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Higher Education, Higher Costs: An Income-Contingent Approach

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To complete my economics major, I knew I would have to complete an extensive research paper during my senior year. It sounded simple enough, or at least straightforward, but it proved to be much more easily said than done. From deciding what topic to pursue, determining how to research it, and developing my own angle about it, I was able to complete the assignment and only after pouring my passion for the subject into the work. Relying heavily on the research and writing skills honed during my three years of undergrad, I remained open to critique and revised extensively to develop the paper submitted for this award.

My preliminary research concentrated heavily on finance. Derivatives and their regulation had piqued my interest during a lecture the previous semester, so I pursued that avenue over the summer and beginning of the term via JSTOR. But the more I researched through the library catalogs and journal collections, the more I realized I was in over my head. After careful deliberations with my fellow classmates and advisor, I began redirecting my efforts elsewhere. Not knowing exactly what else to focus on, though, I quickly became lost in the extensive resources available to me. By sheer happenstance, I stumbled upon an editorial commenting on a new style of payment to fund higher education in Oregon. With so many friends regaling me with tales of woe and financial aid gone awry, I recognized this as both a "hot topic" and one I could write about passionately. I had found my senior research focus.

Writing the statement of problem came naturally; I was aware of the declining affordability and availability of higher education through media reports and anecdotes of close friends. But I had never written a literature review before, and the first drafts of it were rough to say the least. By reading countless articles found with Google Scholar with their own literature review sections, I developed a better idea of the section's purpose within the paper. I gathered my sources, including economic and sociologic journal articles and books that I tracked down through the library system, and set to work revising my own literature review. I cut a lot out and changed the order of the key points several times to create a working overview of the existing knowledge in the field. Overall, I conducted a series of four extensive overhauls and countless edits of this section alone before settling on the final one.

Remaining open to revision defined my process from the initial topic development through to its completion as I strove to modify an existing model for application in Virginia. Although I had always edited papers prior to submission, this is the first instance in which I had to dramatically and repeatedly reshape its structure to create the strongest possible thesis. While writing a decent first or second draft yields a good paper, continuous revision yields a great paper.

Higher Education, Higher Costs:

An Income-Contingent Approach

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Statement of Problem

The value of a college education for lifetime employment and high wages remains incomparable (Grusky et al., 2013, p. 3). During the most recent economic crisis, individuals in their early 20's with either an Associate or Bachelor's degree fared better than their less educated counterparts. Young adults with a high school education or less lost proportionately more jobs as compared to those with higher education during the most recent economic crisis (Carnevale et al., 2012, p. 5). Especially when considering higher education as an investment that could influence future earnings, obtaining a college degree remains a strategic move toward realizing long-term success.

While the returns to a college degree are widely accepted as both positive and advantageous, the price tag of obtaining one poses a substantial barrier for many prospective students. The media continues to highlight the rising cost of tuition and increasing amounts of outstanding student debt. The U.S. Department of Education, Institute of Education Sciences [IES] (2011) reports that "between 2000-01 and 2010-11, prices for undergraduate tuition, room, and board at public institutions rose 42 percent…after adjustment for inflation." As prices continue to grow, so too does aggregate student debt. In 2012, the Federal Reserve Bank of New York estimated outstanding student debt to exceed $870 billion, second only to outstanding debt on mortgages (Brown et al., 2012). This debt places an undue burden on the greater of society, affecting individuals' credit ratings and discretionary income and consequently their ability to participate in the marketplace.

Tuition for post-secondary education has been rising at a rate exceeding inflation for over 30 years with organizations such as FinAid currently recommending individuals considering higher education to anticipate a tuition growth rate "about twice [that of] the general inflation rate" (Kantrowitz, 2013). Meanwhile, real wages have been stagnant for over 40 years, begging

the question of affordability (U.S. Government Printing Office, 2012). American households are finding it increasingly difficult to save for undergraduate tuition. A recent Sallie Mae report (2013) noted that the chief method of tuition payment is grants and scholarships, followed by parent income and savings and student borrowing. This denotes a shift away from the more traditional method in which parents serve as the primary funders for their children's higher education. The same report also revealed that parental savings as a method of payment for higher education has been declining over the past five years; whereas it once comprised 36 percent of tuition funding for the 2008-2009 academic year (AY), it decreased nine percentage points for AY 2012-2013 (Sallie Mae & Ipsos Public Affairs, 2013).

The downward trend of parental contribution to their children's higher education also correlates with changing demographics, particularly that of an increasing proportion of single-parent households. The percentage of all single-parent households with children in the United States has increased ten percentage points from 19.5 percent in 1980 to 29.5 percent in 2008 (U.S. Department of Commerce, 2012). Combined with the stagnant purchasing power of wages, having a single contributor severely inhibits parents' ability to contribute to their children's higher education. Parental contribution for their children's higher education consequently shifts from a question of willingness to pay, as researched by Steelman and Powell in 1991, to a more general question of ability to pay.

In response to the growing crisis of affordable higher education, various methods of payment and aid have been developed. According to the U.S. Department of Education, Office of Federal Student Aid, such methods include: loans, federal grants, merit and athletic scholarships, work-study programs, savings plans, and prepaid tuition schemes (2011). Reliance on state savings plans in particular has been on the rise, as noted by the 2013 Sally Mae study.

But while the Virginia 529 plan offers college savings and prepaid tuition options, it requires a relatively high degree of planning and financial savvy to engage the program successfully. Proportionately more high-income families (26 percent) engaged in the program as compared to low-income families (11 percent) for 2013 (Sallie Mae & Ipsos Public Affairs, 2013, p. 8). This disparity challenges the equity of these prepaid tuition programs and questions their necessity as a payment method as so few low-income families utilize them. Arguably, the high-income families instead could afford the tuition upfront or could navigate and finance student loans.

Meanwhile, low-income households continue to rely predominantly on grants and scholarships. But as state funding declines, these subsidies may not remain viable options in the future. For fiscal years 2007-2012, all but two states (Illinois and North Dakota) experienced a negative percent change in educational appropriations per full-time equivalent student (FTE) as published by the State Higher Education Executive Officers Association [SHEEO] (2012, p. 30). When combined with political motivations to balance budgets, amounts awarded in grants and scholarships on the basis of need may not be sufficient to continue to facilitate student demand for higher education and offset the high tuition rates.

In response to the growing tuition affordability problem, Oregon received national attention for its legislation to pursue a "Pay It Forward" tuition plan in July of 2013. Based on the proposal, students would be able to attend college without having to pay upfront. Then after graduation, rather than having to make loan repayments, a percentage of income would be deducted to cover the tuition (Pérez-Peña, 2013). Oregon's most recently passed legislation establishes a research committee and allows for the creation of a pilot school to test the program's feasibility (Oregon State Legislature, 2013). As such programs continue to grow in

popularity, Michael Abraham, candidate for District 7 Delegate in Virginia, also incorporated a

basic version of the program in his fall 2013 campaign.

In this study, I investigate a version of the Pay It Forward model for its efficacy and

sustainability as an alternative payment method for college tuition in the state of Virginia. By

analyzing how it could be implemented in a small, public four-year university in Virginia, I

determine its viability and equity implications for individual students as well as the university.

Literature Review

The human capital approach has been the traditional model for evaluating college tuition

costs from a consumer perspective for over fifty years (Steelman & Powell, 1991, p. 1506 and St.

John, 1994). Considering an individual as capital and regarding activities that could influence

future earnings as investments, the approach easily justifies the necessity of a college education

(Becker, 1993, p. 11). This basic methodology has not changed and continues to justify the

pursuit of higher education assuming positive future returns on the initial investment. The

literature particularly encourages parental contributions from savings toward their children's

higher education, although it does not refute the need for additional payment sources.

From the supply side, the tuition prices are set primarily using a cost-plus model as

described by St. John, wherein the price is comprised of operating costs plus "prestige, tuition

charges at competitive institutions, and disposable personal income" (1992, p. 166). A

combination of increased expenses, diversion of state budgetary support towards other

endeavors, and legislation to balance budgets continues to create upward pressure on these fees

(Kane, 1999, p. 15). The urge to contribute savings paired with prices that continue to soar

compounds the issue of affordability. The current socioeconomic trends such as stagnant real

wages and tuition rates rising at a rate exceeding inflation severely inhibit a student's ability to pay under this system as parental savings alone are proving less and less effective.

A one-size-fits-all cost-plus model remained the preeminent pricing strategy through the 1980s when, according to St. John, colleges and universities became more sophisticated in their approaches to pricing (1992, p. 167). Tuition fees began their rapid increase during the 1980s, jumping to a rate roughly twice that of inflation. As the traditional cost-plus model became antiquated and inefficient during this time, it gave rise to revised models such as the high-tuition, high-aid model referred to in the literature as the "Robin Hood" pricing strategy. Based on the cost-plus model, the Robin Hood strategy offsets high tuition rates by offering large amounts of grants and scholarships to qualified applicants (St. John, 1994, p. 301). Designed in an effort to preserve the affordability of higher education, the strategy purportedly creates equity by having those able to pay more do so, while those unable to pay more receive off-setting aid. However, merely increasing aid in conjunction with tuition ultimately fails to address equity as high published costs continue to deter low-income and debt-averse students. Even seemingly large up-front costs can be off-putting to such individuals, especially those unable to navigate the opaque methods of personally financing tuition.

While a combined high-tuition, high-aid strategy has been proven cost-effective for institutions in a private college setting, research conducted by St. John (1994) found that "it has limited viability when extremely high percentages of current students are recipients of need-based grants" as would be the case with a public institution (p. 325). Meanwhile, a decrease in overall enrollment in public universities has been noted in response to increases in published total costs (Heller, 1999, p. 78), suggesting that the published cost remains a critical factor in the decision to attend college. Yet another study by Bryan and Whipple (1995) similarly noted that

"except for schools with very high or very low images, relative tuition increases typically

decrease college enrollments" (p. 561). Such findings raise doubt regarding the presumption of

improved equity under high-aid, high-tuition scenarios.

The results of studies like the ones conducted by Bryan and Whipple (1995) and Heller

(1999) also challenge the assumed price inelasticity of tuition. With institutions annually

increasing their tuition fees at such high rates, it has been widely assumed that demand for higher

education in the United States is inelastic. U.S. colleges and universities have operated under the

impression that these price increases do not have an adverse effect on their total revenues. Yet

more recent research conducted by Shin and Milton (2008) suggests the contrary to be true. In

considering demand for specific academic majors, they found that five of the six analyzed majors

were in fact price-elastic (Shin & Milton, 2008, p. 719). Their research corroborates the

proposition of a differentiated tuition pricing model, wherein tuition fees vary depending upon

the chosen field of study, as an alternative pricing strategy. By differentiating tuition prices by

major, the institution would be able to function as a price-discriminating monopolist. As a result,

it theoretically would be able to maximize the total amount of fees collected while

simultaneously maximizing enrollment.

Research conducted by Bryan and Whipple (1995) cites studies dating back as early as

the mid to late 1970s that all similarly propose a tuition pricing model dependent upon a

student's willingness to pay. They posit that utilizing such a model would ensure that students

are more efficiently enrolling in majors. Theoretically, a differentiated tuition model would

more directly address equity as prices would come to reflect the anticipated earnings and rates of

return by discipline (Shin & Milton, 2008). But given that the institution is acting as a price-

discriminating monopolist, the differential tuition approach is inherently inequitable. It fails to

account for the immediate burden placed on the student, instead considering only hypothetical

future returns for the student and current costs to the institution. Although no longer discouraged

from pursuing higher education in the general sense, low-income and debt-averse students still

may be deterred from pursuing study in higher priced majors that could ultimately yield higher

future earnings.

Assuming that higher education overall is price-elastic, then escalating prices result in

less total revenues for the schools. As a result, maintaining or even lowering tuition rates would

be more financially effective for the institutions by initially enrolling more students to increase

total tuition fees collected. When paired with the lack of clarity regarding financial aid and

grants available, the high prices effectively function as a barrier to entry for many first-

generation and minority students who would otherwise pursue higher education. Given that

lowering tuition and fees may not be an option for a state school subject to legislation demanding

balanced budgets, the current challenge is to determine viable deferred methods of paying such

fees without imposing a large post-graduation financial burden.

The development of new pricing models and continued expansions on previous models

made in response to this challenge has created a complex system lacking transparency. In

conjunction with complicated means of setting the price, methods of payment have similarly

become increasingly byzantine. Traditional payment methods for tuition fees include: payment

upfront, incurring some form of debt such as through a mortgage-style student loan, utilizing

financial assistance from friends and family, and work-study programs. Loan repayments vary

greatly, with Stafford Loans alone having seven distinct repayment plans. Payment upfront can

be daunting for low-income households and self-supporting students, while deferring payments

with mortgage-style loans is not a conducive strategy for debt-averse individuals. Meanwhile,

the intricate array of existing alternatives can prove daunting to even the most financially-savvy

individual. Therefore a new, simplified method of deferred tuition payment should be explored

to address financing higher education. Such a model would seek to increase enrollment while

maintaining or improving equity, thereby benefiting both the university on the supply side and

the student on the demand side.

Income-contingent loans debuted in the United States during the 1970s at Yale University

(Vodopivec, 2008, p. 430). Similar to their mortgage-style counterparts, they introduced

repayment as a monthly percentage of income rather than as a standardized fixed-sum stream of

payments. The goal was to be more equitable, not imposing any greater burden on one salary or

major than another. The concept quickly moved abroad to address rising costs of education

internationally. Adopted by such countries as Australia in 1989 with the Higher Education

Contribution Scheme (HECS), the methodology grew in popularity.

Instead of a traditional loan, the HECS provides students with three options: payment

upfront at a discounted rate, partial prepayment at a discounted rate with the remainder repaid as

a certain percentage of the student's salary after graduation over a specified length of time, or

acquisition of a government loan to be repaid in its entirety by percentage deductions from the

student's salary following graduation (Barr, 1998). Operating under the assumption that "parents

are not financially responsible for their children's higher education and that the children

themselves cannot be expected to cover its cost while they are studying," the method of payment

shifts the financial burden to the attendee (Marcucci & Johnstone, 2007, p. 31). By

incorporating an income-contingent component, the program also accommodates according to

salary post-graduation. The United Kingdom similarly has explored deferred tuition practices,

with Scotland utilizing a Graduate Endowment Scheme (GES) that allows graduate students to

pay a set amount upon graduation. These methods allow for flexibility between a lump sum and income-contingent payments (Marcucci & Johnstone, 2007, p. 31).

The trends of declining parent financial support and increased student borrowing in the U.S. warrants investigation of a deferred, income-contingent repayment model. Vandeberghe and Debande argue that deferring payment to post-graduation in the general sense accommodates those fearing liquidity constraints while incorporating an income-contingent piece addresses risk aversion (2007, p. 422). General findings from this study suggest such a payment method both reasonable in terms of risk and cost to the schools while also addressing these two core concepts (Vandeberghe & Debande, 2007, p. 435-436). Likewise, Barr (1993) argues against mortgage-style loans and supports income-contingent loans as the optimal loan design to repay college tuition fees for both universities and students.

In 2012, Peek and Burbank published research in conjunction with the Economic Opportunity Institute (EOI) entitled *Pay It Forward: Refinancing Higher Education to Restore the American Dream.* Using the state of Washington as a case study, it outlines the need and manner for implementing a deferred tuition payment plan. The University of California produced a similar body of research that same year wherein students submitted a "Student Investment Proposal." Oregon also joined the trend when Portland State University students proposed the "Pay Forward, Pay Back" idea which then became backed by Rep. Gene Whisnant (KSE Focus, 2013).

Like Australia's model, the EOI's Pay it Forward proposal as put forth by Peek and Burbank in 2012 incorporates an income-contingent approach combined with deferred repayment. It outlines current payment methods and financing techniques as well as suggests methods of implementation, citing pilot schools as a litmus test for economic viability and

sustainability. The organization also noted the growing interest in the alternative method, citing additional universities exploring the option.

Passed unanimously in its state legislature, Oregon's proposal follows the same principles as it seeks to provide an alternative for students unable to address the substantial costs affiliated with higher education in the state. The legislation creates a commission to review and enact a pilot program. It will further investigate the program via the implementation, and in conjunction with additional mathematical analysis it will determine whether continued pursuit of the program is warranted. After establishing a large presence in the media, the bill has evolved into a Senate proposal entitled the 'Pay It Forward' Guaranteed College Affordability Act of 2013.

When applied to a transition economy, such an income contingent loan system has been found effective to recover tuition costs (Vodopivec, 2008). The research supports the payment method as sustainable since the schools remain able to collect the necessary funds. Yet the repayment system also promotes equity by dispersing the burden equally as a percentage of income, making it more accessible to low-income families otherwise deterred by the associated costs. Similarly, such a deferred tuition plan could increase the rate of minority participation as studies have found that such students are debt averse both in terms of initial enrollment as well as in terms of persistence (Fenske et al., 2000, p. 69). Given the discrepancy in average wage rates between males and females in the United States, income-contingent repayment also helps to equalize the burden assumed when pursuing higher education by gender.

Using a pilot school as a case study, I seek to apply a version of an income-based tuition repayment mechanism to a small state-funded four-year university in Virginia. The following sections outline methodology, implications, and conclusions based upon the application of the mathematical models used to analyze the validity of other similar programs like the Pay It

Forward proposition. Emphasis is placed on financial viability and sustainability of such an endeavor as well as its equity implications.

Methodology[1]

Program Overview

The income-contingent repayment schedule (ICRS) explored in this paper differs from income-contingent loans in that it does not incur debt for the individual. Unlike a federal Stafford Loan, which is comprised of a pre-determined debt amount typically repaid in fixed installments, the ICRS involves an obligatory payment schedule that is not labeled as debt.   As such, it does not affect credit ratings or an individual's ability to take out other loans or mortgages. It evenly distributes the burden as a percentage of earnings and is deducted monthly following graduation in a manner akin to an income tax.

While the primary intent of this program is to promote equity by means of a viable and sustainable alternative payment structure, a secondary intent of the program is to promote transparency. Required repayment for the ICRS consists of 1.05 percent of income per year of tuition deferred, revised from the EOI's requirement of 1.00 percent per year to ensure viability within the state of Virginia. A traditional undergraduate student participating in the ICRS, therefore, would be expected to contribute 4.20 percent of his or her income following graduation. Likewise, if a student were to drop out or wish to pay via a different method for selected years of study, he or she would only be responsible for the corresponding percentage relative to the number of years that they participated in the program.

An individual's participation in the ICRS is voluntary; students may still choose to pay upfront, to rely on scholarships or grants, to pay via other more traditional mortgage-style student loans like the Stafford Loan, or to utilize some combination of the aforementioned

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[1] All calculations and full data tables for the described model are available upon request.

methods. However, if an individual selects to utilize the ICRS, he or she relies on the program exclusively for the given academic year and cannot combine it with partial payment upfront during said year under this model. Duration of the repayment is set at 25 years, consistent with the extended repayment plan for a Stafford Loan of $30,000 or more and programs like Pay it Forward. As such, repayment via the ICRS is designed to be simple and straightforward with the stream of funds maintained in a trust managed by the school. As payments flow into the trust from graduates, they serve as a means of financing current students participating in the program.

To explore the feasibility, sustainability, and equity of the ICRS, Radford University is utilized as a theoretical pilot school. Calculations are generated from data published by the small state-funded Virginia school, henceforth simply referred to as the University. The Class of 2014 as a whole is examined to explore the implications of the program for the University whereby it is assumed that the Class either fully relies on Stafford Loans or the ICRS model. Individual members of the Class of 2014 studying a cross-section of majors are then considered to determine the microeconomic implications for students.

Table 1 displays in-state full-time tuition and fees per student and the size of the full-time Class of 2014 as per University published statistics. Total tuition and fees anticipated are calculated by multiplying full-time tuition and fees by the number of students in the Class assuming that students enrolled are responsible for the full amounts each academic year. Amounts are then compounded using a 5.00 percent interest rate as per the University's published desired return on endowment and are included in the corresponding columns (Radford University Foundation, Inc., 2013, pg. 1). All data are provided by academic year from the students' admission in 2010 through their expected graduation in 2014.

Academic Year (AY)	Full-Time Tuition & Fees	Compounded Tuition & Fees	Class of 2014 Membership	Class Total Tuition & Fees Anticipated	Compounded Class Total Tuition & Fees Anticipated
2013-2014	$8,976	$8,976	2,068	$18,562,368	$18,562,368
2012-2013	$8,590	$9,019	1,887	$16,209,330	$17,019,797
2011-2012	$8,320	$9,173	1,811	$15,067,520	$16,611,941
2010-2011	$7,694	$8,907	2,064	$15,880,416	$18,383,567
Total	$33,580	$36,075	N/A	$65,719,634	$70,577,672

Table 1: Class of 2014 Base Statistics

The net amount of tuition and fees due from a student over the traditional course of four years of study is given in Table 1 as $33,580 unadjusted for AY2010-2014. Assuming that an individual is incapable or elects not to pay for the full tuition and fees upfront, he or she is liable for the full balance upon graduation in 2014. Therefore, such a student would owe a principal of $33,580 plus interest. This amount applies when analyzing the effects of Stafford Loans given that the student then repays the creditor rather than the University itself. However, in applying the 5.00 percent interest rate to account for opportunity costs foregone by the University, obligated tuition and fees are compounded to become $36,075 per FTE when analyzing the ICRS program. Although the size of the Class of 2014 fluctuated year to year, a net total of $65,719,634 in unadjusted tuition and fees is due to the University to cover the Class's enrollment for AY2010-2014 which is compounded to be $70,577,672.

Payment Style 1: Class of 2014 Utilizes Stafford Loans

In order to evaluate the ICRS program, I first assume that the Class of 2014 collectively utilizes Federal Stafford Loans to pay for their tuition and fees for AY2010-2014. As one of the most popular loan choices amongst students, it provides a widely used current deferred payment program against which to analyze the effects of the ICRS as an alternative strategy. A 25-year extended repayment plan is used to draw a direct comparison with the proposed ICRS which would similarly require a 25-year commitment following graduation. Monthly loan payments

are assumed to be fixed and are calculated using a standard loan amortization process. The payment schedule, which consists of 300 monthly payments of $233.07, front-loads interest relative to principal repayment. Total principal is given as $33,580, assuming that the student takes out a new loan each academic year and defers repayment until after graduation. With an interest rate currently set at 6.8 percent, it is assumed to remain constant for the duration of the loan. Total interest paid over the 25-year period per student loan is calculated as $36,340.82 for a total payment amount of $69,920.82 unadjusted per student when added back to the principal.

Table 2 details how this debt would be assumed by major under Stafford Loans. Discipline refers to the different Colleges of the University which are comprised of multiple majors of similar type as detailed in Appendix A. First major headcount is provided on an institutional level and demonstrates the total number of students currently enrolled in a particular discipline without double counting those enrolled in a second major. The other/undeclared discipline contains the remainder of undergraduate students currently enrolled that have not declared affiliation with a particular discipline. Starting salaries are listed by discipline for 2013 as published by the April 2013 National Association of Colleges and Employers (NACE) *Salary Survey* and corroborated by data published by the National Center for Education Statistics. The other/undeclared starting salary is given as the average starting salary for an individual with a Bachelor of Arts degree according to NACE's publication (2013).

Discipline	First Major Headcount		Average Starting Salary		Loan Repayment (Monthly)	
	Students	% of Total Enrollment	Annual	Monthly	Dollars	% of Gross Income
Business and Economics	1488	16.69%	$54,234	$4,519.50	$233.07	5.16%
Education and Human Development	1802	20.22%	$40,480	$3,373.33	$233.07	6.91%
Humanities and Behavioral Sciences	2217	24.87%	$37,058	$3,088.17	$233.07	7.55%
Science and Technology	1220	13.69%	$42,724	$3,560.33	$233.07	6.55%
Visual and Performing Arts	713	8.00%	$33,400	$2,783.33	$233.07	8.37%
Health and Human Services	1033	11.59%	$49,713	$4,142.75	$233.07	5.63%
Other/Undeclared	440	4.94%	$44,928	$3,744.00	$233.07	6.23%

Table 2: Stafford Loan Repayment by Discipline

Given that different majors elicit different starting salaries while the loan repayments are static, it becomes clear that a Stafford Loan poses a unique burden to each major post-graduation. The burden of undergraduate education falls most heavily on the Humanities, Education, and Visual and Performing Arts majors. Students pursuing such fields of study are generally overwhelmingly female, while those pursuing business degrees and assuming the smallest debt-burden post-graduation are predominantly male. Degree conferment rates by gender specifically for the University for AY2011-2012 are displayed in Figure 2 below.

Degrees Conferred by Gender & Discipline AY2011-2012

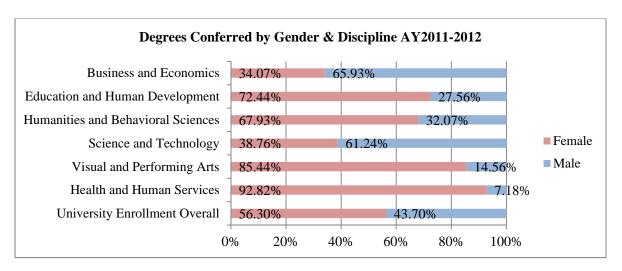| Discipline	Female	Male
Business and Economics	34.07%	65.93%
Education and Human Development	72.44%	27.56%
Humanities and Behavioral Sciences	67.93%	32.07%
Science and Technology	38.76%	61.24%
Visual and Performing Arts	85.44%	14.56%
Health and Human Services	92.82%	7.18%
University Enrollment Overall	56.30%	43.70%

Figure 2: Degrees Conferred by Gender and Discipline AY2011-2012

The chart highlights the disciplines in which the University awards more degrees to women relative to men and vice versa. When comparing these disciplines against the starting salaries published by NACE, inequity across genders as well as majors manifests. The University in total enrolls more females than males. Meanwhile, graduates of both the College of Science and Technology and the College of Business and Economics are predominantly male. As these majors have higher starting salaries, these males assume less burden immediately following graduation relative to many of their females counterparts graduating with Education and Humanities majors with much lower starting salaries. As such, the traditional flat-rate Stafford Loan repayment schedule distributes an inequitable amount of the post-graduation

repayment burden not only in terms of major, but also in terms of gender particularly within the context of the University demographics.

By designating a percentage of income to be contributed over a defined length of time as in the case of the proposed ICRS program, the burden can become equalized between majors and consequently genders more than in the traditional loan mechanism described above. Furthermore, the ICRS diminishes the initial burden placed on students. This reduction results in greater total expendable income and so grants students a greater degree of economic freedom immediately following graduation.

Payment Style 2: Class of 2014 Utilizes ICRS

With the Stafford Loan program serving as the foundation of comparison, my proposal assumes that the Class of 2014 in its entirety utilizes the ICRS program for their duration of study for AY2010-2014. Following graduation, each student participating in the program agrees to contribute 4.20 percent of his or her income for a 25-year period to repay the compounded $36,075 obligation. As it relies on a percentage of income rather than fixed-sum payments, the burden becomes evenly distributed across majors as detailed in Table 3 below. Like Table 2, it displays initial repayment by discipline, this time at a fixed percentage-rate. As a result, monthly payments are smaller at first but grow in accordance with an individual's income.

	First Major Headcount		Average Starting Salary		ICRS Payment	
Discipline	**Total**	**% of Total Enrollment**	**Annual**	**Monthly**	**Dollars**	**% of Gross Income**
Business and Economics	1488	16.69%	$54,234	$4,519.50	$189.82	4.20%
Education and Human Development	1802	20.22%	$40,480	$3,373.33	$141.68	4.20%
Humanities and Behavioral Sciences	2217	24.87%	$37,058	$3,088.17	$129.70	4.20%
Science and Technology	1220	13.69%	$42,724	$3,560.33	$149.53	4.20%
Visual and Performing Arts	713	8.00%	$33,400	$2,783.33	$116.90	4.20%
Health and Human Services	1033	11.59%	$49,713	$4,142.75	$174.00	4.20%
Other/Undeclared	440	4.94%	$44,928	$3,744.00	$157.25	4.20%

Table 3: ICRS Repayment by Discipline

To determine how the total amount owed by the Class of 2014 would be repaid to the

University via the ICRS, incomes are projected for the next 25 years. Projected incomes in this

scenario are generated using an assumed constant growth rate of 3.00 percent per year. Income

growth is based upon a combination of the current growth rate of personal income, historic data,

and inflation rates. This growth rate is consistent with the 2011-2012 median growth rate in

Virginia which is reported as 3.2 percent (U.S. Bureau of Economic Analysis & Bureau of the

Census, 2013). While growth could be significantly greater, particularly amongst burgeoning

fields such as science and technology, a consistently conservative approach is taken to ensure

viability. Table 4 below outlines the post-graduation contributions based on average income for

a Bachelor of Arts degree.

	1 year post-graduation	10 years post-graduation	20 years post-graduation	25 years post-graduation
Average Gross Income for Bachelor of Arts Degree	$44,928.00	$58,620.85	$78,781.52	$91,329.37
Yearly Contribution (4.20%)	$1,886.98	$2,462.08	$3,308.82	$3,835.83

Table 4: Yearly Contributions Post-Graduation

Using the average income for a Bachelor of Arts Degree, a single student will contribute

$1,886.98 from the first year's gross salary post-graduation based on a contribution rate of 4.20

percent. Assuming a class size of approximately 1,958 students, the average size of the Class of

2014 over its four years enrolled in the University, there is a resulting $3,694,706.84 in total

contributions for the first year following graduation. Under these assumptions, net unadjusted

contributions from this first year out of college are equivalent to 102 students' collective tuitions

for 2010-2014, or 5.21 percent of the graduating Class of 2014.

Figures displayed in Table 4 are raw in that they display anticipated income growth and

contributions returned to the University prior to discounting. In order to determine the net

present value and evaluate the viability of the program from the University's standpoint, a

discount rate of 5.00 percent is applied to the calculated repayments. A low discount rate was

selected in response to the persistent low interest rates prevalent in the U.S.; the 5.00 percent

discount rate was applied as it is the University's published desired return on endowment.

Likewise, it is consistent with the interest rate used to compound the obligation amount.

Contributions made over the 25-year period were calculated by major under the

aforementioned growth model and starting salaries. Table 5 below displays the total discounted

repayment per student and the overall total repayment by the Class of 2014 as per calculations

displayed in Appendix B. Categorized by discipline, the repayments demonstrate the variances

in absolute contributions while exemplifying the overall ability to repay the University-fronted

tuition and fees. Repayment by a student earning an average salary for a Bachelor's degree

under the previously mentioned assumptions over the course of the full 25 years satisfies the

ICRS obligation as it fully covers the original tuition and fees incurred. Likewise, payments

from a student graduating through the Business and Economics College or Health and Human

Services College exceed the original obligation. Such graduates serve to offset the lower

contributions made by the Visual and Performing Arts and Education and Human Development.

Discipline	Students Enrolled from the Class of 2014	Discounted Repayment per Student	Total Discounted Repayment
Business and Economics	345	$43,472.53	$14,998,021.69
Education and Human Development	418	$32,447.69	$13,563,133.34
Humanities and Behavioral Sciences	514	$29,704.70	$15,268,217.63
Science and Technology	283	$34,246.42	$9,691,736.27
Visual and Performing Arts	165	$26,772.55	$4,417,470.49
Health and Human Services	240	$39,848.61	$9,563,667.30
Average Bachelor's Degree	102	$36,013.09	$3,673,334.72
Total	2068	N/A	$71,175,581.43

Table 5: Student Repayment Under ICRS

As the total discounted repayment for the Class of 2014 is given as $71,175,581.43,

calculated by multiplying the number of students in each College by their anticipated

contributions, it more than satisfies the Class's outstanding obligation. The total tuition and fees anticipated from the Class was calculated as $70,577,672, so the program succeeds in generating excess revenue of $597,909.43 in today's dollars under these assumptions. Dividing excess revenues by the compounded cost per student for AY2010-2014 equates to approximately 17 students' full tuition and fees, creating a slight buffer against default.

Not only does utilizing an approach like the ICRS promote equity between majors, but individuals also are not responsible for exorbitant amounts of interest as they are when utilizing traditional mortgage-style student loans. In looking at the projected incomes and contributions from a general Bachelor of Arts degree, total raw contributions are calculated to be $68,797.76 as compared to $69,920.82 for such a student relying on Stafford Loans. While the University is able to recoup the original investment in the student over the course of the 25-year repayment plan, such a student does not have to pay as much upfront or in total utilizing the ICRS.

Provided that success of the model is dependent upon several key assumptions, it is worthwhile to evaluate the program's viability under other numerical values. Under the previous assumptions, all incomes were assumed to grow at a constant rate of 3.00 percent; however, not all disciplines can be expected to grow at this same rate. To explore the effects of differing growth rates, I modified growth rate assumptions by discipline as displayed in Table 6.

Discipline	Students Enrolled from the Class of 2014	Income Growth Rate (%)	Discounted Repayment per Student	Total Discounted Repayment
Business and Economics	345	3.20	$44,414.76	$15,323,092.34
Education and Human Development	418	2.50	$30,774.61	$12,863,786.00
Humanities and Behavioral Sciences	514	2.50	$28,173.06	$14,480,952.10
Science and Technology	283	3.50	$36,142.63	$10,228,364.77
Visual and Performing Arts	165	2.50	$25,392.09	$4,189,695.23
Health and Human Services	240	3.50	$42,055.02	$10,093,204.66
Average Bachelor's Degree	102	3.00	$36,013.09	$3,673,334.72
Total	2068	N/A	N/A	$70,852,429.82

Table 6: Student Repayment Under ICRS Alternative Assumptions

Held constant over the 25 year duration, the revised income growth rates average together

to be under 3.00 percent. It is assumed that fields such as Business and Economics continue to

grow at the 2012 published median income growth rate for Virginia while fields such as

Education and Human Development, Humanities and Behavioral Sciences, and the Visual and

Performing Arts stagnate closer to the target inflation rate. Meanwhile, Science and Technology

grows at a greater rate given its popularity in recent years. The average Bachelor's degree is

then maintained at the previously assumed growth rate as an average of the aforementioned

disciplines. Under these assumptions, the ICRS model remains viable where the University

receives repayment from graduates exceeding the original obligation of $70,577,672.

Under the ICRS, a Bachelor's degree obtained from the College remains an economically

viable pursuit for students. Not only does it constitute a more equitable payment mechanism, but

it also yields greater total returns for most majors after deducting payments that could otherwise

be obtained by entering the workforce immediately following high school. For high school

graduates, a period of 29 years is examined which includes the four years such an individual

spends working in addition to the 25 years post-graduation used to consider the student relying

on the ICRS. Total net present value of these earnings is then compared against the net present

values of the total salaries less the total repayment amount made to the University by major

according to the first set of assumptions put forth in this study. Results are displayed in Figure 4.
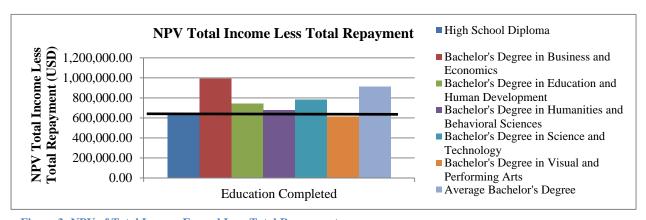

Figure 3: NPV of Total Income Earned Less Total Repayments

According to data published by NACE, the average starting salary for an individual with a high school diploma or its equivalent is $29,950. Assuming a growth rate of 3.00 percent and discount rate of 5.00 percent, as per the original conditions used to assess the validity of the ICRS, the net present value of an individual with a high school education is calculated to be $624,120.83 over the course of 29 years. Under these assumptions, the comparison proves the importance of obtaining a Bachelor's degree in all fields other than the Visual and Performing Arts, the only major to result in less total earnings than otherwise could have been achieved without pursuing higher education. But by mitigating the debt burden immediately post-graduation, the program still incentivizes pursuit of the culturally significant endeavor.

Limitations and Room for Future Study

The model used in the previous section to evaluate the ICRS utilizes several key assumptions to produce the streams of anticipated payments. Holding the income growth rate constant fails to account for periods of increased or stagnant growth; with the volatility of the markets as they are, one could reasonably anticipate a similar degree of unpredictability in terms of income. National averages were used to generalize incomes by discipline which could vary by region and individual changes in profession. Likewise, a constant discount rate fails to account for fluctuations in interest rates inevitable during the course of a 25-year period. Yet the simplicity of the model cannot be discredited as it minimizes speculations regarding instabilities in the economy and proves the viability of the program under very conservative circumstances.

Especially under the first set of assumptions, the contributions just cover the anticipated tuition and fees for the Class of 2014. As such, there is not much leeway if these assumptions were not to hold true or deviate slightly such as in the case of default. In this case, it may become worthwhile to investigate the implications of setting the repayment schedule as 5.00

percent or more of income to offset unpredicted, adverse occurrences. The percentage rate is

also given as constant over a predefined length of time in an effort to promote transparency;

however, both could become variable if there were enough demand to warrant additional study

and determine differing parameters of expedited repayment.

Given that the program is voluntary, incentives are present for lower starting income

majors to utilize the program while higher-paying majors may continue to rely on more

traditional payment styles. This is particularly true when comparing the program against Federal

Stafford Loans; although advantageous for lower paying degrees, high-paying disciplines may

ultimately pay more under the ICRS. As the higher paying majors are needed to offset the lower

salaries, the University would need to cap enrollment in the ICRS by major to some extent. It is

advised that the University establishes a committee to maintain the integrity of the trust fund and

continue research into the sustainability of the program under various major combinations.

Additionally, the repayment percentage could not be applied to income exceeding $100,000 or

$125,000 annually to help re-incentivize the program for higher paying majors. Further study

could be pursued to investigate utilization of the program as a partial payment method as this

study analyzed it only as an exclusive payment method if chosen.

Further study is also necessary to determine more precise implications regarding

mortality and employment rates relative to the impact on contributions made back to the

University. The model used in this analysis assumes full employment at average income levels

without accounting for individuals who make it to the top ten percent. Repayments could be

further deferred during years of reduced employment or unemployment to help ensure complete

repayment of the principal amount and to offset potential unemployment. However, provided

that employment levels fluctuate as do individual incomes, the model will need to be adjusted in

real time accordingly to ensure that the integrity of the trust is maintained. Once again, I suggest

the creation and implementation of a research committee that manages the trust while pursuing

ongoing research on such matters to revise the program as necessary.

As the trust to pay the upfront tuition and fees does not yet exist, start-up capital is

necessary to fund the first class until such a time as the ICRS program becomes self-sustaining.

Assuming that the Class of 2014 in its entirety utilizes the ICRS, $36,075 would be necessary to

fund each student or a total of $70,577,672 for all members of the Class for the duration of their

study. While this would ultimately be repaid, cash flows would be incremental and distributed

over the 25 year period. Whereas a loan provides funds to the University via the lender, and the

individual must then repay the lender, the ICRS requires the University to sustain itself over the

course of the participants' study without the use of a third party.

A potential source of start-up capital is social impact bonds (SIBs). Relatively recent

financial innovations, they require investors to contribute capital on the premise of gaining

returns indirectly through societal benefits. Forbes cites the concept as revolutionary, where

"investors benefit if and only if society benefits," and the bonds act as preventative measures

rather than ex post facto cures (Palandjian, 2013). The human capital approach, which supports

parental investment in their children's education, could similarly be applied to investor use of

SIBs to fund students' higher education tuition and fees. While a combination of endowment

funds, SIBs, and state funding from the 529 Savings plan could serve as the start of the trust,

additional research is warranted to investigate the logistics of other program implementation and

transition strategies.

Implications and Conclusion

The proposed income-contingent repayment schedule has been proven to be both viable and sustainable to fund tuition and fees when applied to a small state-funded four-year university in Virginia. It also has been proven to be advantageous for students, promoting equity across genders and mitigating the burden assumed by students immediately following graduation when disposable income is at its lowest levels. The ICRS addresses the affordability of higher education crisis in the United States as it makes higher education more accessible to students otherwise deterred from its pursuit. The program is conducive to debt-averse individuals given that it is not labeled as debt and provides a more realistic repayment schedule for lower-income graduates. Utilizing two sets of assumptions to demonstrate success for an entire class's participation, it theoretically would also be feasible for a smaller contingent to utilize. By remaining voluntary rather than compulsory, it enables those capable of paying upfront to do so while others may still take advantage of scholarships and grants. As such, the ICRS would not discourage students from enrolling in the University given that it represents yet another option of how to pay for tuition and fees.

Because it promotes equity by evenly distributing the post-graduation repayment burden, the proposed program does not carry the same disincentives present in a differentiated tuition model. Differentiated tuition encourages lower-income students to pursue lower-future-income fields given that upfront costs are similarly less. Meanwhile, it also encourages wealthier and less debt-averse individuals to pursue higher-future-income fields as they are able to address the immediate higher costs of study. As a result, it perpetuates the gap in wages and furthers inequity between genders given their predisposition to pursue different fields of study. The

ICRS instead equalizes the burden by requiring higher absolute payments from participants only once their incomes likewise grow.

In promoting equity and providing a more transparent alternative payment structure, the model offers students an opportunity to shift the repayment burden that they assume upon graduation. A student may elect to participate or not each year after considering his or her available options. Assuming that they are acting rationally, students are not worse off under this program as they only participate in it when benefits outweighs costs and it is the best choice of all available payment plans. Meanwhile, it affords students opportunities to indirectly invest in each other in a manner similar to social impact bonds. Higher-paying majors may be motivated to enroll to offset the lower-paying majors due to intrinsic value instilled through their liberal arts educations or in order to obtain indirect societal benefits.

As this study focuses solely on a small state-funded university in Virginia, there is room to explore such a program's effects on other institutions. Private schools in particular may benefit from its implementation. With high upfront tuition and fees listed, the ICRS would provide an alternative strategy for students otherwise susceptible to sticker-shock. Such a strategy would promote equity and could simultaneously increase enrollment, potentially replacing the Robin Hood strategies described in the previous section as the new popular tuition repayment model.

Appendix A: Majors by College

College of Business and Economics

- Accounting; Economics; Finance; Management; Marketing; Pre-Business

College of Education and Human Development

- Athletic Training; Exercise, Sport, and Health Education; Foods and Nutrition; Interdisciplinary Studies; Nutrition and Dietetics; Recreation, Parks, and Tourism

College of Humanities and Behavioral Sciences

- Communication; Criminal Justice; English; Foreign Language; History; Interdisciplinary Studies Liberal Arts; Media Studies; Philosophy and Religious Studies; Psychology; Social Science; Sociology

College of Science and Technology

- Anthropological Sciences; Anthropology; Biology; Chemistry; Computer Science and Technology; Geography; Geology; Geospatial Science; Information Science and Systems; Mathematics; Medical Technology; Physics

College of Visual and Performing Arts

- Art; Dance; Design; Music; Theatre

College of Health and Human Services

- Communication Sciences and Disorders; Nursing; Pre-Nursing; Social Work

Appendix B: Projected Incomes and ICRS Repayments

Business and Economics

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$54,234.00	N/A	N/A	$2,277.83	$189.82	$51,651.43	$2,169.36	$2,169.36	345	$748,429.20	$748,429.20
2	$55,861.02	3.00%	4.20%	$2,346.16	$195.51	$50,667.59	$2,128.04	$4,297.40	345	$734,173.41	$1,482,602.61
3	$57,536.85	3.00%	4.20%	$2,416.55	$201.38	$49,702.49	$2,087.50	$6,384.90	345	$720,189.15	$2,202,791.76
4	$59,262.96	3.00%	4.20%	$2,489.04	$207.42	$48,755.78	$2,047.74	$8,432.65	345	$706,471.26	$2,909,263.02
5	$61,040.84	3.00%	4.20%	$2,563.72	$213.64	$47,827.10	$2,008.74	$10,441.38	345	$693,014.67	$3,602,277.68
6	$62,872.07	3.00%	4.20%	$2,640.63	$220.05	$46,916.11	$1,970.48	$12,411.86	345	$679,814.39	$4,282,092.07
7	$64,758.23	3.00%	4.20%	$2,719.85	$226.65	$46,022.47	$1,932.94	$14,344.80	345	$666,865.54	$4,948,957.61
8	$66,700.98	3.00%	4.20%	$2,801.44	$233.45	$45,145.85	$1,896.13	$16,240.93	345	$654,163.34	$5,603,120.95
9	$68,702.01	3.00%	4.20%	$2,885.48	$240.46	$44,285.93	$1,860.01	$18,100.94	345	$641,703.09	$6,244,824.04
10	$70,763.07	3.00%	4.20%	$2,972.05	$247.67	$43,442.39	$1,824.58	$19,925.52	345	$629,480.17	$6,874,304.21
11	$72,885.96	3.00%	4.20%	$3,061.21	$255.10	$42,614.91	$1,789.83	$21,715.35	345	$617,490.07	$7,491,794.28
12	$75,072.54	3.00%	4.20%	$3,153.05	$262.75	$41,803.20	$1,755.73	$23,471.08	345	$605,728.36	$8,097,522.64
13	$77,324.72	3.00%	4.20%	$3,247.64	$270.64	$41,006.95	$1,722.29	$25,193.37	345	$594,190.67	$8,691,713.31
14	$79,644.46	3.00%	4.20%	$3,345.07	$278.76	$40,225.86	$1,689.49	$26,882.86	345	$582,872.76	$9,274,586.07
15	$82,033.79	3.00%	4.20%	$3,445.42	$287.12	$39,459.66	$1,657.31	$28,540.16	345	$571,770.42	$9,846,356.49
16	$84,494.80	3.00%	4.20%	$3,548.78	$295.73	$38,708.04	$1,625.74	$30,165.90	345	$560,879.55	$10,407,236.04
17	$87,029.65	3.00%	4.20%	$3,655.25	$304.60	$37,970.75	$1,594.77	$31,760.67	345	$550,196.13	$10,957,432.17
18	$89,640.54	3.00%	4.20%	$3,764.90	$313.74	$37,247.50	$1,564.39	$33,325.07	345	$539,716.21	$11,497,148.38
19	$92,329.75	3.00%	4.20%	$3,877.85	$323.15	$36,538.02	$1,534.60	$34,859.66	345	$529,435.90	$12,026,584.28
20	$95,099.65	3.00%	4.20%	$3,994.19	$332.85	$35,842.06	$1,505.37	$36,365.03	345	$519,351.40	$12,545,935.68
21	$97,952.64	3.00%	4.20%	$4,114.01	$342.83	$35,159.35	$1,476.69	$37,841.72	345	$509,459.00	$13,055,394.68
22	$100,891.22	3.00%	4.20%	$4,237.43	$353.12	$34,489.65	$1,448.57	$39,290.29	345	$499,755.02	$13,555,149.69
23	$103,917.95	3.00%	4.20%	$4,364.55	$363.71	$33,832.70	$1,420.97	$40,711.26	345	$490,235.87	$14,045,385.56
24	$107,035.49	3.00%	4.20%	$4,495.49	$374.62	$33,188.27	$1,393.91	$42,105.17	345	$480,898.05	$14,526,283.61
25	$110,246.56	3.00%	4.20%	$4,630.36	$385.86	$32,556.11	$1,367.36	$43,472.53	345	$471,738.08	$14,998,021.69
Total:	$1,977,331.74		4.20%	$83,047.93		$1,035,060.16		$43,472.53			$14,998,021.69

Education and Human Development

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$40,480.00	N/A	N/A	$1,700.16	$141.68	$38,552.38	$1,619.20	$1,619.20	418	$676,825.60	$676,825.60
2	$41,694.40	3.00%	4.20%	$1,751.16	$145.93	$37,818.05	$1,588.36	$3,207.56	418	$663,933.68	$1,340,759.28
3	$42,945.23	3.00%	4.20%	$1,803.70	$150.31	$37,097.71	$1,558.10	$4,765.66	418	$651,287.33	$1,992,046.61
4	$44,233.59	3.00%	4.20%	$1,857.81	$154.82	$36,391.08	$1,528.43	$6,294.09	418	$638,881.86	$2,630,928.47
5	$45,560.60	3.00%	4.20%	$1,913.55	$159.46	$35,697.92	$1,499.31	$7,793.40	418	$626,712.68	$3,257,641.14
6	$46,927.41	3.00%	4.20%	$1,970.95	$164.25	$35,017.96	$1,470.75	$9,264.15	418	$614,775.29	$3,872,416.44
7	$48,335.24	3.00%	4.20%	$2,030.08	$169.17	$34,350.95	$1,442.74	$10,706.89	418	$603,065.29	$4,475,481.72
8	$49,785.29	3.00%	4.20%	$2,090.98	$174.25	$33,696.65	$1,415.26	$12,122.15	418	$591,578.33	$5,067,060.05
9	$51,278.85	3.00%	4.20%	$2,153.71	$179.48	$33,054.81	$1,388.30	$13,510.46	418	$580,310.17	$5,647,370.22
10	$52,817.22	3.00%	4.20%	$2,218.32	$184.86	$32,425.19	$1,361.86	$14,872.31	418	$569,256.64	$6,216,626.87
11	$54,401.74	3.00%	4.20%	$2,284.87	$190.41	$31,807.57	$1,335.92	$16,208.23	418	$558,413.66	$6,775,040.53
12	$56,033.79	3.00%	4.20%	$2,353.42	$196.12	$31,201.71	$1,310.47	$17,518.70	418	$547,777.21	$7,322,817.73
13	$57,714.80	3.00%	4.20%	$2,424.02	$202.00	$30,607.39	$1,285.51	$18,804.21	418	$537,343.36	$7,860,161.09
14	$59,446.24	3.00%	4.20%	$2,496.74	$208.06	$30,024.39	$1,261.02	$20,065.24	418	$527,108.25	$8,387,269.34
15	$61,229.63	3.00%	4.20%	$2,571.64	$214.30	$29,452.50	$1,237.00	$21,302.24	418	$517,068.09	$8,904,337.43
16	$63,066.52	3.00%	4.20%	$2,648.79	$220.73	$28,891.50	$1,213.44	$22,515.69	418	$507,219.17	$9,411,556.60
17	$64,958.52	3.00%	4.20%	$2,728.26	$227.35	$28,341.19	$1,190.33	$23,706.02	418	$497,557.86	$9,909,114.45
18	$66,907.27	3.00%	4.20%	$2,810.11	$234.18	$27,801.35	$1,167.66	$24,873.67	418	$488,080.56	$10,397,195.02
19	$68,914.49	3.00%	4.20%	$2,894.41	$241.20	$27,271.80	$1,145.42	$26,019.09	418	$478,783.79	$10,875,978.81
20	$70,981.93	3.00%	4.20%	$2,981.24	$248.44	$26,752.34	$1,123.60	$27,142.69	418	$469,664.10	$11,345,642.91
21	$73,111.38	3.00%	4.20%	$3,070.68	$255.89	$26,242.77	$1,102.20	$28,244.88	418	$460,718.12	$11,806,361.02
22	$75,304.72	3.00%	4.20%	$3,162.80	$263.57	$25,742.91	$1,081.20	$29,326.09	418	$451,942.53	$12,258,303.56
23	$77,563.87	3.00%	4.20%	$3,257.68	$271.47	$25,252.57	$1,060.61	$30,386.69	418	$443,334.10	$12,701,637.66
24	$79,890.78	3.00%	4.20%	$3,355.41	$279.62	$24,771.57	$1,040.41	$31,427.10	418	$434,889.64	$13,136,527.30
25	$82,287.51	3.00%	4.20%	$3,456.08	$288.01	$24,299.73	$1,020.59	$32,447.69	418	$426,606.03	$13,563,133.34
Total:	$1,475,871.02		4.20%	$61,986.58		$772,563.99		$32,447.69			$13,563,133.34

Humanities and Behavioral Sciences

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$37,058.00	N/A	4.20%	$1,556.44	$129.70	$35,293.33	$1,482.32	$1,482.32	514	$761,912.48	$761,912.48
2	$38,169.74	3.00%	4.20%	$1,603.13	$133.59	$34,621.08	$1,454.09	$2,936.41	514	$747,399.86	$1,509,312.34
3	$39,314.83	3.00%	4.20%	$1,651.22	$137.60	$33,961.63	$1,426.39	$4,362.79	514	$733,163.67	$2,242,476.01
4	$40,494.28	3.00%	4.20%	$1,700.76	$141.73	$33,314.74	$1,399.22	$5,762.01	514	$719,198.65	$2,961,674.67
5	$41,709.11	3.00%	4.20%	$1,751.78	$145.98	$32,680.18	$1,372.57	$7,134.58	514	$705,499.63	$3,667,174.30
6	$42,960.38	3.00%	4.20%	$1,804.34	$150.36	$32,057.70	$1,346.42	$8,481.00	514	$692,061.54	$4,359,235.84
7	$44,249.19	3.00%	4.20%	$1,858.47	$154.87	$31,447.07	$1,320.78	$9,801.78	514	$678,879.42	$5,038,115.25
8	$45,576.67	3.00%	4.20%	$1,914.22	$159.52	$30,848.08	$1,295.62	$11,097.40	514	$665,948.38	$5,704,063.63
9	$46,943.97	3.00%	4.20%	$1,971.65	$164.30	$30,260.50	$1,270.94	$12,368.34	514	$653,263.65	$6,357,327.28
10	$48,352.28	3.00%	4.20%	$2,030.80	$169.23	$29,684.11	$1,246.73	$13,615.07	514	$640,820.53	$6,998,147.81
11	$49,802.85	3.00%	4.20%	$2,091.72	$174.31	$29,118.70	$1,222.99	$14,838.06	514	$628,614.43	$7,626,762.24
12	$51,296.94	3.00%	4.20%	$2,154.47	$179.54	$28,564.05	$1,199.69	$16,037.75	514	$616,640.82	$8,243,403.06
13	$52,835.85	3.00%	4.20%	$2,219.11	$184.93	$28,019.98	$1,176.84	$17,214.59	514	$604,895.28	$8,848,298.34
14	$54,420.92	3.00%	4.20%	$2,285.68	$190.47	$27,486.26	$1,154.42	$18,369.01	514	$593,373.46	$9,441,671.80
15	$56,053.55	3.00%	4.20%	$2,354.25	$196.19	$26,962.72	$1,132.43	$19,501.45	514	$582,071.11	$10,023,742.91
16	$57,735.16	3.00%	4.20%	$2,424.88	$202.07	$26,449.14	$1,110.86	$20,612.31	514	$570,984.04	$10,594,726.96
17	$59,467.21	3.00%	4.20%	$2,497.62	$208.14	$25,945.35	$1,089.70	$21,702.01	514	$560,108.16	$11,154,835.11
18	$61,251.23	3.00%	4.20%	$2,572.55	$214.38	$25,451.15	$1,068.95	$22,770.96	514	$549,439.43	$11,704,274.54
19	$63,088.76	3.00%	4.20%	$2,649.73	$220.81	$24,966.37	$1,048.59	$23,819.55	514	$538,973.92	$12,243,248.46
20	$64,981.43	3.00%	4.20%	$2,729.22	$227.43	$24,490.82	$1,028.61	$24,848.16	514	$528,707.75	$12,771,956.21
21	$66,930.87	3.00%	4.20%	$2,811.10	$234.26	$24,024.32	$1,009.02	$25,857.19	514	$518,637.12	$13,290,593.33
22	$68,938.80	3.00%	4.20%	$2,895.43	$241.29	$23,566.72	$989.80	$26,846.99	514	$508,758.32	$13,799,351.65
23	$71,006.96	3.00%	4.20%	$2,982.29	$248.52	$23,117.83	$970.95	$27,817.94	514	$499,067.69	$14,298,419.34
24	$73,137.17	3.00%	4.20%	$3,071.76	$255.98	$22,677.49	$952.45	$28,770.39	514	$489,561.64	$14,787,980.98
25	$75,331.28	3.00%	4.20%	$3,163.91	$263.66	$22,245.54	$934.31	$29,704.70	514	$480,236.65	$15,268,217.63
Total:	$1,351,107.42		4.20%	$56,746.51		$707,254.85	$29,704.70				$15,268,217.63

Science and Technology

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$42,724.00	N/A	4.20%	$1,794.41	$149.53	$40,689.52	$1,708.96	$1,708.96	283	$483,635.68	$483,635.68
2	$44,005.72	3.00%	4.20%	$1,848.24	$154.02	$39,914.49	$1,676.41	$3,385.37	283	$474,423.57	$958,059.25
3	$45,325.89	3.00%	4.20%	$1,903.69	$158.64	$39,154.21	$1,644.48	$5,029.85	283	$465,386.93	$1,423,446.18
4	$46,685.67	3.00%	4.20%	$1,960.80	$163.40	$38,408.41	$1,613.15	$6,643.00	283	$456,522.42	$1,879,968.60
5	$48,086.24	3.00%	4.20%	$2,019.62	$168.30	$37,676.83	$1,582.43	$8,225.43	283	$447,826.75	$2,327,795.36
6	$49,528.83	3.00%	4.20%	$2,080.21	$173.35	$36,959.17	$1,552.29	$9,777.71	283	$439,296.72	$2,767,092.08
7	$51,014.69	3.00%	4.20%	$2,142.62	$178.55	$36,255.19	$1,522.72	$11,300.43	283	$430,929.16	$3,198,021.24
8	$52,545.13	3.00%	4.20%	$2,206.90	$183.91	$35,564.61	$1,493.71	$12,794.14	283	$422,720.99	$3,620,742.23
9	$54,121.48	3.00%	4.20%	$2,273.10	$189.43	$34,887.19	$1,465.26	$14,259.40	283	$414,669.16	$4,035,411.39
10	$55,745.13	3.00%	4.20%	$2,341.30	$195.11	$34,222.67	$1,437.35	$15,696.76	283	$406,770.70	$4,442,182.09
11	$57,417.48	3.00%	4.20%	$2,411.53	$200.96	$33,570.81	$1,409.97	$17,106.73	283	$399,022.69	$4,841,204.78
12	$59,140.01	3.00%	4.20%	$2,483.88	$206.99	$32,931.37	$1,383.12	$18,489.85	283	$391,422.26	$5,232,627.04
13	$60,914.21	3.00%	4.20%	$2,558.40	$213.20	$32,304.11	$1,356.77	$19,846.62	283	$383,966.59	$5,616,593.63
14	$62,741.63	3.00%	4.20%	$2,635.15	$219.60	$31,688.79	$1,330.93	$21,177.55	283	$376,652.94	$5,993,246.58
15	$64,623.88	3.00%	4.20%	$2,714.20	$226.18	$31,085.19	$1,305.58	$22,483.13	283	$369,478.60	$6,362,725.18
16	$66,562.60	3.00%	4.20%	$2,795.63	$232.97	$30,493.09	$1,280.71	$23,763.84	283	$362,440.91	$6,725,166.09
17	$68,559.48	3.00%	4.20%	$2,879.50	$239.96	$29,912.27	$1,256.32	$25,020.15	283	$355,537.28	$7,080,703.37
18	$70,616.26	3.00%	4.20%	$2,965.88	$247.16	$29,342.52	$1,232.39	$26,252.54	283	$348,765.14	$7,429,468.51
19	$72,734.75	3.00%	4.20%	$3,054.86	$254.57	$28,783.61	$1,208.91	$27,461.45	283	$342,121.99	$7,771,590.50
20	$74,916.79	3.00%	4.20%	$3,146.51	$262.21	$28,235.35	$1,185.88	$28,647.34	283	$335,605.38	$8,107,195.89
21	$77,164.30	3.00%	4.20%	$3,240.90	$270.08	$27,697.54	$1,163.30	$29,810.63	283	$329,212.90	$8,436,408.79
22	$79,479.23	3.00%	4.20%	$3,338.13	$278.18	$27,169.96	$1,141.14	$30,951.77	283	$322,942.18	$8,759,350.97
23	$81,863.60	3.00%	4.20%	$3,438.27	$286.52	$26,652.44	$1,119.40	$32,071.17	283	$316,790.90	$9,076,141.87
24	$84,319.51	3.00%	4.20%	$3,541.42	$295.12	$26,144.77	$1,098.08	$33,169.25	283	$310,756.79	$9,386,898.66
25	$86,849.10	3.00%	4.20%	$3,647.66	$303.97	$25,646.78	$1,077.16	$34,246.42	283	$304,837.61	$9,691,736.27
Total:	$1,557,685.61		4.20%	$65,422.80		$815,390.90	$34,246.42				$9,691,736.27

Visual and Performing Arts

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$33,400.00	N/A	4.20%	$1,402.80	$116.90	$31,809.52	$1,336.00	$1,336.00	165	$220,440.00	$220,440.00
2	$34,402.00	3.00%	4.20%	$1,444.88	$120.41	$31,203.63	$1,310.55	$2,646.55	165	$216,241.14	$436,681.14
3	$35,434.06	3.00%	4.20%	$1,488.23	$124.02	$30,609.27	$1,285.59	$3,932.14	165	$212,122.26	$648,803.41
4	$36,497.08	3.00%	4.20%	$1,532.88	$127.74	$30,026.24	$1,261.10	$5,193.24	165	$208,081.84	$856,885.25
5	$37,591.99	3.00%	4.20%	$1,578.86	$131.57	$29,454.31	$1,237.08	$6,430.32	165	$204,118.38	$1,061,003.62
6	$38,719.75	3.00%	4.20%	$1,626.23	$135.52	$28,893.28	$1,213.52	$7,643.84	165	$200,230.41	$1,261,234.03
7	$39,881.35	3.00%	4.20%	$1,675.02	$139.58	$28,342.93	$1,190.40	$8,834.25	165	$196,416.49	$1,457,650.52
8	$41,077.79	3.00%	4.20%	$1,725.27	$143.77	$27,803.06	$1,167.73	$10,001.97	165	$192,675.23	$1,650,325.75
9	$42,310.12	3.00%	4.20%	$1,777.03	$148.09	$27,273.48	$1,145.49	$11,147.46	165	$189,005.22	$1,839,330.98
10	$43,579.42	3.00%	4.20%	$1,830.34	$152.53	$26,753.99	$1,123.67	$12,271.13	165	$185,405.12	$2,024,736.10
11	$44,886.81	3.00%	4.20%	$1,885.25	$157.10	$26,244.39	$1,102.26	$13,373.39	165	$181,873.60	$2,206,609.70
12	$46,233.41	3.00%	4.20%	$1,941.80	$161.82	$25,744.49	$1,081.27	$14,454.66	165	$178,409.34	$2,385,019.04
13	$47,620.41	3.00%	4.20%	$2,000.06	$166.67	$25,254.12	$1,060.67	$15,515.33	165	$175,011.07	$2,560,030.10
14	$49,049.03	3.00%	4.20%	$2,060.06	$171.67	$24,773.09	$1,040.47	$16,555.80	165	$171,677.52	$2,731,707.63
15	$50,520.50	3.00%	4.20%	$2,121.86	$176.82	$24,301.22	$1,020.65	$17,576.46	165	$168,407.47	$2,900,115.10
16	$52,036.11	3.00%	4.20%	$2,185.52	$182.13	$23,838.34	$1,001.21	$18,577.67	165	$165,199.71	$3,065,314.81
17	$53,597.20	3.00%	4.20%	$2,251.08	$187.59	$23,384.28	$982.14	$19,559.81	165	$162,053.05	$3,227,367.86
18	$55,205.11	3.00%	4.20%	$2,318.61	$193.22	$22,938.86	$963.43	$20,523.24	165	$158,966.33	$3,386,334.19
19	$56,861.26	3.00%	4.20%	$2,388.17	$199.01	$22,501.93	$945.08	$21,468.32	165	$155,938.40	$3,542,272.59
20	$58,567.10	3.00%	4.20%	$2,459.82	$204.98	$22,073.32	$927.08	$22,395.40	165	$152,968.14	$3,695,240.73
21	$60,324.12	3.00%	4.20%	$2,533.61	$211.13	$21,652.88	$909.42	$23,304.82	165	$150,054.46	$3,845,295.19
22	$62,133.84	3.00%	4.20%	$2,609.62	$217.47	$21,240.44	$892.10	$24,196.92	165	$147,196.28	$3,992,491.47
23	$63,997.85	3.00%	4.20%	$2,687.91	$223.99	$20,835.86	$875.11	$25,072.02	165	$144,392.54	$4,136,884.02
24	$65,917.79	3.00%	4.20%	$2,768.55	$230.71	$20,438.96	$858.44	$25,930.46	165	$141,642.21	$4,278,526.22
25	$67,895.32	3.00%	4.20%	$2,851.60	$237.63	$20,049.68	$842.09	$26,772.55	165	$138,944.26	$4,417,470.49
Total:	$1,217,739.43		4.20%	$51,145.06		$637,441.63	$26,772.55				$4,417,470.49

Health and Human Services

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$49,713.00	N/A	4.20%	$2,087.95	$174.00	$47,345.71	$1,988.52	$1,988.52	240	$477,244.80	$477,244.80
2	$51,204.39	3.00%	4.20%	$2,150.58	$179.22	$46,443.89	$1,950.64	$3,939.16	240	$468,154.42	$945,399.22
3	$52,740.52	3.00%	4.20%	$2,215.10	$184.59	$45,559.25	$1,913.49	$5,852.65	240	$459,237.20	$1,404,636.42
4	$54,322.74	3.00%	4.20%	$2,281.55	$190.13	$44,691.45	$1,877.04	$7,729.69	240	$450,489.82	$1,855,126.24
5	$55,952.42	3.00%	4.20%	$2,350.00	$195.83	$43,840.18	$1,841.29	$9,570.98	240	$441,909.06	$2,297,035.30
6	$57,630.99	3.00%	4.20%	$2,420.50	$201.71	$43,005.13	$1,806.22	$11,377.20	240	$433,491.75	$2,730,527.05
7	$59,359.92	3.00%	4.20%	$2,493.12	$207.76	$42,185.99	$1,771.81	$13,149.01	240	$425,234.76	$3,155,761.81
8	$61,140.72	3.00%	4.20%	$2,567.91	$213.99	$41,382.45	$1,738.06	$14,887.07	240	$417,135.05	$3,572,896.86
9	$62,974.94	3.00%	4.20%	$2,644.95	$220.41	$40,594.21	$1,704.96	$16,592.03	240	$409,189.62	$3,982,086.48
10	$64,864.19	3.00%	4.20%	$2,724.30	$227.02	$39,820.99	$1,672.48	$18,264.51	240	$401,395.53	$4,383,482.02
11	$66,810.11	3.00%	4.20%	$2,806.02	$233.84	$39,062.49	$1,640.62	$19,905.13	240	$393,749.90	$4,777,231.92
12	$68,814.42	3.00%	4.20%	$2,890.21	$240.85	$38,318.44	$1,609.37	$21,514.51	240	$386,249.91	$5,163,481.83
13	$70,878.85	3.00%	4.20%	$2,976.91	$248.08	$37,588.57	$1,578.72	$23,093.23	240	$378,892.77	$5,542,374.59
14	$73,005.22	3.00%	4.20%	$3,066.22	$255.52	$36,872.60	$1,548.65	$24,641.88	240	$371,675.76	$5,914,050.35
15	$75,195.37	3.00%	4.20%	$3,158.21	$263.18	$36,170.26	$1,519.15	$26,161.03	240	$364,596.22	$6,278,646.57
16	$77,451.23	3.00%	4.20%	$3,252.95	$271.08	$35,481.30	$1,490.21	$27,651.24	240	$357,651.53	$6,636,298.11
17	$79,774.77	3.00%	4.20%	$3,350.54	$279.21	$34,805.47	$1,461.83	$29,113.07	240	$350,839.12	$6,987,137.23
18	$82,168.01	3.00%	4.20%	$3,451.06	$287.59	$34,142.51	$1,433.99	$30,547.06	240	$344,156.47	$7,331,293.70
19	$84,633.05	3.00%	4.20%	$3,554.59	$296.22	$33,492.17	$1,406.67	$31,953.73	240	$337,601.11	$7,668,894.81
20	$87,172.05	3.00%	4.20%	$3,661.23	$305.10	$32,854.23	$1,379.88	$33,333.61	240	$331,170.61	$8,000,065.42
21	$89,787.21	3.00%	4.20%	$3,771.06	$314.26	$32,228.43	$1,353.59	$34,687.20	240	$324,862.60	$8,324,928.02
22	$92,480.82	3.00%	4.20%	$3,884.19	$323.68	$31,614.56	$1,327.81	$36,015.01	240	$318,674.74	$8,643,602.77
23	$95,255.25	3.00%	4.20%	$4,000.72	$333.39	$31,012.38	$1,302.52	$37,317.53	240	$312,604.75	$8,956,207.51
24	$98,112.91	3.00%	4.20%	$4,120.74	$343.40	$30,421.66	$1,277.71	$38,595.24	240	$306,650.37	$9,262,857.89
25	$101,056.29	3.00%	4.20%	$4,244.36	$353.70	$29,842.20	$1,253.37	$39,848.61	240	$300,809.41	$9,563,667.30
Total:	$1,812,499.41		4.20%	$76,124.98		$948,776.52	$39,848.61				$9,563,667.30

Average Bachelor's Degree

Years After Graduation	Average Salary	Growth Rate	Contribution Rate	Annual Contribution	Monthly Contribution	Salary Present Value (5.00% Discount Rate)	PV Annual Contribution (5.00% Discount Rate)	Cumulative PV Contributions	Number of Students	PV College's Contributions	Cumulative PV College's Contributions
1	$44,928.00	N/A	4.20%	$1,886.98	$157.25	$42,788.57	$1,797.12	$1,797.12	102	$183,306.24	$183,306.24
2	$46,275.84	3.00%	4.20%	$1,943.59	$161.97	$41,973.55	$1,762.89	$3,560.01	102	$179,814.69	$363,120.93
3	$47,664.12	3.00%	4.20%	$2,001.89	$166.82	$41,174.05	$1,729.31	$5,289.32	102	$176,389.65	$539,510.58
4	$49,094.04	3.00%	4.20%	$2,061.95	$171.83	$40,389.79	$1,696.37	$6,985.69	102	$173,029.85	$712,540.43
5	$50,566.86	3.00%	4.20%	$2,123.81	$176.98	$39,620.46	$1,664.06	$8,649.75	102	$169,734.04	$882,274.47
6	$52,083.87	3.00%	4.20%	$2,187.52	$182.29	$38,865.78	$1,632.36	$10,282.11	102	$166,501.01	$1,048,775.48
7	$53,646.38	3.00%	4.20%	$2,253.15	$187.76	$38,125.48	$1,601.27	$11,883.38	102	$163,329.56	$1,212,105.05
8	$55,255.77	3.00%	4.20%	$2,320.74	$193.40	$37,399.28	$1,570.77	$13,454.15	102	$160,218.52	$1,372,323.57
9	$56,913.45	3.00%	4.20%	$2,390.36	$199.20	$36,686.91	$1,540.85	$14,995.00	102	$157,166.74	$1,529,490.32
10	$58,620.85	3.00%	4.20%	$2,462.08	$205.17	$35,988.12	$1,511.50	$16,506.50	102	$154,173.09	$1,683,663.41
11	$60,379.48	3.00%	4.20%	$2,535.94	$211.33	$35,302.63	$1,482.71	$17,989.21	102	$151,236.46	$1,834,899.87
12	$62,190.86	3.00%	4.20%	$2,612.02	$217.67	$34,630.20	$1,454.47	$19,443.68	102	$148,355.77	$1,983,255.64
13	$64,056.59	3.00%	4.20%	$2,690.38	$224.20	$33,970.57	$1,426.76	$20,870.45	102	$145,529.94	$2,128,785.58
14	$65,978.28	3.00%	4.20%	$2,771.09	$230.92	$33,323.52	$1,399.59	$22,270.03	102	$142,757.94	$2,271,543.52
15	$67,957.63	3.00%	4.20%	$2,854.22	$237.85	$32,688.78	$1,372.93	$23,642.96	102	$140,038.74	$2,411,582.26
16	$69,996.36	3.00%	4.20%	$2,939.85	$244.99	$32,066.14	$1,346.78	$24,989.74	102	$137,371.34	$2,548,953.60
17	$72,096.25	3.00%	4.20%	$3,028.04	$252.34	$31,455.36	$1,321.12	$26,310.87	102	$134,754.74	$2,683,708.35
18	$74,259.14	3.00%	4.20%	$3,118.88	$259.91	$30,856.21	$1,295.96	$27,606.83	102	$132,187.99	$2,815,896.33
19	$76,486.91	3.00%	4.20%	$3,212.45	$267.70	$30,268.47	$1,271.28	$28,878.10	102	$129,670.12	$2,945,566.45
20	$78,781.52	3.00%	4.20%	$3,308.82	$275.74	$29,691.93	$1,247.06	$30,125.16	102	$127,200.21	$3,072,766.66
21	$81,144.97	3.00%	4.20%	$3,408.09	$284.01	$29,126.37	$1,223.31	$31,348.47	102	$124,777.35	$3,197,544.02
22	$83,579.31	3.00%	4.20%	$3,510.33	$292.53	$28,571.58	$1,200.01	$32,548.48	102	$122,400.64	$3,319,944.66
23	$86,086.69	3.00%	4.20%	$3,615.64	$301.30	$28,027.36	$1,177.15	$33,725.63	102	$120,069.20	$3,440,013.85
24	$88,669.29	3.00%	4.20%	$3,724.11	$310.34	$27,493.50	$1,154.73	$34,880.35	102	$117,782.17	$3,557,796.02
25	$91,329.37	3.00%	4.20%	$3,835.83	$319.65	$26,969.82	$1,132.73	$36,013.09	102	$115,538.70	$3,673,334.72
Total:	$1,638,041.83		4.20%	$68,797.76		$857,454.42	$36,013.09				$3,673,334.72

Total Cumulative Contributions, Discounted: $71,175,581.43
Total Tuition & Fees Anticipated, Compounded: ($70,577,672.00)
Net gain: $597,909.43

HIGHER EDUCATION, HIGHER COSTS

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