
The Institute for Behavioral and Household Finance



White Paper Series

*Student Loan Debt and College Costs**

Jie Cao and Di Hu

Cornell University

© 2015 All rights reserved.

White Paper No. 4-2015

September 2015

The Institute for Behavioral and Household Finance

Cornell University • The Charles H. Dyson School of Applied Economics and Management • Warren Hall, Ithaca, NY 14853 •

E-mail: ibhf@cornell.edu • <http://bogan.dyson.cornell.edu/ibhf/>

*This work was supervised by Dr. Vicki Bogan and was completed in partial fulfillment of the requirements for the Degree of Master of Professional Studies at Cornell University.

Overview

Enrolling in college is likely the first major human capital investment that a person will make. The largest costs of attending a university are the tuition, room, and board fees and these costs have been steadily increasing over the past 20 years.

There are many reasons for these increasing costs. Educational institutions are concerned with making capital and infrastructure investments in an effort to increase their rankings. For example, the salaries for professors have been increasing in real terms because of the fierce competition to attract and retain top academics. Additionally, in order to attract more applications, many universities have been expanding campus amenities, ranging from luxury dormitories to expensive sports and recreational facilities. These expenses usually are accompanied by a growth in administrative staff, which also leads to increasing tuition costs. As a consequence, both private and public institution costs have had sustained growth (Rahman, 2013).

Generally with elastic demand, the demand for a good decreases as its price increases. However, in an inelastic market, demand does not decrease as the price of a good or service increases. In some cases, demand may even increase. Given the rising cost of college tuition and fees, the demand for a college education should decline, as it does for any good or service exhibiting normal elastic demand. However, evidence suggests that the

post-secondary education market is inelastic. The demand, as measured by applications, has increased even though tuition costs have increased (Howard, 2011).

The demand for higher education could be inelastic for many reasons. Higher education facilitates employment, increases social and professional networks, and increases individual salaries. Therefore, for those students who cannot afford college tuition costs, student loan debt may be their best option. This results in students who are able and willing to borrow more and more.

This increased loan demand has resulted in the expansion of student loan programs to increase the amount of available student loans. Student loan programs can reduce the real ‘pocket book’ cost of education, eliminate credit risks of the borrowers, and create both moral hazards and negative externalities (Howard, 2011). Thus, in this paper, we examine the relationship between college costs and the student loan market.

The History of the Student Loan Market

As a response to the Soviet Union launch of the Sputnik satellite which highlighted the need to improve U.S. progress in education and technology, President Dwight Eisenhower established the National Defense Education Act (NDEA) to provide funding to U.S. educational institutions at all levels (Gladieux, 1995). U.S. government-backed student loans were first created in the 1950s under the NDEA.

Initially, student loans were only available to select categories of students, such as those studying engineering or science (Simkovic, 2011). However, in 1965, the anti-poverty and civil rights laws brought about a dramatic boost of student loan aid. The Higher Education Act expanded student loan programs to help poor students. For these new programs, instead of loaning government money directly, the student loans were originated by financial institutions but the government guaranteed that if students defaulted, the U.S. government would pay (Simkovic, 2011). Subsequently, as demand for federally subsidized loans outstripped the supply, the unsubsidized, private student loan market expanded significantly.

By 2012, outstanding U.S. student loan debt had reached \$966 billion (Rahman, 2013). The Federal Reserve Bank of New York estimates outstanding student loan debt to be the second largest component of consumer credit in the U.S. after mortgages (8.5% of overall consumer debt) (Rahman, 2013).

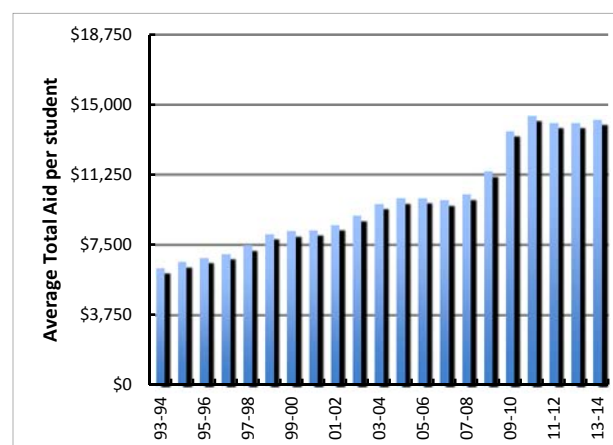
The growing trend of student loan debt has raised concerns about whether students will be able to repay their loans in the future and that the level of student loan debt will be the trigger of another financial crisis. Anecdotal evidence, as well as default statistics for student loans, suggests that more and more individuals are struggling to repay their loans as job market prospects for many

recent undergraduate and graduate students are worse than in the past (Rahman, 2013).

Student Loan Trends

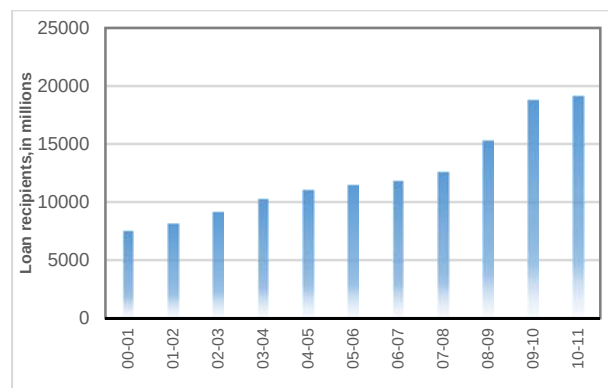
Figure 1 shows the average aid per full-time equivalent undergraduate student from 1993 to 2014. The total amount of aid had been increasing until it peaked in 2010-2011 and has been relatively constant since that time. Student aid in 2011 was more than double student aid levels in 1993. In addition to the growing average aid per student, the total numbers of loan recipients tripled from 2000 to 2011, as show in Figure 2.

Figure 1: Average Aid per Full-Time Equivalent Undergraduate Student



SOURCE: Trends in Student Aid website (trends.collegeboard.org). NOTES: Total reported here includes grant aid, Federal loans and federal education tax benefits and Federal Work-Study.

Figure 2: Loan Recipients of Annual Grants and Student Loans by the Federal Government

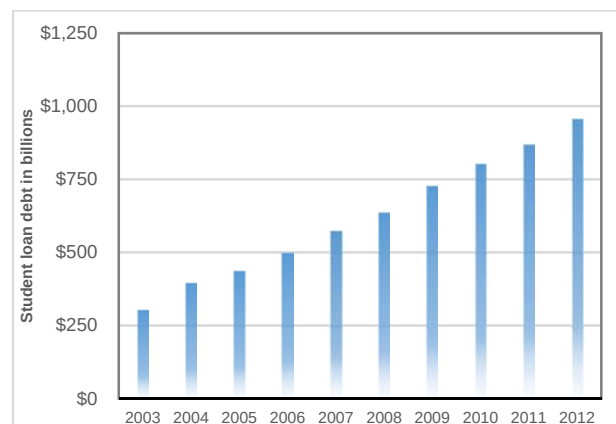


SOURCE: U.S. Department of Education, Federal Student Aid, Title IV Program Volume Reports, Direct Loan Program, Federal Family Education Loan Program, Grant Programs. Retrieved February 11, 2013, from <http://studentaid.ed.gov/about/data-center/student/title-iv>.

Federal student aid offers interest rate subsidies, income-based repayment options, loan deferment plans, and guarantees. However, with rising college tuitions and limits on government funding for federally subsidized loans, there also has been an increasing demand for unsubsidized loans. Our analysis of student aid between 1993 and 2014 reveals more than just surging debt levels. As college prices increased faster than grant aid, family income, and available federal loans, more students began to take out private student loans at market rates (Avery & Turner, 2012). Figure 3 illustrates the increasing total outstanding student loan debt by private institutions.

In 2012, total privately-held student loan debt stood at nearly \$1 trillion. By comparison, in

Figure 3: Private-Held Total Outstanding Student Loan Debt

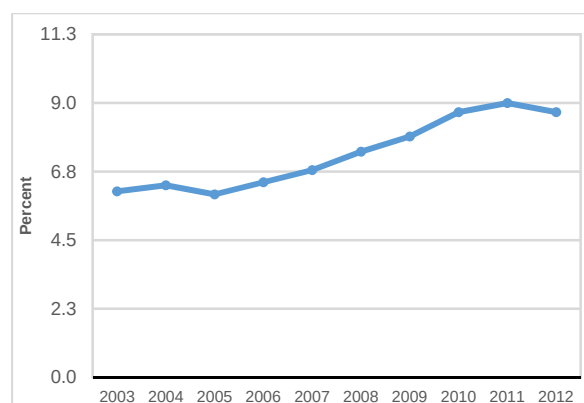


SOURCE: Federal Reserve Bank of New York, Quarterly Report on Household Debt and Credit, 2012 Q3. Retrieved February 11, 2013, from <http://www.newyorkfed.org/householdcredit/>.

2003, total privately-held student loan debt outstanding was only \$304 billion. Given the size of the private student loan segment of the student loan market, the performance of such loans has a significant effect on the overall student loan default rate.

Figure 4 shows a rising trend in default rates on private student loans that are at least 30 days past due. In 2003, approximately 6 percent of all outstanding student loans were delinquent. By 2012, that rate had increased to 11 percent. The big uptick in private student loan participation from 2003 to 2012 is a specific cause for concern. As these private student loans are the costliest and least regulated debt, students have the least protection and pay the highest rates (Dillon & Carey, 2009).

Figure 4: Percentage of Total Private-Held Outstanding Student Loan Debt is 90 or More Days Delinquent

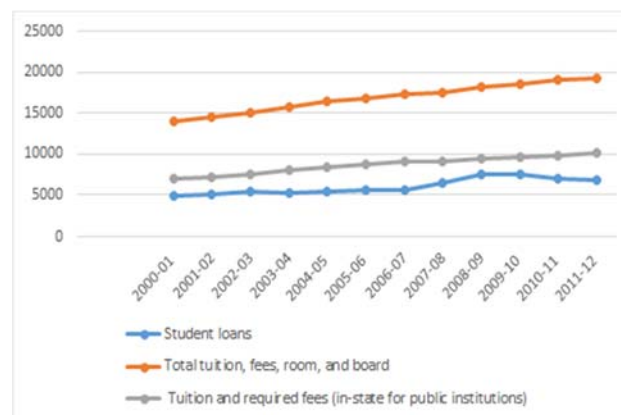


SOURCE: Federal Reserve Bank of New York, Quarterly Report on Household Debt and Credit, 2012 Q3. Retrieved on February 11, 2013, from <http://www.newyorkfed.org/householdcredit/>.

Student Loans & College Costs

The “Bennett Hypothesis,” developed by William Bennett, a former U.S. Secretary of Education, suggests that readily available loans enabled schools to increase their tuition and fees without regard to demand elasticity (Bennett, 1987). We analyze the connection between college tuition and fees and student loan debt using data from the National Postsecondary Aid Study (NPSAS) published by the National Center for Education Statistics. These data provide student-level information on average student loan debt and average total tuition, room, and board fees, for public institutions, private for profit institutions, and private non-profit institutions in the U.S.

Figure 5: Trends of Student Loans and Tuition Fees¹



SOURCE: Department of Education, National Center for Education Statistics. (2013).

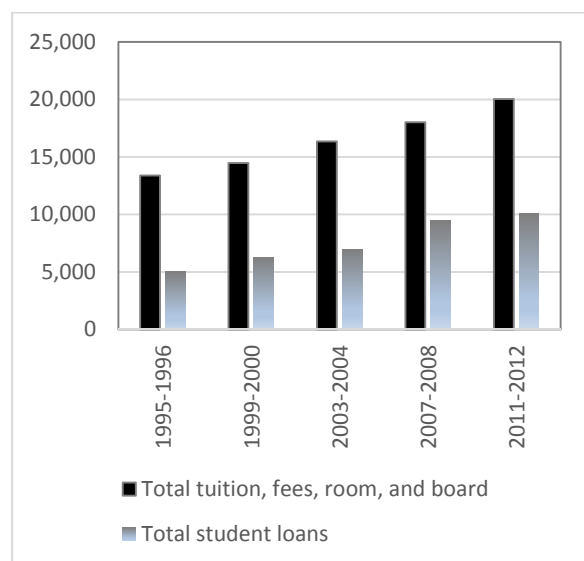
Figure 5 shows total tuition for both public and private institutions grew steadily from 2000 to 2011. Correspondingly, Figure 5 shows the amount of student loan debt grew steadily and reached a peak in the 2008-09 academic year.

Figure 6, compares the average amount of total student loans and average total college costs (tuition, fees, room, and board) between 1995 and 2012. During this time period, the correlation between average total college costs and average total student loan debt is 0.975. College costs rose by almost 50 percent while average student loan debt more than doubled.

These statistics are consistent with previous research in this area. Single and Stone (2007)

¹All of the dollar figures based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis.

Figure 6: Student Loans & Total College Costs²



SOURCE: Department of Education, National Center for Education Statistics. (2013).

find that, for private universities, increases in Pell grants appear to be matched nearly one for one by increases in list (and net) tuition. They also find that tuition increase trends for the out-of-state tuition of public universities are similar to those for private universities. Lucca et al. (2015) find that educational institutions more exposed to changes in the subsidized federal loan program increased their tuition disproportionately when more subsidized federal funds became available. The identified pass-through effect on tuition was 65 percent.

Conclusion

Over the past decade there has been a substantial rise in college tuition accompanied by a large growth in the volume of student loan debt. The increasing trend in student loan default, threatens the student loan industry and raises social concerns. There are many drivers that could contribute to a student loan crisis: uncontrolled tuition increases, a large demand for student loans, and/or a rise in private lending.

The growth of private sources of lending is of particular concern. The private lending lacks protections and government supports. More regulation of private lending may be needed, so that the sector does not become a systemic risk to the financial system. This points to a need for the development of institutions to better regulate the student loan debt markets. Better regulation of the student loan market could reduce default rates by controlling the origination of unnecessarily risky loans. Given the identified connection between college costs and student loan debt, policies designed to improve the student loan market could also help to control the excessive growth of college tuition and fees.

²All of the dollar figures based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis.

References

- Avery, C., & Turner, S.** (2012). “Student Loans: Do College Students Borrow Too Much—Or Not Enough?” *The Journal of Economic Perspectives*, 165-192.
- Bennett, W. J.** (1987). “Our Greedy Colleges.” *The New York Times*. Retrieved from <http://www.nytimes.com/1987/02/18/opinion/our-greedy-colleges.html>
- Dillon, E. & Carey, K.** (2009). “Drowning in Debt: The Emerging Student Loan Crisis.” Policy Brief – Education Sector at American Institutes for Research, July 2009.
- Gladieux, L.** (1995). “Federal Student Aid Policy: A History and an Assessment.” Policy Brief Commissioned by the U.S. Department of Education, October 1995.
- Howard, W.** (2011). “Student Loan Crisis and the Race to Princeton Law School.” *Journal of Law, Economics & Policy*, 7(3): 485-511.
- Lucca, D. O., Nadauld, T., & Shen, K.** (2015). “Credit Supply and the Rise in College Tuition: Evidence for the Expansion in Federal Student Aid Programs.” (Staff Report No. 733 – Federal Reserve Bank of New York)
- Rahman, O.** (2013). “Are US Student Loans the «Next Bubble?»” (Swiss Federal Institute of Technology Zurich, Working Paper)
- Simkovic, M.** (2013). “Risk-Based Student Loans.” *Washington and Lee Law Review*, 70(1): 527-648.
- Singell, L. D., & Stone, J. A.** (2007). “For whom the Pell Tolls: The Response of University Tuition to Federal Grants-in-Aid.” *Economics of Education Review*, 26: 285-295.
- U.S. Consumer Financial Protection Bureau** (2012). “Private Student Loans.” Report to the Senate Committee of Banking, Housing, and Urban Affairs, the Senate Committee on Health, Education, Labor, and Pensions, the House of Representatives Committee on Financial Services, and the House of Representatives Committee on Education and the Workforce. August, 2012.
- U.S. Department of Education**, National Center for Education Statistics, (2013). “Tuition Costs of Colleges and Universities” *Digest of Education Statistics*, 2012, NCES 2014-015, Chapter 3.