

**College Costs and Financial Constraints:
Student Borrowing at For-Profit Institutions**

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Abstract:

This paper assesses trends in student borrowing in for-profit institutions. Drawing on data from the National Postsecondary Student Aid Study (NPSAS), we document the high and rising debt levels of for-profit students relative to students in other sectors. We explore several reasons for the increase in student debt over the last decade. Our results suggest that relatively high and rising tuition, but relatively low student financial resources in the for-profit sector are likely the key factors contributing to increased borrowing in the for-profit sector. Although costs and borrowing patterns in the for-profit sector are similar to the patterns found in four-year non-profit institutions, unlike the non-profit sector, tuition hikes were not offset by increases in institutional grants. While there is clear evidence that student demographics, resources, or work behavior differ from other sectors in important ways, we find little evidence that changes in these elements can explain rising borrowing in the for-profit sector over time.

Key words: for-profit higher education, student loans, borrowing behavior

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1. Introduction

Perhaps no culprit has been incriminated more for the rising levels of student loan debt in the US than have for-profit postsecondary institutions. Two trends have drawn a great deal of attention to this sector. First, students at for-profit institutions disproportionately accrue federal student loan disbursements, leading to concern about the use of public funds and debt burden on students in the sector. Second, student loan default rates are higher at this group of institutions than other sectors on average, calling into question relative employment prospects. There is still much unknown, however, about the student context of these high level trends and research on student lending and the for-profit sector remains underdeveloped. Using student-level nationally representative data from the National Postsecondary Student Aid Study (NPSAS), we analyze student borrowing trends over the past decade, with a particular focus on the behavior of students in for-profit institutions compared to students in other sectors.¹

An impediment to understanding relative student outcomes in the for-profit sector is the unique nature of students served. Descriptive research informs us that the sector disproportionately enrolls independent, minority race/ethnicity, and low income students (e.g., Deming, Goldin, and Katz 2012). Some argue that credit is necessary for many of these types of students to invest in their human capital (e.g., Guryan and Thompson 2010). Therefore, we push further than previous research to also ask whether borrowing patterns differ by various measures of financial need and available resources. We further examine preferences for borrowing relative to other available financing options, such as working, grants, and family transfers to provide a

¹ NPSAS is nationally representative of students who attend postsecondary institutions eligible to disburse federal financial aid.

better understanding of debt behavior in the context of the financial constraints these students face.

As expected, we find that students at for-profit institutions are much more likely to borrow than students in public and non-profit institutions. We also find that, over the past decade, the incidence of borrowing has risen more steeply than borrowing in other sectors. These high borrowing rates lead to higher average borrowing by for-profit students than students in public and non-profit institutions. Published tuition in the for-profit sector has risen substantially over the last decade, following patterns similar to those making headlines in the public and non-profit sectors. But unlike other sectors, grant aid has not risen with tuition in the for-profit sector, leading to steep increases in the net price that students pay. As well, we observe increases in institutional aid in the private non-profit sector that accompany tuition increases, but find little evidence of this support in the for-profit sector. Student borrowing in the for-profit sector has risen dramatically to meet the rising net prices.

Our examination of financial resources reveals that students attending for-profit institutions have the lowest available personal and family resources to contribute to higher education costs, relative to students in other sectors. Not only do they have the lowest calculated Expected Family Contribution (EFC) according to financial aid formulas, but it is also less likely that they or their parents own a home or have substantial investment or business assets. Given their relative lack of resources, it is not surprising that these students turn to the credit market to finance their education. Also of note is that students in the for-profit sector work longer hours and are more likely to work full-time than students in the public four-year or private non-profit sectors (and at a generally similar levels as public two-year college students). Therefore, the

high borrowing rates of for-profit students do not appear to simply reflect preferences for debt over working. Rather, they seem to be both working and borrowing at relatively high rates.

What is striking is that students at for-profit institutions are most similar to public community college students in the degrees they seek, their demographics, and their financial resources, yet their costs and their debt burdens are on par with students in private non-profit institutions who typically seek bachelor's degrees from institutions with long-standing reputations and higher expected post-college incomes. Why are the most disadvantaged students attending relatively expensive for-profit institutions?

While we cannot provide an answer here, our findings highlight the policy importance of the question. An economically rational student will decide whether to attend higher education by comparing the expected benefits of school, such as higher wages, against expected costs, including tuition and forgone wages. The answer to the question, therefore, may be that advantages offered by for-profit colleges such as convenient class schedules and streamlined programs, make for-profit education an appropriate choice for judicious and shrewd students. This may be of little concern for policymakers. On the other hand, policymakers may be rightfully concerned if students are making choices while lacking information or being misled.

2. Background on For-profits and Debt

Across all sectors of higher education, student borrowing plays an important role in ensuring access to higher education for low- and middle-income students. Yet evidence that credit constraints affect educational attainment is mixed. Ellwood and Kane (2000) and Belley and Lochner (2007) find some support that credit constraints impact college-going, while

Cameron and Taber (2004), and Stinebrickner and Stinebrickner (2008) find little evidence that credit constraints impact educational attainment.

Whether or not students borrow “too much” or “too little” is subject to debate, though analyses of typical debt burdens and returns to college do not indicate that average student borrowing behavior, even at current higher levels, is a serious concern (see Avery & Turner (2012) or Baum & Schwartz (2006) for a more detailed discussion). Loans can promote access to higher education by lowering costs, and research indicates that social benefits to higher education can exceed private benefits (e.g., Wolfe & Haveman, 2002). Therefore, a robust educational credit market can have both equity and efficiency benefits. On the other hand, debt burdens can lower expected future consumption since relatively large portions of some borrowers’ incomes will be dedicated to making loan payments. Evidence also indicates that high debt can potentially alter choices about early career decisions (e.g., Rothstein & Rouse, Fields), and alter relationship and location choices (e.g., Gicheva, 2010; Dickler 2010).

If not properly managed, student debt can impair access to other credit markets, increasing the difficulty for students to borrow money to purchase assets such as houses or to guard against income or asset shocks. Debt burdens, therefore, should be considered in relation to the expected benefits associated with borrowing. For student loans, the prominent private benefit is higher expected earnings associated with completed college. For the average student, college earnings premiums have grown, even when taking into account increasing college costs (Avery & Turner, 2012). Therefore, modest increases in student borrowing for the average student may not be a source of public concern.

Returns to college investments, however, are heterogeneous across student characteristics and abilities, as well as institutions. Therefore, not every student will earn the average wage

premium to college, and students are not evenly stratified across school sectors and types. In fact, several recent studies on the returns to for-profit college attendance suggest that for-profit students generate earnings gains that are lower than those of students in other sectors (Cellini and Chaudhary 2012, Deming, Goldin, and Katz 2012, Turner 2012). Among associate's degree students, estimates of returns to for-profit attendance are generally in the range of 2 to 8 percent per year of education,² compared to upwards of 9 percent in the public sector (Jacobson, LaLonde, and Sullivan 2005, Jepsen, Troske, and Coomes forthcoming).

Complicating the policy discussion is that publicly subsidized federal student loans are the most common source of borrowing for college students. Federal loans include Stafford Loans, Perkins loans, and PLUS loans for parents. While these loan programs have been widely touted as improving access to higher education for low-income students in "traditional" non-profit and public institutions, they have come under increasing scrutiny for their role in supporting the growth of the for-profit sector.

For-profit students receive a disproportionate share of federal aid. They receive 26% of federal student loan disbursements, but account for just 11% of students (Deming, Goldin, and Katz 2012). As we show below, tuition averages over \$10,000 per year, and for-profits may be raising tuition to maximize their federal aid (Cellini and Goldin 2012). Of course, another explanation is that for-profit students tend to enroll more disadvantaged students than other sectors. Deming, Goldin, and Katz (2012) report that among first-time college students, for-profit institutions serve a higher proportion of women, African American/Black students, GED recipients, and single parents than other sectors. Some of these characteristics are associated with

² One additional paper (Lang and Weinstein 2013) finds that for-profit certificate students have lower returns, but associate's degree students have higher returns than students in public community colleges. These authors attribute the latter finding to a selection problem: students in community colleges are more likely to go on to a bachelor's degree and are not included in their sample.

lower financial resources. We explore these patterns further using NPSAS data and more directly examine student resources below.

Disproportionate borrowing alone may not be a problem if disadvantaged students can easily pay back their debt after graduation. More concerning, is that student loan default rates are much higher in the for-profit sector than in other sectors. Three-year cohort default rates (CDRS) from 2009 are over 22% in the for-profit sector compared to 8.4%% for public community colleges. Two other estimates produced by the Department of Education, but not used for Title IV eligibility, yield even higher default rates for for-profit students. Estimates of “cumulative lifetime default rates” based on the number of loans, rather than borrowers, yields a rate of about 31% for cohorts graduating between 2005 and 2009. The highest estimate uses dollars, rather than loans or borrowers, to estimate defaults and is used in the President’s budget. By this measure, lifetime defaults are around 48% for two-year for-profit students (U.S. Department of Education 2011). These patterns have raised the suspicions of policymakers and led the Obama administration to propose new regulations on restricting federal student aid to for-profit institutions (see Darolia (2013b) for further discussion).

There is a small, but growing literature on for-profit colleges in economics. Many studies describe student demographics and program offerings at for-profit institutions (e.g., Apling 1993; Bailey, Badway, and Gumport 2001; Deming, Goldin, and Katz 2012; Rosenbaum, Deil-Amen, and Person 2006; Turner 2006).³ Administrative licensing data has added to our knowledge of these institutions in recent years and allowed for causal studies of institutional behavior (Cellini 2009, 2010) and a more accurate count of for-profit institutions (Cellini and Goldin

³ The IPEDS severely undercounts the number of two-year for-profit colleges in the U.S. For many years the survey relied on snowball sampling and did not require their participation. In recent years, greater efforts have been made to track down institutions receiving federal financial aid, but many colleges remain unaccounted for in the data (see Cellini and Goldin 2012).

forthcoming). And, as noted above, several authors have exploited new sources of student-level data to estimate the labor market returns to a for-profit education (Cellini and Chaudhary 2013, Turner 2013, Lang and Weinstein 2013, Deming, Goldin, and Katz 2012).

Several studies on the relationship between financial aid policy and institutional behavior are particularly relevant to this study. Cellini (2010) finds that for-profit college openings and closing correlate with the generosity of federal aid in the Pell Grant program. Cellini and Goldin (2012) find that for-profit institutions participating in federal grant and loan programs charge tuition that is 78% higher than similar programs in institutions that are not eligible for aid. In absolute terms, the dollar value of tuition difference they find is similar to the value of the aid the institution receives, suggesting that institutions may capture federal student aid. Turner (2013) looks more closely at the incidence of the Pell Grant program and finds that for-profit institutions behave no differently than non-selective non-profit institutions, capturing around 20 percent of student's Pell Grant award through reductions in institutional aid. Finally, Darolia (2013a) finds that the loss of federal aid because of high CDRs leads to declines in annual enrollment exceeding 16% at for-profit colleges. This indicates that the federal government has powerful policy levers at its disposal to determine where and if students attend college by regulating which institutions can disburse aid.

We build on this literature, focusing on changes over time in student borrowing in the for-profit sector. We begin to untangle the myriad possibly explanations for the time trends we observe, bringing new data to bear on questions of student resources and work behavior. Our results have important implications for the design of federal student aid policies and the regulation of for-profit colleges.

3. Data

To examine trends in postsecondary borrowing and financing behavior of undergraduate students in the US, we use the four most current complete waves of the National Postsecondary Student Aid Study (NPSAS). Coordinated by the US Department of Education, NPSAS combines institutional and governmental records with student surveys to produce nationally representative repeated cross sectional student-level data with information on how students pay for their postsecondary expenses. The advantages of these data are their relatively large sample sizes and particularly detailed information about students' financial backgrounds and college financing strategies.

We use study waves from the 1995-1996, 1999-2000, 2003-2004, and 2007-2008 school years. Each wave contains information on between 41,000 (in 1995-96) and 105,000 (in 2007-08) undergraduate students surveyed at random from institutions participating in federal student aid programs under Title IV of the Higher Education Act of 1965⁴. For our analysis, we use measures of borrowing, aid, and other amounts for that year, with all dollars reported in constant 2008 terms. We restrict the sample to undergraduate students, but consider yearly figures similarly across the year students are in school and enrollment intensity.

We group schools into four distinct types: for-profit institutions; public institutions that offer programs of two years or less; public institutions that offer four-year programs; and private, non-profit institutions. Note that both the for-profit and non-profit groups include all levels of institutions: less-than-two-year, two-year, four-year, but the composition of the institutions in each sector differs substantially. In 2007-08 almost 95% of private not-for-profit postsecondary

⁴ Note that many for-profit institutions (particularly those that do not offer degrees) do not participate in Title IV programs, and are therefore not represented in the NPSAS. See Cellini and Goldin (2012) for a discussion of these institutions.

institutions were four-year colleges, compared to just 47% of for-profit institutions (NCES 2012, Table 306).⁵ We include unweighted counts of observations by year and school sector in Table 2.

4. Student Financing Trends: Similarities and Contrasts

We begin by describing borrowing behavior over time. In the sections that follow, we examine various explanations for these substantial differences in student borrowing both across sectors and over time within the for-profit sector. The relatively high sticker costs of for-profit colleges, and relatively low grant aid and personal financial resources available to students who attend these schools leave a relatively large amount of unmet need for students. While for-profit students appear to be working at relatively high rates, this behavior does not appear to prevent students from borrowing at high rates or levels.

4.1. Borrowing

Table 1 presents the average borrowing behavior of students for the 2007-2008 school year. A remarkable 87% of for-profit students borrow money of some kind, compared to just 14% of public 2-year students, 48% of public 4-year students, and 60% of private nonprofit students.⁶ Not surprisingly, most student borrowers obtain loans through federal programs. In the for-profit sector, 81% of students receive federal loans. Relative to students in other sectors, for-profit students are much more likely to supplement federal borrowing with borrowing from non-federal sources, but just 6% borrowed only from non-federal sources, as shown in the bottom row of Panel A.

⁵ Adding students in two-year non-profit institutions to the public two-year and less-than-two-year group made very little difference in the analysis. We believe that our categorization allows for the cleanest comparisons across institution types.

⁶ In this, and all subsequent tables, we use survey weights unless otherwise noted.

The trend of percentage of students who borrow (from any source) from 1996 to 2008 is displayed in Figure 1. While the relative position of schools in this trend stays constant and all schools experience a positive upward trend of the percentage of students borrowing, the for-profit sector experienced a 30 percentage point increase in the proportion of students borrowing since 1996, whereas the increase for the other three sectors were all below 15 percentage points. The upward trend in borrowing is notable in the most recent period, climbing from 75% to 87% in 2008.

In addition to the high (and climbing) proportion of students borrowing, the first row of Table 1, Panel B reveals that for-profit students also have the highest average yearly total loan amounts when considering all students (whether they borrow or not). The for-profit sample has an average debt load of over \$7,000 per year, a figure even higher than private nonprofit students, who borrow about \$6,500 per year. We display the trend of average student borrowing in Figure 2. Per student borrowing is increasing in all sectors, but the rate of increase and the relative position of for-profit institutions is the highest among all sectors.

These are annual borrowing figures, such that total debt would depend on the accrual over the whole time the student is in college, and could therefore be lower for for-profit than private non-profit students overall, as for-profit programs are generally shorter (more on this below). If we assume that the average for-profit student attends for two years and the average non-profit student attends for four, the total amount borrowed comes to \$14,000 for for-profits and \$26,000 for non-profits.⁷

Note that Panel B and Figure 2 display averages are taken across all students, rather than just borrowers. Averages conditional on borrowing are listed in Panel C of Table 2. Averages

⁷ Calculations of cumulative debt are not straightforward in the NPSAS.

for for-profit student borrowers increase modestly to about \$8,400 since almost all students borrow, but the figures become much higher for other sectors, due to lower proportions of borrowers. Notably, when considering loan volume of only the 60% of students who borrow in the private non-profit sector, average loan amounts exceed those of for-profit students, at almost \$11,000, while the average loan volume among borrowers in public 2-year and 4-year institutions remains below that of for-profit students.

The lower rows in Panels B and C of Table 2 display the composition of loans across sectors. In dollar terms, federal loans make up the largest portion of for-profit student borrowing, and just under half of these loans are federally subsidized. About a third of for-profit student loans are from private lenders. Overall, the patterns of for-profit student borrowing look similar to private non-profit borrowing. Figure 3 displays the categorization of student loan types by school sector over time. Although borrowing has increased across all sectors, the for-profit sector saw borrowing increase by the largest loan dollar amount between 1996 and 2008.

It is also worth noting that private loan dollars increased the most substantially in the for-profit sector. This trend could be interpreted in a couple of different ways. Since private lender loans often have less favorable terms than federal loans, this could be troubling given the expected debt burden on this group of students coming from relatively disadvantaged backgrounds. On the other hand, given some of the concern about public funding at some for-profit institutions, a shift towards more private loans may be welcome to those who believe subsidized public funds should not be used at for-profit institutions. These trends would need to be evaluated after the changes to the federal loan program delivery system in 2010, though more current data similar to that analyzed here is currently not available.

4.2. Credential and Demographic Differences

One challenge with comparing financing strategies across school types are differences among student bodies. Differences the credentials that students seek and their demographics may both be important drivers of borrowing behavior. We include a picture of student characteristics across the sector from the 2007-2008 school year in Table 2.

A number of differences are apparent across school sectors, including the credentials sought by students. About one-third of for-profit students are enrolled in certificate programs, over a third are enrolled in Associate's degree programs, and less than a third are enrolled in Bachelor's level programs (column 1). This is compared to about 80% of students at public 2-years that are seeking Associate's degrees, and over 90% of students at public 4-years and private nonprofits enrolled in Bachelor's degree programs. Over ten percent of students at public 2-year institutions are not enrolled in a degree or certificate program, compared to just one to two percent of students in the other sectors.

These differences in credentials across sectors should be considered in relation to student borrowing behavior. If, as the research described earlier suggests, short-term credentials in for-profit colleges yield lower returns than other credentials and sectors, then policymakers and students should carefully consider whether the debt burden of for-profit attendance is worthwhile. A complicating consideration is that forgone wage costs for a short-term credential could also be expected to be lower. Still, much more research on college wage premia across sectors and for various sub-baccalaureate degrees, diplomas, and certificates is needed before assessing whether the debt of the average for-profit student has a reasonable chance of being repaid.

Students vary across sectors demographically, as displayed in Table 2. Although for-profit students' borrowing patterns are similar to private non-profit students', their demographics are a stark contrast. For-profit students are demographically most similar to public 2-year students, but even between these two sectors, many important differences remain. For-profits have the highest proportion of female and minority students, and come from families with the lowest levels of parental education. For example, 83% of for-profit students in the sample have at least one parent who completed high school, compared to 94% of private nonprofit school students. As well, only 19% of for-profit students in the sample have a parent who completed at least a Bachelor's degree, as compared to 30% of public 2-year students, 48% of public 4-year students, and 52% of private nonprofit school students.

Furthermore, for-profit students are, on average, the oldest students in the sample, with the highest age at the start of postsecondary education (22.7), and the longest number of years between secondary and postsecondary studies (3.6). Reflective of their older average age, most for-profit students are independent (76%), as compared to public 2-year (57%), public 4-year (33%), and private nonprofit (34%) students. Students that attend for-profit colleges are also the most likely to be a single parent, and have the highest average number of dependents among the sectors. Taken together, these characteristics suggest that for-profit students may be most likely to need to support dependents, and less likely to have access to the financial resources of parents, spouses, or other custodians. Access to credit for education may be particularly important for these students. We examine more detailed measures of need, assets, and parental support in subsequent sections.

Finally, NPSAS publishes a "risk index" for each student, which is an index of characteristics potentially related to postsecondary success: delayed enrollment into

postsecondary education, enrolling part-time, being an independent student, having dependents, being a single parent, working full-time while enrolled, and not having a high school diploma. This index reflects the higher average number of postsecondary risk factors belonging to for-profit students (3.0) and public 2-year students (2.7) as compared to public 4-year students (1.2) and the private nonprofit students (1.3). As will be shown in the following sections, these demographic differences are related to differences in resources and constraints of students across school sectors. Therefore, it is important to consider these differences when assessing borrowing behavior across different types of students.

4.3. Costs of Education

Perhaps the most obvious explanation for disproportionate borrowing of for-profit students is simply their high cost. Table 3 displays measures of costs of education for the 2007-2008 school year. Although private nonprofits have average yearly gross costs over \$7,000 higher than for-profits (as displayed in column 4), for-profits have much higher average tuition and fees than either of the public sectors. For example, compared to students at public 2-year colleges, the gross tuition and fees of for-profit students is nearly nine times higher: for-profits average \$9,807 of gross tuition and fees, compared to just \$1,133 for community colleges.

The trend of gross tuition and fees for the sample is included in Figure 4. Here, we see the highest and most rapid increase in tuition and fees at private nonprofits, but for-profits also experienced a fairly steep increase in tuition and fees over this period, growing from \$3,850 to \$9,807 for students in the sample. Following the patterns of student borrowing, the steepest increase has taken place in the last four years, with tuition rising about 45% over this period.

Grants are perhaps the most important source of non-debt financing, since they lower the net cost of education to the student and do not need to be repaid. Grants can come from a number of different sources. For example, the federal government offers the Pell Grant for low-income students, and other grants are available to targeted groups such as teachers and children of veterans. State governments and individual institutions also make grants available to students based on income, merit, or other characteristics (e.g., sports). Finally, private employers and foundations may make provide funds to students of their choosing in order to help subsidize education costs.

As shown in the third row of Table 3, for-profit students have the second lowest level of total grant aid, at \$2,091 per year, more than public two-year students and close to the grant aid received by public four-year students. Private non-profit students receive by far the largest amount of grant aid at \$7,629 annually. The trend of total grants is displayed in Figure 5. Given prior observed trends of increasing sticker prices the private in nonprofit sector, the increasing grant aid in this sector is consistent with a “high cost, high subsidy” strategy of college pricing.

Breaking down the sources of grant aid reveals that for-profit students have higher average levels of federal grants than all other sectors, but lower levels of virtually every other type of grant aid. The only exception is veteran and Department of Defense aid (which includes benefits through the G.I. Bill). For-profit students receive slightly more than other sectors, averaging \$208 (compared to \$146 in the non-profit sector), but in relative terms the value of military aid is quite low—just 10% of the value of other federal grant aid.

The biggest difference in aid across sectors in Table 3 appears to be funding that comes from the institution. For-profit students receive remarkably little institutional aid. Institutional

grants average just \$119 in the for-profit sector. The same figure is almost seven times higher for public 4-year students and over 40 times higher for private nonprofit students, at \$5,069.

The last row of Table 3 includes the average of all sources of institutional aid (which can include grants, loans, work-study, and other types of aid) across sectors. Of course, grants make up the largest portion of total institutional aid across all sectors, so again we see a great disparity in the amount of institutional aid provided across sectors. We plot the trend of institutional aid in Figure 6. Here we see a large increase in institutional aid in the private non-profit sector and almost no movement in institutional aid in the for-profit sector between 1996 and 2008.

Finally, when accounting for grants, education prices net of grant aid in the for-profit sector remain relatively high, as shown in the second row of Table 3 for the 2007-2008 school year. Moreover, the gap between the price of for-profit and public colleges has been increasing over time, as shown in Figure 7. Most striking, however, is that the gap between gross prices of for-profit and private non-profit education closes substantially when taking into account grant aid.

Institutional aid, and institutional grants in particular, appear to be filling the gap between cost and need in the non-profit sector, thereby mitigating the rise in student borrowing for this group of institutions. Presenting difficulty for for-profit students, however, is that the upward trend in this sector's prices is not met by a similarly rapidly increasing trend. While institutions in the non-profit sector appear to be trying to make tuition increases less painful for their students (or at least some of their neediest students), for-profits have not made the same effort: over the years we observe they appear more reliant on student debt to cover the high cost of tuition.

4.4. Need and Available Financial Resources

Tuition and fees can be considered endogenously chosen, if we assume that students have various education options from which to choose. This returns us to the question of why students—and particularly disadvantaged students--attend for-profit colleges given their relatively high costs. Here, we examine more closely issues of student need and available financial resources that might explain the patterns of attendance and borrowing that we observe.

Consistent with the demographic patterns described earlier, we observe relatively fewer personal financial resources for students in the for-profit sector, as displayed in Table 4. In isolation, the lack of financial resources available to for-profit students may be sufficient to explain why borrowing is so high in the sector, but it does not appear to explain the steep increase in borrowing in the last decade. As shown in Table 4, based on need and resources, for-profit students are most similar, but in many ways still less affluent, than public 2-year students who pay much lower costs. As noted above, for-profit students pay similar costs to private non-profit students, but differences in the observed financial positions between for-profit and private non-profit students are sizable.

Students and/or their families expected family contribution (EFC) to college costs is typically calculated when applying for financial aid. Reflective of their relative lack of resources, for-profit students' average EFC is about half of that of public 2-year students and less than a third of that of public 4-year and private nonprofit students.

We present the trend of EFC in Figure 8. Between 1996 and 2008, EFC increased for public 4-year and private nonprofit students, with the steepest increase between 2004 and 2008—perhaps mitigating the need for additional student borrowing in that sector as tuition rose. In contrast, we observe that EFC stayed effectively flat for for-profit students between 1996 and

2008. This trend indicates that the gap between resources available to for-profit students and other sectors may be growing, but suggests the increases in student borrowing we observe were likely not driven by the increasing enrollment of needy students in the for-profit sector.

Consider students' remaining budgets after taking into account EFC, which gives a measure of how much the typical student will need to cover after subtracting available family resources.⁸ Here, we observe the highest average gaps in costs versus resources (not taking into account grants or other financing strategies) are in the for-profit and private nonprofit sectors, almost five times that of public 2-year students and over twice as much as public 4-year students. When considering student budget minus both EFC and grants, the picture gets even bleaker, as the high grant aid in the private non-profit sector allows the for-profit sector to stand alone with the highest average gaps between college costs and resources by some margin.

Other measures of available financial resources are displayed in Table 4. For-profit students undoubtedly have fewer assets with which to contribute, or with which to securitize other credit, for educational expenses. For-profit students have by far the lowest average annual household income, at just \$31,739, and are closest, on average, to the poverty line. Even public 2-year students seem to be much better off than their for-profit counterparts, with incomes averaging \$46,225. As well, for-profit students have the lowest home ownership (46% vs. 63% for community college students) and extremely low personal or business investment rates (just 8% own more than \$10,000 in investments vs. 18% of community college students).

At the bottom of Table 4, we report survey responses of students about the financial assistance they received from their parents. For-profit students are least likely to get help from parents for tuition, fees, other educational expenses, and other living expenses across the sectors.

⁸ "Student budget" is a measure of "total" direct educational expenses in NPSAS, including tuition, fees, room and board, books and supplies, transportation, and other living expenses.

Since for-profit students are most likely to be independent, older, and come from more disadvantaged backgrounds, it is not surprising that aid from parents is relatively low. However, it reinforces the financial challenges faced by many of these students.

4.5. Aid Application

Differences in ability to obtain grants, loans, or other types of financial aid can be affected by students' choices to apply for aid, as well as their knowledge of different financing options. In Table 5, we provide a summary of survey responses that yield some insight into these differences. Almost all for-profit students apply for financial aid (96%) and federal aid specifically (91%). Students in the for-profit sector were also least likely to not have information about how to apply for aid or believe they were ineligible for aid.

Therefore, it appears as though for-profit students are obtaining information about aid application. The source of such information may be important, however. Interestingly, for-profit students were most likely to talk with staff about financial aid. This is perhaps not surprising given the lack of financial resources by many students in the sector. Some have concern, however, that institution financial aid offices may not be protecting students' best interests in financing and enrollment decisions (GAO 2010). Although the extent of mistreatment is unknown, questions about the incentives faced by staff at for-profit institutions may be worth consideration.

An important source of knowledge about financial aid on which many students rely is family and friends, but for-profit students appear to be soliciting and/or receiving less advice from this group, with about an 18 percentage point lower rate than for the public 4-year and private nonprofit students. The rate of discussion of financing with family and friends, as well as

researching aid on the internet, is similar to that of public 2-year students suggesting that information on aid options may be lacking for these students (especially if one assumes college staff to not be operating in the best interests of students). Because of the high unmet need of for-profit students relative to public 2-year students, however, this lack of information may be particularly harmful to the former group.

4.6. Work Behavior

Working while in school may be an alternative to borrowing for some students. Consider a simple budget equation for students. The most common ways to pay for college costs are grants, savings, parental/family transfers, working, and borrowing (Sallie Mae 2010). The economically rational student will not turn down grants since they are relatively cost free to the student, and we have already shown that students' and families' assets are lower in the for-profit sector, such that these students would be expected to be able to rely less on savings and parental/family transfers than students in other sectors. Therefore, students with resource constraints may be faced with the choice of borrowing and/or working to cover college costs. Could high levels of borrowing simply reflect the preferences by for-profit students for debt instead of working?

Working can have benefits to future labor market outcomes (e.g., Light, 2001) through the accrual of soft skills, with competing evidence to the penalty to grades (e.g., Stinebrickner & Stinebrickner, 2003). There is evidence, moreover, that increased working may lead to less credit accrual (e.g., Darolia, 2013c) and therefore potentially longer time to degree. Considering observed relatively high work rates for for-profit students in conjunction with high borrower

rates, for-profit students may be uniquely facing challenges associated with both working and borrowing.

Table 6 provides average working behavior of students in the sample across the sectors. Interestingly, a similar proportion (76-83%) of students work at least some amount (including work-study and all types of employment) while enrolled across all sectors. Differences become more apparent when examining full-time work behavior. Only about a quarter of four-year students in public and non-profits work full-time, compared to 43% and 41% in public two-years and for-profits respectively. As well, among students that work, for-profit and public 2-year students work the most average hours per week, almost 25% more than their public 4-year and private nonprofit counterparts. Reflective of this behavior, these two sectors have the highest earnings from work while enrolled. Hours worked by working students, as shown in Figure 9, and work participation rates (not shown) stay relatively flat over the time period examined among all sectors. This suggests that either these students cannot add more work in order to meet debt or that they do not use earnings to substitute for debt. For-profit and public 2-year students are also most likely to have jobs off campus, which may increase commuting times and reduce campus integration.

In survey responses, less than a third of for-profit and public 2-year students indicate that they can afford school without working (Table 6). For-profit students are also most likely to report that they work in an effort to minimize debt. Therefore, even though student loan rates and amounts are high in this sector, students are still working in an effort to lower the amount they have to borrow.

Notably, students in the for-profit sector are among the least likely to report that their job limits access to campus facilities, class schedules, the number of classes the student can take, and

the choice of classes. These responses may reflect an advantage associated with for-profit colleges, namely that course delivery is structured in a manner that allows working and schedule-constrained students to attend. These conveniences may be attracting students to this sector, even considering large tuition and fee costs.

4.7. Estimations

We have shown that students in the for-profit sector have relatively higher borrowing amounts on average and that borrowing has risen more sharply for these students in the past decade. Our descriptive analysis suggests that these patterns are driven by high (and climbing) tuition, no commensurate increase in grant aid (as in the non-profit sector), and the fact that students in the for-profit sector have fewer financial resources than others. To give a picture of relative borrowing after controlling for available resources, we estimate regressions of the following form:

$$Debt = \alpha + \beta Sector + \eta X + \varepsilon$$

Here, *Sector* is a vector of indicator variables for borrowing at for-profit, public 4-year, or private nonprofit institutions (with public 2-year colleges as the omitted base group), with parameter vector β ; X is a vector of covariates with parameter vector η ; α is the intercept and ε is the error. We make no claims to causal inference in these estimations, and indeed, we would expect many of these decisions to be endogenously determined (for example, the decision to work or borrow). Nonetheless, the results provide some measure of relative debt levels, conditional on observable college costs, financial resources, and student characteristics.

We present estimates of total debt and by federal and non-federal loan programs in Table 7. Column 1 in the table display estimates including only student characteristics as covariates. In

the subsequent columns we add measures of college costs, financial resources, and financing strategies to the vector of covariates.

After accounting for just student characteristics, we observe for-profit students have the highest levels of debt, over \$6,500 more annually than public 2-year students (column 1). When accounting for college costs and financial factors in column 2, we see a decline in this marginal amount to about \$4,100. The gap between for-profits and public 4-years also declines, but remains over \$3,000. Accounting for these factors, however, increases the gap between for-profit and private non-profit students. Columns 3 and 4 split out estimates for federal loans and non-federal loans, with similar apparent trends. Independent students appear to borrow fewer non-federal loans, but a relatively similar amount of federal loans, with a possible explanation being that they have restricted access to the private educational credit market because of a lack of co-signers.

Unsurprisingly, increasing tuition and fees is unsurprisingly associated with higher borrowing amounts, while higher EFC is associated with small lower borrowing amounts. Higher grants appear to positively correlated with federal loan amounts, but negatively correlated with non-federal loan amounts, holding all else equal (column 4). Owning substantial investment or business assets is related to lower borrowing amounts indicating that students with more assets are unsurprisingly able to borrow less. Interestingly, working while enrolled is associated with higher borrowing, suggesting that students that lack financial resources choose to both borrow and work instead of wholly substituting one for the other. We also observe a small decrease in federal loan amounts associated with increasing earnings.

Many determinants of borrowing and college going are unobserved in the data and therefore these results should be interpreted with caution. Nonetheless, they provide some

evidence that borrowing in the for-profit sector is high relative to the other sectors, even after controlling for a set of plausible, though incomplete, set of explanatory factors, including costs and financial resources that could explain these differences. Potential unobserved explanatory factors could lead to different levels of policy concern. It should be troubling for policymakers and regulators if this higher borrowing is explained by misleading guidance or fraud from the colleges. Less worrying would be if the unexplained borrowing is driven by preferences for borrowing or other student choices.

5. Discussion and Conclusions

Drawing on data from the National Postsecondary Student Aid Survey, we find that for-profit students are much more likely to incur debt to finance their education than students in the public and non-profit sectors. Nearly 90% of students in for-profit institutions borrow and 81% participate in federal loan programs. More notable, is that the proportion of for-profit students borrowing increased by 30 percentage points between 1996 and 2008, compared to a growth of less than 15 percentage points among students in other sectors.

We document that the borrowing behavior, loan volume, and costs of attendance for-profit students is most similar to that of private non-profit students, except that borrowing did not increase as steeply for non-profit students in the period we observe. Our descriptive analysis suggests that while both sectors experienced steep increases in tuition and fees, the private non-profit sector mitigated their tuition hikes with increases in institutional grant aid for needy students. We observe no such increase in institutional aid among for-profits. In 2007-08 the dollar value of institutional grant aid in non-profit institutions was more than 40 times higher

than in for-profits. The discrepancy may be explained by the structure of the organization: since the profits of for-profit institutions are distributed to shareholders, there is little incentive to provide institutional aid to students or otherwise reinvest those profits back into the institution, as is required of non-profit institutions.

In contrast to several similarities found between non-profits and for-profits in college costs and borrowing, the students at for-profit colleges come from much more disadvantaged backgrounds and have fewer financial resources than students in non-profits. We show that for-profit students appear most similar to public 2-year college students in the credentials they seek, their demographics, their financial resources, and their work behavior.

Our analysis begs the question as to why disadvantaged and financially constrained students are choosing expensive for-profit colleges over lower-cost community colleges. The answer is not clear.

If we assume that students have full information about their college options and the likely labor market returns to their education, then one possibility is that students choosing for-profits do so because these institutions offer programs, courses, and schedules that better meet their needs than other sectors. Our data on working students, described above, suggests that these students may find for-profit colleges the most convenient option and may be willing to pay a higher price for that convenience. Relatedly, work by Rosenbaum, Deil-Amen, and Person (2006) finds that some top-performing for-profit colleges provide better advising and student services than public sector institutions. This kind of advising may set these colleges apart and justify the high price, at least for some students.

Another possibility is that lower-cost public institutions may be capacity constrained, especially in high-demand fields and in states and in states where public higher education

budgets are tight. In this scenario, public institutions may simply not be available for students wishing to pursue certain types of training, leaving for-profit institutions as the only timely option.

Still, the high default rates on student loans in the for-profit sector raise concerns that students are borrowing more than they can reasonably expect to repay given the returns to their certificate or degree program. In a recent benefit-cost analysis, Cellini (2012) suggests that the returns to attendance would need to be over 8.5% per year of education to fully offset the cost to students. Adding taxpayer costs to the equation would require 9.8% returns. As noted earlier, literature on the returns to for-profit degrees and certificates is still underdeveloped, but recent studies suggest that returns to for-profit associate's degrees are between 2 and 8 percent per year (Cellini and Chaudhary 2013, Turner 2012).

If students were aware of these costs and returns, then it would be surprising that so many would choose for-profit institutions. It could be that students are overly optimistic or simply believe, even with knowledge about the distribution of earnings outcomes, that they are above average. More troubling for policymakers, however, is if students are misinformed or misled about the earnings they can expect after completing their education or the true cost of their debt. For example, a 2010 GAO report documented conversations of for-profit staff misrepresenting starting salaries of graduates and claiming that debt did not have to be repaid (GAO 2010). It is unclear how widespread these practices are. Still, our data on financial aid applications reveal that a much higher proportion of for-profit students talked to staff about financial aid (71%) than students in other sectors (42-51%). Even if college staff members are equally misrepresenting costs and outcomes across all sectors, for-profit students are much more likely to come into contact with them than students in other sectors.

Finally, we must consider the role of federal student aid policy in affecting both the behavior of institutions and the choices of students. Since for-profit institutions are beholden to the (profit-maximizing) interests of shareholders, there is, of course, an incentive to generate as much taxpayer support as possible. For-profit institutions receive about 74% of their revenue from federal student aid (Deming, Goldin, and Katz 2012) and are allowed to receive up to 90%, under the so-called “90-10 rule.” Veteran’s benefits do not count toward the 90%, so there is an added incentive to recruit military students to capture additional taxpayer dollars. As noted earlier, Cellini and Goldin (forthcoming) find that tuition is much higher in for-profit certificate programs that receive aid relative to those that do not, and Turner (2013) finds additional evidence of aid capture in the Pell Grant program. The patterns we document appear to be consistent with these articles in suggesting that high levels of student borrowing may support high tuition levels and the crowding-out of institutional aid in the for-profit sector.⁹

We suggest that policymakers look closely at student borrowing in the for-profit sector and the incentives created under the current federal student aid system. Given the large public investment in students in the for-profit sector, policymakers should make efforts to ensure that colleges are contributing to positive student outcomes, and that students and taxpayers are protected. However, policymakers should think carefully about the metrics used to measure student outcomes. Single measures, such as the amount of borrowing alone, may be too narrow of a metric on which to judge the multi-faceted goals and outcomes of education. And, as we show here, other factors that affect student borrowing behavior, such as backgrounds, resources, and constraints are not evenly distributed across sectors. As noted previously, whether or not the

⁹ We have also considered the role of federal student loan limits in encouraging borrowing, but despite small increases in the limits for freshmen and sophomores around 2007, the aggregate limit on Stafford loans has remained stable at \$23,000 since 1992 (Finaid.org, <http://www.finaid.org/loans/historicallimits.phtml>).

level of borrowing needed to finance a for-profit college education is a worthwhile investment for the average student depends crucially on the labor market returns to for-profit degrees and certificates. Much more research remains to be done to investigate this issue and answer questions about student choice, cost, debt, and information in the for-profit sector.

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Table 1: Average per student borrowing (2007-2008)

	<u>For-Profit</u>	<u>Public</u> <u><2-yr</u>	<u>Public</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofit</u>
	(1)	(2)	(3)	(4)
<i>Panel A: Rates of student borrowing</i>				
% that borrowed any loans	87%	14%	48%	60%
% that borrowed federal loans	81%	11%	43%	56%
% that borrowed non-federal loans	41%	5%	15%	25%
% that borrowed both federal and non-federal loans	36%	2%	10%	21%
% that borrowed federal, but not non-federal loans	45%	9%	33%	34%
% that borrowed non-federal, but not federal loans	6%	3%	5%	4%
<i>Panel B: Average per student borrowing (including all students)</i>				
Total loans	7,319	632	3,713	6,530
Federal loans	4,842	457	2,793	4,227
Subsidized federal loans	2,256	253	1,350	2,007
Parent PLUS loans	485	23	570	1,190
Non-federal loans	2,477	175	920	2,303
Private loans	2,423	172	856	2,210
<i>Panel C: Average loan amount for those who borrow each loan type</i>				
Total loans	8,457	4,424	7,769	10,955
Federal loans	5,975	4,053	6,454	7,602
Subsidized federal loans	2,888	2,768	3,870	4,214
Parent PLUS loans	9,099	7,073	9,558	13,657
Non-federal loans	6,026	3,586	6,156	9,087
Private loans	5,990	3,652	6,142	9,225

Notes: Survey weights used. Source: National Postsecondary Student Aid Study. Total loans include parent PLUS loans.

Table 2: Sample Summary

	<u>For-Profit</u>	<u>Public</u> <u><2-yr</u>	<u>Public</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofit</u>
	(1)	(2)	(3)	(4)
<i>Panel A: Student characteristics (2007-2008)</i>				
Enrolled in a certificate program	32%	8%	0%	2%
Enrolled in an Associate's degree program	40%	79%	4%	4%
Enrolled in an Bachelor's degree program	27%	2%	91%	92%
Coursework only (No program enrollment)	1%	11%	2%	1%
Male	33%	44%	46%	43%
Female	67%	56%	54%	57%
Minority	53%	40%	34%	33%
Age at time of survey	28.3	27.7	23.5	24.4
Age at the start of postsecondary education	22.7	21.4	19.3	19.7
Years delayed entry into postsecondary education	3.6	2.6	0.8	1.2
First generation immigrant	11%	12%	9%	7%
Second generation immigrant	14%	14%	13%	13%
Current or past military service	7%	5%	3%	4%
Parent(s) completed HS or higher	83%	87%	94%	94%
Parent(s) completed Bachelor's degree or higher	19%	30%	48%	52%
Independent	76%	57%	33%	34%
Single parent	30%	17%	7%	8%
Number of dependents	0.9	0.6	0.2	0.3
Risk index	2.9	2.7	1.3	1.3
<i>Panel B: Sample size (unweighted)</i>				
1995-1996	5,380	7,190	16,070	12,890
1999-2000	4,620	8,770	20,330	11,120
2003-2004	8,900	22,830	19,230	14,200
2007-2008	14,200	31,980	36,880	21,660

Notes: Survey weights used. Sample sizes rounded to the nearest 10. Source: National Postsecondary Student Aid Study.

Table 3: Average per student costs, grant aid, and institutional aid (2007-2008)

	<u>For-Profit</u>	<u>Public</u> <u><2-yr</u>	<u>Public</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofit</u>
	(1)	(2)	(3)	(4)
Gross tuition & fees	9,807	1,133	5,391	17,519
Tuition & fees minus grants	7,814	700	3,447	10,252
Total grants	2,091	878	2,733	7,629
Total federal grants	1,456	504	838	964
State grants	141	139	681	792
Institution grants	119	77	811	5,069
Outside grants (private & employer)	374	159	403	804
Merit aid	61	57	619	2,414
Veteran and DOD aid	208	93	138	146
Total institutional aid	181	89	899	5,232

Notes: Survey weights used. Source: National Postsecondary Student Aid Study.

Table 4: Average per student need and resources (2007-2008)

	<u>For-Profit</u>	<u>Public</u> <u><2-yr</u>	<u>Public</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofit</u>
	(1)	(2)	(3)	(4)
Expected family contribution	4,759	8,387	12,243	14,367
Student budget minus EFC	15,822	3,423	7,480	16,678
Student budget minus EFC & grants	13,782	2,681	5,188	9,865
Adjusted gross income	31,739	46,225	63,401	72,180
Percent of the poverty Line	198%	283%	350%	387%
Parent(s) and/or student own a home	46%	63%	73%	76%
Parent(s) and/or student own > \$10K in investments	9%	18%	24%	27%
Receive help from parents: tuition and fees	47%	51%	63%	74%
Receive help from parents: other educational expenses	42%	49%	59%	66%
Receive help from parents: housing	75%	79%	71%	74%
Receive help from parents: other living expenses	61%	61%	66%	73%

Notes: Survey weights used. Source: National Postsecondary Student Aid Study. Student budget is a measure of "total" direct educational expenses, including tuition, fees, room and board, books and supplies, transportation, and other living expenses. Investments include business and farming assets.

Table 5: Financial aid application (2007-2008)

	<u>For-Profit</u>	<u>Publi</u> <u>c</u> <u>≤2-yr</u>	<u>Publi</u> <u>c</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofi</u> <u>t</u>
	(1)	(2)	(3)	(4)
Applied for any aid	96%	59%	79%	87%
Applied for federal aid	91%	43%	62%	70%
Talked with staff about financial aid	71%	42%	45%	51%
Discussed financing decisions with family/friends	52%	54%	71%	70%
Researched financial aid on the internet	35%	34%	45%	45%
Compared lender options	30%	14%	25%	30%
Reason did not apply for aid: Did not want to take on debt	39%	40%	42%	36%
Reason did not apply for aid: Forms too much work	15%	19%	19%	18%
Reason did not apply for aid: No information on how to apply	16%	24%	21%	17%
Reason did not apply for aid: No need	55%	48%	54%	62%
Reason did not apply for aid: Thought ineligible	53%	60%	63%	64%

Notes: Survey weights used. Source: National Postsecondary Student Aid Study.

Table 6: Average per student employment and work (2007-2008)

	<u>For-Profit</u>	<u>Public</u> <u><2-yr</u>	<u>Public</u> <u>4-yr</u>	<u>Private</u> <u>Nonprofit</u>
	(1)	(2)	(3)	(4)
Works while enrolled	76%	83%	76%	76%
Works full-time while enrolled	41%	43%	24%	26%
Earnings from work while enrolled	16,258	16,859	11,429	13,271
Hours worked per week while enrolled	33	33	26	26
Works off campus while enrolled	71%	78%	64%	56%
Distance from school to work (mi.)	20	17	20	19
Worked in summer prior	80%	84%	86%	86%
Job is related to coursework or major	28%	31%	25%	27%
Can afford school without working	30%	31%	42%	44%
Reason for working: Minimize debt	51%	48%	47%	44%
Reason for working: Pay educational expenses	64%	72%	68%	66%
Reason for working: Pay living expenses	85%	80%	78%	71%
Reason for working: To send money home	8%	7%	6%	6%
Job limits access to campus facilities	35%	43%	38%	32%
Job limits class schedule	42%	63%	53%	41%
Job limits number of classes	34%	58%	45%	34%
Job limits choice of classes	26%	47%	39%	29%

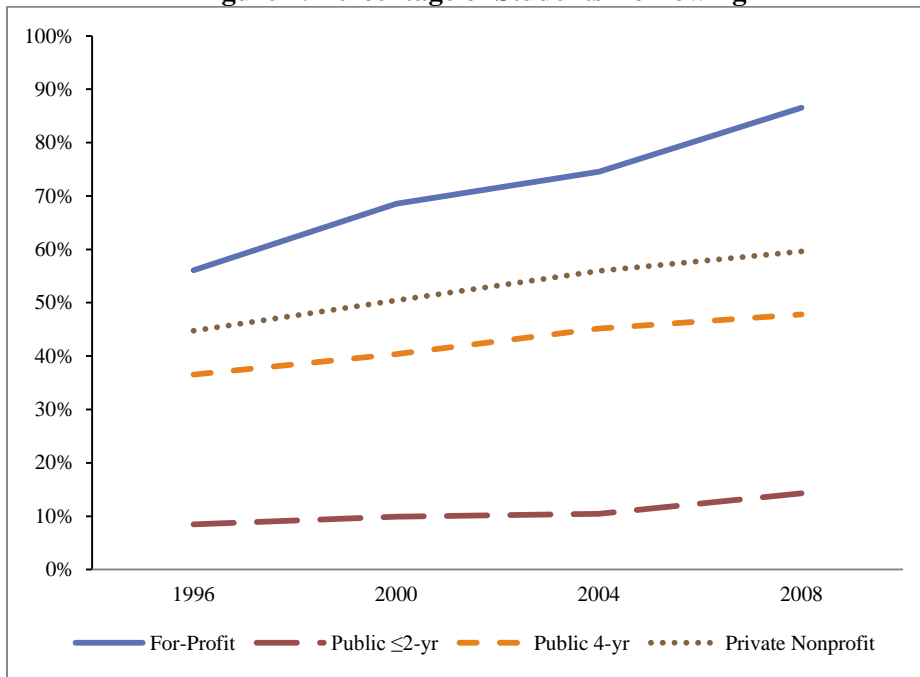
Notes: Survey weights used. Average earnings, hours worked, and distance from school to work include only respondents with values. Source: National Postsecondary Student Aid Study.

Table 7: Estimations of Debt (2007-2008)

	<u>Total Loans</u>		<u>Federal Loans</u>	<u>Non-Federal Loans</u>
	(1)	(2)	(3)	(4)
For-profit	6,568*** (64)	4,118*** (68)	2,883*** (52)	1,235*** (43)
Public 4-year	1,255*** (77)	985*** (74)	1,032*** (57)	-47 (47)
Private Nonprofit	4,171*** (84)	890*** (91)	737*** (70)	153*** (58)
Enrolled in a certificate program	-1,533*** (216)	-699*** (207)	-735*** (160)	36 (131)
Enrolled in an Associate's degree program	-1,191*** (211)	-358* (202)	-602*** (156)	243* (128)
Enrolled in an Bachelor's degree program	192 (201)	645*** (192)	55 (148)	590*** (121)
Coursework only (No program enrollment)	-1,545*** (220)	-577*** (210)	-817*** (162)	240* (133)
Independent	-454*** (52)	-179*** (57)	49 (44)	-228*** (36)
Single parent	-177*** (59)	-398*** (57)	-225*** (44)	-174*** (36)
Tuition & Fees (000s)		275*** (3)	140*** (3)	135*** (2)
Grants (000s)		-63*** (4)	19*** (3)	-82*** (3)
EFC (000s)		-23*** (1)	-17*** (1)	-6*** (1)
Parent(s) and/or student own a home		40 (41)	-8 (32)	48* (26)
Parent(s) and/or student own > \$10K in investments		-1,219*** (42)	-738*** (33)	-481*** (27)
Works while enrolled		355*** (43)	177*** (33)	178*** (27)
Earnings from work while enrolled (000s)		-8*** (1)	-7*** (1)	-1 (1)
Observations (unweighted)	84,890	84,890	84,890	84,890
Adjusted R-squared	0.232	0.299	0.228	0.136

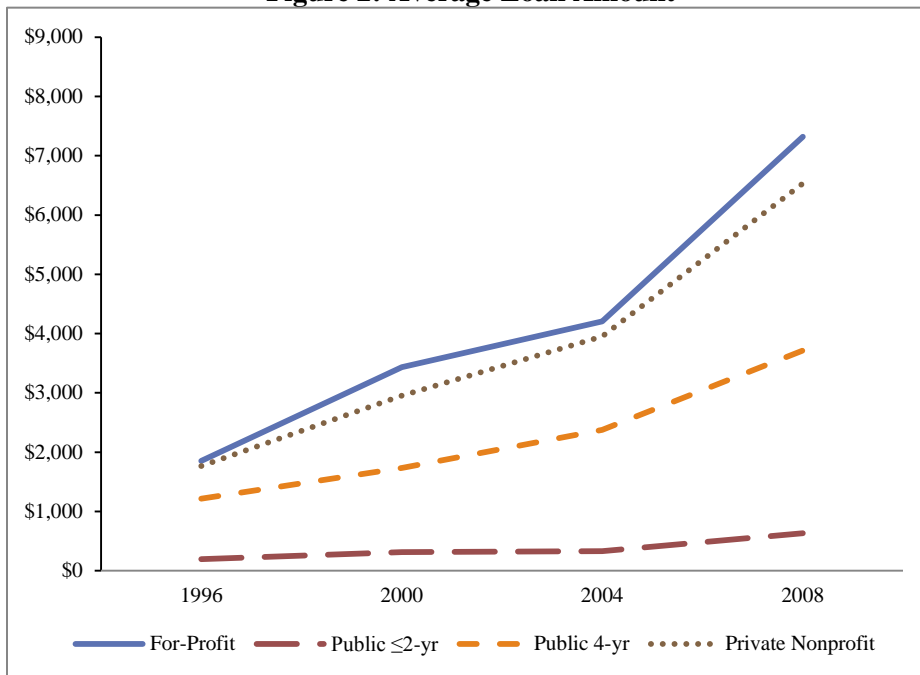
*Notes: Survey weights used. Standard errors included in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample size rounded to the nearest 10. All estimates include controls for credential, age, class level, race/ethnicity, gender, number of dependents, and an indicator for being a first generation immigrant. Investments include business and farming assets. Source: National Postsecondary Student Aid Study.*

Figure 1: Percentage of Students Borrowing



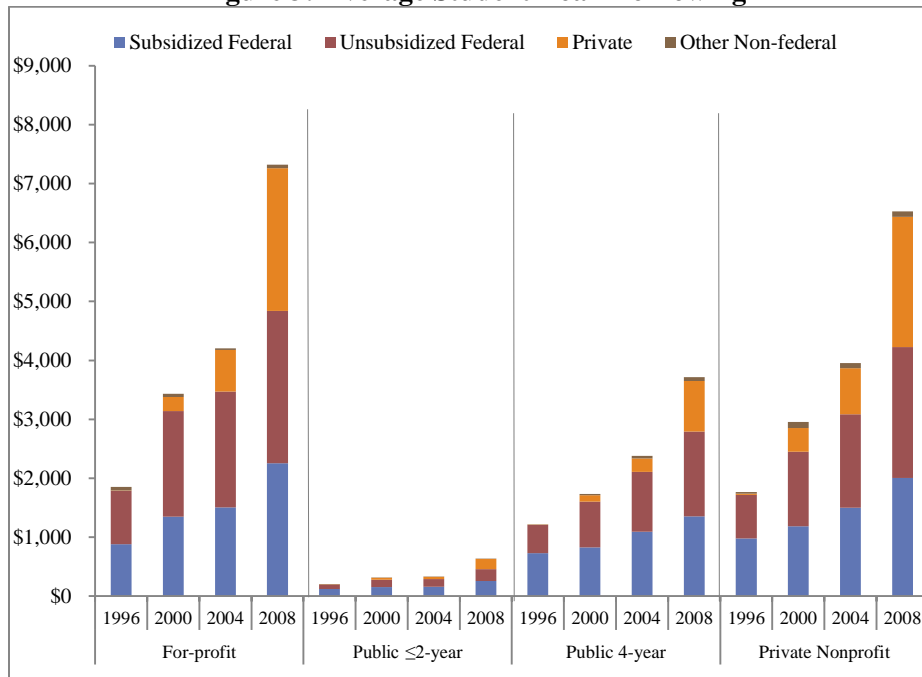
Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 2: Average Loan Amount



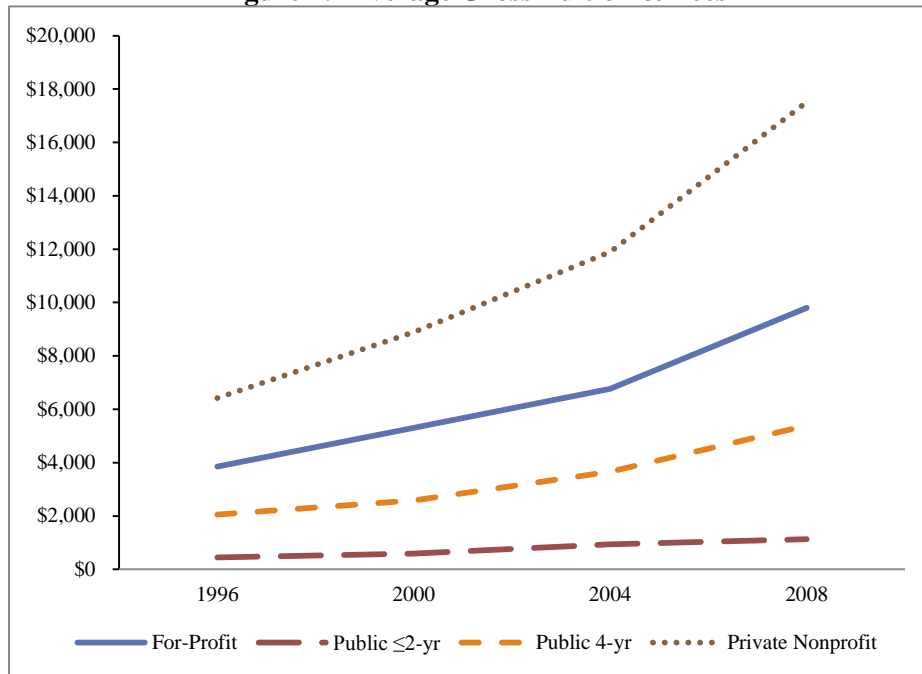
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 3: Average Student Loan Borrowing



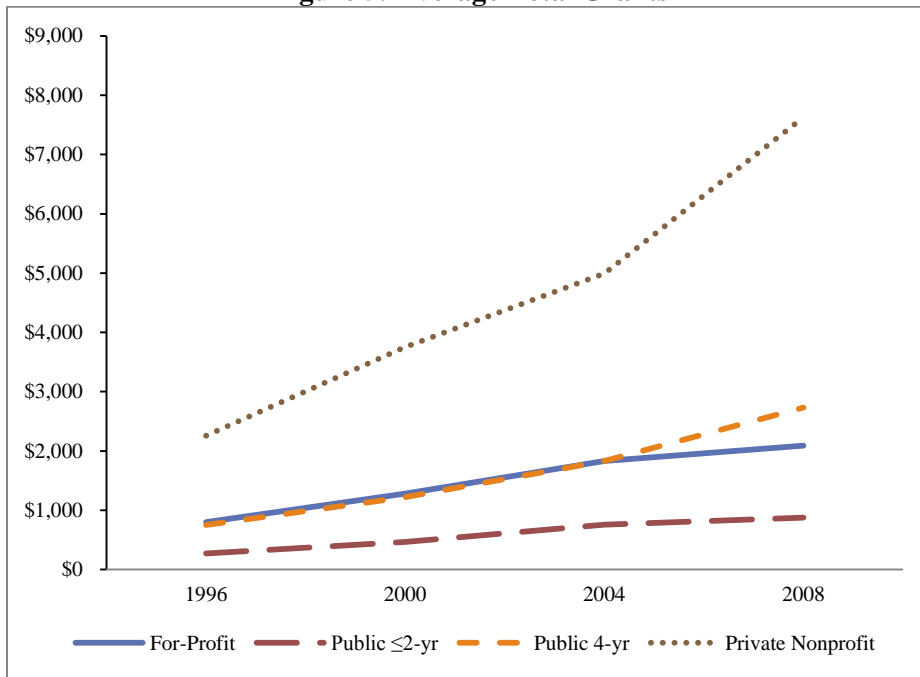
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 4: Average Gross Tuition & Fees



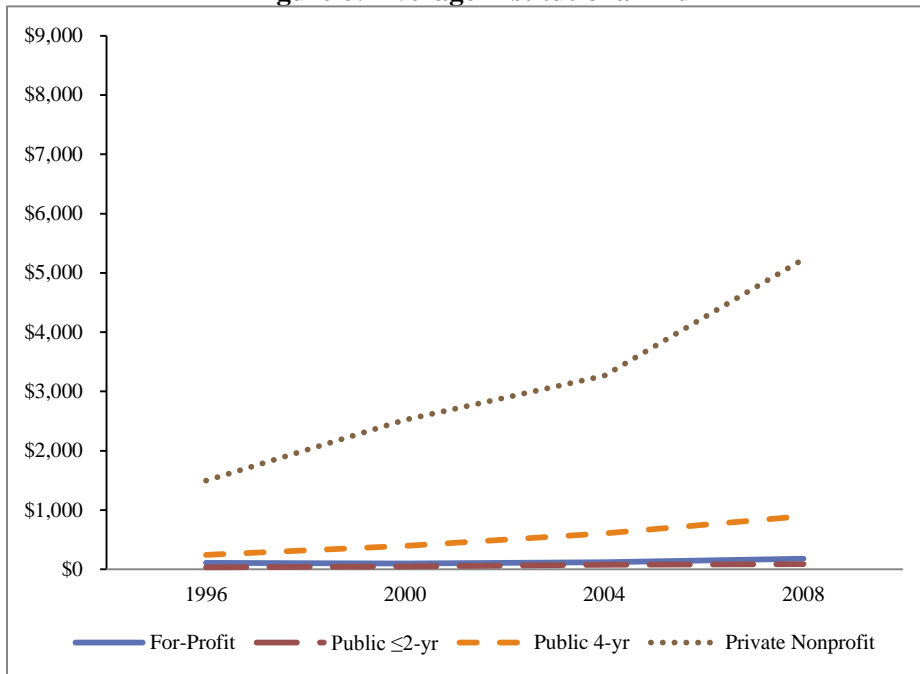
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 5: Average Total Grants



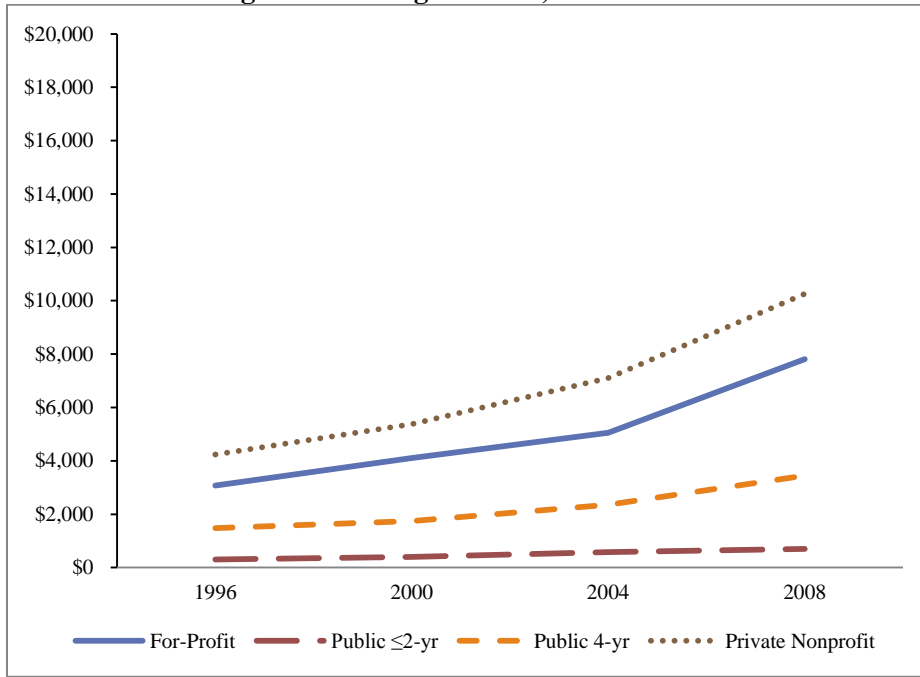
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 6: Average Institutional Aid



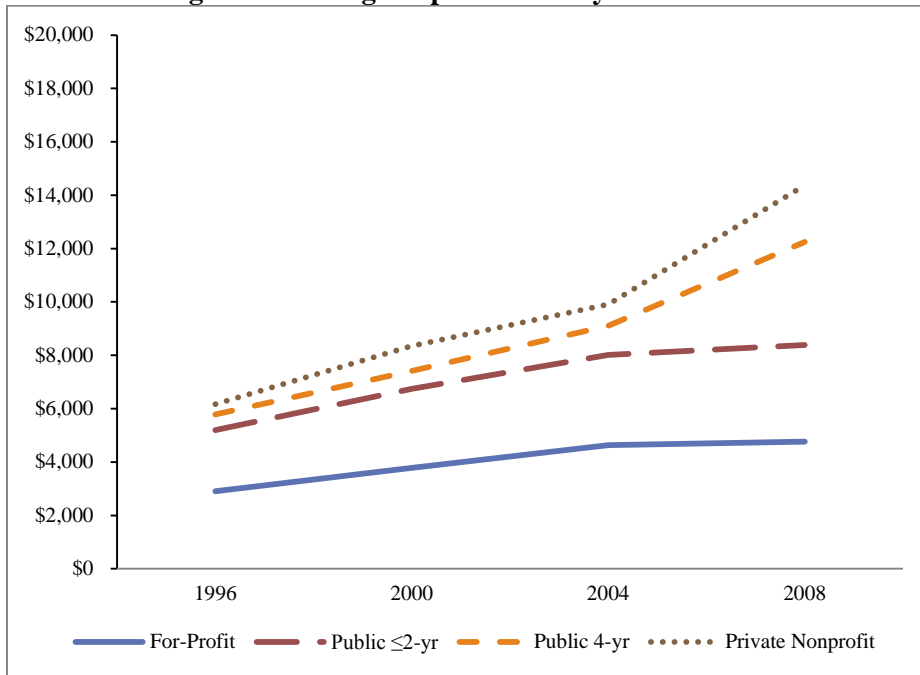
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 7: Average Tuition, Net of Grants



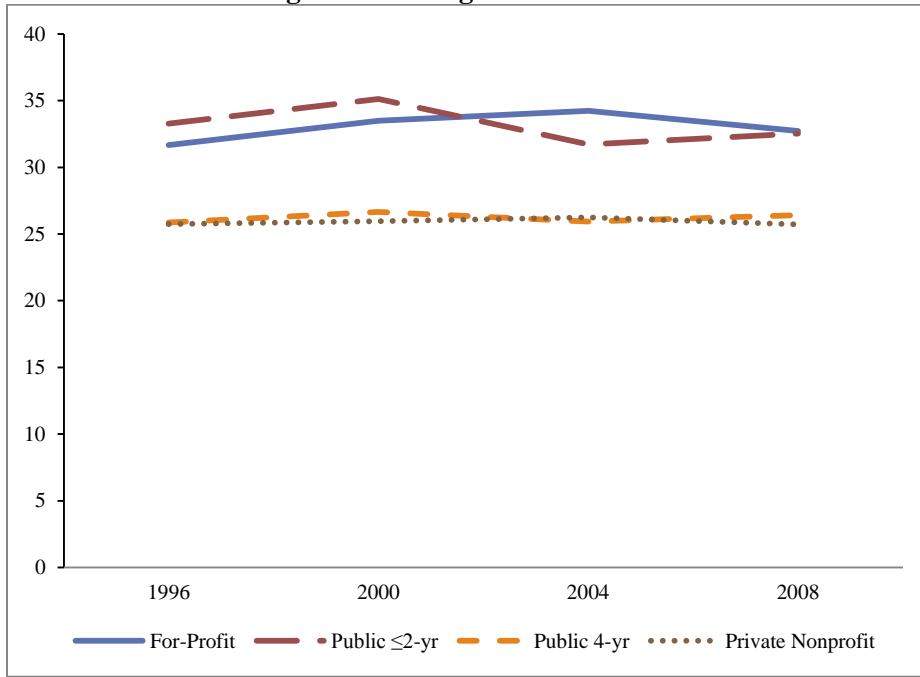
All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 8: Average Expected Family Contribution



All dollars in constant 2008 dollars. Survey weights used. Source: National Postsecondary Student Aid Study.

Figure 9: Average Hours Worked



Survey weights used. Source: National Postsecondary Student Aid Study.