

THE PENNSYLVANIA STATE UNIVERSITY  
SCHREYER HONORS COLLEGE

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THE CURRENT STATE OF COLLEGE EDUCATION AND COLLEGE LOAN DEBT  
MARKETS AND THEIR IMPLICATIONS FOR FUTURE GENERATIONS

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## **ABSTRACT**

When most individuals think of a “college education,” they do not associate it with the phrase “necessary evil.” However, due to rapidly developing trends, this may very well become the case. The price to attend college has increased at an exponential rate, and higher education as a whole has become big business. An artificial demand for college graduates has ensured that it is nearly impossible to land a decent job without a degree; because of this, young adults are taking on massive amounts of debt in order to attend college. More alarming than this crippling debt is that many of those same young adults find themselves jobless post-grad, sitting upon a mountain of debt with nothing to show but a piece of paper that we have decided to be a necessity. Should these trends continue, in the very near future, perhaps even within five to ten years, the way young adults live will change drastically. In this paper, I have attempted to connect the great many puzzle pieces that is the college education paradox.

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## **Chapter 1**

### **Introduction**

Forty something years ago, college was not necessarily “the norm.” Those who decided to not attend some form of post-high school institution had alternative career paths. Some entered the armed forces, some began their career with an entry-level job, and others became apprenticed to skilled laborers, learning via on the job training.

Flash forward to today. Almost 70% of high school grads now attend college, and for good reason – finding a job without a college education is a challenging task. However, those who decide to attend college have found themselves in an interesting predicament – they are buried in massive student loans, loans that have increased at an exponential rate over the course of a very short time span. The student loan debt market has become so large (\$1.3 trillion dollars,) so expansive, that it now eclipses both the automotive and credit card debt markets. On top of all of this, some graduates are jobless.

We have reached the point where we must ask why. Why has education become so expensive? Why has a college education become such a dangerous investment? Is a college education, which has long been considered to be necessary, still a good investment?

I submit three things. First, the reason that a college education has become so expensive is due to a combination of litigation and that a degree is a very high demand item, leading to institutions and companies wanting to reap additional profits. These rapidly increasing expenses may very well be forming a debt bubble. Second, I submit that a college degree is now worth what a high school degree was worth about 40 years ago (which may or may not be a good

thing.) It has become necessary because a college degree has become a proxy for recruiters. Why hire a high school graduate for an entry-level position when you can hire a college grad who has proven superior intelligence and dedication and will work for the same wage? Third, I submit, contrary to my former statement, that by pure financial analysis, it can be proven that a college education may no longer be a good investment. The combination of these three things means that we, as the American public, should reconsider the way we look at post-high school education; for a century we have viewed a college education as an absolute necessity in order to achieve success; though this may be true, the reasoning behind this may very well have changed.

This issue clearly is not something that is new, but rather something that has continued to escalate. A vast amount of information is available on the subject, but few studies have ever connected the information in a cohesive way. Unlike some other studies, I do not necessarily think that I have generated a ton of new information. The pieces to the puzzle that is the rising cost of college education have always existed, and goal of this thesis was to assemble said puzzle. Though more research should be done in the coming decade, I think that my platform is a good start, and addresses several major issues associated with the college education issue.

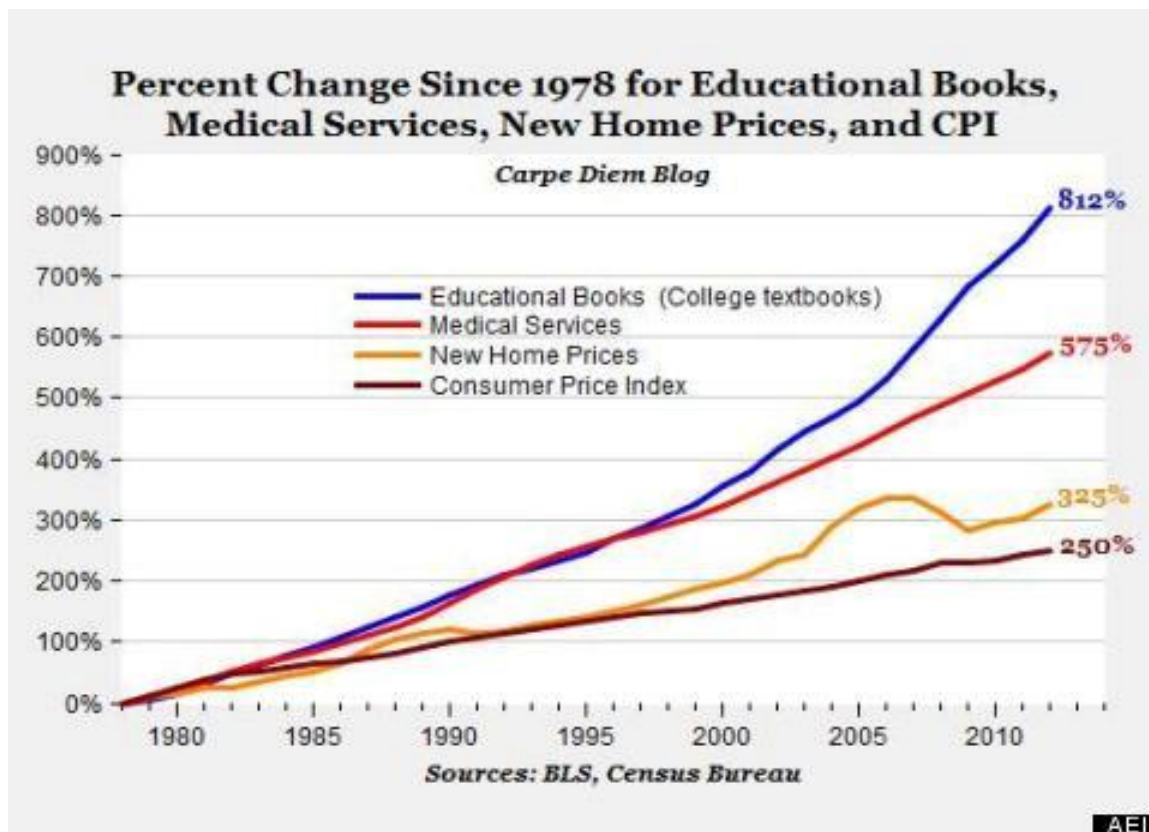
## **Chapter 2**

### **Literature Review**

#### **The Monetization of College**

Several studies also point out that the rising expense is hidden in non-tuition expenses such as room and board, books, etc. When analyzing college expenses, most studies have focused largely on the tuition figure and ignored other college-related costs. Upon uncovering

additional data it turns out that my hypothesis is correct. Textbook expenses have also increased by over 1000% since 1978<sup>[8]</sup>, as shown in the graph below (which may look familiar.)



The 812% figure was 2012's data, while the 1000% figure comes from a 2015 study.

This increase has caused over 70% of students to say that they will opt to not purchase textbooks that are required by the course, which is clearly a major issue, as the bulk of many courses comes from textbook related material. A report compiled by Attn made me realize that perhaps it is not the institutions alone that are driving up these prices, but rather the individuals who stand to profit. Using textbooks as an example, we can see that they are clearly an item that is being used more so for profit than their purpose. Half of all textbook costs go to publishers and bookstores, new editions are constantly released so that purchasing older versions is no longer an option (even though a 2008 report found that revisions are, for the most part, largely unnecessary,) and

textbooks are often bundled with unnecessary CD-ROMS or study guides that are typically unused. The textbook industry operates much like any other industry; just five major players exist, so they are able to drive up prices without the fear of competition. A report published by the National Association of College Stores found that 77 cents of every dollar spent on textbooks goes to publishers. From those 77 cents, they make 18 cents of pure profit, use 15 cents for marketing, and have 32 cents of costs of good sold. The issue is so large that a legislative bill was recently introduced to make textbooks all released under an open license (they will be readily available for low prices on the internet.) However, the legislation is nowhere near passed, and publishers fight back on a yearly basis by introducing new editions. The Attn article identified the concept of “college education as a business” is all over the place. Room and board expenses have alarmingly fast as well<sup>[10]</sup>. The chart below shows the cost of both tuition and room and board, all in 2015 dollars (all numbers adjusted for inflation.)

	In 2015 Dollars				
	1986-87	2000-01	2005-06	2010-11	2015-16
<b>Tuition and Fees</b>					
Public Two-Year In-District	\$1,388	\$2,352	\$2,890	\$3,159	\$3,614
Public Four-Year In-State	\$2,744	\$4,668	\$6,310	\$7,850	\$8,743
Private Nonprofit Four-Year	\$12,024	\$19,021	\$22,261	\$25,366	\$27,422
<b>Room and Board</b>					
Public Two-Year	—	—	—	—	—
Public Four-Year	\$5,675	\$6,448	\$7,519	\$8,677	\$9,455
Private Nonprofit Four-Year	\$6,155	\$7,520	\$8,464	\$9,398	\$9,970
<b>Tuition and Fees and Room and Board</b>					
Public Two-Year In-District	—	—	—	—	—
Public Four-Year In-State	\$8,419	\$11,116	\$13,828	\$16,527	\$18,198
Private Nonprofit Four-Year	\$18,179	\$26,541	\$30,725	\$34,764	\$37,392

Unlike college textbooks, the university operates room and board, so the concept of “major players” in an industry is not as applicable, and it is impossible to determine if room and board is being used as revenue towards operating costs. However, an article and accompanying



study published by the Hechinger Report<sup>[11]</sup> included the opinions of multiple noted economists who think that room and board prices are being used to supplement in a time where institutions are starved for funds from legislation. The study uses the example of Amherst to discuss the \$10,957 room and board expense. This would equate to \$24 for the cheapest meal plan (twice what the U.S. Department of Agriculture says the average American spends on food per day) and \$786 a month to share a small room, slightly below the \$908 a month expense that the Census Bureau prices an entire apartment or house at. Experts have hypothesized that universities are using a monopoly like system, where they are able to determine prices and require students to pay room and board for one, two, or more years, though universities have denied the claims. Other forces exist as well, such as unionized dorm and food-service employees (who have historically negotiated larger and larger pay increases,) the demand for luxury and gourmet food, and universities opting to repair and create new dormitories. With all of these findings, it has become clear to me that this is not the simple issue of tuition prices increasing, but rather all expenses associated with actually making the decision to pursue a college education. I firmly believe that the higher education system is plagued by big business and far too common business practices.

Many believe that these inflationary prices stem from what is being referred to as “the privatization of college.” State support for public colleges and universities has fallen by about 26 percent per full-time student in the last 20 years <sup>[30]</sup> .

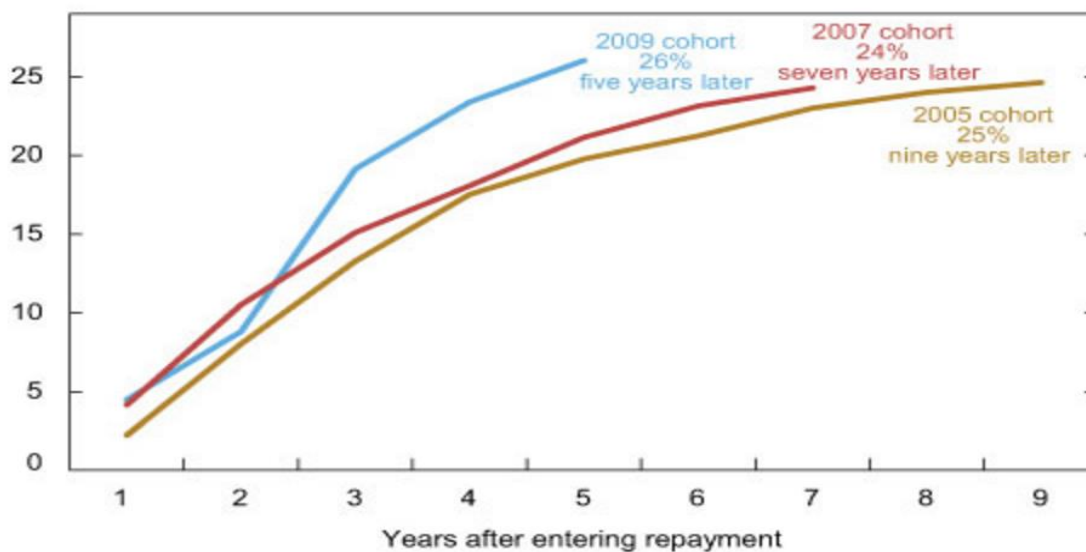
## A Potential Debt Bubble

These massive price tags have suggested that college expenses may potentially become a bubble, though it is still far too early to determine this, and even if it was not it would be exceptionally difficult to prove that they could.

Multiple studies, publications, and individuals surveys <sup>[13][14][15][16]</sup> all have confirmed the same thing: college prices are increasing, the total dollar amount of student loans are increasing, the total number of individuals with student loans is increasing, and student loan default rates are increasing. Student loan debt stands at \$1.32 trillion (compared to just \$250 million in 2003,) 38.8 million individuals now hold student debt (compared to 23.2 million in 2005,) and the cohort default rate (the percentage of borrowers who enter repayment in a fiscal year and default by the end of the next fiscal year) has steadily increased from 4.5% in 2003 to 11.8% in 2015 <sup>[18][19]</sup>

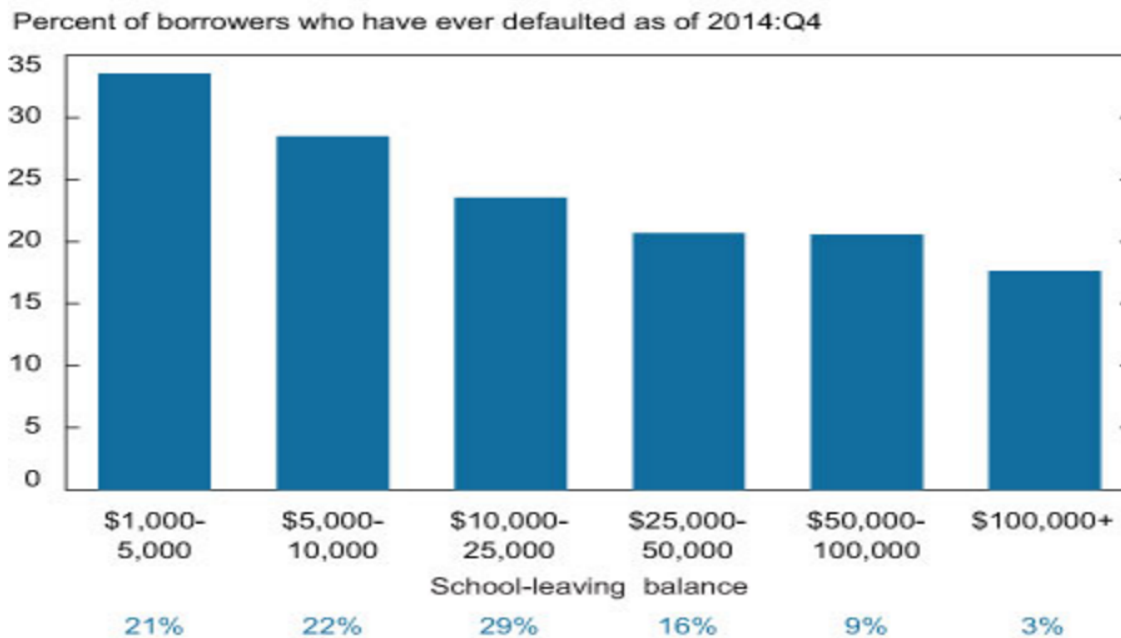
### Default Rate by Student Loan Cohort

Percent of borrowers who have ever defaulted as of 2014:Q4



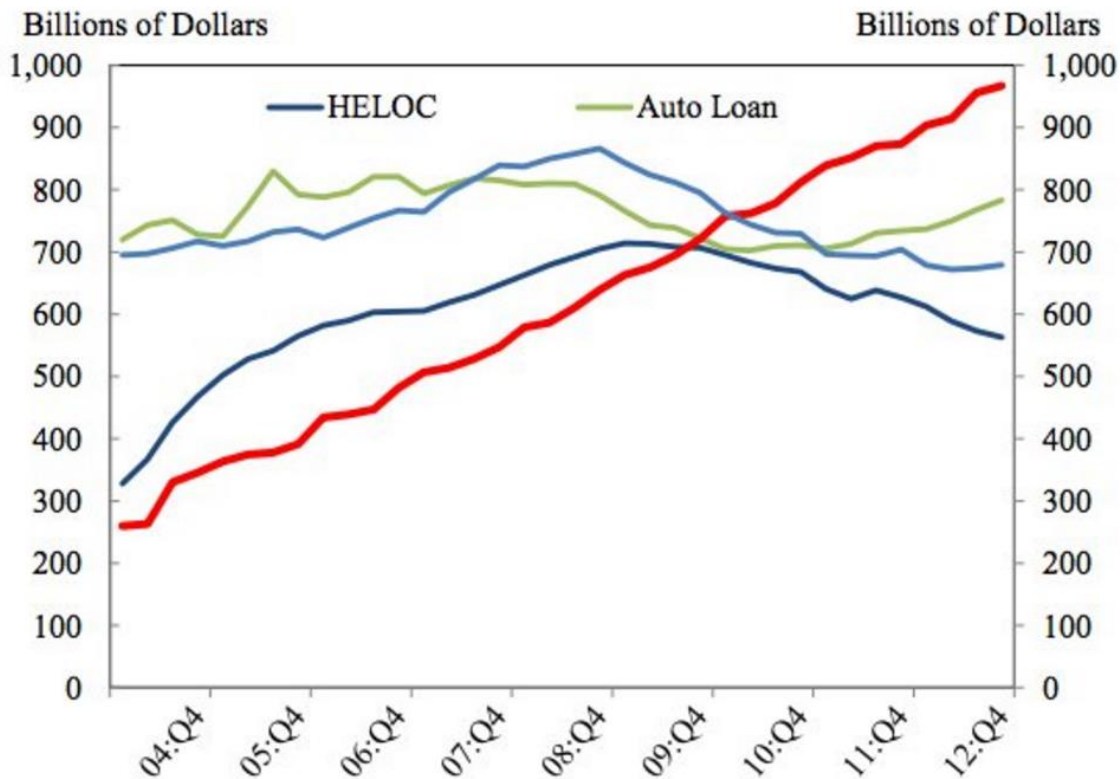
Source: New York Fed Consumer Credit Panel/Equifax.

The same study, interestingly enough, produced an interesting tidbit – the people who are most likely to default are those with the smallest amount of debt, in the \$1,000-\$5,000 demographic.



Though the potential for a bubble to exist may be difficult to prove, it has already become apparent that student loans have fundamentally altered the way individuals of the future with debt will be living. A likely (and already existing) implication is that student loans create a vast amount of economic drag, and could cause a potential recession in the future. An article by Fortune<sup>[14]</sup> that cites a detailed report conducted by a home consulting company estimates that student loans now cost the economy 414,000 transactions and \$83 billion dollars in sales per year. <sup>[15][16]</sup> The following graph, created via a study conducted by the Fed, shows that as student

loan amounts have increased, auto and home ownership have decreased.



### Potential Future Implications for College Graduates

I believe that this means multiple things. First, Americans believe that college is a good investment; they would rather go to college to potentially earn more money at the expense of waiting additional time to purchase other goods. Second, the levels of college debt are increasing at a rate that is problematic, as indicated by default rates. Back in 2005, home ownership for those under the age was 43.3%. As of 2015, it is just 34.6%. A whopping 57% of individuals say that student loans were impeding their ability to purchase a home. In addition, individuals have begun to put off starting family. Birth rates are at record lows, and the average age for a first birth has been increasing year over year to its current 26. Many students have also chosen a

career path that offers financial stability, which puts lower-paying but very important careers such as early childhood education in a tough spot. Finally, a study conducted by the Fed concluded that student debt is having a negative impact on entrepreneurship, and that there is “a significant and economically meaningful link: more student debt led to fewer small businesses.”

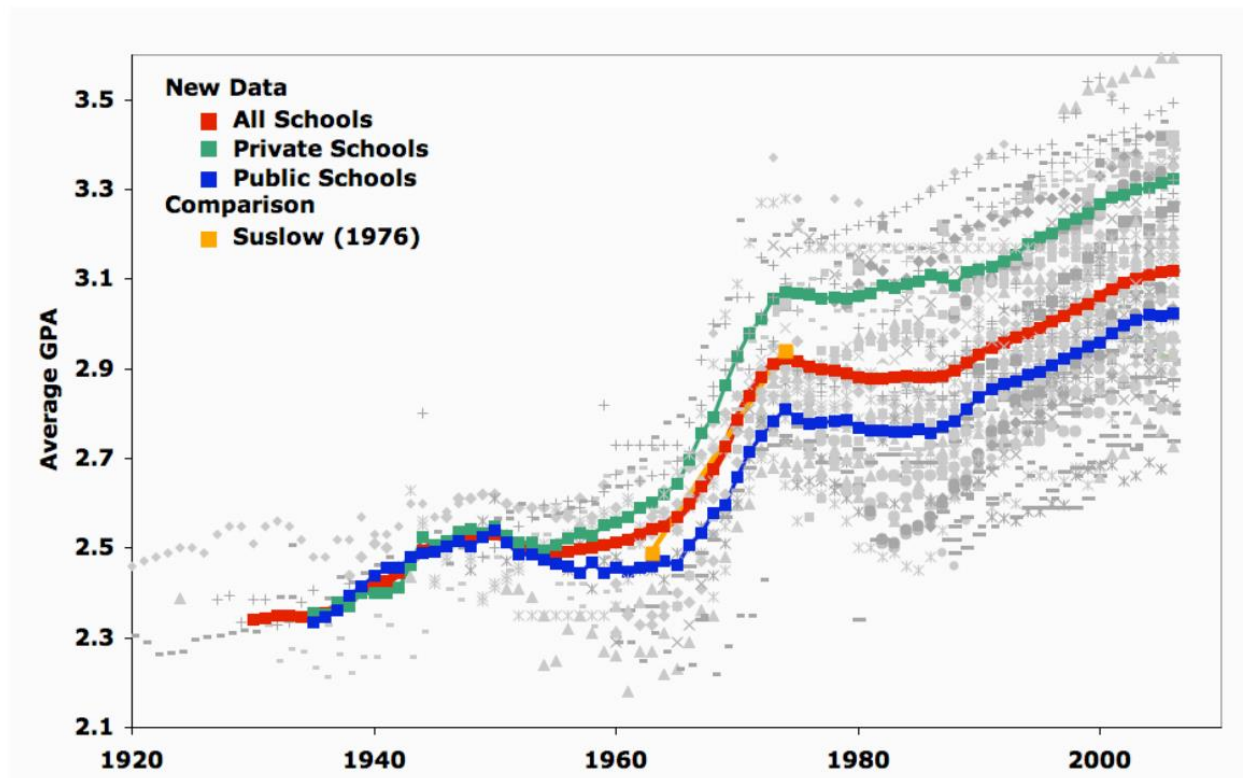
In addition to the lack of spending on things such as homes, there also has been a substantial decrease in retirement savings. The median millennial has saved a grand total of \$0 for retirement. Not only this, but as a recent study has confirmed, people under the age of 40 have saved 7% less than the Americans in their 20s and 30s in 1983; finally, workers under the age of 34 have been, on average, saving just 5.5% of their income for retirement, 4.5% less than financial planners recommend; though social security will be there to help, it was not intended to be the source of retirement, but to help to close the gap not covered in personal retirement <sup>[31]</sup> .

At the time of writing this, it is also interesting to note that the 2016 presidential election is in progress, with neither major party officially declaring a candidate yet. While the republican party age demographics are somewhat scattered, Bernie Sanders, a democratic candidate, has a huge portion of the 44 and under crowd, the age group most affected by college loan debt, as well as the potential necessity to take on college debt. He controls 84% of the 17-29 age group, while also holding 58% of the 30-44 age group. There are multiple potential reasons for this; however, one of Sanders’s defining beliefs is the eradication of the income inequality gap, something that college debt is closely linked to. Sanders is well known for believing that a college education today is worth what a high school education used to be worth 40 years ago; he believes in free college for all individuals, as it is necessity in order to thrive. Similarly, he controls a large stake in both the some college or college graduate demographic, but has a lower control in the high school or less and post-graduate study demographic <sup>[26]</sup> . We could potentially

infer from this that the young adult population is thinking in a similar manner; it is obvious that the rising cost of a college education has negatively impacted young adults, but who is to say that it won't get even worse?

### Grade Inflation: Are Rising College Attendance Levels A Good Thing?

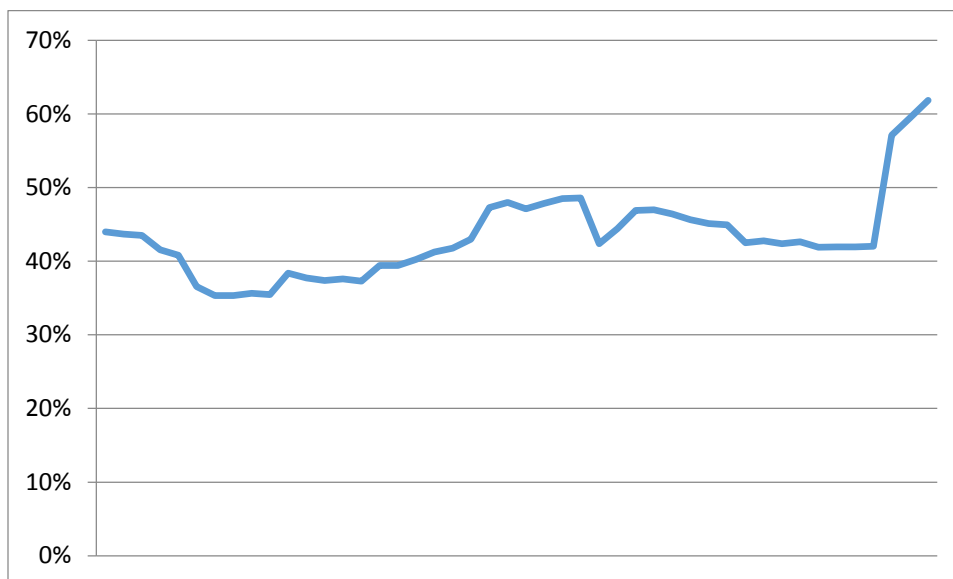
According to a study performed in 2010, the grade point average of both male and female students has been on the rise for almost 40 years as shown below:



Above: GPA separated by institution type, 1920-2012

We can see a few distinctive factors within this graph. First is the extremely sharp spike in the 1960's to early 1970's. This corresponds to the social upheavals associated with the Vietnam War, which was followed by a decade of digression, which was then followed by a

period of inflation which has continued until this day. The reason for this inflation is still not entirely understood; entrance test scores have not increased, students are increasingly disengaged from their studies, and the literacy of graduates has declined. In addition, high school students are reporting studying less and less, yet receiving higher marks. Many attribute this grade inflation to the now-required student-based evaluation of the teachers; in other words, teachers want their students to learn, but if they want to keep their jobs, they want them to pass their classes with high marks. In addition, it was found that private schools in general do not educate students any better than public schools; those who are financially capable of going to private schools will typically do equally as well as those who could not afford to so. However, on average, private schools' students tend to have a GPA .1 to .2 higher on a 4.0 scale. We can infer, perhaps, that it is indeed then possible to "buy" grades and prestige <sup>[27]</sup>. Though data is still somewhat scarce, it is possible that even though average GPAs are increasing, college readiness is declining. This would mean that more and more individuals who should not be considered for certain universities (or any at all) are now capable of attending; since their IQ is lower than what their GPA would suggest, they are unable to compete with their peers. The following graph shows college enrollment at a degree granting university of all individuals age 18-24 (1967-2012) <sup>[28]</sup>.



In stark contrast to these rising numbers, last year, ACT and SAT scores declined to the lowest level since the 2400 point system was incorporated a decade ago – 1490. This number would indicate that only 41.9% of high school students are college ready, a number that has not increased in five years <sup>[29]</sup>. Compare this to the 2012 enrollment figure of 62%. Bearing all of this in mind, I hypothesize that over the course of the past 40 years, GPA inflation has caused non-university grade students to have access to university level education instead of proceeding directly into a job that they are more suited for. This has caused the amount of individuals with degrees to increase drastically. Because there are more and more individuals who are now college graduates, there is an excess of supply that exceeds demand. This would explain why many students graduate college with a degree yet cannot secure either a job or a job that requires use of their education. Even worse is that since so many individuals now have a degree, those without a degree are not nearly as desired; this has caused even more artificial demand for a degree. This artificial demand is the single largest contributing factor to the skyrocketing prices of a college education. This issue creates a logical paradox that is the center of the disaster: a college degree is necessary to secure a job, but it is not necessary to succeed; however, those



who would be able to succeed without a degree are never given the chance, because they need a college education in order for employers to even consider them in the first place.

## Chapter 3

### Data, Research, and Methodology

The bulk of the sources that I have compiled in my research center around three things: the return on a college investment, the rising cost of a college education, and the potential for student loans to ultimately form a debt bubble, as well as the future implications of this concept. Bearing this in mind, I submit that a college education is ultimately an investment. If the net present value of the investment is not positive, it should not be undertaken. Historically, college has been widely accepted to be a good investment, as those with degrees have traditionally earned more in their lifetimes. However, college costs have increased dramatically over the course of the last 30 or so years, so fast that the cost has increased at a rate four times faster than the consumer price index; even more alarming is that a huge chunk of this rapid increase has occurred in the past decade. A few of my sources have been instrumental in these findings, including an article done by the Statistic Brain Research Institute<sup>[1]</sup>; the table below summarizes

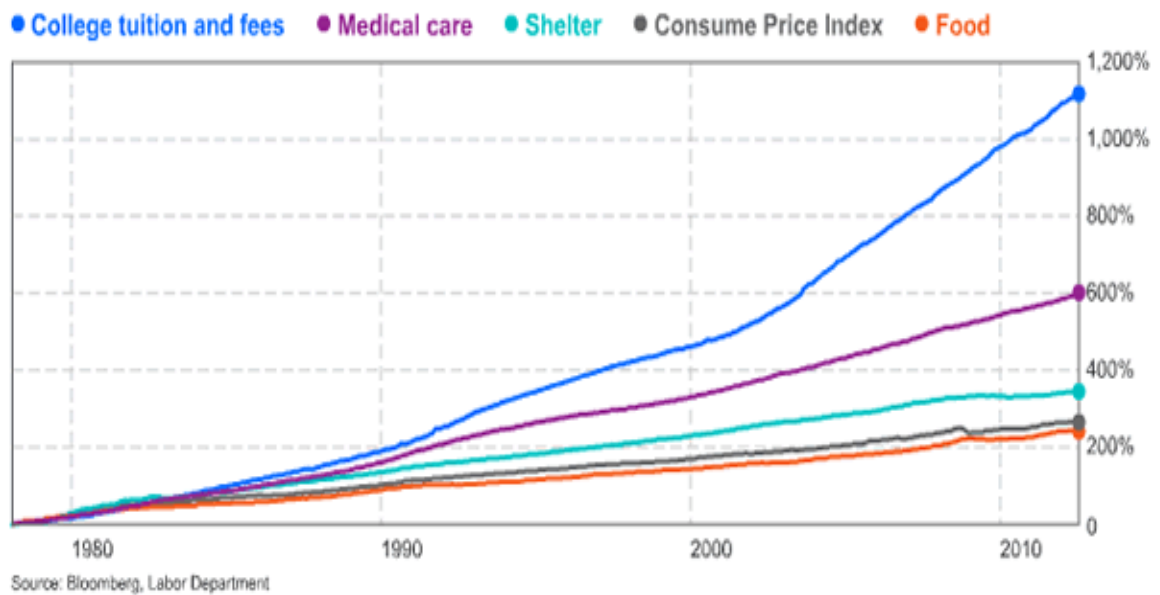
the findings.

Year	All Institutions	4-Year Institutions	2-Year Institutions
2014–2015	\$20,403	\$23,600	\$10,837
2012–2013	\$19,344	\$22,261	\$9,180
2010–11	\$18,497	\$22,092	\$8,909
2009–10	17,649	21,093	8,533
2008–09	17,092	20,409	8,238
2007–08	16,231	19,363	7,637
2006–07	15,483	18,471	7,466
2005–06	14,634	17,451	7,236
2004–05	13,793	16,510	7,095
2003–04	12,953	15,505	6,705
2002–03	12,014	14,439	6,252
2001–02	11,380	13,639	5,718
2000–01	10,820	12,922	5,466
1990–91	6,562	7,602	3,930
1980–81	3,101	3,499	2,230

Above: historical costs to attend different forms of university

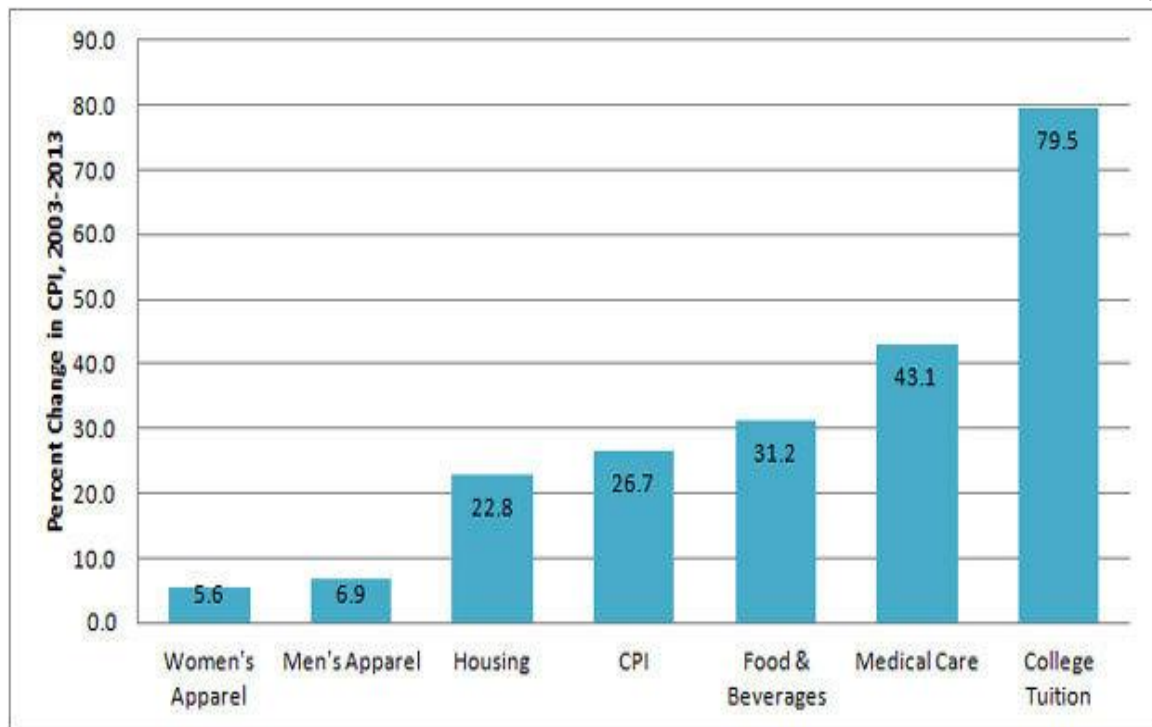
An additional research report issued by Bloomberg<sup>[2]</sup>, as well as an article that branches off the Bloomberg report with additional statistic and research findings<sup>[3]</sup>, found that the average cost was roughly four times more expensive than it was 30 years ago, an increase of 1,120%. The table below plots different product price increased over time, with college tuition trumping even medical care.

### Percent change since January 1978



Above: inflation of the prices of different expenses, 1978-present

An additional study conducted by the labor department <sup>[4]</sup> confirms the findings as well, with specific attention the past decade or so, where prices have increased at a much more exponential rate.



inflation of the prices of different expenses, 2003-2013

Finally, a survey conducted by CollegeDate <sup>[6]</sup> . found that a “moderate” budget for an in-state public college was roughly \$24,000, which concurred with the data collected elsewhere. All of these studies are pointing to one obvious fact: college is getting more expensive, but what most don’t realize is that it is very much likely that this exponential price increase will continue, and likely even worsen.

Through these sources, I have deduced a few important factors are central to my research and quantitative analysis. First, the idea that just because colleges have historically been a good investment does not necessarily mean that they will be in the near future. Second, though universities have always been considered to be a source of education, many still operate like a business, and will squeeze margins, raise prices, and put the burden of expense on the customer (the students.) Next, college education is one of the single quickest growing expenses, growing at a massive four times faster than the consumer prices index. The Statistic Brain report that I

had mentioned earlier was essential in my overall analysis, as it has averaged tuition prices over the course of almost three decades, compiled with massive amounts of data. In 2015, the average price of college for a single year was \$20,403. However, this number to be deceiving, as it focuses very much on the four year in-state figure. According to a study done by Adventures in Excellence <sup>[7]</sup> the overall average cost of a year of a two year commuter degree would be \$15,933, \$22,826 for a four year public in-state on campus student, \$36,136 for a four year public out of state student, and a whopping \$44,750 for a four year private student.

With all of the issues associated with student debt, one must consider the simple question of whether or not a college education is worth the numerical and non-numerical price tags. After a ton of research done, articles read, and statistics, analyzed, I am still at a humble “it depends,” and I doubt that a more concrete answer exists. This is because so many different factors come into play when determining the value of a college education. However, I believe that the single most important item in determining college education value is degree choice. Fortunately, a massive and extensive database called Payscale <sup>[21][22]</sup> has compiled the ROI on different institutions, as well as ROI by major. They have also computed potential salary by major. They have also surveyed individuals in each field with the question “do you think your work makes the world a better place?” which helps to answer any concerns over ethical implications in a career choice. An article written quite recently by the Washington post <sup>[23]</sup> brought up several key dynamics; first is that average monthly loan payments are \$400. Second is that college loan debt has eclipsed both credit card debt and auto debt. Third is that many are underwhelmed by their college degree or found it to not be necessary; just 38% of individuals who graduated college in the past decade strongly agreed that their education was worth the cost, with nearly half of individuals in their 20’s holding a job that does not require a degree. Finally, this article

led me to a widely cited study by Paul Beaudry, David A. Green, Benjamin M. Sandfrom 2014<sup>[24]</sup>, which implies, and I quote, “having a B.A. is less about obtaining access to high-paying managerial and technology jobs and more about beating out less-educated workers for the barista and clerical job.” The implications are that a college education is now worth what a high school diploma was worth 40 years ago. Because there are only so many jobs for highly educated individuals, many will end up with jobs that don’t require a college degree; because they have a degree, they are considered to be better candidates than those who don’t. The terrifying possibility of this hypothesis is that individuals need to rack up huge student debt just to secure a job that didn’t require a degree in the first place. From these studies, I also found out about a book written by Wharton professor Peter Capelli entitled *Will College Pay Off? A Guide to the Most Important Financial Decision You’ll Ever Make*. In the book Capelli implies a few majors concepts; first is that picking a job/major based on the hot jobs of today is pointless, as the professions may not exist in the near future; these narrowly tailored majors such as social media and sports management, Capelli writes, often land students in the unemployment line or working odd jobs that don’t require a college degree. Capelli also claims that “looking at the actual return on the costs of attending college, careful analyses suggest that the payoff from many college programs — as much as one in four — is actually negative. Incredibly, the schools seem to add nothing to the market value of the students.” Capelli’s book, coupled with the additional sources that I found have led me to believe that it may be possible that the real value of a college education is being able to even acquire a job in the first place, not even one of a specific discipline. Another interesting research report, compiled by Burning Glass, a company that analyzes the data contained in job ads, found that 65 percent of postings for executive secretaries and executive assistants now call for a bachelor’s degree, while only 19 percent of those

currently employed in these roles have such a degree<sup>[25]</sup>. To quote their key findings page, “In some roles, employers prefer bachelor’s credentials even when that makes the position harder to fill,” “... the skill sets indicated in job postings don’t include skills typically taught at the bachelor’s level, and there is little difference in skill requirements for jobs requiring a college degree from those that do not, yet the preference for a bachelor’s degree has increased. This suggests that employers may be relying on a B.A. as a broad recruitment filter that may or may not correspond to specific capabilities needed to do the job,” and “many middle-skill career pathways are becoming closed off to those without a bachelor’s degree – a group that still comprises nearly two-thirds of the U.S. workforce.” The implications of this are, to be as simplistic as possible that times have changed.

To further back this ideology, let us consider youth unemployment. This figure is often shadowed by the current U3 unemployment rate – 4.9%. However, college graduate unemployment rate sits at 8.5%. This number increases even further to 16.8% when considering those who work part time jobs, but are seeking out a full time job <sup>[31]</sup>.

To better exemplify the return on a college investment, consider the following sensitivity analysis.

	1%	2%	3%	4%	5%
4%	\$675,600	\$763,658	\$865,947	\$985,018	\$1,123,893
5%	\$572,205	\$644,295	\$727,733	\$824,521	\$937,027
6%	\$486,879	\$546,221	\$614,651	\$693,749	\$785,378
7%	\$416,045	\$465,157	\$521,582	\$586,567	\$661,586
8%	\$356,900	\$397,763	\$444,535	\$498,208	\$559,949



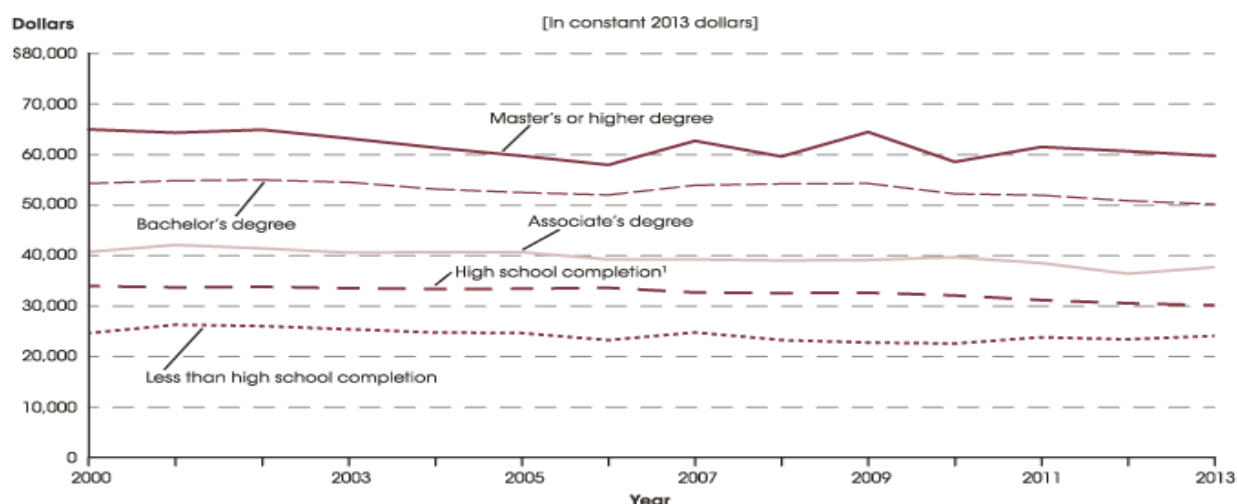
The numbers shown are the net present values over the course of 30 years if one decides to attend college, while incurring \$23,000 of debt each year (on par with current levels) and receives a starting salary of \$50,000, a figure just slightly above current statistics. The 4-8% represents the weighted average cost of capital for the investment. The lower end of the spectrum, 4%, represents a lower-return investment vehicle, such as 30 year treasury bonds. 5-6% represents not only potential corporate bonds, but also a WACC that many state legislative systems now use for estimating the earning potential of a human being. The 7-8% end represents a level of return that is usually associated with investing in the S&P 500. The 1-5% figures represent income growth per year. Let us now compare this to another list of figures.

	1%	2%	3%	4%	5%
4%	\$779,244	\$883,047	\$1,006,519	\$1,153,846	\$1,330,142
5%	\$688,138	\$774,522	\$876,772	\$998,204	\$1,142,857
6%	\$612,261	\$684,624	\$769,852	\$870,583	\$990,024
7%	\$548,625	\$609,637	\$681,138	\$765,232	\$864,478
8%	\$494,888	\$546,661	\$607,028	\$677,680	\$760,663

This table shows the exact same situation, except no student loans are ever incurred, and starting salary has been reduced to \$40,000. If we compare this to the college grad's salary/debt, we can see that the no college education is actually a better investment.

	1%	2%	3%	4%	5%
4%	\$584,433	\$662,285	\$754,889	\$865,385	\$997,607
5%	\$516,104	\$580,892	\$657,579	\$748,653	\$857,143
6%	\$459,196	\$513,468	\$577,389	\$652,937	\$742,518
7%	\$411,468	\$457,228	\$510,853	\$573,924	\$648,358
8%	\$371,166	\$409,996	\$455,271	\$508,260	\$570,497

Should that figure reduce even further to \$30,000, a college degree begins to become a better investment. However, still, should we use a WACC of 8%, no degree becomes the superior investment. Below shows different income levels by education level.



We can now fully begin to grasp the full picture. It is certainly possible to earn a higher level of return without a college degree. If we factor in the facts that unemployment for college grads is rising, median income levels are staying the same (while real median income has been decreasing on an annual basis,) and the price to attend college has been progressively increasing at an alarming rate, it wouldn't be surprising to see individuals opting to enter the workforce at a significantly higher rate in the next decade or so.

## **Chapter 4**

### **Concluding Thoughts**

If one thing is clear, it is that we have a skewed perception of a college education. Swarms of individuals, empowered by inflating grades, legislative policy designed to assist individuals in passing high school classes, and empty promises of a happier, more profitable future have blindly accepted an unbelievable burden that many are having serious issues paying off. Should this trend continue, what is to happen? A college loan debt bubble burst? The inability to take out loans due to poor credit rating? Entities garnishing entire wages? Only time will tell.

From here, a lot of things could happen. First and foremost, it is very possible that post-bachelor levels of education may begin to bare a resemblance to bachelor levels of education in the 70's and 80's. Because the value of a bachelor's degree is beginning to become watered down, individuals may find companies demanding masters or MBA levels of education. Basic laws of supplies and demand would suggest this reality. In contrast, however, individuals may also find it to be a better decision to enter apprenticed work instead of heading to college. The real question is, what is the point at which a college education is simply too expensive to obtain? In an era where individuals are encouraged to pursue their dreams, is it really feasible for low paying liberal arts degrees to survive with such high price hikes? Should these trends continue, lower paying, less financially stable career paths may dissolve entirely.

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**The Pennsylvania State University, Smeal College of Business**  
Schreyer Honors College  
Bachelor of Science in Finance

**University Park, PA**  
Class of May 2016  
**GPA: 3.70/4.0**

**RELEVANT WORK AND PROFESSIONAL EXPERIENCE****Hammond Hanlon Camp LLC****Investment Banking Summer Analyst****Chicago, IL**

June 2015-August 2015

- Assisted in the creation of a strategic options assessment presentation for a client in danger of defaulting on debt obligations, which detailed potential acquisition target, local competitive markets, and possible sources and uses of a new debt financing
- Analyzed competitive markets during the early stages of multiple M&A deals and worked to determine target intrinsic values
- Tracked and recorded public company comparable and precedent transactions within the healthcare sector, conducting weekly presentations on M&A trends and recent developments in the hospital and health system sector
- Performed research on capital markets and analyzed a company's capital structure to determine the best way to restructure their existing debt profile in order to create a debt service with better interest rates
- Contributed to presentations that included material such as DCFs, comparable companies analyses, precedent transactions, capital structure analyses, and a summary of strategic options
- Analyzed the sixty top rated health systems in terms of quality of patient care and created a research report detailing their profitability, leverage, liquidity, credit, and operating metrics to S&P, Fitch, and Moody's financial medians
- Assisted in the construction of a detailed forecast model and worked to determine a proper valuation to assist in the sale of a client with distressed debt

**Johnson & Johnson, Janssen Pharmaceutical Division****Financial and Accounting Co-op****Spring House, PA**

December 2014-June 2015

- Acted as the point of contact for global capital projects; responsible for all investment appropriation requests
- Coordinated approvals for an \$11MM capital budget via SAP and Ariba software, from purchasing to depreciating each asset
- Identified inefficient seasonal trends that resulted in multi-million dollar savings by analyzing cost synergies within the \$280MM operating expenses budget
- Evaluated and restructured the capital expenditure process for the Discovery Sciences group, allowing for a streamlined process that ultimately helped to save several hundred thousand dollars

**Olympia Media Group****Sales Executive Intern, The Odyssey****University Park, PA**

June 2014-August 2014

- Generated > \$30,000 in revenue with a team of individuals over three months, selling ad space and managing accounts
- Developed and expanded brand image and brought imperative attention to online and social media components

**Penn State Investment Association****Active Member, Energy Sector; Healthcare Sector****University Park, PA**

Fall 2013-Present

- Actively participated in fundamental investment workshops to learn about intrinsic value within markets
- Calculated and created valuations using DCFs, relative valuations, and precedent transaction models, as well as self-assessed projections with data gathered from independent research using Excel and Bloomberg professional software

**LEADERSHIP EXPERIENCE****The Sigma Chi Fraternity****Brotherhood Events, Social, and Public Relations Delegate****University Park, PA**

Dec 2013-June 2014

- Assisted in the allocation and budgeting of an over \$300,000 budget for the largest fraternity at Penn State
- Worked with a team of like-minded individuals to plan philanthropic, brotherhood, and social events on a weekly basis

**Derby Days Chairman****University Park, PA**

Dec 2013-April 2014

- Raised over \$17,000 in one of Penn State's largest fundraisers
- Managed a budget of several thousands of dollars and collected funds from corporate sponsors, alumni, and charitable donations to raise money for the Huntsman Cancer Foundation
- Coordinated events and managed a committee of 40 individuals for a week-long fundraiser with over 1,000 participants

**Schreyer Honors College Student Mentor****University Park, PA**

August 2014-December 2014

- Mentored a group of freshmen business majors to assist in the transition to college

**INTERESTS & SKILLS**

**Skills/Computer:** Advanced with Excel and PowerPoint; proficient with S&P CapitalIQ, Bloomberg, DBC Finance, and SAP; Spanish

**Modeling:** Completed Training the Street course covering financial modeling, valuation, and transaction analysis

**Interests:** Fitness, cooking, film and media, wakeboarding, football, guitar, current events, golf, squash, and traveling