STUDENT LOAN DEBT – A REPEAT OF THE 2008 HOUSING CRISIS

by

Ryker Thompson

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Project Approved:

Supervising Professor: Barbara Wood, Ph.D.

Department of Finance

Michael Russell, Ed.D.

Department of Student Affairs

ABSTRACT

The cost of tuition and the amount of student loan debt are a pertinent issues in higher education today. A common comparison to the tuition and student debt increase are housing prices and mortgage loans in 2008. The desired outcome of this research is to analyze the similarities and differences between the events leading up to the 2008 housing crisis and what is happening today with tuition prices and student loans. This research describes the different incentives of universities, students, and the Department of Education. The description of incentives is done through qualitative analysis from university professionals and students who experienced debt as well conceptualizing content from previous academic research on student debt. All research focuses on undergraduate tuition and debt on federal loans.

INTRODUCTION

A bubble is defined as when borrowers expect a higher future benefit than the product they are buying actually produces. For around a decade before 2008, buying homes and taking out mortgage loans created prices of homes higher than a sustainable level. Once the supply of homes exceeded the demand of new homes, the "bubble" of mortgages was exposed and left far reaching ramifications in the US and world markets.

There were many factors that led to the formation of the housing bubble which is discussed in the following sections, but low mortgage interest rates and lax regulation were the primary causes that led to the crash. Home ownership was easy to come by in 2008, and it was attractive because the value of the home was expected to increase. A prosperous market led many home buyers into large mortgages when the real value of their homes was not actually worth the value they were taking out in loans.

On the surface, there can seem to be comparisons between what happened with mortgage loans in 2008 and student loans today. Not every student is equipped to succeed at a university, and not every student will create a higher value than their investment in an education.

The average annual increase in college tuition from 1986-2016 grew by nearly 260% compared to the nearly 120% increase in all consumer items (National Center for Educational Statistics 1-3). High tuition prices alone do not present a risk of a "bubble". However, in a nationwide study done at the University of Chicago, 45% of students surveyed demonstrated no significant gains in critical thinking, complex reasoning or writing after completing two years of college

(Arum and Roksa 112). High tuition prices coupled with the possibility of students not receiving a value in critical thinking and preparation for a successful career equal to the cost of tuition does present an opportunity for a bubble to exist. Although a student can spend thousands of dollars on an education, the return after graduation may not actually come to fruition.

As more students attend college, there are students taking out loans who are not equipped to succeed in the job market after graduation. According to the U.S. Bureau of Labor Statistics, 74.5% of recent graduates in 2011 were employed, leaving over a quarter of the graduates without a job or income (Spreem 1). Similar to buying a home in 2008 and hoping for a better future where the house appreciated in value, students hope that attending college will help their earning potential when they are looking for a job. The reality of this thought is not always true because only students who finish college and succeed are able to increase the value of their investment in the long term.

The desired outcome of this research is to analyze the similarities and differences between the events leading up to the 2008 housing crisis and what is happening today with tuition prices and student loans. This will show insight into how large scale of an issue is the rapid increase in tuition prices and average student debt.

How higher education is funded and payed for is likely to change in the next few decades because of the national attention and traction some of the payment plans on candidates platforms received during the 2016 presidential election. Higher education funding and how students pay for an education is not a perfect system. Another desired outcome of this research is to highlight the nature of student loans, the current situation and possible future means of financing college costs.

LITERATURE REVIEW

The subprime mortgage crisis was an accumulation of actions tracing back to 2001. Cornell Studies in Money published an article to address the many factors that led to the housing bubble crash in 2007 (Schwartz 10). It first started in 2001 when the Federal Reserve lowered interest rates in an effort to reduce the risk of recession. The federal interest rate went from 6.5% in April of 2000 to 1.75% in December of 2001 (Appendix 1). This opened the market up to individuals that wanted to buy a home at lower interest rates. Banks quickly began financing individuals looking for homes. "On net, new home buyers by definition tended to be lower-income, lower-skilled workers whom the lower interest rates made housing affordable" (Schwartz 21).

In the 10 years from 1995 to 2005 the U.S. homeownership rate rose over five percentage points (Schwartz 33). Banks were issuing more loans than ever before and the majority of the loans from 2004-2006 were subprime or Alt-A loans. A subprime or Alt-A loan is a loan designed for buyers with lower credit scores, low income, and buyers with higher risks of default. Subprime and Alt-A loans carry higher interest rates and are typically adjustable rate loans meaning when interest rates change, the interest on the loan changes. These tradeoffs are designed to compensate the bank for the higher risk in lending to borrowers with lower credit ratings or lower income. Easy money policies from the Federal Reserve and increasing home prices made these high yield mortgage loans attractive for banks to lend. Banks excessively lent money and would then package these subprime loans into collateralized debt obligations that were then sold to investors. This means the risk of default on these high risk for default loans was being transferred to outside investors.

By 2006 the rate at which home were being listed for sale had outpaced the homebuyers and individuals in the market to buy a home (Schwartz 40). At that time, there was over $1.56 trillion out standing in subprime and Alt-A mortgages, and highly leveraged firms that issued these loans were thrown into a crisis of their own making (Schwartz 42). Inflation then ticked up the Federal Reserve Rate at the beginning of 2006, which made the subprime variable loans even more difficult for homeowners to service their mortgages (Appendix 1).

Predictions on how an education bubble may be forming

Anthony Davies, associate professor of economics at Duquesne University writes on the cause of the increase student loan debt and places most of the responsibility on the government. According to Davies, the causes of the increase in tuition prices over the past decade is because "laws are engineered to get people into higher education" (Davies 2). Similar to the housing bubble, lenders are issuing student loans to anyone regardless of their ability to repay. There are few ways for universities to know the credit worthiness of an 18 year old entering a university. Even if a financial aid counselor believes it is not smart or a healthy financial decision for the student to take out more loans than the student would be able to pay back, under law, a university cannot deny a federal student loan based on the borrower's credit or future employment status. Davies argues this is an easy money policy. Much like low interest rates when the Federal Reserve lowered the Federal Funds Rate in 2001, any student has access to money for college at what Davies refers to as a deeply discounted rate for the first four years. Student loans accrue interest at a low rate while the student is in school then upon graduation rates adjust. Depending on the type of student loan, the federal government may subsidize all the interest payments while the student is in college.

The easy access to large amounts of loans is why anyone can temporarily pay for any university regardless if the student can or cannot responsibly afford the tuition price. Davies states "there are more student going to college than ever before, and since money is easy to find from loans, it is easy for colleges and universities to continue to raise tuition" (Davies 14).

The book *Academically Adrift* adds to the idea that students are not graduating with a value of education equal to the cost of tuition. Richard Arum, Dean of the University of California, Irvine School of Education and Josipa Roksa, Associate Professor of Sociology and Education at the University of Virginia published a book based on the development of a student during the first two years of college. Through survey responses, transcript data and the Collegiate Learning Assessment, a standardized test administered to students in their first semester and again in their second year, Arum and Roska drew conclusions on the implications of the changing university.

Universities have changed over time from a more rigid classroom learning model to a more holistic approach. The learning outcomes of a university 50 years ago look different than today (Arum and Roksa 25). Universities today focus on the in class learning but place an equal emphasis on outside the classroom socializing and employment development skills. This shift has led to a decrease in the critical thinking skills of students (Arum and Roksa 33).

This piece of literature is important because it shows how a student could graduate college without receiving an education value equal to what he or she pays for tuition. *Academically Adrift* also helps explain some of the reasons for increased tuition.

A student today chooses a university based on outside the classroom resources along with the classroom experience. This shift in focus to outside the classroom experience has created new expenses with program and staffing costs. Staffing programs at universities that didn't exist 20-30 years ago, drastically increase the expenses of a university. This was confirmed in an interview with Brian Gutierrez, Vice Chancellor for Finance and Administration at Texas Christian University. Gutierrez stated that the largest budget line item increase at TCU over the past two decades has been in compensation and benefits. Gutierrez stated "There are more students coming to college who need more help. There are more students coming to campus on prescribed medications and there has been an increase in student health and wellness initiatives on campus. With this and a desired faculty to student ratio of 14:1, the cost of personnel has increased the most over the past decade. There are issues on a college campus that we didn't know existed 10 years ago."

Implications of a generation of students with debt

Daniel Austin, an Associate Professor of Law at Northeast University discusses the rate of increase in student loans the past two decades in the publication, *Indentured Generation*. Over 90% of student loans are provided by the government (Austin 12). Student loans are non-forgivable, a key difference from mortgages in 2008. The debt of student loans won't be forgiven even after declaring bankruptcy. The government has the right to withhold tax refunds if student loan payments are overdue. Death and teaching for five years in educational service agencies that serve low income families are the two most common ways student loans are forgiven (Austin 23).

The average student graduated with less than $5,000 in student loan debt in 1986 (Austin 32). Now the average amount of debt for public and private institutions is over $30,000 (Austin 32). "Unable to find jobs, unprecedented numbers of young people are moving in with parents, postponing marriage and children, working unpaid, temporary, or part-time jobs, and taking similar steps that would have been unthinkable for prior generations" (Austin 33).

Indentured Generation proposes that amending the bankruptcy code to allow for some borrowers to release their loans or create policies that allow students to clear their loans more quickly, would cause a positive effect on the economy. Students can be irresponsible investors and acquire debt amounts while not understanding the ramifications of borrowing.

There are a number of reasons why a student would struggle to repay their student loans. Examples could include, a student's expected job at the end of college doesn't come to fruition or the monthly payment of the loans accounts for majority of a monthly starting salary. Any student in one of these situations is less likely to take out another concurrent loan to purchase a car or house. This ultimately slows the entire economy.

Interviews conducted while researching the effects of student loans on graduates, supported many of the themes in the book *Indentured Generation*. Dede Williams and Takyra Morgan are both bachelor degree graduates of Texas Christian University. They both graduated with debt and shared their experiences taking out loans and how that effected their buying decisions after graduation.

Williams recently paid off her student loans in January of 2017 after paying for 15 years. Every month she had the $250 student loan payment taken out of her paycheck so it was not something she noticed paying in the later years of her career. However, she did remember when she first graduated the difficulties of making ends meet on a starting salary and having student loan payments. She stated that it wasn't until five to six years into her career before her salary had increased enough that she had residual discretionary funds which allowed her to purchase her first car.

Morgan graduated in December of 2015 and is in the beginning stages of repaying student loans. Morgan discussed her experience of currently having over $60,000 in student debt. Morgan stated "there is little to no money left for discretionary spending after paying all the loans I have and basic living expenses. I also know it will be like this for 10 years until I can apply for loan forgiveness because I am working for a qualifying educational institution." Morgan did choose to purchase a car after graduation because she needed the transportation for her work. Because of the debt she already had with student loans, she said "it was difficult to find financing for a car, and once I did the credit union that took my loan is charging me a higher interest rate than a typical person would receive." Morgan is an example of graduates living pay check to pay check many years after graduating because of the amount of her income going to pay off her debt.

Debt accumulated at different types of universities

Furthering the example of students graduating with large amounts of student debt, there are distinctions among the different types of universities that students attend. Jennifer Grant, an economist at the American Bankruptcy Institute, discussed the difference between debt accumulated from for-profit schools, public non-profit, and private non-profit schools. Students who finance their education costs at a for-profit university "finance, on average, 99 percent of their education" while students at "public and private nonprofit schools finance 70 percent and 85 percent of their education, respectively" (Grant 12). This is due to the financial aid offered at the different types of universities. Universities have control over how much financial aid is offered to students in the forms of scholarship and university grants. Business officers at universities will refer to this rate as the "discount rate." The discount rate is how much of full tuition costs is put back into scholarships, university grants, etc. These numbers are not public information but are calculated in the internal operations of the university.

For-profit universities have an incentive to increase their bottom line profit. The way to increase profit is to increase revenue by raising tuition and lowering the discount rate of tuition by giving out less scholarships or university funded financial aid.

Many non-profit schools have financial aid counselors available to advise students with financing their education. However, this is not always the case at for-profit universities. It is common to see financial aid advisors at for-profit schools there to process loans, not advise students one-on-one what is best for them (Grant 35).

In a time when universities are competing with one another for the best students, universities want to build nice facilities and campus resources. When looking for a university home today, there are many students who select a university based on the amenities of the campus. For the universities that strive to have a nice physical campus with top campus resources, tuition price must continually increase to keep up with the costs. But is this responsible business or are universities able to continually increase tuition because they are in the middle of a private and public good and only have a semi-elastic demand curve? Is increasing tuition up to $40,000 and $50,000 annually actually necessary and a business decision that would be acceptable if higher education wasn't a hybrid of private and public goods?

In contrast to high tuition priced universities, some universities have created a strategic model to ensure economic value. According to *The Innovative University: Changing the DNA of Higher Education from the Inside Out,* there are economic models that fill classrooms and strategically plan students schedules for them to maximize campus resources. Similar to an airline maximizing revenue by filling a plane and ensuring minimal empty seats, universities can plan a student's schedule in trimesters and hold the student on a rigid track of completing courses (Christensen 56-75). A student would typically take two trimesters in major courses and one trimester in online core classes. Universities using this economic model keep tuition exceptionally low. A university that uses this economical model, BYU-Idaho, had a tuition price for the 2016-2017 academic year of $1960 per semester. This shows it is possible to have tuition less than $40,000 or $50,000 per year.

METHODS AND RESULTS

The methods of research are qualitative analyses from university professionals and students who experienced debt as well conceptualizing content from previous academic research on student debt. All research focused on undergraduate tuition and debt on federal loans. Each state has different student loan grants and loans, but the goal of this research is to explore what is happening on the national scale.

This research describes the different incentives of universities, students, and the Department of Education. One of the factors that led to the housing crisis was incentives between banks and borrowers not being aligned because of the bundling of collateralized debt. Although there is not collateralized debt obligations on student loans being sold to investors, the desired outcome of the research is to see if the current alignment of incentives is in the best interest of students or other parties involved. This was done by exploring the different measurements of incentives on universities coupled with personal experiences of students who took out student loans.

Qualitative research and personal interviews was done on the campus of Texas Christian University. While this limits the diversity in qualitative responses, gathering data at TCU provided a representation for experiences at a private university. Data from private universities are important because financial aid resources are in the highest demand at private institutions. The average tuition cost for private schools in 2015 was $21,000 more than public schools (National Center for Education Statistics).

Types of Loans: Perkins Loans

Perkins loans is a government guaranteed loan that colleges issue to low-income student. In a congressional effort to simplify student loans and cut budget expense, the Federal Perkins Loan program is set to expire on September 30, 2017 and many universities have already stopped enrolling students for Perkins Loans. After the Perkins loan program expires, it will leave two government subsidized loan programs, the Stafford and the Parent PLUS loans. The difference between Perkins Loans versus Stafford and Parent PLUS loans is which entity is the lender and who is in charge of distributing the money. The Perkins loan is a campus based program. The government funds a portion of the Perkins loans given out, however, the university itself acts as the lender and is responsible for distributing and recollecting the funds.

The Perkins Loan has been largely self-sustaining. Institution that participate in the Perkins loans have a pool of money called the Level of Expenditure (LOE). The LOE is based on many calculations from an aggregate of the student body's Free Application for Federal Student Aid (FASFA). The amount of money in this pool doesn't change unless the university applies for a Federal Capital Contribution (FCC) which is an increase in capital funding. This only occurs when there is a drastic change in the student population aggregate FASFA data. If the university does qualify for an additional capital investment from the government, the university must match 33% of what the government contributes with university funds (U.S. Department of Education).

Since universities don't typically receive additional FCC, the pool of money or Level of Expenditure for the year is based on the amount of money coming back to the university that year in loan repayments of graduates. The original federal investment is used to create revolving loan funds at each participating campus. One unique aspect of Perkins is that a graduate can have their loans cleared if they work in a qualifying job, in which case the federal government would authorize a loan forgiveness and pay the university back with federal money (U.S. Department of Education).

An important distinction about Perkins loans is that the faster the graduating student repays the loan, the sooner the university can lend the money to the next student. Therefore, under the Perkins loan program, universities have the incentive to make sure the student doesn't default and that the student repays the loan back as soon as possible.

Stafford and Parent PLUS

The Stafford and Parent PLUS loans work differently than the Perkins loan. The Stafford and Parent PLUS loans are issued by and repaid to the Department of Education. Stafford and Parent PLUS loans have an interest rate that is tied the rate on the 10-year Treasury note, plus a fixed premium of 4.6% (U.S. Department of Education). All interest and principal payments are made to the federal government.

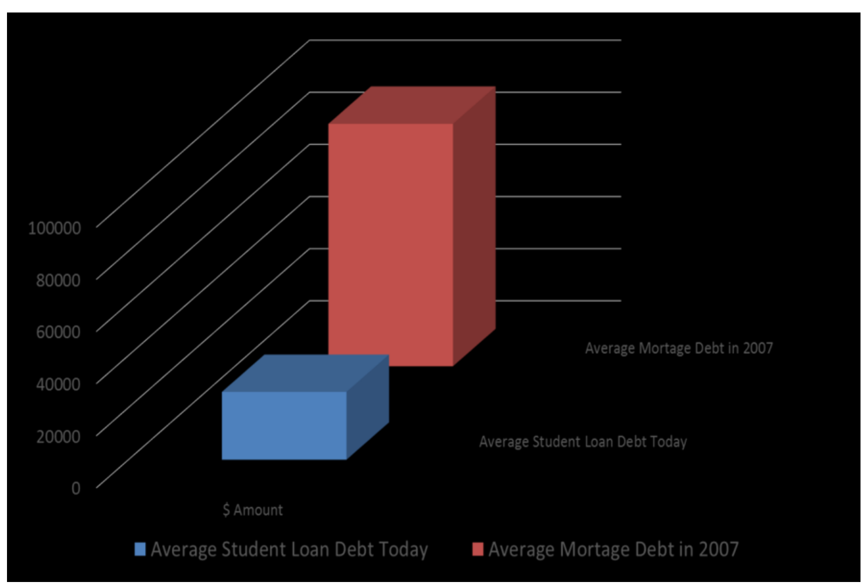
The university does not have a pool of money nor can it control how much a student requests to take out in student loans. There are federal limits on the amount of Stafford Loans that a student can take out in total, but unlike the Perkins loans, the institution does not have the ability to offer less than what the student requests. If a student requests more than the cost of tuition in Stafford student loans, as long as it is less than the federal limit of $20,500, the student will receive the requested amount (U.S. Department of Education). When a student receives more money than tuition costs, a student can use the money for non-educational expenses.

The Stafford Loan removes the ability of an institution to individually administer loans to students based on their situation. It also removes the incentive the university has to receive repayments of the loans because the pool of money is located in the Department of Education. For example, a university could graduate a student with over a $100,000 in debt and the only incentive of the university for the student to repay the loan is if that student doesn't make a payment after 270 days and the loan becomes labeled as a defaulted loan. A university can afford for up to 30% of their students who took out Stafford loans to default on their loans before receiving any adverse incentives. If a university has a default rate of over 30%, it becomes at risk for losing federal student aid (U.S. Department of Education). However, default percentages don't take into account the amount of money a student may owe. Regardless if a student owes $100,000 or $100, the university receives the same level of adverse incentive. During the housing crisis, banks bundled mortgage backed obligation with high risk for default and sold the default risk to investors. Consequently, the banks were not liable for the mortgages they issued. As a part of the Housing and Economic Recovery Act of 2008, banks are now required to hold some of the mortgages they issue before they can combine them and sell mortgage-backed securities. Taking that as a lesson of responsible lending, universities should have some stake in the game when enrolling students in loans. Applying the same principle of the Housing and Economic Recovery Act of 2008, universities should be responsible in lending some of their own funds for student loans.

There are not currently incentives that encourage higher education institutions to graduate students with low amounts of debt or debt that can be paid back quickly. Universities don't have an interest in how much debt a student takes out because it is strictly a personal issue which is the definition of moral hazard. Moral hazard is defined as the lack of incentive to guard against risk where one is protected from its consequences. Universities control the price of tuition yet don't have to guard against what risks high tuition brings because loans are financed through the federal government. As the Perkins Loan program is being faced out, universities no longer have stake in how long it takes an individual to pay back their loans.

Differences between mortgage loans and student loans

There are some distinct differences between mortgage and student loans that make the comparisons of debt "bubbles" difficult. The mortgage loan foreclosures caused a systemic downturn because of the magnitude of the debt and the process of foreclosing. It is unlikely that a student loan default would cause the same ramifications as the 2007 downturn. Furthermore, there are not Wall Street investors trying to make millions on subprime student loans. The average student loan debt is $25,000 to $30,000 whereas the average mortgage debt in 2007 was $93,000 (DiMaria 7). As you can see in the graph to the right, the average mortgage debt was a lot larger in amount than student loans.



The mortgage debt crisis also had a lot larger scope in 2007 with $12.6 trillion of outstanding mortgage debt whereas today student loan debt totals $1.2 trillion (Avery and Turner 3). Another difference in current student loans and mortgages leading up to 2007 is the process of getting rid of debt that can't be repaid. For mortgage loans, borrowers have the option of foreclosure which clears the amount of the loan. A home owner can file bankruptcy and discharge debt. In almost all cases, student loan debt stays with the borrower until it is payed back because of the federal government's ability to withhold tax refunds. The differences in the types of debt limit the similarities of the ramifications of a bubble.

Education in between a public and private good

Buying a house and taking out a mortgage is strictly operating in a pure private market. However, education, tuition, and student loans don't operate in pure market. By the government funding things like Pell and research grants or individual state governments providing additional grants and operational funding, universities don't function in a pure supply and demand economy. The government funds many aspects of higher education because a college education is in the middle of a private and public good.

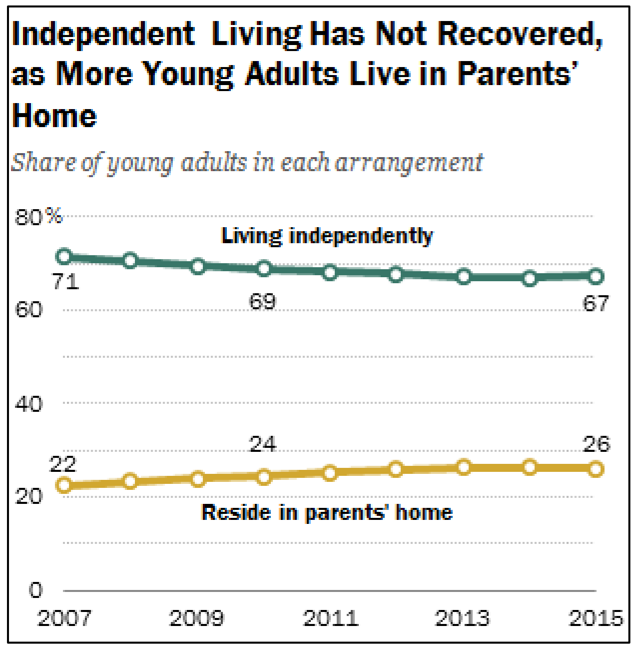
A public good is defined as non-rival, that is, one person's use of the good doesn't diminish another person's use, and non-excludable, no one can be prevented from using the good (Commell 2). Examples of public goods include city parks and national defense. A private good is defined as something rival or something that is not able to be distributed to everyone which leads to excludability of resources.

There is a personal benefit of obtaining a bachelor's degree. Over an average lifetime, a college graduate will earn a premium of $1.3 million more than their high school graduate counterparts (Trostel 2). The college premium has increased over time which creates a perception that individuals earning a degree is primarily a private good. If a university education is a private good then there shouldn't be public intervention with government funding through things like grants. Under the assumption that a university education only benefits the student attending, it is only reasonable that the beneficiary should be the one to pay.

However, universities and university graduates benefit society as a whole in multiple ways. According to an article published in the Chronicle of Higher Education, college graduates' donate a higher percentage of their earnings at 2.3% to charity than do high school graduates at 1.6% (Trostel 2). College graduates also volunteer at a rate of 2.3 times the rate of high school graduates (Trostel 2). College graduates not only raise the productivity and income of those getting degrees but also the productivity and income of others (Trostel 3). All in all, universities and a university education makes our community a better place. Universities provide benefit to more than the student receiving a degree. This mix between the personal financial benefits of a college degree and what the university does for the community, makes higher education align in between a public and private good.

Possible ramifications of student loan debt

Students carrying debt for many years into their career can bring complications and cause a domino effect in society. Someone with student loan debt is 90% less likely to save for retirement, or incur other debt to start a business or to buy a car (Evans 45). Millennials, those born between 1980 and 1999, will soon be one of the largest generations in the work place (U.S. Department of Labor Statistics). Millennials are entering their careers with almost double the amount of debt than their counterparts a decade ago (National Center for Educational Statistics). Because of this increased amount of debt when entering the work forces, according to the Pew Research Center, more millennials are putting off major purchases such as buying a home (Fry 3). You can see in the graph to the right the amount of young adults living independently has decreased while residing in parent's home has increased. Significant amounts of student loans has an effect on the economy through the slowing of other debt such as housing and auto loans.



CONCLUSION

Student loan debt is a significant amount of debt nationally, and to the recent graduate, debt can be constraining in pursuing other purchasing opportunities. Because of the shear difference in mortgage loans and student loans, they do not appear to have similar outcomes. Because universities have a lot of financial assistance from the government, they don't operate in a true market economy.

For profit universities are causing most of the student loan default issues. Nearly half of all federal student loan defaults occur at for-profit schools, although only 10% of higher education students attend these schools (Conn 24).

All universities want what is best for students and want to help a student find the college experience that fits the individual. The highest tuition priced universities have financial aid advisors that work with students to help them make college attainable with a reasonable amount of debt. In an interview with Michael Scott, Director of Financial Aid at TCU, he stated that the financial aid office at TCU encourages students to not come to TCU if they have to take out a significant amount of debt to finance their education.

Although incentives could be aligned better with federal student loans and universities, the average amount of debt students' graduate is still an important number that administrators look at. For example, during the informational interview, with Brian Gutierrez, TCU Vice Chancellor Finance and Administration, he described the Board of Trustees noticing TCU having a higher than average amount of student debt relative to other private schools. The Board of Trustees then set aside an extra million dollars to help lower the average student debt. With this money, the university made the first two payments on the loans of 100 students who were in the largest amounts of debt on graduation day.

Future financing of higher education

There has been traction in the most recent presidential election for an income based repayment plan for student loans. Income based repayment plans were on Hillary Clinton's and Donald Trump's platform. Trump's platform calls for 10% - 15% of discretionary income for a period of 15 years to be repaid to the Department of Education who would front the cost of tuition. In my opinion, an income based repayment plan is the future of financing higher education because there comes a point where only certain majors at a university would have a high enough lifetime earning to justify spending so much on tuition. There are currently two bills in the U.S. House of Representatives that propose this Income Based Repayment Plan; however, I don't see it happening for several years because defining discretionary income in tax codes presents many logistical challenges that have to be worked through.

The next generation of college students will see a change in the way universities are financed because of the ramifications that increased tuition and student debt brings. It's not going to be a bubble collapse that changes the way universities and the Department of Education operates but a more gradual shift that causes a change in higher education financing.

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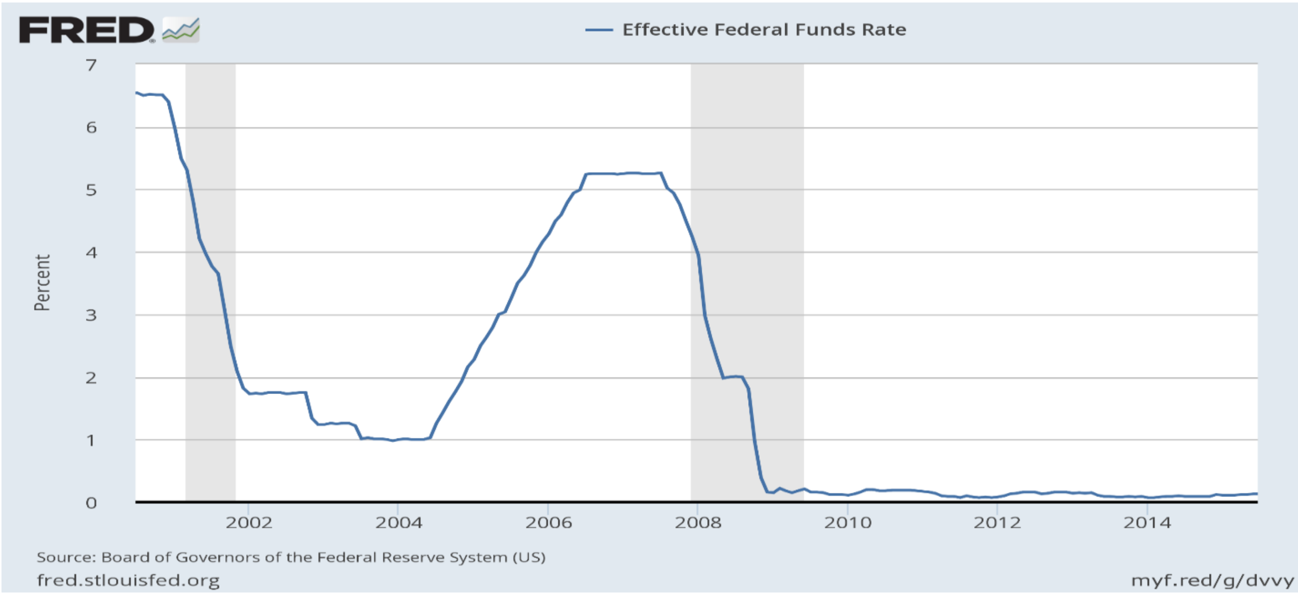
Appendix 1


FRED
Effective Federal Funds Rate
Percent
7
6
5
4
3
2
1
0
2002
2004
2006
2008
2010
2012
2014
Source: Board of Governors of the Federal Reserve System (US)
fred.stlouisfed.org
myf.red/g/dvvy