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A Solution to the Student Loan Crisis: Human Capital Contracts

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A SOLUTION TO THE STUDENT LOAN CRISIS: HUMAN CAPITAL CONTRACTS

On August 22, 2013, President Barack Obama recognized that "[w]e've got a crisis in terms of college affordability and student debt."[1] The student loan crisis is characterized by the fact that over 38 million students are burdened by outstanding student loans, amounting to over $1.1 trillion.[2] The current student loan crisis remains a prominent fixture in national discussion, and in response, the Consumer Financial Protection Bureau (CFPB) released a report examining the scope and the nature of the student loan market.[3] According to the report, the student loan market was approaching $1.2 trillion,[4] approximately $1 trillion of which was made up of federal student loans.[5] The report also indicated that student loan debt grew 20% between the end of 2011 and May 2013, and that student loans "comprise[d] the second largest form of consumer debt behind home mortgages."[6] The student loan market's "lack of repayment options and flexibility in times of distress,"[7] has been a significant factor in bringing about the student loan crisis. Although regulators and policymakers encourage market participants to develop alternative student debt repayment options, "consumers continue to encounter limited or no flexibility when seeking help from their lender or servicer."[8]

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1. Michael O'Brien, *Obama Targets 'Crisis' in College Costs as Part of Middle-Class Push*, NBC NEWS (Aug. 22, 2013, 12:51 PM), http://www.nbcnews.com/news/other/obama-targets-crisis-college-costs-part-middle-class-push-f6C10974393. As of February 2015, the student loan market amounts to over $1.3 trillion. *See* Ashley Tate, *Hacking Away at Student Loan Debt*, USA TODAY (Feb. 16, 2015, 9:55 AM), http://www.usatoday.com/story/money/personalfinance/2015/02/16/ozy-student-loan-debt/23491057/.

2. CONSUMER FIN. PROT. BUREAU, STUDENT LOAN AFFORDABILITY: ANALYSIS OF PUBLIC INPUT ON IMPACT AND SOLUTIONS 5 (2013) [hereinafter CONSUMER FIN. PROT. BUREAU, STUDENT LOAN AFFORDABILITY], *available at* http://files.consumerfinance.gov/f/201305_cfpb_rfi-report_student-loans.pdf.

3. Rohit Chopra, *Student Debt Swells, Federal Loans Now Top a Trillion*, CONSUMER FIN. PROT. BUREAU (July 17, 2013), http://www.consumerfinance.gov/newsroom/student-debt-swells-federal-loans-now-top-a-trillion/.

4. *Id.*

5. *Id.* However, the $1.2 trillion figure does not include student funds that could otherwise contribute towards retirement savings, parent borrowing, or credit card debt. *See* Chris Denhart, *How the $1.2 Trillion College Debt Crisis is Crippling Students, Parents and the Economy*, FORBES (Aug. 7, 2013, 12:30 PM), http://www.forbes.com/sites/specialfeatures/2013/08/07/how-the-college-debt-is-crippling-students-parents-and-the-economy/.

6. Chopra, *supra* note 3.

7. CONSUMER FIN. PROT. BUREAU, ANNUAL REPORT OF THE CFPB STUDENT LOAN OMBUDSMAN 2 (2014), *available at* http://files.consumerfinance.gov/f/201410_cfpb_report_annual-report-of-the-student-loan-ombudsman.pdf. Many complaints indicate that borrowers sought to negotiate a modified repayment plan during a period of financial distress; however, because lenders and servicers provided no options, borrowers defaulted. These complaints closely mirror problems found in the mortgage servicing market, as large numbers of homeowners sought to avoid foreclosure.

8. *Id.* at 2–3.

This Note proposes a novel financing scheme, characterized by private equity investments in higher education, as a solution to the student loan crisis.[9] As first proposed by economist Milton Friedman, human capital contracts are financial instruments with which students can receive private capital to fund their educational pursuits in exchange for a certain percentage of their future earnings.[10] Income-contingent human capital contracts provide for an economically preferable higher education financing scheme because they allow for price determination, flexibility, and greater access to the higher education sector.[11] Part I of this Note examines the current federal and private student loan models, and considers the implications of their inability to adequately provide higher education financing to students. Part II introduces the concept of equity investments in higher education financing through human capital contracts, and demonstrates why the adoption of such a scheme serves as a more economically preferable financing model. Part III illustrates the advantages of income-contingent financing schemes by considering current financing platforms and models that employ equity investments in human capital. Finally, Part IV addresses the challenges faced by, and the implications of, adopting a higher education financing model that uses human capital contracts. While the enforcement of a higher education financing scheme that employs equity investments in human capital gives rise to legal and social implications, it provides a more economically sound student lending market, as well as a more transparent higher education market.[12]

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9. Miguel Palacios, *Equity Financing for Human Capital*, 1 BATTEN BRIEFINGS, Autumn 2002, *available at* http://www.ncspe.org/publications_files/Equity%20Financing%20for%20Human%20Capital.pdf.

10. *Id.*

11. Gary Neil Marks, *The Social Effects of the Australian Higher Education Contribution Scheme (HECS)*, 57 HIGHER EDU. 71 (2008).

12. The value of higher education is well documented. Holding a bachelor's degree is correlated with a median lifetime income of $2.8 million (84% greater than that of an individual with a high school diploma). Moreover, the unemployment rate for individuals with a degree is significantly lower than for those without (4.5% for individuals with a B.A. compared to 8.3% for those with a high school diploma). For individuals between the ages of twenty-five and thirty-four, "those with only a high school diploma are more than three times as likely to be unemployed as those with a bachelor's degree." Degree-holders also experience smaller declines in wages, are more likely to have health and retirement benefits, and are reportedly more satisfied with their careers and personal lives. INST. FOR COLL. ACCESS & SUCCESS, ALIGNING THE MEANS AND THE ENDS: HOW TO IMPROVE FEDERAL STUDENT AID AND INCREASE COLLEGE ACCESS AND SUCCESS 10 (2013), *available at* http://ticas.org/sites/default/files/legacy/files/pub/TICAS_RADD_White_Paper.pdf; GEORGETOWN UNIV. CENTER ON EDUC. & THE WORKFORCE, THE COLLEGE PAYOFF: EDUCATION, OCCUPATIONS, LIFETIME EARNINGS 1 (2011), *available at* https://cew.georgetown.edu/wp-content/uploads/2014/11/collegepayoff-complete.pdf.

I. CURRENT STUDENT LOAN MODEL

Since 2002, government funding for higher education has declined by almost 25%, while tuition and fees at four-year public institutions have increased by 5.2% annually–2.4% for private four-year institutions–over the same period, after adjusting for inflation.[13] Between 2013 and 2014, approximately 60% of undergraduate students enrolled in public and private institutions graduated with debt.[14] According to a recent survey, the average student borrower will graduate with debt of $26,600.[15] As tuition costs and the number of student debtors continue to increase, it is apparent that the current student loan model—comprised of the federal student loan program as well as the private lending market—fails to provide adequate higher education financing.

A. FEDERAL STUDENT LOAN MODEL

Currently, federal student aid, in the form of grants, loans, and tax credits,[16] constitutes over two-thirds of all student aid to undergraduate and graduate students.[17] In order to receive any federal aid, applicants must complete the Free Application for Federal Student Aid (FAFSA) form,[18] available through the Department of Education. The Department of Education processes the FAFSA form to calculate the Expected Family Contribution (EFC), which represents "the amount that [a] student and [his or her] family are expected to cover directly from their income, assets or other sources, including loans."[19] Schools award federal aid in an amount

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13. INST. FOR COLL. ACCESS & SUCCESS, *supra* note 12, at 11.

14. COLLEGEBOARD, TRENDS IN STUDENT AID 2014 4 (2014), *available at* http://trends.collegeboard.org/sites/default/files/2014-trends-student-aid-final-web.pdf. In comparison, in 1993, only half of all graduates bore student loans. *See* INST. FOR COLL. ACCESS & SUCCESS, *supra* note 12, at 15. For a survey of current tuition costs and associated fees, see *Average Published Undergraduate Charges by Sector, 2014-15*, COLLEGEBOARD, http://trends.collegeboard.org/college-pricing/figures-tables/average-published-undergraduate-charges-sector-2014-15 (last visited Feb. 13, 2015).

15. Denhart, *supra* note 5.

16. Federal higher education tax benefits, through the tax code, have failed to effectively supplant federal student aid. Students and their families only receive tax benefits long after they have incurred student debt. Additionally, federal tax benefits disproportionately accrue to upper-middle and higher income families. Finally, receiving higher education tax credits is complex and difficult to ascertain.

> It takes the Internal Revenue Service (IRS) eighty-seven pages to explain them all and how they do and do not interact. A recent Government Accountability Office (GAO) report to Congress found that over *half* of all tax filers likely eligible for a higher education benefit failed to claim one at all or chose a less optimal benefit than they were qualified for.

INST. FOR COLL. ACCESS & SUCCESS, *supra* note 12, at 17–18.

17. CONSUMER FIN. PROT. BUREAU, PRIVATE STUDENT LOANS 9 (2012), *available at* http://files.consumerfinance.gov/f/201207_cfpb_Reports_Private-Student-Loans.pdf.

18. *Id.* at 10.

19. *Id.*

that reflects the difference between a student's cost of attendance[20] and the student's estimated EFC..[21] Traditionally, private student loans were used to finance the EFC, along with loan products available through the Department of Education, including the PLUS Loan, the Grad PLUS Loan, and the unsubsidized Stafford Loan.[22] In order to be eligible to receive PLUS loans, students must not have an adverse credit history and must be pursuing a graduate or professional degree.[23] Stafford loans are available in subsidized and unsubsidized forms.[24] The Department of Education pays the interest on subsidized loans for students who demonstrate financial need, while students are responsible for paying the interest on unsubsidized loans, for which a showing of financial need is not required.[25]

Federal student loans may be repaid according to various repayment plans.[26] One repayment option is the Income-Based Repayment (IBR) plan.[27] In order to qualify for this payment schedule, students must demonstrate a financial hardship.[28] Under the IBR plan, the payment amount is adjusted annually to reflect projected income and family size.[29] Generally, a monthly payment of 15% of a student's income will be due, for no more than twenty-five years, in order to satisfy the loan amount plus interest.[30] Moreover, any remaining loan balance not paid within twenty-five years of the commencement of the repayment period will be discharged.[31] Students who are employed by a public service organization may receive loan forgiveness after ten years through the Public Service Loan Forgiveness Program.[32] Federal student loans may also be subject to rehabilitation options for borrowers in default.[33]

Although the federal student loan program provides more than one repayment option, it has been described as "too complex . . . too arbitrary, and . . . poorly targeted."[34] The complexity of the federal student aid

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20. *Id.* In calculating a student's cost of attendance, the school considers "tuition, fees, books and other program charges, together with expected costs for food and housing, transportation, and other necessary expenses of the school year." *Id.*

21. *Id.*

22. *Id.*

23. *PLUS Loans*, U.S. DEP'T. OF EDUC., http://studentaid.ed.gov/types/loans/plus#am-i-eligible-for (last visited Jan. 30, 2014).

24. CONSUMER FIN. PROT. BUREAU, *supra* note 17, at 10.

25. *Id.*

26. U.S. DEP'T. OF EDUC., *supra* note 23.

27. *Income-Driven Plans*, U.S. DEP'T. OF EDUC., http://studentaid.ed.gov/repay-loans/understand/plans/income-based (last visited Jan. 30, 2014).

28. *Id.*

29. *Id.*

30. *Id.*

31. *Id.* The Health Care and Education Reconciliation Act of 2010 reduced the cap on annual income-based repayments for students after July 1, 2014 and provided for loan forgiveness on the remaining balance of student loans after twenty years. *Id.*

32. *Id.*

33. CONSUMER FIN. PROT. BUREAU, STUDENT LOAN AFFORDABILITY, *supra* note 2, at 5.

34. INST. FOR COLL. ACCESS & SUCCESS, *supra* note 12, at 6.

process undermines students' ability to secure adequate financing. For instance, the FAFSA form is almost as convoluted and lengthy as the full 1040 tax form.[35] In addition, students are not made aware of the amount of their federal aid eligibility until after they complete the college application process. As a result, the federal loan program is poorly oriented because it deters many students from applying to otherwise well-suited institutions.[36]

B. PRIVATE STUDENT LOAN MARKET

The private student loan market consists of three types of lenders: (1) financial institutions, (2) non-profit lenders, and (3) schools that choose to fund or guarantee student loans.[37] According to the CFPB, private student loan debt amounts to approximately $165 billion.[38] Unlike federal loans, private student loans do not offer students flexible repayment options.[39] Due to the unavailability of flexible refinancing options, many students are dissuaded from taking out private loans altogether, despite the fact that interest rates are at a historic low.[40] Nevertheless, the private student loan market has the potential to provide students with adequate financing. In fact, "[f]ueled by investor appetite for asset-backed securities, the financial institution private student loan market grew from less than $5 billion in 2001 to over $20 billion in 2008, before contracting to less than $6 billion in 2011."[41]

According to the CFPB, the lack of flexible repayment options in private financing presents many problems. Students who take out private loans suffer from damaged credit, thereby undermining their ability to rectify indebtedness.[42] The CFPB also states that there is well over

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35. *Id.* at 4.

36. *Id.* Nevertheless,

> [s]ubsidized Stafford Loans currently provide students with particularly valuable benefits, including a low fixed interest rate and no interest accrual while the student is in school. However, these benefits are not well targeted, as high-income students may qualify just because they attend a high-cost college. In addition, eight in ten students with subsidized loans also have unsubsidized loans, diluting the subsidy's benefits. In July, the subsidized loan's interest rate is scheduled to double from 3.4 percent to 6.8 percent, while interest rates on 10-year Treasury notes are currently two percent. Reform is clearly and urgently needed. Our loan recommendations aim to better support access and success while containing costs and risks for both students and taxpayers.

Id. at 6.

37. CONSUMER FIN. PROT. BUREAU, *supra* note 17, at 9. For a thorough analysis of the private student loan market, see CONSUMER FIN. PROT. BUREAU, MID-YEAR UPDATE ON STUDENT LOAN COMPLAINTS (2014), *available at* http://files.consumerfinance.gov/f/201404_cfpb_midyear-report_private-student-loans-2014.pdf.

38. Chopra, *supra* note 3.

39. CONSUMER FIN. PROT. BUREAU, *supra* note 17, at 12–13.

40. CONSUMER FIN. PROT. BUREAU, STUDENT LOAN AFFORDABILITY, *supra* note 2, at 5.

41. CONSUMER FIN. PROT. BUREAU, *supra* note 17, at 3.

42. CONSUMER FIN. PROT. BUREAU, STUDENT LOAN AFFORDABILITY, *supra* note 2, at 3.

$8 billion in defaulted student loan debt, and even more debt in delinquency.[43] The CFPB has identified six major economic and social effects of high student debt burdens. First, student debt limits borrowers' ability to take on new financial obligations, ultimately hurting the nation's economic health.[44] This notion is illustrated by the fact that younger consumers are less likely than ever to enter the housing market.[45] According to the National Association of Home Builders, high student loan debt affects borrowers' creditworthiness with regard to mortgage origination, which hinders their ability to successfully finance homes.[46] Second, rising student debt has impacted American entrepreneurship and small business formation, by deterring young people from assuming the risks associated with starting new businesses.[47] Specifically, satisfying student debt payments prevents young people from investing capital into new businesses.[48] Although income-based repayment options allow students to divert their available capital to the formation of new businesses, these repayment options are not available to borrowers who take out private student loans.[49] Third, increasingly high student loan debt poses a risk to national retirement security.[50] Fourth, according to the American Medical Association, high student loan debt deters medical students from pursuing practice areas that appear less lucrative than other specialized areas, leading to an expected critical loss in primary care physicians.[51] Fifth, unlike federal student loans, private student loans do not offer forgiveness repayment options, which deter borrowers from pursuing teaching and other public interest positions.[52] Finally, the CFPB reported that the burden of high student debt impedes the development of rural areas.[53] The inability of student debtors to move to rural areas discourages economic growth and inhibits the development of a professional community within these areas.[54] In response to these rising concerns, the CFPB encouraged policymakers to propose alternative loan modification and refinance mechanisms, particularly within the private student loan market.[55]

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43. *Id.* at 5.
44. *Id.* at 7.
45. *Id.* In fact, from 2007 to 2011, the number of Americans between the ages of twenty-five and thirty-four living with their parents has increased by more than 1.3 million. *See id.* at 8.
46. *Id.* at 8.
47. *Id.*
48. *Id.*
49. *Id.* at 8–9.
50. *Id.* at 9.
51. *Id.* at 9–10.
52. *Id.* at 10.
53. *Id.*
54. *Id.*
55. *Id.* at 5–6.

In spite of the historic rate of student indebtedness, the availability of federal grants and other alternatives to federal student aid decreases.[56] The collapse of credit markets has hampered students' abilities to acquire private loans, while limited government funding and private endowments to academic institutions has necessitated many universities to increase tuition costs.[57] As a result, student debt increases, as does the risk associated with student-loan default.[58] To avoid accumulating massive debt obligations and the risk of default, many students choose to forgo college altogether.[59] With higher education costs on the rise and access to student aid on the decline, a new model of higher education financing is necessary.

In an attempt to rectify the failing student loan model, President Obama proposed new legislation addressing the federal Stafford loan interest rate.[60] On August 1, 2013, Congress passed the Bipartisan Student Loan Certainty Act of 2013.[61] In amending the Higher Education Act of 1965, the Bipartisan Student Loan Certainty Act fixes the interest rate for federal Stafford loans based on the high yield of the ten-year Treasury note plus a specified percentage.[62] While the new legislation may temporarily halt the rapid decline of the student loan market, many commentators note that the legislation fails to adequately address the real problems plaguing the current student loan scheme.[63] Moreover, as one commentator observed, "[c]onstraints on the federal budget will limit the options of [President] Obama and [] Congress, regardless of their plans to aid students."[64] The government's failure to properly modify the federal student loan scheme necessitates higher education financing reform in the private student loan market.[65] While the foregoing examination of the student loan crisis is limited in scope, and many additional factors have contributed to the nature of the student loan market,[66] the primary focus of this Note is an alternative scheme to finance higher education in the private capital market.

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56. R. Paul Guerre, *Financial Aid in Higher Education: What's Wrong, Who's Being Hurt, What's Being Done*, 17 J.C. & U.L. 483, 483 (1991).

57. Rebecca Tuhus-Dubrow, *Betting on Bob*, BOSTON GLOBE (Nov. 30, 2008), http://www.boston.com/bostonglobe/ideas/articles/2008/11/30/betting_on_bob/.

58. Guerre, *supra* note 56, at 483–84.

59. *Id.* at 484.

60. Peter J. Reilly, *News Flash to Obama On Student Loans: It Is Not The Interest Rates...It Is The Sticker Price*, FORBES (Apr. 26, 2012, 9:03 PM), http://www.forbes.com/sites/peterjreilly/2012/04/26/news-flash-to-obama-on-student-loans-it-is-not-the-interest-rates-it-is-the-sticker-price/.

61. Bipartisan Student Loan Certainty Act of 2013, 20 U.S.C.A. § 1087e(b) (West 2015).

62. *Id.*

63. Reilly, *supra* note 60.

64. Tuhus-Dubrow, *supra* note 57.

65. Anya Kamenetz, *Obama Should Push Bankruptcy Relief for Student Loans*, CNN (Apr. 26, 2012, 7:42 PM), http://www.cnn.com/2012/04/26/opinion/kamenetz-obama-higher-education/index.html.

66. As one commentator succinctly identified,

II. HUMAN CAPITAL CONTRACTS: INVESTING PRIVATE CAPITAL IN HIGHER EDUCATION

In *Capitalism and Freedom*, American economist Milton Friedman analyzes the role of the government in education.[67] According to Friedman, occupational and professional schooling "is a form of investment in human capital precisely analogous to investment in machinery, buildings, or other forms of non-human capital."[68] For Friedman, higher education constitutes investment in human capital because it increases the economic productivity of an individual.[69] Friedman suggests that the pursuit of higher education, as an investment in human capital, yields a higher rate of return on investment than the rate of return on investment on physical capital.[70] By pursuing higher education, an individual invests in his or her human capital, and can expect returns in the form of higher earning potential.[71] Thus, "[t]he

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> the federal student-aid program, however, constitutes only one element of several causally related adverse developments: (1) a decade of college-tuition increases that outpaced inflation; (2) changes in the federal-tax laws that increased the costs of financing a postsecondary education for both students and schools; and (3) a shift in emphasis of federal-aid policy from grants to loans. These developments have created an environment in which financing a college education represents a formidable, if not impossible, task. Faced with spiraling tuition rates, federal grants whose purchasing power has eroded, and the prospect of mounting debt burdens upon graduation, students are enrolling in lower-cost institutions, dropping out of college, or for- going college altogether. Although the financial-aid crisis has touched students of all socioeconomic classes, it has affected low-income and minority students most severely.

Guerre, *supra* note 56, at 484.

67. MILTON FRIEDMAN, CAPITALISM AND FREEDOM 86 (1962).

68. *Id.*

69. *Id.* According to Friedman, higher education is a form of investment in human capital because it increases the productivity of the individual, and in doing so,

> the individual is rewarded in a free enterprise society by receiving a higher return for his services than he would otherwise be able to command. This difference in return is the economic incentive to invest capital whether in the form of a machine or a human being. In both cases, extra returns must be balanced against the costs of acquiring them.

Id.

70. *Id.* Friedman asserts that

> [i]f capital were as readily available for investment in human beings as for investment in physical assets, whether through the market or through direct investment by the individuals concerned, or their parents or benefactors, the rate of return on capital would tend to be roughly equal in the two fields. If it were higher on non-human capital, parents would have incentive to buy such capital for their children instead of investing a corresponding sum in vocational training, and conversely. In fact, however, there is considerable empirical evidence that the rate of return on investment in training is very much higher than the rate of return on investment on physical capital. This difference suggests the existence of underinvestment in human capital.

Id.

71. Miguel Palacios, *Human Capital Contracts*, POLICY ANALYSIS No. 462, Dec. 16, 2002, at 2, *available at* http://www.cato.org/publications/policy-analysis/human-capital-contracts-equity-instruments-financing-higher-education.

term 'human capital' conveys the concept that an individual's knowledge and skills are assets." [72] As investment in higher education offers considerable returns, capital holders should be incentivized to invest in human capital.[73] However, because human capital cannot be marketed and acquired or sold through the use of traditional financial instruments, the capital market underinvests in human capital.[74]

The underinvestment in human capital may be attributable to the distinctions between physical and human capital. Unlike physical capital, human capital, specifically in the form of investment in education, has not traditionally been valued.[75] The value of an investment in a student's education is wholly dependent on the student's performance, the chosen academic institution, and the field of study. Furthermore, in contrast to physical capital, human capital is not liquid. Investment in human capital is illiquid because an individual may not pledge all or a part of his or her self as collateral for the investment.[76] As such, investment in human capital faces the risk of uncertainty.[77] The underinvestment in human capital, prevents the flow of sufficient private capital to higher education financing.[78]

Accordingly, Friedman suggests a framework within which an individual may sell a share of his or her earning potential in order to receive capital to finance that individual's education. In return, the individual receiving private capital agrees to pay the financing individual or entity a specific share of his or her future earnings.[79] Through diversification of risk, the success of an investment in education as to one student compensates for the risk or loss associated with the investment in education as to another student. While investment in human capital presents risk and loss potential, the opportunity to claim a stake in the profits of such an investment should encourage capital financing.[80] A financial instrument that allows for the flow of private capital to finance higher education, in return for a share in the success or failure of the human investment, would serve the interests of students and investors alike. The transfer of risk from the student to the investor, through investing in human capital, is economically superior to the

72. *Id.*
73. *Id.*
74. FRIEDMAN, *supra* note 67, at 86–87. According to Friedman, "[t]his underinvestment in human capital presumably reflects an imperfection in the capital market. Investment in human beings cannot be financed on the same terms or with the same ease as investment in physical capital." *Id.*
75. *Id.*
76. Palacios, *supra* note 71, at 3.
77. *Id.*
78. *Id.*
79. FRIEDMAN, *supra* note 67, at 87.
80. Palacios, *supra* note 71, at 3.

transfer of risk in traditional student loans, particularly subsidized federal loans, in which risk of investment is transferred to the taxpayer.[81]

The agreement described by Friedman, between a student seeking financing and a capital-holding investor, has been characterized as a "human capital contract."[82] According to Miguel Palacios, an Assistant Professor of Finance at Vanderbilt University's Owen Graduate School of Management, the use of this novel financial instrument will revolutionize the current student loan model.[83] According to Palacios, human capital contracts are "equity-like" financial instruments.[84] Because human capital contracts allow for private financing and income-contingent repayment, these financial instruments are better suited than traditional student loans to aid students in financing higher education.[85] In fact, human capital contracts are not loans, but rather have been described as providing "students with a form of career insurance."[86]

The adoption of human capital financing in higher education would resolve many of the problems the current student loan model presents. The Institute for College Access and Success[87] recently identified four failures of the current student loan model, which account for rapidly growing gaps in higher educational access and success: (1) complexity of the federal aid application process, (2) insufficient need-based grant aid, (3) inability of parents and students to make fully informed decisions about which institutions to apply to and attend, and (4) failure to hold academic institutions accountable for ensuring that their students receive high-quality education without incurring significant debt obligations.[88] Encouraging equity investments in financing higher education would allow for a less complex and more accessible financing scheme, and, as detailed below, financing higher education through human capital contracts would remedy the additional failures identified by the Institute for College Access and Success.

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81. *Id.*

82. *Id.* at 1.

83. *Miguel Palacios*, VANDERBILT UNIV., http://www2.owen.vanderbilt.edu/miguel.palacios/ (last visited Nov. 19, 2013).

84. Palacios, *supra* note 71, at 1.

85. *Id.*

86. David Bornstein, *A Way to Pay for College, With Dividends*, N.Y. TIMES (June 2, 2011, 9:43 PM), http://opinionator.blogs.nytimes.com/2011/06/02/a-way-to-pay-for-college-with-dividends/?_r=0. According to Bornstein, "[s]tudent [sic] who opt for them will discover that their cost of financing is lowest when they need money most, and it will be highest when they need it least. They give up a portion of their success at the upper end for peace of mind when times get tough." *Id.*

87. The Institute for College Access and Success is an independent nonprofit organization that supports nonpartisan research and analysis. The organization seeks to improve access to affordable higher education through various public policy initiatives. *About Us*, INST. FOR COLL. ACCESS & SUCCESS, http://www.tica.org/about.vp.html (last visited Apr. 27, 2015).

88. INST. FOR COLL. ACCESS & SUCCESS, *supra* note 12, at 3.

As set forth by Palacios, under a human capital contract, a student receives funding in exchange for a percentage of his or her income during a fixed period of time. Human capital contracts are equity-like instruments because the investor's return will depend on the earnings of the student, not on a predefined interest rate.[89] Because of the nature of the agreement, risk is transferred from the student to the investor, the party who has greater access to information regarding the economic value of specialized education, and who can therefore better control the risk.[90] In his evaluation of human capital contracts, Palacios adheres to Friedman's conception that these financial instruments promote equality of opportunity by addressing income inequality, without having adverse effects on the capital market.[91] Furthermore, financing higher education with private capital through human capital contracts would best promote the use of human resources by facilitating competition and providing effective incentives to secure high-income employment.[92]

According to Palacios, human capital investments are characterized by uncertain returns, are income-contingent, and allow students' greater financial independence than fixed loan obligations.[93] As a result, such investments align investors' interests with students' interests.[94] Human capital contracts are attractive to students and investors alike because (1) unlike traditional student loans, they are income-contingent, and thereby release students from making fixed loan payments and reduce uncertainty; (2) they eliminate default caused by financial distress; (3) unlike traditional federal student aid, they are needs blind; and (4) high-income earners subsidize repayment by those students who are unable to meet their repayment obligations.[95]

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89. Palacios, *supra* note 71, at 1.

90. *Id.*

91. *Id.* at 2. According to Friedman, investing in human capital promotes equality of opportunity without "impeding competition, destroying incentive, and dealing with symptoms, as would result from outright redistribution of income, but by strengthening competition, making incentives effective, and eliminating the causes of inequality." *Id.* (quoting MILTON FRIEDMAN, CAPITALISM AND FREEDOM 107 (1962)).

92. Friedman proposes that the adoption of human capital contracts in financing higher education

> would make capital more widely available and would thereby do much to make equality of opportunity a reality, to diminish inequalities of income and wealth, and to promote the full use of our human resources. And it would do so not by impeding competition, destroying incentive, and dealing with symptoms, as would result from the outright redistribution of income, but by strengthening competition, making incentives effective, and eliminating the causes of inequality.

FRIEDMAN, *supra* note 67, at 107.

93. Palacios, *supra* note 71, at 4.

94. *Id.*

95. *Id.*

While human capital contracts reduce students' uncertainty of repayment, they also re-align the informational asymmetry, such that the party bearing the greatest risk is also the party with the greatest access to relevant information. The investor is better suited to absorb the risk associated with investment in human capital because the investor has the ability to diversify his or her risk among many human capital contracts, thereby reducing the aggregate risk.[96] Like most investments, investments in human capital contracts face risk diversification.[97] However, through diversification, investors may protect against discrepancies between expected future earnings and actual earnings, while maximizing their probability of greater investment returns. As Friedman argues, high incomes achieved by some graduates offset the risk of other graduates' low-income employment or unemployment.[98] By having access to information regarding high-income earners and low-income earners, investors will be better equipped to determine which students to invest in and will be better able to predict potential future earnings. Palacios argues that access to such employment and earnings information will positively impact the higher education market.[99]

In comparing earnings expectations based on various factors, including academic institution chosen, major pursued, and other relevant factors, students and investors will have access to information "making more transparent the decision about what school to attend or what field to pursue."[100] More importantly, this analysis will allow the market to assess information about "the economic value of certain fields of study compared to their cost."[101] The utilization of human capital contracts will improve the higher education market by making transparent the economic costs and benefits of attending particular academic institutions and pursuing particular fields of study.[102] As a result, academic institutions would feel pressure to appropriately price tuition, such that it more proportionately

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96. *Id.*

97. Marc Nerlove, *Some Problems in the Use of Income-Contingent Loans for the Finance of Higher Education*, 83 J. POL. ECON. 157, 161 (1975).

98. As described by Nerlove,

> high incomes achieved by some members of the group, and their higher-than-average payments, must be used to offset low incomes earned by others and their consequently lower-than-average payments. In examining the behavior of a prospective borrower and his decision, one can think of him as purchasing low-income insurance at a 'premium' which is reflected by the conditions under which he can relieve himself of the obligations imposed by the plan prior to the general contractual termination of his group. The earlier those with relatively high-level income streams opt-out, the greater will be the total repaid, including interest, by the lower-income recipients remaining.

Id.

99. Palacios, *supra* note 71, at 5.

100. *Id.*

101. *Id.* (emphasis omitted).

102. *Id.* at 5–6.

reflects graduates' future earnings.[103] Accordingly, a new higher education financing scheme that permits equity investments in human capital would effectively remedy the failures of the current student loan model, by providing a sound student lending market, price determination, flexibility, greater access to the higher education sector, and greater transparency of the higher education market.

III. CURRENT INCOME-CONTINGENT AND HUMAN CAPITAL CONTRACT SCHEMES

A. STATE SPONSORED INCOME-CONTINGENT FINANCING SCHEMES

In response to the student debt crisis, alternative student loan schemes have been proposed.[104] Those receiving the greatest support reflect an income-contingent repayment schedule. In July 2013, the Oregon Legislature passed House Bill 3472, setting forth a "Pay Forward Pay Back" plan. Noting the failure of federal financial aid programs, the bill proposes a new solution to make higher education more affordable.[105] In an attempt to rectify the state's higher education financing scheme, the Higher Education Coordinating Commission, Oregon Student Access Commission, Oregon University System, and the Department of Community Colleges and Workforce Development created a pilot program called "Pay Forward Pay Back."[106] As set forth in the bill, students who are residents of Oregon and who attend in-state public higher education institutions are exempt from paying tuition or fees.[107] Instead, these students must enter into a valid contract with Oregon to pay the state or an in-state public higher education institution a certain percentage of their annual adjusted gross income upon graduation.[108] The specific terms of the contract determine what percentage of a student's gross adjusted income is to be paid, as well as the number of years over which payments are due.[109] Payments received from participating graduates will be placed in a trust fund and will be used to fund future students.[110] This novel higher education financing scheme will enable students to complete higher education debt free.

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103. Palacios, *supra* note 9.

104. *See* Dylan Matthews, *No, Oregon is Not Abolishing Tuition*, WASH. POST (July 10, 2013), http://www.washingtonpost.com/blogs/wonkblog/wp/2013/07/10/no-oregon-is-not-abolishing-tuition/.

105. H.B. 3472, 77th Leg. Assemb., Reg. Sess. (Or. 2013) [hereinafter Oregon Pay it Forward Bill], *available at* https://olis.leg.state.or.us/liz/2013R1/Downloads/MeasureDocument/HB3472/Enrolled.

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. Matthews, *supra* note 104.

Commentators note that Oregon's "Pay Forward Pay Back" plan reflects a "social insurance program," and that it should not be confused with a loan.[111] The program should not be characterized as a loan because students graduate debt-free, payments are not subject to interest rates, and payments—which reflect a certain percentage of students' annual income—are fixed for the entire repayment period.[112] More importantly, the Oregon program's payment schedule should not be characterized as debt repayment. Instead, students "go to college in a debt-free manner from Pay it Forward contributions taking the place of tuition. Then, after [they've] gotten this debt free college education, [they] contribute [themselves]."[113] According to the drafters of the bill, this novel higher education financing scheme is necessary to remedy the student debt "emergency."[114]

While Oregon's proposed education financing program enables students to graduate debt-free, the plan fails to address significant issues. For example, the plan does not address whether participating students may pay off their tuition fees in a shorter time period than that specified in the financing agreement.[115] Such a provision is important for students who earn high post-graduation incomes, because if no buyout option is available, these graduates might be subject to disproportionate repayment fees, as compared to the actual cost of their education.[116] Nevertheless, Oregon's "Pay Forward Pay Back" plan seeks to rectify the currently failing student loan model and serves as a useful financing program to which other states, the federal government, and private institutions might look to in order to improve their own higher education financing models.

In 1989, Australia adopted an income-contingent repayment student loan scheme.[117] Known as the Higher Education Contribution Scheme (HECS), Australia's student loan repayment program is paid through the

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111. *Debt-Free Higher Education*, OR. WORKING FAMILIES PARTY, http://workingfamilies.org/issues/debt-free-higher-education/.

112. *Id.*

113. Matthews, *supra* note 104. According to John Burbank, of the Economic Opportunity Institute,

> the Oregon program wouldn't technically be a debt. [It would] just be an amount of money that you have to pay back to someone who gave you the money in the first place. But not a debt. 'The difference is that the Obama administration's programs are based on debt,' he says. 'You're paying off a debt. Pay it forward is not based on that. It's not a debt instrument. You get to go to college in a debt-free manner from Pay It Forward contributions taking the place of tuition. Then, after you've gotten this debt free college education, you contribute yourself.

Id.

114. Oregon Pay it Forward Bill, *supra* note 105.

115. Matthews, *supra* note 104.

116. *Id.*

117. Andrew Norton, *Australian Plan Has Helped Students, at a Cost*, N.Y. TIMES (July 11, 2013, 1:52 PM), http://www.nytimes.com/roomfordebate/2013/07/09/study-now-pay-later/australian-college-plan-has-helped-students-at-a-cost.

country's income tax system.[118] Eighty-five percent of Australian students choose to participate in the HECS.[119] When these students enroll in college, their debt is recorded with the Australian Internal Revenue Service (Australian IRS).[120] HECS debt is indexed annually using Australia's Consumer Price Index, and is interest free.[121] The Australian IRS deducts up to 8% of graduates' annual income to repay their debt obligations.[122] HECS debtors are required to begin repayment once their income reaches the mandatory "repayment threshold," which is adjusted annually to reflect changes in average weekly earnings.[123] Thus, if a graduate's income does not meet this threshold amount, or if a graduate is unemployed, no payments are due.[124] Accordingly, there are no student debt defaults in the HECS because, "people with debts face no repayment hardships and graduates do not have to take high income jobs in order to be able to afford repaying their loans."[125] A demonstration of serious financial hardship can defer the mandatory repayment schedule.[126] If a graduate wishes to submit a voluntary repayment fee, a bonus of 15% may be added to the repayment fee.[127] HECS debts not fully satisfied are forgiven at death.[128] In 1991, New Zealand adopted a similar plan to the HECS.[129] South Africa, the United Kingdom, and Hungary have also adopted similar higher education financing schemes.[130]

B. PRIVATE HUMAN EQUITY INVESTMENT SCHEMES

In 2002, Miguel Palacios and business partner Felipe Vergara founded Lumni,[131] a company that "designs and manages social-investment funds that invest in the education of diversified pools of students."[132] In exchange for private equity financing, students agree to pay a fixed percentage of their income for ten years after graduation. After the ten-year period, the

118. Bruce Chapman & Yael Shavit, *A Better Way to Borrow*, INSIDE HIGHER EDUC. (June 8, 2010), http://www.insidehighered.com/views/2010/06/08/chapman.
119. *Id.*
120. *Id.*
121. *The Higher Education Contribution Scheme*, PARLIAMENT OF AUSTL., http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/archive/hecs (last visited Nov. 19, 2013, 1:31 PM).
122. Chapman & Shavit, *supra* note 118.
123. PARLIAMENT OF AUSTL., *supra* note 121.
124. Chapman & Shavit, *supra* note 118.
125. *Id.*
126. PARLIAMENT OF AUSTL., *supra* note 121.
127. *Id.*
128. *Id.*
129. Chapman & Shavit, *supra* note 118.
130. *Id.*
131. *Our Story*, LUMNI, http://www.lumniusa.net/about/our-story (last visited Nov. 19, 2013, 1:34 PM).
132. *Id.*

students' obligations are terminated, regardless of the total sum paid.[133] Lumni currently offers human capital financing in Chile, Columbia, Peru, Mexico, and the United States, and has provided higher education financing to nearly 5,000 students.[134] According to Lumni, nearly all of the students who receive human capital financing hail from low or very-low income families.[135] Furthermore, 55% of the students who receive human capital financing through Lumni are women, and 99% of the students are the first in their families to attend college.[136] To price human capital contracts, "Lumni's analysts forecast individual students' income curves and align student selection and contract pricing with stated objectives for financial and social return. Although the salary of any individual student is impossible to predict, Lumni pools these idiosyncratic risks through a portfolio of students."[137]

One Lumni-funded student, Jairo Sneider, was raised in a low-income, single parent household in Colombia.[138] Sneider dreamt about attending college to pursue nursing, but was unable to obtain federal student aid or a private loan to help him afford the $8,500 tuition.[139] Lumni agreed to provide Snieder with $8,530 in private financing in exchange for 14% of his future earnings, for 118 months after graduation. If Sneider earns the average salary for nurses in Colombia, his human capital contract obligation will reflect the average interest rate in the country for student loans.[140]

In 2012, former Google Executive David Girouard and a group of former Google employees founded Upstart, a company that created a funding marketplace designed to provide people early in their careers with financing, to enable them to start a business, learn a new skill, or pay off

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133. *Id.*

134. *Id.*

135. *Id.*

136. David Bornstein, *Instead of Student Loans, Investing in Futures*, N.Y. TIMES (May 30, 2011, 8:25 PM), http://opinionator.blogs.nytimes.com/2011/05/30/instead-of-student-loans-investing-in-futures/?_r=0.

137. *For Potential Investors*, LUMNI, http://www.lumni.net/forpotentialinvestors/ (last visited Apr. 14, 2015, 3:35 PM). Lumni further describes its pricing scheme and notes

> [o]ne guideline is that you might pay 4 to 8% of your income for 120 working months after graduation if you need a total of $16,000 to $20,000 in financing while in college. If your total financing is more like $4,000 to $5,000, then you would commit closer to 1% to 2% of your income for 120 months. The exact percentage will vary based on a number of factors including the school you attend, your time until college graduation, your grades, and your major.

FAQs, LUMNI, http://www.lumniusa.net/faqs (last visited Apr. 14, 2015, 3:35 PM). *See also Investigating Human-Capital Contracts: Companies and Alternatives*, THINKLEADER (Dec. 31, 2012), http://www.thinkleader.org/2012/12/31/investigating-human-capital-contracts-companies-and-alternatives/.

138. Bornstein, *supra* note 136.

139. *Id.*

140. *Id.*

their student loans.[141] Pave, an American start-up that offers equity financing to young individuals, operates similarly to Upstart.[142] Both Pave and Upstart provide social platforms from which investors can select and finance candidates.[143] The terms of these arrangements are set out in financing agreements called "Income Share Agreements," and repayment obligations are fixed as small percentages of future earnings.[144]

While these companies offer similarly structured financing arrangements, the repayment terms and calculus of such arrangements differ. Upstart prices its human capital agreements using a "proprietary statistical model" to predict future earnings over a ten-year period.[145] It also charges up to 7% of the capital-receiving individual's income, which generates, on average, an 8% annual return to investors.[146] Average Upstart financing is $25,000, and the repayment schedule is set over a ten-year period.[147] If an individual wishes to terminate his or her repayment obligation, the investment is converted into a loan that carries a 15% interest rate.[148] Pave allows individuals to commit up to 10% of their future earnings.[149]

Thrust Fund, another company that offers equity financing for human capital, provides a platform that connects social entrepreneurs with private capital investors.[150] Through human capital contracts, Thrust Fund investors support entrepreneurs, and in exchange, receive social and financial dividends.[151] Thrust Fund does not use an algorithmic model to price human capital contracts, but allows the investors and entrepreneurs to agree upon the terms of the contract themselves.[152] CareerConcept is a German firm

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141. *About Upstart*, UPSTART, https://www.upstart.com/about (last visited Feb. 28, 2015, 1:43 PM).

142. *Crowdfunding Students: Start Me Up*, ECONOMIST, June 15, 2013, *available at* http://www.economist.com/news/finance-and-economics/21579490-helping-youngsters-sell-stakes-their-future-start-me-up.

143. *Id.*

144. UPSTART, *supra* note 141.

145. *Id.* The algorithmic methodology analyzes school attended, area of study, standardized test scores, work experience, outstanding job offers, and other accomplishments. Next, this information is entered into a statistical model that compares applicants to others with similar credentials. Upstart's model "is based on several public and private datasets and statistics, as well as proprietary qualitative measures," in order to best predict future earnings. The model allows Upstart analysts to determine a funding rate, which is "the amount of money the upstart can raise for each 1% of income shared." *Id.*

146. *Id.*

147. THINKLEADER, *supra* note 137.

148. *Id.*

149. ECONOMIST, *supra* note 142.

150. Sarika Bansal, *Thrust Funds: The Ultimate Wild Card*, BEYOND PROFIT, April-June 2010, at 36–37, *available at* https://sarika008.files.wordpress.com/2010/04/thrust-funds-sarika-bansal1.pdf.

151. *Id. See also* Cristina Roman, *Don't Just Give . . . Invest*, SOC. ENTER. ASSOCS. (Apr. 28, 2010), http://www.socialenterprise.net/blog/dont-just-give-invest.html.

152. *See* Kim-Mai Cutler, *Entrepreneurs Offer Their Life's Future Earnings for an Investment*, VENTURE BEAT (Mar. 3, 2010, 11:59 PM), http://venturebeat.com/2010/03/03/life-investment/; Alex Tabarrok, *Invest in People with Income Contingent Loans*, MARGINAL REVOLUTION (Mar. 9,

that provides private equity financing to students[153] by pooling private capital in exchange for a portion of students' future incomes.[154]

Financing methods utilizing human capital contracts have also been introduced in professional sports.[155] On October 17, 2013 a start-up company, Fantex Holdings, announced "a new trading exchange for investors to buy and sell interests in professional athletes."[156] The company chose Arian Foster, a National Football League (NFL) player, for its first initial public offering.[157] Participating investors were to receive shares in Foster's future earnings, including football contracts, endorsement deals and appearance fees.[158] Fantex offered 1.06 million shares at $10 a share, and Foster was to receive $10 million.[159] In return, Foster agreed to pay Fantex and its investors, 20% of his future income.[160] On October 31, Fantex secured a similar deal with another NFL star, Vernon Davis, in which he will receive $4 million in exchange for 10% of his future earnings.[161] The recent trend in equity financing for human capital reflects Milton Friedman's notion that human capital is an economically valuable asset that can generate large investment returns. As illustrated, human capital financing schemes that provide for income-contingent repayment options have proven successful and offer a more economically efficient alternative to traditional student loan models.

IV. IMPLICATIONS OF ENFORCING HUMAN CAPITAL CONTRACTS IN HIGHER EDUCATION FINANCING

While the enforcement of human capital contracts faces challenges, recognizing the validity of these novel financing arrangements would provide a superior alternative to current public and private student loan schemes. The first such challenge concerns the legal validity of human

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2010), http://marginalrevolution.com/marginalrevolution/2010/03/markets-in-everything-invest-in-people.html.

153. ECONOMIST, *supra* note 142.

154. *Education Funding*, CAREER CONCEPT, http://www.career-concept.de/en/index?siteID=37 (last visited Nov. 19, 2013, 1:59 PM).

155. *See* Peter Lattman & Steve Eder, *Like that Athlete? Buy a Share*, N.Y. TIMES, Oct. 18, 2013, at A1.

156. *Id.*

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.* Soon after its Arian Foster IPO announcement, Fantex postponed the proposed IPO because the running back suffered a season-ending back injury. Erik Matuszewski, *Fantex Postpones Arian Foster Share Because of Back Surgery*, BLOOMBERG BUS. (Nov. 13, 2013), http://www.bloomberg.com/news/articles/2013-11-12/fantex-postpones-arian-foster-share-sale-because-of-back-surgery.

161. Peter Lattman, *Second N.F.L. Player Signs Public Offering Deal*, N.Y. TIMES, Oct. 31, 2013, at B4. Currently, Fantex also offers investments in professional athletes Alshon Jeffery, Mohamed Sanu, EJ Manuel, and Michael Brockers. *Explore Stocks*, FANTEX, https://fantex.com/explore (last visited Apr. 27, 2015).

capital contracts. As noted above, many investment platforms have successfully executed human capital contracts in higher education financing. Nevertheless, certain state laws might prohibit the assignment of future income, and the legal validity of human capital contracts in these states remains uncertain.[162] Legal recognition and treatment of human capital instruments as securities is necessary to allow financial institutions, as well as individual investors, to freely buy and sell them.[163] According to Palacios, the "securitization of a fund allows a person to have a portion of a fund, with the advantages of diversification, without having to invest the whole amount of money required to gain the advantages of diversification."[164] As such, legal recognition of human capital contracts as secured instruments would facilitate private equity investment by individuals as well as large financial institutions,[165] making great sums of private capital available to students.

To the author's knowledge, no settled case law exists as to the enforceability of human capital contracts, and "[t]he issue of contract enforceability will only be determined with certainty when one of these contracts is challenged in court and a favorable ruling is obtained, or when human capital contracts are recognized in every state or at the federal level."[166] However, on April 5, 2012, President Obama signed into law the Jumpstart Our Business Startups Act (JOBS Act).[167] Title III of the JOBS Act, named the CROWDFUND Act, provides for a regulatory structure in which startups and small business can raise capital through equity crowdfunding portals.[168] Pursuant to the CROWDFUND Act, transactions involving the sale or offer of securities up to $1 million are exempted from the registration requirements of the Securities Act of 1933.[169] The crowdfunding provisions of the JOBS Act were designed to enable "startups and small businesses with capital by making relatively low dollar offerings of securities less costly," and to "permit Internet-based platforms to facilitate the offer and sale of securities without having to register with the [Securities Exchange] Commission as brokers."[170] Compliance with the provisions of the CROWDFUND Act would allow equity financing platforms to serve as intermediaries as means to facilitate the offer and sale of human capital instruments to finance higher education. In addition to the potential protection afforded to education financing under the JOBS Act, as

162. Palacios, *supra* note 71, at 8.
163. *Id.* at 8–9.
164. *Id.* at 7.
165. *Id.*
166. *Id.* at 8.
167. H.R. 3606, 112th Cong. (2012), *available at* http://www.gpo.gov/fdsys/pkg/BILLS-112hr3606enr/pdf/BILLS-112hr3606enr.pdf.
168. *Id.*
169. *Id.*
170. Crowdfunding, Securities Act Release No. 33-9470, 78 Fed. Reg. 66428 (Nov. 5, 2013).

Palacios suggests, human capital contracts ought to be afforded the same legal protection given to traditional student financing.[171] For example, current student borrowers may not discharge their loan obligations to lenders for seven years after graduation, even if they have filed for bankruptcy.[172] Similarly, investors in human capital contracts should be protected from the possibility of students disavowing their obligations by declaring bankruptcy.[173]

The second challenge facing the enforcement of human capital contract financing is the likening of the contractual arrangement to indentured servitude.[174] Those opposed to the enforceability of human capital contracts argue that allowing an individual to sell his or her own income is akin to slavery or indentured servitude.[175] However, "the fundamental difference is that with slavery or indentured servitude the master has authority over what the slave or servant does. *The essential element is lack of free will, not ownership of earnings*."[176] A human capital contract obligation simply assigns to the financing party a right to *a portion* of the student's future earnings. In addition, human capital contracts contain a "buyout clause[s]," as well as provisions allowing for contract modification.[177] As such, executed human capital contracts should not be subject to indentured servitude charges.[178] In fact, as one commentator observed, the current higher education lending model deprives students of their freedom of opportunity, by restricting their potential career options to only those careers that will allow them to meet their high repayment obligations..[179] Conversely, human capital contracts allow students greater employment options because repayment obligations are reasonable in proportion to their income, and because no fixed repayment fee is set.[180]

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171. Palacios, *supra* note 71, at 8–9.
172. *Id.*
173. *Id.*
174. *Id.* at 7.
175. *Id.*
176. *Id.* (emphasis in original).
177. *See* Cutler, *supra* note 152.
178. Nerlove, *supra* note 97.

> A provision is invariably made for the borrower to 'opt out' of the plan, that is, to terminate his obligation ahead of his repayment cohort, by paying a penalty of some sort for the privilege. The opt-out provision may be expressed in a variety of equivalent ways. For example, in the Yale Tuition Postponement Option, repayment at a rate of interest applied to the balance outstanding of the loan of any cohort member is applied instead to 150 percent of the loan . . . it is merely repayment of principal at a higher interest rate of interest than that charged [to] the cohort generally.

Id.

179. Bornstein, *supra* note 86.
180. *Id.* Bornstein writes,

> [t]he essence of servitude is a loss of freedom. What happens today for many college students who take on student debt is that they get locked into high payments that limit

An additional challenge facing the enforcement of human capital financing in higher education is the risk that such contracts will be inaccurately priced,"[181] giving rise to "adverse selection."[182] Palacios describes the adverse selection problem as arising when investors mistakenly place higher estimated value on students' future earnings or when investors mistakenly lower their expectations of students' future earnings, because of inadequate information.[183] Where contracts are mistakenly priced too highly, students will seek alternative means of funding, thus leaving investors to adversely select "less profitable" contracts.[184] In order to avoid the adverse selection problem, investors must carefully analyze the information available to them regarding a student, the chosen academic institution, and the declared area of study, in order to most appropriately and reasonably price contracts.[185] If contracts are reasonably priced for potential high-income earners and low-income earners alike, students and investors will find human capital contracts attractive.[186] Accurately pricing human capital contracts is imperative to the instruments' economic success, for human capital contracts "work best to finance education where there is some predictability about students' future salaries. The salaries don't have to be high, just reasonably predictable."[187] While adequately pricing human capital contracts remains a challenge to investors, the potential economic returns on future earnings have been thoroughly analyzed, and provide a useful paradigm from which investors can design the contracts.

The final challenge facing the enforcement of human capital contracts in higher education financing is that it requires an audit of the economic values of different areas of study and academic institutions. In order to do provide a comprehensive audit, investors must develop systematic algorithms to accurately predict potential future earnings, as well as reliable metrics with which to measure the economic value of academic areas of study and academic intuitions. Evaluating the market price of an education

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> their career options. With human capital contacts, students would have wider options. They would know that, regardless of their career choices, their payments would not be unmanageable.

Id.

181. *Id.*

182. Palacios, *supra* note 71, at 9.

183. *Id.*

184. *Id. See also* Bornstein, *supra* note 86. (Human capital contracts "are priced based on projections of a student's future earnings—drawing in part on information that students provide themselves. For obvious reasons, students who say they want to go into banking will be asked to pay a lower percentage of future income than students who say they want to go into teaching. But what is to stop a student who secretly wants to become a teacher from pretending that he wants to become a banker?").

185. Palacios, *supra* note 71, at 9.

186. *Id.*

187. *See* Bornstein, *supra* note 86.

will undoubtedly raise sociopolitical and socioeconomic objections. As noted earlier, companies such as Lumni enlist an algorithmic model in order to predict future income to reasonably price human capital contracts.[188] Analysts consider factors including school(s) attended, area of study, employment rates of recent graduates, among others, in determining the value of an investment contract. Although it is impossible to predict an individual's future earning capacity with 100% accuracy, investors can protect themselves from calculation imperfections by diversifying their human capital portfolios. In other companies, including Upstart and Pave, investors can negotiate with candidates on the terms of the financing agreements in order to create fair investment contracts.

Many critics of human capital contracts in higher education financing argue that certain areas of study would be considered less valuable, and would therefore be pursued significantly less than other areas of study with more lucrative earning potentials. Critics maintain that if "it is in society's interest to have individuals pursue fields of study that do not typically yield high monetary rewards," then human capital contracts would disincentivize students from pursuing society's interests.[189] However, recent surveys indicate that students are already increasingly pursuing areas of study that provide the highest earning potential. In fact, some commentators have likened parents maneuvering their children through the college-application process to venture capitalists, because like venture capitalists, parents must calculate the potential earnings returns balanced against the associated costs.[190] Increasingly, public and private sector markets encourage students to pursue specialized fields of study.[191] For example, students who major in business outnumber those who major in the liberal arts by two to one.[192] According to one study, of the Bachelor's degrees awarded in the 2010-2011 academic year, the three most popular fields of study were (1) business, (2) social sciences, and (3) health professions and related programs.[193] This preferential order reflects the potential earning capacity calculated for each area of study and illustrates that students, and their parents, consider future earnings in deciding which academic majors to pursue.

According to the Georgetown University Center on Education and the Workforce, college students should consider the risk of unemployment

188. *For Potential Investors*, LUMNI, http://www.lumni.net/forpotentialinvestors/ (last visited Nov. 19, 2013, 1:35 PM).

189. Palacios, *supra* note 71, at 8.

190. Peter Cappelli, *Why Focusing Too Narrowly in College Could Backfire*, WALL ST. J. (Nov. 15, 2013, 6:30 PM), http://online.wsj.com/news/articles/SB10001424127887324139404579016662718868576?mod=WSJ_hpsMIDDLENexttoWhatsNewsSecond.

191. *Id.*

192. *Id.*

193. *Id.*

among recent graduates among different areas of study in deciding their majors.[194] Unemployment rates are highest among non-technical majors, including liberal arts, social sciences, and humanities.[195] Conversely, students majoring in education, healthcare, and business enjoy the lowest unemployment rates.[196] Results from a national survey indicated that the majors with the highest unemployment rates included political science, film/video/photography arts, and anthropology.[197] Majors with the lowest unemployment rate included nursing, chemistry, and finance.[198] Additionally, a recent analysis identified the world's top universities for producing millionaires.[199] This reflects the notion that students and their parents already consider the economic value of pursuing a particular area of study at a particular academic institution when deciding what school to go to and what major to study.

In providing information on the economic value of certain areas of studies and academic institutions, investors will create greater transparency in the higher education market. If students have information about the economic returns on investment in education, they will be more able to determine what majors to pursue and what schools to attend, in order to maximize their chances of securing employment and an acceptable return on their investment. As a result, academic institutions would feel compelled to more appropriately price tuition such that tuition cost adequately reflects its true economic value. Furthermore, information on the economic value of certain majors and universities will create far greater transparency within the higher education market. Some commentators argue that investing in students who pursue employment in particular markets increases the supply of potential professionals within that market.[200] Once access to information regarding employment demand is public, students will pursue the fields of study most demanded, leading to explosive growth in the supply.[201] However, oversupply of potential employees within desirable fields should not deter investment in particular fields of study; absent the dissolution of a particular market, some employment in those sectors should be required.

194. Anthony P Carnevale et al., *Not All College Degrees are Created Equal*, GEORGETOWN UNIV. CTR. ON EDUC. & THE WORKFORCE 4 (Jan. 4, 2012), https://repository.library.georgetown.edu/bitstream/handle/10822/559308/Unemployment.Final.update1.pdf?sequence=1&isAllowed=y.

195. *Id.*

196. *Id.*

197. Cappelli, *supra* note 190.

198. *Id.*

199. Chris Parr, *World's Top 100 Universities For Producing Millionaires*, TIMES HIGHER EDUC. (Nov. 4, 2013), http://www.timeshighereducation.co.uk/news/worlds-top-100-universities-for-producing-millionaires/2008749.article.

200. Cappelli, *supra* note 190.

201. *Id.*

CONCLUSION

In conclusion, human capital contracts ought to be treated as securities and afforded full legal recognition, in order to provide equity-like financing to students. Legal recognition of human equity investment, coupled with its great potential for financial return, will encourage investors to invest in human capital. Greater investment in human capital will provide a superior higher education financing scheme for students who do not otherwise have the required resources. Equity financing in human capital will better serve the needs of students in today's volatile economic climate, because students will not be bound by fixed loan repayment obligations, but rather will enjoy flexible, income-contingent fee schedules, personally tailored to their specific earning potentials. Through this arrangement, students will have far greater freedom to pursue employment opportunities than is currently afforded. In providing economic valuation analyses on different areas of study and academic institutions, private equity investment in human capital will provide greater transparency in the higher education market, which will enable students to better determine for themselves which majors to pursue and which academic institutions to attend.

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