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The Path to Innovation and Efficiency in Higher Education

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CLAREMONT MCKENNA COLLEGE

The Path to Innovation and Efficiency in Higher Education

SUBMITTED TO

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By

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For

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ABSTRACT

In this thesis, I discuss the emergence of the “non-traditional” post -secondary student and what is necessary to both narrow the socioeconomic education gap and make higher education more efficient for the vast majority of Americans. I explain how the current conglomeration of laws, regulations and proposed regulations stifle innovation and inhibit the achievement of a high Education Return On Investment. I discuss changes that are on the horizon and borrow from the success of certain innovations. In the final section, I suggest and review potential frameworks for education innovation and funding that can make a difference. I propose a better measure of program-level success by using the following formula:

$$\text{EDUCATION ROI} = \frac{\text{Increased Earnings} + \text{Increased Economic Productivity} + \text{lower healthcare, unemployment, and other related costs}}{\text{Federal} + \text{State} + \text{Student Expenditures}}$$

To arrive at this formula and evaluate current institutions, I look at the total costs to attend these schols, the cost per degree, and the cost per taxpayer. I look at earnings data for different periods after graduation as well as the levels of debt and interest payments students accumulate during this time. The results show that currently, for-profit institutions are much cheaper per degree to the student (long term) and taxpayer due to superior graduation rates, higher earnings data, and better job placement and therefore provide a higher Education ROI. These schools are also the most active in the education space in creating innovative new ideas to increase the “Return” while decreasing the “Investment” and at the same time increasing accesibilty to a larger group of students. Using this measure to evaluate our schools may result in a more efficent appropriation of federal funds to the schools that are achieving a better Education ROI, an increase in the exponentially growing skilled labor market, and several other positive externalities positively correlated with education such as health, reduced crime, and a general increase in value to society.

The Path to Innovation and Efficiency in Higher Education

For several decades, higher education in the United States has been the envy of the developed world. Our elite institutions continue to perform at the highest levels in many respects. However, the American public, for good reason, has begun to question the value of higher education at the vast majority of our institutions. The cost of higher education has skyrocketed by 538% over the past 25 years, outpacing the CPI, median family incomes, and even rising medical costs.¹ The United States has slipped from first to 11th in educational ranking among developed nations despite spending more than any other country on post-secondary education.² We lack focus on the central issue: Are our educational institutions delivering an appropriate return on the dollars invested by students and taxpayers?

Though the morass of regulations, student loan rules and consumer protection advocacy cloud the debate, from an economic perspective, the question we need to answer is how post-secondary education can provide the highest return on total dollars invested both by students and by state and federal entities. In this thesis, I will attempt to lay out a framework for measuring this “Education ROI”.

Education may be the largest segment of our economy that has benefited only minimally from innovation. Most of the performance measures around higher education have focused on inputs instead of outputs. Pedagogical methods have not evolved until very recently. Largely through the efforts of the private sector, innovation in education is

finally beginning to take hold. Massive open online courses, hybrid education models and competency based programs are changing the dialogue around higher education. With these developments, we should be able to develop a framework that fosters innovation and efficiency leading to a substantially higher Education ROI.

Throughout this thesis, I will analyze the formula that we should implement to measure Education ROI. The data can be gathered to evaluate programs or institutions on a per graduate basis and ultimately per job placed or filled as well.

$$\text{EDUCATION ROI} = \frac{\text{Increased Earnings} + \text{Increased Economic Productivity} + \text{lower healthcare, unemployment, and other related costs}}{\text{Federal} + \text{State} + \text{Student Expenditures}}$$

To achieve a higher Education ROI across the system will require a change in focus. It is time to evaluate a framework to measure the cost of investment and return from outcomes across all of higher education. To succeed will involve putting politics aside and embracing the private sector to fill in the gaps in innovation and required capital investment. This is already happening, with companies providing technology and service partnerships along with capital to provide innovation to universities.

In the pages below, I will discuss the emergence of the “nontraditional” post-secondary student and what is necessary to both narrow the socioeconomic education gap and make higher education more efficient for the vast majority of Americans. This is

where the focus on Education ROI needs to start. It is important to note that this examination will not focus on top tier schools serving a high proportion of traditional students. By the nature of their students, financial aid structures, admission hurdles and high graduation rates, these schools are already creating a high Education ROI.

I will also attempt to explain how the current conglomeration of laws, regulations and proposed regulations stifle innovation and inhibit the achievement of high Education ROI. I will discuss changes that are on the horizon and borrow from the success of certain innovations. In the final section, I will suggest and review potential frameworks for education innovation and funding that can make a difference.

1. The Value and Need of Higher Education Continues to Increase

Recently, the number of students deciding to attend an institution of post-secondary education has increased significantly. Between 1995 and 2008, enrollments in these institutes increased by 35 percent across the board.³ Private for-profit schools captured a vast majority of this growth as traditional schools struggled to keep up with the increasing demand. Between the 1996-1997 and 2007-2008 academic years, the number of for-profit institutions grew by just over 13%. During that time, enrollment in proprietary institutions increased by 750%.³ Much of this growth was driven by the increasing need for skilled labor as well as the increasing accessibility of certificate and associate programs. For example, by 2018, roughly 63% of jobs will require a degree of

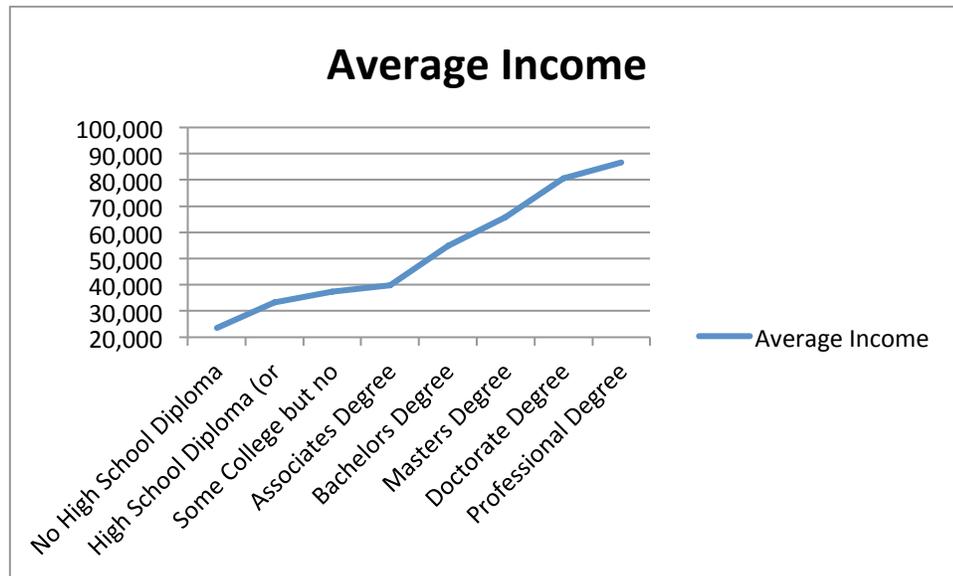
some kind, according to recent projections by a Georgetown study on labor statistics. A detailed breakdown of these jobs can be seen in figure 1 below:⁴

FIGURE 1

Occupation	Total employment	Percent of specified occupation requiring specific degrees					
		High School Dropouts	High School Graduates	Some College but No Degree	Associate's Degree	Bachelor's Degree	Master's or Better
Sales and Office Support	27%	15%	29%	38%	30%	27%	9%
Blue Collar	21%	46%	34%	20%	19%	6%	2%
Food and Personal Services	17%	34%	23%	18%	15%	10%	3%
Managerial and Professional Office	11%	2%	5%	8%	9%	20%	23%
Education	6%	0%	1%	3%	3%	11%	25%
Healthcare Professional and Technical	5%	0%	1%	2%	11%	8%	16%
Science, Technology, engineering and Math	5%	0%	2%	3%	5%	10%	14%
Community and Arts	3%	0%	1%	2%	3%	7%	7%
Healthcare Support	3%	2%	4%	5%	5%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%

The value both to students and society of post-secondary education has been indisputable for a long time. Studies have shown increased lifetime earnings and societal benefits including decreased medical and corrections costs and increased economic output flowing from education.⁵ Figure 2 below demonstrates the value of education to students as it relates to income.⁴

Figure 2



For-profit education began its rise in 1992, in large part because traditional post-secondary education institutes struggled to keep up with the demand from “nontraditional students.” At that time, the United States House of Representatives Committee on Education and the Workforce created a federal stipulation allowing for moneymaking institutions to receive federal aid. They passed the “85-15” rule, which created a requirement for private for-profit schools to acquire at least 15% of their revenues from the students. This was amended in 1998 into the “90-10” rule, which is still in place today.⁶ The idea behind the rule is that if a school is truly value creating or enhancing, there should be no problem gathering 10% of revenues from students. At the same time, allowing 90% of the revenues to be provided by the government allows these institutions to service a riskier sector of the population.¹

¹ The 90-10 rule is the source of significant controversy. Many commentators believe it keeps prices high and deters education of poorer students⁷

Over the past decade, the for-profit sector has grown to approximately 13% of all post-secondary students.⁸ These students receive more than just an increase in their earnings and tax contributions by earning degrees from these schools; they fill a very important role needed in our growing skilled labor market.

As an example, examine the manufacturing industry. According to the Manufacturing Institute, there are roughly 600,000 vacancies in skilled manufacturing positions. Effectively all of these positions will require some level of post-secondary education. The U.S. Bureau of Economic Analysis conducted a study identifying the effects of an economic growth multiplier as it relates to filling these positions. That is, how much external economic activity is generated by \$1.00 dollar of manufacturing sector GDP. They found that in manufacturing, \$1.00 equates to roughly \$1.48 of activity. In other words, if the 600,000 jobs were filled, 406,441 additional jobs would be created across all industries.⁹

If all of those positions are filled, the unemployment rate would drop as much as 0.64% and national GDP should increase roughly 1.04%. Furthermore, according to the Manufacturing Institute, the US could gain \$67.8 billion in exports, \$47.4 billion in direct foreign involvement, and \$8.5 billion in research and development investments. These jobs would have a significant, positive impact on the public sector as well. \$10.3 billion in unemployment insurance claims could be expunged, \$17.6 billion of additional income tax could be generated, and \$6.7 billion in corporate taxes could be generated if there were no vacancies in the 1,006,441 potential jobs.⁹ This element represents a substantial portion of the return in my Education ROI equation.

Higher education, in addition to increasing the value of the skilled labor force, has other particularly beneficial externalities. For example, studies have shown that there is a direct negative correlation between education and crime.¹⁰ In a more abstract sense, higher education usually causes healthier, more satisfied lives as well as higher community involvement. For all these reasons, every effort must be made to ensure we have the most efficient and accessible post-secondary education system possible.

2. The Rise of Nontraditional Students

. While there is no precise definition, the “nontraditional student” is usually defined as satisfying at least one of the following characteristics:¹¹

- Delays enrollment
- Attends part-time for at least part of the academic year
- Works full time while enrolled
- Financially independent in determining financial aid eligibility
- Has dependents other than a spouse
- Is a single parent or lacks a high school diploma

Interestingly enough, the “nontraditional” student represents a far greater percentage of the population than the traditional one. As the definition is slightly ambiguous and often varies subtly between different sources, it is difficult to pinpoint the exact percentage of nontraditional students. However, it has been estimated at over 70% by nearly all major reports for the past decade, including estimates by the US Department of Education¹¹. A

breakdown of the percentage of nontraditional students at each type of school can be found in Figure 3 below:¹¹

Type of Institution	Traditional	Minimally Nontraditional	Moderately Nontraditional	Highly Nontraditional	Total Percentage of Non Traditional
Public 2-Year	11%	14%	35%	40%	89%
Public 4-Year	43%	20%	23%	14%	57%
Private Not-for-Profit 4-Year	50%	15%	16%	19%	50%
Private For-Profit	11%	15%	39%	35%	89%

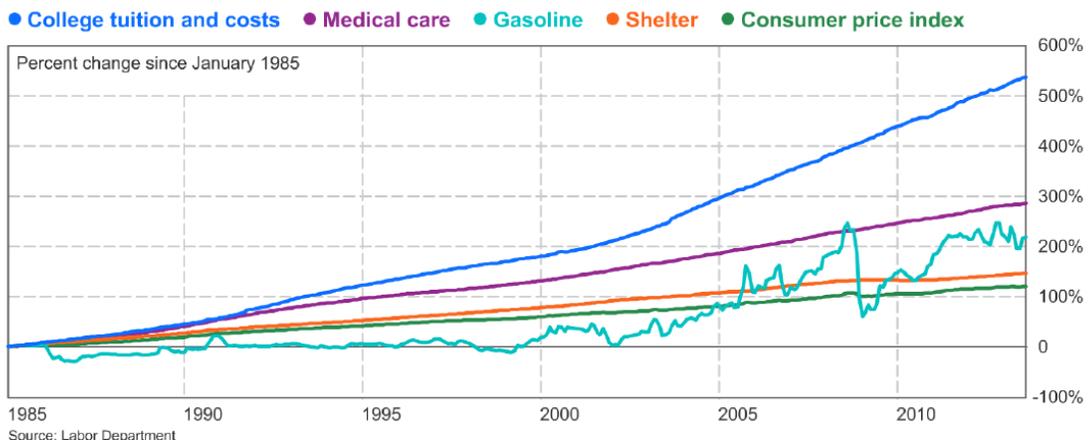
Nontraditional students have the greatest potential to impact the economy due to their massive numbers. However, due to time constraints, financial restraints, and other factors that separate them from the traditional student, they require a more flexible schedule and individualized education model. The for-profit sector has been the most adaptive sector of education to meet these specific needs by implementing block scheduling, online and hybrid classes, and a greater focus on vocational development in order to more effectively place the students in jobs. Furthermore, these nontraditional students are the ones who make the greatest use of aid from the federal government. This aid comes in the form of Title IV funding and represents a major portion of the “Investment” in our Education ROI template – specifically, all federal and state funding

3. The Importance of Title IV Funding

Title IV funding includes all financial aid to students as defined in the Higher Education Act of 1965, amended in 1992.¹² Each year, over \$150 billion dollars in Title IV funds are available to eligible students in eligible programs in the form of grants,

loans, and work study funds. According to data from the DOE, the cost of college has created an environment where over 50% of students in post-secondary education receive some amount of Title IV funding.¹³ As the costs of education have risen faster than just about any other index in the US, this government funding has become increasingly important. This trend can be observed in figure 4 below.¹

Figure 4



Grants and Loans are the two main sources of Title IV aid. Grants do not need to be paid back, and the interest on loans can be subsidized or unsubsidized. For subsidized loans, the government pays the interest until graduation. Unsubsidized loans often allow for deferred payment until after graduation, but the interest is still capitalized making the loan more expensive to the student.¹⁴ The majority of grants are awarded under the federal Pell Grant program, but are also available to eligible students in the form of Federal Supplemental Education Opportunity Grants (FEOG), Teacher Education assistance for College and Higher Education (TEACH) Grants, and Iraq and Afghanistan Service Grants.²⁵ Alternatively, loans are available to students who demonstrate financial assistance eligibility but do not meet the requirements to receive a grant. For an

undergraduate loan, congress passed a law this summer tying the interest rate to the 10-year Treasury rate plus 2.05%, capped at 8.25%.¹⁵

Students do have the option to receive private loans from banks and other institutions, however, those terms are almost always unfavorable in comparison. Work study funds allow students to work for money that can be used towards tuition. The government can often help provide an employment opportunity to a student in need that might otherwise be difficult if not impossible for the student to obtain. Grants, student loans, and work study funds are all represented in the denominator of my Education ROI equation. I will not attempt to identify the correct ratio of these financing structures as that is more of a social engineering and policy question outside the realm of this paper.

As it turns out, Title IV funding is a very good investment for the government. That being said, students defaulting on loans do represent a material cost to the government. A default is defined by the lack of a payment within 270 days (9 months) of the due date.¹⁷ If a borrower defaults, unlike many other types of loans, he or she cannot file for bankruptcy and be excused from or get a reduction on the amount. Instead, the loan will remain due until it is paid in its entirety, for the duration of the borrower's life. Often, the government will outsource the collection of these payments to private collection agencies. Other times, the government may take it out of tax refunds or social security benefits owed to the borrower. Either way, the negative connotation of default is considerably worse than the fiscal reality. The Office of Management and Budget reported that the recovery rate for all loans made under the Federal Direct Loan Program is approximately \$11.06 for a loan of \$10.00.¹⁸

In addition to the OMB report, USA News released an article on November 25, 2014 examining the profit booked by the US government in recent years and projecting the future federal gains from our current system of student tax collection. For 2012 and 2013, the government realized \$37.7 billion and \$41.3 billion, respectively, in profits off of student loans. If our system continues, over the next decade this number will aggregate roughly \$175 billion.¹⁶

There are two main ways to the government evaluates the level of default on student debt. The first metric is the cumulative lifetime default rate. The other is the cohort default rate (CDR). While the CDR measures only defaults in a two year period, the cumulative lifetime default rate measures the risk of default on loans throughout their entire life². The 2-year CDR's for public and for-profit schools are 7.6% and 8.0%, respectively. This difference gets slightly magnified when assessed using the cumulative lifetime default rate. This rate is 21.4% for 2-year public institutions and 26.0% for their proprietary counterparts.¹⁶

4. Demonizing of the For-Profit Sector

For-profit colleges have recently faced increased adversity. They provide education to an extremely high-risk segment of the population that has the hardest time paying for education and the highest percentage of loan defaults. Students at these institutions represent 13% of the enrolled population and 23% of all Title IV funding.¹⁹

² The Government is moving to a three year CDR, however, only unverifiable advisory data currently exists to measure this.

Critics worry too high a percentage of Title IV funds is going to entities making a “profit”. For example, Roberto Rodriguez, special assistant to the President for education policy, was quoted on October 24, 2013 saying, “Yes, I mean we believe we need to cut [for-profits] out of some point of federal aid.”²⁰ He, and others of the same opinion, claims that these institutions engage in questionable recruiting practices, deceiving students by claiming unrealistic career prospects and downplaying the role future debt will play in their lives. To examine this allegation, the Government Accountability Office created a report released in August, 2010 about a study where they posed as potential students and had interviews with personnel from proprietary institutions. These interviews were recorded to try and pinpoint and verify the claims made against these schools. The original findings were scathing and extremely detrimental to the industry. Stock prices plummeted and the negative perception of for-profit education intensified.

According to the study, “undercover tests at 15 for-profit colleges found that 4 colleges encouraged fraudulent practices and that all 15 made deceptive or otherwise questionable statements to GAO’s undercover applicants.”²¹ The fraud referred to encouragement given to four of the fifteen undercover prospective students by recruiters to falsify their financial aid applications in order to receive more money from the government. The report also claimed that schools under represented the true cost of the degree and convinced applicants to enroll without letting them confer with a financial advisor.

The GAO study was carried out at the request of Senator Tom Harkin, a Democrat from Iowa and the Chairman of the Senate Health, Education, Labor &

Pension (HELP) Committee.¹⁹ Harkin has been an outspoken critic of for-profit education, condemning the sector for the deceptive and costly programs the study sought to investigate. Many other Democrats share his view that community colleges provide a cheaper, more honest and equally valuable education to help students earn their degrees.

This report received an exceptional amount of criticism by proponents of for-profit education. The Coalition for Educational Success filed a lawsuit against the GAO claiming, “The GAO failed to adhere to applicable professional standards and protocols in preparing its findings. Because the investigation was not impartial but was preordained to reach conclusions against career colleges, the GAO produced findings that were riddled with errors and replete with biased and unsubstantiated conclusions.”²² These assertions caused a review of the report and an eventual correction to it by the GAO within the year. These corrections are so rare that this was one of 10 reports to get corrected in 2010 (roughly 1,000 reports were written during that year).²³ Though the extremity of the report was certainly toned down, the GAO stood by their conclusions that there was deception and certain violations of statutes.

As the GAO tried to release the corrected version quietly, the Coalition, among others, was not satisfied. Their spokesperson, Lanny Davis, made a statement saying, “It appears as though, in its first report, the GAO selectively edited or changed the tenor of conversations to make the original report appear more negative. This raises serious questions about the credibility of the GAO’s analysis and process.”²³ Out of the 28 “scenarios” undercover students enacted, 16 of them were altered in the second iteration.²⁴

Senator Harkin's actions appear to be coordinated with those of the Department of Education (DOE) to develop an ROI based rule. According to the DOE, they are designing a rule against for-profit education that would hold the institutions accountable for the best interests of their students and make sure that they were creating a constructive pathway to "gainful employment in recognized occupations."²⁵ The rule sought to "(1) provide institutions with better metrics and more time to assess their program outcomes and thereby a greater opportunity to improve the performance of their gainful employment programs before those programs lose eligibility for Federal student aid funds, and (2) identify accurately the worst performing gainful employment programs. At the same time, the final regulations require that these federally funded programs meet minimal standards because students and taxpayers have too much at stake to allow otherwise."²⁶

This rule was first published on October 29, 2010, and the final version of it was implemented on July 1, 2012. The rule sought to disqualify programs in which cohorts of graduates had debt service payments exceeding 12% of their reported income and 30% of their discretionary income. It also sought to exclude programs in which 35% of cohorts were not amortizing their debt principle, even though many Title IV programs allow for deferral of the principle amortization.²⁷

This version of the rule was extremely hard on for-profit institutions and was struck down as arbitrary and capricious in the federal court.²⁸ The DOE's attempt to get at an ROI concept is laudable, but the rule had several failures with respect to calculating Education ROI. First it only focused on entities that have the tax status of "for-profit."

Second, it focused solely on student costs. Third, it set arbitrary thresholds of 12% debt to earnings ratio on short term earnings rather than looking at true total economic return. In short, it failed to capture accurately all the costs and benefits of higher education instead of focusing on somewhat arbitrary metrics.

After the most recent version was struck down, the DOE drafted a proposal with even stronger thresholds. The debt to income ratio was tiered to create penalties at 8% vs. the earlier 12% debt service ratio and the debt to discretionary income rate reduced to a 20% level. While this rule is still in negotiation and not yet final, its intent is clearly to penalize institutions with “for-profit” status.

5. Relative Performance and Cost Analysis

Though tuition is significantly more expensive at for-profits than community colleges, the two types of schools have very different cost structures. The average tuition during the 2006-2007 school year was \$13,442 at 2-year for-profit colleges. At the time, this made up on average 90.8% of the school’s costs per year. While the average tuition at a community college was only \$2,133, that only represented 18.2% of total costs. All other costs are represented through government grants and contracts. The main reason, therefore, that tuition is so much higher at for-profit schools is because the students bear just over 90% of the total cost. When student costs and federal + state support are added together, the total costs at for-profits and community colleges are respectively \$29,606

and \$23,464.¹⁸ This element represents the entirety of the investment value in my Education ROI formula.

Another major factor in the cost of a certificate or degree is the percentage of students who graduate. Those who fail to graduate represent a significant cost to the government and private lenders in the form of increased defaults. In addition, they do not benefit from the increased income tied to the degree and therefore will not provide as much money to the government in the form of future income taxes. Therefore, every effort should be made to maximize this variable across all of higher learning. Graduation rates across different types and levels of institutions can be found in figures 6 and 7. Because of the higher graduation rates at for-profit institutions, for-profit participants account for a higher percentage of total degrees than total students. Another important element to note about these figures is the increased proficiency in generating degrees for minority students for-profits have achieved as compared to other types of schools.

Roughly 29% of students transfer out of community colleges and into these public school programs. Of that number, about 1/3 of the students do so after obtaining a degree from the community college. This means that roughly 19.3% of students transfer without first earning a degree from the community college. Of those 29.3 %, roughly 50% (the 4-year graduation rate at a public school) should graduate. This means that an additional 9.5% of students who transfer end up getting a degree from somewhere else.¹⁸ – another signal that these schools operate at a higher level of efficiency. The additional 9.5% graduation increase from transfers is not included in table 6.

Figure 6

Graduation Rates	2 Year Graduation Rate (Cohort Starting in 2008)	4 Year Graduation Rate (Cohort starting in 2005)
Public	20%	32%
Private Not-For-Profit	51%	52%
Private For Profit	62%	36%

3

Figure 7

Graduation Rates at schools with greater than 75% minority enrollment	< 2 Year Graduation Rate	Increased Likelihood of Graduation at For-Profit Insitution	2 Year Graduation Rate	Increased Likelihood of Graduation at For-Profit Insitution	4 Year Graduation Rate	Increased Likelihood of graduation at for-profit insitution
Private for-profit	63%	-	56%	-	47%	-
Private not-for profit	73%	-14%	44%	27%	40%	18%
Public School	40%	-58%	16%	250%	33%	42%

3

Though the total cost is higher at for-profits than their public counterparts, it turns out that the cost is significantly more expensive per degree at community colleges. This is due to several variables. First, the lower graduation rate at community colleges represents a major cost as more students are needed per degree. Secondly, the increased number of grants and contracts awarded to public schools comes directly out of the taxpayer's pocket. At community colleges, the award averaged \$9,559 for the 2007-2008 academic year. At for-profits, \$1,361 was given out on average. Duration of study for degree completion largely impacts the total cost as well. The longer a program takes to complete, the more revenue is needed to cover the costs. According to US Department of Education data, the average community college student only stays 99.7% of a full year,

due to dropout rates and transfer rates. Alternatively, the average student at a proprietary institution remains in school for an average of 1.37 years. Factoring in all of these variables, we arrive at a total taxpayer costs for a degree from a community college to be \$32,163, compared to \$3,211 at a for-profit school. Using these statistics, Charles River Associates calculated the formula used to compute these figures, which can be seen in figure 9.¹⁸ This calculation also leaves out the tax payments for-profits are required to make, which would create an even larger discrepancy.

Figure 9¹⁸

Taxpayer Cost Per Graduated Student		Public 2 Year Institutions	For-Profit 2-Year Institutions	Difference
Government Grants and Contracts	1	\$9,599	\$1,361	\$8,238
Average Years in School (including Transfers and Dropouts)	2	0.997	1.373	(0.376)
Total Taxpayer Cost Per Completing the Program	3 = 1/2	\$9,572	\$1,869	\$7,703
Graduation Rate of Students	4	29.80%	58.20%	(0.28)
Total Taxpayer Cost per Graduated Student	5 = 3/4	\$32,163	\$3,211	\$28,952

6. Job Placement and Revenue

Below, I have calculated the average starting and midlife salary for a community college graduate and a graduate from a for-profit university according to data from the Integrated Post-secondary Education System and Payscale.²⁹ The first year after graduation, students coming from community colleges earn on average \$35,000 and receive an average mid-career salary of \$50,921. For-profit graduates earn \$43,432 on average their first year in the work force and earn \$70,847 mid-career. According to a recent report on the value of an associate's degree, the median net gain over the course of a 40 year working life for graduates of community colleges as compared to those with

only a high school degree amounted to almost \$260,000. This translates to an annual “ROI” of 4.4%.³⁰ For proprietary schools, the average annualized ROI is equal to 6.03%.²⁹

This is notably different than the Education ROI I propose, as the one calculated in this study is computed by subtracting the cost of the degree (to the student) from the increased earnings (relative to a high school degree) produced by that degree and then dividing by the cost of the degree, ignoring externalities and taxpayer costs. Even looking at the simple ROI for increased student earnings alone and excluding substantive state and federal subsidies, the for-profits are performing at a higher level than the community colleges.

If we were to apply the ROI formula I propose, the increased earnings would represent part of the “Return” in the numerator. Job placement plays a major role in calculating this statistic. Unfortunately, community colleges historically have not provided a uniform way to measure placement rates in the field the student trained for, creating unique rates that are too incomparable to analyze. In the end, being able to analyze total costs per graduate is about all we can calculate from existing data. Therefore, the formula per graduate should be the same as the one proposed earlier, but on an individualized per graduate scale. In other words, all variables in the equation should pertain to one individual student.

$$\text{EDUCATION ROI} = \frac{\text{Increased Earnings} + \text{Increased Economic Productivity} + \text{lower healthcare, unemployment, and other related costs}}{\text{Federal} + \text{State} + \text{Student Expenditures}}$$

7. Significant Innovations in the Education Space

To achieve long term efficiency and higher Education ROI in providing post-secondary education, something needs to change. Our current educational model has been labeled an “Iron Triangle” by several college and university leaders.³¹ There is a constant tradeoff between accessibility, quality and cost. That being said, there are several initiatives underway that seek to solve the tradeoff problem. Unfortunately there is a generally stubborn trend in the space and these programs are often isolated and lacking in momentum.

One innovation in the education space is the creation of competency-based programs. Instead of requiring a certain number of credit hours, students are able to move as fast as they can progress through a series of assessments. Effectively, this should reduce costs and increase quality and accessibility. Western Governors University (WGU) is a leading pioneer of this style of education and is growing 30% annually with over 40,000 students currently enrolled. The average competency based student takes only two and a half years to earn a bachelor’s degree. While WGU does not currently offer associates degrees or certificates, the same competency based model could theoretically work for those degrees as well. WGU is one of the only schools not to have

increased tuition at all over the past four years. It remains constant at \$6,000 per year.

Part of the lower cost comes from the significantly shortened degree completion time. Six months into their year, the students make the first payment and get the first opportunity to place out of as many of the required assessments as the student so chooses. WGU has partnered with state schools in Indiana, Texas, Washington, Missouri and Tennessee over the past few years to develop and implement more of these types of innovations.³²

A major cost saving initiative, taken on by the National Center for Academic Transformation (NCAT), reaches for the largest classes possible in order to redesign as few courses as possible while affecting the maximum number of students.

Fundamentally, NCAT allows for greater enrollment and access while keeping the cost the same or lower. They launched a project at 30 schools across the country and achieved very exciting results. Schools in the study saved on average 37%, aggregating \$3 million collectively. Significantly increased retention was noticed at 18 out of the 24 schools in the study that measured the retention statistic.³²

A community college undertaking substantial innovation is Rio Salado, in Arizona. They have actually partnered with Microsoft and Dell to create a technology intensive online platform, called RioLearn, with flexible scheduling blocks and low tuition. Between 2000 and 2010, Rio Salada has grown 173% to over 70,000 students enrolled, in large part due to their online innovation. This technology has also helped pinpoint students that are likely to drop out. Within the first 8 days of a class, the data is able to predict with reasonable accuracy who these likely candidates are and can then use the information to target and affect those students.³³

In 2010, Arizona State University partnered with Pearson LearningStudio to provide their students with a better online learning platform. This will be an extremely useful tool to help educate students, track their growth and engagement, and increase accessibility to more students while improving student-faculty interactions³⁴. Both this initiative and RioLearn are innovations coming from private sector involvement, a trend that is being realized nationally. Other companies partnering with public and non-profit schools include Embanet, Bisk, Deltak, Academic Partnerships, and 2U.³⁵ Currently, the private sector is generating the most valuable innovation and improvements to make an impact in new models of student education.

8. GOING FORWARD

In order to provide the best education system to as many potential students as possible, a different metric should be considered. We need to use a more systematic Return on Investment statistic that measures the overall cost of a program to society, not just the student. We are too concerned with individual inputs and need to take a step back to address the larger picture. For example, instead of trying to reorganize our system by using measured default rates in years three and four post-graduation, a more incremental lifelong earnings formula would provide a more accurate long term fiscal picture. Furthermore, targeting the for-profit industry with capricious and one-sided rules that remain unapplied to the rest of higher education is an arbitrary waste of effort and resources. There does need to be some measure to examine the success of education, but it should be broadly applied and based on the overall efficiency of the system with a more tangible Education ROI metric.

In addition, the student loans could be provided at a lower rate than currently given since the government has profited more than \$79 billion in the last two years alone.¹⁶ This would also help the default rate as debt would be provided at a lower cost to students. In economic terms, it appears that the risk premium on the federal loans is unjustified.

Australia implemented an effective income based repayment model that could transfer well to the US. Their students pay back loans through direct payroll deductions. When the borrower achieves an income level equal to roughly \$50,000, between 4-8% of that income is withheld and collected by the government. Instead of charging interest, which compounds in the US and adds to expenses for students, borrowers must simply pay back 125% of the principle over time, with the balance adjusting for inflation each year. The great aspect of this model is that students do not have to worry about repayment during periods of low income, and never pay more than 8% of their salary even when their income is high. Essentially, this will both raise the “Return” and lower the “Investment”. A potential downside, however, is that if an Australian citizen works abroad, he or she is not subject to the tax and will likely not end up paying back the debt. This is because whatever country he or she is working in would have its own deductions and taxes, and the employer would not deduct loan repayments as Australian employers are required to. In addition, if the graduates never earn high incomes, much of the debt may remain unpaid. The Gratton Institute in Australia calculated in a recent report that as much as 20% of student debt in Australia will never be paid off due to the effects of emigration and low incomes.³²

I would propose a slight modification to this model to try and increase the recovery rate and mitigate the losses. To solve the problem of lost revenue from students deciding to leave the country, there should be a stipulation that converts the income based repayment to a live note if someone decides to work internationally. This could still be structured through the income based repayment model, but the payroll deductions would be the responsibility of the student, not the employer. In other words, students could report their income to the government and would owe the same amount they would be liable for if they worked domestically. Obviously, regulations would have to be put in place to close the numerous potential loop holes such a program would engender.

In addition, the federal government could use graduation as an incentive. For those that do not earn a degree, they will still have to pay back the full amount of the loan, perhaps with interest. This should have a positive impact on retention and graduation rates as well as provide a system that further incentivizes competence and completion. Furthermore, under this system, we would avoid the impact of the unfair stigma given to students in default. We would also avoid the costs of chasing defaulters and at the same time develop better databases regarding the success of institutions and programs. As our Elite institutions continue to perform, technology and innovation are making it possible to create a similarly high Education ROI for nontraditional students. That being said, it will take openness, change, and a common measurement methodology to achieve this goal.

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