$17,655	\$0	\$0	\$0	\$0	\$0	0%
\$20,000	\$2,345	\$195	\$29	\$20	-\$9	-0.6%
\$30,000	\$12,345	\$1,029	\$154	\$103	-\$51	-2.1%
\$40,000	\$22,345	\$1,862	\$279	\$186	-\$93	-2.8%
\$50,000	\$32,345	\$2,695	\$404	\$270	-\$135	-3.2%
\$60,000	\$42,345	\$3,529	\$529	\$353	-\$176	-3.5%

**Source:** Authors' calculations.

**Notes:** Values are based on 2015 poverty guidelines. Family size = 1; income exclusion = 150 percent of the federal poverty level (\$17,655).

Appendix B, table B.2 provides additional perspective on the impact of reducing the assessment rate. For example, reducing the rate from 15 to 10 percent increases the starting income required to pay off a debt of \$80,000 within 20 years from \$40,500 to \$54,000, assuming 5 percent annual nominal income growth. The impact is smaller for borrowers with lower levels of debt, with the starting income required to pay off a \$20,000 debt rising from \$20,400 to \$23,700.

#### D. SHOULD THE REQUIRED PAYMENTS DEPEND ON FAMILY SIZE?

Under the current system, the income exclusion is 150 percent of the federal poverty level, which varies with family size. The IDR plans in the United States depart from foreign examples of IDR by reducing required payments for borrowers who support families. Although most proposals recognize the problems inherent in using the same income exclusion for all households, many are concerned with the complexity of the current system.

The authors of *Automatic for the Borrower* (Young Invincibles et al. 2014) argue that developing a payroll withholding system becomes more difficult if the required payments depend on family size. Accordingly, this consortium proposes three options: in the first two, the income exclusion would be the same for all family sizes, and the third option would incorporate one exclusion for individuals and a higher exclusion for families of two or more. The Dynamic Repayment Act (2014) also combines payroll withholding with a flat income exclusion of up to \$13,000. In contrast, HCM Strategists (2013) and the NAF proposal (Burd et al. 2013) take family size into account in both their income exclusion (150 percent of the federal poverty level) and in their progressive assessment rates, which (as noted above) depend on whether household income is below 300 percent of the federal poverty level.

#### Analysis

There are pros and cons to making the required payment a function of family size. If the goal is to ensure borrowers can support themselves throughout repayment, it is logical to include family size. Under the 2015 federal poverty guidelines and a 150 percent of federal poverty level income exclusion, a single individual with no dependents would exclude \$17,655, and a single parent of two children would exclude \$30,135.<sup>35</sup> Choosing the higher dollar amount as a flat income exclusion would allow single borrowers to avoid payments and accrue interest for longer than necessary, and choosing the lower exclusion would ask more of heads of larger households than they would likely be able to manage. Tying the exclusion to poverty guidelines, therefore, could be considered both more equitable in considering borrowers' relevant circumstances and more effective in terms of preventing delinquency and default.

However, incorporating family size complicates payment determination. If borrowers in larger families have more generous income exclusions, then the income of all family members should be subject to the assessment rate (Burd et al. 2013; TICAS 2013). Basing the income exclusion on the federal poverty level is, however, simpler and easier to understand than some of the proposals for multiple assessment rates or for loan forgiveness periods that vary with debt size, as discussed above.

## E. HOW SHOULD MARRIED COUPLES BE TREATED?

If loan repayment requirements are driven by income, it is important not only what type of income counts, but also whose income. Should married partners sharing financial resources also share responsibility for loan repayment? If so, payment determination and mechanisms for payment can become complicated for couples with unequal amounts of income and student loan debt.

In the current IBR and PAYE plans, although the income exclusion incorporates family size regardless of tax filing status, payment determination for couples depends on whether they file federal taxes jointly or separately. For couples filing jointly, payments are a percentage of discretionary joint AGI, allocated to each individual in the same ratio as their outstanding debts. For couples filing separately, the partner's income is excluded from payment determination. This exclusion means a borrower who is a nonworker or part-time worker whose partner works full-time may never owe income-driven payment. The recently announced regulations for the new REPAYE plan require that monthly payments be based on joint marital income, regardless of whether couples file separate or joint income tax returns.

Proposals for IDR differ in how they would treat repayment for married borrowers, with those advocating for payroll withholding going into greater detail. The authors of *Automatic for the Borrower* (2014) point out that using joint AGI to determine payments could lead to inaccurate withholding unless there is also withholding from the earnings of spouses who may not themselves have debt. The consortium suggests having each working spouse check a box on his or her W-4 form reporting the household's loans so that both would have income withheld. Dynarski and Kreisman (2013) propose the same solution.

Three other proposals address the question of how to treat married couples filing separately. TICAS (2014a) and the Repay Act (2015) would treat such couples as if filing jointly, basing payments on joint income and allocating payments to each proportional to his or her outstanding debt. Delisle and Holt (2012) and HCM Strategists (2013) recommend that borrowers who are married filing separately should include spousal income in payment determination unless both spouses are enrolled in IDR, in which case each payment would be based on half of their combined AGI.

### **Analysis**

Some examples of possible scenarios can help develop a basis for judging the best approach. For example, consider a borrower who is not in the labor force but has a spouse with significant income. Basing payments on individual income alone would be problematic, and forgiving the debt would be an ill-targeted subsidy. Basing payments on the married couple's joint AGI would avoid this

problem. Another way of avoiding such an extreme scenario is by limiting IDR to borrowers with positive earnings and requiring payment through a fixed payment plan for those without earnings, as proposed by Dynarski and Kreisman (2013). In their design, it would be in the interest of the nonworking spouse to self-identify to the working spouse's employer so both loans could be repaid through the income-driven plan. Their design, however, in addition to being more complicated, would not prevent a low-earning spouse from receiving forgiveness despite a high joint income.

Lengthening the time to forgiveness or eliminating loan forgiveness, as suggested by Akers and Chingos (2014), ExCEL Act (2015), and Sheets and Crawford (2014), reduces the potential for ill-targeted subsidies to high-income couples with one nonworking or low-earning borrower. Generous loan forgiveness creates an incentive for these borrowers to make minimum payments, even if they could afford to repay their loans earlier. If there is no loan forgiveness, this moral hazard is less of an issue.

For purposes of repaying student loan debt, all married couples' total IDR payments should depend on their combined income and debt, regardless of whose income and whose debt, and regardless of tax filing status. If just one spouse has debt, most proposals are in agreement that payments should be based on combined income. If both have debt, however, there are two proposed ways of determining payments: (1) use the current method of determining payments for joint filers, which would combine income and allocate payment according to debt burden; or (2) determine payments for each spouse based on half of combined income and a family size of one. The first of these methods is simpler and would help the couple pay off their combined debt earlier.

#### **F. SHOULD REQUIRED PAYMENTS BE CAPPED AT LEVELS CORRESPONDING TO THE STANDARD 10-YEAR REPAYMENT PLAN?**

In the current system, borrowers are only eligible to enroll in IBR or PAYE if their monthly payments under the 10-year fixed repayment plan exceed the payment required under the IDR plan. Once enrolled, borrowers' required payments are capped at that standard payment amount. All detailed proposals for universal IDR recommend removing the cap on monthly payments so that the minimum required payment would always be the specified percentage of discretionary income. The newly announced rules for REPAYE eliminate this cap, requiring all participating borrowers to pay 10 percent of their discretionary incomes.

As Delisle and Holt (2012) explain in "Safety Net or Windfall?," the cap lowers total payments for borrowers with initially low incomes that later increase and can lead to loan forgiveness for some borrowers who would fully repay their loans in the absence of the cap. TICAS (2013) similarly notes that the standard repayment cap is regressive, enabling high-income borrowers to pay a

smaller percentage of their discretionary incomes than lower-income borrowers. These and other reformers would, like REPAYE, eliminate the cap on required monthly payments.

### Analysis

A cap on monthly payments could lead two borrowers with similar average incomes over time but following different earnings paths to receive very different benefits. This discrepancy is less of an issue if there is no loan forgiveness, but becomes more serious as the payment period required before forgiveness shortens. For example, as illustrated in table 4, two borrowers with the same debt (\$20,000) and the same average income over a 25-year period (\$42,100) would pay a similar discounted amount over the course of repayment in the absence of the payment cap. With the cap, however, a borrower whose income is low for a period of time and then increases sharply reaches forgiveness, paying \$4,000 less than the borrower whose income increases steadily over time. These results violate vertical and horizontal equity.

TABLE 4

#### Income Patterns and the Standard 10-Year Payment Cap

*Two borrowers with the same average earnings over 25 years pay different amounts with a payment cap in place*

Outcome (discounted)	Borrower 1: Steady income growth		Borrower 2: No income years 1 and 2, sharp increase after year 9	
	No payment cap	Payment cap	No payment cap	Payment cap
Balance forgiven	\$0	(no change)	\$0	\$5,040
Total payments	\$21,538	(no change)	\$21,568	\$17,231
Years of repayment	14	(no change)	16	20

**Source:** Authors' calculations based on the New America Foundation's income-based repayment calculator.

**Notes:** Debt = \$20,000; average inflation-adjusted income over 25 years = \$42,100. The scenarios use an assessment rate of 10 percent, interest rate of 4 percent, and income exclusion for a family of one equal to 150 percent of the federal poverty level in 2015, or \$17,655. The calculations discount both balance forgiven and total payments at 3 percent per year and apply an inflation rate of 2.3 percent to the income exclusion and borrowers' income. Borrower 1 has real income growth of approximately 2.7 percent per year.

Eliminating the standard 10-year payment cap in universal IDR would mean many borrowers would repay in less than 10 years. Because of the accounting procedures for the cost of the student loan program, the federal government can actually lose money if people repay their loans more quickly. But equity considerations and budget considerations may work in opposite directions. If all borrowers are in an IDR plan, requiring all to pay a percentage of their incomes with no cap will

diminish the chances of relatively affluent borrowers receiving significant subsidies. Some borrowers' incomes will fluctuate, and their payments will fluctuate accordingly.

#### G. SHOULD BORROWERS BE ALLOWED TO MAKE HIGHER MONTHLY PAYMENTS TO FACILITATE EARLY REPAYMENT?

No proposals advocate penalties for early repayment. Most explicitly advocate making this option simple and clear. For example, Dynarski and Kreisman (2013) and the Dynamic Repayment Act (2014), both of which support payroll withholding, suggest allowing borrowers to request higher levels of withholding through their W-4 forms if they wish to repay their debts more quickly than required under IDR. The foreign IDR designs shown in appendix A, table A.1 all allow higher payments than required. In fact, as noted by Sheets and Crawford (2014), Australia offers students financial incentives for early repayment.<sup>36</sup>

#### Analysis

In addition to being flexible enough to allow early repayment, the IDR plan should make higher payments simple and should make the costs and benefits of alternative payment strategies transparent. The government could present borrowers with monthly estimates of how long it will take them to retire their debt if they make the required minimum payment compared to alternative higher payments.

As discussed in a later section, borrowers who decide to make higher payments than required under IDR end up repaying less overall because they incur less interest. However, whether borrowers benefit from paying less earlier versus more later depends on how they discount the value of future payments. This discount determination, in turn, depends on the interest rate on the loans and the interest rates available in the economy. For example, extending the time frame of a loan carrying a 3.4 percent interest rate and investing funds at a higher market rate of 5 percent, perhaps as retirement savings, would be financially advantageous to the borrower. Simply pointing out the total interest paid over the life of the loan is insufficient to provide the desired clarification about the pros and cons of alternative payment schedules.

In any case, students are better off with the options of extending the repayment period or paying earlier to shorten it. It is less clear how giving students these options affects government costs. According to the federal government's accounting standards, the fact that student loan interest rates are higher than the government's cost of borrowing means the government makes money over the life of the loan as borrowers pay interest; earlier repayment actually adds to the federal cost of the loan program. However, early repayment saves the government money when it prevents significant loan forgiveness. The federal government might also prefer earlier repayment

under a different accounting standard. If the cost of the loan programs were, for example, based on the potential return to alternative uses of federal funds rather than the government's cost of borrowing, the budget would not be helped by stretching out loan repayment.<sup>37</sup>

## 4. Payment Mechanisms

### A. SHOULD PAYROLL WITHHOLDING BE THE PRIMARY MECHANISM FOR STUDENT LOAN REPAYMENT?

Most proposals for developing an automatic or universal IDR plan involve some form of payroll withholding similar to the current system for income tax withholding. A payroll withholding system allows payments to be made with minimal borrower involvement. Even more important, such a system is the best way to ensure required payments adjust with income, without bureaucratic barriers for borrowers. Recent data on the number of borrowers who fall out of income-driven plans because of failure to annually verify income strengthen these arguments.<sup>38</sup>

Boatman, Evans, and Soliz (2014) argue that a passive repayment system helps borrowers overcome psychological barriers to repayment. From a behavioral perspective, in addition to reducing complexity, payroll withholding would change the perception of loan payments, making them seem less like out-of-pocket expenses. The system would also provide a form of precommitment that would help borrowers avoid the pitfall of not making payments they intend to make because at the moment the payment has to be made, it appears disproportionately painful.

Among the detailed proposals we review, four advocate for payroll withholding.<sup>39</sup> Dynarski and Kreisman (2013) would base repayment entirely on earnings, rather than total income, AGI, or taxable income. Though defining income differently, other authors would nevertheless have monthly payments calculated on the basis of earnings to facilitate real-time adjustment, with under- and overpayments due to the difference between the IDR definition of income and earnings reconciled annually through the tax system. The authors of *Automatic for the Borrower* (Young Invincibles et al. 2014) and the "Case for Payroll Withholding" (New America, Young Invincibles, and NASFAA 2014) argue that IDR cannot achieve its goal of providing automatic protection against student loan default unless required payments are automatically adjusted by the employer based on current earnings, rather than using lagged income information retrieved from the Internal Revenue Service (IRS) or Social Security Administration.

The strongest advocates for payroll withholding are thorough in noting its challenges and complexities. Young Invincibles and partners (2014), for example, in the *Automatic for the*

Borrower proposal, acknowledge that avoiding overwithholding could be more difficult for individuals with more than one employer. The “Case for Payroll Withholding” authors (New America, Young Invincibles, and NASFAA 2014) warns that although repayment through payroll withholding would relieve burdens related to income verification, it could instead become a serious burden on employers and borrowers if not carefully designed. In a follow-up report,<sup>40</sup> the same authors describe several design challenges in detail, arguing that automatic IDR must be designed to work well with payroll withholding while maintaining transparency and flexibility for borrowers (New America, Young Invincibles, and NASFAA 2015).

The consortia authors mentioned above, as well as the ExCEL Act (2015) and Dynamic Repayment Act (2014), would allow borrowers to opt out of withholding, enabling borrowers with competing financial responsibilities to make loan repayments a lower priority when necessary.

### **Analysis**

Without an appropriate payment mechanism, IDR cannot function as intended. There is no obvious alternative to payroll withholding that would make the system simple for borrowers and allow payments to adjust quickly and easily. Although there would be complexities for borrowers with multiple employers, those who are married, and those who earn nonwage income, the current system accommodates income tax withholding for such workers.

Proposals for opt-out mechanisms are apparently rooted in concern over forcing borrowers to put student loan repayment at the top of their lists of financial priorities. Payments would reduce disposable income, forcing borrowers to make decisions about consumption and other loan repayment out of remaining income. This reasonable concern deserves careful consideration. The tension is between preventing borrowers from becoming delinquent on their income-driven payments and giving them more of the discretion they have under the current system. An opt-out could defeat part of the purpose of the system. A process allowing for individuals to appeal their payments because of extenuating circumstances might be a more constructive approach.

With payroll withholding and universal IDR, the employer would not need to know the employee’s amount of debt, only that the employee has student debt and the appropriate family size to calculate the income exclusion. Employers could send payments through the deposit system currently used for other payroll withholding or directly to the appropriate federal agency.<sup>41</sup> The amount of the withholding would adjust automatically with wages, and employers would report these amounts through their annual W-2 process.<sup>42</sup>

## B. HOW SHOULD PAYMENTS BE COLLECTED AND DETERMINED FOR NON-TAX FILERS AND THE SELF-EMPLOYED?

A system that relies on employers withholding from wages to collect payments and on income information from the tax system to determine payments must have a provision for dealing with payment collection from self-employed workers and payment determination for non-tax filers.

Reformers advocating payroll withholding would have self-employed borrowers pay quarterly, as they do for income taxes.<sup>43</sup> The Automatic for the Borrower proposal (2014) suggests allowing self-employed borrowers to substitute monthly payments for quarterly payments.

Although most proposals would use the tax system to determine payments, few comment on how to handle borrowers who are not required to file taxes. Currently, non-tax filers submit alternative income documentation, and this practice could continue. Dynarski and Kreisman (2013) propose that borrowers reporting no household income be billed for payments based on a 10-year repayment plan; borrowers would have to file for deferment if they were not able to pay. As stated in the ExCEL Act (2015) and Dynamic Repayment Act (2014), and implicit in most proposals, however, those borrowers not required to pay taxes would likely have income below the exclusion and would therefore not be required to make payments under IDR.<sup>44</sup>

### Analysis

Most proposals concur that under a universal IDR design with payroll withholding, loan repayment for self-employed borrowers could be integrated into current procedures for Social Security and income taxes. There is less agreement about non-tax filers. The best strategy is probably to assume individuals not required to file federal income taxes should not be required to make student loan payments. Requiring additional verification would add bureaucratic complexity to the lives of the very borrowers for whom the program should be providing the most protection.

## 5. Interest

### A. HOW SHOULD THE INTEREST RATE ON STUDENT LOANS BE SET?

At the time many student aid reform proposals were written, interest rates on Stafford loans were scheduled to double within the next year (i.e., in July 2013). Many reformers criticized what they saw as arbitrary rates set by Congress and suggested that rates instead should be tied to the government's cost of lending. The Bipartisan Student Loan Certainty Act signed into law in August 2013 set an interest rate formula for all newly issued loans. The rates are fixed for the life of the loan and are equal to the 10-year treasury rate plus fixed margins and caps that vary by type of loan:

rates and caps are lowest for undergraduate Stafford loans (subsidized or unsubsidized), about one percentage point higher for graduate and professional student Stafford loans, and another percentage point higher for Direct PLUS loans. The new interest rate formula is very similar to those proposed in several IDR proposals.<sup>45</sup> Mishory and O'Sullivan (2012), in the Young Invincibles proposal, do not suggest a formula, but they echo the reasoning of other proposals in suggesting the interest rate be set for all loans to make the program budget neutral over the long run.

Senator Elizabeth Warren has introduced legislation in Congress that would allow most borrowers holding student loan debt to refinance at prevailing low interest rates, locking those low rates in for life.<sup>46</sup> This strategy would eliminate the inequities across loans taken in different years, but it would increase the cost of the student loan program to the federal government because as interest rates in the economy rise, the vast majority of outstanding debt would likely yield rates lower than the government's cost of funds.

James and Kelly (2015, 8) describe a few options for student loan interest, including Alexander Holt's proposal that an upfront surcharge replace interest as "a bolder solution".<sup>47</sup> With this strategy, the effective interest rate would decline as the period over which borrowers repay increased, as the surcharge and principal would be fixed regardless of the time to repayment.

### **Analysis**

The current structure charges higher interest rates to graduate students than to undergraduates. This policy may be vertically equitable because it treats borrowers in different circumstances appropriately differently. Graduate students generally have higher earnings than those with only undergraduate degrees, and the arguments for subsidizing graduate education are not as strong as those for subsidizing undergraduate education.

Under an income-driven loan repayment program, interest rates do not directly affect monthly payments.<sup>48</sup> Rather, higher interest rates increase the amount of time over which borrowers will repay or the balance forgiven if the borrower reaches loan forgiveness, with greater impact on borrowers with higher debts. For borrowers who do not reach loan forgiveness, the benefit of lower interest rates depends on the amount borrowed, with those with the highest debt levels—usually graduate students—receiving the largest benefits. Accordingly, although there are certainly inequities in setting interest rates so high as to have students subsidizing the government, there are also equity problems with setting interest rates too low, targeting subsidies on borrowers with high debt levels rather than on those struggling most in repayment.

## B. SHOULD THE INTEREST RATE VARY OVER THE LIFE OF THE LOAN?

Currently, interest rates on federal student loans are fixed for the life of the loan and vary depending on the year the loan was issued. For loans issued between 2006–07 to 2013–14, those different rates were set by legislation and had little to do with market conditions or borrowing costs.

Although some proposals are explicit about maintaining the system of fixed interest rates for the life of the loan, others suggest loans with varying rates over time make sense in a system of universal IDR. Dynarski and Kreisman (2013, 14), for example, argue that because IDR monthly payments only vary with income, not with the interest rate, variable interest rates would protect taxpayers by keeping interest rates closely tied to borrowing costs, while also reflecting administrative costs and the riskiness of loans. The Young Invincibles proposal (Mishory and O’Sullivan 2012) and Sheets and Crawford (2014) also support variable interest rates, pointing out that they would eliminate the problem of borrowers having multiple loans with different interest rates.

The remaining proposals reviewed support market-based rates that are fixed for the life of the loan, with some disagreement on the extent of safeguards against market-based fluctuation.<sup>49</sup> Some proposals, for example, do not see the need for an interest rate guarantee provided that IDR can include forgiveness (Burd et al. 2013; HCM Strategists 2013) or a cap on interest accrual (ExCEL Act 2015). In contrast, TICAS (2013) not only supports an interest rate cap, but also proposes additional interest rate insurance. Their design would prevent interest rates on outstanding loans from being much higher than rates on newly issued loans.

### **Analysis**

Setting interest rates for the life of the loan creates outstanding loans carrying a variety of interest rates that may depend on market rates in the year the loan was issued. Because interest rates can have a substantial effect on borrowers’ debt burdens over time, such a policy is cause for concern from a standpoint of horizontal equity: students who happen to take out loans during a period of high market rates will face a greater repayment burden.

Allowing the interest rate on individual loans to vary with market rates solves the problem of imposing permanently higher interest burdens on students who enrolled in a year with particularly high rates. It allows the chosen level of subsidy—or lack thereof—to prevail on all loans. Although unexpected changes in monthly payments due to interest might be of concern under fixed-payment plans, changes in interest will not affect monthly payments under IDR.

### C. HOW SHOULD INTEREST DUE IN EXCESS OF REQUIRED MONTHLY PAYMENTS BE TREATED?

Current IBR and PAYE programs treat unpaid interest differently depending on whether the borrower is in partial financial hardship and on whether loans are subsidized Stafford loans or other direct loans. During the first three years of repayment, the programs forgive any interest charges on subsidized loans in excess of required payments, and interest on subsidized loans does not accrue during periods of deferment. However, this is not the case for other Federal Direct loans. Any unpaid interest that accrues in IBR or PAYE does not capitalize (does not accumulate its own interest as part of the loan principal) as long as the borrower remains in partial financial hardship. If the borrower's income increases so that he or she is no longer in partial financial hardship, however, all accrued interest is capitalized.<sup>50</sup>

The new REPAYE regulations are more favorable to borrowers whose payments do not cover the interest charged on their loans. New provisions cap the amount of unpaid interest that can be added to subsidized and unsubsidized loan balances at 50 percent. For example, if the interest charged on a borrower's balance for the month is \$100, but the borrower's income-driven payment is \$80, then only half of the remaining \$20 is added to the balance. The REPAYE regulations also do not capitalize unpaid interest for borrowers whose incomes increase beyond the level of partial financial hardship.<sup>51</sup>

Reformers have varying opinions on the appropriate treatment of unpaid interest in IDR plans, particularly whether and when it should be capitalized. The Automatic for the Borrower proposal (Young Invincibles et al. 2014) and TICAS (2013) suggest all interest should accrue only and never be capitalized, arguing that an interest-accrual-only measure is important to prevent loan balances from growing when borrowers' incomes are low and that it would simplify the program. The NAF proposal (Burd et al. 2013) and the Repay Act (2015) would continue the policy of capitalizing unpaid interest only once a borrower's income is high enough that the income-driven payment would exceed the standard 10-year payment. HCM Strategists (2013) similarly would have unpaid interest begin to capitalize once a borrower's debt-to-income ratio falls to a certain point. Dynarski and Kreisman (2013) favor capitalizing all unpaid interest, arguing that interest subsidies are costly and do not increase college access. Akers and Chingos (2014) suggest capitalization is unlikely to make a substantial difference for most borrowers.

Some proposals suggest other ways of helping borrowers with unpaid interest, such as capping its accumulation. Sheets and Crawford (2014, 11) suggest that capping interest accumulation would be preferable to loan forgiveness as a means of protecting borrowers. This approach would ensure borrowers with unexpectedly low incomes do not see their balances grow, while preserving

incentives for students to repay faster if their incomes allow it. Both the ExCEL Act (2015) and the Dynamic Repayment Act (2014) would allow interest to capitalize only while the student is in school: during repayment, interest would only accrue and would be capped at 50 percent of the original principal. Finally, TICAS (2013) would have a distinction between Pell grant recipients and others replace the current distinction between subsidized and unsubsidized loans in the treatment of unpaid interest. For Pell recipients only, they would forgive any interest charges exceeding income-driven payments. All other loans would see unpaid interest accrue, but never capitalize.

### **Analysis**

If unpaid interest accrues, the amount the borrower owes grows over time, and if that interest capitalizes, the debt grows faster. This practice can lead to problems for the borrower in accessing credit, as well as psychological barriers to dealing with the debt. Capping the amount of interest that can accrue is likely to be a low-cost way of diminishing the extent to which borrowers are overwhelmed by their student debt.

If benefits from capping interest are not universal, they should be targeted based on financial circumstances during the repayment period, not circumstances at the time of college enrollment, which determine eligibility for Pell and subsidized Stafford loans. Using Pell receipt as a yes-or-no determinant for forgiving unpaid interest would create an undesirable cliff effect. Suppose two 30-year-old students each borrowed \$10,000 to earn a medical technology certificate. Both had the same job while in school, but one had a child and received a Pell grant, while the other was pregnant while in school and became a mother after graduating. She did not receive a Pell grant. Should interest on their debts exceeding their IDR monthly payments be treated differently?

Borrowers whose required payments are lower than the interest due for long periods of time have very low incomes and are likely to have outstanding debt at the time of forgiveness. In this case, there is no cost to forgiving the interest at the time it would accrue, because the charges will never be repaid in any case. However, the difference for the borrower can be meaningful.

Borrowers' debt-to-income ratios, as well as other policy details, affect the extent to which required payments cover interest due. Forgiving unpaid interest is most beneficial to borrowers with higher debt-to-income ratios earlier in the repayment period but whose incomes increase sufficiently to fully repay their loans within 20 years. As table 5 shows, above the income exclusion, for a given level of debt, lower assessment rates increase the income level required to cover the interest due. A borrower with \$50,000 in debt would need an income of \$37,655 to avoid unpaid interest under a 10 percent plan like PAYE, but an income of \$30,988 would generate a high-

enough payment under a 15 percent plan like IBR. Appendix B, table B.3 includes additional examples.

TABLE 5

**Minimum Income Level Required to Cover Interest Payments under IDR**

Debt	Assessment rate	
	10%	15%
\$10,000	\$21,655	\$21,655
\$30,000	\$29,655	\$25,655
\$50,000	\$37,655	\$30,988

Source: Authors' calculations.

Note: Values assume an income exclusion for a family of one, equal to 150 percent of the federal poverty level in 2015, or \$17,655.

As this discussion of the issue suggests, the treatment of unpaid interest can be complicated. The goal should be to limit the extent to which unpaid interest for low-income borrowers causes debt levels to balloon without creating an unduly complex set of rules.

**D. SHOULD THE IN-SCHOOL INTEREST SUBSIDY BE ELIMINATED?**

All proposals that mention the in-school interest subsidy suggest eliminating it, ending the distinction between subsidized and unsubsidized Stafford loans. Proposals note that the subsidy is poorly targeted, because it is impossible to know in advance which borrowers will struggle with repayment,<sup>52</sup> and ineffective in increasing college access, because its benefits are realized too late. Proposals to eliminate the in-school interest subsidy note that it costs billions of federal dollars but does not “put any money into the hands of students” (Dynarski and Kreisman 2013, 15). The New America Foundation estimates in HCM Strategists (2013) that eliminating subsidized Stafford loans would save more than \$3 billion annually.

In contrast to other proposals, TICAS (2013) would keep a smaller in-school subsidy built into all undergraduate loans. Their proposed loan would have no fees and a lower in-school interest rate. They justify this proposal by suggesting a nonzero but lower in-school rate encourages students to persist toward graduation, “knowing that their interest rate will rise if they stop,” but also discourages students from “dragging out their time in school” (TICAS 2013, 54–5).

**Analysis**

As reformers point out, the in-school interest subsidy is a type of aid that is out of alignment with principles for reform: it adds complexity and is poorly timed, poorly targeted, and inefficient.

Moreover, the distinction between the two programs requires a need analysis system to determine eligibility for subsidized loans, introducing unnecessary complexity in the application process for federal loans.<sup>53</sup> Funds spent on interest subsidies would be better spent on grants and counseling.

Under IDR, the interest rate affects the length of time required to pay off loans and the overall balance, but not monthly payments. The goal of allocating federal loans at enrollment is to provide liquidity, not to provide a systematic subsidy to students. Although some aspects of subsidized loans, such as interest-free deferment during periods of economic hardship, are good policy for some students, distributing this benefit based on financial need at the time of college enrollment is not equitable, as it does not treat students in different circumstances appropriately differently.

## 6. Limiting Coverage

### A. SHOULD THERE BE LIMITS ON THE AMOUNT OF DEBT ELIGIBLE FOR IDR?

Current federal loan policies allow graduate students to borrow up to the cost of attendance less other financial aid each year, with no lifetime limit. Undergraduate borrowing is limited, with dependent students currently able to borrow a total of \$31,000 and independent students \$57,500. All these student loans are eligible for IDR plans. Although most proposals would keep the current system of loan limits, some propose new limits on borrowing in order to reduce the potential for universal IDR to encourage excessive borrowing and extensive forgiveness.

TICAS (2013) would maintain current Stafford loan limits, but it would prorate loan limits for part-time students. HCM Strategists (2013) propose setting a common loan limit for undergraduate students in IDR, half-way between the current limits for dependent and independent undergraduates. The NAF proposal (Burd et al. 2013) would also have a single set of loan limits regardless of dependency status, perhaps \$6,000 the first year, \$7,000 the second year, and \$9,000 thereafter with a \$40,000 overall limit for undergraduates. Each of these proposals includes higher loan limits for graduate students.

### Analysis

Failing to put meaningful limits on the amount of student debt eligible for IDR will lead to increased borrowing and, if there is loan forgiveness, to outsized subsidies for borrowers with high debt levels, the majority of whom have above-average incomes. One option is to place stricter limits on borrowing through federal programs. However, it is possible to limit the amount of debt covered by IDR even without such restrictions on total federal borrowing by, for example, setting a dollar limit on IDR coverage or excluding debt for graduate school.

It is also appropriate to reconsider the differences in the loan limits for dependent and independent undergraduate students and prorating the annual amounts available to part-time students.

#### **B. SHOULD GRADUATE DEBT BE TREATED DIFFERENTLY FROM UNDERGRADUATE DEBT?**

Graduate students tend to have higher debts than undergraduates, but also higher incomes. The authors of *Automatic for the Borrower* (Young Invincibles et al. 2014) note that graduate students represent 15 percent of Stafford loan borrowers, but 30 percent of Stafford dollars. Individuals ages 25 to 34 with master's degrees have median earnings about 20 percent higher than those with bachelor's degrees; those with professional degrees, who tend to have the highest debt levels, have median incomes 46 percent higher than bachelor's degree recipients.<sup>54</sup>

Delisle and Holt (2012, 2014) explain how, so far, reforms to IDR in the United States have provided “windfall” subsidies in loan forgiveness for graduate students who take out loans far greater than the cumulative federal loan limits for undergraduate students, but who also earn relatively higher incomes. The interaction of IDR provisions with the public service loan program, which forgives unpaid balances after 10 years of IDR payments, exacerbates the problem.<sup>55</sup> Dynarski and Kreisman (2013) would exclude graduate debt from IDR, avoiding this problem. Rather than excluding graduate debt, the NAF proposal (Burd et al. 2013) would eliminate Grad PLUS loans and increase the annual unsubsidized Stafford loan limit for graduate students from \$20,500 to \$25,500.<sup>56</sup> Although members of the *Automatic for the Borrower* (2014) consortium have differences of opinion about the optimal treatment of graduate debt, they point out that less generous treatment could allow stronger benefits for those with undergraduate debt who are struggling most.

Recent legislative proposals for IDR—the Dynamic Repayment Act (2014) and Repay Act (2015)—would lengthen the time to forgiveness for those borrowers with loan balances higher than the undergraduate aggregate limit, effectively limiting loan forgiveness for graduate and professional student borrowers.<sup>57</sup> Similarly, REPAYE reduces the benefits of loan forgiveness for graduate student borrowers by extending the time-to-forgiveness five years longer for borrowers with graduate school debt.<sup>58</sup>

#### **Analysis**

Eliminating the provision allowing graduate students to borrow up to the cost of attendance through the PLUS program would be good policy, even absent loan forgiveness. This unlimited borrowing probably puts upward pressure on tuition levels and also induces students to accumulate excessive levels of debt. The REPAYE provision, which forgives the unpaid debt of borrowers with

only undergraduate debt after 20 years but extends the time to 25 years for all of the debt of participants with any graduate school debt, is an awkward design that increases administrative cost and complexity and could lead to inequities. Although typical graduate school borrowers have larger debts than typical undergraduate borrowers, there are surely exceptions. It would be more logical either to exclude graduate student debt from the program or simply to limit the total amount of debt a borrower can cover through IDR.

A short time before forgiveness creates the undesirable circumstance that two borrowers with similar income paths repay the same amount even if they borrowed very different amounts. There is no cost to taking out larger loans—a particularly problematic structure in the presence of unlimited borrowing under Grad PLUS. It might be possible to gradually extend the time to forgiveness as the original amount borrowed increases, but this strategy could lead to a complicated system.

## 7. Older Students

As table 6 indicates, almost 40 percent of all postsecondary students and just over 30 percent of undergraduates are over age 24.<sup>59</sup> Students who attend college in their mid-twenties or later in life and complete degrees have less time than traditional-age students to reap the financial benefits through increased earnings. Older students are also more likely to have family obligations and other financial commitments during or immediately following their studies.

Older students tend to borrow more than younger students earning the same credentials, but their borrowing is limited by the fact that they are more likely than younger students to enroll in shorter associate degree and certificate programs rather than in four-year programs. But these programs generate smaller earnings premiums than bachelor's and advanced degrees. Moreover, the percentage of students leaving school without a degree increases with the age at which they first enroll, and this circumstance is highly correlated with loan repayment difficulties (Radford et al. 2010; Shapiro et al. 2014; Looney and Yannelis 2015). The student loan repayment system should be designed to work well for this population as well as for those who complete college earlier.

TABLE 6

**Age Distribution of Postsecondary Students, Fall 2013**

Type of student	Age of student		
	≤24	25–34	≥35
All postsecondary students	62%	22%	16%
Undergraduate students	69%	18%	13%
Full-time	79%	13%	8%
Part-time	51%	26%	23%
Graduate students	23%	48%	29%

Source: NCES, Digest of Education Statistics 2014, table 303.50.

Most reformers do not address the specific circumstances of older students. Sheets and Crawford (2014) note the challenges faced by older borrowers, including lower lifetime earnings, the need to save for retirement, and health care costs. They do not see these circumstances justifying particular IDR designs targeted to help older borrowers in repayment.

**Analysis**

Because older students have lower completion rates and are less likely than younger students to earn bachelor's degrees, they could face greater difficulties repaying their loans.<sup>60</sup>

Certain designs for payment determination may benefit older borrowers. For example, incorporating family size into determining the income exclusion is likely to be particularly important for older borrowers, who are more likely than younger borrowers to have dependents. Even single older borrowers may be more likely than younger borrowers to have home mortgages and other financial obligations and so would struggle more with a zero or very low income exclusion. Loan forgiveness policies may also be more important for older borrowers, who are more likely to be paying off unpaid balances during retirement in the absence of forgiveness after 20 or 25 years. These borrowers could be subject to having their Social Security payments garnished unless that practice is eliminated.<sup>61</sup>

**8. Institutional Accountability Measures**

Concerns over the possibility that universal IDR will make it easier for institutions to charge prices for programs that exceed their worth and for students to overborrow strengthen arguments for holding institutions partially responsible for their students' debt. Proposals for ensuring institutions

have “skin in the game” are not new,<sup>62</sup> but they are increasingly prevalent in the context of IDR discussions.

#### A. WHAT MEASURES OF INSTITUTIONAL ACCOUNTABILITY COULD REPLACE COHORT DEFAULT RATES UNDER UNIVERSAL IDR?

Cohort default rates are currently the Department of Education’s primary measure for identifying ineffective institutions. Proposals advocating for universal IDR recognize that, given IDR’s potential to prevent default, alternative institutional accountability measures will be necessary. Many reformers offer alternative measures based on students’ repayment progress or debt-to-income ratios in place of default rates; some would attempt to adjust those measures for student and institutional characteristics.

The Automatic for the Borrower (Young Invincibles et al. 2014) consortium discusses strategies for improving institutional accountability at length in their proposal. For example, the consortium emphasizes that a measure for accountability should include outcomes of noncompleters and should consider the share of borrowers making very low IDR payments in addition to the share in delinquency or default. They suggest several ways of measuring repayment progress, such as a cohort’s average number of years in repayment or the percentage of each of the following: borrowers on track to repay in 10 to 12 years, percentage of loan portfolio on track to be forgiven, borrowers with \$0 monthly payments, and borrowers with negative interest accrual. Outcomes should be measured on an institutional, not program, level, with graduate and undergraduate borrowers separated.

The Young Invincibles proposal (Mishory and O’Sullivan 2012) suggests setting minimum standards of repayment progress that would identify institutions where too few students are making progress in paying down their loan principals. This proposal, as well as HCM Strategists (2013) and Sheets and Crawford (2014), would adjust measures based on relevant student or institutional characteristics. TICAS (2013) would create a new student default risk index incorporating the share of students who borrow at the institution. HCM Strategists’ (2013) Institutional Effectiveness Index would be composed of three basic measures: protection of access and equity, completion rates, and federal student loan repayment rates.

#### **Analysis**

Universal IDR will necessitate replacing the cohort default rate as the standard measure of institutional accountability because it will automatically reduce required payments and prevent default among low-earning borrowers. Being able to identify poorly performing institutions, however, is only part of an effective strategy for institutional accountability. More outcomes to

measure and ways to measure them may add complexity and motivate institutions to spend more effort “looking good” than performing better. The strong legal challenge mounted by the for-profit sector against past efforts to impose standards suggests the importance of establishing a strong evidence base on which to ground new metrics.<sup>63</sup>

## **B. SHOULD THERE BE PENALTIES SHORT OF EXCLUSION FROM THE FEDERAL AID PROGRAMS FOR POOR INSTITUTIONAL PERFORMANCE?**

Reformers find it problematic for the only institutional penalty to be exclusion from participation in the federal loan program, which the NAF proposal (Burd et al. 2013, 30) calls the “equivalent of the ‘death penalty’ for aid-dependent institutions.”<sup>64</sup> Depending on institutional performance measures, reformers suggest a variety of possible consequences, such as loan limits, loan terms, and financial penalties connected to graduates’ loan repayment.

Some reformers suggest limiting institutions’ access to federal loans more incrementally than complete disqualification. The NAF proposal (Burd et al. 2013) recommends that, although institutions with poor results should become ineligible, those with mediocre results might be subject to limits on the aggregate amount of financial aid they can receive per student.<sup>65</sup> Sheets and Crawford (2014) would integrate institutional risk sharing into the loan system, incorporating institutional performance on the relevant measures into loan underwriting.

Other proposals include financial consequences for poor performance. TICAS (2013) would create a risk-sharing loan fee connected to the institution’s student default rate index (their alternative to cohort default rate) and proportional to the institution’s annual student loan volume, but only for institutions receiving the majority of their revenue from federal student aid. The Automatic for the Borrower proposal (Young Invincibles et al. 2014) suggests institutions might contribute a percentage of the loans on track to be forgiven to a risk-sharing fund or be required to pay a percentage of unpaid interest not covered by students’ required IDR payments.

A bipartisan agreement led to an amendment to the Senate 2016 budget that would have colleges contribute to a reserve fund to cover a part of their students’ loan defaults.<sup>66</sup> The Protect Student Borrowers Act (2015) would similarly hold institutions accountable for a portion of their students’ loan defaults.

### **Analysis**

Policies that directly affect institutions are very different from policies that, like those suggested in the Sheets and Crawford (2014) proposal, would build institutional risk into the terms of loans offered to students. Well-designed penalties for institutions could provide incentives for

improvement. Penalties imposed on students, especially at-risk students, are unlikely to be effective in changing the enrollment patterns of these students, who frequently face many personal, financial, and academic constraints and often enroll in institutions with poor track records in student repayment.

Institutional risk sharing built into universal IDR could be an efficient way to hold institutions accountable for contributing to students' inability to repay federal loans. Risk sharing could include such ideas as TICAS' (2013) risk-sharing loan fee or the Automatic for the Borrower (Young Invincibles et al. 2014) authors' risk-sharing fund. Requiring institutions to bear a fraction of the cost of unpaid loans is another reasonable approach that merits further study. Such a system could be complicated when students have borrowed to attend multiple institutions, but the program could apportion responsibility in the same ratios as the debt accrual.

Congress and the Department of Education should carefully design any risk-sharing policy to avoid both undue complexity and cliff effects for institutions above or below a bright line. The TICAS (2013) proposal's risk-sharing fee would create a cliff effect by applying only to colleges once federal aid represents a majority of their revenue. As the fee is tied to federal loan volume anyway, it would be more equitable to subject all institutions to the rule.

## Summary

The broad consensus that the federal student loan system should automatically place borrowers in an IDR plan is consistent with a simpler student aid system. This approach would create a stronger insurance plan for borrowers whose unforeseen circumstances lead to severe difficulties with debt repayment.

The design of the program involves many judgment calls. Most important is that the policy be simple and easy to understand. Reviewing the detailed proposals for reform makes it clear how challenging this goal is. Even reformers committed to simplifying the system end up advocating multiple provisions that are difficult to understand and would create a complex array of rules and regulations that vary with the particular circumstances of the borrower, the loans, and the institution.

The optimal program will target subsidies to borrowers most in need and ensure students in similar circumstances are treated in a similar fashion. To serve the most basic purpose of IDR, the program must prevent the debts of low-income borrowers from growing to increasingly

unmanageable levels over time while avoiding excessive debt forgiveness that would make the program unsustainable.

# Higher Education Tax Credits and Deductions

Some proposals for reforming federal student aid address strategies for improving the current system of federal education tax credits and deductions. Education credits and deductions are tax expenditures with the same budgetary impacts as direct grant aid, yet these subsidies are rarely included in estimates of the total amount of financial aid students receive or in estimates of net prices.<sup>67</sup> The current system of credits and deductions for tuition expenses provided aid to about 14 million individuals in tax year 2013, reaching more than either the Pell grant program or the Stafford loan program.<sup>68</sup> Tax aid is less targeted than grant aid, with households with AGIs over \$100,000 receiving nearly a quarter of the benefits from education tax credits and over half the benefits from the tax deduction in 2013 (Baum et al. 2015).

The American opportunity tax credit (AOTC) is by far the largest of the education credits and deductions. Congress created this partially refundable tax credit in 2009 as an expansion of the nonrefundable Hope credit. Students who have not yet completed their first four years of postsecondary education and are enrolled at least half time in a program leading toward a degree or certificate are eligible. The credit is for the first \$2,000 of tuition, fees, and required textbook expenditures exceeding grant and scholarship aid plus 25 percent of the next \$2,000.<sup>69</sup> Forty percent of the credit amount claimed is refundable, making \$1,000 the maximum credit for those with zero tax liability; about a quarter of federal expenditures on the AOTC are refunds.<sup>70</sup> Eligibility for the AOTC phases out with household income; joint filers with AGI above \$180,000 and other filers with AGI above \$90,000 are not eligible.<sup>71</sup>

The lifetime learning credit (LLC) is less generous than the AOTC in dollar terms and has lower income thresholds, but its other eligibility criteria are broader. There is no limit to how many years students may claim the LLC, and students enrolled less than half time and those not in a degree program are eligible. The credit is equal to 20 percent of tuition and related expenses up to \$10,000, which is a lower maximum (\$2,000) than the AOTC (\$2,500), and the LLC is nonrefundable. Eligibility phases out completely for single filers with AGI over \$64,000 and other filers with AGI above \$128,000.<sup>72</sup>

The two education deductions—the tuition and fees deduction and the student loan interest deduction—are both “above-the-line,” so nonitemizers can take advantage of them. Any individual with income up to \$80,000 (or \$160,000 on a joint return) repaying student loans can deduct up to \$2,500 in student loan interest paid. In contrast, only those with qualifying expenses in the past

year, not claiming any education tax credits, and with incomes under the same limits as the student loan interest deduction, are eligible for the tuition and fees deduction, which now benefits primarily graduate students from relatively high-income households.<sup>73</sup> About six times as many taxpayers claimed the student loan interest deduction as claimed the tuition and fees deduction in tax year 2013.<sup>74</sup> Congress recently renewed the tuition and fees deduction through the 2016 tax year (Committee on Ways and Means 2015).

Proposals for reform focus primarily on the AOTC, the LLC, and the tuition and fees deduction, but some also address the student loan interest deduction. A number of other provisions in the federal income tax code reduce taxes for college students and their families—and reduce federal revenues. These reductions include the parental personal exemption for students age 19 and older and tax-free college savings accounts.<sup>75</sup> The earned income tax credit also extends to children age 19 and older only if they are students.<sup>76</sup> Because these provisions do not play a role in most financial aid reform proposals, we do not include them in our discussion here.

## Arguments for and against Using the Tax System to Subsidize Students

Most federal subsidies to students are grants and loans allocated on the basis of the FAFSA. The fact that other subsidies to students are distributed through the tax system and determined through an entirely different process would complicate the federal student aid system even if the credits and deductions themselves were streamlined.

Critics of education tax credits and deductions focus on the fact that these subsidies are not targeted on low- and moderate-income students. They point out that these provisions distribute subsidies long after tuition payments are due and that there is scant evidence they have any positive impact on college access (Hoxby and Bulman 2015; Long 2003). Many policy analysts concerned with increasing college access and success therefore argue that federal education tax credits and deductions should be eliminated, with the funds transferred to need-based grant programs.<sup>77</sup>

Proponents of the current system of tax aid argue it provides needed relief to middle-class students and families ineligible for means-tested grant programs (Stoll and Stedman 2011, referenced in Long 2003).<sup>78</sup> Moreover, unlike federal grants and loans, these education subsidies do not require recipients to complete the FAFSA. Attempts to reduce higher education tax credits and deductions are vulnerable to criticism as tax increases on middle-class families sending their

children to college.<sup>79</sup> Recognizing the political barriers to eliminating student aid through the tax system, there are a number of proposals for simplifying these provisions and improving their targeting.<sup>80</sup>

## Designing Tax Credits and Deductions

If subsidies to students are part of the tax code, they should be designed as simply as possible. It is difficult to justify the current system, which requires filers to choose among different benefits without adequate information about which would be best for them.

The purpose of tax provisions should be clear, and their design should support that purpose. If the goal is to reduce the prices students and families pay for higher education, the specific structure of the benefits matters less than the basic eligibility requirements and the size of the benefits. If, however, the goal is to increase postsecondary enrollment and persistence, the credits and deductions should target individuals whose decisions and behaviors are most likely to be affected.

Another important issue is coordination between the tax code and the federal grant system. Federal grant aid is carefully targeted to low- and moderate-income students. The tax code might reinforce that targeting, or it might deliver benefits to students who do not receive grant aid. Conscious choices about how much federal aid should go to which students would strengthen the system.

Designing subsidies through the tax system involves many judgment calls, and policymakers should clearly understand the implications of those judgments. A recent analysis of the tax credits and deductions from the New America Foundation (Delisle and Dancy 2015) suggests the refundability provisions incorporated into the AOTC do not succeed in significantly increasing the share of low-income students who benefit. The grant aid many of these students receive disqualifies them, and many do not file federal income tax returns. Moreover, the benefits are more concentrated among students enrolled in for-profit institutions than the designers of the credit likely intended.

## Who Should Benefit from Education Tax Credits and Deductions?

Actual tax expenditures through education tax credits and deductions grew from about \$6 billion to about \$15 billion with the implementation of the AOTC in 2009 (table 7) and provide 40 percent of their benefits to taxpayers with AGIs of \$75,000 or higher (table 10). Moreover, the average savings to recipients increases with income. Those with higher income are more likely to receive the maximum credit, largely due to higher tax liabilities and qualifying expenses. In tax year 2013, recipients with incomes over \$100,000 received average credits of \$2,400, very close to the maximum AOTC (\$2,500) and more than twice the average credits received by those with income under \$25,000 (\$1,040).<sup>81</sup> Higher-income recipients of the AOTC also tend to be families claiming the credit for dependent children attending college.

Whether this distribution of benefits is appropriate depends on the goals of the system. Some observers would argue that the grant system is and should be the primary source of subsidies for low-income students and the tax benefits are properly designed to deliver subsidies farther up the income scale. Others would argue that the allocation of the tax benefits makes the overall distribution of federal subsidies to postsecondary students less progressive than it should be.

TABLE 7

**Federal Education Tax Credits and Deductions in 2013 Dollars (Billions), 1998 to 2013**

*The implementation of the AOTC in 2009 nearly doubled tax expenditures on higher education credits and deductions in a single year and increased them to more than three times the expenditures in 1998, the year the Hope credit and LLC first took effect*

<b>Tax year</b>	<b>Hope/AOTC and LLC credits</b>	<b>Tuition and fees deduction</b>	<b>Credits and deduction</b>
1998	\$4.3	\$0.0	\$4.3
1999	\$5.8	\$0.0	\$5.8
2000	\$5.6	\$0.0	\$5.6
2001	\$5.6	\$0.0	\$5.6
2002	\$5.1	\$1.4	\$6.5
2003	\$5.6	\$1.4	\$7.0
2004	\$5.4	\$2.0	\$7.5
2005	\$5.4	\$2.0	\$7.4
2006	\$6.0	\$1.6	\$7.6
2007	\$5.7	\$1.7	\$7.4
2008	\$5.8	\$1.5	\$7.3
2009	\$15.3	\$0.6	\$15.9
2010	\$18.9	\$0.5	\$19.4
2011	\$21.7	\$0.5	\$22.2
2012	\$17.2	\$0.5	\$17.7
2013	\$17.5	\$0.5	\$17.9

Source: Baum et al. 2015.

Note: The AOTC replaced the Hope credit in 2009.

TABLE 8

**Distribution of Education Tax Credits and Savings from Tuition and Fees Deduction by Adjusted Gross Income, Tax Year 2013**

Education tax credits and deductions	Adjusted gross income				
	Less than \$25,000	\$25,000–\$49,999	\$50,000–\$74,999	\$75,000–\$99,999	\$100,000–\$200,000
Credits and deduction (total = \$17.9 billion)	24%	21%	17%	14%	24%
AOTC and LLC credits (total = \$17.5 billion)	25%	21%	17%	14%	24%
Tuition and fees deduction (total = \$480 million)	24%	21%	17%	14%	24%

Source: Ma et al. 2015.

Notes: The number of tax credit recipients includes those claiming refundable or nonrefundable credits. A portion of nonrefundable dollars claimed on nontaxable returns is excluded to account for credits that do not reduce tax liability. The value of tax deductions is estimated based on applicable marginal tax rates. Percentages may not sum to 100 because of rounding.

## Comparing Proposals

The reform proposals we reviewed for this report agree on the need for consolidation, simplification, and improved targeting of tax aid for higher education. Appendix A, table A.2 lists and compares all reviewed proposals along the design elements discussed below.

### 1. Consolidating Credits and Deductions

No proposals we reviewed argue for preserving the current system of multiple higher education credits and deductions. Many proposals argue for consolidation to reduce complexity for students and families. The Young Invincibles proposal (Mishory and O’Sullivan 2012) notes that many students and families are unaware of the various tax provisions, let alone which are best for them to claim. Reimherr and colleagues (2013) make the same point, adding that lack of awareness or misunderstanding of the credits and deductions leads some students and families to claim the wrong credit or not claim any benefits at all. They cite a Government Accountability Office study finding that one in seven taxpayers eligible for the LLC or tuition and fees deduction in 2009 did not claim the benefits (GAO 2012).

Nearly all proposals would consolidate the AOTC and LLC into a single credit, most often a modified AOTC. The only four proposals reviewed that do not recommend consolidation would either eliminate

both credits or do not mention the LLC.<sup>82</sup> The most common suggested simplification of education deductions is simply to eliminate both the tuition and fees deduction and the student loan interest deduction, but there is little consensus across proposals on reforming deductions, and some do not mention them at all.

Recently proposed legislation is consistent with many of these reformers' suggestions for consolidation. The Student and Family Tax Simplification Act (2014) introduced by Rep. Diane Black (R-TN) and Danny K. David (D-IL), the Tax Reform Act (2014) introduced by Dave Camp (R-MI), and President Obama's FY 2016 budget proposal (US Department of Treasury 2015) would each consolidate the AOTC and LLC into a single credit modeled after the AOTC. Each would also eliminate the student loan interest deduction (US Department of Treasury 2015), the tuition and fees deduction (Student and Family Tax Simplification Act 2014), or both (Tax Reform Act 2014).

## ANALYSIS

Proposals nearly universally recommend consolidating or eliminating existing education credits and deductions. Although the proposed simplifications do not necessarily reduce or expand subsidies, they would all affect the distribution of benefits.

If the tax credits and deductions are consolidated into one credit, there will be winners and losers. For example, graduate students, non-degree-seeking students, undergraduate students in their fifth or later years of study, and those enrolled less than half time would lose the benefits they now receive from the LLC if the consolidated credit maintains the AOTC eligibility criteria. There are differences of opinion among reformers about whether this change would be desirable. Neither equity nor efficiency considerations provide a clear answer. Limited resources and a goal of increasing the number of people with undergraduate credentials might dictate against directing subsidies towards these groups. On the other hand, there are surely arguments in favor of supporting students enrolled less than half time or not seeking a credential, most of whom are not eligible for other federal aid.

Proposals to eliminate all student aid delivered through credits and deductions generally advocate transferring those savings to other forms of aid, such as the Pell grant program. To do so would eliminate the major source of nonloan federal education subsidies for middle-income families whose incomes are too high to qualify for Pell grants. It would also close the side door to federal aid: although the tax system is complex, it does not require students to complete the FAFSA, as other forms of federal aid do.<sup>83</sup> Most significantly, ending tax aid would involve a tax increase on families sending their children to college and is therefore unlikely to be a politically viable strategy.

## 2. Eligibility for Education Credits

### A. INCOME ELIGIBILITY AND PHASE-OUT RANGES

As explained above, both the AOTC and LLC are phased out for students and families with higher AGIs. The amount of the credit decreases for incomes within the phaseout range from 100 percent down to 0 percent, so that a single filer with AGI of \$85,000, in the middle of the phaseout range for the AOTC, is eligible for half the credit he or she would be eligible for with an AGI of \$80,000.<sup>84</sup>

Most proposals for higher education tax reform would reduce the income eligibility limits for a consolidated version of the AOTC to return to limits similar to those in effect under the old Hope credit.<sup>85</sup> (In 2009, the first year of the AOTC, the phaseout ranges for the Hope credit would have been \$100,000 to \$120,000 for joint filers and \$50,000 to \$60,000 for other filers.) Three other proposals would also make the AOTC more progressive by beginning the phaseout earlier. Reimherr and colleagues (2013), in their “Proposal 1” from the Center for Law and Social Policy (CLASP), and TICAS (2013) would lengthen the phaseout ranges so the credit would begin phasing out at \$120,000 for joint filers and \$60,000 for others, but end at the same limits as the current AOTC. The Young Invincibles proposal (Mishory and O’Sullivan 2012, 56) also suggests policymakers consider phasing the credit out “more quickly on the upper end in order to better fund the credit on the lower end.” Other proposals would maintain the current AOTC income phaseout ranges,<sup>86</sup> and one (American Opportunity Tax Credit Permanence and Consolidation Act 2015) would extend the phaseout to \$200,000 for joint filers and to \$100,000 for others.

### Analysis

There is no objective way of determining what the limits for tax credit eligibility should be. Concerns about paying for college extend well beyond families near the median income—currently \$84,524 for families headed by individuals ages 45 to 54.<sup>87</sup> That said, it is hard to justify the vertical equity of typical taxpayers subsidizing parents near the top of the income distribution to send their children to college, especially if those higher-income parents send their children to more expensive schools. A family with an income of \$160,000 is in the top 15 percent of the income distribution for all families, but is eligible for the full credit under current AOTC rules.<sup>88</sup> Beginning the credit phaseout range at lower incomes as suggested by TICAS (2013) and Reimherr and colleagues (2013), rather than eliminating credit eligibility at higher incomes, may be a more politically feasible way to increase the progressivity and vertical equity of the credit.

Because federal grant aid is well-targeted to low-income students, higher income limits for tax credits are more reasonable than if considered in isolation. Over 75 percent of dependent Pell recipients in the 2013–14 school year came from families with incomes of \$40,000 or less, and 90 percent of independent Pell recipients had incomes this low.<sup>89</sup> Among dependent students attending public four-year institutions full time in 2011–12, on average those with family incomes below \$30,000 received enough grant aid to cover tuition and fees, but those from higher-income families did not (Ma et al. 2015).

## B. ELIGIBILITY FOR GRADUATE-LEVEL, NONDEGREE, AND PART-TIME STUDENTS

Graduate students, non-degree-seeking students, and students enrolled less than half time are currently eligible only for the nonrefundable LLC, not for the more generous and refundable AOTC.<sup>90</sup> Policy proposals differ on whether these groups should be eligible for a new, consolidated credit.

Many reviewed proposals simplify education credits and deductions by eliminating the LLC and along with it, tax credits for students who have already completed four years of postsecondary education, which includes most graduate students.<sup>91</sup> The Young Invincibles proposal (Mishory and O’Sullivan 2012) and AEE (2013), however, would eliminate the LLC, but they would also expand eligibility for graduate students to claim the consolidated credit. TICAS (2013) would limit graduate student eligibility to the unused portion of their proposed lifetime limit on the modified AOTC. Reimherr and colleagues (2013, 42) suggest preserving the LLC, but only for undergraduate students still finishing their degrees after four years, not for graduate students.

Most proposals consolidating the education credits into a single credit would also preserve the other eligibility restrictions of AOTC by excluding nondegree students and those enrolled less than half time. However, some proposals would expand coverage to students in noncredential programs who are enrolled at least half time for at least one semester (Mishory and O’Sullivan 2012) or full time (AEE 2013). CLASP’s “Proposal 2” (Reimherr et al. 2013) would also preserve the LLC for undergraduates in noncredential programs who are enrolled at least half time for at least one semester. Finally, the president’s budget (US Department of Treasury 2015) allows a less generous AOTC for students pursuing an educational credential but enrolled less than half time.

### Analysis

If the purpose of education tax credits is to increase educational attainment, the lack of evidence for their effectiveness provides an argument against expansion to additional groups of students. However, the current LLC does apply to graduate students, less-than-half-time students, and students who are

not seeking a degree. If the LLC is eliminated through credit consolidation, the appropriate treatment of these groups deserves attention.

The argument for excluding graduate students is that they already have bachelor's degrees and have greater long-term financial security than most taxpayers. This exclusion makes sense from the perspective of targeting and vertical equity. However, graduate students are excluded from most federal grant programs, so the tax system is the primary route through which they receive subsidies. The argument for excluding less-than-half-time students is quite different and has more to do with incentives. It presumably rests on the idea that this enrollment pattern is unlikely to lead to degree completion, which policies should be designed to encourage.

Determining who should benefit from a federal education tax credit requires clearly articulating the policy goals. Tax credits are not the optimal strategy for increasing postsecondary access and attainment, but they do provide subsidies to middle-income and upper-middle-income people paying for education.

### C. DOLLAR OR YEAR CREDIT LIMIT

Currently, to gain the maximum AOTC benefit of \$10,000 (\$2,500 multiplied by four years), a student would need to be enrolled at least half time for four years and have \$4,000 in qualified expenses each year after subtracting grant aid. The tax filer claiming the credit would additionally need at least \$1,500 in tax liability for each of the four years (as the remaining \$1,000 is refundable). To enable more students to gain this maximum benefit, CLASP (Reimherr et al. 2013), TICAS (2013), and the "Shared Agenda" proposal (CLASP et al. 2013) consortium propose replacing the current four-year limit on AOTC eligibility with an equivalent lifetime dollar limit of \$10,000. The American Opportunity Tax Credit Permanence and Consolidation Act (2015) would implement a \$15,000 limit. Other proposed changes to the four-year AOTC limit include increasing it to five years (US Department of Treasury 2015) or implementing an unspecified lifetime dollar limit (Mishory and O'Sullivan 2012).

#### **Analysis**

The current four-year AOTC limit does not serve the most disadvantaged students well. Many have less than \$4,000 in qualifying expenses left over after subtracting grant aid, and they also tend to remain in school longer than four years if they are seeking bachelor's degrees.<sup>92</sup> Although there are potential difficulties with IRS implementation, a \$10,000 lifetime credit would be more equitable than the current policy. It is difficult to argue that students should get smaller subsidies for the same investment in education at the same cost if that investment is spread over a longer time period.

In the absence of the LLC, which has no lifetime limit, an equivalent dollar cap replacing the four-year limit for the AOTC could subsidize students who otherwise would have been eligible only for the LLC when they were in the fifth or later year of undergraduate study. The credit would support graduate students who had not used up their eligibility as undergraduates, without opening the door to a more generous benefit for all graduate students.

### **3. Credit Structure**

#### **A. AMOUNT OF THE CREDIT**

As noted above, only students who have \$4,000 in qualifying expenses, after subtracting grant aid, can receive the maximum AOTC. This restriction occurs because the credit is equal to 100 percent of the first \$2,000 spent, but only 25 percent of the next \$2,000. Surprisingly few proposals suggest changes to the calculation or size of a consolidated credit or modified version of the AOTC.

The president's budget (US Department of Treasury 2015) would preserve the current calculation for students enrolled at least half time, but it would alter the calculation for students enrolled less than half time to 12.5 percent (from 25 percent) of the second \$2,000, for a maximum credit of \$2,250. TICAS (2013) would preserve the \$2,500 maximum but reduce the necessary expenditure to \$3,000 by setting the credit equal to 100 percent of the first \$2,000 spent and 50 percent of the next \$1,000. For graduate students, this proposal would alter the calculation to 40 percent of the first \$2,000 and 20 percent of the next \$1,000, for a maximum credit of \$1,000.

#### **Analysis**

Both the current structure of AOTC and most of the reviewed proposals are complicated. Few people would be affected by switching to a simpler credit of 100 percent of any qualifying expenditures up to \$2,500, and no one would get a lower credit. Students spending between \$2,000 and \$4,000 would get slightly larger credits. It would be much easier to understand and there would be no obvious cost in terms of equity.

#### **B. REFUNDABILITY**

The previous version of the AOTC, the Hope credit, had a maximum value of \$1,800 and was nonrefundable. In contrast, after reducing tax liability to zero, the AOTC can refund up to 40 percent of a tax unit's eligible credit amount, for a maximum cash refund of \$1,000. Most of the proposals reviewed would maintain or expand the AOTC's level of refundability.

Some proposals advocate a fully refundable AOTC, targeting aid to low-income students and making the benefit clearer and simpler.<sup>93</sup> Another popular reform is increasing and “front loading” refundability to 100 percent of the first \$1,500 in qualifying expenses.<sup>94</sup> The Education Trust (2013) is unique in proposing the elimination of refundability, moving the freed-up funds to the Pell program. Appendix A, table A.2 summarizes other suggested changes to the credit’s refundability.

### **Analysis**

Although even a refundable education credit is not the optimal way to affect college enrollment and completion, tax credits are likely here to stay and should provide equitable subsidies to students. With partial refundability, the AOTC provides a maximum subsidy of \$1,000 to filers whose incomes are too low to require federal income tax payments, compared to a maximum subsidy of \$2,500 to those with tax liabilities of \$1,500 or more. This structure is difficult to justify in terms of vertical equity. Because political realities make the idea of transferring the refunded dollars to the Pell grant program infeasible, making a consolidated credit fully refundable is a reasonable way to improve targeting and simplicity.

### **C. COVERAGE OF EXPENDITURES**

Qualifying expenses for the current AOTC include tuition and fees as well as expenses for required course materials such as textbooks; LLC covers only amounts paid to the institution. In contrast, federal grants and loans can be applied to the entire cost of attendance, which includes room and board; allowances for transportation, dependent care, and a personal computer; costs related to disability; and costs for studying abroad, in addition to tuition, fees, and books.<sup>95</sup>

Most proposals do not mention reforms to qualifying expenses, but those that do propose various expansions. Both TICAS (2013) and CLASP (Reimherr et al. 2013) would expand the definition of qualified expenses for the modified AOTC to cover transportation and child care expenses. The Young Invincibles proposal (Mishory and O’Sullivan 2012) would cover room and board. AEE (2013) proposes allowing a portion of nontuition costs to be covered, with the allowance linked to type of institution.

### **Analysis**

The impact of allowing more nontuition expenses to qualify for the AOTC depends on whether the treatment of grant aid is changed. If the tax credits were viewed as applying to tuition and fees, with grant aid applied to remaining expenditures, many fewer students would lose credit eligibility as a result of their qualified expenses not exceeding their grant aid. Moreover, if the structure were to change to a \$10,000 lifetime limit, many filers whose grant aid currently diminishes their eligibility for tax credits—

the vast majority of whom are enrolled part time—would get the full benefit if they completed their programs.

If the AOTC expands to cover other expenses, these expansions should be implemented as fixed allowances for housing and food and for other expenses. This change would avoid complex reporting requirements and gaming of the system.

#### D. TIMING

Tax credits and deductions are delivered in the calendar year after the payments are made. Some proposals urge the government to find a way to deliver a refundable consolidated credit earlier, before students' tuition payments are due.

CLASP (Reimherr et al. 2013, 36) proposes a joint Treasury-Education pilot program making tax credit dollars available in time to help people pay their college bills; it suggests following the model of credits for insurance payments under the Affordable Care Act. IHEP (2013) and TICAS (2013) propose pilot programs for early delivery of tax credits directly to institutions. Other proposals only briefly suggest earlier credit delivery. HCM Strategists (2013) would prefer students and families to receive credits prior to paying tuition, but they also suggest that if this is not possible, the federal government should require institutions to share clear information on credit eligibility tailored to individual students as part of their financial aid statements. The Education Trust (2013) advocates for earlier delivery only as a second-best option if converting AOTC refundability to grant aid is infeasible.

#### Analysis

There is little question that the tax credits would be more effective if they were available on time to help students pay tuition, instead of arriving months later. But it may not be feasible to build an effective delivery system. It is also not clear that it makes sense to develop what would amount to another grant program to run through the tax system, rather than just using grants directly. The IRS, which faces serious resource constraints, would have a significant role in developing a successful income-driven student loan repayment system relying on wage withholding. That role is a higher priority than developing a more complicated system of tax credits.

#### E. INDEXING FOR INFLATION

The AOTC began as a temporary expansion of the Hope credit; it is now permanent, but not indexed to inflation, as the Hope credit was (Ways and Means Committee 2015). All proposed legislation, as well as CLASP (Reimherr et al. 2013), TICAS (2013), and the Shared Agenda (CLASP et al. 2013) proposal

would index the maximum credit and the income limits on AOTC for inflation.<sup>96</sup> HCM Strategists (2013) point out that with the credit's permanency uncertain, it was even less effective in affecting decisions to enroll or persist in college. With a permanent credit, institutions should be able to share information in advance about students' estimated credit eligibility, and families will be able to account for this aid in financial planning.

### **Analysis**

If the tax credits are to remain significant, they should be indexed. That said, the consensus about the lack of effectiveness of this policy approach suggests that allowing the income limits and the maximum credit to decline in real terms over time might be a politically palatable way to diminish expenditure on this subsidy.

## **4. Integration with Other Federal Programs**

### **A. INSTITUTION- AND STUDENT-LEVEL ACCOUNTABILITY**

Unlike the Pell grant program and federal loan programs, eligibility for education tax credits does not currently include any measures of quality either for students or for institutions.<sup>97</sup> Tanner (2013), in the APLU proposal, recommends adding a requirement that students would have to be making satisfactory academic progress to be eligible for the credit.

### **Analysis**

Adding quality requirements to the tax credits is logical, because subsidizing students who are not moving towards credentials or who are enrolled in institutions that do not serve their students well is counterproductive. But it would be much more difficult to enforce these restrictions on tax benefits than on the federal grants and loans students receive through their institutions. The complexity and difficulty of enforcement must be weighed against the potential impact on student outcomes.

### **B. COORDINATION WITH PELL GRANTS**

Current rules require that educational assistance used to cover tuition and fees, including federal grant aid, be subtracted from qualifying expenses for education tax credits. Because nontuition expenses other than required books, supplies, and other course materials are not covered by the credits, many Pell grant recipients are rendered ineligible, even though they have living expenses that could be covered by Pell grants. The Student and Family Tax Simplification Act (2014) and the Tax Reform Act

(2014), as well as CLASP (Reimherr et al. 2013) and the Shared Agenda proposal (CLASP et al. 2013), would have Pell grants applied first to costs of attendance outside of credit-qualifying expenses so as not to reduce their recipients' tax credit eligibility. The president's budget (US Department of Treasury 2015, 131) goes even further than this, excluding all Pell grant aid from the calculation of qualifying expenses.

### **Analysis**

The current restriction on tax credits for Pell recipients effectively overrides the intent of the Pell grant program, which explicitly applies to any components of college expenses including room, board, transportation, and childcare. A straightforward fix to this problem is to apply tax credits first to eligible expenses and to allow Pell (or any other grant aid) to cover remaining expenses qualifying for that program. Another important component of this policy solution involves rescinding the current provision making Pell grants applied to nontuition expenditures taxable.

## **Summary**

The broad consensus that the multiple tax credits and deductions for tuition expenses should be consolidated into one credit is consistent with the principle that a simpler student aid system will be more effective than the current system. However, some of the proposed modifications would lead to a single credit that is very difficult to understand.

The current structure, with the credit equal to 100 percent of the first \$2,000 spent but only 25 percent of the next \$2,000, is unnecessarily complicated. A credit of 100 percent of the first \$2,500 spent would be much simpler and would not generate significant changes in subsidies.

A credit that is fully refundable, so low-income students would receive subsidies that are as large as those of more affluent students, would improve targeting without increasing complexity. Moving toward a credit with a lifetime benefit of \$10,000 instead of four years with a \$2,500 maximum in each year would have a similar impact.

Another change that would improve targeting would be to allow grant aid to be applied first to nontuition expenses that are not covered by the tax credit. Any expansion of the credit to directly cover living expenses should allow a fixed amount per student rather than varying across students and requiring additional documentation.

# Conclusion

Reforms to IDR plans and education tax credits have the potential to strengthen federal student aid. Our hope is that the synthesis of existing proposals and the context for evaluating reforms presented in this paper will make it easier for policymakers to develop equitable and efficient modifications to the student aid system. These new policies should use taxpayer dollars more efficiently to improve access to and success in higher education and ensure more students find their lives improved by their postsecondary education.

Streamlining and strengthening the program allowing federal student loan borrowers to repay their debts in accord with their incomes could significantly reduce the serious problems student debt is currently causing a subset of former students. The multiple repayment plans now available include a growing number of options for IDR, but the options are complicated, confusing, and difficult to access. Numerous researchers, policy analysts, and advocates, in addition to members of Congress, have developed proposals for a single IDR plan that would become the automatic option for borrowers entering repayment.

As our review of these proposals indicates, alternative program designs would lead to very different outcomes for borrowers and for taxpayers. The plan could quickly become unreasonably complicated if some of the proposed reforms we summarize were adopted. There is not one right answer to the question of which design would be most equitable and efficient, but several important guidelines emerge from our analysis.

The goal should not be to minimize payments for as many borrowers as possible. Rather, the goals should be to prevent borrowers from facing unmanageable payments, to allow flexibility in the timing of payments to accommodate varying income paths, and to protect borrowers from unanticipated circumstances out of their control. At the same time, the program design should ensure most borrowers do eventually repay their debts and should minimize incentives for institutions to overcharge and for students to overborrow.

The details are important. Including loan forgiveness makes it more important that expected monthly payments be high enough for most borrowers to pay down their debts during the specified time period. Forgiving debt after minimal payments creates a situation in which many people with similar incomes repay the same amounts for different amounts of debt.

Separating borrowers into categories and applying different repayment rates or different times to forgiveness runs the risk of creating cliff effects, in which small differences in circumstances can lead to large differences in treatment. Allowing students to borrow unlimited amounts and then enroll those debts in IDR creates large subsidies for borrowers who are relatively well off. Lower interest rates provide much larger benefits to borrowers with large debts than to those with small debts; lower monthly payment requirements provide much larger benefits to borrowers with higher incomes than to those with lower incomes.

Mitigating the difficulties student debt is causing requires greatly diminishing the number of students who borrow to attend institutions that are unlikely to serve them well. It also requires appropriate limits and guidance about levels of borrowing. But there will always be students for whom education does not pay off well enough to support the repayment of reasonable levels of debt. A well-designed IDR plan is a good insurance policy.

Simplifying the system of education tax credits and deductions is less central to the lives of students than improving the loan repayment system, but it is an important component of developing a fair and effective system of federal subsidies for postsecondary students. The basic principles of sound policy design are the same: simplicity, targeting, and ease of operation are critical. Consolidating the current credits and deductions, simplifying the structure, and ensuring the policy does not arbitrarily exclude students who could benefit from it are worthy goals.

# Appendix A

The appendix is available online at [www.urban.org/research/publication/strengthening-federal-student-aid-assessment-proposals-reforming-federal-student-loan-repayment-and-federal-education-tax-benefits](http://www.urban.org/research/publication/strengthening-federal-student-aid-assessment-proposals-reforming-federal-student-loan-repayment-and-federal-education-tax-benefits).

# Appendix B

TABLE B.1.

## Effects of Increasing the Income Exclusion, Interest Rate, Assessment Rate, and Time to Forgiveness, by Borrower Debt and Income

*Policies have different impacts on borrowers of different debts and incomes: increasing the income exclusion has a stronger effect on the low-debt and low-income borrower's total payments; and increasing the interest rate has a stronger effect on the high-debt and high-income borrower's balance forgiven.*

	Baseline	200% of FPL exclusion	6% Interest	15% Assessment	25-year Forgiveness
<b>High debt and high income<sup>a</sup></b>					
Balance forgiven	\$2,302	\$13,726	\$25,201	\$0	\$0
Years of repayment	20	20	20	15	21
Total payments	\$84,868	\$74,392	\$85,111	\$84,252	\$87,103
<b>Low debt and low Income<sup>b</sup></b>					
Balance forgiven	\$4,974	\$9,387	\$7,133	\$3,359	\$2,409
Years of repayment	20	20	20	20	25
Total payments	\$5,699	\$598	\$5,759	\$7,497	\$8,780

**Source:** Authors' calculations based on the New America Foundation's income-based repayment calculator.

**Notes:** The baseline scenario includes a 150 percent of the federal poverty level exclusion, 4 percent interest rate, 10 percent assessment rate, and 20-year forgiveness. Calculations assume an income exclusion for a family of one equal to 150 percent of the poverty level in 2015, or \$17,655; incorporate an increase of 2.3 percent in exclusion and income amounts to account for inflation as well as real income growth of approximately 2.7 percent per year; and discount total payments and balances forgiven at a 3 percent annual rate. FPL = federal poverty level.

<sup>a</sup> Debt = \$78,000; starting income = \$50,000; inflation-adjusted income after 20 years = \$80,178.

<sup>b</sup> Debt = \$10,000; starting income = \$16,000; inflation-adjusted income after 20 years = \$25,657.

TABLE B.2

**Effect of Assessment Rate on Length of Repayment, by Debt and Income**

*Lower assessment rates increase the incomes required to avoid debt forgiveness, particularly for borrowers with high levels of debt.*

Assessment rate	Low debt, moderate income		High debt, moderate income		Very high debt, high income	
	15%	10%	15%	10%	15%	10%
<b>Borrower (at start of repayment)</b>						
Debt		\$20,000		\$40,000		\$80,000
Income		\$30,000		\$30,000		\$60,000
Discretionary income		\$12,345		\$12,345		\$42,345
<b>Minimum starting income needed to fully repay within 20 years, avoiding forgiveness</b>						
	\$20,400	\$23,700	\$27,100	\$33,700	\$40,500	\$54,000
<b>Outcomes (inflation-adjusted)</b>						
Range of monthly payments	\$76 to \$159	\$50 to \$135	\$76 to \$444	\$134 to \$380	\$454 to \$710	\$303 to \$570
Average monthly payment	\$116	\$90	\$312	\$244	\$575	\$426
Years to full repayment	9 years, 4 months	13 years, 4 months	17 years	23 years, 6 months	12 years	17 years, 6 months

**Source:** Authors' calculations.

**Note:** Calculations assume an income exclusion for a family of one equal to 150 percent of the federal poverty level in 2015, or \$17,655; incorporate an increase of 2.3 percent in exclusion and income amounts to account for inflation as well as real income growth of approximately 2.7 percent per year; and an interest rate on loans of 4 percent.

TABLE B.3.

### Income Needed to Avoid Interest Accrual and Remain in Partial Financial Hardship, by Assessment Rate and Interest Rate

For a given level of debt, lower assessment rates and higher interest rates mean that (1) borrowers must earn more income in order for their payments to cover interest and (2) borrowers with higher incomes can be considered in partial financial hardship

Interest rate:	Low assessment rate (10%)			High assessment rate (15%)		
	4%	5%	6%	4%	5%	6%
<b>Minimum income to avoid interest accrual</b>						
<i>Beginning debt</i>						
\$10,000	\$21,655	\$22,655	\$23,655	\$21,655	\$20,988	\$21,655
\$20,000	\$25,655	\$27,655	\$29,655	\$22,988	\$24,322	\$25,655
\$30,000	\$29,655	\$32,655	\$35,655	\$25,655	\$27,655	\$29,655
\$40,000	\$33,655	\$37,655	\$41,655	\$28,322	\$30,988	\$33,655
\$50,000	\$37,655	\$42,655	\$47,655	\$30,988	\$34,322	\$37,655
\$60,000	\$41,655	\$47,655	\$53,655	\$33,655	\$37,655	\$41,655
\$70,000	\$45,655	\$52,655	\$59,655	\$36,322	\$40,988	\$45,655
\$80,000	\$49,655	\$57,655	\$65,655	\$38,988	\$44,322	\$49,655
\$90,000	\$53,655	\$62,655	\$71,655	\$41,655	\$47,655	\$53,655
\$100,000	\$57,655	\$67,655	\$77,655	\$44,322	\$50,988	\$57,655
\$125,000	\$67,655	\$80,155	\$92,655	\$50,988	\$59,322	\$67,655
\$150,000	\$77,655	\$92,655	\$107,655	\$57,655	\$67,655	\$77,655
\$175,000	\$87,655	\$105,155	\$122,655	\$64,322	\$75,988	\$87,655
\$200,000	\$97,655	\$117,655	\$137,655	\$70,988	\$84,322	\$97,655
<b>Maximum income to remain in partial financial hardship</b>						
<i>Beginning debt</i>						
\$10,000	\$29,984	\$30,605	\$31,242	\$25,874	\$26,289	\$26,713
\$20,000	\$42,313	\$43,556	\$44,829	\$34,094	\$34,922	\$35,771
\$30,000	\$54,642	\$56,506	\$58,415	\$42,313	\$43,556	\$44,829
\$40,000	\$66,971	\$69,457	\$72,002	\$50,533	\$52,190	\$53,886
\$50,000	\$79,300	\$82,407	\$85,589	\$58,752	\$60,823	\$62,944
\$60,000	\$91,630	\$95,358	\$99,176	\$66,971	\$69,457	\$72,002
\$70,000	\$103,959	\$108,308	\$112,763	\$75,191	\$78,090	\$81,060
\$80,000	\$116,288	\$121,259	\$126,349	\$83,410	\$86,724	\$90,118
\$90,000	\$128,617	\$134,209	\$139,936	\$91,630	\$95,358	\$99,176
\$100,000	\$140,946	\$147,160	\$153,523	\$99,849	\$103,991	\$108,234
\$125,000	\$171,769	\$179,536	\$187,490	\$120,397	\$125,575	\$130,878
\$150,000	\$202,591	\$211,912	\$221,457	\$140,946	\$147,160	\$153,523
\$200,000	\$264,237	\$276,664	\$289,391	\$182,043	\$190,328	\$198,812

Source: Authors' calculations.

Notes: Calculations assume an income exclusion for a family of one equal to 150 percent of the federal poverty level in 2015, or \$17,655. A borrower in partial financial hardship has a beginning debt and current income such that the IDR payment would be lower than the standard 10-year plan payment.

TABLE B.4.

### Effect of Discount Rates on the Value of Total Payments for a Borrower Entering Repayment with \$20,000 of Debt and \$25,000 Annual Income, by Repayment Plan

Applying discount rates to account for the higher cost of payments made earlier (because of inflation and forgone interest over time) reduces the value of total payments in an IDR plan relative to the standard plan.

Repayment plan	Discount Rate			
	None	Inflation (2.3 percent)	3 percent	5 percent
Income-driven	\$30,876	\$23,876	\$22,160	\$18,072
Standard	\$24,299	\$21,488	\$20,727	\$18,763
Difference (Income-driven standard)	\$6,577	\$2,388	\$1,432	-\$691

**Source:** Authors' calculations based on the New America Foundation's income-based repayment calculator.

**Notes:** Calculations assume an income exclusion for a family of one equal to 150 percent of the federal poverty level in 2015, or \$17,655, an assessment rate of 10 percent, and an interest rate on loans of 4 percent; they also incorporate an increase of 2.3 percent in exclusion and income amounts to account for inflation as well as real income growth of approximately 2.7 percent per year.

TABLE B.5.

### Income-Driven Repayment Plan Enrollment, FY 2015, Q3

	Borrowers (thousands)	% of all borrowers	Balance (billions)	% of all outstanding balances	Became available	Initial income eligibility requirement
Pay as you earn (PAYE)	660	3%	\$26.40	5%	2012	partial financial hardship
Income-based repayment (IBR)	2,610	13%	\$145.20	25%	2009	partial financial hardship
Income-contingent repayment (ICR)	610	3%	\$21.80	4%	1993	none
Any IDR plan	3,880	19%	\$193	34%	NA	NA

**Sources:** "Education Department Launches 'Pay As You Earn' Student Loan Repayment Plan," US Department of Education, news release, December 21, 2012, <http://www.ed.gov/news/press-releases/education-department-launches-pay-you-earn-student-loan-repayment-plan>; "Direct Loan Portfolio by Repayment Plan," US Department of Education, Federal Student Aid, Federal Student Loan Portfolio, accessed October 2015, <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>; "Income-Driven Plans," US Department of Education, Federal Student Aid, accessed October 2015, <https://studentaid.ed.gov/sa/repay-loans/understand/plans/income-driven>.

**Notes:** Partial financial hardship is defined as income low enough that the calculated payment in the IDR plan is lower than it would be in the standard 10-year repayment plan. IBR includes borrowers in "new" IBR, which is only available to new borrowers as of July 1, 2014 and is nearly identical to PAYE. PAYE is available only to new borrowers as of October 1, 2007, who took out a direct loan on or after October 1, 2011. For more detail on plans, see table A.1 or visit [studentaid.ed.gov](http://studentaid.ed.gov). NA = not applicable.

# Notes

1. *Digest of Education Statistics 2014*, table 303.50, National Center for Education Statistics.
2. "American Opportunity Tax Credit," Washington, DC: Internal Revenue Service, <https://www.irs.gov/Individuals/AOTC>.
3. See "Detailed Proposals" and "Legislative Proposals" in the References section for the full list of proposals we discuss. These proposals include many funded by the Bill & Melinda Gates Foundation in early rounds of the Reimagining Aid Design and Delivery project, as well as other ideas from scholars, policy analysts, and members of Congress.
4. With recent changes to FAFSA rules, beginning in 2017–18 applicants will be able to apply for aid using income information from two years rather than one year prior to enrollment. See "FAFSA Changes for 2017–18," US Department of Education, Federal Student Aid, <https://studentaid.ed.gov/sa/about/announcements/fafsa-changes>.
5. Student Loan Reform Act. 1993. Omnibus Budget Reconciliation Act of 1993. H.R. 2264, 103rd Cong., 1st Sess., January 5, <https://www.congress.gov/bill/103rd-congress/house-bill/2264/text>.
6. The original income-contingent loan repayment plan required payments equal to 20 percent of discretionary income, and the original IBR required payments equal to 15 percent of discretionary income. PAYE now requires just 10 percent, as will the new REPAYE program. See <https://studentaid.ed.gov/sa/repay-loans/understand/plans/income-driven>.
7. "Direct Loan Portfolio by Repayment Plan," US Department of Education, Federal Student Aid, Federal Student Loan Portfolio, accessed October 2015, <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>.
8. A borrower is considered in partial financial hardship if the required payment under the standard 10-year plan based on the original loan amount would exceed 15 percent (IBR) or 10 percent (PAYE) of current discretionary income. See 34 CFR 685.209 (a)(v) and 34 CFR 685.221 (a)(5), July 2013.
9. US Department of Education. 2015. "U.S. Department of Education Announces Two Final Regulations to Help Students and Protect Borrowers." <http://www.ed.gov/news/press-releases/us-department-education-announces-two-final-regulations-protect-students-and-help-borrowers>.
10. Kelly Field, "Thousands Fall Out of Income-Based Repayment Plans." *Chronicle of Higher Education*, April 2, 2015, <http://chronicle.com/article/Thousands-Fall-Out-of/229031>.
11. Struggling borrowers not enrolled in IDR plans who were interviewed as part of a New America Foundation study in 2014 expressed both confusion and suspicion about the available income-driven repayment options (Delisle and Holt 2015).
12. The consequences of delinquency and default on student loans, which are not dischargeable through bankruptcy, include ineligibility for further aid, damage to credit ratings, tax offsets, wage garnishment, and Social Security garnishment. See Cunningham and Kienzl (2011) or "Understanding Default," US Department of Education, Federal Student Aid, <https://studentaid.ed.gov/sa/repay-loans/default#consequences>.
13. This estimated cost includes borrowers whose loans were issued prior to FY 2015; it does not reflect the cost of PAYE for a single year's cohort of enrollees.
14. In the standard 10-year repayment plan, payments are fixed (with a minimum payment of \$50 per month) based on the outstanding balance such that the loan is fully repaid at the end of 10 years. For more detail on the standard repayment plan, see "Standard Plan," US Department of Education, Federal Student Aid, <https://studentaid.ed.gov/sa/repay-loans/understand/plans/standard>.
15. These proposals are Burd et al. (2013), Dynarski and Kreisman (2013), HCM Strategists (2013), Sheets and Crawford (2014), ExCEL Act (2013), and Mishory and O'Sullivan (2012).
16. TICAS does not consider the opportunity cost of funds when discounting future payments, only discounting for inflation, which could contribute to their relatively negative opinion on lengthening loan repayment periods.

17. Zero-dollar payments in these IDR plans count as qualifying payments toward forgiveness.
18. “Federal Perkins Loan Program, Federal Family Education Loan Program, and William D. Ford Federal Direct Loan Program; Notice of Proposed Rulemaking,” 77 *Federal Register* 137 (July 17, 2012), 42122, <http://www.gpo.gov/fdsys/pkg/FR-2012-07-17>.
19. “The Appendix, Budget of the United States Government, Fiscal Year 2016,” US Department of Education, 378, <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/edu.pdf>.
20. The cost of loan forgiveness includes PSLF for borrowers in the public sector. Other program costs are an estimated 2 percent interest rate subsidy (about 30 percent of costs) and the interest rate benefit over the first three years of repayment (about 20 percent of costs). The estimate is based on simulating the current parameters of IBR and PAYE, along with PSLF, on a nationally representative sample of bachelor’s degree recipients, a subpopulation of student loan borrowers with higher-than-average ability to repay.
21. The authors would also eliminate PSLF, arguing that wage subsidies would be a more effective strategy for encouraging public service.
22. See Delisle and Holt (2012) “Safety Net or Windfall?” for more detail on potential costs of current forgiveness provisions for high-income, high-debt borrowers.
23. The Dynamic Repayment Act (2014) and the low-exemption, low-rate proposal from Automatic for the Borrower (2014) would extend time to forgiveness to 30 years for loans of about \$50,000 or more.
24. Michael Stratford. 2015. “Income-Based Repayment Expansion Advances.” *Inside Higher Ed*, May 1. <https://www.insidehighered.com/news/2015/05/01/federal-rule-making-panel-oks-plan-expand-income-based-repayment-program>.
25. The Direct PLUS program is for graduate and professional students (Grad PLUS) as well as parents of dependent students (Parent PLUS). The institution determines the cost of attendance. See “PLUS Loans,” US Department of Education, Federal Student Aid, <https://studentaid.ed.gov/sa/types/loans/plus>.
26. These proposals are TICAS (2013), Dynarski and Kreisman (2013), and NAF (Burd et al. 2013).
27. The authors justify this \$5,000 exclusion of other income by pointing to data showing that fewer than 20 percent of tax units claiming the student loan interest deduction in 2008 had a higher amount of nonwage income. About 35 percent of all returns had \$5,000 or more in nonwage income. See NAF, *Young Invincibles*, and NASFAA 2015, pages 10–11.
28. IRS Statistics of Income for Tax Year 2013, table 1.4.
29. Estimating total income as one percent higher than AGI, the borrower’s total annual income and discretionary income would each be \$400 higher, and the 10 percent annual assessment would be \$40 higher. The difference in the monthly assessment is simply \$40 divided by 12, or \$3.3.
30. Designs like this, based on fixed dollar amounts or AGI rather the federal poverty level, would index those levels to inflation.
31. TICAS (2013) and the Dynamic Repayment Act (2014) would preserve the 10 percent rate, but the ExCEL Act (2015) would return to the original IBR rate of 15 percent.
32. The first borrower has income just below 300 percent of the federal poverty level (\$35,310) and pays 10 percent of her \$17,650 of income above 150 percent of the poverty level. The second borrower has income just above 300 percent of the poverty level and pays 15 percent of her \$17,660 of income above 150 percent of the poverty level.
33. The 30 percent includes those without income. Current Population Survey Table, PINC-03, [http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc03\\_000.htm](http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc03_000.htm).
34. The 39 percent includes those without income. Current Population Survey Table, PINC-02, [http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc02\\_000.htm](http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc02_000.htm).
35. “2015 Poverty Guidelines,” Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services, last modified September 30, 2015, accessed December 17, 2015, <http://aspe.hhs.gov/poverty/15poverty.cfm>.

36. These authors advocate against such incentives, arguing that the decrease in interest charges is incentive enough for early repayment.
37. Using the alternative method of discounting in fair-value accounting, student loan programs represent a net cost to government rather than gain (See CBO 2014b).
38. Kelly Field, "Thousands Fall Out of Income-Based Repayment Plans," *Chronicle of Higher Education*, April 2, 2015, <http://chronicle.com/article/Thousands-Fall-Out-of/229031>.
39. These four are ExCEL Act (2015), Dynamic Repayment Act (2014), Dynarski and Kreisman (2013), and the Automatic for the Borrower proposal (2014).
40. This more recent report incorporates borrower and stakeholder perspectives derived from the authors' focus groups with student borrowers and a convening of advocates, academics, employers, loan servicers, and government officials to solicit concerns and impressions.
41. Employers deposit income, social security, and Medicare taxes withheld from wages to the Treasury through the federal tax deposit system. See "Trust Fund Taxes," IRS, <https://www.irs.gov/Businesses/Small-Businesses-&Self-Employed/Trust-Fund-Taxes>.
42. For a discussion of alternative processes, see New America, Young Invincibles, and NASFAA (2015). The authors discuss where employers should send loan payments as well as who should service loans, pointing out downsides of assigning new responsibilities to the IRS, Social Security Administration, Education Department, or an entirely new agency.
43. See Dynarski and Kreisman (2013) or the ExCEL Act (2015).
44. The consortium behind "Sooner, Simpler, Smarter" (2013) suggests families not required to file tax returns may be participating in federal means-tested programs like the Supplemental Nutrition Assistance Program and Temporary Assistance for Needy Families through which financial hardship could be documented. See National College Access Network (2013). [www.collegeaccess.org/images/documents/CollegeChoiceNov2013.pdf](http://www.collegeaccess.org/images/documents/CollegeChoiceNov2013.pdf).
45. These proposals are the Dynamic Repayment Act (2014), the ExCEL Act (2015), NAF (Burd et al. 2013), and HCM Strategists (2013).
46. Bank on Students Emergency Loan Refinancing Act. S. 793, 114th Cong., 1st Sess., March 18, 2015, <https://www.congress.gov/bill/114th-congress/senate-bill/793>.
47. See also, Alexander Holt, "Student Loans Don't Need Interest Rates," New America Foundation EdCentral, February 13, 2015, accessed December 23, 2015, [www.edcentral.org/eliminateinterestrates/](http://www.edcentral.org/eliminateinterestrates/).
48. Higher interest rates can affect IDR payments for borrowers who hit a payment cap based on a fixed repayment plan, because payments in fixed repayment plans depend on interest rates. The effect of the payment cap explains the slight increase in total payments shown in appendix B, table B.3.
49. In its "April 2014 Baseline Projections for the Student Loan Program," the Congressional Budget Office projects increasing interest rates over the next few years, but not yet reaching the caps. See table 5 in CBO (2014a).
50. In PAYE, but not IBR, for those borrowers who move out of partial financial hardship, the amount of unpaid interest that can subsequently be capitalized is capped at 10 percent of the original principal. See 34 CFR 685.209 (2)(iv)(B)(2), July 2013.
51. Partial financial hardship is a requirement for participation in IBR and PAYE, but not REPAYE. REPAYE. Part VI. Department of Education. 34 CFR Parts 668, 682, and 685. Student Assistance General Provisions, Federal Family Education Loan Program, and William D. Ford Federal Direct Loan Program; Final Rule. *Federal Register* 80 (2010): October 30, 2015.
52. About 17 percent of dependent subsidized Stafford loan borrowers are from families with incomes over \$100,000 (US Department of Education 2015). As quoted in the NAF proposal (Burd et al. 2013), "eligibility for the interest subsidy is based on 'ability-to-pay' at the time of enrollment, but the borrower realizes the benefit later—typically years later—in the form of lower loan payments after leaving school" (US Department of Education 2011).

53. See Rethinking Student Aid Study Group, 2008.
54. Current Population Survey Table, PINC-03, [http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc03\\_000.htm](http://www.census.gov/hhes/www/cpstables/032014/perinc/pinc03_000.htm).
55. Delisle and Holt (2014) find that the current combination of loan limits, IDR assessment rates, and forgiveness policies could make it common for the federal government to forgive a large fraction of the cost of graduate education through PSLF. A lower assessment rate under those programs will result in greater PSLF. Considering that about a quarter of the US workforce could be eligible for PSLF, a huge, poorly targeted subsidy to borrowers and graduate programs could be created (“What Is Public Service Loan Forgiveness?” Consumer Financial Protection Bureau, accessed March 2015, <http://www.consumerfinance.gov/askcfpb/641/what-public-service-loan-forgiveness.html>). Typical debt levels could lead to significant loan forgiveness even for borrowers with above-average incomes in their professions. Delisle and Holt find, for example, that engineers eligible for PSLF would, if they have median earnings, have any debt exceeding \$51,500 forgiven. For borrowers with earnings at the 75th percentile for their profession, debt exceeding \$74,500 would be forgiven.
56. Both the NAF proposal (Burd et al. 2013) and Dynarski and Kreisman (2013) would eliminate Parent PLUS loans, which similarly lack limits other than cost of attendance.
57. The Repay Act (2015) would also exclude Parent PLUS loan debt from IDR.
58. Michael Stratford, “Income-Based Repayment Expansion Advances,” *Inside Higher Ed*, May 1, 2015, <https://www.insidehighered.com/news/2015/05/01/federal-rule-making-panel-oks-plan-expand-income-based-repayment-program>.
59. *Digest of Education Statistics 2014*, table 303.50, National Center for Education Statistics.
60. Only one-third of 2003–04 beginning postsecondary students who first enrolled at age 20 or older had earned a degree or certificate by 2009, compared with one-half overall (BPS 2004/09, Power Stats calculation).
61. “Older Americans: Inability to Repay Student Loans May Affect Financial Security of a Small Percentage of Retirees,” Government Accountability Office, September 10, 2014. The authors note that “because information on the age of the loans was not readily available to us, we do not know the extent to which the debt of older Americans is attributable to recently originated loans or loans originated many years ago during their prime educational years.”
62. For a general review of accountability in higher education, see King (2000). For a review of past research on holding institutions accountable for student loan default, see Gross et al. (2009).
63. “For-Profit Groups Sue to Block Gainful Employment Rules,” *Inside Higher Ed*, November 2014, <https://www.insidehighered.com/quicktakes/2014/11/07/profit-groups-sue-block-gainful-employment-rules>.
64. The Department of Education proposed new gainful employment rules in 2011 and 2014 that hold for-profit and workforce-oriented colleges accountable for their students’ debt-to-earnings ratios. See US Department of Education. 2014. “Program Integrity: Gainful Employment,” Final regulations, <https://www.federalregister.gov/articles/2014/10/31/2014-25594/program-integrity-gainful-employment>.
65. The NAF proposal (Burd et al. 2013) also suggests gainful employment rules be applied beyond just the for-profit sector to all higher education programs.
66. Kelly Field, “Risk Sharing Is All the Rage. Is It a Good Idea?” *Chronicle of Higher Education*, April 1, 2015, <http://chronicle.com/article/Risk-Sharing-Is-All-the/228987/>.
67. The College Board includes tax credits and deductions in its net price calculations.
68. These tax filers may also have claimed the student loan interest deduction, but the figure does not include those who claimed that deduction alone (College Board. 2015. *Trends in Student Aid 2015*, figure 7, Number of recipients by federal aid program, 2014–15, <http://trends.collegeboard.org/student-aid/figures-tables/number-recipients-federal-aid-program-2014-15>).
69. Although most grant aid can be applied to nontuition expenses, it becomes taxable income if it is allocated in this way.

70. See the president's budget for fiscal year 2016 (and prior years), Analytical Perspectives, Tax Expenditures, table 14-1, accessed December 23, 2015, [https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/ap\\_14\\_expenditures.pdf](https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/ap_14_expenditures.pdf).
71. For more detail on the AOTC, see "American Opportunity Tax Credit," IRS, <https://www.irs.gov/Individuals/AOTC>.
72. For more detail on the LLC, see "Lifetime Learning Credit," IRS, <https://www.irs.gov/Individuals/LLC>.
73. Jason Delisle, "Washington's Tax Break for Upper-Income Graduate Students," *Forbes*, December 13, 2014, <http://www.forbes.com/sites/jasondelisle/2014/12/03/washingtons-tax-break-for-upper-income-graduate-students/>.
74. IRS Statistics of Income for Tax Year 2013, table 1.4.
75. Elaine Maag, "Education: What Tax Incentives Exist to Help Families Pay for College?" *The Tax Policy Briefing Book*, Tax Policy Center, last modified February 4, 2013, <http://www.taxpolicycenter.org/briefing-book/key-elements/education/college-incentives.cfm>.
76. "Qualifying children" under earned income tax credit rules include those ages 19 to 24 if they are full-time students in school at least five months of the year. See "EITC, Earned Income Tax Credit, Questions and Answers," IRS, <https://www.irs.gov/Credits-&-Deductions/Individuals/Earned-Income-Tax-Credit/EITC,-Earned-Income-Tax-Credit,-Questions-and-Answers>.
77. These proposals are the Committee for Economic Development (Doyle 2013), NAF (Burd et al. 2013), IHEP (2013), and TICAS (2013).
78. See also a discussion of the "forgotten middle" in Deaton and Wright (2014).
79. See, for example, John D. McKinnon and Kristina Peterson, "Obama Proposal to Cut 529 Plan Tax Benefits Meets Opposition," *Wall Street Journal*, June 20, 2015, <http://www.wsj.com/articles/obama-proposal-to-cut-529-plan-tax-benefits-meets-opposition-1421811117>.
80. TICAS (2013), the APLU proposal (Tanner 2013), and IHEP (2013) explicitly note that political support for tax credits influenced their reform proposals.
81. IRS Statistics of Income for Tax Year 2013, table 3.3.
82. The NAF proposal (Burd et al. 2013) and Doyle (2013) would eliminate both, and IHEP (2013) and the APLU proposal (Tanner 2013) do not mention the LLC.
83. Using the National Postsecondary Student Aid Survey, Kantrowitz (2011) finds that 32 percent of students who did not apply for financial aid would have been eligible for Pell grants.
84. For tax year 2014, the phaseout ranges for joint filers are as follows: for the AOTC, between \$160,000 and \$180,000; and for the LLC, between \$108,000 and \$128,000. For other filers, the ranges for the AOTC are between \$80,000 and \$90,000, and for the LLC, between \$54,000 and \$64,000. See "American Opportunity Credit," Internal Revenue Service, accessed December 17, 2015, <http://www.irs.gov/publications/p970/ch02.html>.
85. These are the HCM Strategists' (2013) "Modify the AOTC" proposal, the Tax Reform Act (2014), AEE (2013), and the Shared Agenda proposal (CLASP et al. 2013).
86. These proposals are the president's budget (US Department of Treasury 2015), the American Opportunity Tax Credit Act (2015), the Student and Family Tax Simplification Act (2014), and IHEP (2013).
87. Age of Reference Person, by Total Money Income in 2014, FINC-02, [http://www.census.gov/hhes/www/cpstables/032015/faminc/finc02\\_000.htm](http://www.census.gov/hhes/www/cpstables/032015/faminc/finc02_000.htm).
88. Income Distribution to \$250,000 or More for Families: 2014, FINC-07, <http://www.census.gov/hhes/www/cpstables/032015/faminc/toc.htm>.
89. US Department of Education. *2013-14 Federal Pell Grant End-of-Year Report*, table 11, last modified June 12, 2015, accessed December 17, 2015, <http://www2.ed.gov/finaid/prof/resources/data/pell-2013-14/pell-eoy-2013-14.html>.

90. AOTC is available for the first four years of postsecondary education, so some graduate students actually qualify.
91. These proposals are the president's budget (US Department of Treasury 2015), the Student and Family Tax Simplification Act (2014), the Tax Reform Act (2014), Shared Agenda proposal (CLASP et al. 2013), CLASP Proposal 1 from (Reimherr et al. 2013), and Education Trust (2013).
92. Bound, Lovenheim, and Turner (2010) find that students at less selective universities and lower-income students took longer to complete their bachelor's degrees.
93. These proposals are Shared Agenda proposal (CLASP et al. 2013), TICAS (2013), IHEP (2013), and Young Invincibles (Mishory and O'Sullivan 2012).
94. This reform is suggested by Reimherr et al. (2013), the president's budget (US Department of Treasury 2015), the Student and Family Tax Simplification Act (2014), and the Tax Reform Act (2014).
95. "Cost of Attendance," US Department of Education, <https://fafsa.ed.gov/help/costatt.htm>.
96. The remaining proposals reviewed do not mention this issue.
97. Eligible institutions are all accredited institutions. See "American Opportunity Tax Credit: Questions and Answers," IRS, <https://www.irs.gov/uac/American-Opportunity-Tax-Credit:-Questions-and-Answers>.

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