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Special Commentary

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Student Loans: A Different Financial Market*

The proliferation of student loan debt is a result of the unique characteristics of the educational debt market.

The rise in educational debt in the United States over the past decade has raised concerns over the possible emergence of another financial bubble, and more fundamentally, challenged the established assumptions of the value of a college education for all students. In our view, the proliferation of student loan debt is a result of the unique characteristics of the educational debt market. Moreover, the credit model for student loans is very different from other forms of credit. Yet in some ways, issues surrounding the student loan market mirror those with the Social Security and Medicare programs. Simply put, the economic framework around each of these programs has evolved and altered the actual functioning of the program over time. For education, what once was a clear and assured path to landing a good job is no longer so certain.

Meanwhile, the emergence of each of these federal programs has had a feedback effect on the economy as well. More students are heading to college than ever before and entering the workforce later. Upon arrival in the working world, they face more competition from other college degree holders and are increasingly saddled with debt at a time when income growth is limited. Our challenge as analysts is to understand the models underlying these programs, not as they are idealized, but as they are currently functioning.

Growth in Student Loans: A Secular, Not Cyclical Story

Frequently, people perceive college education as a countercyclical endeavor where further education is sought when the economy is weak since students' opportunity costs, measured as lost income, are lower. That is, as job prospects are fewer during weak economic times, students give up less income relative to the income they could earn if the economy were strong. Also in a weak economy, those older workers who have been laid off may return to college to enhance their skillset in order to better compete for those jobs that are available.

Yet, we see no countercyclical behavior in student loan debt outstanding; the growth in debt is strongly on the uptrend throughout the past business cycle (Figure 1). This suggests the rise in student debt is more of a long-term trend than a cyclical story. For example, using a cyclical model, we see historically the pace of enrollment growth rise during periods of economic weakness, where the opportunity cost of education in terms of higher earnings is likely to be lower. That was the pattern for the fall in enrollment following the 1981-82 and 1990-92 recessions as the economy improved (Figure 2). Since then, however, enrollment has consistently grown, although at a varied pace, and suggests an upward bias to growth in student loans in the future that upsets the prior dominance of the cyclical model to enrollment and student loan growth.

* **This paper is based on a presentation given to the Charlotte Economics Club on January 9, 2013.**

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Figure 1

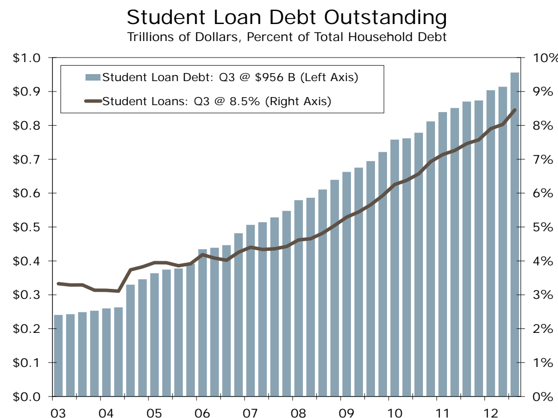
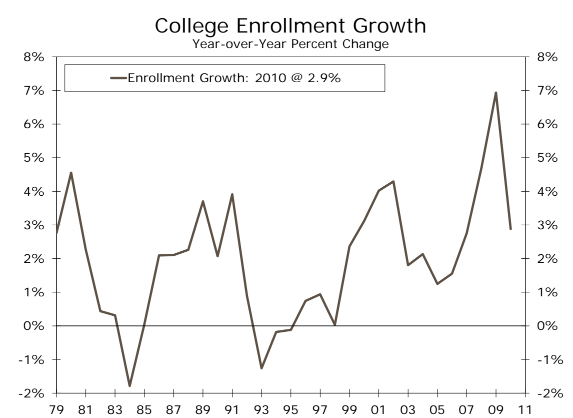


Figure 2



Source: Federal Reserve Bank of New York, U.S. Dept. of Education and Wells Fargo Securities, LLC

Household Debt: Different Fundamentals, Different Model

While households have delevered since the past recession, students have not.

For any economic endeavor, it is important to identify the proper model of that activity. For student loans, the distinction from other types of household debt is crucial because, as illustrated in Figure 3, the movement of student loans is distinct. While households, on balance, have delevered since the past recession, students have not. Households have been consistently reducing their holdings of mortgage and credit card debt since the second half of 2008, with these categories of debt down 13.3 percent and 23.0 percent, respectively, since the fourth quarter of 2008. Auto loan debt has exhibited a cyclical pattern, declining between 2008 and 2010, but still remaining below its previous peak.

Student loan debt, on the other hand, has consistently increased since the recession, often at a double-digit pace. This has led to a shift in the composition of household debt, with student loans now comprising the second largest share of household debt behind mortgages and overtaking auto and credit card debt (Figure 4). Student loan debt now comprises 8.5 percent of household debt compared to 3.3 percent in 2003.

Figure 3

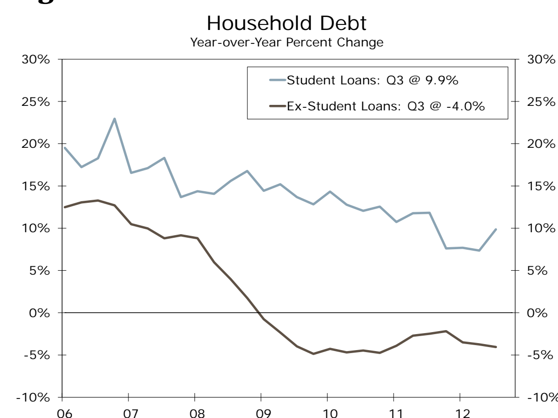
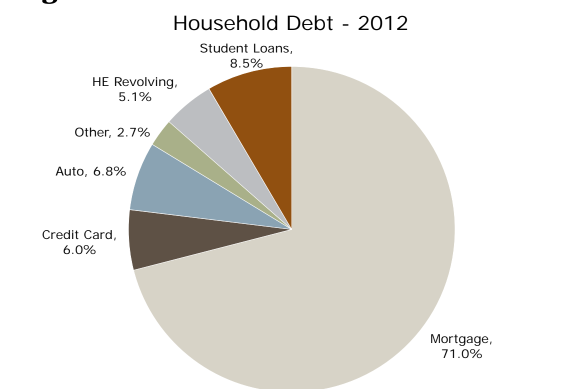


Figure 4



Source: Federal Reserve Bank of New York and Wells Fargo Securities, LLC

Financing Education After Rising Prices and Squeezed Incomes

The persistent increase in student loan debt can be partly traced to growing enrollments, helped by favorable demographics, as previously shown in Figure 2. But growing enrollment is also likely due in part to the increasing emphasis in the workplace put on a college education, even if the job has not historically required a college degree.[1] As a greater number of students, particularly from more varied economic backgrounds, attend college, more students are entering the educational loan market.

However, the growing cost of college likely plays a more significant role. Increases in college tuition and fees have consistently outpaced broader inflation (Figure 5). While calculating the actual cost of college is a difficult endeavor given the price discrimination that occurs after scholarships and need-based grants, even accounting for the different prices paid by different students, the analysis points toward a product whose price has consistently grown faster than the general rate of inflation. The CPI index of tuition and fees, which has incorporated scholarships and grants since 2000, has grown at an average of 6.6 percent per annum over the past 10 years compared to an average increase of 2.5 percent for all consumer goods and services.

As incomes have been squeezed, households have had to look for an alternative means of funding higher education.

Meanwhile, household income growth has lagged behind tuition increases over the past decade (Figure 6). As incomes have been squeezed, households have had to look for an alternative means of funding higher education and have increasingly turned to the student loan market to meet rising tuition and fees.

Figure 5

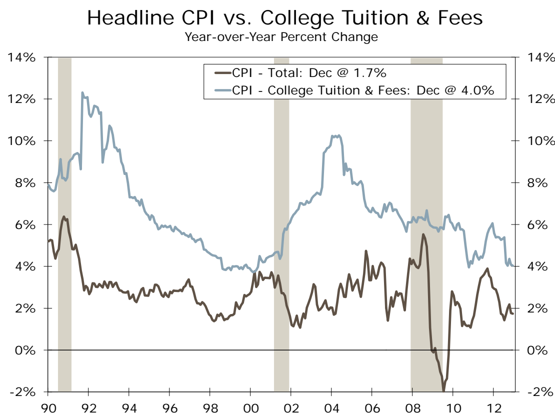
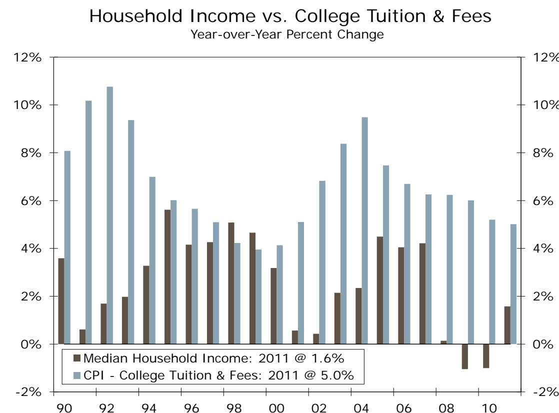


Figure 6



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Scope of the Student Debt: Increasingly Broad

The share of households with educational loans has more than doubled since 1989.

The combination of rising enrollment, increasing college costs, and lagging income has led to a proliferation in student loan debt. The share of households with educational loans has more than doubled since 1989, where now one in five households are encumbered with student loan debt. In addition to more households having some educational debt, the median value of the debt has continuously risen. The median amount of educational debt outstanding had risen to $13,000 in 2010, an increase of over 60 percent in less than a decade (Figure 7).

Looking at recent graduates of four-year institutions, approximately two-thirds of students are graduating with debt.[2] Of those students, the average debt burden rose 5.3 percent in 2011 to $26,600 (Figure 8). This equates to approximately 60 percent of the average starting salary of a

[1] Goldin, Claudia and Katz, Lawrence F. (2007) The Race Between Education and Technology: The Evolution of U.S. Educational Wage Differentials, 1890 to 2005. NBER Working Paper No. 12984.
[2] "Student Debt and the Class of 2011." (October 2012). The Institute for College Access and Success.

college graduate, and, moreover, masks the precarious position of those students who took out loans for college but did not graduate.[3]

Figure 7

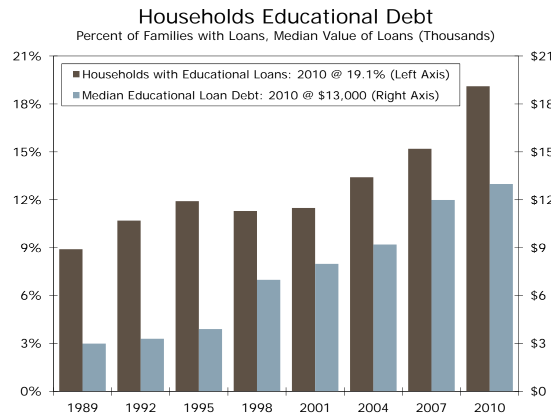
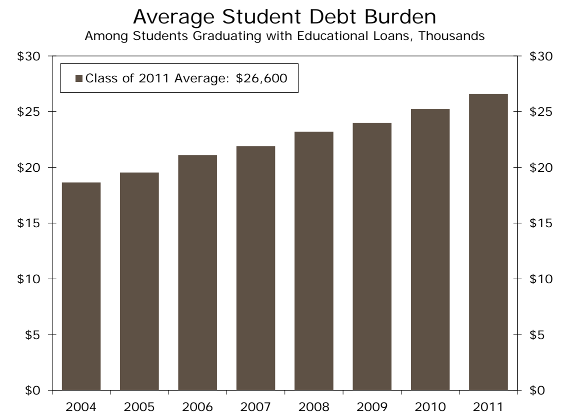


Figure 8

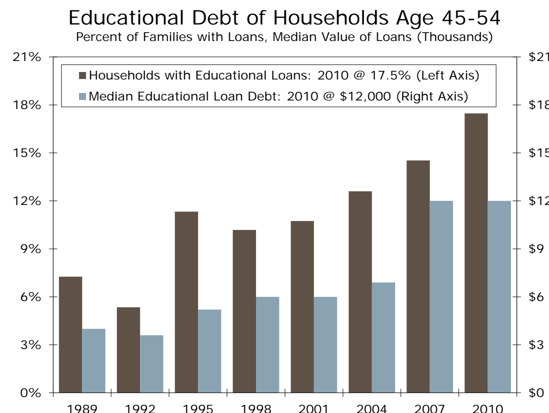


Source: Federal Reserve Board, Institute for College Access and Success and Wells Fargo Securities, LLC

Parents and older students are not immune from the phenomenon of increasing student debt burdens.

Worries over the expansion of student loan debt are often, and with good cause, centered on the young. However, parents and older students are not immune from the phenomenon of increasing student debt burdens. For example, households headed by someone age 45-54 have also seen educational debt become more prevalent and the median burden increase over time (Figure 9). With weak income growth in recent years, parents have likely sought out loans to help put their children through school. The average cumulative debt for parent PLUS loans, which are federal loans made to parents of dependent undergraduate students to help cover the cost of attendance, rose to $16,600 in 2008 from $12,200 in 2004 upon a student's graduation.[4] In the wake of the Great Recession and continued tuition hikes, it would not be surprising to see that the average PLUS loan debt has risen further in recent years.

Figure 9



Source: Federal Reserve Board, Institute for College Access and Success and Wells Fargo Securities, LLC

In some cases the growing amount of educational debt among middle-age households represents adults going back to school and not funding a child's education. However, as costs have grown this has altered the economic return of going back to school for older workers. The high price of

[3] Based on the average starting salary for the Class of 2011 as reported by the National Association of Colleges and Employers.
[4] 2007-08 National Postsecondary Student Aid Study and 2003-04 National Postsecondary Aid Study, National Center for Education Statistics.

college may also be prohibitive to workers seeking to update their skills or embark on a new career given the relatively fewer number of years they have left in the workforce.

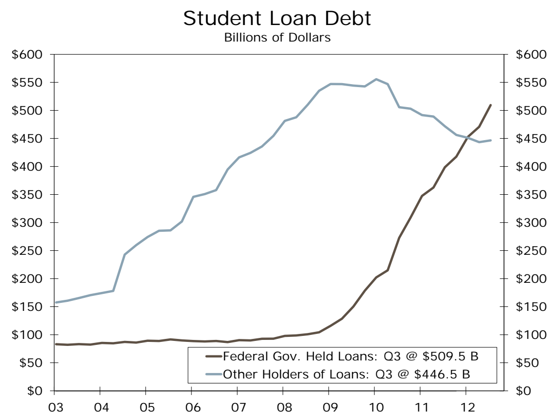
The Evolving Student Loan Market: Government as the Dominant Provider

The broadening scope of households' educational debt holdings points toward a dominant secular, rather than cyclical, upward trend in the student loan market. This is due in part to increasing demand for higher education, but also the unique characteristics of the student loan debt market.

A government dominated marketplace will tend to set prices and terms different than a private marketplace.

First, lending is primarily provided through the government, not the private sector. Even by conservative estimates, the level of federal government-held loans has now passed privately-held loans and the trajectories are very different (Figure 10). The 2008 financial crisis reined in private lending as capital became more scarce, but an increase in the maximum borrowing amounts under federal programs in 2008 has also led to a shift in who provides student loans. The Consumer Financial Projection Bureau places the private market share of student loans outstanding at less than 15 percent.[5] This poses a problem in that a government dominated marketplace, as in health care, will tend to set prices and terms different than a private marketplace. This is already happening for student loans and may also help to explain the trend of diminished private sector involvement in the student loan marketplace.

Figure 10



Source: Federal Reserve Board, Federal Reserve Bank of New York and Wells Fargo Securities, LLC

The government as a lender has a different set of incentives than the private sector. The private sector is likely to be more concerned about the ability of the student to pay debt back, and will price the risk of the borrower accordingly. In contrast, the federal government is likely to place more emphasis on making higher education accessible given the social welfare benefits of a college educated workforce. This presents a challenge to price discovery and alters the risk-return tradeoff, with more risk being shifted to taxpayers, the ultimate backers of federal debt and who are, moreover, not involved in making the credit decision to extend the loan.

Two-year and vocational degrees may be a better investment for many students.

In addition, policy makers in Washington are often from earlier generations—many baby-boomers—where a college education was almost a surefire way to economic success. Over time, as a growing share of the population has attended college, this has lowered the economic premium in some fields for a college education. Yet many policymakers are anchored to their prior views, similar to many parents who place a heavy emphasis on attending college. This anchoring bias shapes the academic and lending policies that have increasingly steered students into four-year degrees, while two-year and vocational degrees may be a better investment for many students.

Another distinguishing characteristic of the student loan debt market is that the loan collateral is of a different character. Whereas a house can be foreclosed on or an automobile repossessed, the

[5] Consumer Finance Protection Bureau. "Private Student Loans." August 29, 2012.

college education bought using student loans cannot be taken back and sold off to recover losses on the loans. Instead, loans are made under the broad assumption that the student will graduate and land a job that will allow the loan to be repaid. But unlike most debt, student loan debt is rarely discharged, and done so only under the most extreme circumstances. This is meant to prevent students from defaulting on their debt when they are young and have relatively few assets that can be recovered. However, as debt levels have grown faster than wages and salaries, this prevents borrowers who truly have fallen on hard times to escape what can be unrealistic debt loads.

Further distinguishing the student loan market is that the government yields wide powers to recover debt when a loan is in default, including taking tax refunds or garnishing wages or Social Security payments. This process is not without costs, but the ability to recoup debt through extraordinary means lowers the incentives of lending to those who can truly pay it back.

Student Loan Debt: Increasingly Difficult to Pay Back

The delinquency rate on student loans is higher than all other types of consumer credit.

Given the widening scope of student borrowing amid tough economic times, it is not surprising to see that student loan delinquencies have steadily trended higher in recent years. The Federal Reserve Bank of New York's Household Debt and Credit Report shows that 11 percent of student loan debt is currently 90 or more days delinquent following updated data on previously defaulted loans.[6] This places the delinquency percentage of student debt above all other types of consumer credit, including credit cards.

Rising debt levels and delinquencies have called into question whether the student loan market is in a bubble. However, delinquency trends for student loans compared to mortgages suggest two different markets in action (Figure 11). For mortgages, loan delinquencies rose rapidly between 2007 and 2010, before declining in a pattern typical of what you would expect of the business cycle. In contrast, student loan delinquencies have risen fairly steadily since 2003—with the exception of the recent rise attributable to data changes—and exhibit no cyclical pattern. This steady ascent leads us to be concerned about the direction of the market, but does not indicate a bubble at this point, although we will be watching incoming data closely to see if the recent jump is the beginning of an accelerating uptrend.

Figure 11

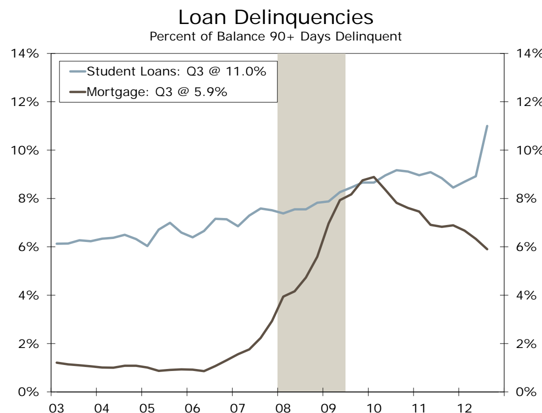
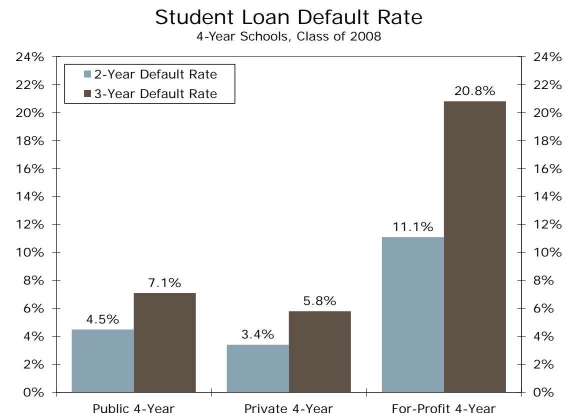


Figure 12



Source: Federal Reserve Bank of New York, U.S. Dept. of Education and Wells Fargo Securities, LLC

The different elements of the mortgage and student loan markets exhibited by the differences in their delinquency rates suggest that the policy solutions for each market are likely to be different as well. While the rapid rise in mortgage delinquencies and foreclosure crisis generated widespread policy responses from Washington, less sweeping changes surrounding student loans suggest that the federal government is willing to accept higher delinquency rates in order to improve college access, but they pass on the cost of the delinquencies to the tax payer. Higher

[6] **See page 1 of the November *Quarterly Report on Household Debt and Credit* for more details.**

delinquency rates may also reflect differing attitudes among younger generations about paying back debt.[7] Without collateral to foreclose on or repossess, the urgency to repay debt may be lessened given that the stigma of debt default has lessened over the years.

The degree to which students may be able to handle debt loads is starkly different across institution types (Figure 12). This suggests that there are several submarkets on student loans where the demand and supply fundamentals are different. Part of the discrepancies may be driven by a self-selection bias where certain students gravitate toward one type of institution compared to another and thereby may reflect, at least in part, the student rather than the institution. However, the significantly higher rate of defaults seen at for-profit institutions does little to allay concerns over whether these institutions are indeed bettering their students' economic prospects.

There are several submarkets on student loans where the demand and supply fundamentals are different.

Perceptions of Income and the Return to Education: Seeking the Details

Undoubtedly the expansion of student loan debt will have ramifications on the economy, but for now their extent remains unclear. On the positive side, the increased student debt reflects expanded access to higher education. Assuming a college education does in fact improve human capital, this should support economic growth in the broad sense of labor productivity gains and innovation. However, the increase in the average debt burden will also have negative implications on the economy.

Not surprisingly, educational debt is concentrated among younger households (Figure 13). Household income, however, does not peak until ages 45-54, leaving younger households to await much of the economic return to the debt taken out decades before (Figure 14). Lower incomes at the time when debt is likely to be highest can place severe financial strain on these households, especially in a weak economic environment. Young college graduates—graduates under age 25—also face higher unemployment than their older counterparts. The unemployment experience of young graduates more closely follows that of the broader labor force, as a college degree is not a perfect substitute for job experience (Figure 15).

Figure 13

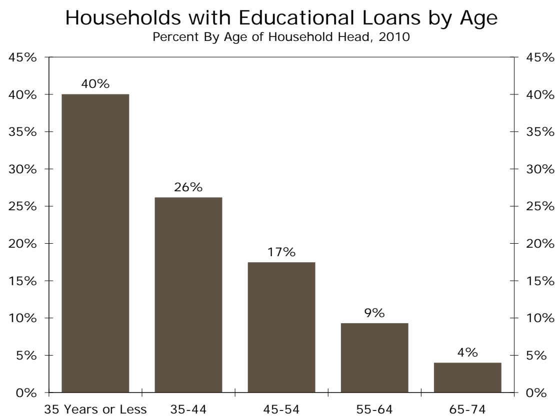
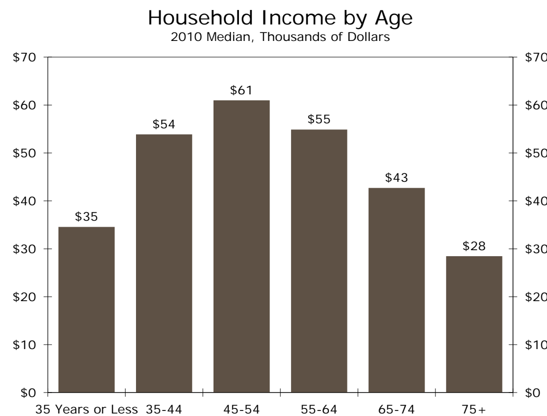


Figure 14



Source: Federal Reserve Board and Wells Fargo Securities, LLC

The debt burdens saddled on these young households will cause many to delay major economic milestones that drive consumer spending, such as moving out from their parents' house into their own residence, getting married, buying their first home, and having children. Increased difficulty saving for a down payment on a home given increasing educational debt service could impede the current housing recovery. For example, the average student debt burden for those graduating with educational loans has climbed to nearly 20 percent of the median priced home for first-time buyers from less than 12 percent in 2004 (Figure 16). While the increase is in part due to

[7] See Jiang, Sarah S. and Dunn, Lucia F. (2013) "New Evidence on Credit Card Borrowing and Repayment Patterns", *Economic Inquiry,* Vol. 51, Issue 1, for analysis of credit card repayment between generations.

declining home prices during the latter half of this period, the ratio rose to 11.3 percent in 2004 to 13.9 percent in 2008 when the median first-time buyer home price was only $2,500 higher.

Figure 15

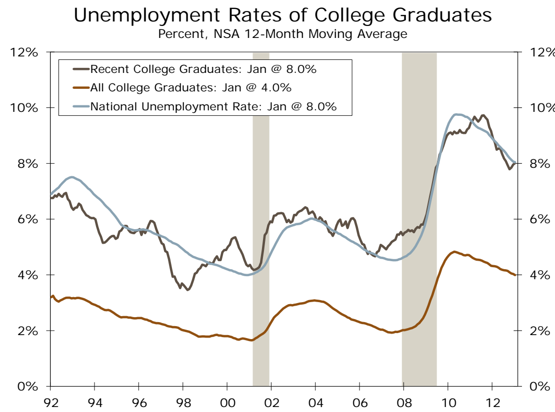
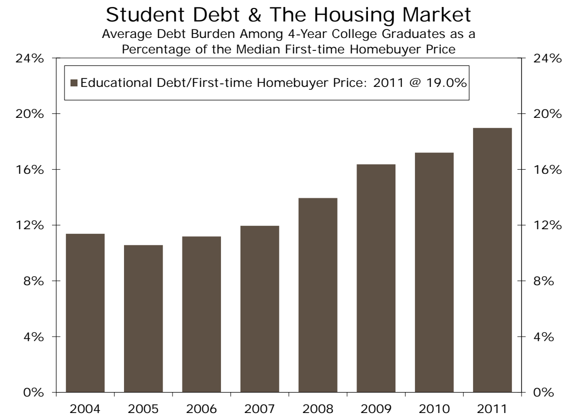


Figure 16



Source: U.S. Department of Labor, Institute for College Access and Success, National Association of Realtors and Wells Fargo Securities, LLC

The debt accumulated in college continues to be a bet on future income.

Despite rising debt burdens, a college education still appears to be a clear factor in lifetime economic success. Unemployment is notably lower for college-educated workers than for their less educated peers (Figure 17). In addition, income prospects improve with a college degree (Figure 18). Thus, the debt accumulated in college continues to be a bet on future income. However, while data from the Federal Reserve's Survey of Consumer Finances shows that the ratio of household income of a college degree holder relative to that of only a high school diploma holder has been relatively consistent over the past two decades, the return on that education is diminished with rising tuition and the growing debt service burden to student loans that replaces other forms of consumption is factored in the calculus.

Figure 17

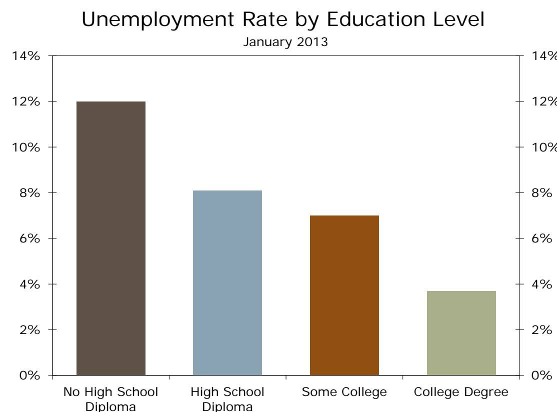
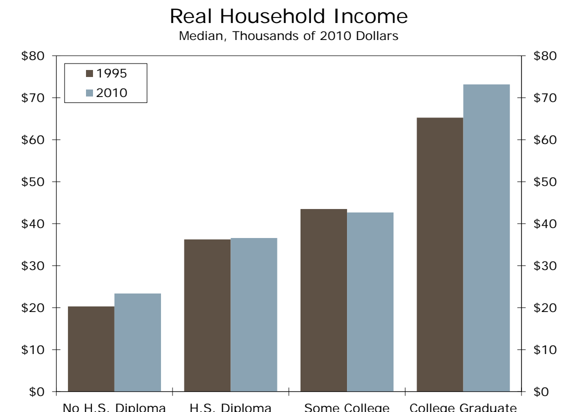


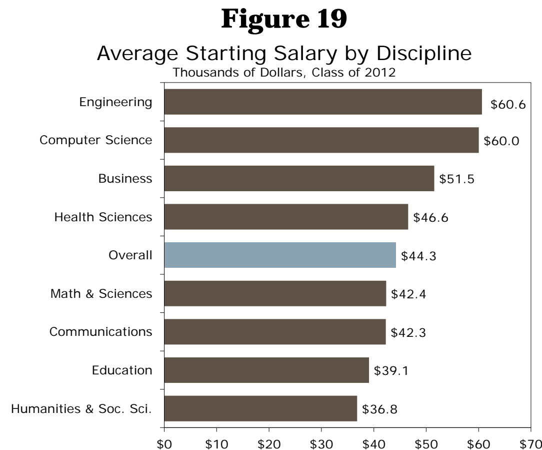
Figure 18



Source: U.S. Department of Labor, Federal Reserve Board and Wells Fargo Securities, LLC

Of course, the returns to education differ dramatically by the field studied (Figure 19). The starting salaries for engineers will make the $26,600 average debt load more manageable than it will be for the communications major. This should give pause to those students and parents who believe that any diploma will suffice as a ticket to economic success.

Figure 19



Source: Federal Reserve Board and Wells Fargo Securities, LLC

Conclusion: Secular Rise in Student Debt Reflects Bet on Future Economic Success

A college education still appears to be the surest way to economic success.

The continued rise in student debt burdens over the past decade has generated concerns over another financial bubble and called into question the economic value of a college education. While some cyclical factors have been at play since the past recession, a clear secular trend is also present throughout the past two decades. The expansion of the student loan market reflects the workings of a different type of financial market where debt is primarily held by the federal government, prices are not set by the market and the underlying asset is intangible. This has led to the steady rise in delinquency rates for student loans that has persisted through the business cycle. Yet a college education still appears to be the surest way to economic success, as measured by employment prospects and income, but as the typical debt burden continues to rise, these economic returns have been delayed and in some cases lowered.

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