

Policy Recommendation for Managing College Debt Crisis and Retirement Savings

iOme Challenge 2016-2017

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Executive Summary

The college debt crisis is a major problem faced by the Millennial generation, as we see from the growing debt amount and default rate in recent years. This college debt crisis could further jeopardize retirement savings, thus engendering a lifelong impact on the Millennial generation.

In this paper, we first identify existing problems in various areas including the student loan repayment plans, poor financial literacy, and the retirement-incentive policies, and then devise policies to directly address these issues.

The current student loan repayment scheme faces the problems of the short repayment period of the default Standard Repayment Plan, and administrative hurdles in the application of the income-based repayment plans. Hence, we propose to adjust the current repayment scheme, making the Revised Pay As You Earn Plan the default repayment plan and simplify the application process based on the Social Security model. Meanwhile, the repayment period for Standard and Graduated Repayment will be increased from 10 years to 15 years.

To reduce the student loan default risk and ease the burden on loan borrowers, we propose a comprehensive student loan insurance plan named “Millensurance” – the insurance for the Millennium generation. Its goal is to pool the default risk of students and make sure their retirement savings budget will not be crippled by student loan default. Millennials work for both fixed-schedule and income-based repayment plans, in a way such that insurers will assist borrowers who have high risks of default with their debt repayment.

In addition, to address the poor financial literacy of Millennials, we propose a comprehensive education program with contents tailored to three different stages: pre-college, during college and post-college. This program aims to boost the financial literacy of the Millennial

generation, which is vital to their financial well-being in terms of both college loans and retirement savings.

Last but not least, Millensurance is an integral part of the retirement savings scheme. By offering early repayment bonus and an account that integrates student loan and retirement savings, student borrowers are encouraged to manage and pay off their loans as soon as possible and accumulate savings over a longer time span.

1 Introduction

1.1 The Student Debt Crisis

Since 2010, student loans have become, after mortgages, the largest source of household debt, outstripping auto loans, credit cards, and HELOC in the United States.

Currently, over 44 million borrowers in the United States owe more than \$1.4 trillion in student loan debt in total. On average, the Class of 2016 graduate has \$37,172 in student loan debt, up six percent from last year.¹

Along with the rising student loan debt, so is the default rate and the actual default amount. Counting the Federal Direct Loan Program alone, 4 million borrowers are now in default of a total of \$67.5 billion. In 2016, student loan delinquency rate (90+ days delinquent² or in default³) has reached 11.2%. If we include all the student borrowers who are behind payment or have postponed the payment, the number exceeds a staggering 40%.⁴

¹ Data from the Federal Reserve: <http://federalreserve.gov>.

² Delinquency refers to a situation in which a loan borrower is late on a payment.

³ Default is defined by the US Department of Education, which administers the federal loan programs. At present, default indicates a borrower has not made a payment in 270 days. Defaulting on a loan could adversely affect the loan borrower's credit rating.

⁴ Data from the Federal Reserve: <http://federalreserve.gov>. See also <https://www.wsj.com/articles/more-than-40-of-student-borrowers-arent-making-payments-1459971348>.

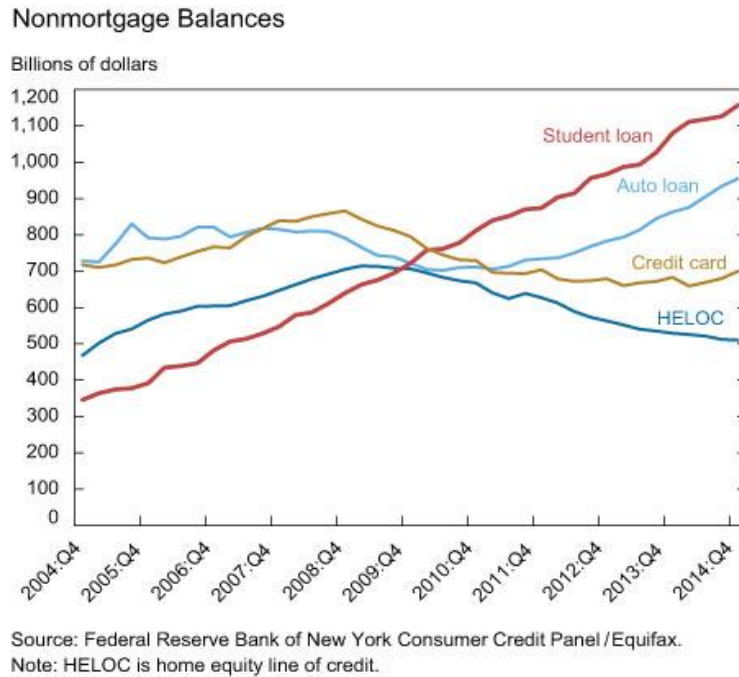


Fig 1.1 Trend of Student Loan Compared to Other Mon-mortgage Balances⁵

In response to the student debt crisis, the government has implemented various policies, ranging from reductions in interest rates, forgiveness of the debt, more flexible repayment plans, to the regulation of college prices.

However, this paper will examine the problems in the current student loan system that contribute significantly to the student debt crisis, including the loan repayment plan and poor financial literacy among students. To address these issues, we will not only propose policies that directly target the above-mentioned problems, but also design a comprehensive “Millensurance” scheme that aims to ease the burden of student loan borrowers, especially for those with high default risk.

⁵ Image adapted from Liberty Street Economics:
http://libertystreeteconomics.newyorkfed.org/2015/02/the_student_loan-landscape.html.

1.2 Impact of Student Debt on Retirement Savings

Using panel data from the 2007–2009 Survey of Consumer Finances (SCF) survey sponsored by the Federal Reserve Board, scholar William Elliott conducted data analysis using Stata (version 12) and median regression (Elliott, 2013)⁶. As a brief recap, two significant correlations between student debt and retirement savings can be detected based on his research:

- Student loan debt negatively affects post-graduation outcomes. Among college graduates, the median household income is \$57,509 for households with no student loan debt and \$47,923 for households with student loan debt. This income gap suggests that potential asset gap for households with and without no student loan debt, and that households with student loan debt are less likely to have sufficient asset to spare for retirement savings.
- There is a strong negative correlation between student debt borrowing and retirement savings. As shown in Fig 1.2, median 2007 retirement savings for households with no outstanding student loan debt (\$57,994) is more than twice that of households with outstanding student loan debt (\$23,922). For the year 2009, median retirement savings amount is \$55,000 for those with no student loan debt and \$25,000 for those with student loan debt. Although student debt may not be the sole causative effect factor that leads to less retirement savings (for instance, the fact that those who borrow student debt are more economically-disadvantaged can also contribute to less future earnings, and thus less retirement savings), the strong correlation here is quite noteworthy.

⁶ Elliot, William. 2013. *Student Debt and Declining Retirement Savings*. CSD Working Paper, St. Louis: Washington University in St. Louis: Center for Social Development.

Variables	Has student loans		Does not have student loans	
	Number or mean	% or median	Number or mean	% or median
2009 retirement savings	\$81,794	\$25,000	\$150,395	\$55,000
2007 retirement savings	\$87,582	\$23,922	\$185,946	\$57,994
Change in retirement savings	-\$5,789	-\$1,176	-\$35,551	-\$2,673
Change in retirement savings/retirement savings 2009 (%)	7%	5%	24%	5%
Note: Weighted data are from the SCF 2007–2009. All columns are rounded to the nearest whole percent.				

Fig 1.2 Correlation Between Student Loan and Retirement Savings Amount ⁶

Thus, Elliott concludes that having outstanding student loan debt is associated with having less retirement savings, a finding that is in concurrent to researcher Robert Hiltonsmith's conclusion in his "At what cost? How student debt reduces lifetime wealth".

Here, it is worth mentioning the difference between income and asset (Elliott, 2013). It is widely acknowledged that there is a positive causal relationship between college education and future income for most of the population, which is a major motivation that drives students to pursue college education even at the risk of college debt. However, the relationship between college education and asset is still unclear so far, without sufficient data sample and dual research. Income does not directly translate to assets. In fact, given the considerable college drop out rate and the amount of student debt one has to repay monthly or yearly, the asset for those who have student debt burden will be significantly lower than those without such burden, given the same amount of income.

The default risk is also a potential killer of retirement savings. Based on the definition of default, a loan will be declared as default after the delinquency behavior of repayment failure persists for a certain period of time, and upon default, the entire loan balance will due at once

(SLBA)⁷. This poses an overwhelming debt burden for those who are not financially sufficient to repay the student loan, and can have a catastrophic impact on their retirement savings budget. Meanwhile, the federal government has the right to directly collect student loan repayment by not returning tax refunds and deducting 15% of monthly salary from default individuals⁸. These mandatory terms can cripple these individuals' ability to accumulate retirement savings.

With this acknowledgment and the previous data analysis in mind, it is safe to say that, student debt has created an additional, and frequently overwhelming, obstacle for households to accumulate retirement savings. Thus, resolving the student debt crisis is an important and indispensable step in addressing the current retirement savings crisis in the U.S. When adjusting student debt policies in the rest of the paper, we will also take into consideration these policies' potential impact on retirement savings.

2 Problems in the Current System

2.1 Repayment Plan

Borrowers under the Federal Direct Loan scheme can choose one of the following repayment plans, based on their needs and preferences: Standard Repayment, Graduated

⁷ National Consumer Law Center, Inc. n.d. *What is the difference between default and delinquency?* Accessed April 29, 2017. <http://www.studentloanborrowerassistance.org/faq/what-is-the-difference-between-default-and-delinquency/>.

⁸ American Student Assistance. n.d. *Managing Default*. Accessed April 29, 2017. <http://www.asa.org/for-students/student-loans/managing-default/>.

Repayment, Income-Contingent Repayment (ICR), Income-Based Repayment (IBR), Pay As You Earn Repayment (PAYE), and Revised Pay As You Earn Repayment (REPAYE).

These repayment plans can be categorized into two categories – Fixed Schedule and Income-Based. The former includes the Standard Repayment and Graduated Repayment (repayment amount is predetermined), while the latter includes ICR, IBR, PAYE, and REPAYE (repayment is capped at a certain percentage of a borrower's annual discretionary income). The details of each repayment plan and eligibility are summarized in the following table:

Repayment Plan	Monthly Payment and Time Frame	Eligibility and Other Information
Standard Repayment Plan	<ul style="list-style-type: none"> • Payments are a fixed amount. • Up to 10 years (up to 30 years for Consolidation Loans). 	<ul style="list-style-type: none"> • All borrowers are eligible for this plan. • You'll pay less over time than under other plans.
Graduated Repayment Plan	<ul style="list-style-type: none"> • Payments are lower at first and then increase, usually every two years. • Up to 10 years (up to 30 years for Consolidation Loans). 	<ul style="list-style-type: none"> • All borrowers are eligible for this plan. • You'll pay more over time than under the 10-year Standard Plan.
Pay As You Earn Repayment Plan (PAYE)	<ul style="list-style-type: none"> • Your maximum monthly payments will be 10 percent of discretionary income. • Payments are recalculated each year and are based on your updated income and family size. • If you're married, your spouse's income or loan debt will be considered only if you file a joint tax return. • Any outstanding balance on your loan will be forgiven if you haven't repaid your loan in full after 20 years. 	<ul style="list-style-type: none"> • You must be a <i>new borrower</i> on or after Oct. 1, 2007, and must have received a <i>disbursement</i> of a Direct Loan on or after Oct. 1, 2011. • You must have a high debt relative to your income. • Your monthly payment will never be more than the 10-year Standard Plan amount. • You'll pay more over time than under the 10-year Standard Plan. • You may have to pay income tax on any amount that is forgiven. • Good option for those seeking Public Service Loan Forgiveness (PSLF).

Revised Pay As You Earn Repayment Plan (REPAYE)	<ul style="list-style-type: none"> • Your monthly payments will be 10 percent of <i>discretionary income</i>. • Payments are recalculated each year and are based on your updated income and family size. • If you're married, both your and your spouse's income or loan debt will be considered, whether taxes are filed jointly or separately (with limited exceptions). • Any outstanding balance on your loan will be forgiven if you haven't repaid your loan in full after 20 or 25 years. 	<ul style="list-style-type: none"> • Any Direct Loan borrower with an eligible loan type may choose this plan. • Your monthly payment can be more than the 10-year Standard Plan amount. • You may have to pay income tax on any amount that is forgiven. • Good option for those seeking Public Service <i>Loan Forgiveness</i> (PSLF).
Income-Based Repayment Plan (IBR)	<ul style="list-style-type: none"> • Your monthly payments will be 10 or 15 percent of discretionary income. • Payments are recalculated each year and are based on your updated income and family size. • If you're married, your spouse's income or loan debt will be considered only if you file a joint tax return. • Any outstanding balance on your loan will be forgiven if you haven't repaid your loan in full after 20 or 25 years. • You may have to pay income tax on any amount that is forgiven. 	<ul style="list-style-type: none"> • You must have a high debt relative to your income. • Your monthly payment will never be more than the 10-year Standard Plan amount. • You'll pay more over time than under the 10-year Standard Plan. • Good option for those seeking Public Service Loan Forgiveness (PSLF).

Income-Contingent Repayment Plan (ICR)	<ul style="list-style-type: none"> • Your monthly payment will be • the lesser of <ul style="list-style-type: none"> ○ 20 percent of discretionary income, or ○ the amount you would pay on a repayment plan with a fixed payment over 12 years, adjusted according to your income. • Payments are recalculated each year and are based on your updated income, family size, and the total amount of your Direct Loans. • If you're married, your spouse's income or loan debt will be considered only if you file a joint tax return or you choose to repay your Direct Loans jointly with your spouse. • Any outstanding balance will be forgiven if you haven't repaid your loan in full after 25 years. 	<ul style="list-style-type: none"> • Any Direct Loan borrower with an eligible loan type may choose this plan. • Your monthly payment can be more than the 10-year Standard Plan amount. • You may have to pay income tax on the amount that is forgiven. • Good option for those seeking Public Service Loan Forgiveness (PSLF). • Parent borrowers can access this plan by consolidating their Parent PLUS Loans into a <i>Direct Consolidation Loan</i>.
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Table 2.1 Federal Direct Loan Repayment Plans⁹

Currently, students receiving Federal Direct Loans are automatically enrolled in the Standard Repayment Plan. Under the Standard Repayment Plan, the monthly payments are a fixed amount (of at least \$50 each month) and made for only up to 10 years.

The standard repayment period for a student loan, ten years, is too short. A core principle of finance is that the life of debt payments should align with the life of the assets. People pay for cars over five years and homes over 30 years because homes last much longer than cars. A college

⁹ Table adapted from <https://studentaid.ed.gov/sa/repay-loans/understand/plans>.

education is an investment that pays off over life. Over a lifetime, the typical college graduate earns several hundred thousand dollars more than a high school graduate. As such, it makes sense that student loans should be paid over a long period.

The mismatch between the timing of the costs and benefits of education is especially salient among young borrowers, who are most likely to default. Among borrowers under 21, for example, 28% default on their loan. The default rate drops sharply with age, to 18% of those thirty to forty-four and 12% among those forty-five and older (Institute for Higher Education Policy 2011).¹⁰ This pattern of defaults matches the age profile of earnings. Earnings are lowest in the years right after college, when borrowers pay their loans. Among those with at least a BA, median earnings are \$32,000 for those aged twenty-four to thirty, \$48,000 for those thirty-one to forty, and \$50,000 among those forty-one through forty-eight (Bureau of Labor Statistics 2012).¹¹

The above evidence supports the merit of an income-driven repayment over the Standard Repayment Plan, as well as the need to extend the repayment period to above 10 years.

Despite the availability of income-based repayment plans such as PAYE, the default Standard Repayment Plan is currently still the most widely adopted plan. According to statistics from the Department of Education, almost 60% of the direct loan borrowers are enrolled in the Standard Repayment Plan, over ten times more than the REPAYE plan signed by President Obama in 2014 (see Fig 2.1).

¹⁰ Cunningham, Alisa F., and Gregory S. Kienzl. 2011. *Delinquency: The Untold Story of Student Loan*. Washington: The Institute for Higher Education Policy (IHEP).

¹¹ U.S. Bureau of Labor Statistics. 2012. *Current Population Survey*. Annual Social and Economic (ASEC) Supplement, Washington: U.S. Bureau of Labor Statistics.

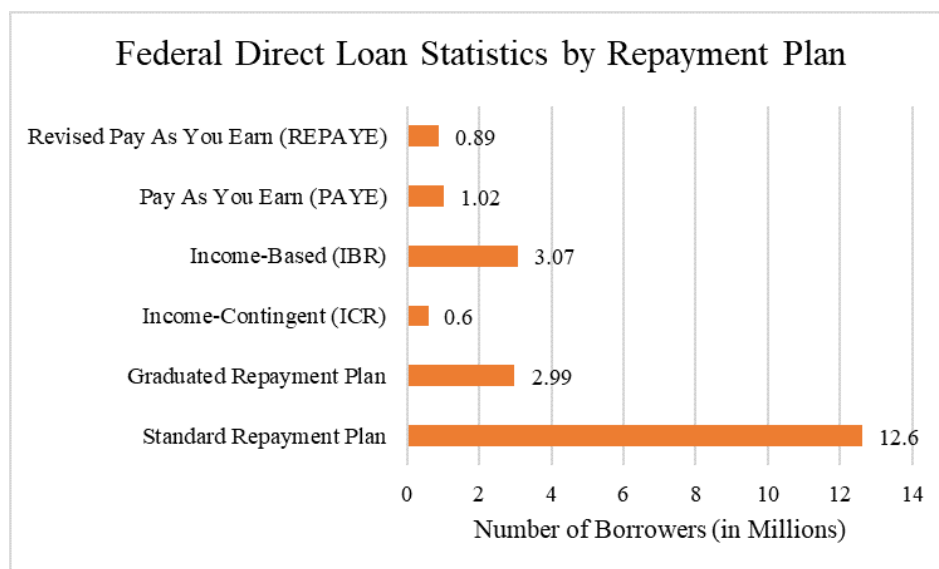


Fig 2.1 Federal Direct Loan Statistics by Repayment Plan¹²

The key problems in the current system are (1) income-based repayment plans are not the default option, and (2) payments don't adjust automatically with earnings. Borrowers who wish to enroll in an income-based repayment plan must proactively apply to the income-based programs and demonstrate financial distress before being admitted. Eligibility must be renewed annually. The Consumer Financial Protection Bureau has documented the difficulties that borrowers have in navigating this process.¹³ As the theory and evidence of behavioral economics have demonstrated, even small administrative hurdles can keep people from making beneficial choices. The number of borrowers in flexible repayment plans is much lower than that in the standard plan proves that the current system isn't working to insure borrowers against risk.

¹² Data from the Federal Reserve: <http://federalreserve.gov>.

¹³ Consumer Financial Protection Bureau. 2016. *Annual Report of the CFPB Student Loan Ombudsman*. Washington: Consumer Financial Protection Bureau.

2.2 Poor Financial Literacy

The U.S. Financial Literacy and Education Commission defines “financial literacy” as the process by which people improve their understanding of financial products, make informed choices, and take actions to improve their financial well-being.

Although Millennials, the generation of Americans born between the early 1980s and the mid-1990s, received a better education than the past generations, they face some unique challenges. For example, with globalization and the fast development of finance industry in recent years, the economic uncertainties faced by Millennials are greater. Another two problems that the Millennials are facing are an enormous amount of student debt and the lack of savings for retirement. The increasing economic uncertainties require Millennials to have sufficient financial literacy to cope with the challenges of student debt and lack of savings for retirement.

However, according to a research conducted by PricewaterhouseCoopers (PwC), the financial literacy of Millennials was worrying. PwC conducted a research¹⁴ on more than 5500 Millennials and found that only 24% of the respondents showed basic financial literacy. Many respondents did not have a clear understanding of inflation and risk diversification, which are relevant to college debt. However, 81% of college-educated respondents owed at least one source of outstanding long-term debt. Their inadequate financial literacy might jeopardize their ability to repay their college debt. This is confirmed by the fact that over 54% of respondents felt concerned that they were unable to repay their student loan debt. As a result, they might use their savings for retirement towards repaying their college debt. Only 36% of respondents have a retirement account and more than 20% of respondents with a retirement account took loans and hardship withdrawals

¹⁴ PwC; George Washington Global Financial Literacy Excellence Center (GFLEC). 2015. *Millennials & Financial Literacy — The Struggle with Personal Finance*. Washington: PwC.

in the previous year. This will adversely affect their future financial security after retirement. To make matters worse, even though the research shows that Millennials are the age group with the lowest level of financial literacy among the adult generation, only a small proportion of them have consulted financial professionals to compensate for their financial literacy deficit. Only 27% of respondents were looking for professional financial counseling on saving and investment. If Millennials do not improve their financial literacy, the problems of huge college debt and lack of retirement savings will be worsened. Therefore, there is an important need to conduct financial education among Millennials, especially college students because they are the people who borrow college debt and repay the debt in the future. The possible solutions to improve financial literacy will be explained later.

2.3 Retirement-Incentive Policies

The Internal Revenue Service has a Saver's Credit plan to encourage the low-income population to save. Under the current plan, low-income individuals can receive up to USD 2,000 of tax credit depending on their income and contributions to their retirement plans. The details of the 2017 plan are as follows:

2017 Saver's Credit			
Credit Rate	Married Filing Jointly	Head of Household	All Other Filers*
50% of your contribution	AGI not more than \$37,000	AGI not more than \$27,750	AGI not more than \$18,500
20% of your contribution	\$37,001 - \$40,000	\$27,751 - \$30,000	\$18,501 - \$20,000
10% of your contribution	\$40,001 - \$62,000	\$30,001 - \$46,500	\$20,001 - \$31,000
0% of your contribution	more than \$62,000	more than \$46,500	more than \$31,000

Table 2.2 2017 Saver's Credit¹⁵

Based on the Brookings Institute¹⁶ study on the efficacy of Saver's Credit program, this program effectively provided tax relief for households with an annual income under 75,000 USD (2003 dollars). It provides a stronger incentive, especially for low-income households, to save in their retirement plans since the government now subsidizes up to 50% of all their savings. In general, this policy is effective in increasing national savings, reducing macroeconomic risks, and controlling poverty rates among the elderly.

However, the current IRS model does not work well in helping people with college debt to save. Although the IRS takes college debt repayment obligations into account when calculating the adjusted gross income, given the similar savings ratio, people who repay college debt are less likely to save much money compared to those without debt because a large proportion of their savings goes into student debt repayment.

3 Objective of Policies

The comprehensive set of policies we are going to propose in the next few sections, including (1) the revised repayment plan, (2) "Millensurance" (student loan insurance plan), (3)

¹⁵ Table adapted from <https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-savings-contributions-savers-credit>.

¹⁶ Gale, William G., J. Mark Iwry, and Peter R. Orszag. 2004. "The Saver's Credit: Issues and Options." *Tax Notes* 597-612.

financial literacy education program, (4) and retirement savings incentive program, will directly address the problems we have identified in section 2.

4 Policy - Repayment Plan

As discussed in section 2.1, the current repayment scheme has the following problems that need to be addressed:

- The repayment period (especially for the Standard Repayment Plan) is too short
- The default plan is the Standard Repayment Plan
- Administrative hurdles in the process of applying for income-based repayment plans

In response to the above-mentioned problems, we propose to revise the student loan repayment scheme:

Firstly, the default loan repayment plan will be the Revised Pay As You Earn (REPAYE) Plan. A borrower's monthly payments will be 10 percent of his discretionary income. Payments will be recalculated each year and are based on the updated income and family size. Any outstanding balance will be forgiven if a borrower hasn't repaid his loan in full after 25 years. Borrowers do not need to reapply for this repayment plan every year. Instead, once borrowers are enrolled in this plan, as long as they do not apply to change the repayment plan, they will be automatically re-enrolled in the same plan every year thereafter. Similarly, automatic re-enrollment will apply to all other types of income-based repayment plans. This adjustment is expected to result in a significant increase in the adoption of income-based repayment plans among borrowers, and based on the evidence in section 2.1, will reduce the rate of default to some extent.

Secondly, under the income-based repayment schemes, the calculation and payment of debt will be greatly simplified, based on a model similar to that of Social Security. Workers in the U.S. do little paperwork to make Social Security contributions: they complete an initial W-4 form and the employer handles the rest. Social Security contributions then automatically rise and fall with earnings. Loan payments can be handled in a similar way: student loan borrowers fill in some paperwork and the employer will handle the rest of the process. As previously explained in section 2.1, according to the theory and evidence in behavioral economics, the simplified process is likely to attract more people to enroll in the income-based plans.

Thirdly, all current repayment plans (listed in section 2.1) will be kept and student loan borrowers will still have the option to enroll in any repayment plan they prefer. However, the repayment period for the Standard Repayment Plan and the Graduated Repayment Plan will be increased from 10 years to 15 years, in response to the problem of short repayment period explained in section 2.1. This adjustment will reduce the repayment burden on borrowers. At the same time, the repayment period for the standard and graduated repayment is not drastically increased to, let's say 25 years, because these two repayment plans are still designed for borrowers who are able and willing to repay their debt faster and thus incur less interest. For this group of people, they can apply to opt out from the default REPAYE plan and enroll in either Standard Repayment or Graduated Repayment.

5 Policy - Student Loan Insurance Plan: “Millensurance”

5.1 Mechanism of Student Loan Insurance

5.1.1 Insurance

Insurance, as commonly known, is a practice through which one party, usually a business entity or the government, agrees by contract to guarantee another party against loss by a specified contingency or peril (Webster)¹⁷. The insurance mechanism is based on the assumption that most people are risk averse, and would be willing to exchange money for certainty. In health insurance, for instance, people pay insurance companies a certain amount of money to make sure their medical expenditure can be covered, or partially covered, upon the circumstance of an illness.

Though the likelihood of a person running into these specified undesirable contingencies is small, when these contingencies actually take place, the result can be too devastating for an individual to cope with. Therefore, insurance companies get the risk pooled, charge a small amount of fee to guarantee for a larger potential risk, and make the risk for each of their client quantifiable.

5.1.2 Student Loan Insurance

Student loan insurance, similarly, takes up the idea that the default risk of student loans can be pooled so the risk for each individual student can be quantifiable. Through the purchase of student loan, students will be subsidized during an event of default in the future. In cases where these students' future income are proved to be insufficient for repaying for the full student loan

¹⁷ “Definition of Insurance,” Merriam-Webster Dictionary, <https://www.merriam-webster.com/dictionary/insurance>, accessed on 26 April 2017.

amount, the insurance company will participate in the co-payment of these students' debt without ruining these students' credit records.

A case study of such student loan insurance precedent can be found in *the Wall Street Journal* (Belkin)¹⁸. In 2016, Newberry College in South Carolina spent nearly \$400,000 to buy an insurance policy from LRAP to cover its students' loans if they earn less than \$40,000 after graduation. This school policy turned out to help boost enrollment immediately by 12% the next year. It can be seen that such insurance plan can greatly reduce the repayment risk college students borrowers are exposed to, serving the dual purpose of addressing the student loan repayment crisis and encouraging more students to pursue undergraduate education. In the meantime, the cost of such insurance is not too overwhelming. In the case of Newberry College, for instance, the insurance fee is \$1,100 per student, only slightly higher than the \$850 annual health insurance fee each college student has to pay, according to *The USA Today*.¹⁹ As this insurance fee covers each student's entire borrowing cycle, the amount is significantly lower than the \$3400 (\$850×4) health insurance fee each student pays during the course of their four-year undergraduate study, implying that this insurance fee is within the reasonable and affordable price range.

¹⁸ Belkin, Douglas. 2017. "Some Colleges Step Up to Ease Students' Debt Burden." *The Wall Street Journal*. March 29. Accessed April 29, 2017. <https://www.wsj.com/articles/some-colleges-step-up-to-ease-students-debt-burden-1490653047>.

¹⁹ Block, Sandra. 2010. "A lesson in health insurance for college students." *USA Today*. August 20. Accessed April 29, 2017. http://usatoday30.usatoday.com/money/perfi/college/2010-08-20-personalfinance20_ST_N.htm.

5.2 Description of “Millensurance”

5.2.1 Target Population

“Millensurance” is designed to target all federal direct loan borrowers, regardless of the education level (undergraduate or graduate) or the sub-categories of the loan (subsidized, unsubsidized, or PLUS loan). As will be explained in section 5.3.1, the inclusion of a large, diverse population contributes to the pooling of the default risk, which is the fundamental mechanism of Millensurance.

Millensurance will be mandatory for all federal direct loan borrowers. The mandatory nature of the insurance can effectively prevent the problem of adverse selection (discussed in section 5.3.2). The upper limit of federal subsidized loan a student can borrow each academic year will also be adjusted accordingly to cover the cost of the insurance.

Criticism may arise that this policy will discourage students from borrowing from the federal government because of the extra cost of the insurance. We believe this is not the case because firstly, as we will demonstrate in the case study in the following section, students and parents respond positively to the proposal of student debt insurance: it will provide students with more freedom in terms of the course and major selection, and eliminate parents’ and students’ concerns about being unable to repay the debt in the future. Secondly, the federal loan cap will be increased accordingly to account for the premium of Millensurance, so that the introduction of this policy will not require borrowers to pay any more upfront. Lastly, as seen from the case study in section 5.1.2, the price of this type of insurance will be very much affordable. Therefore, Millensurance will not make college education any less accessible to students.

5.2.2 Definition of Delinquency and Default

Loan delinquency refers to a situation in which a loan borrower is late on a payment. Once a borrower is delinquent for a certain period of time, the lender (the U.S. government in this case) will declare the loan to be in default. The entire loan balance will become due at that time. At present, default indicates a borrower has not made a payment in 270 days (9 months).²⁰

The definition of student loan default by the U.S. Department of Education (DOE) has varied over time. In the past, the window of default has been shorter than 9 months. The varying definition has been hindering the creation of a consistent measure of borrower distress. Hence, we propose that the federal government maintains the current definition of student loan default (delinquency for 270 days) for a prolonged period of time to avoid inconsistency and confusion. At the same time, our proposed “Millensurance” will also follow this definition by DOE.

5.2.3 How “Millensurance” Works

The proposed insurance policy will work with all existing models with repayment plans to make sure that all required repayments are tailored to the debt outstanding and income status of each individual covered. This means under Millennialsurance, the repayment burden will never be greater than what an individual can afford, without great disruption to his life, personal development and dependents. The outstanding portion of repayments will be covered by the insurance plan without leaving a record of default in this individual’s credit history.

Millensurance can work for all existing models of repayments, both Fixed Schedule Repayment Plans (FSRP) and Income-Based Repayment Plans (IBRP).

²⁰ Definition according to the U.S. Department of Education.

The FSRP category includes: 1) Standard Repayment Plan, where an individual repays a predetermined amount each repayment cycle according, and the payment per cycle either goes down as the principal is paid down, or stays the same for the life of the debt; and 2) Graduated Repayment Plan, where the payment schedule is also predetermined but weighted towards the later half of the life of the debt, for the assumption that the debtor's income, thus the ability to repay, will grow over time. Under Millensurance, insurance claims will be settled monthly to make sure no mounting debt obligation will contribute to a vicious cycle of an individual's financial and credit crisis that eventually leads to insolvency.

The IBRP category includes pay-as-you-earn plan, the revised pay-as-you-earn plan, and other variants. A common feature among those in the second category is that for each year of repayment, the repayment schedule is recalculated according to the debtor's latest annual income.

5.2.3.1 Millensurance for Fixed Schedule Repayment Plans (FSRP)

Under FSRP, individuals are obligated to repay a certain amount of money each repayment cycle, regardless of their income. This schedule is often determined even before the debtor enters the workforce. Especially during the early stages of one's career, it can be hard to catch up with the debt schedule given relatively low entry-level income, the cost of training and moving, etc. Sometimes they are then forced to choose between repayments or reinvestments in self-development, but either defaults or failure to develop oneself can result in worse financial situations in the long run and exacerbate the student debt crisis.

Under the insurance policy, individuals can claim repayment assistance from the insurer if their annual income is deemed too low to fully meet the repayment schedule. The amount of

repayment assistance under Millensurance is determined by the difference between the scheduled payment and a certain proportion, p (e.g. 10%), of their annual discretionary income.

Equation:

$$\text{Repayment Assistance} = \text{Scheduled Repayment} - p \times \text{Annual Discretionary Income}$$

Example:

Allen has a scheduled obligation of USD 5,000 in 2017. However, his discretionary income in 2017 is only USD 30,000. Thus, Allen's repayment obligation is greater than 10%²¹ of his discretionary income ($10\% \times 30000 = 3000$). Under the Millensurance, Allen can claim a repayment assistance of USD 2,000 ($5000 - 3000 = 2000$) from the insurer.

5.2.3.2 Millensurance for Income-Based Repayment Plans (IBRP)

Under IBRP, there are flexibilities regarding how much should one repay each payment cycle, so the repayment is decided such that it will not overburden his financial situation. However, there are two problems with this model. Firstly, slow repayment can result in mounting interests that, in certain cases, grow debt outstanding despite annual repayments. Secondly, in the case of debt discharge, it hurts the federal government's financial health. The federal asset write-downs due to debt discharge could have been used to issue more subsidized student loan to help more students.

Millensurance for IBRP works after a borrower has paid according to his repayment plan for a certain time span (e.g. 15 years). After this time span, if the borrower still has any outstanding

²¹ This ratio is just used as an example. It can vary on basis of policy type or income level. In another example where Allen only makes \$16,000, the ratio can be as low as only 5%.

debt outstanding, the insurer will be responsible for all the remaining debt. This will relieve the federal government from both the risk of unexpected financial loss and an indefinite occupation of its cash flow that could have been used on other projects of public interest.

Example:

Bob is enrolled in the PAYE plan and has repaid his loan for 15 years²². However, after 15 years of repayment, he still has an outstanding payment of USD 9,000. In this case, Millensurance will cover all the USD 9,000 outstanding debt, and Bob will be relieved from the debt.

5.2.4 Pricing

The premium of Millensurance will be the same for all beneficiaries enrolled in Millensurance. The premium amount will be determined by the insurer based on the national average default rate and amount. The premium will be included in the loan so that borrowers who cannot afford the Millensurance plan can pay off the premium along with their future repayment of the student loan.

5.3 Merits of “Millensurance”

5.3.1 Pooled Default Risk

As briefly introduced in 5.1.2, the greatest strength of Millensurance, as in the case of other forms of insurance, is that it brings the risk into a large pool and make the cost for each individual

²² The time span is just used as an example. It can vary according to the terms of the repayment plan a Bob is enrolled in.

quantifiable. Assuming the default risk for each individual student is 8 percent²³, for instance, although the risk is relatively small, in case it happens, an individual student will run into huge financial trouble that will not only cripple his current living standards but also significantly reduce the retirement savings budget, resulting in negative rippling effects in the future. If we pool the risk in the capital market, however, the insurance company, as a large business entity, will better cope with such incidents of default because 92 percent of their clients will not default and have paid for the insurance fee without due.

The inclusion of a large and diverse population, as defined by the target population in section 5.2.1, works in favor of the pooled risk model. For instance, undergraduate students account for the majority of the student loan default. Although graduate students borrow more than undergraduates (see Fig 5.1) and their loan balances are much higher, their default rate is only 3 percent, compared to 21 percent among undergraduate borrowers.²⁴ With this large discrepancy in the default rate between undergraduate and graduate students, the high risk of default among undergraduate student borrowers can be brought into a larger pool that comprises both undergraduate and graduate students.

²³ Looney, Adam, and Constantine Yannelis. 2015. *A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults*. Brookings Papers on Economic Activity Conference Draft, Washington: Brookings Institution.

²⁴ Dynarski, Susan. 2014. *An Economist's Perspective on Student Loans in the United States*. ES Working Paper Series, Washington: Economic Studies at Brookings.

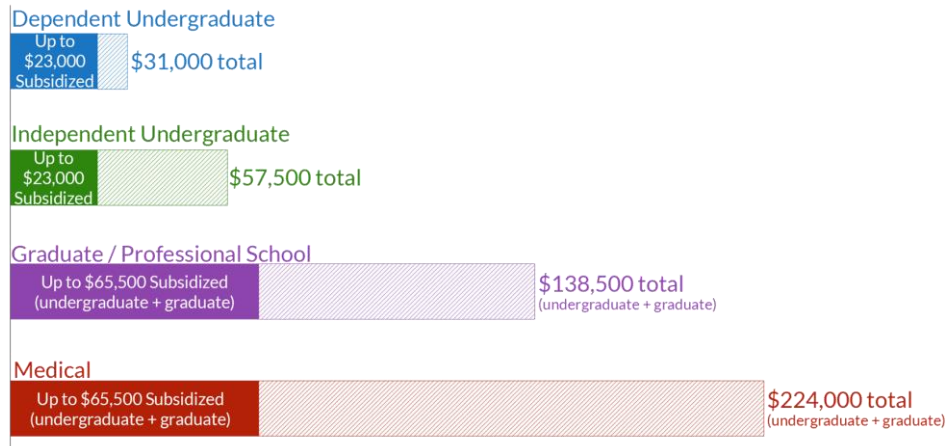


Fig 5.1 Student Loan Limits²⁵

With such measures in effect, the default risk will be replaced from students to insurance companies and the capital market, which are far more capable of fully assessing and taking care of the default risk. Through Millensurance, students will be ensured that their higher education, or at least their attempts to pursue higher education, will not cause catastrophic loan problems after their graduation or unfortunate failure at finishing the degree. This measure will greatly enhance students' confidence in pursuing a college degree, reduce the sunk cost and opportunity cost of the pursuit of higher education, and encourage more students to enroll in college.

5.3.2 Prevention of Adverse Selection and Moral Hazard

Two concerns for such a student loan insurance, like those for all other forms of insurance, are *adverse selection* and *moral hazard*. In Millensurance, however, both concerns will be addressed and properly prevented.

²⁵ Image from <https://www.edvisors.com/college-loans/terms/loan-limits/>; data from <https://studentaid.ed.gov>.

Adverse selection in insurance (i.e. the idea that those in higher probability of default are more likely to purchase insurance and thus the insurance company cannot properly pre-assess the default risk of their clients²⁶) will not occur in Millensurance because this student loan is mandatory for all those who borrow from federal loans. While the legal implications will be discussed in 5.4.2, this measure greatly prevents the possibility that only students with a high probability of default will opt to purchase such insurance, such pushing insurance company to raise their insurance fee in response to rising default risk and going into the insurance deathly spiral.

An additional important feature of Millensurance that addresses the concern about adverse selection is the “unpredictability” of student loan default risk. Unlike certain other types of risk insurances, such as the health insurance, the default risk of student loans cannot be easily evaluated or differentiated based on different “markets,” for instance, the institutes these students attend, their family incomes, their intended graduation plans, etc. There is not yet observed linear relationships between students’ loan default risk and other educational factors that are traditionally believed to impact students’ future income and repayment ability (Gross 2010)²⁷. Such “unpredictability” of default risk means few students can be confidently sure or completely pessimistic about their repayment ability after graduation, and thus there is few chance that students will be able to have asymmetric information advantage over insurance companies. Since this uncertainty applies to most students who borrow student loans, Millensurance will be relevant to the vast majority of student borrowers, and its compulsory nature is not unsound.

²⁶ Investopedia. n.d. *Adverse Selection*. Accessed April 29, 2017.
<http://www.investopedia.com/terms/a/adverseselection.asp>.

²⁷ Gross, Jacob P.K., Osman Cekic, Don Hossler, and Nick Hillman. 2010. "What Matters in Student Loan Default: A Review of the Research Literature." *Journal of Student Financial Aid* 19-29.

Another common concern about such insurance is moral hazard (i.e. students will pay less effort to try to graduate, or prevent default in general, now that they have such insurance as a back-up plan). However, since the insurance covers also a certain portion of the student debt in case of default and students themselves will still need to be responsible for the rest in order to secure a good credit record, it is highly unlikely that students stop putting in efforts because of Millensurance. Moreover, with the “Pay as You Earn” repayment plan, students’ income performances will be regularly and objectively monitored in deciding the percentage and specific amount of repayment due in a certain period of time. With further claimed management system and liability terms carried out²⁸ (Logue 2012), the risk of moral hazard on the insurance company’s side will be significantly reduced.

5.3.3 Better Target of the Needy

Millensurance, compared to other policy proposals that address student loan default issues, has a competitive edge on client targeting. Federal loans are often given out to students based on their claimed needs, without enough resources on the federal government’s side to conduct a thorough background investigation on each borrower. This means that even rich students, or other middle-high class students, will also be able to borrow from federal loans for personal purposes, such as business investment. While the legitimacy of such behaviors is heatedly debated²⁹ (Wetzel 2015), the federal loans indeed have insufficient resources in fully resolving this issue through

²⁸ Logue, Kyle D., and Omri Ben-Shaha. 2012. *Outsourcing Regulation: How Insurance Reduces Moral Hazard*. Coase-Sandor Working Paper Series in Law and Economics, Chicago: University of Chicago Law School.

²⁹ Wetzel, DJ. 2015. "Investing Your Student Loan Money – Is It Legal and Should You Do It?" *The College Investor*. February 12. Accessed April 29, 2017. <http://thecollegeinvestor.com/7261/investing-student-loans/>.

better targeting strategies. Insurance company, on the other hand, have much more resources and experiences in targeting and researching the background of student borrowers and making sure the student loan funds are properly allocated to those in need.

The selection on the students' side also plays a role in this targeting strategy. Since insurance is, in essence, a way of re-allocating the repayment of those who will not default to compensate for the loss of those who run into default, the economically-sufficient students who do not actually need the student loan will be less likely to take up such funds because of the additional insurance fee. As these students are confident that they will be able to repay the loan even before the interest rate starts accumulating (usually the interest rate calculation for federal student loan starts only after graduation), it is irrational for them to choose to borrow from federal loan and pay the insurance "in vain." In this way, the federal loan funding will be reserved for those students who really need the money, and thus serve for a better-targeted student population.

5.4 Viability

The Millensurance scheme makes political sense because it better serves the original purpose of federal student loan program - social equality and accessibility for the economic disadvantaged. It does so by extending the coverage an eligible individual can enjoy from only at the point of college enrollment to the life of their student debt. Thus, Millensurance improves the effectiveness of the current model by making sure that participation in the federal loan assistance program will not perpetuate the poverty trap which the program initially sets to eliminate.

The administration and legislative will likely support this bill because it is budget-neutral. It can relieve the federal government of its current vicious cycle of worsening student debt crisis and help to minimize defaults on all newly issued federal loans. Especially in face of President

Donald Trump’s aggressive tax-cut plan and the resulting decline in treasury income, the original subsidized student debt model, where the federal government has to pay for the defaulted student debt, is no longer a viable option if we want to have a healthy fiscal policy. This new policy to redistribute the burden and risk onto a third-party insurer is urgently needed.

In addition to budget neutrality, this model will also have another benefit: it is largely market-driven. So as long as insurers comply with basic legal requirement put forward explicitly in this policy, such as universal rates for all college students, there are a lot of flexibility regarding how an insurance policy can be created and priced.

Finally, this policy helps to increase social stability by reducing national student debt default rate and poverty rates among senior citizens, and increasing savings.

5.4.1 An Improvement of the Existing Federal Student Loan Assistance Program

The existing federal student loan assistance program is created to “make college education possible for every dedicated mind”³⁰ regardless of students’ financial backgrounds. However, as discussed earlier in this paper, more than 21% of the undergraduate participants of this program ended up defaulting on part or all of their student loans. For these borrowers, the federal student loan program failed to provide them with upward social mobility but instead leave them with even worse financial situations – a disservice to its initial mission. This is a pathology of the existing plans, one that the Millensurance plan seeks to address.

The Millensurance plan, from a politico-economic analytical point of view, is a partial redistribution among borrowers of the student loan: the 79% percent of students who earned more

³⁰ Statement of Mission, The Office of Federal Student Aid, U.S. Department of Education.
<https://studentaid.ed.gov/sa/about>

than enough to repay their student loans after college will pay some more than they would have under the current policy model. Now the high-income borrowers will repay a principal of the sum of their tuitions and the insurance premium. Their contributions to the insurance plan will then go to their lower-income borrowers who cannot repay the debt for their college education.

We believe this is justified policy because, for high-income individuals, their bachelor's degree, made possible by the federal student loan, account for an average of 67% increase in income and 50% decrease (see below) in their chance of unemployment. So asking them for a portion of this premium from college education to relieve the financial situation of their less fortunate fellows are, if not more, as justified as the original federal student loan forgiveness programs, which is basically asking the entire nation (the treasury) to subsidize low-family-income students who wish to attend college.

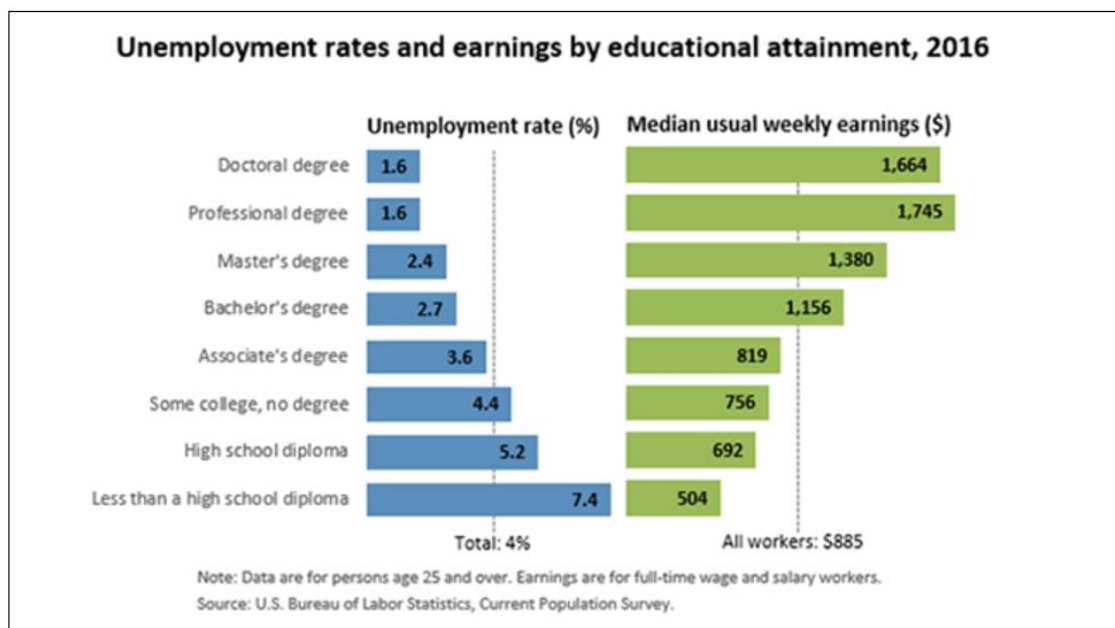


Fig 5.2 Unemployment Rates and Earnings by Educational Attainment, 2016³¹

5.4.2 Budget Neutrality and Fiscal Viability

Under the current policy model, the projected lifetime default rate of 2007-2011 cohorts are 18.4%³². This is a stunning number because as of 17'Q1, the federal government has on its balance of \$ 963.5 billion debt outstanding³³. In comparison, according to president Donald Trump budget plans for FY'17, the total federal funding for the Department of Education, including mandatory spending and discretionary spending, is only 209.1 billion³⁴. If 18.4% of the existing debt default, this is going to wipe out about an entire year of education budget. If we take into consideration the rapid growth of debt outstanding, which is annualized around 24% for the past 10 years. We can clearly conclude that the status quo of debt growth and default will significantly hurt the fiscal health of the department of education.

Millensurance will be a great remedy to this pressing problem. Under Millensurance, the insurance will pay for whoever would have defaulted or been discharged under the federal loan forgiveness programs, so that the federal government will not suffer a loss in the case of debt discharge. The Congress Appropriations Committee and the Department of Education Budgetary Office will certainly welcome a reform like this.

³¹ U.S. Bureau of Labor Statistics. 2017. *Employment Projections*. April 20. Accessed April 29, 2017. https://www.bls.gov/emp/ep_chart_001.htm.

³² Defaults Rates for Cohort Years 2007-2011, Office of Federal Student Aid. <https://ifap.ed.gov/eannouncements/060614DefaultRatesforCohortYears20072011.html>

³³ Federal Student Aid. n.d. *Federal Student Loan Portfolio*. Accessed April 29, 2017. <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>.

³⁴ US Department of Education U.S. Department of Education. 2016. *President's FY 2017 Budget Request for the U.S. Department of Education*. May 20. Accessed April 29, 2017. <https://www2.ed.gov/about/overview/budget/budget17/index.html>.

5.4.3 Market-Driven Insurance Policies

The Millensurance plan, as discussed before, is compatible with multiple existing models of repayments. Furthermore, it is largely market-driven. The policy platform has only a few key mandates, most importantly no discrimination of premiums on basis of individual background, school type, major choice, career choice, etc. is allowed. Outside these mandates, an insurance company is free to design products that fits the need of individuals and finance the debt in ways that make the most business sense.

The best advantage of market involvement is that it can drive down prices. Insurance companies will be competing with each other for lower unit prices, and eventually the insurance market will arrive at a point of maximum efficiency without the government having to decide on a state-mandated premium rate.

Market-driven can also provide individuals with more choices. For example, a student may want to start pay for their premium not as part of their student loans but gradually through work-study in college, and insurers may cater to this need by creating different options regarding the payment of premiums, whether once-off or through gradual installments.

One last benefit of a market-based insurance plan is that the insurer, once a policy is sold, has an active interest in the student's academic and professional success: if their clients do well in school and the workplace, the insurer can have much less claims to meet. Therefore, we can reasonably foresee that insurance companies will use different incentive and help systems to help their clients succeed: like providing cash incentive for students who complete their program of study, who attain a certain GPA in the academic year, or even consultancy service for students to

find a secure job once they graduate from college. (For similar cases, please see how health insurance companies use incentives to have people work out more.)

5.4.4 Legal Viability

The compulsory insurance plan would unlikely raise legal issues since it is a common practice: both the Affordable Care Act and the defeated American Health Care Act have provisions that either makes insurance coverage compulsory, or assign a penalty for people who fail to be covered by an insurance.

5.5 Implementation

A federal program like Millensurance cannot be approved and enacted without well-designed implementation stages. ObamaCare, a similar federal insurance program, for instance, was formed as a concept in fall 2008 yet was not approved by the senate until late 2009³⁵. In terms of implementation by state, The Supreme Court's 2012 ruling on the Affordable Care Act (ACA) allowed states to opt out of the law's Medicaid expansion, leaving each state's decision to participate in the hands of the nation's governors and state leaders³⁶. The following table shows how states are making their own minds and how such project usually adopts a statel, rather than nationally implementation plan.

³⁵ Affordable Health California. n.d. *Timeline: Affordable Care Act*. Accessed April 29, 2017. <http://affordablehealthca.com/timeline-obamacare/>.

³⁶ The Advisory Board Company. 2017. "Where the states stand on Medicaid expansion." *Advisory Board*. March 30. Accessed 29 29, 2017. <https://www.advisory.com/daily-briefing/resources/primers/medicaidmap>.

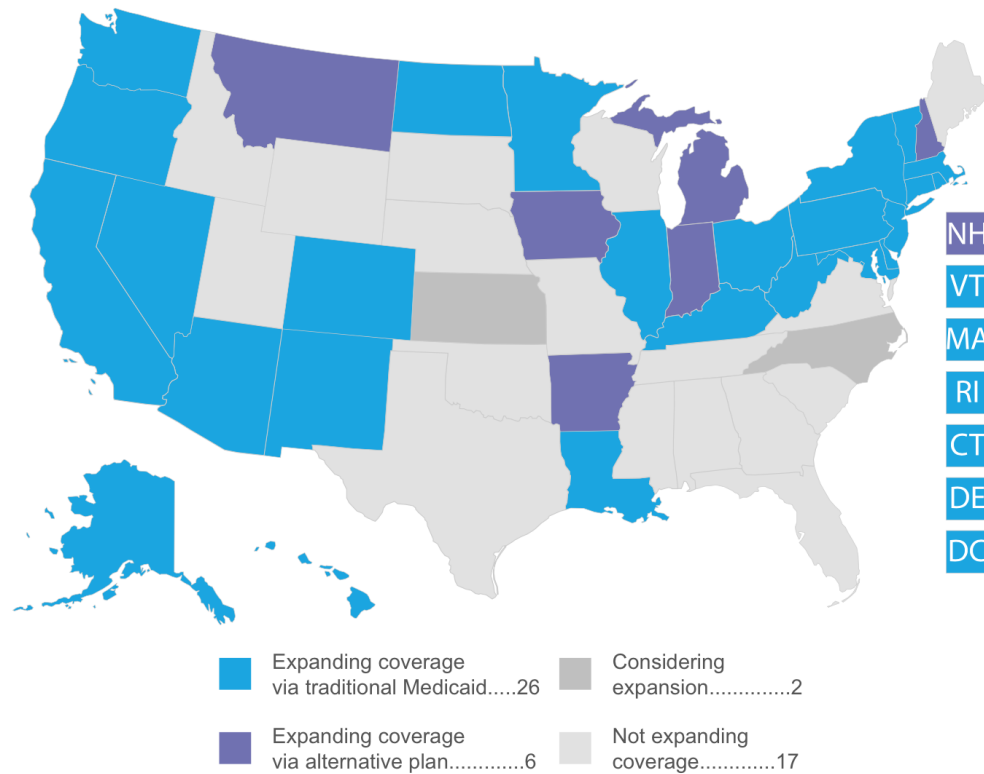


Fig 5.3 ObamaCare Implementation Status Quo³⁷

The comprehensive implementation of Millensurance nationwide may be a project overly-ambitious to put into enactment. However, based on the case study of ObamaCare, one major takeaway is that such insurance plan can be implemented step by step. Now that it has already proven success in colleges such as the Newberry College in South Carolina, further enactment of this insurance plan can be enacted to benefit a larger student population. Starting from states where the default risk is comparatively low, such as Massachusetts (6.12%) and New York (8.05%), according to 2017 student loan report³⁸, Millensurance will be gradually put into a nationwide

³⁷ Image adapted from <https://www.advisory.com/daily-briefing/resources/primers/medicaidmap>.

³⁸ Studentloans.net. 2017. *Student Loan Default Rates By School By State: 2017 Student Loan Report*. January 11. Accessed April 29, 2017. <https://studentloans.net/default-rates/>.

project once it has proven success in these states and gained more support in political campaigns. Below is the list of the top twenty states with the lowest default rate based on the report, and potential initial targets for the implementation of Millensurance.

Rank	State	# Schools	# Defaults	# Borrowers	Default Rate
1	Massachusetts	169	6,348	103,758	6.12%
2	North Dakota	24	899	13,773	6.53%
3	Vermont	28	865	11,956	7.24%
4	New Hampshire	39	1,901	24,210	7.85%
5	Rhode Island	21	1,825	22,997	7.94%
6	New York	401	23,403	290,601	8.05%
7	Nebraska	45	2,723	32,925	8.27%
8	District of Columbia	23	3,887	45,561	8.53%
9	Connecticut	72	4,190	48,968	8.56%
10	Minnesota	108	14,062	159,343	8.83%
11	New Jersey	133	8,153	89,886	9.07%
12	Virginia	123	11,183	122,755	9.11%
13	Utah	51	5,724	62,482	9.16%
14	Pennsylvania	335	21,266	229,458	9.27%
15	Illinois	249	21,671	230,233	9.41%
16	Wisconsin	91	9,192	95,128	9.66%
17	Montana	24	1,416	14,338	9.88%
18	Maryland	82	7,267	73,211	9.93%
19	Delaware	17	1,195	11,948	10.00%
20	Hawaii	24	1,057	10,145	10.42%

Fig 5.4 Top 20 States with Lowest Default Risks³⁹

³⁹ Image adapted from <https://studentloans.net/default-rates/>.

6 Policy - Financial Literacy

Schools can provide student loan borrowers with regular education about the student loan and its repayment process so that borrowers will understand their responsibilities and make their repayment plans early. By opening classes on personal finance and arranging financial counselors to student loan borrowers, schools can help students to improve their financial literacy and to learn how to manage their money. By attending workshops on student loan repayment and available employment opportunities, students will understand the various repayment options better and hopefully find a job that will help them repay their debt easily. We now categorize these solutions according to time periods and explain each in detail.

6.1 Pre-College

Before college students borrowed student loans, schools should provide sufficient information on all the possible sources of funding including scholarship, grants, and federal student loans. In this way, students will know all the options available before deciding whether to borrow student loans. For example, every university has some scholarship programs. Schools can send information about scholarship programs to low-income students through emails and encourage them to apply. These scholarship programs are usually wide-ranged, including academic, artistic and athletic scholarship. Even if the low-income students may not academically perform well, they can have other forte such as sports and arts to qualify for the scholarship. Even if the low-income students do not qualify for any scholarship, they can still apply for grants (financial aid) so that they can spend less on their college education. One good thing about scholarships and grants is that students do not need to repay the money, so the financial burden on the students will be lessened.

If students cannot obtain any scholarship or grant and decide to borrow the student loan, schools shall arrange financial counselors to educate borrowers about their responsibilities and their repayment plans. Such counseling should be made compulsory for students who borrow loans so that these students would acquire the useful knowledge about the repayment of student loans. Counselors can introduce the various repayment options after graduation, for example, the REPAYE Plan or the Standard Repayment Plan. Some students may only consider these questions after graduation, but it is better to start planning early so that the student will have sufficient time to ponder over the available options and choose the most appropriate option.

6.2 During College

When students who borrow student loans enroll in college, schools should regularly remind students of the condition of their student loans. For example, at the end of each semester, schools can send emails to notify students of their debt condition and expected monthly repayment after graduation. In the emails, schools can ask the students to fill a form about their repayment plans. There are two main advantages in doing so. Firstly, students will pay more attention to their student loans and do regular planning about the repayment process. Secondly, if students receive emails concerning their student loans, they are likely to be more cautious about their regular spending so that they can save some money to repay their student loan in the future. The effectiveness of this solution is supported by one example. Indiana University has seen “student borrowing reduced by 44 million dollars (16%) since 2012, the year that it started sending students an annual letter outlining expected monthly payments after graduation”⁴⁰. During college years, schools should set

⁴⁰ Schickel, K. 2016. "Chalk talks - financial literacy education: Simple solutions to mitigate a major crisis." *Journal of Law and Education* 259-268.

a quota for the minimum number of times that students will meet with financial counselors to discuss their student loans. In this way, students can ask financial professionals questions about their student loans. They can discuss together what are the best repayment options for the students so that the financial burden on students will be kept minimum.

Schools can also set certain mandatory classes for students who borrow student loans to improve their financial literacy. For example, schools can open a class (some schools already have this course) called “Personal Finance” which would be open to every college student but it is mandatory for students borrowing student loans to take this class. By attending this class, students who borrow students will learn how they can earn, manage and invest their money. This course can be counted for credits towards graduation. In this way, students who borrow student loans have the incentive to learn this course well. As a result, their financial literacy will improve and they can manage their money better. As such, their ability to repay their student loans will increase and therefore the rate of student loan default will decrease. This solution is feasible because some universities already have the course “Personal Finance”. For example, Duke University opened this course several years ago and every year, many students are interested in this course and decide to take it. After taking this course, many students feel that this course is useful in improving their financial literacy and teaching them how to manage their personal money.

Besides compulsory classes for students, schools can also organize workshops about repaying student loans on campus and encourage borrowers to attend. The workshops can inform the students how interest on their student loans accumulates so that students have a better understanding of how student loan works. The workshops can also introduce students different repayment plans, for example, constant monthly repayment or varied monthly repayment. The workshops can explain in detail the advantages and drawbacks of each repayment plan so that

students will choose the repayment plan that suits them best. The workshops should also emphasize the importance of retirement savings to students. Some students may choose to sacrifice their savings for retirement and use those savings towards repaying their student loans. Although this can temporarily solve the problem, it is not a sustainable solution. Using retirement savings to repay student loans has two main drawbacks. Firstly, students will not have enough savings after retirement so their financial security after retirement will be compromised. Secondly, students who use retirement savings to repay student loans may feel that they are financially secure at present, so they may not be cautious about their current spending, leading to even less saving for retirement. Therefore, the importance of retirement savings should be emphasized to students who borrow student loans. One good thing of workshop compared to mandatory classes is that workshops occupy much less time of the students and require much less commitment from students. Therefore, students are likely to prefer workshops over mandatory classes.

In addition, the workshops can be organized in collaboration with college career center. One important way to help students repay their student loans is to help students to find a well-paid job. If the students have a higher starting salary, less financial burden is placed on them because they can repay their debt more easily. Therefore, the workshops can also introduce various intern and employment opportunities. Students who borrow student loans would be encouraged to apply for these job opportunities. The more employment opportunities introduced to students, the more likely students will find a job that interests them the most and that they will do well in. When the students find a job with a higher starting salary after graduation, they will have more income left after paying the monthly student loan repayment. As such, the remaining money can contribute to their retirement account so that they will have more savings after retirement. Therefore, this solution can solve the problems of student loan and retirement savings at the same time. More

importantly, this solution targets at the root cause of the problem of student loan, which is the lack of family income. If the students can increase the family income considerably by entering the workforce, the student's repayment ability will increase and the rate of student loan default will decrease.

Furthermore, according to research⁴¹, in terms of institutions, community college graduates usually earn less income on average than university bachelor graduates. However, community college education is generally cheaper than university undergraduate education. Therefore, it is hard to tell whether community college graduates or university graduates have more difficulty in repaying their student loans. Moreover, among both community college graduates and university graduates, the probability of defaulting on student loans is lowest for engineering graduates and highest for liberal arts graduates. This might be because on average, engineering graduates earn higher salaries than liberal arts graduates. This is supported by the Payscale report⁴² that engineering-focused schools' graduates have higher average salaries than liberal arts colleges' graduates. With higher salaries, student loan borrowers can repay their debt more easily and the rate of student loan default for them is therefore lower.

The fact that majors affect income and hence debt default rate suggests a possible solution to help the repayment of student debt. Schools can encourage student loan borrowers to choose engineering major or other majors which will probably give students higher average income in the future. Schools can organize workshops or send emails to student loan borrowers to encourage

⁴¹ Wright, L., D. Walters, and D. Zarifa. 2013. "Government Student Loan Default: Differences between Graduates of the Liberal Arts and Applied Fields in Canadian Colleges and Universities." *Canadian Review of Sociology* 89-115.

⁴² A Payscale report released Tuesday ranks colleges based on the size of their graduates' paychecks. Lobosco, Katie. 2016. "Colleges with the highest paid grads." *CNN Money*. September 20. Accessed April 29, 2017. <http://money.cnn.com/2016/09/20/pf/college/top-colleges-graduate-earnings>.

them to choose such majors. This is especially helpful for freshmen who have not decided their majors yet. It is possible for freshmen to refocus their time and efforts on higher-paid majors that suit their abilities. The effectiveness of this solution can be supported by an example. Montana State University sent warning letters to students with high loan amounts and difficulty in repaying the debt. The letters said, “If you continue to accept loans at this rate you will accrue a debt level that may become difficult to repay, which may place you at risk of defaulting on your loan.”⁴³ Many students who received such a letter suggesting they might not to be able to repay their loans switched to higher-paid majors such as engineering. Therefore, other schools can learn from this example and encourage students who have difficulty repaying their student loans to switch to higher-paid majors. As a result, the rate of student loan default is very much likely to drop.

6.3 Post-College

After student loan borrowers graduate, schools should follow up on their debt repayment progress. Schools can send emails every year to students to inquire after their student loan status. In the emails, schools can also introduce other options of repaying student loans, such as consolidation, changing repayment plans, deferment, or forbearance. If student loan borrowers, who have difficulty in meeting their repayment obligations, receive such emails, they are more likely to appropriately use these options to avoid student loan default. Without knowing such information, borrowers who lack the ability to repay their student loans often let the loans lapse into default when students could actually benefit from the options available to them.

⁴³ Schmeiser, M., C. Stoddard, and C. Urban. 2016. "Student Loan Information Provision and Academic Choices." *American Economic Review* 324-328.

7 Policy - Retirement Savings

The insurance plan will naturally improve the national savings ratio as because it helps the most under-saved portion of our population: those in debt. Generally, those in the heaviest student debt are most likely to default and thus unable to save for retirement. This is because the priority of repaying debt is always higher than saving (the cost of loan interest is greater than the interest of a bank deposit).

By making sure that borrowers don't have to pay more than a reasonable portion of their discretionary income each payment cycle and that they will not default, we have cleared the two biggest barriers of retirement savings: overburdening repayment obligations and credit defaults. This will certainly allow the borrower in the worse financial situation more financial freedom and more room to try to save.

But on top of all these, the Millensurance scheme also opens many possibilities to further incorporate college debt repayment and retirement savings, the two most important parts of personal finance. The government can, depending on how the savings ratio changes after the implementation of Millensurance policy, add more layers into it to encourage retirement savings. Here are few possible ways to do it.

7.1 Early Repayment Bonus

The government can offer bonus in the forms of cash or deposits into the retirement savings account, to borrowers who pay off their debt before the agreed deadline. This policy will accelerate debt repayment and give the federal government a healthier balance sheet. Since early clearance of debt allows an individual more financial freedom to save more later, this incentive is likely to encourage them to save more.

7.2 Integrated Account

Because of the commercialized nature of Millensurance, the policy opens up possibilities for one-stop financial services that integrate one's retirement account and student debt account. Financial institutions can offer integrated account services at a lower price in order for borrowers to use their retirement financing service.

These integrated accounts will provide financial institutions with incentive to 1) improve the financial health of an individual so that he can repay his debt; 2) encourage retirement savings so that the depository institutions receive more deposits. Combining these two incentives means that banker-insurers are likely to design products and services that encourage individuals to make continued contributions to both their debt repayment and their retirement savings.

8 Conclusion

This policy proposal specifically targets two issues, the student loan repayment crisis and the resulting problems about retirement savings. In response to the three specific problems identified in the current student loan and repayment system, including high-default-risk repayment plan, poor financial literacy and lack of retirement saving incentives, three corresponding policy suggestions have been proposed.

First, after analyzing the three main problems in the current student loan repayment plan, we propose a series of adjustments to the scheme in order to ease the repayment burden on borrowers and reduce the rate of default.

To address the high student loan default risk and its potential crippling effect on an individual's financial status, the Millensurance model is proposed. By detailing the mechanism of

this student loan insurance model, defining its target population, default terms, repayment plans and pricing, a holistic picture of this revolutionary millennium insurance plan is drawn out. Furthermore, we have analyzed the merits of Millensurance, proved its economic, political and legal viability, and offered specific implementation plans. Built upon the current repayment model yet fundamentally decreases the loan default risk by replacing a large proportion of the risk from individual borrowers to the capital market, Millensurance is the choice for students of future generations.

With respect to financial literacy, this policy proposal divides the required financial education of individuals into three phases: pre-college, during college, and post-college. Noticing the information gap among students regarding their student loan standings, we stipulate specific measures school and other stakeholders should adopt in ensuring student borrowers are well-informed of their own financial situations.

The inclusion of retirement-saving policies aims to incentivize individuals in paying off their debt as soon as possible and start preparing for retirement savings. By offering early repayment bonus and integrating the student debt and retirement saving accounts, student borrowers are encouraged to healthily manage their personal finance by repaying the loan and saving for the future.

While our policy will be implemented by steps, starting from states with low default risks and targeting federal loans in the current stage, it has good potential for future expansion. If successfully enacted in selected states, further political campaigns will be smoothly conducted and more states will start to put such reformation into their agendas. The Millensurance scheme can also go beyond federal loans and merge into part of private loan insurance plans, after its economic

profitability for insurance company and lending institutions is fully exhibited through the case of federal loans.

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