

INCOME-BASED REPAYMENT AND THE PUBLIC FINANCING OF HIGHER EDUCATION

John R. Brooks II[†]

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ABSTRACT

The growth in higher education costs has outrun inflation for decades, in part for reasons outside of an institution's control. This has serious distributional consequences, given that higher education is a quasi-public good that should be consumed widely. Full public financing is a possible answer to the distributional and spillover problems, but the budgetary impact of doing so makes that close to politically impossible in the United States.

Except that the federal government has, to a first approximation, already created a system of public financing of higher education, paid for with progressive taxation: The Income-Based Repayment student loan program. As of 2010, the federal government provides essentially all student loans, and as of 2012, students may pay no more than 10% of discretionary income to service those loans. After a maximum of 20 years, the remaining debt is forgiven—for any borrower, regardless of degree, career, or debt load. Thus higher education tuition is paid by the government and funded with something that looks very much like a tax on income.

This framing raises important questions. Is this structure appropriate? How tax-like and progressive is IBR in fact, and can it be made more (or less) so? What are the risks and downsides of such a structure? This paper claims that using a tax-like instrument such as IBR is well-suited for higher education, given its economics, financial characteristics, and social benefits. Furthermore, it suggests that this sort of “quasi-public spending” model has particular benefits for large-scale provision of public goods such as higher education and health care.

[†] Associate Professor of Law, Georgetown University Law Center. I am grateful to Jennifer Bird-Pollan, Thomas Brennan, Tsilly Dagen, Mihir Desai, Michael Doran, Victor Fleischer, Brian Galle, Itai Grinberg, Andrew Hayashi, Brent Hellwig, David Kamin, Michael Knolls, Yair Listokin, Benjamin Leff, Ruth Mason, Susan Morse, Mildred Robinson, Alex Raskolnikov, Fadi Shaheen, David Schizer, Phillip Schrag, Ethan Yale, George Yin, and participants in workshops at Columbia University, the University of Kentucky, the University of Virginia, the 2014 Law & Society Annual Meeting, and the 2013 Junior Tax Scholars Workshop for helpful comments, conversations, and suggestions. I am especially grateful to Stephen Richmond for valuable research assistance.

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I. Introduction

The cost of higher education has been rising faster than inflation for decades and is likely to continue to do so despite reform efforts. This has negative distributional consequences, given that higher education is arguably a quasi-public good that should be consumed widely. As the costs continue to rise, higher education will become increasingly unaffordable to those at the lower end of the income distribution, even though as a matter of justice and economic growth higher education ought to be available to all. Full public financing of higher education is an obvious answer to this distributional problem, but the cost of doing so makes that close to politically impossible.

Except that the federal government has, to a first approximation, *already* created a system of full public financing of higher education, paid for with progressive taxation: The Income-Based Repayment (“IBR”) student loan program. In 2010, the federal government essentially took over the student loan industry, and as of 2012, students may pay no more than 10% of their discretionary income to service those loans, with forgiveness of any remaining debt after a maximum of 20 years—for any borrower, regardless of degree, career, or debt load.¹ Thus higher education tuition is paid by the government, and funded with something that looks very much like a 10% tax on income, though largely separate from the nominal “spending” and “taxing” categories, respectively.

Should IBR (also known as “Pay-As-You-Earn” or “PAYE”) become widely adopted, higher education costs will ultimately be paid by former students partly as a function of their income, with any remaining costs borne by taxpayers generally. But the payments from the government would be treated as loans, and payments to the government would be treated as payments of loan principal and interest. Thus the spending will remain largely off budget.² Nonetheless, tuition payments will essentially be paid for out of progressively raised tax revenue.

This sort of cost-sharing model for provision of a public or quasi-public good differs from the classic allocative model—simply paying for the good out of general revenue—and may offer a compelling approach for large-scale public good provision in an era of rising costs and tightening budgets. Indeed, as this article will discuss, the provision of health insurance under the Affordable Care Act has similar features. In particular, the two programs share the same off-budget form, whereby what is in effect redistributive public

¹ Graduates in public service careers can have their debt forgiven after 10 years. *See infra* note 134.

² The only budget item is the present value of the amount by which outlays exceed revenues over the lifetime of the loan—thus the budget reflects only the cost of forgiveness, not the full nominal amount of the loan. *See infra* note 156.

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spending funded with progressive taxation is structured as individual expenditures to private entities, guided by subsidies, smaller taxes, and regulation. I refer to this as “quasi-public spending,” and I suggest here (and develop more fully in a follow-up article) that quasi-public spending is particularly appealing for large-scale public programs that provide clear and at least roughly measureable benefits to individuals, spread over a large and diverse group of people. In that case, quasi-public spending is perhaps both more economically efficient and more politically palatable than traditional spending.³

Leaving aside for a moment the structure of collective spending, why is higher education⁴ a worthy subject of government intervention at all? Like health care, higher education is a “quasi-public good,”⁵ and thus suitable for collective spending. The positive externalities from higher education make widespread provision of the good an issue of public concern. Higher education is increasingly necessary to generate necessary skills for our technology- and creativity-driven economy, and also as a tool of social mobility. Relying only on a private market would likely lead to a lower than optimal amount of education, since individuals do not generally internalize those positive externalities when making the decision to purchase. There are good reasons to think that the United States is currently under-producing workers with high skills, and that this is one cause of growing income inequality.⁶

At the same time, the cost structure of higher education affects our ability to expand access. Higher education costs have been rising faster than inflation for as long as anyone can remember.⁷ Reformers have suggested a number of ways to try to rein in costs. While some of these reforms may succeed in “bending the cost curve,” as it were, there are good reasons to believe that we cannot easily stop or reverse the growth in costs entirely, nor should we want to. This is because of an economic phenomenon known as Baumol’s cost disease, whereby industries with relatively low labor productivity—like

³ See *infra* Section IV.C.3.

⁴ As used in this article, “higher education” refers not to just to traditional four-year college and university programs, but any sort of post-secondary education, including community colleges, associates degree programs, and vocational and professional training.

⁵ See, e.g., CAMPBELL R. MCCONNELL & STANLEY L. BRUE, *ECONOMICS: PRINCIPLES, PROBLEMS, AND POLICIES* 73 (17th ed. 2008). (Quasi-public goods are goods that “could all be priced and provided by private firms through the market system” but “because they all have substantial positive externalities, they would be underproduced by the market system.” Such goods are “often provide[d by the government] to avoid the underallocation of resources that would otherwise occur.”). Quasi-public goods are distinguishable from true public goods, because they are not strictly non-excludable and non-rivalrous, which is the classic definition of a public good. See HAL R. VARIAN, *MICROECONOMIC ANALYSIS* 414 (3d ed. 1992).

⁶ See *infra* Section II.A.

⁷ See, e.g., ROBERT B. ARCHIBALD & DAVID H. FELDMAN, *WHY DOES COLLEGE COST SO MUCH?* 19-32 (2011); *infra* Section II.B.

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education, health care, and services in general—see prices rise faster than inflation, which puts strain on household budgets.⁸ Thus, without distributional reforms we are likely to be faced with the disturbing case of higher education being rationed only to those with the highest ability or from the richest families, even while the demand for skills grows. As a matter of justice and economic policy, this is precisely the sort of situation that calls for government intervention. The costs of higher education, and the associated student loan debt burdens carried by former students, are large drags on economic growth, social mobility, skills generation, and simply the well-being of vast numbers of past, current, and future students.

As noted the simplest solution would be to have the government become the provider of, or single payer for, higher education. A government can raise revenue through a broad-based progressive tax and use some of the revenue to pay for higher education—problem solved. The political and budgetary costs of doing so, however, make full public provision unlikely in the current environment. Indeed, the trend for state public universities has been the opposite—shrinking subsidies, even as costs have continued to rise.⁹ It is difficult to imagine the federal government deciding to pay all the costs of attending college for everyone.¹⁰ The irony, however, is that, through the IBR program, the federal government has already done just that—it will pay much of the cost of anyone’s education, raising the money partly from a 10% “tax” on former students’ discretionary income and partly from taxpayers generally.

Of course, as this article will discuss, the actual IBR program differs from that simple approximation above in important ways. But framing IBR as, in part, a tax on income to pay for higher education, forces us to ask whether higher education ought to be publicly, and progressively, financed, whether IBR is the way to do it, and whether there are potential reforms to IBR to make it operate better. Here, we have several real-world examples and proposals to compare it to. Many other countries, Australia in particular, have cost-sharing programs that operate along these lines. Yale University briefly experimented with collective and progressive tuition spending in the 1970s. And as of this writing, the state of Oregon has proposed to make tuition at state universities simply a share of future earnings.¹¹

⁸ WILLIAM J. BAUMOL, *THE COST DISEASE* (2012); William J. Baumol & William G. Bowen, *On the Performing Arts: The Anatomy of Their Economic Problems*, 55 *AMER. ECON. REV.* 495 (1965). THOMAS PIKETTY, *CAPITAL IN THE TWENTY-FIRST CENTURY* 88 (2014).

⁹ See WILLIAM ZUMETA ET AL., *FINANCING AMERICAN HIGHER EDUCATION IN THE ERA OF GLOBALIZATION* 19-21 (2013); Phil Oliff et al., *Recent Deep State Higher Education Cuts May Harm Students and the Economy for Years to Come*, Report of the Center on Budget and Policy Priorities (March 19, 2013), at 12-13, *available at* <http://www.cbpp.org/files/3-19-13sfp.pdf>.

¹⁰ And the current commitment to at least pay for low-income students through Pell Grants also falls short. See *infra* text at notes 96-99.

¹¹ See *infra* Section IV.D.

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Based on that analysis, this article makes several policy recommendations including: making IBR the only form of federal student loan;¹² removing the annual payment cap (i.e., not capping annual payments at the traditional 10-year loan payment amount);¹³ raising (though not entirely removing) the lifetime payment cap;¹⁴ introducing more graduation into the payment schedule;¹⁵ increase regulation of schools, in order to manage moral hazard;¹⁶ raising the statutory loan interest rate;¹⁷ and shifting resources away from pre-matriculation aid, such as Pell Grants, and more toward post-graduation IBR.¹⁸

These last two recommendations may require a bit more of a preview. First, under IBR the only borrowers who actually pay the full interest amount are those with relatively high incomes; all others pay only 10% of discretionary income, with limited interest accrual and capitalization. Thus a higher interest payment can act as a tool of redistribution, and we need not worry about struggling graduates with high interest payments. Second, by focusing on post-graduation income, rather than pre-matriculation parental income and wealth, IBR is more targeted to the particular needs associated with tuition and student debt payments. The availability of federal loans removes *ex ante* financial barriers to attendance, and graduates who become wealthy have no need *ex post*. A child of schoolteachers may go on to be a schoolteacher himself or a hedge fund manager, and only one of these ought to be subsidized.

While this article largely concludes that IBR is both theoretically supported and an improvement over our current system, its success is not free from doubt—far from it. Adverse selection problems—particularly from wealthy students and those entering high-income fields—and moral hazard problems—particularly from the schools themselves—have the potential to undermine the program. Regulation and monitoring will thus play an important role.

This article makes three main contributions to the literature. First, it is, to my knowledge, the first article in the legal (and economic) literature to systematically analyze this huge new entitlement benefit that will affect millions of people and hundreds of billions of dollars. Second, in framing IBR as a tax instrument, the article shows that IBR should be viewed as an integrated part of the public finance system, not merely as a loan program. Third, the article introduces the idea of quasi-public spending, and thus provides a new

¹² See *infra* text at note 257.

¹³ See *infra* text at notes 258-260.

¹⁴ See *infra* text at note 259-261.

¹⁵ See *infra* text at note 258.

¹⁶ See *infra* text at notes 285-298.

¹⁷ See *infra* text at notes 262-265.

¹⁸ See *infra* text at notes 266-268.

framework for thinking about certain large-scale public programs, such as higher education and health care, that substitute private payments for taxes.

This article proceeds as follows. Part II presents an argument for why public, collective spending on higher education is necessary and likely unavoidable. Part III reviews the evolution of higher education finance, focusing on the shift from government and charitable funding toward tuition- and loan-based funding. (Readers familiar with higher education finance should feel free to skip this Part.) Part IV explains the operation of the IBR program and then frames it not as a loan-forgiveness program, but rather as a tax-and-transfer program, and asks whether that is an appropriate way to finance higher education. As will be discussed, IBR differs in important ways from other cost-sharing program, such as the Yale, Australia, and proposed Oregon plans. Based on these insights, Part V recommends specific changes to improve the IBR program and better manage its risks. Part VI concludes.

II. The Increasing Necessity—and Cost—of Higher Education

As this article will discuss, IBR is a new form of government intervention in the higher education market that may have the effect of distributing tuition costs more collectively and progressively. But the prior question is *whether* such an intervention is justified. Here, I review the economics literature to briefly explain why higher education is both necessary and expensive, thus making the distribution of its costs a particular issue of public importance. There are, of course, many arguments for the general importance of higher education;¹⁹ here I focus particularly on economic and distributional issues that are relevant to the question of public financing.

A. The Need For Knowledge and Skills

As a starting point, more education is needed today than in the past, and more will be needed in the future than today.²⁰ This follows simply from the fact that there is always more to know. Each year there is more scientific knowledge to teach, more history, more technology, more literature, more ways of doing business, more trades, more law. But the need for higher

¹⁹ For example, that it can increase democratic and community participation, egalitarian attitudes, mental and physical health, parenting and family-planning choices, etc. *See, e.g.*, John Bynner & Muriel Egerton, *The Wider Benefits of Higher Education*, Report of University of London Institute of Education Centre for Longitudinal Studies (2001), *available at* http://www.hefce.ac.uk/pubs/hefce/2001/01_46.htm.

²⁰ *See* William Massey & Andrea K. Wilger, *Productivity in Postsecondary Education: A New Approach*, 14 EDUC. EVALUATION & POL'Y ANALYSIS 361, 366 (discussing the “growth force” as a companion to the cost disease, whereby “[n]ew knowledge leads to the need for greater technology, new classes, and even new disciplines. Yet old knowledge remains relevant”) (cited in ARCHIBALD & FELDMAN, *supra* note 7, at 80-81).

education goes further—it is closely connected to economic growth and is a major factor in income inequality and social mobility.

First, the volume of knowledge is constantly increasing, and thus we should expect the volume of schooling to also increase. The content mix can shift to reflect changes in knowledge of course—when Harvard was founded the curriculum was largely theology, Latin, and Greek,²¹ and calculus had not yet been invented.²² But to a significant degree knowledge and skills are cumulative—today’s nurse needs to understand not only basic anatomy, but also how to operate diagnostic technology, how to manage insurance coding, and how to dispense an ever-increasing number of drugs. A primary school teacher is responsible not just for reading, writing, and arithmetic, but also pedagogical theory, problem-solving, technological literacy, and management of psychological and behavioral disorders, as well as navigating complex regulatory schemes, like No Child Left Behind and the Common Core. A marketer does not just come up with pithy catch phrases, but has to understand the technology behind online advertising and analyze huge databases of market research and usage data. Even an automobile mechanic is now required to understand increasingly complex technology, including both diagnostic tools and the cars themselves. And so on. The world is only getting more complex and technologically sophisticated, and educational requirements must grow along with that.

The public has a stake in expanding higher education, because of the large positive externalities from an educated workforce and population, whether measured in terms of wages for all workers,²³ economic growth,²⁴ or just

²¹ See J. Anthony Lukas, *80 Years of Curriculum Changes Produce Extensive Study Areas*, THE HARV. CRIMSON (Jan. 8, 1953), <http://www.thecrimson.com/article/1953/1/8/80-years-of-curriculum-changes-produces>.

²² While elements of what came to be known as calculus go back to ancient times, the creators of calculus are generally agreed to be Isaac Newton, who published his *Principia Mathematica* in 1687, and Gottfried Wilhelm Leibniz, who developed his theories beginning in the 1670s and published in 1684. Harvard University was founded in 1636.

²³ See, e.g., Daron Acemoglu & Joshua Angrist, *How Large Are the Social Returns to Education? Evidence From Compulsory Schooling Laws*, NBER Working Paper No. 7444 (finding using OLS estimates that a one-year increase in average schooling rates correlates with a 7% increase in average wages); Enrico Moretti, *Social Returns to Education and Human Capital Externalities: Evidence from Cities*, U.C. Berkeley Center for Labor Economics Working Paper No. 9 (1998) (finding that a 1% increase in the share of workers with college degrees increase the wages of high school drop-outs by 2.2%, high school graduates by 1.3%, and those with some college by 1.2%). But see Acemoglu & Angrist, *supra* (finding almost no social returns when using a instrumental variables approach rather than OLS).

²⁴ See, e.g., Robert J. Barro, *Determinants of Economic Growth: A Cross-Country Empirical Study*, NBER Working Paper No. 5698 (1996); Andrea Bassanini & Stefano Scarpetta, *Does Human Capital Matter for Growth in OECD Countries? Evidence From Pooled Mean-Group Estimates*, OECD Economics Department Working Paper No. 282 (finding that one additional year of schooling leads to a 6% increase in overall output).

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overall well-being.²⁵ Education is a primary example in the economics literature of a “quasi-public good”—a good that, while not strictly speaking a non-rivalrous, non-excludable classic public good, still has such high positive externalities and spillover effects as to be clearly within government’s purview.²⁶ There is a broad social consensus about publicly funded, universal K-12 education, for example, and as human knowledge expands beyond the capacity of primary and secondary education, the same argument should be applied to higher education.

Second, there is a deep relationship between educational attainment and income inequality, which also underscores the importance of increasing higher education levels. One prominent reason for the growth in income inequality in the United States²⁷ is skill-biased technological change.²⁸ That is, in the modern era, the most highly valued skills tend to be those involved with manipulating more advanced technologies—computer programming and industrial engineering, for example. Even jobs that one might consider low-tech, like law or fashion design, have increasingly large technological components (consider Westlaw or computer-aided design, respectively) and furthermore compete for talented people who could instead be engineers.²⁹ Thus, high-skilled workers are in high demand by businesses.

²⁵ See, e.g., Bynner & Egerton, *supra* note 19; Adriana Lleras-Muney, *The Relationship Between Education and Adult Mortality in the United States*, 72 REV. ECON. STAT. 189 (2005) (finding a causal relationship between education levels and adult mortality levels).

²⁶ See *supra* note 5.

²⁷ On data showing increases in income inequality, see, e.g., CLAUDIA GOLDIN & LAWRENCE F. KATZ, *THE RACE BETWEEN EDUCATION AND TECHNOLOGY* 47-49 (2008); PIKETTY, *supra* note 8, at 291-96; Stephen Cohen, *Inequality and the Deficit*, 132 TAX NOTES 273, 273-80 (2011) (summarizing research).

²⁸ See, e.g., ARCHIBALD & FELDMAN, *supra* note 7, at 57; GOLDIN & KATZ, *supra* note 27, at 89. To be clear, this is not the only explanation. Other factors include globalization forces, both by increasing the earnings of those with high skills, and by increasing the supply of low-skilled workers through outsourcing and immigration; the decline of unions; the erosion of the federal minimum wage; and new tax- and accounting-driven executive compensation arrangements. See *id.* at 90. A particularly prominent alternative explanation is the growth in capital income relative to labor income, given the extreme concentration of capital ownership. See PIKETTY, *supra* note 8, at 25-27. Piketty questions whether the Goldin & Katz thesis can adequately explain observed features of income inequality in the U.S. *Id.* at 307-14. However, Piketty’s focus is particularly on the top 1% of incomes, rather than the more moderately high earners, and he acknowledges that the Goldin & Katz thesis likely does partly explain the more general wage premium for college graduates. *Id.* at 314-15. The skyrocketing incomes and wealth of the top 1% (or even the top 0.1%) likely has a different cause, but that is not crucial for the argument in this article.

²⁹ If an industry is competing with technology-driven industries for skilled workers, then it will have to pay similar wages in order to attract workers who could alternatively make more money in a technology-driven field. This is a subset of the larger cost disease story told *infra* Section II.B.

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In recent decades, however, the supply of high-skilled workers has not kept up with demand, and this is likely a source of income inequality.³⁰ For most of the 20th century supply largely kept up with demand, which helped to keep inequality in check—there was no need to pay a large premium for skills if there were plenty of people with such skills.³¹ In earlier periods, the demand for skills was met through increasing high school graduation rates and female labor-force participation;³² today it is necessary to look to higher education. Our education system has not been producing enough skilled workers to meet demand, and this drives up the premium for skills, and, in turn, income inequality.³³

Third, higher education is (or ought to be) a force for social mobility, by giving more young people access to the college wage premium.³⁴ Unfortunately, the data show that there is still a significant barrier to higher education for students from low-income families, and thus that higher education may actually be hindering, rather than promoting, social mobility. In 2012, only 52.1% of students from families in lowest income quintile enrolled in college, compared to 81.5% of students from families in the top income group.³⁵ The gap for college completion is even larger, since high-income students are more likely to graduate.³⁶

³⁰ See GOLDIN & KATZ, *supra* note 27, at 91-95, 293-96 (presenting a model for predicting wage differentials based on fluctuations in both supply and demand for skilled workers).

³¹ See *id.* at 298 (arguing that the college wage premium is driven largely by changes in relative supply of college workers, rather than in relative employer demand for skills).

³² See ARCHIBALD & FELDMAN, *supra* note 7, at 60; GOLDIN & KATZ, *supra* note 27, at 164, 168 (2008)

³³ *Id.* at 291. This process also feeds back on itself, and on the growth of income from capital. The high incomes to those with high skills are reinvested back into the economy in the form of capital. *Id.* at 40. This changes the capital-to-labor ratio in the economy, increasing capital's share, and the concentration of capital is another major driver of income inequality. See PIKETTY, *supra* note 8, at 220-22. Furthermore, the investment in capital likely also has an indirect effect on labor productivity and the demand for yet more skills. This potential exacerbates the labor income inequality caused by skill-biased technological change.

³⁴ See Julia B. Isaacs, Isabel V. Sawhill & Ron Haskins, *Getting Ahead or Losing Ground: Economic Mobility in America*, at 95, Brookings Institution Report, available at <http://brook.gs/1qQcli2> (“Only 14 percent of the adult children without a college degree from the bottom quintile of parental income reach the top two quintiles. By contrast, 41 percent of adult children from the bottom quintile make it to the top two quintiles if they earn a college degree.”).

³⁵ U.S. Dep’t of Educ., Nat’l Ctr. for Educ. Statistics, Digest of Educ. Statistics: 2013, Table 302.30: Percentage of recent high school completers enrolled in 2-year and 4-year colleges, by income level: 1975 through 2012, available at http://nces.ed.gov/programs/digest/d13/tables/dt13_302.30.asp.

³⁶ See Martha J. Bailey & Susan M. Dynarski, *Inequality in Postsecondary Education*, in *WHITHER OPPORTUNITY? RISING INEQUALITY, SCHOOLS, AND CHILDREN’S LIFE CHOICES* 122 (Greg J. Duncan & Richard J. Murnane, eds., 2011).

Arguments differ as to the source of the barrier. One reason is simply that students from less privileged backgrounds may not be as prepared for college, either academically or in terms of the institutional knowledge of how to apply.³⁷ Reforms to address these problems are vital, but are beyond the scope of this paper. A more relevant reason for this paper's purposes is the cost—many prospective students balk at the cost of tuition or the prospect of taking on large amounts of debt.³⁸ In addition, students who have to work during college in order to support themselves may be disadvantaged, both academically and socially, and may be less likely to graduate.³⁹

In summary, the growth in demand for skills and education is unidirectional—barring civilizational collapse, our society will only ever have more knowledge to impart, more complexity to master, and more skills demanded of its workers. And the economic bias toward those with skills is driving major labor force, economic, distributional, and social changes in our society. While formal education, particularly higher education, may not be the only way to keep up with the demand for skills, it is the best we have so far. Yet barriers clearly remain, even despite the clear economic benefits from higher education for both individuals and the economy. And perhaps the largest barrier is simply the cost, which the next section addresses.

B. The Cost of Higher Education

At the same time that higher education has become increasingly necessary, it has also become increasingly expensive, with tuition and fees growing between two and five percentage points above inflation for decades.⁴⁰ Average

³⁷ See, e.g., SUZANNE METTLER, DEGREES OF INEQUALITY: HOW THE POLITICS OF HIGHER EDUCATION SABOTAGED THE AMERICAN DREAM 26 (2014); David Leonhardt, *A Case Study in Lifting College Attendance*, N.Y. TIMES, June 10, 2014, at A3 (discussing programs to increase awareness of college application procedures among low-income high school students).

³⁸ See GOLDIN & KATZ, *supra* note 27, at 349; Christopher Avery et al., *Cost Should Be No Barrier: An Evaluation of the First Year of Harvard's Financial Aid Initiative*, NBER Working Paper No. 12029, at 10 (finding that Harvard had significantly more applicants from low-income backgrounds after instituting a policy of zero cost for families making less than \$40,000, and lower costs for families making \$40,000-\$60,000 (see *infra* text at notes 104-105)); Susan Dynarski, *The Behavioral and Distributional Implications of Aid for College*, 92 AMER. ECON. REV. 279, 281 (2002) (finding that each subsidy of \$1000 in tuition costs increases college attendance by 4-6 percentage points); Thomas J. Kane, *College Cost, Borrowing Constraints, and the Timing of College Entry*, 22 EAST. ECON. J. 181 (1996) (finding the college entry by lower-income students was delayed in states with higher tuition costs, in part due to borrowing constraints).

³⁹ See METTLER, *supra* note 37, at 13; Ralph Stinebrickner & Todd R. Stinebrickner, *Working During School and Academic Performance*, 21 J. LAB. ECON. 473 (2003) (finding evidence that increased employment during college decreased academic performance).

⁴⁰ College Board, *Average Annual Percentage Increases in Inflation-Adjusted Published Prices by Decade, 1982-83 to 2012-13*, available at <http://trends.collegeboard.org/college-pricing/figures-tables/published-prices-national#Tuition and Fee and Room and Board Charges over Time>.

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college tuition and fees in 2013 ranged from around \$13,500 for in-state public universities⁴¹ to upwards of \$44,000 for top-tier private colleges and universities,⁴² and tuition for graduate and professional schools can top \$63,000.⁴³ Tuition is, of course, merely a list price subject to discounting, but cost growth appears to track price growth,⁴⁴ and the Bureau of Economic Analysis's price index for higher education has also outrun inflation since at least the 1960s.⁴⁵ And because cost growth outstrips inflation, higher education also takes up an increasing percentage of household budgets.⁴⁶

There a number of possible explanations for the cost growth, including the addition of amenities and services provided by schools,⁴⁷ lack of price sensitivity by students when paying with debt and aid,⁴⁸ and just sheer waste.⁴⁹ But a particularly important driver of cost growth is an economic phenomenon known as "Baumol's cost disease."

⁴¹ For 2010-11, average in-state tuition, room, and board for state public universities was \$13,564. Nat'l Ctr. For Educ. Stat., *Tuition Costs of Colleges and Universities*, <http://nces.ed.gov/fastfacts/display.asp?id=76>.

⁴² The average tuition and fees of the top fifty private institutions as ranked by *U.S. News & World Report* in their National University Rankings from 2013. The tuition and fees for the top fifty schools is available at <http://colleges.usnews.rankingsandreviews.com/best-colleges/rankings/national-universities/data>. The most expensive private school in the country that year was Columbia University, with tuition and fees totaling \$49,138.00. Kelsey Sheehy, *10 Most, Least Expensive Private Colleges and Universities*, *U.S. News & World Report* (Sept. 10, 2013), <http://www.usnews.com/education/best-colleges/the-short-list-college/articles/2013/09/10/10-most-least-expensive-private-colleges-and-universities>.

⁴³ Harvard Business School tuition and fees for 2013. *U.S. News & World Report*, *Private Business Schools with the Highest Price Tag*, <http://www.usnews.com/education/best-graduate-schools/the-short-list-grad-school/articles/2013/08/27/private-business-schools-with-the-highest-price-tags>. Law schools tuitions can now exceed \$55,000, and even education programs can charge over \$40,000. *See* *U.S. News*.

⁴⁴ *See* ARCHIBALD & FELDMAN, *supra* note 7, at 263-65.

⁴⁵ Bureau of Economic Analysis, Price Indexes for Personal Consumption Expenditures by Type of Product (Table 2.4.4), *available at* <http://www.bea.gov/iTable/iTableHtml.cfm?reqid=9&step=3&isuri=1&903=69>; *see* ARCHIBALD & FELDMAN, *supra* note 7, at 83.

⁴⁶ *See* ARCHIBALD & FELDMAN, *supra* note 7, at 194.

⁴⁷ *See, e.g.*, METTLER, *supra* note 37, at 9 (2014); RICHARD VEDDER, *GOING BROKE BY DEGREE: WHY COLLEGE COSTS SO MUCH* 44 (2004)

⁴⁸ *See* ARCHIBALD & FELDMAN, *supra* note 7, at 200-02 (citing William Bennett, *Our Greedy Colleges*, *N.Y. TIMES* (Feb. 18, 1987), at A27, and discussing the "Bennett Hypothesis" that colleges just soak up federal financial aid in by charging higher tuition); VEDDER, *supra* note 47, at 20-21, 26; ZUMETA ET AL., *supra* note 2, at 24-25 (discussing the "revenue theory of costs," whereby "institutions will find ways to spend whatever revenues they can acquire in the pursuit of such value-driven goals as educational quality"); Richard Vedder & Matthew Denhart, *Why Does College Cost So Much?*, *CNN OPINION*, <http://www.cnn.com/2011/12/02/opinion/vedder-college-costs/index.html> (Dec. 2, 2011) ("When some [sic] else is paying a lot of the bills, students are less sensitive to the price, thus allowing the colleges to care less about keeping prices under control.").

⁴⁹ *See* VEDDER, *supra* note 47, at 43.

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The cost disease claims that wage growth in high-productivity industries, such as technology, manufacturing, and agriculture also puts upward pressure on wages economy-wide, including in low-productivity service industries, such as health care, education, the performing arts, and policing. But because output in service industries rises only slowly or not at all, costs instead have to rise in order to pay those higher wages. A professor cannot grade exams or give lectures appreciably faster than in 1900.⁵⁰ But should the university therefore freeze professors' real wages, it would soon find its professors lured away by, say, Google, where output per worker continues to grow.⁵¹ In order for professors' salaries to grow in real terms, education prices have to grow at a rate greater than inflation, and over time total higher education spending becomes a greater and greater percentage of household budgets and overall GDP.⁵² Other high-labor, low-productivity growth industries, such as health care and legal services, have also seen similar growth in prices.⁵³

One need not fully accept the cost disease argument, however, in order to believe that some intervention in higher education is necessary. Higher education costs *are* rising faster than inflation, and that alone demands a response. Yet it is worth remembering that the cost disease is also essentially an accounting identity. If inflation is the weighted average price growth in a bundle of goods and services, and the prices for some of those goods and services are rising slower than inflation or actually dropping, than others must be rising faster than inflation, by definition, no matter what the actual rate of inflation.⁵⁴ Of course, this does not mean that education *must* be one of those fast-rising services—but it is telling that, descriptively, “the list of those items whose real costs are rising remains roughly constant, decade after decade,

⁵⁰ There are, of course, some productivity improvements in higher education through the use of technology. I return to these issues in more detail in Section II.C.

⁵¹ For the sake of argument, I am abstracting away from some of the particulars of the academic job market, such as the glut of Ph.D.s, which would suggest that there is perhaps enough supply of labor that wage growth would be limited. But the market is complex; different fields have different supply and demand dynamics, and it may be that the number of effective teachers and researchers is much smaller than simply the number of Ph.D.s. At any rate, at the margin, the dynamic I describe would likely apply. And furthermore, real wages for professors have clearly risen over the long term.

⁵² See ARCHIBALD & FELDMAN, *supra* note 7, at 193-95 (showing that percentage of household income going to higher education has generally increased over time); BAUMOL, *supra* note 8, at 26.

⁵³ See ARCHIBALD & FELDMAN, *supra* note 7, at 20-27; BAUMOL, *supra* note 8, at 6-7 (on medicine), 28-29 (on legal services). This includes a notable period of flat growth in the 1970s, which coincided with a period of flat labor productivity growth in manufacturing. See Archibald & Feldman, *supra* note 7, at 85-86.

⁵⁴ See BAUMOL, *supra* note 8, at 19 (“The rate of inflation, then, is an *average* of the rates of growth of many different prices. It follows immediately and unequivocally that *if the prices of all commodities are not rising at the same pace, then some must be increasing at a rate above average.*”) (emphasis in original).

while the same appears to be true of those items whose real costs are falling,”⁵⁵ and the cost disease story helps to explain why.

How this cost growth affects most households is a complicated question, however. An important, yet less understood, corollary to the cost disease is that *an economy can still afford the goods and services subject to the cost disease*, because other goods and services are getting cheaper at the same time.⁵⁶ The allocation of money might shift away from manufactured goods and toward services, but the overall bundle of goods need not change. The money we save on cheaper cars, toasters, and food can go toward more expensive education and health care. And, indeed, there is evidence that, despite the high growth in higher education prices, wage growth may more than compensate for it, for the average worker.⁵⁷ Even if education takes a bigger portion of the average budget, the fact that other goods and services take up a smaller portion offsets that. As a result, one cannot simply say that higher education is becoming more unaffordable for everyone.

That said, we are not all average, and there are clearly distributional differences in who attends college.⁵⁸ While the average worker may still have plenty left over for other goods and services, those in the lower-income groups likely do not, even after accounting for financial aid grants and other subsidies.⁵⁹ Thus, with respect to individual students and families, the affordability question is ultimately an issue of cost-sharing. Even if an economy as a whole can pay the rising costs of higher education, if too much of that cost is put onto individual students, some may be shut out and overall levels of education could stagnate or drop. This puts the policy focus on tuition—the student’s share of overall costs—which Part III addresses.

C. Technology Improvements and Online Education

Before moving on to the question of cost-sharing, it is worth a brief discussion of some of the technological improvements in higher education that have been developed, and new ones being developed at the time of this writing. The main reason for low labor productivity in higher education is that a professor can only teach so many students. If students are the output, a professor likely produces close to the same output today as a century ago.

⁵⁵ *Id.*; see William J. Baumol, *Health Care, Education, and the Cost Disease: A Looming Crisis for Public Choice*, 77 PUB. CHOICE 17, 20 (“[It is] surprising that those services [including higher education] whose productivity grows slowly today are the same ones whose productivity grew slowly as far back as there are data available.”).

⁵⁶ See BAUMOL, *supra* note 8, at 43-58.

⁵⁷ See ARCHIBALD & FELDMAN, *supra* note 7, at 193-95 (showing that most households have more money available for purchases even after accounting for higher education costs, because wages have more than kept up with higher education, on average).

⁵⁸ See *supra* note 35.

⁵⁹ See ARCHIBALD & FELDMAN, *supra* note 7, at 193.

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That said, there are clearly technological and other changes to higher education. First, there have been technological improvements to productivity. I can prepare lecture slides with PowerPoint, rather than have a secretary make transparencies. I can distribute reading assignments digitally, rather than having them printed in the copy center. I can quickly research items for teaching or scholarship without having to spend hours flipping through the CCH Standard Reporter or Shepard's. But the cost disease does not require *no* productivity growth—only *slow* productivity growth.⁶⁰

Second, the bundle of goods and services called “higher education” has itself changed with improvements in technology and standards of living. For example, higher education now includes sophisticated science laboratories, classroom A/V equipment, wireless Internet services, expanded health care services, academic and career counseling, fitness and wellness services, and so on. Technological improvements do not always bring down costs—sometimes they increase quality.⁶¹ This is clearest, for example, with medical care. While medical costs continue to rise, we also have many more cures and treatments than we did even a generation ago. This is productivity improvement in a sense; we get much more for our dollar, even though we don't spend less. And the same could be said for higher education.

As a salient example for law schools, consider the rise in clinical education. Students and law firms have rightly demanded that students graduate from law schools with more hands-on practice skills,⁶² and clinics are the primary way for law schools to teach those skills. But clinics are also expensive and time-consuming, with a much lower faculty-student ratio and more resources needed per student than for a traditional podium class.⁶³ The quality of the education goes up, but so does the cost.

However, the rise of Massive Open Online Courses (“MOOCs”) and similar online courses and lectures may provide a way to boost productivity and bring down real costs. The number of attendees to an online lecture is not limited by room size, and indeed some of the most popular early MOOCs

⁶⁰ See *id.* at 39-41; BAUMOL, *supra* note 8, at 22.

⁶¹ See ARCHIBALD & FELDMAN, *supra* note 7, at 76.

⁶² See Daniel Thies, *Rethinking Legal Education in Hard Times: The Recession, Practical Legal Education, and the New Job Market*, 59 J. LEGAL EDUC. 598, 605-607 (2010); Michelle Weyenberg, *Top Schools of Clinics*, NAT'L JURIST, Feb. 2014, at 20-21.

⁶³ See ARCHIBALD & FELDMAN, *supra* note 7, at 72-73 (discussing smaller classes). *But see* Robert R. Kuehn, *Pricing Clinical Legal Education*, Working Paper available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2318042 (finding that “there is no effect on the tuition and fees students pay from requiring or guaranteeing every student a clinical experience and no difference in tuition between schools that already have sufficient capacity to provide a clinical experience to each student and those that do not”).

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have had more than 150,000 students.⁶⁴ So, in theory, a professor could teach many more students than in a traditional classroom.

It is too early to say for sure, however, whether this will be the productivity-enhancing technology that higher education has been lacking. First, it is not clear that the product is the same.⁶⁵ An online class is, at this point, a qualitatively different experience than a traditional class, requiring not only limited interaction between professor and students, but also a very different form of evaluation and grading.⁶⁶ While it may turn out to educate as well or even better than a traditional class, that has not been shown at this point. If the product is actually of lower quality, then the inflationary forces are still in effect; paying the same, or even a little less, for a worse product is just as inflationary as paying more for the same product. This would be a reverse of the trend described above—using technology to decrease, rather than increase, quality.⁶⁷ Indeed, some of the early excitement for MOOCs appears to have worn off due to weak early results.⁶⁸

Second, if in fact an online course is designed to have similar levels of engagement and evaluation as a traditional course, it may not turn out to be much of a labor-saving device. While there may be less need for tenured professors, there will be an increased need for teaching assistants, discussion leaders, graders, and so on. While these individuals would likely earn lower wages, their wages would still need to grow. Firing the extra professors may provide a one-time boost to productivity, but after that the same cost disease

⁶⁴ Laura Pappano, *The Year of the MOOC*, N.Y. TIMES (Nov. 2, 2012), <http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html> (reporting that over 150,000 students signed up for an Introduction to Artificial Intelligence Course offered by Udacity, but that in an separate course focused on machine learning only 13,000 completed the class and earned a certificate, out of 46,000 enrollees).

⁶⁵ Regarding MOOCs and legal education, *see generally* Philip G. Schrag, *MOOCs and Legal Education: Valuable Innovation or Looming Disaster?*, 59 VILL. L. REV. 83 (2014).

⁶⁶ *See, e.g.*, Anna Ya Ni, *Comparing Effectiveness of Classroom and Online Learning: Teaching Research Methods*, 19 J. PUB. AFFAIRS EDUC. 199, 201-04 (2013).

⁶⁷ *See* BAUMOL, *supra* note 8, at 21 (noting that, in health care and education, increased productivity often means declining quality). Note, however, that what is sometimes called “disruptive innovation” involves using technology to develop cheaper but lower quality products for new markets, with the innovation eventually over-taking the existing market. *See* CLAYTON CHRISTENSON, *THE INNOVATOR’S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* (1997). The theory of disruptive innovation is not without its critics, however, particularly when applied as general theory relevant to all businesses and products. *See, e.g.*, Jill Lepore, *The Disruption Machine*, NEW YORKER, June 23, 2014, at 30.

⁶⁸ *See* METTLER, *supra* note 37, at 33; Tamar Lewin, *After Setbacks, Online Courses are Rethought*, N.Y. TIMES, Dec. 10, 2013, <http://www.nytimes.com/2013/12/11/us/after-setbacks-online-courses-are-rethought.html>.

trends could take over.⁶⁹ Furthermore, the professors left standing are likely to be very talented, which could lead to them extracting much of the benefits of the productivity improvements for themselves (as we have seen in other “superstar” settings, such as entertainment, professional sports, and medical and legal services⁷⁰).

Third, even the most techno-utopian advocates of online education must still see a role for the traditional university. It may be that online higher education is best suited for teaching specific skills and for addressing more marginal students and newer entrants to higher education, while the most able students will continue to attend traditional universities.⁷¹ This segmenting of higher education raises important issues of distributive justice (though not new ones, since our system of higher education is already highly segmented⁷²), which are largely beyond this paper. But at whatever size the traditional university system settles out, it will remain an expensive one, and thus potentially off-limits to poorer students regardless of ability or potential, absent public intervention.

All that being said, should it turn out that MOOCs and other online educational programs are successful in providing high-quality higher education at a dramatically reduced cost, then we will have at least partly solved the cost and distributional problems, making government intervention less necessary.

III. Higher Education Finance

The previous Part discussed the need for higher education, but also the cost of higher education and the role of cost disease forces in causing the growth rate to outstrip inflation. That view claims that economic forces outside the control of any institution, or even of public policy, are one of the major drivers of higher education costs. The question of *how* these costs are paid and shared, however, is very much an institutional and public policy question. This Part briefly discusses the evolution of higher education finance

⁶⁹ A similar argument applies to the calls to lower the costs of law school by removing the third-year of a J.D. program. Even in the unlikely scenario that the professoriate is cut by a third, the remaining ones would still like competitive wages. All we will have done is made law school somewhat cheaper for a few more years. Eventually, the cost disease would catch up again.

⁷⁰ See, e.g., Sherwin Rosen, *The Economics of Superstars*, 71 AM. ECON. REV. 845, 845 (1981); Schrag, *supra* note 65, at 109.

⁷¹ See ARCHIBALD & FELDMAN, *supra* note 7, at 127.

⁷² See ZUMETA ET AL., *supra* note 9, at 66-70; Susan Dynarski, *Rising Inequality in Postsecondary Education*, BROOKINGS INST. (Feb. 13, 2014), <http://www.brookings.edu/blogs/social-mobility-memos/posts/2014/02/13-inequality-in-postsecondary-education>; Michael N. Bastedo & Ozan Jaquette, *Running in Place: Low-Income Students and the Dynamics of Higher Education Stratification*, 33 EDUC. EVALUATION & POLY ANALYSIS 318 (2011).

over time,⁷³ with an emphasis on the growth in tuition's share of the overall cost. (This Part is largely an overview of history and existing literature, and knowledgeable readers should feel comfortable skipping to Part IV.)

A. U.S. Higher Education Finance over Time

The higher education finance system has always been a pastiche of federal, state, individual, and charitable spending, but with the relative importance of each shifting over time. Both public and private institutions have existed since the early days of the republic.⁷⁴ Public universities from the beginning received the bulk of their funding from state governments, though they also received major federal support in the 19th century, especially through the Morrill Land Grant Acts of 1862 and 1890.⁷⁵ Private colleges, by contrast, were largely established and operated by religious institutions.⁷⁶

The 20th century saw several important changes relevant to the issues discussed in this article. First, dramatic growth in individuals attending and graduating from college. Second, greater state and federal funding for higher education. And third, the increased role of tuition and student loans as a source of financing, especially in the latter half of the century.

First, many more people are attending and graduating from college. The 20th century began with about 10% of the population attending a college and 5% graduating,⁷⁷ it closed with 56% attending⁷⁸ and 30% graduating.⁷⁹ Much of this growth has been absorbed by public universities. At the beginning of the 20th century, most institutions were private, and most students enrolled in a private institution, by a ratio of almost five to one.⁸⁰ But by the end of the 20th century, the balance had largely flipped, with 65% of students attending a public university in 2000 (reaching a peak of 70% in 1970).⁸¹

⁷³ For much richer and more detailed accounts, see ARCHIBALD & FELDMAN, *supra* note 7; GOLDIN & KATZ, *supra* note 27; ZUMETA, ET AL., *supra* note 9.

⁷⁴ See GOLDIN & KATZ, *supra* note 27, at 255.

⁷⁵ 7 U.S.C. §§ 301 *et seq.* (1862 Act) & 321 *et seq.* (1890 Act); see GOLDIN & KATZ, *supra* note 27, at 255-56; ZUMETA ET AL., *supra* note 9, at 59-60.

⁷⁶ See GOLDIN & KATZ, *supra* note 27, at 254.

⁷⁷ See *id.* at 248.

⁷⁸ U.S. Census Bureau, *Educational Attainment in the United States: 2012 – Detailed Tables, Table 1 (All Races)*, <http://www.census.gov/hhes/socdemo/education/data/cps/2012/tables.html> (citing U.S. Census Bureau, Current Population Survey, 2012 Annual Social and Economic Supplement).

⁷⁹ U.S. Census Bureau, CPS Historical Time Series Tables, Table A-2: Percent of People 25 Years and Over Who Have Completed High School or College, by Race, Hispanic Origin and Sex: Selected Years 1940 to 2012, available at <http://www.census.gov/hhes/socdemo/education/data/cps/historical/index.html>.

⁸⁰ See GOLDIN & KATZ, *supra* note 27, at 266.

⁸¹ See *id.* at 266, 278. This reflects in part changes in higher education generally, especially the growth in large research universities, which have tended to be public institutions,

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The growth in public higher education also reflects the changes in financing due to the second trend: the increases in public financial support for higher education. In the post-war period, major federal legislation, such as the GI Bill, the National Defense Education Act, the Economic Opportunity Act of 1964, and the Higher Education Act of 1965 provided substantial federal money to colleges and universities. In addition, public policy in the 1940s, 50s, and 60s, especially at the state level, appears to have been very supportive of investing in higher education for economic, social, and political reasons. The Truman Commission Report in 1947 recommended a large expansion of higher education, with major support from federal and state governments.⁸² These ideas were put into practice in, for example, the California Master Plan in 1960,⁸³ creating that state's three-tiered system, and the formation and expansion of the State University of New York System.⁸⁴

This government investment had material effects on tuitions. While public institution tuition has always been cheaper than private, it became much more so. Public tuition was about 1/3 of private tuition in 1934, but by the 1950s it was closer to 1/5.⁸⁵ That most students therefore chose public institutions is understandable, particularly for the newer entrants to higher education.

The third trend—the relative rise of tuition and student loans in the overall cost-sharing scheme—was likely due to a number of coinciding factors. First, the real cost of higher education began its acceleration in the 1960s. Though it paused briefly during the stagflation years of the 1970s,⁸⁶ when there was little labor productivity growth, the strain on state and institutional budgets was starting to show. By the early 1970s, many institutions were already showing signs of financial trouble.⁸⁷

Second, after almost 20 years without a recession, the recession caused by the oil shock of 1973 was the beginning of our more recent boom-and-bust business cycle, with recessions generally every 10 years or less. At the same time, changes in the tax base left states with more revenue volatility and less

beginning in the late 19th and early 20th centuries. *See id.* at 263, 265. While there are still more private institutions than public today, *see id.* at 254, the public institutions tend to be much larger, *see id.* at 265-66.

⁸² PRESIDENT'S COMM. ON HIGHER EDUC., HIGHER EDUCATION FOR AMERICAN DEMOCRACY (1947); *see* ZUMETA ET AL., *supra* note 9, at 61-2.

⁸³ CALIF. STATE DEP'T OF EDUC., A MASTER PLAN FOR HIGHER EDUCATION IN CALIFORNIA, 1960-1975 (1960), *available at*: <http://www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf>.

⁸⁴ *See* ZUMETA ET AL., *supra* note 9, at 64.

⁸⁵ *See* GOLDIN & KATZ, *supra* note 27, at 278.

⁸⁶ *See supra* note 53.

⁸⁷ *See* ZUMETA ET AL., *supra* note 9, at 67.

ability to absorb the effects of economic downturns.⁸⁸ State higher education budgets have often been the first to be cut in a downturn, since the benefits are perceived—perhaps rightly—to accrue to the more well-off, and universities have other sources of revenue to tap—namely tuition.⁸⁹ The pattern in recent decades has been for tuition hikes to accompany cuts in public funding during a recession. After a recession, public funding increases somewhat, though not to pre-recession levels, and tuition remains high.⁹⁰

Finally, starting in the 1970s, there was an explicit policy push for students and families to share more of the overall cost.⁹¹ This reflected an understanding that much of the benefit of higher education accrued to the student herself, and that generous public funding, especially for tiered state university systems, had the potential to be regressive, both because attendees at well-funded flagship universities were disproportionately from high-income families, and because they were more likely to have high incomes in the future. Some commentators in the 70s and 80s recommended that instead of high public funding and low tuition, states and their public universities should instead have high tuitions, but high need-based aid.⁹² And, indeed, that has become the de facto policy at many of the best-funded private colleges and flagship public universities.⁹³

B. Tuition, Financial Aid, and Student Loans

By the 1970s, the system of higher education, both public and private, was poised for a rise in tuition, both in absolute terms and also as a share of the overall costs of higher education.⁹⁴ This reflected in part a recognition that generously subsidizing higher education for *all* students was both expensive and regressive, since the subsidies were not connected to need. At first, governments and institutions appeared ready to provide significant grants to offset these tuition hikes for lower-income students. Thus the two main forms of need-based aid, prior to IBR, were federal need-based grants and tax credits on the one hand, and charitable support through university endowments and fundraising on the other (buttressed by the tax deduction for charitable contributions and the tax-exempt status of educational institutions).

⁸⁸ See John R. Brooks II, *Fiscal Federalism as Risk-Sharing: The Insurance Value of Redistributive Taxation*, 68 TAX L. REV. ____, ____ (forthcoming 2014); David Gamage, *Preventing State Budget Crisis: Managing the Fiscal Volatility Problem*, 98 CAL. L. REV. 749, 759-60 (2010).

⁸⁹ See ZUMETA ET AL., *supra* note 9, at 18.

⁹⁰ See *id.* at 20.

⁹¹ See *id.* at 68-70.

⁹² See, e.g., DAVID W. BRENEMAN, CHESTER E. FINN & SUSAN C. NELSON, PUBLIC POLICY AND PRIVATE HIGHER EDUCATION (1978).

⁹³ See ZUMETA ET AL., *supra* note 9, at 68-69; see also ARCHIBALD & FELDMAN, *supra* note 7, at 156-165 (on the rise of tuition discounting).

⁹⁴ See GOLDIN & KATZ, *supra* note 27, at 278-79 (discussing tuition increases).

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On the government side, as state subsidies began to decline, the federal government introduced Pell Grants in 1972.⁹⁵ Unlike direct state subsidies, Pell Grants are need-based, and originally covered most, if not all, of tuition. For example, the maximum grant in 1975-76 was \$1400,⁹⁶ which was more than double the average tuition and fees for a public four-year institution and over 78% of average tuition, fees, room, and board.⁹⁷ The rapid growth in tuition costs eroded the value of Pell Grants over time, however, despite periodic funding increases. Even after the maximum Pell Grant was raised by 13%, to \$5350, in 2009,⁹⁸ it covered only 33% of the average tuition, fees, room, and board for public four-year institutions.⁹⁹

The federal government also introduced major tax credits in 1997,¹⁰⁰ which were expanded in 2009.¹⁰¹ The credits phase out for incomes above \$80,000,¹⁰² and thus are direct at those with more need. Yet they are still imperfect tools, in large part because they are nonrefundable. But because the tax credits and Pell Grants are focused on those with lower incomes, and are funded out of the progressive tax system generally, they are more targeted and progressive than direct state subsidies.¹⁰³

⁹⁵ See Higher Education Amendments of 1972, Pub. L. No. 92-318, § 131, 86 Stat. 235, 247 (authorizing “basic grants” and “supplemental educational opportunity grants,” the predecessors to the Pell Grants).

⁹⁶ U.S. Dep’t of Educ., Office of Postsecondary Education, 2012-2013 Federal Pell Grant Program End-of-Year Report, Table 1: Federal Pell Grant Program: Summary of Statistics for Cross-Year Reference, *available at*: <http://www2.ed.gov/finaid/prof/resources/data/pell-2012-13/pell-eoy-2012-13.html>.

⁹⁷ Author’s calculations, based on Pell Grant data, *supra* note 96, and average tuition data, from U.S. Dep’t of Educ., Nat’l Ctr. for Educ. Statistics, Digest of Educ. Statistics: 2012, Table 381: Average undergraduate tuition and fees and room and board rates charged for full-time students in degree-granting institutions, by level and control of institution: 1969-70 through 2011-12, *available at*: http://nces.ed.gov/programs/digest/d12/tables/dt12_381.asp.

⁹⁸ The revenue to pay for this expansion came in part from the repeal of the subsidies for student loans made by private lenders. *See infra* text at notes 121-122 and 150.

⁹⁹ *Supra* note 97.

¹⁰⁰ The Hope and Lifetime Learning Credits were added by the Taxpayer Relief Act of 1997, Pub. L. No. 105-34, § 201, 111 Stat. 788 (1997).

¹⁰¹ The American Opportunity Tax Credit temporarily increases the Hope Scholarship Credit for taxable years 2008-2018. I.R.C. § 25A(i). The provision was added by the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 1004(a), 123 Stat. 115, 313-14.

¹⁰² I.R.C. § 25A(i)(4); *see also* Rev. Proc. 2013-35, § 3.05, 2013-47 I.R.B. 537. Technically, the phase-out applies to those with “modified adjusted gross income” above \$80,000. Modified adjusted gross income is AGI with certain add-backs related to otherwise-excluded foreign earned income. *See* I.R.C. § 25A(d)(3).

¹⁰³ For simplicity, this discussion ignores the role of federal research grants, despite the fact that these have become major sources of revenue for large research universities. *See, e.g.*, University of California, Budget News, How the Budget Works, http://budget.universityofcalifornia.edu/?page_id=1120 (showing that 18% of the University of California’s revenue comes from government contracts and grants).

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On the charitable side, many private institutions, particularly the wealthiest, expanded the use of institutional grants to balance the growth in tuition. Most notably, Harvard in 2004 announced that tuition would be free for students with parental income less than \$40,000,¹⁰⁴ later increased to \$65,000.¹⁰⁵ Other rich schools, like Yale, MIT, and Stanford, quickly followed suit.¹⁰⁶ Because the funds for these grants come from a combination of alumni gifts and wealthier families paying full tuition, the grants act as a form of redistribution, though largely from current and former students.¹⁰⁷ Yet less wealthy institutions are not able to be as generous and have turned many of their grant dollars toward attracting top students to boost rankings, rather than aiding poorer students.¹⁰⁸

Because both government and institutional grants therefore covered only part of the need of students, and because tuitions continued to rise, the overall mix of financial aid began to shift toward loans starting in the late 1970s,¹⁰⁹ fueled by the creation of Sallie Mae in 1972¹¹⁰ and the expansion of the guaranteed loan program in the late 70s.¹¹¹ In 1974, total federal grants were four times the volume of federal loans, but by 1982 grants and loans were about equal,¹¹² and by 2012 the volume of grants was about half the volume of federal loans.¹¹³

As direct grants subsided, net tuition (tuition net of grants and direct aid) naturally rose. This money can come from only a few places—either the income of the parents (either current income or past income in the form of

¹⁰⁴ See Daniel J. Hemel, *College Cuts Costs for Low-Income Families*, HARV. CRIMSON, March 1, 2004, available at: <http://www.thecrimson.com/article/2004/3/1/college-cuts-costs-for-low-income-families>.

¹⁰⁵ See Harvard University, Scholarships & Grants, <http://college.harvard.edu/financial-aid/types-aid/scholarships-grants>.

¹⁰⁶

¹⁰⁷ The tax deduction for charitable contributions adds some additional support from taxpayers, but because of its upside down-quality the distributional effects are unclear. The Joint Committee estimates that the tax expenditure on charitable contributions to educational institutions is between \$6 and 7 billion per year. See Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2014-18* (JCX-97-14), at 29 (August 5, 2014).

¹⁰⁸ See, e.g., Matthew Quirk, *The Best Class Money Can Buy*, THE ATLANTIC, Nov. 1, 2005, available at: <http://www.theatlantic.com/magazine/archive/2005/11/the-best-class-money-can-buy/304307> (describing the rise of specialized “enrollment management” functions at colleges and universities).

¹⁰⁹ See ZUMETA ET AL., *supra* note 9, at 88 (“Higher education is increasingly provided and sold as a private good, its purchase heavily reliant on debt financing.”)

¹¹⁰ The Student Loan Marketing Association was created by the Education Amendments of 1972 to the Higher Education Act of 1965, Pub. L. No. 92-318, § 133(a), 86 Stat. 235, 265 *et seq.* (1972).

¹¹¹ See ZUMETA ET AL., *supra* note 9, at 70.

¹¹² See *id.* at 76-77.

¹¹³ See 2011-12 National Postsecondary Student Aid Study (NSPAS:12): Student Financial Aid Estimates for 2011-12, at 10 (August 2012), available at: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013165>.

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savings) or of the student. For tuition borne by the student, some could perhaps come from current earnings, but more often it comes from future income, in the form of loan payments. Thus, a student loan is essentially a way to have a share of higher education costs paid for out of the future wages of a graduate.

In the abstract, this is an entirely sensible policy. As noted above,¹¹⁴ there are good equitable reasons to ask a student to bear a large share of the costs of a college education, given the large private benefits. And allowing the student to pay that cost out of future earnings, which are likely to be higher precisely because of the education, is also more efficient. Indeed, it is likely cheaper in present value terms for the student to pay tuition out of future wages than for parents to pay it out of past wages, given that growth rate on wages for college graduates is substantial. As shown by Gary Becker and others, investing in higher education has consistently been one of the best forms of investment around,¹¹⁵ and borrowing at a good rate in order to leverage that investment makes a lot of sense financially ... except when it doesn't.

As with any leveraged investment, there is increased exposure to risk, in this case the risk that future labor income is too low. While the average graduate is still likely to earn a substantial return on the investment, enough to pay the debt, graduates at the lower end may not. Furthermore, as tuitions continue to rise, the degree of leverage also rises. Total outstanding student debt is over \$1 trillion as of 2014,¹¹⁶ and the average debt load for the class of 2012 was \$29,400 per borrower, though at some private (non-profit) colleges average debt exceeds \$45,000.¹¹⁷

¹¹⁴ See *supra* text accompanying notes 91-93.

¹¹⁵ See GARY BECKER, *HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS, WITH SPECIAL REFERENCE TO EDUCATION* (3d ed. 1993); Christopher Avery & Sarah Turner, *Student Loans: Do College Students Borrow Too Much—Or Not Enough?*, J. ECON. PERSP. 165, 176 (2012) (“The message is clear: expected lifetime earnings associated with a college degree have increased markedly over time. As the investment value of a college degree rises, it is natural to think of individuals increasing their willingness to borrow to achieve these higher returns.”); Michael Greenstone and Adam Looney, *Where is the Best Place to Invest \$102,000—In Stocks, Bonds, or a College Degree?*, Brookings Institution (June 24, 2011), <http://www.brookings.edu/research/papers/2011/06/25-education-greenstone-looney> (finding a 15.2% annual return on a college degree).

¹¹⁶ Rohit Chopra, *Student Debt Swells, Federal Loans Now Top a Trillion*, Consumer Financial Protection Board (Jul. 17, 2013) (outstanding debt of \$1.2 trillion), <http://www.consumerfinance.gov/newsroom/student-debt-swells-federal-loans-now-top-a-trillion/>; Federal Reserve Bank of New York, *Quarterly Report on Household Debt and Credit*, at 1 (February 2014) (outstanding debt of \$1.08 trillion). http://www.newyorkfed.org/householdcredit/2013-Q4/HHDC_2013Q4.pdf.

¹¹⁷ INSTITUTE FOR COLLEGE ACCESS & SUCCESS, *PROJECT ON STUDENT DEBT, STUDENT DEBT AND THE CLASS OF 2012*, at 1, 9 (2012), <http://projectonstudentdebt.org/files/pub/classof2012.pdf>.

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Moreover, certain professions are likely to be particularly risky for borrowers. Those that require or encourage graduate degrees, for example, but which have low or uncertain future income streams. Nursing, teaching, social work, ministry, journalism, academia, and the arts are particularly subject to this risk, as are some legal and medical practices.¹¹⁸ Debt for graduate school can easily exceed \$100,000 or more.¹¹⁹

These debt loads may not end up being that daunting for many graduates, particularly considering the earnings premium for higher education and the long time period over which the loans are amortized. But, of course, half of graduates will earn below-median income for their cohort, and the loan burden disproportionately falls on early, and thus lower-, earning years. And the debt loads for future students will increase as tuitions continue to increase. This has the risk of deterring risk-averse potential students from attending college, or of deterring risk-averse graduates from joining certain careers.

Furthermore, the claim that borrowing to fund higher education is a sensible plan depends on the loan being offered at relatively fair terms, and with a fair allocation of risk between borrower and lender. The borrower should borrow only what she needs, and at a fair risk-adjusted discount rate—otherwise, she could end up with unaffordable loan payments, even if she landed a high-wage job after graduation.

However, heading into the 21st century, these conditions seemed not to hold. Federal subsidization of lenders lead in some cases to predatory-style lending by private student loan companies, sometimes in cahoots with university financial aid offices.¹²⁰ The outcry from that, plus the rapid rise in debt levels and fears of financial distress for graduates, led to the large—though still not well-understood—policy change described in the next Section: the creation and expansion of Income-Based Repayment.

¹¹⁸ Note that these are also professions with arguably large positive externalities.

¹¹⁹ Average graduate student debt per borrower for all programs was \$54,980 in 2007-08, and for professional programs was \$81,140. U.S. Dep't of Educ., Nat'l Ctr. for Educ. Stats., Digest of Educ. Stats., Table 396: Amount borrowed, aid status, and sources of aid for full-time, full-year postbaccalaureate students, by level of study and control and level of institution: Selected years, 1992-93 through 2007-08, available at: http://nces.ed.gov/programs/digest/d12/tables/dt12_396.asp. Average law student debt was over \$140,000 in 2007-08. See Jason Delisle, *The Graduate Student Debt Review: The State of Graduate Student Borrowing*, New American Foundation Education Policy Program Policy Brief, at 4 (March 2014), available at: <http://newamerica.net/sites/newamerica.net/files/policydocs/GradStudentDebtReview-Delisle-Final.pdf>.

¹²⁰ See, e.g., SUZANNE METTLER, *THE SUBMERGED STATE: HOW INVISIBLE GOVERNMENT POLICIES UNDERMINE AMERICAN DEMOCRACY* 73-74 (2011); Jonathan D. Glater, *U.S. Is Lax on Loans, Cuomo Says*, N.Y. TIMES (April 26, 2007), <http://nyti.ms/1qXquPP>; Doug Lederman, *Taming the Student Loan 'Wild West'*, INSIDE HIGHER ED. (June 7, 2007), <http://www.insidehighered.com/news/2007/06/07/loans>.

IV. Income-Based Repayment as Progressive Public Funding

This Part describes the shift of the student loan system from one of subsidized private lending, with payments based on typical loan terms, to public lending, with payments based on income. Section A discusses the implementation of the IBR program and its current rules. Section B claims that making payments based on income means that we should consider the loan payments more like tax payments. Section C provides the central argument for why IBR is superior to direct grants—namely that the spending is more targeted to public goals; redistribution is based on graduate, rather than parental, income; and the program takes the form of “quasi-public spending,” which has the potential to be more economically efficient and politically palatable. Section D then turns to a comparison with other forms of income-contingent payment for higher education. Section E addresses a specific, and important, criticism of IBR—that it encourages borrowers to take on excessive levels of debt. I explain in that section why this should not be a significant problem.

A. Current IBR Rules

The student loan industry was effectively nationalized by provisions of the Health Care and Education Reconciliation Act (“HCERA”) of 2010 that repealed the subsidies paid to private lenders under the Federal Family Education Loan Program and expanded the Direct Loan program.¹²¹ Since then, nearly all student loans are from the federal government.¹²² That fact alone does not necessarily imply public spending on higher education, however—absent any other changes, it simply means that the government is standing in as the creditor, rather than a bank.

But additional policy changes shifted that relationship. In 2008 the government had instituted the Income-Based Repayment (“IBR”) program,¹²³ which allowed students to limit their loan-service payments to 15% of

¹²¹ In particular, Title II of the maybe HCERA ended the government subsidy for private student loans, increased the amount of public loans available, and expanded and redefined the Income-Based Repayment program. *See* Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, §§ 2201-2213, 124 Stat. 1029, 1081 (2010).

¹²² For the 2011-12 academic year, private lenders made \$6.4 billion in new student loans, compared to \$109.8 billion in federal loans; the federal government thus originated over 94% of all students loans in 2011-12. The College Board, Total Student Aid and Nonfederal Loan in 2012 Dollars Over Time (Table 1), *available at* <https://trends.collegeboard.org/student-aid/figures-tables/total-student-aid-nonfederal-loans-2012-constant-dollars-over-time>.

¹²³ There was also an earlier Income-Contingent Repayment (“ICR”) option in effect since 1994. *See* Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 4021, 107 Stat. 346 (1993); Philip G. Schrag, *The Federal Income-Contingent Repayment Option for Law Student Loans*, 29 HOFSTRA L. REV. 733, 764-74 (describing the history and operation of the ICR program).

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discretionary income, with forgiveness after 25 years.¹²⁴ The HCERA expanded the program and lowered the payments to 10% of discretionary income with forgiveness after 20 years, beginning in 2014.¹²⁵ However, the Obama administration accelerated the implementation of the 10% payment program to 2012, eased the treatment of accrued interest, and redubbed it “Pay As You Earn” (“PAYE”).¹²⁶ The White House has proposed making PAYE the sole income-driven program available to borrowers after July 1, 2015.¹²⁷ And in a June 2014 President Memorandum, the White House directed the Department of Education to find ways to extend PAYE to more borrowers and to better educate borrowers about income-based options.¹²⁸

Under PAYE and IBR a student loan borrower’s monthly payments to service the loan’s principal and interest is the lesser of 10% of the borrower’s discretionary income (where discretionary income is adjusted gross income (“AGI”)¹²⁹ less 150% of the relevant poverty line¹³⁰) or the default payment

¹²⁴ College Cost Reduction and Access Act, Pub. L. No. 110-84, § 203, 121 Stat. 784, 792-94 (2007); see Philip G. Schrag, *Federal Student Loan Repayment Assistance for Public Interest Lawyers and Other Employees of Governments and Nonprofit Organizations*, 36 HOFSTRA L. REV. 27, 34-41 (2007) (discussing 2008-era IBR rules).

¹²⁵ Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, § 2213, 124 Stat. 1029, 1081 (2010).

¹²⁶ 34 C.F.R. § 685.209(a) (2012). Technically, PAYE was implemented by the administration using its authority under the ICR, not IBR, provisions of the Higher Education Act. See 77 Fed. Reg. 42086-01, 42099 (2013) (claiming authority for PAYE rules under Section 455(d)(1)(D) of the HEA, 20 U.S.C. § 1089e(d)(1)(D)). This is because the IBR provisions of the HCERA had a 2014 effective date, while Section 455(d)(1)(D) of the HEA was already in effect and gave relatively expansive authority for setting loan repayment terms. For the sake of clarity, I refer to both the post-2014 IBR plan and the post-2012 PAYE plan as “IBR,” except when PAYE terms differ.

¹²⁷ Department of Education, *Student Loans Overview*, FISCAL YEAR 2015 BUDGET PROPOSAL [hereinafter DOE 2015 BUDGET] at S-13, available at <http://www2.ed.gov/about/overview/budget/budget15/justifications/s-loansoverview.pdf>.

¹²⁸ Memorandum on Helping Struggling Federal Student Loan Borrowers Manage Their Debt, 79 Fed. Reg. 33,843 (June 12, 2014).

¹²⁹ For a borrower who files taxes jointly with a spouse, AGI includes both the borrower’s and the spouse’s income. However, for married taxpayers filing separately, AGI is only the borrower’s. 34 C.F.R. § 685.209(a)(1)(i). This can create incentives at the margin for borrowers to file separately in order to increase the benefits of IBR. The Obama administration has proposed combining AGI for married borrowers filing separately. See DOE 2015 BUDGET, *supra* note 127, at S-13.

¹³⁰ “Discretionary income” is actually a defined term only under the Income-Contingent Repayment loan program (as distinct from both the IBR and PAYE programs). See 34 C.F.R. § 685.209(b)(1)(iii)(A). But both IBR and PAYE use the same calculation to determine “partial financial hardship.” Thus for clarity I use “discretionary income” throughout to describe the difference between a borrower’s AGI and 150% of the appropriate poverty line, regardless of the program.

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under the typical 10-year non-IBR loan.¹³¹ If thereby some principal goes unpaid, it accumulates and adds to the loan balance, though under PAYE (rather than IBR), the amount of such interest capitalized cannot exceed 10 percent of the original principal.¹³² However, after 20 years for all borrowers,¹³³ and 10 years for those in public service jobs,¹³⁴ any remaining loan balance is cancelled.¹³⁵ To be clear, the 20-year forgiveness (as opposed to the 10-year public service forgiveness) is not dependent on the nature of the job, or on any degree of financial hardship, other than that the borrower's discretionary income did not allow full payment during the term of the loan.

As of this writing, the cancellation itself can create taxable income from the discharge of indebtedness. In general, the cancellation of a debt provides a benefit to a taxpayer by erasing a liability, as if a third party had simply given the debtor the cash to pay the loan.¹³⁶ Thus the Internal Revenue Code treats discharged indebtedness as income and taxes it accordingly.¹³⁷ Although the Code provides an exception to this for student loan debt discharged under a program encouraging students to work in public service or the public interest,¹³⁸ that exclusion does not currently apply to the more general 20-year forgiveness under IBR for borrowers working in other areas.¹³⁹ As a result,

¹³¹ 34 C.F.R. § 685.209(a)(2)(i), (a)(4)(i). The Obama administration has proposed eliminating the standard-payment cap, so that payments are 10% of discretionary income at all income levels. DOE 2015 BUDGET, *supra* note 127, at S-13.

¹³² For both IBR and PAYE, there is no charge for unpaid accrued interest for the first three years for Direct Subsidized loans or the subsidized portion of a Direct Consolidation loan (though not for Direct Unsubsidized loans). 34 C.F.R. §§ 685.209(a)(2)(iii), 685.221(b)(3). For non-PAYE IBR, accrued interest is not capitalized while the borrower has a “partial financial hardship” (i.e., the standard 10-year loan payment exceeds 10% of discretionary income), but accrued interest becomes fully capitalized once the borrower ceases to have a “partial financial hardship.” *Id.* § 685.221(b)(4). For PAYE, by contrast, even if the borrower ceases to have a partial financial hardship, the amount of capitalized interest cannot exceed 10 percent of the original principal balance of the loan, though additional interest will still accrue once the borrower has left the PAYE payment plan. *Id.* § 685.209(a)(2)(iv). The Obama Administration has proposed limiting the amount of interest accrual, not just capitalization. *See* DOE 2015 BUDGET, *supra* note 127, at S-13.

¹³³ *See id.* § 685.209(a)(6).

¹³⁴ The ten-year forgiveness is under the pre-existing Public Service Loan Forgiveness Program. *See* 34 C.F.R. § 685.219(c) (borrower qualifies for 10-year forgiveness under PSLF if he or she makes regular payments under an income-based repayment plan or an income-contingent repayment, and is employed full-time by a public-service organization).

¹³⁵ The 20-year period is tolled during any period of default, however. 34 C.F.R. § 685.209(a)(6)(iv).

¹³⁶ *See Old Colony Trust Co. v. Comm'r*, 279 U.S. 716 (1929).

¹³⁷ *See* I.R.C. § 61(a)(12).

¹³⁸ *See* I.R.C. § 108(f).

¹³⁹ *See* Letter of Assistant Secretary for Tax Policy Eric Solomon to Rep. Sander Levin, available at <http://www.finaid.org/loans/20080919treasurylevinforgiveness.pdf>.

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IBR really forgives only about 60-75% of the loan balance.¹⁴⁰ The law's designers have recognized this as a problem, however, and have introduced legislation to extend the tax forgiveness to all IBR loans.¹⁴¹ The White House's 2014 and 2015 budget proposals also included calls to add an exclusion from gross income for forgiven IBR debts. Because this article is addressing broader questions of the appropriateness of income-contingent payments for higher education, I ignore the specific cancellation of indebtedness income issue.¹⁴² Furthermore, because the law was not intended to create taxable income, I think it likely that a future Congress¹⁴³ will eventually provide an exclusion.¹⁴⁴

As of the third quarter of 2014, only about 13.8% of federal student loan borrowers are enrolled in IBR or its predecessors.¹⁴⁵ Less than 2% are in the newer PAYE version of IBR, though the number of borrowers with PAYE loans has more than quadrupled between the third quarter of 2013 and the third quarter of 2014, from 60,000 to 260,000.¹⁴⁶ While large and growing, these numbers are still only a small fraction of the 40 million people with some public or private student loan debt.¹⁴⁷

It is remarkable that there has been relatively limited uptake of such a generous program.¹⁴⁸ This is perhaps because there was relatively little marketing and promotion of IBR at first (though that appears to be changing

¹⁴⁰ The percentage could be even higher for a person in a lower tax bracket, but I am assuming that the COD income itself is likely to push a taxpayer at least into the 25% bracket.

¹⁴¹ See, e.g., H.R. 2492 (111th Cong., 1st Sess.); Rob Lieber, *For Student Borrowers, Relief Now May Mean a Big Tax Bill Later*, N.Y. TIMES, Dec. 14, 2012, at B1, available at: <http://nyti.ms/W6yJwe>.

¹⁴² In addition, the government stepping back in to collect a mandatory tax payment is similar to demanding a balloon payment on the loan as a creditor. But this is inconsistent with the more tax-like posture that I suggest

¹⁴³ Not to discount the dysfunction of our current Congress, but the first taxable COD income under IBR will not be until around 2027 at the earliest.

¹⁴⁴ If the forgiveness is not excluded, the analysis is more complicated. See, e.g., Gregory S. Crespi, *Will the Income-Based Repayment Program Enable Law Schools to Continue to Provide "Harvard-Style" Legal Education?*, 67 SMU L. REV. 51 (2014) (analyzing the financial effects of the program assuming that a borrower also sets aside sufficient savings to pay the future tax due on forgiveness).

¹⁴⁵ Department of Education, Office of Federal Student Aid, Direct Loan Portfolio by Repayment Plan (Table), available at <http://studentaid.ed.gov/about/data-center/student/portfolio>. Note that these data do not include outstanding *private* student loans made prior to 2008.

¹⁴⁶ *Id.*

¹⁴⁷ Department of Education, Office of Federal Student Aid, Federal Student Aid Portfolio Summary (Table), available at <http://studentaid.ed.gov/about/data-center/student/portfolio>.

¹⁴⁸ As noted above, PAYE enrollment appears to be accelerating, so this is subject to change.

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as of this writing¹⁴⁹). Ironically, lack of knowledge of the program may also be because of how uncontroversial—and thus not newsworthy—passage was. First, the current IBR law was passed as part of the package of bills that created “Obamacare,” and thus was perhaps less of a focus than if it had been enacted independently. Second, what debate there was on the student loan provisions tended to focus more on the nationalization of the loan program, rather than the IBR program.¹⁵⁰ Third, the estimated costs of the programs at the time of enactment were minimal—as little as \$1.8 billion over 10 years as the expected cost of forgiveness—which meant there was perhaps less to fight over.¹⁵¹ The estimates were low despite federal budget rules that require

¹⁴⁹ The Department of Education has recently acknowledged that “[d]espite the generous benefits, income-based repayment take-up rates have been very low.” DOE 2015 BUDGET, *supra* note 127, at S-14. To improve take-ups, the Department of Education added direct outreach efforts and streamlined the application process. *Id.* The administration has also partnered with TurboTax to push borrowers into IBR plans. *See, e.g.,* Kelsey Snell, *Student Loan Debt Deal Comes With Tax Catch*, POLITICO (March 26, 2014), available at <http://politi.co/1eOd18g>.

¹⁵⁰ *See, e.g.,* METTLER, *supra* note 120, at 69-87 (detailing the policy battles over student loan reform).

¹⁵¹ When IBR was first enacted in 2007 (limiting payments to 15% of discretionary income, with forgiveness after 25 years), CBO only broke out the estimated costs for an earlier draft bill. In that cost estimate, CBO estimated the total cost over 10 years to be only \$1.8 billion. *See* Congressional Budget Office, Cost Estimate: H.R. 2669: College Cost Reduction Act of 2007, at 6 (June 25, 2007). CBO assumed relatively little uptake, however, because that version of IBR required full interest capitalization, and because there had been little uptake of the earlier Income-Contingent Repayment option. *Id.* However, it appears that this earlier version of the bill allowed forgiveness after 20 years, rather than 25, which should have made this estimate higher than whatever the estimate would have been for the final version. (Note that, under federal budget rules, the net present value of a loan over its lifetime is listed as an expense in the year the funds are disbursed, even if any default would happen outside of the normal 10-year budget window. *See infra* note 152.)

When IBR was changed in 2010 to payments of 10% of discretionary income and forgiveness after 20 years, the Obama administration budgeted the change as costing \$7.4 billion over 10 years, though that included loans going back to 2007, and thus a large expected charge in 2010 of \$1.6 billion. BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2011, at 166. (Because the change was enacted as part of the health care law, it doesn’t appear that CBO broke out the IBR numbers separately in the cost estimates, so I rely on Treasury’s estimates for IBR.)

The PAYE program was instituted in 2012 by regulation, and the administration estimated that the ten-year cost of the change from IBR to PAYE would be \$2.1 billion. Federal Perkins Loan Program, Federal Family Education Loan Program, and William D. Ford Federal Direct Loan Program, 77 Fed. Reg. 66088, 66089 (Nov. 1, 2012). In addition to accelerating the implementation of the program, PAYE also instituted the limitation to interest capitalization, which should have changed uptake estimates based on CBO’s earlier methodology, and thus it is surprising that the number was still so low.

In its 2014 and 2015 budgets, the administration proposed extending PAYE to loans made earlier than 2007. In the 2014 budget, it estimated the 10-year cost of that to be \$6 billion, BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2014, at 203, and in the 2015 budget, it estimate that cost at \$7.6 billion, BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR

current inclusion of the net cost over the full life of the loan, not just over the 10-year budget window.¹⁵² While being under the radar likely helped passage, it has not helped student awareness.

The other friction in uptake was the early difficulty of enrolling in and then managing the system. Prior to 2012, the enrollment process was confusing and buggy, and required significant paperwork and documentation.¹⁵³ Once enrolled, borrowers are required to annually demonstrate their income and family size,¹⁵⁴ which may also be a burden. As of this writing, the application process has been streamlined, however, especially through use of an IRS Data Retrieval Tool to import tax return data. Enrollment appears to be accelerating.¹⁵⁵

B. Loan Payments as Tax Payments

Though implemented as a loan-forgiveness program, here I suggest that IBR operates conceptually more like a progressive tax-and-transfer program. As we will see, the effect of the IBR program, if it were widely adopted, would be as if the government paid tuition costs directly and raised the money to do

2014, at 178 (though that cost was offset by a proposal for more limited forgiveness, *see infra* note 265).

Finally, the Brookings Institution provides a rough estimate, under full-uptake of PAYE, of between \$10 and \$14 billion per loan cohort. Beth Akers & Matthew M. Chingos, *Student Loan Safety Nets: Estimating the Costs and Benefits of Income-Based Repayment*, at 19 (April 2014), available at: http://www.brookings.edu/~media/research/files/papers/2014/04/14%20student%20safety%20nets/ibr_online.pdf. Even this high-end estimate of \$14 billion annually is still well less than, e.g., the annual funding for the Pell Grant program. *See, e.g.*, Congressional Budget Office, *Pell Grant Programs – Baseline Projections*, April 14, 2014, <http://www.cbo.gov/publication/44199> (projecting outlays of \$26.4 billion for Pell Grants in 2014).

¹⁵² Under current budget rules, the cost of federal loans is recorded in the year that the loans are disbursed and calculated as the net present value of expected cash flows over the life of the loan, after adjusting for defaults. Federal Credit Reform Act § 502(5)(B), 2 U.S.C. § 661a(5)(B). Thus a loan would only have a net cost if the expected cost of forgiveness or other default exceeds the net present value of interest payments over the life of the loan.

¹⁵³ *See* Libby A. Nelson, *An Underused Lifeline*, INSIDE HIGHER ED (Oct. 23, 2012), <http://www.insidehighered.com/news/2012/10/23/despite-student-debt-concern-income-based-repayment-lags>; Memorandum from President Barack Obama for Sec’y Educ. Arne Duncan (June 7, 2012), available at <http://www.whitehouse.gov/the-press-office/2012/06/07/presidential-memorandum-improving-repayment-options-federal-student-loan>; Office of the Press Sec’y, *Fact Sheet: Helping Americans Manage Student Loan Debt with Improvements to Repayment Options*, (June 6, 2012), <http://www.whitehouse.gov/the-press-office/2012/06/06/fact-sheet-helping-americans-manage-student-loan-debt-improvements-repay>.

¹⁵⁴ *See* 34 C.F.R. § 685.209(a)(5)(i)(A)-(C) (2012).

¹⁵⁵ *See supra* text at note 146.

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so in a somewhat progressive way and as a percentage of income, but while keeping most of this activity “off budget.”¹⁵⁶

As an example, consider two students graduating from a private four-year college, each with \$50,000 in student debt.¹⁵⁷ The interest rate on the debt is 3.86%.¹⁵⁸ Student 1 joins a large investment bank, starting at a \$70,000 annual salary. Student 2 becomes a public school teacher, starting at a \$35,000 annual salary.¹⁵⁹ Both have consistent wage growth over time. Both enroll in IBR. Under that program, each pays no more than 10% of discretionary income for, in the case of the banker, 20 years, and, in the case of the teacher, 10 years.¹⁶⁰

Student 1 easily pays off the loan, following just the normal 10-year repayment schedule, with the exception of a few lower early payments. Student 2, on the other hand, makes relatively small payments, and ends up having a significant amount of debt forgiven in 10 years. In present-value terms, more than \$26,000 of the initial \$50,000 debt is written off.

Who pays for that \$26,000 write-off? To some degree Student 1 does. Although 3.86% is a low market interest rate, it is set statutorily to be 2.05% higher than the government’s borrowing rate,¹⁶¹ and that spread is essentially

¹⁵⁶ See *Economic and Budget Analyses*, in ANALYTICAL PERSPECTIVES, BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2015, at 37 (“The individual cash flows to and from the public associated with the loans or guarantees, such as the disbursement and repayment of loans, the default payments on loan guarantees, the collection of interest and fees, and so forth, are recorded in the credit program’s *non-budgetary* financing account.”) (emphasis added).

¹⁵⁷ This is on the high end. Currently 70% of student-loan borrowers have less than \$25,000 in debt, because of the large fraction of students who attend low-cost undergraduate programs. See College Board, Trends in Higher Education, Figure 11A—Distribution of Outstanding Education Debt Balances, 2012 Fourth Quarter, <https://trends.collegeboard.org/student-aid/figures-tables/distribution-outstanding-education-debt-balances>. For this reason, PAYE discussions have largely focused on graduate programs such as law, teaching, and nursing with the potential for high cost and low wages. However average student debt increased 33% between 2005 and 2012, see College Board, Trends in Higher Education, Figure 11B—Total Outstanding Education Debt, Number of Borrowers, and Average Balance, Relative to 2005 Fourth Quarter, <https://trends.collegeboard.org/student-aid/figures-tables/total-outstanding-education-debt-number-borrowers-and-average-balance-relative-2005-fourth>, and, as argued herein, is only likely to continue increasing.

¹⁵⁸ As of 2014, the statutory interest rate for Direct Stafford Loans to undergraduates, both subsidized and unsubsidized, is set at the 10-year Treasury Note rate in the year of the loan grant, plus 2.05%, with a cap of 8.25%. 20 U.S.C. § 1087e(b)(8)(A). For 2013-14, that rate is 3.86%. See Interest Rates and Fees, Federal Student Aid, U.S. Dept. of Educ., <https://studentaid.ed.gov/types/loans/interest-rates>.

¹⁵⁹ The average starting salary for a teacher in 2011-12 was \$35,672. National Education Association, 2011-12 Average Starting Teacher Salaries by State, <http://www.nea.org/home/2011-2012-average-starting-teacher-salary.html>.

¹⁶⁰ The following calculations are made using the IBR calculator at <http://www.finaid.org/calculators>.

¹⁶¹ See *supra* note 158.

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profit to the government (though the issue of how to account for market risk is complicated).¹⁶² So students able to pay off their loans fully would, at the current statutory rates, end up also partially subsidizing those with lower incomes. To the degree that the federal loan program is not self-financing, any additional amounts would come from general revenue.

Let's look again at the IBR program and the example above, but this time as a traditional tax-and-spending program. Under this view, the government simply pays tuition costs directly to schools, but then charges an additional tax to former students, on top of typical income taxes, to partly pay those costs. Former students enrolled in IBR pay 10% of discretionary income, i.e., AGI less 150% of the poverty line.¹⁶³ Because the standard deduction and personal exemptions are roughly equivalent to the poverty line,¹⁶⁴ such a tax looks similar to a tax of 10% of taxable income,¹⁶⁵ so we could imagine IBR as a 10% income surtax on top of our existing income tax.¹⁶⁶

But this simple story breaks down quickly, since there are a number of complications to consider. First, the “discretionary income” base is somewhat

¹⁶² Some analysts encourage the government to use “fair-value accounting,” whereby instead of discounting future loan revenues and costs using the government borrowing rate, as required under the Federal Credit Reform Act, § 502(5)(E), 2 U.S.C. § 661a(5)(E), government should use market borrowing rates, which better reflect market risk, and thus provide a sort of risk adjustment. *See, e.g.*, Congressional Budget Office, *Fair-Value Estimates of the Cost of Selected Federal Credit Programs for 2015 to 2024*, at 1-4 (May 2014); Jason Delisle & Jason Richwine, *The Case for Fair-Value Accounting*, NAT'L AFFAIRS (Fall 2014), at 95, <http://www.nationalaffairs.com/publications/detail/the-case-for-fair-value-accounting>. Under fair-value accounting, the overall student loan program may provide a net subsidy to borrowers, rather than net revenue to the government. CBO, *supra*, at 1-2. But there are strong arguments against the fair-value approach to government budgeting, and it is not the dominant methodology. *See, e.g.*, David Kamin, *Risky Returns: Accounting for Risk in the Federal Budget*, 88 IND. L.J. 723 (2013) (arguing against the fair-value methodology and risk adjustment generally in federal budgeting).

¹⁶³ *See* 20 U.S.C. § 1098e(a)(3)(B); 34 C.F.R. § 685.209(b)(2)(i). On the term “discretionary income,” *see supra* note 130.

¹⁶⁴ *See* John R. Brooks II, *Doing Too Much: The Standard Deduction and the Conflict Between Progressivity and Simplification*, 2 COLUM. J. TAX L. 203, 212 (discussing historical connection between standard deduction and the poverty line).

¹⁶⁵ The income tax is levied against the tax base defined as “taxable income.” I.R.C. § 1. For most taxpayers, “taxable income” is equal to AGI minus the combination of the standard deduction and personal exemptions. I.R.C. § 63(b).

¹⁶⁶ *See* D. BRUCE JOHNSTONE & PAMELA N. MARCUCCI, FINANCING HIGHER EDUCATION WORLDWIDE: WHO PAYS? WHO SHOULD PAY? 153 (2010) (noting the similarities between an income-contingent loan and a graduate tax); Alessandro Cigno & Annalisa Luporini, *Scholarships or Student Loans? Subsidizing Higher Education in the Presence of Moral Hazard*, 11 J. PUB. ECON. THEORY 55, 77 (2009) (stating that the only difference between an income-contingent loan and a graduate tax is that loans are opt-in); Panu Poutvaara, *Educating Europe: Should Public Education Be Financed With Graduate Taxes or Income-Contingent Loans?*, 50 CESIFO ECON. STUD. 663 (2004).

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smaller than the taxable income base for having a larger zero bracket (150% vs. 100% of the poverty line, roughly). That, plus the fact that AGI is arguably a better measure of economic income than taxable income is, means that there is a little bit of progressivity baked in at the low ends. Student 2 in the example above, for example, starts off paying about 5.2% of AGI, while Student 1 pays about 8% of AGI.

Second, the monthly payments are capped at what would have been the typical 10-year amortization payment. In the case of a \$50,000 loan, that would be \$502.91. That means that a student with this debt making more than \$72,020¹⁶⁷ actually pays *less than* 10% of discretionary income. These two features combined mean that IBR starts out with increasing rates at low income levels, but then has decreasing rates after a peak. The peak will be different for different loan amounts (and interest rates),¹⁶⁸ but eventually the payments do shrink as percentage of income as income goes up.

Third, the tax is not indefinite, or even for a fixed number of years. One pays the above percentages only until the nominal debt is either paid off or forgiven. Thus, in some cases a high-income graduate could stop paying the IBR “tax” sooner than the low-income graduate, even though the high-income graduate pays more in dollar terms.¹⁶⁹

Fourth, there are limits on how much an undergraduate can borrow using loans eligible for IBR (though there are effectively no limits for graduate students). The most in total that an undergraduate can borrow is \$31,000 if she is a dependent student, or \$57,500 if she is independent.¹⁷⁰ For an undergraduate degree in 2014, this can be sufficient, especially for public universities, because of the combination of other forms of aid, such as institutional grants, public subsidies, Pell Grants, Perkins loans, and work-study. In addition, Direct PLUS loans are available to parents, though for undergraduates such loans are not eligible for IBR.¹⁷¹ Finally, there is some residual private lending if these other sources are not sufficient. But as tuitions keep rising, these borrowing caps may put some strain on my claim that the government will effectively pick up all current tuition costs.

¹⁶⁷ Using the 2014 poverty level for a single person of \$11,670. *Annual Update of Poverty Guidelines*, 79 Fed. Reg. 3593 (Jan. 22, 2014), available at <http://federalregister.gov/a/2014-01303>

¹⁶⁸ For a debt of \$150,000, e.g., the peak point is at a salary of around \$198,000.

¹⁶⁹ This is unlikely to be the case for low-income graduates in public-interest jobs, since PSLF forgiveness is at 10 years, the same period over which a traditional loan is fully paid. But a low-income graduate in a non-public-interest job may be paying 10% of discretionary income for 20 years, whereas a higher income graduate may stop paying after as few as 10 years.

¹⁷⁰ 34 C.F.R. § 685.203(e).

¹⁷¹ *Id.* § 685.209(a)(1)(ii).

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For graduate students, however, there is no limit to the amount of IBR-eligible debt. There is a cap on aggregate Direct Loans (in contrast to Direct PLUS Loans) of \$138,500, which also includes any undergraduate debt.¹⁷² But graduate students can also take out Direct PLUS loans up to the school's cost of attendance,¹⁷³ and such loans qualify for IBR.¹⁷⁴ Thus, IBR-eligible loans can cover essentially the full tuition and living expenses for any graduate program. This skews the IBR benefits toward graduate education, though that may be explained in part by the existence of more generous direct aid for undergraduates. (I argue herein that there should actually be less direct aid and more reliance on IBR for undergraduate education.¹⁷⁵)

Finally, IBR, as a loan program, is administered by the Department of Education, not the Internal Revenue Service. Early implementation of IBR was criticized as cumbersome, with a difficult enrollment process and complicated annual approval procedures, though the situation is improving as of this writing.¹⁷⁶

As a result of these complications, the simple story of IBR-as-tax is not quite accurate—but neither is the simple story of students just paying back a loan. The current system is a partial hybrid of the two, combining a baseline income tax-like payment with the caps and finite terms of a loan program. The question, then, is whether as currently structured IBR has enough of the features of a tax-financed spending program to be considered as such, what adjustments can make it more so, and whether any of that is desirable.¹⁷⁷

¹⁷² *Id.* § 685.203(e). For graduate students in health profession programs, the aggregate limited is \$224,000. Dept. of Educ. Dear Colleague Letter GEN-08-04.

¹⁷³ 34 C.F.R. § 685.203(f), (g).

¹⁷⁴ *Id.* § 695.209(a)(1)(ii) (limiting the exclusion of Direct PLUS loans only to those made to a parent); PLUS Loans, Federal Student Aid, U.S. Dept. of Educ., <https://studentaid.ed.gov/types/loans/plus>.

¹⁷⁵ *See infra* Section V.C.

¹⁷⁶ *See infra* text at notes 153-155.

¹⁷⁷ There are other possible framings of IBR of course. One alternative would be to view it purely as a transfer program, whereby the government picks up the tab for some tuition costs based on an individual's income, much as it does for food (SNAP), health care (Medicaid), and other costs (TANF, EITC). But unlike those programs, which are purchased and consumed generally all in one period, higher education paid for with debt is purchased in one or more periods, and then paid for over many future periods. Thus, the subsidy comes in the form of reduced debt payments (and ultimately forgiveness) rather than an up-front subsidy for tuition. This is what creates the ex post progressivity discussed earlier—rather than subsidize tuition based on ability to pay at the time of enrollment and payment, it is subsidized based on ability to pay after leaving college. The loan structure, with the government as lender, also means that the government pays everything up front, and simply seeks different levels of repayment from different individuals, as opposed to only subsidizing the initial purchase. Ultimately, however, the distinction between tax and transfer is arbitrary, and any progressive tax could instead be framed as a progressive transfer and vice versa. Imagine, for example, a lump-sum head tax in which every person pays an equal amount of tax in dollar terms, the

C. IBR Compared to Direct Grants

As laid out in Part III, higher education finance has evolved to a consensus that funding should be largely through a combination of direct tuition on students and need-based grants for those low-income students and families who would otherwise be unable to pay tuition. Those grants currently come from both government and the educational institutions themselves, and both provide for a degree of progressivity and redistribution.¹⁷⁸ A key question, then, is whether an income-contingent program such as IBR is superior to these existing forms of subsidy. With our framing of IBR as a tax-and-transfer program, we can also ask the question in a slightly different way: should the transfers necessary to achieve optimal levels of higher education go (mostly) from taxpayers generally to needy students *ex ante*, or (mostly) from successful *former students* to needy *former students* *ex post*?¹⁷⁹

That framing of the question points to three key ways in which IBR is, in principle, superior to government and institutional grants. First, the program spending is better targeted toward public goals, since the subsidies are relatively more likely to go to those in low-income but high-positive externality fields, as well as to those who truly need the insurance benefit of lower loan payments. Second, it better serves distributional goals, since it looks to income distribution *after* the benefits of higher education have been acquired. Third, IBR's structure limits the nominal income tax burden, which may lead to less deadweight loss from taxation.¹⁸⁰ This is done through a financing structure I call “quasi-public spending.”

1. More Targeted Public Spending

As Section II.A laid out, there are important public benefits from expanding higher education. Much of these can come from simply increasing

revenue from which is then used to make direct payments that vary with income and other factors in such a way that the distribution of after-tax income is exactly the same as under our current tax system.

Another possible framing is as a substitute for bankruptcy. *See infra* Section IV.E.

¹⁷⁸ On the government side, grants are funded out of general revenue, which is largely raised with a progressive income tax. On the institutional side, grants are funded out of a combination of fundraising, endowment income, and full-paying students, and thus still redistribute from wealthier students and graduates. *See supra* text at notes 103-108.

¹⁷⁹ I say “mostly” because, as discussed in Section V, there will likely still be some redistribution from taxpayers generally under IBR in order to mitigate the risks of adverse selection. Moreover, as Part III hopefully illustrated, higher education finance is, and likely always will be, a very complex system.

¹⁸⁰ Note that these three benefits roughly line up with the three ways David Schizer argues that we should analyze tax expenditures, by looking at the programmatic benefits, the effects on distribution, and the degree of excess burden, respectively. *See* David M. Schizer, *A Framework for Limiting Tax Expenditures: Programmatic Benefits, Excess Burden, and Distribution* (Feb. 25, 2014) (working paper, on file with author).

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the supply of people with skills, which in turn can lead to higher economic growth, more social mobility, and less income inequality, plus higher social welfare simply from increasing individuals' welfare.

While there are many educational, social, and cultural factors that may be limiting the number of people seeking post-secondary education, from the financial side there are essentially two barriers—high up-front costs and an aversion to the downside risk of high debt in the case of low future income. Both IBR and direct grants can lower these barriers (in contrast to traditional loans, where the student still faces the risk of future low income). But direct grants go to those with low parental income or wealth, whereas with IBR the net transfers go instead to those with low income *after* schooling.

The population of these IBR subsidy recipients can be roughly divided into three categories: those who enter low-income, but high-positive externality careers; those who are simply unlucky;¹⁸¹ and those who do not have the ability to earn higher income.¹⁸² The first group is the appropriate target for subsidies, and the second is the appropriate target for social insurance. The third group can, hopefully, be managed through educational policy and incentives to direct individuals to the appropriate educational services, such as, e.g., university admissions policies, as well as policies to manage adverse selection. But directing the subsidy instead entirely to those with low parental income or wealth, as direct grants do, targets public spending without any regard for either public externalities or social insurance. A child of two schoolteachers may go on to be a schoolteacher himself, or may go on to be a hedge fund manager, and there is little reason to subsidize the latter's education, no matter what his parents' income.

To be clear, for the IBR program to be successful on programmatic grounds, the benefits of the transfers to the first two groups must exceed the costs of misdirecting to the third group. But there are real risks that they will not, especially given that we already have a serious misallocation problem in federal student loans. A disproportionate amount of federal loans go to students attending for-profit schools,¹⁸³ for example, which have notoriously

¹⁸¹ Depending on one's definition of "luck" the second and third category could be combined, given that ability is also determined by a lottery, in a sense. See Brooks, *supra* note 88, at ____.

¹⁸² Defining ability in the broadest possible sense, including propensity to gain and use skills, likelihood to expend effort, desire for leisure, predilection toward higher-earning fields, social capital and family position, and so on—essentially all of the traits that are correlated with income. I thus include in this group the high-ability "beachcomber"—the person with much greater preference for leisure vs. consumption compared to the average.

¹⁸³ For 2007-08, 94% of bachelor's degree recipients at for-profit schools had federal loans, whereas only 69% did at private non-profit schools and 58% at public schools. METTLER, *supra* note 37, at 36.

bad results in terms of graduation rates and career placement.¹⁸⁴ Design issues are thus central, and some degree of government regulation and monitoring is likely required—though this is also true of the traditional loan program.¹⁸⁵ I address some of these design issues below.¹⁸⁶

2. More Focused Redistribution

The second way IBR is superior to direct grants—through a tighter connection to distributional goals—is related to the first benefit but distinct conceptually. The first benefit addresses the appropriate allocation of government’s spending on public goods and social insurance. The second addresses government’s role in redistribution—from whom and to whom should income be redistributed, if at all?¹⁸⁷

The discussion in the prior section largely also applies to the “to whom” question—those with low future income are more appropriate recipients of transfers than those who happen to have low-income parents, but who might go on to do quite well.¹⁸⁸ But there is also the “from whom” question of whether that redistribution should come disproportionately from successful former students, as it does with IBR, or from taxpayers at large, as it does with tax-funded direct grants. This is a more difficult question that requires engaging in the various theories behind a progressive tax-and-transfer system generally.

On the one hand, high-income graduates, like most high-income people, have disproportionately benefitted from the goods, services, stability, and order that the government provides.¹⁸⁹ If higher education is one of those

¹⁸⁴ *See id.* at 34-36.

¹⁸⁵ The Obama Administration has proposed stricter standards on schools that accept federal loans and on for-profit schools generally. *See, e.g.*, Stephanie Simon & Caitlin Emma, *Barack Obama Cracks Down on For-Profit Colleges*, POLITICO.COM (March 13, 2014), <http://politi.co/1fWDfak>.

¹⁸⁶ *See supra* Section V.B.

¹⁸⁷ Note that this distinction lines up with Musgrave’s conceptual separation of government into the Allocation and Distribution Branches (along with the Stabilization Branch). RICHARD A. MUSGRAVE, *THE THEORY OF PUBLIC FINANCE: A STUDY IN PUBLIC ECONOMY* 5-22 (1959).

¹⁸⁸ Those who have low-income parents and go on themselves to have low income will still receive transfers under IBR, so the difference is just on the treatment of the group that goes on to have high income.

¹⁸⁹ On benefit principle theories of justice in taxation *see, e.g.*, BORIS BITTKER, *THE INCOME TAX: HOW PROGRESSIVE SHOULD IT BE?* 48-54 (1969) (arguing that benefits of government increase in proportion to income and wealth); LIAM MURPHY & THOMAS NAGEL, *THE MYTH OF OWNERSHIP: TAXES AND JUSTICE* 32-33 (2002) (arguing that pre-tax income is in part a measure of the benefits of government); MUSGRAVE, *supra* note 187, at 61-89; Matthew C. Weinzierl, *Revisiting the Classical View of Benefit-Based Taxation*, Harvard Business School Working Paper 14-101, at 1-5 (discussing the classical benefit-based theories of

public-provided goods, then a benefit principle approach would support asking high-income graduates to pay somewhat more than others, even others with the same high level of income, and even above the mere cost of tuition. Yet from an ability-to-pay standpoint,¹⁹⁰ it is not clear that there are horizontal equity differences between a high-income graduate and a high-income non-graduate. And from utilitarian/welfarist standpoint,¹⁹¹ even where the high-income graduate has accrued much of the benefit of higher education to herself, there are still substantial positive externalities from her education, externalities not necessarily generated by the high-income non-graduate. It may therefore be more economically efficient to *subsidize* the future high-income borrower somewhat relative to the non-borrower, rather than effectively charge higher taxes. In addition, this is all against the background of a progressive income tax that already disproportionately raises money from those with high incomes, including IBR borrowers.

There is an additional benefit to the IBR borrower, however, which needs to be considered: the insurance benefit from avoiding the risk of impoverishingly high payments in the case of low income. In the prior discussion, I said that social insurance is an appropriate form of public spending¹⁹²—here, the question is how the costs of that insurance should be allocated. The IBR program, like all redistributive programs, contains an insurance element,¹⁹³ namely that the borrower faces some *ex ante* risk of future low income, and paying full student loan payments in that case could drive the borrower into destitution.¹⁹⁴ IBR allows the borrower to avoid that risk by instead spreading it across all borrowers, and to some degree all taxpayers, just as other social insurance programs do.¹⁹⁵ In the above paragraph, I suggested a horizontal equity comparison between a high-income graduate and a high-income non-graduate. We can also compare a high-

taxation). *But see* MURPHY & NAGEL, *supra*, at 16-19 (rejecting the benefit principle as a valid theory of justice).

¹⁹⁰ On ability-to-pay theories of justice in taxation, *see, e.g.*, MUSGRAVE, *supra* note 187, at 90-115; MURPHY & NAGEL, *supra* note 189, at 20-30.

¹⁹¹ On optimal income tax theories, *see, e.g.*, ROBIN BOADWAY, FROM OPTIMAL TAX THEORY TO TAX POLICY: RETROSPECTIVE AND PROSPECTIVE VIEWS (2012); LOUIS KAPLOW, THE THEORY OF TAXATION AND PUBLIC ECONOMICS 53-79 (2008); Peter Diamond & Emmanuel Saez, *The Case for a Progressive Tax: From Basic Research to Policy Recommendations*, 25 J. ECON. PERSP. 165 (2011) (reviewing and applying recent optimal tax theory results).

¹⁹² *See supra* text at note 181.

¹⁹³ On the insurance component of redistribution tax-and-transfer programs, *see, e.g.*, Brooks, *supra* note 88, at ____; Hillary W. Hoynes & Erzo P.F. Luttmer, *The Insurance Value of State Tax-and-Transfer Programs*, 95 J. PUB. ECON. 1466, 1466-67 (2011).

¹⁹⁴ This could fit into a more egalitarian or Rawlsian approach to justice in taxation. *See, e.g.*, MURPHY & NAGEL, *supra* note 189, at 54-57; Brooks, *supra* note 88, at ____.

¹⁹⁵ *See* MICHAEL J. GRAETZ & JERRY L. MASHAW, TRUE SECURITY: RETHINKING AMERICAN SOCIAL INSURANCE 26 (1999) (defining social insurance as insurance against inadequate labor income).

income borrower in IBR to a high-income borrower with a traditional loan.¹⁹⁶ The IBR borrower has downside protection should his income suddenly drop, protection that the traditional borrower does not have. That benefit exists *ex ante* even if her income remains high *ex post*, and so in some sense the IBR borrower is better off than the traditional borrower, even if both are currently making the same loan payments (at the traditional 10-year loan rate). So benefit principles and ability-to-pay principles point in the same direction here, toward somewhat higher taxation of the IBR borrower vis-à-vis the traditional borrower or taxpayers generally.

Therefore, having high-income former students disproportionately support the program is appropriate, in contrast to tax-funded direct grants. This is not to say, however, that *none* of the funding should come from general revenue. As I discuss below, the existence of externalities plus the need to avoid adverse selection problems points toward some support from taxpayers generally.¹⁹⁷

To be clear, the current system is also already partial redistributive through institutional grants and financial aid. The case for institutional grants funded by endowments, fundraising, and high list-price tuition is somewhat stronger than that for governmental grants, since the redistribution comes largely from those who benefited greatly from higher education (namely wealthy alumni), plus wealthy families of current students.¹⁹⁸ Thus, as with IBR, institutional grants come largely from successful former students, rather than taxpayers generally. That said, as noted earlier, with the exception of the richest schools, institutional grants have generally not been sufficient to cover the necessary costs.¹⁹⁹ A potential risk of IBR is that schools would decrease institutional grants in response, thereby raising net tuition. This is an aspect of the overall moral hazard problem, which is addressed below.²⁰⁰

3. IBR as Quasi-Public Spending

Finally, the third way in which IBR is superior to direct grants, at least those out of government revenue, is that it may provide for lower nominal tax rates and thus less deadweight loss. This is for two key reasons. First, IBR has the potential to cost less in present value terms than direct grants, since it does not over-subsidize future rich college graduates, and it allows many borrowers

¹⁹⁶ Or to a graduate who paid in full out-of-pocket. In present value terms, that ends up being roughly equivalent to a graduate with a loan paying market interest. Such a person would have somewhat less self-insurance because the payment would come out of family wealth.

¹⁹⁷ See *infra* Section V.A.

¹⁹⁸ Unlike with government grants, however, institutional grants are not as saliently an issue of public policy and competing government resources, except perhaps with respect to the charitable contributions deduction.

¹⁹⁹ See *supra* text at notes 104-108.

²⁰⁰ See *intra* Section V.C.

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20 years to repay, thus making it likely that most borrowers will pay the full tuition costs (while paying reasonable interest in the interim). Even using the current highest estimates for IBR costs, they are still less than the cost of Pell Grants in present value terms.²⁰¹

The second reason is more subtle and requires me to introduce the idea of “quasi-public spending.” I plan to address quasi-public spending in depth in a follow-up article, so what follows is just a brief description. The basic idea is that government can structure public good provision in an “off budget” manner, whereby a good is provided in part through direct payments by recipients of the good and in part by more limited taxes and subsidies that, all together, can mimic the sort of allocative and distributional effects of a traditional public spending program—thus my term “quasi-public spending.”

As a simpler example than higher education, consider the post-Affordable Care Act health insurance system. Like higher education, health care is a quasi-public good with high positive externalities, and also has faced distributional pressures based on rising costs, in part as a result of the cost disease.²⁰² But rather than have the government become the primary provider of health insurance or medical care, as in countries such as the United Kingdom and Canada, the U.S. has opted to maintain a nominally private market for health insurance and medical care, but with heavy regulation of insurance plans; a legal requirement for individuals to purchase the plans; and subsidies for purchasing health care, either in the form of tax expenditures or direct spending. This is also buttressed by Medicare, Medicaid, and other more targeted public programs, as well as additional progressive taxes, like the Medicare Surtax and the tax on Cadillac health plans. The sum total of all of these is roughly intended to provide universal and affordable medical care, paid for collectively and progressively. Rather than, say, pay higher taxes to the government in exchange for government-provided health insurance, many individuals purchase the health insurance directly—essentially cutting out the government middleman—while government provides more limited taxes and subsidies to meet distributional goals.

As with health care, higher education tuition payments are nominally out-of-pocket, meaning that students still face a price for higher education. But the loan payment and forgiveness structure introduces a degree of progressivity, much as the health exchange subsidies and taxes on high-income individuals do for health care. Thus both IBR and the ACA have the effect of partially (if imperfectly) mimicking the distributional effects of a traditional public spending program, while keeping many of the expenses “off budget.”

²⁰¹ See discussion at *supra* note 151.

²⁰² See BAUMOL, *supra* note 8, at 3-15.

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Therefore, a key feature of the quasi-public spending model is that much of the spending on the good or service is made by individuals rather than government—it does not add to the nominal size of the public sector, nor does it appear to raise nominal taxes. There may still be a direct cost to the government due to subsidies, but much less than if the good or service were supplied directly. This can potentially make the political process smoother, since the budgetary costs will be much lower than if the good or service were supplied by the government directly.²⁰³ Furthermore, because the tax-like payments are less salient (especially in the case of higher education), they may be less likely to lead to behavioral distortions.²⁰⁴

More importantly, because any actual taxes to fund the program are smaller than under a traditional spending program, there is likely to be less overall distortion to behavior while achieving the same distributional goals.²⁰⁵ By in effect separating the purchase of the good or service from the taxes and subsidies to achieve distributional goals,²⁰⁶ the overall degree of distortion from taxation is less.²⁰⁷

Some commentators have criticized this sort of off-budget government spending, especially because the relative opacity of some of the existing programs and tax expenditures can obscure the benefits of the program and also potential hide some bad behavior, such as rent-seeking and upward redistribution.²⁰⁸ But given that we now have at least two massive social

²⁰³ See James M. Poterba, *Government Intervention in the Markets for Education and Health Care: How and Why?*, in *INDIVIDUAL AND SOCIAL RESPONSIBILITY: CHILD CARE, EDUCATION, MEDICAL CARE, AND LONG-TERM CARE IN AMERICA* (Victor R. Fuchs, ed., 1996) 277, 291 (“In times of fiscal stringency, such as the present, mandates may be particularly attractive to policy makers because they provide a mechanism for affecting real activity without spending money.”).

²⁰⁴ See Deborah Schenk, *Exploiting the Salience Bias in Designing Taxes*, 28 *YALE J. ON REG.* 253 (2011).

²⁰⁵ This argument is similar to the one made by Louis Kaplow, that a given tax to supply a public good can be decomposed into 1) a tax that perfectly offsets the benefits of the public good and 2) a purely redistributive adjustment to the tax system, and that the first component would in theory not cause a change in labor supply. Louis Kaplow, *The Optimal Supply of Public Goods and the Distortionary Cost of Taxation*, 49 *NAT’L TAX J.* 513, 514 (1996).

²⁰⁶ In other words there is some separation between Musgrave’s Allocation and Distribution Branches of government. See MUSGRAVE, *supra* note 187, at 6.

²⁰⁷ For some discussion on how benefit taxes for goods and service may be non- or less distortionary, see, e.g., Kaplow, *supra* note 205, at 518; Lawrence H. Summers, *Some Simple Economics of Mandated Benefits*, 79 *AM. ECON. REV.* 177, 179 (1989).

²⁰⁸ See, e.g., JACOB HACKER, *THE DIVIDED WELFARE STATE: THE BATTLE OVER PUBLIC AND PRIVATE SOCIAL BENEFITS IN THE UNITED STATES* (2002); CHRISTOPHER HOWARD, *THE HIDDEN WELFARE STATE: TAX EXPENDITURES AND SOCIAL POLICY IN THE UNITED STATES* (1997); METTLER, *supra* note 120; KIMBERLY J. MORGAN & ANDREA LOUISE CAMPBELL, *THE DELEGATED WELFARE STATE: MEDICARE, MARKETS, AND THE GOVERNANCE OF SOCIAL POLICY* (2011); STANLEY S. SURREY, *PATHWAYS TO TAX REFORM: THE CONCEPT OF TAX EXPENDITURES* (1973); Elisabeth S. Clemens, *Lineages of the Ruble*

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programs structured in this way—health care and higher education—it is not enough to simply criticize the potentially bad effects. Scholars and other analysts must begin the process of identifying, first, when to use quasi-public spending; and second, how to do it right. This discussion begins to fill that gap, and I hope future work will add to it.

In particular, where there is a public or quasi-public good that suffers from high inflation (whether cost disease-driven or not), and thus society risks a suboptimal and distributionally-skewed level of provision without government intervention, a quasi-public model may be a viable alternative to full public provision. This will be the case especially where, first, the good or service and its value can be clearly identified, and thus there is at least an approximate market price for the good or service, and, second, where the pool of potential consumers is large and diverse, especially across income groups.

The first feature will allow for clearly separating the benefit, or allocative, portion of what would have been a tax payment from the distributional portion. Though this may at first appear to be just fiscal illusion—making a tax-like payment look like something else—it in fact plays an important substantive role. In general, paying a price for a good or service is not thought of as distortionary or inefficient in the way that a tax payment is, because the person receives a good or service of equal or greater value for the payment, and thus the person's labor is not devalued in terms of consumption choices.²⁰⁹ By contrast, an income tax raises the price of goods and services in terms of labor, but without any direct connection to the benefit received, since payment is a function only of income, and the payment or non-payment of the tax would not affect someone's qualification for the benefit. That means that, under a traditional tax-and-transfer program, a person's incentives are only to try to lower her tax bill. Carving the purchase of the good or service out from the larger tax payment leaves only a residual, and smaller, redistributive tax.²¹⁰

Goldberg State: Building and Blurring Public Programs, 1900-1940, in *RETHINKING POLITICAL INSTITUTIONS: THE ART OF THE STATE* (IAN SHAPIRO, STEPHEN SKOWRONEK, & DANIEL GALVIN, EDS.) (2006); Steven M. Teles, *Kludgeocracy in America*, *NAT'L AFFAIRS* (Fall 2013), at 97.

²⁰⁹ See Poterba, *supra* note 203, at 291-92. This is complicated where there are heterogeneous individuals and/or where the purchase of the good is mandated. Then one cannot simply rely on the purchase of the good as proof of its value. In the case of a mandate, there would be some additional welfare cost to the degree that the person values the good less than its mandated price. *Id.*

²¹⁰ For example, a recent working paper by Casey Mulligan raises the alarm about the high marginal tax rates attributable to the Affordable Care Act. Casey Mulligan, *Average Marginal Labor Income Tax Rates Under the Affordable Care Act*, NBER Working Paper No. 19365 (August 2013). But, importantly, Mulligan does not treat the mandated insurance premiums themselves as part of the tax; he looks only at the penalties, subsidy phase-outs, and explicit taxes. If, however, government chose instead to provide health care directly with income tax revenue,

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The second feature mentioned above will allow for a broad enough pool for sufficient redistribution and social insurance. For redistribution, one needs both poor—or else why bother?—and rich—or else where will the money come from? And for social insurance, one needs for the risks of low (and high) income to be largely uncorrelated across individuals.²¹¹ If the pool has these features, then collective, progressive provision of the good or service can be effective. Health care, since it covers literally every person, satisfies this condition easily.²¹²

Applying the quasi-public spending idea to higher education, we can see that it satisfies both conditions. Because higher education is a service provided in the market, we can roughly separate its price—namely the stated tuition²¹³—from redistributive transfers, which largely occur in a different time period than the consumption of the service. And while the group of higher education recipients is somewhat smaller than the group of health care recipients, it also skews toward higher income and lower income risk, which means that there are sufficient resources to spread what risk there is at a reasonable cost.

Moreover, while the prior section presented an argument for why the redistribution within IBR should come disproportionately from high-income former students, at least some portion of those payments could also be tied to benefit. We often ask the beneficiaries of a public program to disproportionately pay part of the costs. For example, toll roads and user fees for national parks: funding for these programs comes from a mix of user fees and general revenues, with the users who benefit more paying more. Similarly with health care: co-payments and deductibles mean that heavier users pay more than lighter users.

We see something similar with IBR, but with an important difference, which is that the judgment of who the biggest beneficiaries are is made ex

the premium-equivalent amount of money would instead become a tax on income, leading to even higher marginal rates than those in the Mulligan paper. By separating out the benefit portion from the redistributive portion, the distortion from taxes is less. Ultimately, however, the existence of any distortion is an empirical question and would depend heavily on the design of the system.

²¹¹ On the connection between taxation and social insurance, see authorities cited *supra* note 193.

²¹² In addition to health care and higher education, other services that might benefit from this sort of quasi-public spending program include childcare, early childhood education, and legal services. Each of these has large public externalities, high labor costs, identifiable prices, and a large pool of purchasers. Quasi-public spending may also be appropriate as a form of supplemental funding for K-12 education as local budgets feel more strain from teacher salaries. These and other issues are explored in the follow-up paper.

²¹³ The system of tuition discounting is often described as price discrimination, which can lead to more efficient output. Thus some direct grants may help to manage the issues raised by heterogeneous consumers.

post. We cannot reasonably survey park-goers to discover who got the most out of their camping trip and charge accordingly, but, to some degree, we can with higher education, simply by looking at post-college income.²¹⁴ To the degree that the higher payments made by higher-income former students are tied to benefit, then they ought not to greatly distort consumption choices. Again, this is in contrast to simply raising the nominal income tax rate, which could be distortionary *even if* the taxpayer received substantial benefits from government.

In summary, because IBR as a quasi-public spending program is at least somewhat self-contained, there is a more direct link between payments from former students and benefits received by former student. This is in contrast to a system of direct ex ante grants coming out of general revenue, and especially in contrast to the more European-style system of full public funding. As a result, the redistributive portion of the program is likely to be less distortionary, with less deadweight loss created than in system that required increasing nominal tax rates. That said, however, there are still important issues of moral hazard and adverse selection, among others, raised by this structure. I address those in detail in Part V.

D. IBR Compared to Other Income-Contingent Models

Before turning to potential improvements to the IBR program, it is helpful to look at three examples of other income-contingent payment models that operate similarly to IBR: the Yale University Tuition Postponement Option from the 1970s, Australia's current Higher Education Loan Program ("HELP"), and a recent proposed pilot program in Oregon, known as "Pay it Forward."

1. Yale University Tuition Postponement Plan

The framing of IBR as collective payment for college may seem novel to some readers, especially for a country like the United States. But we have seen this before, at least privately, with the Yale University Tuition Postponement Plan ("TPO"), in effect from 1971-1978. The plan was designed in part by Nobel Prize-winning economists James Tobin and Milton Friedman.²¹⁵ The voluntary TPO plan had Yale students pay, if they wished, in lieu of up-front

²¹⁴ The idea that income can be a proxy measurement of benefit from government is sometimes called the "classical" view of benefit-based taxation, and goes back at least as far as Adam Smith. *See, e.g.,* Weinzierl, *supra* note 189, at 2 (quoting ADAM SMITH, AN INQUIRY INTO THE NATURES AND CAUSES OF THE WEALTH OF NATIONS (1776)).

²¹⁵ *See Yale to Erase Alumni Debt in 2 Loan Plans*, N.Y. TIMES (April 13, 1999), available at: <http://www.nytimes.com/1999/04/13/nyregion/yale-to-erase-alumni-debts-in-2-loan-plans.html>.

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tuition, 0.4% of future earnings for each \$1000 borrowed, for 35 years²¹⁶ or until the entire class cohort paid off its debt, whichever came first.²¹⁷ The net effect was for a subset of each class to pay for tuition collectively, and for the higher-earning graduates to subsidize the lower-earning graduates.

TPO was considered a failure, however, due to a combination of design problems and external forces. First, the program did not manage moral hazard well, and as a result 15-20% of enrollees ended up in default.²¹⁸ The program was only offered for a few class years, and by the time payments were finally cancelled completely in 1999, no class had yet paid off its debt, due to the high number of defaults.²¹⁹ Second, the program did not manage adverse selection well. There were likely too few high-income enrollees, since students could choose between TPO and a conventional tuition payment or loan plan, and the students in TPO could later buy themselves out for 150% of the original principal.²²⁰ Thus students who anticipated higher income would likely have chosen a conventional plan, in which they would pay less, or otherwise left the program early. Third, the increased availability of federal subsidized loans after 1972 undercut the appeal of TPO and likely exacerbated the adverse selection problem. These problems underscore the importance of managing moral hazard and adverse selection well.

A final problem with the Yale program was buy-in and political support by the high-income graduates. What looked like a good choice *ex ante* to insure against the risk of low income did not look so good *ex post* to those who ended up with high income. The high earners paying 2%, 3%, 4% of their income for 35 years ended up paying substantially more than they would have if they had just paid tuition up front or with a traditional loan. *Ex ante* most probably understood that possibility as the trade-off for potentially paying very little if they had low incomes, but *ex post* it looked to the high earners like simply a bad deal. It was largely their complaints to Yale that caused the university to end the program in 1999—less than 35 years after it started—and cancel any remaining debt of the TPO participants.²²¹ Thus, there may be a roll for caps to limit the upside risk, so as to ensure continued support from

²¹⁶ Today's rate of up to 10% of income is obviously much higher—reflecting both the higher real costs of college tuition, but also the fact that TPO ran for 35 years, rather than a maximum of 20 years.

²¹⁷ See William E. Curran, *Yale's Tuition Postponement Option*, 2 J.L. & EDUC. 283 (1973).

²¹⁸ See N.Y. TIMES, *supra* note 215.

²¹⁹ See *id.*

²²⁰ See Bret Ladine, *'70s Debt Program Finally Ending*, YALE DAILY NEWS (March 27, 2001), <http://yaledailynews.com/blog/2001/03/27/70s-debt-program-finally-ending>.

²²¹ See N.Y. TIMES, *supra* note 215 (“We received, over the course of the last year or so, complaints from borrowers who were paying for a longer period of time,” said [Yale spokesman Lawrence J. Hass]. “We took these complaints seriously.”).

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participants. Future Bill Gateses and Mark Zuckerbergs²²² should not have to pay 10% of their annual income.

2. Australia's Higher Education Loan Program

Since 1989, any Australian citizen can borrow money from the government in order to pay tuition costs at Australian (and in some cases overseas) universities.²²³ There are currently limits on the borrowing amount for some loans, though the Australian government has announced that the loan limits will cease starting in 2016.²²⁴ Prior to 2014, the loans had a nominal interest rate equal to inflation. From 2014 on, however, loans will be indexed at the Australian 10-year bond interest rate (which is around 4% at this writing), capped at 6.0%.²²⁵ Borrowers pay back the loans over their lifetime as a function of income. No payment is due on income under a certain amount (AUS\$53,345 in 2014-15), and for incomes above that, borrowers pay back the loan at graduated rates, going from 4% of income for incomes between AUS\$53,345 and AUS\$59,421 (in 2014-15) up to 8% for income above AUS\$99,070, rising in half-percentage increments.²²⁶ Thus the repayment schedule resembles an income tax with graduated rates, though importantly these rates are not marginal—the appropriate rate applies to all income, not just the income in the bracket.

Payments are calculated by and paid through the tax system, and included as part of an individual's overall tax assessment. The payments continue until the borrowed amount, plus accrued interest, is paid back or until the borrower dies. Any debts outstanding are cancelled at death.

²²² Yes, they both went to Harvard and neither graduated. But still.

²²³ The system is actually a mix of several different programs that apply to, respectively, Commonwealth-supported students (those paying partially subsidized tuition), fee-paying students (those paying full tuition), vocational students, and overseas students. To keep the discussion brief I focus on the key features shared by all the programs.

²²⁴ For 2014 FEE-HELP loans (those for full-paying students), students in medicine, dentistry, or veterinary science could borrow up to AUS\$120,002; other students could borrow up to AUS\$96,000. <http://studyassist.gov.au/sites/studyassist/helpayingmyfees/fee-help/pages/fee-help-> On removal of the FEE-HELP limit, *see* Higher Education and Research Budget Information: Students, *at* <http://education.gov.au/students-2>.

²²⁵ *See id.* This amounts to about a 1-2% increase in the interest rate. For 2014, the HELP indexation rate—effectively the interest rate—is 2.6%. Between 2005 and 2014, the indexation rate ranged between 1.9% and 3.9%. *See* HELP Indexation Rates, Australian Tax Office, *at* <http://www.ato.gov.au/Rates/HELP-indexation-rates>.

²²⁶ *Id.* Prior to 2014, the threshold at which payments begin was calculated based on the average annual income in Australia. The government recently announced changes to the repayment schedule, however, including making the repayment threshold closer to 90% of the average income, or around \$50,638. *See* Daniel Hurst, *Budget: University Students To Pay More With Removal of Caps on Fees*, *theguardian.com* (May 13, 2014), *available at* <http://gu.com/p/3p7vv/tw>.

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A major difference between HELP and IBR is that there is much less cross-subsidization and forgiveness with HELP. Under HELP, each borrower's account is essentially separate, and each continues to pay it down for his whole life. Because of that (and collection through the tax system) default rates are very low,²²⁷ though Australia too is dealing with rising costs and expanding debt, such that default rates may be increasing.²²⁸ The lifetime repayment in HELP is in contrast to IBR, which has substantial forgiveness at a much earlier point—a maximum of 20 years after borrowing.

There is still some cross-subsidization under HELP, however, because of the combination of (a) low interest and (b) graduated repayment rates. Because the loan principal grows only at the rate of inflation (or at the 10-year bond rate, for loans after 2014), there is a real time-value benefit to deferring payments as long as possible, something that low-income people are relatively more able to do than high-income people, due to the graduated repayment rate schedule. The deferral benefit would also exist under a flat-rate system, like IBR, since payments would still be a function of income. But the relative distribution of the benefit is skewed more toward low-income borrowers by using graduated repayment rates. Moreover, for loans prior to 2015, the Australian government was losing money on the deal by not charging market interest rates—that's a subsidy from taxpayers generally, which is thus funded largely by higher-earning taxpayers. That subsidy will likely phase-out after 2014, when the Australian government begins indexing loan amounts at its borrowing rate.

Another important difference is the cap on borrowing. Until 2016, some HELP loans have a lifetime borrowing cap, though the cap may be lifted for loans after 2016.²²⁹ While there are caps on IBR loans for undergraduate students, there effectively are not for graduate students.²³⁰ One concern about IBR is that it may lead to tuition increases, especially at law schools and other graduate schools, since students may become less price-sensitive. Capping the amounts available may help avoid the problem of rent-seeking by schools.

By most accounts, HELP has been a success—it has operated for almost 25 years without creating significant budgetary problems. During the recent low-inflation years, however, there was some concern that Australia could not

²²⁷ JOHNSTONE & MARCUCCI, *supra* note 166, at 180.

²²⁸ One recent study estimates that as much as 24% of currently outstanding HELP debt in 2012 will not be repaid. Andrew Norton, *Mapping Australian Higher Education*, Grattan Institute Report, at 43 (2013), *available at* http://grattan.edu.au/static/files/assets/28a92f8b/184_2013_mapping_higher_education.pdf. By contrast, the Australian government estimates that 17% of the debt issued in 2011-12 will not be repaid. *Id.* A good portion of these defaults are because the borrowers move overseas, *id.*, which would be less of a problem for the U.S.'s citizenship-based tax system.

²²⁹ *See supra* note 224 and accompanying text.

²³⁰ *See supra* text at notes 170-175.

afford to charge interest only at the rate of inflation, particular as higher education costs grow. The 2014 changes, including the higher interest rate and the lower threshold for repayment, were intended to make the program more sustainable,²³¹ and will also likely reduce default rates and accelerate some payments.

3. Oregon's Pay It Forward Proposal

In July 2013, the Oregon state legislature passed, and the governor signed, a bill that would authorize a pilot program, colloquially known as “Pay It Forward.”²³² The bill, based on a proposal by the Seattle-based Economic Opportunity Institute,²³³ would have students at Oregon state colleges and universities forgo paying tuition and instead contractually promise to pay a set percentage of future income for a set number of years. The Oregon bill itself does not set out precise figures, though the Economic Opportunity Institute estimates that paying something like 1% of income per university year (i.e., 4% of income for a standard four-year program) for 25 years would be sufficient to cover expenses.²³⁴ As of this writing, Oregon has not created any pilot program yet, and therefore no students are actually participating. Similar bills have been brought up in California, Connecticut, Illinois, Maine, New Mexico, New Jersey, and Washington.²³⁵ Legislators in New York and Pennsylvania have said that they would propose similar bills for their states.²³⁶

The plan has earned both praise and criticism among commentators, mostly along the lines set out in this article. On the one hand, it may provide for more affordable college for more people, and in particular it socializes the provision of education for students who might enter low-wage, but high positive-externality fields, like teaching, nursing, or social work.²³⁷ But on the

²³¹ Budget of the Commonwealth of Australia: 2014-15: Higher Education, at 7 (May 13, 2014), available at: http://budget.gov.au/2014-15/content/glossy/education/download/Budget_Glossy_education_web.pdf.

²³² Oregon Bill H.R. 3472; 2013 Or. Laws 700.

²³³ See Economic Opportunity Institute, *Pay it Forward: Refinancing Higher Education to Restore the American Dream* (2013).

²³⁴ *Id.*; see Pay It Forward Workgroup, *House Bill 3472: Pay It Forward*, Report to the Oregon Higher Education Coordinating Commission, at 8 (2014), available at: <http://education.oregon.gov/Pages/HECC-Meeting-Materials.aspx> (also finding a 4% rate for a typical university program, as well as financial self-sufficiency at year 23).

²³⁵ Economic Opportunity Institute, *Pay It Forward: An Update on National Progress* (2013), <http://www.eoionline.org/wp/wp-content/uploads/Update-on-national-progress1.pdf>.

²³⁶ See Associated Press, *Plan Would Make Tuition Free at Ore. Colleges*, (July 4, 2013), <http://online.wsj.com/article/AP8d4ad580b5be4a23aebd8a1505dd01fb.html>. Other states interested include Wisconsin and Ohio. See Julia Lawrence, *First Oregon, Now Ohio Looking at Pay it Forward' Tuition Plan*, EDUC. NEWS, (July 22, 2013), <http://www.educationnews.org/higher-education/first-oregon-now-ohio-looking-at-pay-it-forward-tuition-plan>.

²³⁷ See, e.g., Bill Lyne, *The Perfect and the Good*, UNITED FACULTY OF WASH. STATE BLOG (October 16, 2013), <http://www.ufws.org/2013/10/16/the-perfect-and-the-good>.

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other hand, it risks being unaffordable, particularly because it may lead to excessive adverse selection and moral hazard.²³⁸

While details are few, the Pay It Forward plan seems to most closely resemble the Yale TPO plan, rather than IBR or HELP. Like TPO, Pay It Forward would require payment for a fixed number of years, regardless of the total paid, while IBR and HELP stop payments after principal and interest are repaid. Similarly, the payment rate is flat, rather than graduated as in HELP, or effectively regressive, as in IBR. Thus commentators who worry about TPO-type problems—adverse selection and moral hazard—may be right to be concerned. That said, the situation is quite different from the 1970s, when TPO was available. First, adverse selection is likely less of a problem, because the huge rise in tuition costs and the nondischargeability of student debt means that there are fewer low-risk students.²³⁹ In other words, even a person who expects to make a high income might also recognize that downside risk is quite large, and thus happily enroll in an insurance-like program such as Pay It Forward.

Second, because the program would be administered by the state, which has taxation powers, default ought to be less likely than under the Yale plan, thus limiting potential moral hazard problems. If Oregon chooses, it could even collect Pay It Forward payments directly through its tax system, as in Australia, which would effectively wipe out defaults (at least for residents who remain in the state). The moral hazard of students going into low-paying jobs is, as discussed below, a red herring.²⁴⁰ And the moral hazard of schools raising tuition is likely constrained by the fact that the program is only for state universities, which face political obstacles to raising tuition.

E. Private Debt and Credit Ratings

Although I argue here that IBR is better thought of as a tax-and-transfer program than a loan program, the loan-like structure means that former students have nominal debt on their personal balance sheets. Thus a key criticism of IBR is that it could encourage students to take on more debt, and that even with generous repayment terms, that debt could still prove costly to students, such as by lowering their credit scores, making it difficult to take on other debt, or just generally being a source of financial insecurity.²⁴¹ Because this issue is at the center of policy concerns regarding student debt, I address it separately here.

²³⁸ See, e.g., Zac Bissonnette, *Oregon Tuition Plan Punishes Graduates' Success*, BLOOMBERG OPINION (Jul. 12, 2013), <http://www.bloomberg.com/news/2013-07-12/oregon-tuition-plan-punishes-graduates-success.html>.

²³⁹ See *infra* Part V.

²⁴⁰ See *infra* Section V.C.

²⁴¹ See, e.g., TAMANAHA, *supra* note 35.

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Excessive household debt is certainly dangerous for both individuals and the economy as a whole. As Atif Mian and Amir Sufi have shown, excessive household debt has generally been a feature of the worst financial crises and recessions, especially the Great Recession following the 2008 financial crisis.²⁴² Thus, we absolutely should be sensitive to policies that encourage even more household debt.

That said, the major problems of household debt should not appear with IBR. With some simplification, the individual and systemic risks of household debt take two key forms. First, excessive leverage with respect to assets risks wiping out any equity in the case of a drop in asset prices, which can further contaminate asset prices through fire sales and the like.²⁴³ And second, debt service payments can become debilitating in the case of a drop in income. Neither risk presents itself with IBR.²⁴⁴

The first risk is essentially what happened in the housing crisis in 2007-2008, when many homeowners ended up underwater on their mortgages.²⁴⁵ But this sort of destruction of equity cannot happen with respect to IBR, because there is no asset securitizing the loan. Or, rather, the asset connected with the loan is the borrower's human capital, which no other person can have an ownership stake in.²⁴⁶ If a recession causes the "value" of that human capital to drop (e.g., because wages have dropped), that doesn't change the relative ownership of that asset, unlike with housing or other leveraged assets. Of course, *other* assets may be affected, for example because the government could have a claim on the borrower's assets in bankruptcy. But this then leads to the second risk of excessive debt, the risk of debilitating service payments.

That risk also does not exist, precisely because of the IBR formula. A destitute person essentially owes the government nothing, and thus he bears little additional pain due to the debt. Indeed (and importantly), *neither would other creditors*. In the case of bankruptcy or near-bankruptcy, because no current

²⁴² ATIF MIAN & AMIR SUFI, HOUSE OF DEBT 4-9 (2014).

²⁴³ *See id.* at 19-30.

²⁴⁴ Note that the income-based structure of IBR is similar to Mian & Sufi's proposal for how to reform mortgage finance in order to address precisely these problems. *See id.* at TK.

²⁴⁵ If a house is leveraged 80% or more, then a price drop can wipe out any equity, making the bank effectively the 100% owner of the asset. *See id.* That means that homeowners, especially low-income homeowners, bear much of the risk of a price drop, while banks and their depositors, shareholders, and creditors bear very little. And the foreclosures that follow a bubble bursting can create even more downward pressure on asset prices. In 2007-08, the asset price drop thus acted to shift relative economic resources away from low-income people and toward higher-income savers and investors. *See id.* at 18-19.

²⁴⁶ Indeed, this is one primary answer given for why there are private credit market failures necessitating a government role in providing student loans. Because a private lender cannot not get sufficient security in the borrower's human capital, there is greater risk, and thus the creditor would demand higher interest. *See* Avery & Turner, *supra* note 115, at 167 (quoting MILTON FRIEDMAN, CAPITALISM AND FREEDOM (1962)).

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payments would be owed to the government, no money would go to the government prior to other creditors. Indeed, one of the functions of IBR is as a substitute for discharge of student loans in bankruptcy, which is in most cases not possible currently.²⁴⁷ But instead of allowing payment adjustments and partial discharge only in the case of insolvency, IBR would allow a more gradual shift in payments at many different levels of income and wealth. In this way, it operates as a more nuanced and graduated form of discharge.

For these reasons, it also should be the case that credit rating agencies will not penalize students for IBR debt. Because payments shift with income, default due only to low income is essentially impossible, and large payments are only owed if there is a large income to pay it. Recall that the main claim in this paper is that IBR payments operate more like tax payments than loan payments; to treat the IBR debt negatively would be like treating future income tax liability as a debt overhang. Ultimately what a credit rating agency cares about are debt payments as fraction of income, and by definition IBR payments will never exceed 10%. Indeed, most of the factors that go into a person's FICO score have to do with timeliness of payments and number of debts outstanding. Only about 30% of the score relates to *amounts* outstanding, and even for that, installment loans, like student loans, are treated more lightly than revolving loans, like credit card debt.²⁴⁸

While the IBR payment may crowd out other potential debt payments somewhat, the effect should be limited and contained. For example, the IBR payment should make up only about 7-8% of earned income,²⁴⁹ but Federal Housing Authority guidelines allow a total debt-to-income ratio of 43% for conforming loans.²⁵⁰ It may be that a credit rating agency or lender would see the overall size of the debt as a signal of financial profligacy, even if not risky in itself. But this is not at all certain, given that the debts are to invest in higher education, which likely makes the borrower *more* credit-worthy. For these reasons, the nominal size of any IBR debt should not have a large effect on a former student's overall credit-worthiness.

²⁴⁷ 11 U.S.C. § 523(a)(8).

²⁴⁸ See Philip G. Schrag, *Failing Law Schools—Brian Tamanaha's Misguided Missile*, 26 GEO. J. LEGAL ETHICS 387, 402-04 (2013) (discussing the effects of IBR loans on credit ratings).

²⁴⁹ Recall that IBR payments are 10% of the net of AGI less 150% of the relevant poverty line, which makes the base smaller than the income base lenders consider in evaluating potential borrowers.

²⁵⁰ FHA Requirements, Debt-to-Income Ratio Guidelines, http://www.fha.com/fha_requirements_debt

V. Designing a Better IBR Program

The discussion thus far, including the comparisons of IBR to Yale’s TPO, Australia’s HELP, and Oregon’s proposed Pay It Forward plan, suggest several design features that may be necessary for a program like IBR to be effective as a system for progressive, collective higher education financing:²⁵¹

- Sufficient redistribution, to reflect society’s broad interest in an educated public, especially for those in low-wage but high-positive externality careers, and also to provide insurance against the risk of low income regardless of career;
- Containment of adverse selection problems;
- Containment of moral hazard problems, both at the student and school levels;
- Sufficient self-financing, so as to minimize the burden on general revenues and the other programs funded out of general revenues;
- Containment of “upside risk,” i.e., the risk that successful graduates pay excessive amounts relative to cost; and
- Effective administration, to ease enrollment, compliance, and collection.

A. Redistribution and Insurance

IBR, as currently designed, is partially redistributive in three ways: first, in charging high-earning borrowers an interest rate above the government’s borrowing rate, the revenue from which can be used to subsidize later forgiveness; second, in deferring payments for those with low income in a given period; and third, in forgiving the debts for low-income borrowers after some period (though this benefit may be muted somewhat by the possibility of taxable COD income).

Of these, the deferral benefit requires a bit more unpacking. If the deferred amounts, including interest, simply accrued and were subject to the same statutory interest rate, there would be no deferral benefit—the amounts paid would be the same in present-value terms in any period.²⁵² Full interest capitalization for those who no longer had a partial financial hardship was a

²⁵¹ It is not a coincidence that these are the same factors that go into designing a successful tax system in general.

²⁵² See Daniel I. Halperin & Alvin C. Warren Jr., *Understanding Income Tax Deferral*, 67 TAX L. REV. 801 (2014) (discussing the role of accrual in considering deferral benefits). Though in that case, we could describe the deferred payments as redistributive within-person—redistribution from a richer future self to a poorer current self—and arguably a good portion of our redistributive tax-and-transfer system operates in that way. See Brooks, *supra* note 88, at ___; Hoynes & Luttmer, *supra* note 193, at 1467 (identifying the within-person component of redistribution).

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feature of IBR as enacted in 2007 and as extended in 2010,²⁵³ and thus the CBO originally projected relatively little up-take in the program, because the present value benefit of IBR was minimal.²⁵⁴ Under the PAYE regulations, however, the amount of capitalized interest is limited to 10% of the original principal balance.²⁵⁵ (Additional unpaid interest still accrues, but is not capitalized.²⁵⁶) As a result, for PAYE, some interest goes unpaid in present value terms, and the lower one's income, the more goes unpaid. This thus provides PAYE an additional element of redistribution in present-value terms.

In Section IV.C.2, I concluded that IBR ought to provide for substantial redistribution from high-income former students in particular, potentially more than under the current design. Increasing redistribution requires, first of all, that IBR be the only form of student loan, so as to ensure that those with future high incomes stay in the pool.²⁵⁷ This would engage some of the other issues discussed below, such as managing adverse selection, political support, and administration. But as a preliminary matter, there are three ways of introducing greater redistribution from high-income graduates to low-income graduates: more graduation in the monthly payment schedules, raising or removing the caps on total payments, and (perhaps controversially) shifting the overall federal financial aid system for undergraduates further away from direct aid and more toward IBR-eligible loans.

As discussed in Section IV.B, the current IBR payment schedule is oddly designed when viewed as a tax. For low incomes, the payments are a low percentage of AGI, with percentages rising as income goes up, but only until a peak where the payment equals 10% of discretionary income (and thus somewhat less than 10% of AGI). At that point, as incomes continue to rise, the payments revert to the standard 10-year loan payment, and thus start to decrease as a percentage of income. Adopting a payment schedule more like HELP, with monotonically rising income percentages, would ensure that the payments are more consistently progressive. At a minimum, eliminating the annual payment cap equal to the regular 10-year loan payment would fix the regressivity in the current payment schedule. Indeed, the White House has already proposed eliminating the annual payment cap, so that once enrolled in PAYE, a borrower could not revert to the standard 10-year loan payment.²⁵⁸

²⁵³ See *supra* note 132.

²⁵⁴ See *supra* note 151.

²⁵⁵ See *supra* note 132.

²⁵⁶ *Id.*

²⁵⁷ The Obama Administration has proposed this change. See *supra* note 127, at S-13.

²⁵⁸ See DOE 2015 BUDGET, *supra* note 127, at S-13. The New America Foundation made a similar proposal. See Jason Delisle & Alex Holt, *Safety Net or Windfall: Examining Changes to Income-Based Repayment for Federal Student Loans*, New America Foundation Report, at 14 (2012).

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However, under the current rules, a major result of that would be to accelerate the rate at which a high-income borrower pays off her loan. If an IBR borrower pays only until the total payments equal principal and accrued interest, then increasing the monthly payments just means paying off the debt more rapidly. That could also mean less revenue for the government in present-value terms, if it is charging a spread above its borrowing cost.²⁵⁹ This could in turn lead to *less* subsidization by high-income graduates and more from general revenues—not necessarily ideal.²⁶⁰

Thus, for more graduated payments to increase redistribution, we also need to reform the lifetime payment caps. Rather than capping lifetime payments at principal plus interest, much like a traditional loan, we should raise the lifetime cap and/or require payment for a number of years, regardless of total amounts paid, much like TPO and Pay It Forward. However, this could lead to adverse selection problems by potentially driving away borrowers who anticipate high incomes. Thus the government's ability to impose a change like this would also depend on how well it manages the adverse selection problem. This is discussed further below.

In the end, likely some mix of these two changes—graduated repayment rates and higher repayment caps—would be most appropriate. For example, the government could require all borrowers to pay a percentage of discretionary income at graduated rates for at least 15 years, even if a traditional loan would have been paid off sooner.²⁶¹ This would allow for greater redistribution and subsidization, while still containing the upside risk for high-income graduates.

More immediately, Congress should reconsider the recent lowering of the statutory student loan interest rate. In 2013, the interest rate on unsubsidized federal loans was 6.8%, and the rate for subsidized loans had recently changed

²⁵⁹ Note that this is in contrast to Australia's HELP program, where, because the interest rate is below-market, accelerated payment is less advantageous, and thus the graduated rates are a source of redistribution. *See supra* Section IV.D.2.

²⁶⁰ On the other hand, higher payments during the 20-year period could also mean marginally less forgiveness after 20 years for higher-income borrowers, which seems appropriate. Suppose someone had very low income for the first 10 years, and thus accrued a substantial unpaid balance. If that person had a high income for the next 10 years, and thus paid at the 10-year loan rate, it is possible that there would still be an unpaid balance after 10 years. If instead, the payments during the last 10 years were a function of income, and thus higher than the standard 10-year loan payment, there would be less to forgive at the end of 20 years.

²⁶¹ This would also mean either disallowing prepayment or adding a prepayment penalty. Currently, full prepayment is allowed without penalty. 34 C.F.R. § 685.209(a)(3)(ii). The prepayment would ideally be targeted to the present value of the expected spread the government was to earn on future interest. But a rough measure, such as the 150% prepayment allowed under the Yale TPO plan, might be appropriate. *See supra* note 220 and accompanying text.

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from 3.4% to 6.8%. These high rates were controversial, given high debt loads and tuitions. The charge was that the government was profiting from the need of students who could not afford to pay up front.²⁶² Congress responded by passing the Bipartisan Student Loan Certainty Act of 2013,²⁶³ which fixed the interest rate for undergraduate loans at the 10-year Treasury note rate plus 2.05% (capped at 8.25%), and the rate for graduate loans at the 10-year Treasury note rate plus 3.6% (capped at 9.5%).²⁶⁴ For 2013-14, that meant rates of 3.86% and 5.41% for undergraduate and graduate loans, respectively.

This change was misguided, in my view. If IBR is widely adopted, then the only people who would actually pay a high rate like 6.8% are those with relatively high income—all others pay just 10% of discretionary income with limited interest accrual and capitalization, and possible forgiveness, and so should be largely indifferent to the statutory interest rate.²⁶⁵ Thus lowering the statutory rate may actually have made the overall IBR system less progressive and put a greater burden on general revenues.

Finally, a third way to put more of the cost onto high-income graduates would be to shift the federal financial aid program somewhat away from direct need-based aid and further toward IBR-eligible loans. This is, of course, a somewhat counterintuitive statement, particularly when part of the policy reason to nationalize student lending in the first place was to free up revenue to expand the Pell Grant program.²⁶⁶ However, as argued above, it is more equitable to focus higher education subsidies on those who have low earnings *after* their education than on those whose parents had low earnings *before* their education.²⁶⁷

Asking a poorer student to take on more loans may sound harsh, but that's only if the "loan" is truly a loan. If, in fact, it's a vehicle for progressive quasi-public spending, then we have no need to worry (as hopefully is clear by this point in the article). Thus, Congress should raise the current aggregate limits on undergraduate Direct Loans of \$31,000 for dependent students and

²⁶² See, e.g., Tom Dickenson, *The Student Loan Crusader: How Elizabeth Warren Wants to Reduce Debt*, ROLLING STONE (Aug. 28, 2014).

²⁶³ Pub. L. No. 113-28, 127 Stat. 506.

²⁶⁴ *Id.* § 2(a)(3), 127 Stat. at 506-07.

²⁶⁵ The Obama administration in 2015 proposed a \$57,500 cap to the amount that could be forgiven after 10 years for those in public interest careers (the same cap would apply to the 20-year forgiveness for all others). Any remaining debt would be forgiven only after 25 years. In this case, a high interest rate would be somewhat more of a concern, though the limits on interest accrual and capitalization would still protect most low-income borrowers. DOE 2015 BUDGET, *supra* note 131, at S-13.

²⁶⁶ See METTLER, *supra* note 120, at 69-70.

²⁶⁷ See *supra* Section IV.C.

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\$57,500 for independent students.²⁶⁸ If that requires a pay-for, Congress should consider shrinking the Pell Grant program.

B. Adverse Selection

Under our current system, where a student can choose to enroll in IBR or stay in the typical 10-year repayment plan, there is little incentive not to enroll in IBR—the fact that it can be no worse than the 10-year plan ensures that any well-informed graduate should enroll in IBR, even those who could afford to pay out of pocket.²⁶⁹ Thus, *as currently designed*, there really is not any adverse selection problem.

But if some of the changes discussed above are implemented to enhance redistribution, the system may become less attractive to low-risk borrowers. Enhancing the redistribution in the system would mean charging high-income graduates more than the present value of their tuition. If a student is confident about high future income (perhaps because she is majoring in computer science²⁷⁰ or the like), then that student may not want to take on the risk of over-paying later. This could then leave the pool of borrowers with more overall risk of low income, thus requiring more subsidization from general revenues. Furthermore, students from wealthier families may just choose to opt out, with negative distributional consequences.²⁷¹

The adverse selection problems are serious, and how well they're addressed will determine whether IBR is ultimately successful. Before discussing possible solutions, however, we should be clear about how large the risk is here. At current tuition levels and rates of growth, the downside risk for a traditional student borrower is quite large. Student loan payments on traditional loans can easily get into the thousands of dollars per month, an amount that would be crippling for many people. Furthermore, changes in the labor market mean that job security is not as high as in previous periods. In our current economic climate, almost anyone can face the possibility of a

²⁶⁸ On the aggregate borrowing limits, *see supra* text at notes 170-175.

²⁶⁹ The combination of relatively low interest plus the ability to lower payments and interest capitalization in the case of low income should be attractive to just about anyone, even someone from a family with enough liquid assets or income to pay directly.

²⁷⁰ *See NACE Salary Survey*, NAT'L ASS'N OF COLLS. & EMP'RS, (April 2012), *available at* http://www.mville.edu/images/stories/Undergraduate_StudentLife/ServicesForStudents_CCD/PDFs/NACE_Salary_Survey_April_2012_Full_Report.pdf (reporting that computer engineering majors have the higher median starting salary, at \$67,700 in 2012).

²⁷¹ An additional possibility is private entrants into the market cherry-pick the lowest risks. There is some evidence of this happening under our current loan rules. *See, e.g.*, CommonBond, <http://commonbond.co>; SoFi, <http://www.sofi.com>. While this strategy is possible for traditional loans, it is unlikely that a private lender could provide the sort of income insurance that IBR provides, given the large commitment and potentially the need to spread risk across generates (much as the tax system does).

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substantial period of un- or under-employment. Even the future computer engineer has good reason to fear the worst. And student loans cannot in most cases be discharged in bankruptcy.²⁷² Finally, it may not be enough to simply expect future high income, if the person is liquidity constrained at the time of enrollment. If IBR is the only type of student loan, then it may only be those with wealthy families who opt out.²⁷³ Therefore, it may be that there are relatively few students who would rationally refuse the IBR deal, even if it meant that they might over-pay in the future.

That said, solutions are still required. There are essentially two ways to combat the adverse selection problem: mandates and subsidies. The first, mandates, tend to be a feature of many social insurance programs, like Social Security, unemployment insurance, and private insurance programs with strong public purposes, like car insurance. A mandate is of course also central to the post-ACA health insurance world.²⁷⁴ If the government simply forced all borrowers to participate in IBR, low-risk students could not opt out. Indeed, mandating the use of IBR is equivalent to simply charging a graduate tax.²⁷⁵

As we saw with passage of the ACA, however, mandates are highly contested and politically fraught, particularly in areas that prior to the change nominally operated in a more voluntary way.²⁷⁶ Without an IBR mandate, low-risk students would need to be induced to participate, by making the program more attractive financially. But this would mean making IBR cheaper in expected value terms than the alternatives, which in turn would undercut the progressivity of the program. The ability to redistribute from high-income former students to low-income former students may in fact require a mandate, and without a mandate, the redistribution may have to come more heavily from taxpayers as a whole, i.e., from general income tax revenue. Such would be the trade-off so as to avoid the danger of a too-powerful state.²⁷⁷ Even with subsidization, however, relatively more generous subsidies to low-income borrowers may keep an element of progressivity, though we would still have both low- and high-income borrowers getting net transfers from other taxpayers.

²⁷² 11 U.S.C. § 523(a)(8).

²⁷³ Assuming that potential loan competitors do not offer a better deal. *See supra* note 271.

²⁷⁴ *See NFIB v. Sebelius*, 567 U.S. ___, 132 S.Ct. 2566, 2585 (2012).

²⁷⁵ *See supra* note 166.

²⁷⁶ Not that passage of things like UI and Social Security were not also fraught, but they were perhaps easier to pass than the ACA because they introduced insurance that essentially did not exist in a private form. Although mandatory health insurance was debated during the Progressive and New Deal Eras, it took an extra hundred years to pass it. [Moss.]

²⁷⁷ *See* Poutvaara, *supra* note 166, at 664 (noting that subsidization is necessary to limit adverse selection problems, but that “[s]uch subsidization could be viewed as a social insurance premium paid to protect citizens against a possibility of expropriation by a possible Leviathan government [in the case of a mandate]”), 679.

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Rather than subsidize participation, however, the government could instead penalize non-participation, thus still helping to make participation a more attractive deal. For example, the government could charge an excise tax on tuition,²⁷⁸ but with a credit to those who borrow through IBR, effectively just taxing those who pay out of pocket. This could induce students on the margin to instead enroll in IBR, but could also help the progressivity of the overall system. If IBR were widely adopted, those paying out of pocket would likely be those who anticipated high incomes or whose parents had substantial wealth. An excise tax would thus be a combination of an ex ante tax on the expected education premium and a wealth transfer tax, which could be used to subsidize those with lower expected income. That said, the political difficulties of implementing such a tax are likely as great as mandating the use of IBR. Furthermore, the tax would further raise the price of higher education, exacerbating the problems IBR is addressing. Thus, any such change should be gradual and only in response to observed risk pool problems after full implementation.

C. Moral Hazard

The problems with the Yale TPO plan underscore the danger from potential defaults, a form of moral hazard. This is less of a risk for the IBR program, however, since it brings with it the weight of federal enforcement. Only by leaving the country could one simply not pay.²⁷⁹ Furthermore, it appears that the 20-year forgiveness is tolled during any period that the loans are in default.²⁸⁰

There is another sort of borrower moral hazard, however, namely that borrowers in IBR will not have as much incentive to earn high pay—they could become full-time beachcombers or risk-seeking entrepreneurs without worrying about student loan payments, for example. Even if this is true, it is not at all clear that we would describe as a virtue of our current loan system that graduates may be forced to work more or in different fields than they would otherwise prefer. Income is generally thought to be reward enough, and if a person would choose a particular labor-leisure trade off given potential income, we ought not to introduce a crippling loan payment to distort that choice.

²⁷⁸ The taxpayer could be either the student or the institution.

²⁷⁹ This is the major source of defaults for Australia's HELP program. *See supra* note 228. Out-migration of skilled workers is not generally believed to be a problem for the U.S. compared to, say, Europe. *See, e.g.,* Poutvaara, *supra* note 166, at 664-65 (discussing how Sweden abandoned its income-contingent loan program in part because of the pressures of labor mobility; Michael Simkovic, *Risk-Based Student Loans*, 70 WASH. & LEE L. REV. 527, TK (2013) (summarizing research on U.S. mobility).

²⁸⁰ *See* 34 C.F.R. 685.209(a)(6)(iv).

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Furthermore, if anything we probably have too many talented individuals working in finance, corporate law, and specialized medicine, rather than in entrepreneurship, public interest law, and family medicine, for example. Many of those people might choose careers differently if not facing large loan payments.²⁸¹ To the degree that that constitutes moral hazard, it would be “good” moral hazard—i.e., somewhat costly, but still desirable on balance.²⁸² Moreover, IBR hardly removes the risk of low income. Shrinking the required loan payment is helpful, but many of the other risks of low income will remain.

Another way to state this moral hazard risk is simply as the classic labor-leisure trade-off from taxation. If IBR operates as a tax, then it risks the same distortion of all taxes—that by lowering the return to labor, it can make leisure look more attractive at the margin. Here, I simply defer to the literature that shows empirically that this tax distortion is small, except perhaps for some tax-gaming responses by those with high incomes and for secondary earners in a family.²⁸³ And since high-income taxpayers face a marginal tax rate four times larger than the IBR rate, any distortion is likely to be that much smaller.²⁸⁴

A much more serious moral hazard, however, is the hazard that *schools* will simply raise their prices. Under IBR, the most a student would pay is 10% of her discretionary income for 20 years, and if the total tuition bill exceeds that, the student ought to be indifferent (assuming there is no taxable COD income).²⁸⁵ The sky would be the limit for schools in setting tuition. Many for-profit schools have already been criticized for a similar sort of rent-seeking under the pre-existing student loan regime.²⁸⁶ And this writer’s employer has been accused of similar behavior with respect to the IBR program.²⁸⁷ Left

²⁸¹ See Jesse Rothstein & Cecilia Elena Rouse, *Constrained After College: Student Loans and Early-Career Occupational Choices*, 95 J. PUB. ECON. 149 (2011) (finding that high student debt lead graduates to choose higher-paying jobs, and vice versa, contrary to what standard life-cycle theory would predict).

²⁸² On good moral hazard, see Brooks, *supra* note 88, at ____.

²⁸³ See Emmanuel Saez, Joel Slemrod, & Seth H. Giertz, *The Elasticity of Labor Income with Respect to Marginal Tax Rates: A Critical Review*, 50 J. ECON. LIT. 3, 3-4 (surveying literature).

²⁸⁴ In standard models, the deadweight loss from taxation increases with the square of the tax rate, and thus high rates have an exponentially greater distortion than low rates. [Rosen, Public Finance].

²⁸⁵ Some have argued that the student would not be indifferent, because there would still be a looming debt attached to her name, even if it were later to be forgiven. I addressed this point in Section IV.E.

²⁸⁶ See U.S. SENATE HEALTH, EDUC., LABOR & PENSION COMM., FOR PROFIT HIGHER EDUCATION: THE FAILURE TO SAFEGUARD THE FEDERAL INVESTMENT AND ENSURE STUDENT SUCCESS 24-34 (2012); Tamar Lewin, *Senate Committee Report on For-Profit Colleges Condemns Costs and Practices*, N.Y. TIMES (July 29, 2012), <http://nyti.ms/QXoua6>.

²⁸⁷ See, e.g., Jason Delisle & Alex Holt, *Georgetown Law is Giving Away a Free Education, and You’re Paying For It*, HIGHER ED WATCH (Aug. 8, 2013), available at: http://higheredwatch.newamerica.net/blogposts/2013/georgetown_law_is_giving_away_a_free_education_and_you_ure_paying_for_it-89447.

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unchecked, such behavior would undermine the goals of the program and could ultimately bankrupt it.

However, as IBR is currently designed, not all of the risk of tuition hikes is shifted onto the government. If it were, then there would be little market check on prices from students and schools could charge whatever they liked. But the lifetime cap under IBR maintains some risk for the student. Because the student pays 10% of her discretionary income for 20 years or *until the loan is paid off*, the size of the nominal debt is a factor in how long the student pays the 10% payment—higher tuition means more payments.²⁸⁸ If both the annual and lifetime caps were completely removed—if IBR became effectively a lifetime graduate tax—then any connection between stated tuition and the students' payments would be severed, and all the risk of price hikes would be on the government. Thus, we again have the tension between sufficient redistribution and sufficient containment of adverse selection issues, and some balancing of each is required.

Another way to keep some risk of tuition hikes on the student is by limiting the total amount that can be borrowed. If tuition exceeds the amount of IBR debt available, then the borrower must either pay out of pocket or with a traditional loan. Under the current rules, there is a limit to the amount of IBR-eligible borrowing for undergraduate education, but not for graduate education.²⁸⁹

Australia's HELP program, by contrast, limits the lifetime borrowing amount for everyone. Thus, if a school increased tuition above that amount, it would have to come out of a student's pocket directly. Thus it may be appropriate to have a lifetime or per-program cap on borrowing.²⁹⁰ As noted, a cap on undergraduate borrowing already exists,²⁹¹ and for graduate students the White House proposed in 2014 to cap at \$57,500 the amounts forgiven after 10 and 20 years, for public interest careers and others, respectively, with any remaining debt forgiven only after 25 years.²⁹² While not a hard cap, such as with HELP, this would act to shift some additional amount of the cost onto students. The Department of Education explicitly stated that the proposal is

²⁸⁸ At least until tuitions get so high that effectively everyone is receiving some forgiveness.

²⁸⁹ See *supra* text at notes 170-175.

²⁹⁰ A difficult design question would be how to index such amounts. Inflation would be too low, given the cost-disease structure discussion *supra*. But indexing it to tuition growth would open up the same risk. Likely some the index would have to be inflation-plus.

²⁹¹ See *supra* notes 170-175 and accompanying text.

²⁹² This proposal is similar to a proposal made by the New America Foundation. See Delisle & Holt, *supra* note 258, at 13-14 (recommending a maximum of \$40,000 for forgiveness after 10 or 20 years, with the balance forgiven after 25 years).

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intended as a response to schools gaming the system.²⁹³ In my view, the limit on undergraduate loans is actually too low since it limits the ability of IBR to fully cover tuition,²⁹⁴ but some limit on graduate loans would be appropriate.

A third options if for schools themselves to be asked to bear some of the cost of forgiveness, thus encouraging them both to limit nominal tuition and also to make sure its graduates get good jobs. This could be done through an explicit excise tax, or through an opt-in program (with opting in therefore being a signal to the market of potential students). The danger is that schools might then cherry-pick their students, which means perhaps some accompanying regulation addressing diversity of majors or the like.²⁹⁵

Finally, the government could simply institute price controls for schools that accept IBR debt. The problems with cost controls are well-known, though cost controls are also not uncommon for higher education. Many state legislatures or other governmental bodies already have tuition-setting authority,²⁹⁶ and Australia (among other countries) caps the fees that schools can charge some students.²⁹⁷

In varying degrees, each of these solutions requires some additional government regulation, which may end up undermining the independence and quality of our higher education system. It should not be undertaken lightly. That said, even under the current status quo, some additional regulation of higher education tuition and loans is likely, if only due to the problems with for-profit schools²⁹⁸—a more regulated higher education sector may be in our future, regardless.

D. Self-Financing

Related to the problems of redistribution and adverse selection is the goal of having the program be self-financed to some degree. Assuming that the

²⁹³ DOE 2015 BUDGET, *supra* note 127, at S-13 (“The Budget proposes additional changes to PAYE to include: ... Capping Public Sector Loan Forgiveness (PSLF) at the aggregate loan limit for independent undergraduate students *to protect against institutional practices that may further increase student indebtedness*, while ensuring the program provides sufficient relief for students committed to public service ...”) (emphasis added).

²⁹⁴ See text at note 268.

²⁹⁵ The similarities to the Affordable Care Act continue.

²⁹⁶ See, e.g., Andrew Carlson, *State Tuition, Fees, and Financial Assistance Policies For Public Colleges and Universities*, State Higher Education Executive Officers Association, at 9 (2013), <http://www.shceo.org/sites/default/files/publications/Tuition%20and%20Fees%20Policy%20Report%2020131015.pdf> (in 11 states, the governor or legislature has full tuition-setting authority, and governing boards (which can include political representatives) have authority in additional 29 states; in only eight states do the institutions have full control).

²⁹⁷ See Student Contribution Amounts, <http://studyassist.gov.au/sites/studyassist/helpayingmyfees/csps/pages/student-contribution-amounts>.

²⁹⁸ See *supra* notes 183-185 and accompanying text.

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program itself is widely used, then having it carry its own weight is likely to help its political support and long-term viability. First, it helps to keep as much of the program “off budget” as possible, and thus helps to minimize the nominal size of the associate spending. Second, it focuses the payment for the program on the beneficiaries of the program. In some cases of quasi-public goods or social insurance, that may not be desirable, such as for low-income support. But for a relatively high-end good like higher education, it might be a difficult sell to have the body of non-graduates helping to support graduates, even if relatively low-wage ones.

This is in tension, however, with the goal of limiting adverse selection. Above, I noted that in the absence of a mandate, the government would likely have to subsidize participation in order to increase the size of the risk pool. But that would mean a net inflow of funds from general revenues. So, again, some balancing is needed.

As it stands now, IBR seems like it has a good potential to be close to fully self-financing. At least at current tuition and debt levels, the vast majority of borrowers for undergraduate education should be able to repay their debts within 20 years. The main benefit is the deferral that comes from limiting the loan service payments during the early years of the loan (and the limit on interest accrual that goes with it). For graduate school, the debts are larger, but so are many of the incomes (especially for graduates of law, medicine, business, and engineering programs). The biggest beneficiaries are likely to be those in low- or moderate-income professions that still often require a graduate degree, such as teaching, nursing, social work, ministry, library science, public interest law, and so forth. These are generally the professions that also have large positive externalities.

But the equation could change somewhat if tuitions continue to rise, or if the program becomes more generous (e.g., by keeping the low interest rate on loans). That would increase the benefit for higher-income borrowers, potentially requiring more support from general revenues.

E. Upside Risk and Political Support

As Yale discovered, for a program like this to last, it has to have broad political support, including from those who essentially “lose” the IBR bet and end up with high wages. This risk should not be overstated—many progressive programs have broad appeal, including Social Security, Medicare, public schools, and the progressive income tax generally. But if high-income former students end up feeling cheated, that could threaten the political viability of the program. This is perhaps particularly true for a program that relies on private actors and infrastructure—nothing would immediately replace Social Security if it were repealed tomorrow, but institutions of higher education would still

do what they do if IBR were repealed, which makes IBR itself somewhat more fragile. The answer, then, is to be progressive, but not *too* progressive.

The program is still in its infancy so it is too soon to say how the benefits of the program will be distributed. However, the White House's proposed changes to PAYE in 2014 suggest at least some concern that IBR and PAYE as of 2012 were not progressive enough. As already noted, the White House proposed in its 2015 budget a partial cap on the amount of debt forgiven. Instead of having all outstanding debt forgiven after 10 years for public interest borrowers and 20 years for all others, they would cap the amount of such debt forgiven at \$57,500. And remaining debt would be forgiven only after 25 years.²⁹⁹ For at least the non-public interest borrowers, this would have the effect of requiring more payments from high-income, high-debt borrowers, such as corporate lawyers and specialist physicians, and thus could increase the overall progressivity of the system.

F. Administration

Finally, we could shift the administration of the payments to the IRS, as Australia does, since a tax authority is well equipped to handle income measurement and collection issues like this.³⁰⁰ If the discretionary income concept were scrapped in place of, say, a lower set of graduate rates on taxable income, it would be trivial to manage payments through the tax return process.³⁰¹ Already the IRS is taking a greater role, by linking its system directly to the Department of Education's for purposes of income verification.

VI. Conclusion

The cost of higher education and the associated high levels of debt has become in recent years an issue of major public importance. Although higher education continues to be a good investment, it comes with risk, particularly as a greater share of the rising costs are being placed directly on individuals. This exposure to greater risk comes at a time when the supply of workers with advanced skills is arguably too low to meet the demands of skill-biased technological change.

²⁹⁹ DOE 2015 BUDGET, *supra* note 127, at S-13. The New America Foundation, which proposed a similar rule, but with a \$40,000 cap, describes this as limiting the application of "New IBR" and leaving the remaining debt subject to "Old IBR," the version of IBR enacted in 2007, which had 15 and 25 year forgiveness instead. Delisle & Holt, *supra* note 258, at 13-14.

³⁰⁰ See, e.g., David A. Weisbach & Jacob Nussim, *The Integration of Tax and Spending Programs*, 113 YALE L.J. 955, 959-59 (2004).

³⁰¹ Because tax returns are annual, while the IBR payments are monthly, the payment amount for the year could be determining based on the prior year's return. The return could also provide for an adjustment based on over- or under-payment, as with payroll and withholding taxes.

INCOME-BASED REPAYMENT

Given the importance of higher education to an economy and a society, one might ask whether government should just provide higher education directly, just as local governments do for primary and secondary education. By directly providing higher education, a government could spread the risk and socialize the costs in the service of solving the undersupply problem. This describes the early life of many of the U.S.'s public research universities. The problem, however, is the sheer expense of doing so, as both the cost of and demand for higher education grows, as do other demands on public resources.

Another potential solution would be to subsidize just the students from low-income families, rather than everyone. This describes more recent approaches to higher education, with subsidies coming from the federal government and from the institutions themselves, public and private. But the subsidies are often not generous enough, and the system creates complicated means-testing issues that themselves can be a barrier to potential students. Furthermore, even while being insufficiently generous, the subsidies are also mistargetted—subsidies ought to be for those who enter low-wage, but high-positive externality jobs (and for those simply with bad luck), rather than for those who enter higher-income business and professional jobs.

In this article, I claim that a series of changes to the student loan program point a way toward a superior form of public financing for higher education—*income-based repayment*. By providing tuition for all, but demanding repayment only as a function of income, the government can meet the demands both of an economy that requires more skills, and of justice and fairness in ensuring that family wealth is not a barrier to entry. And it can do so with limited taxes and limited growth in nominal public spending. While *IBR* will need adjustments to better serve these goals, it may also provide a model for future large-scale government programs in an age of income inequality.