

# **Increasing College Access or Just Increasing Debt? A Discussion About Raising Student Loan Limits and the Impact on Illinois Students**

*Many questions are being raised in the discussion about increasing student loan limits. Two of the most basic are addressed toward the borrowers: do they need to borrow more and can they afford it? This paper develops techniques for evaluating both student need and ability to repay. Based on the analysis, some students in Illinois may need to borrow more to cover their out-of-pocket education costs but many would have difficulty repaying additional loans based on expected starting salaries in Illinois.*

## **Introduction**

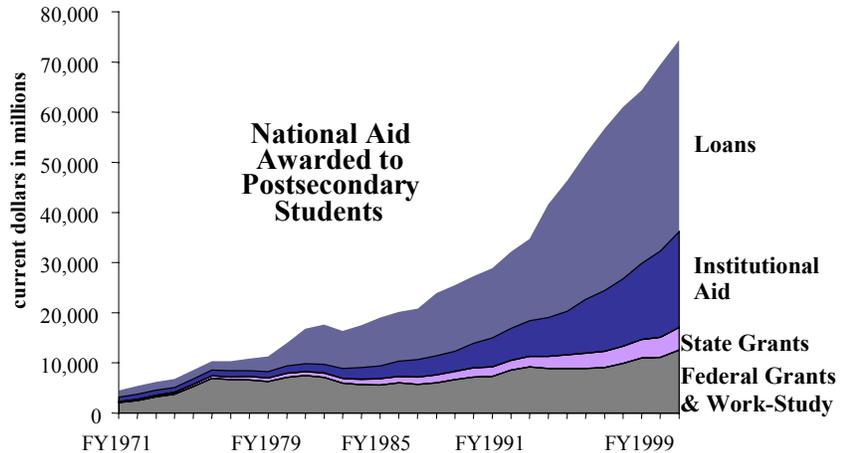
As postsecondary education becomes an essential step to acquiring a good job and a decent life, college tuition and fees, as well as other costs of university attendance, have skyrocketed, often increasing at three times the rate of inflation over the past thirty years. Tuition and fees, once covered by a student's summer job, now require years of parental planning and saving. If parents haven't the income or foresight to somehow acquire the cash, students must seek out financial aid. But in recent years, available grant aid hasn't kept up with rising college costs, leaving students saddled with large student loans to cover the gap. Unfortunately for some students, this gap is now so large that federally guaranteed loans offered at favorable rates are insufficient to cover it. These students are resorting to alternative loan sources with far less favorable terms, including high interest rate credit cards. Hence the debate over raising federal loan limits.

It is a complex issue. The traditional college experience of completing an academically rigorous, generally liberal arts curriculum through full-time, four-year attendance at a residential college is not what "going to college" means for most students today. Colleges are not homogeneous – they have different acceptance policies and academic requirements, offer programs ranging from cosmetology to nuclear physics, grant many kinds of degrees and certificates, charge annual prices that run from a few hundred dollars to over thirty thousand dollars and graduate students whose earning abilities differ dramatically upon departure. Not only does financial need vary by the type of institution attended but the ability to pay back any aid in the form of loans varies as well.

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What is causing much of the unease about raising loan limits is the amount of money already being borrowed. Nationally, both the percentage of students who graduate (or simply leave) college with student loans is increasing as is the dollar amount of the average debt upon graduation. The largest percentage increase in number of students borrowing occurred after qualifications for federal loans were eased in FY1994 to allow students from families with higher incomes access to unsubsidized loans. The most dramatic change in the dollar amount of student loans acquired has occurred throughout the nineties (Figure 1).

**Figure 1: Increasing Importance of Student Loans in Paying For College**



*Do students really need to borrow more money to get a decent four-year degree? Raising limits simply may not be necessary for most students and may encourage students to incur debt they don't really need.*

Concerns about raising loan limits are wide ranging and some are very difficult to answer. For example, by making it easier for students and their parents to borrow money to cover high college sticker prices, are we providing colleges with a perverse incentive to increase their prices? The easy availability of student loans turns families' "willingness to pay" for college into "ability to pay" by eliminating the hurdle of high tuition and may allow colleges to take advantage of the increasing importance of and financial returns to college attendance. Over the past decade, about \$20 billion has been poured into higher education through increases in student loan availability and limits. At the same time colleges have raised their costs at rates that far outstripped inflation. The connection is difficult to prove but is disturbing, nevertheless. Certainly, the availability of loans has muted the outcry that would have occurred over increased prices if families alone had to make up the difference.

While questions such as the one above may be difficult to answer, more basic and no less important questions can be addressed, particularly as they pertain to Illinois. Two very basic questions directly concern the students who borrow. First, do students really need to borrow more money to get a decent four-year degree? Raising limits simply may not be necessary for most students and may encourage students to incur debt they don't really need. The second is the issue of affordability. Will students graduate with so much debt that the quality of their lives suffers? Or, restated in more operational terms, is the wage premium from college attendance sufficient to cover the increase in student debt that burdens many students upon graduation? The remainder of this paper addresses these questions as they pertain to Illinois students.

## **Purpose, Data and Methodology**

The purpose of this analysis is to answer the questions stated before: Do students really need to borrow more money to get through a four-year college and can they afford to pay back the loan once they leave and enter the workforce?

To answer these questions we used four data sources. The first was ISAC's guaranteed student loan database. This database contains all the loans that are guaranteed by ISAC; we selected only Illinois students attending Illinois colleges. However, the ISAC database does not contain all the student loans made to Illinois students attending Illinois colleges. Many of our public universities and a few of our private schools are direct lending schools; data for these loans are not on our databases. Nevertheless, we do think that most of the results generated from analysis of this database will generalize to the rest of the state.

The second source of data is the Illinois Board of Higher Education (IBHE) Student Financial Aid Survey, an annual survey of both graduate and undergraduate students by sector. From this survey, data on financial aid by student and college characteristics are collected and tabulated. The most recent available data, from FY2000, was used in this analysis.

The third source was an ISAC survey of student loan repayers. The survey sample was drawn from our secondary market (IDAPP) database and sampled only IDAPP borrowers currently in repayment who has at least one subsidized Stafford Loan with an ISAC guarantee and entered repayment status from October 1996 through September 1999. Note that some of these repayers could have borrowed money prior to the changes implemented in FY1994 from the federal reauthorization and all have loans that were dispersed before Spring of 1999. Given the age of these loans, they most likely underestimate the current indebtedness of Illinois students.

For the repayer's survey, a random sample of 600 repayers was selected from the IDAPP database and surveyed about their debt levels and attitudes toward debt; the response rate was 48 percent. Students in private schools comprised 42 percent of the respondents; public universities, 37 percent; community colleges, 15 percent and proprietary schools, 5 percent. These percentages were very close to the percentages obtained in the sample: 42, 38, 15 and 5 percent, respectively. Although the respondents closely matched the sample, the sample may not be completely representative of Illinois borrowers or repayers. IDAPP, like all players in the secondary market, acquires large loans when possible since these loans usually have lower default rates. Repayers with advanced degrees (law, medicine, pharmacy and MBAs) were somewhat over-represented both in the database population and among those who responded.

Our college cost data come from the ISAC affordability study, "Changes in Affordability of a College Education for Dependent Students in Illinois." College costs include tuition, fees, room, board, transportation, books and supplies. Costs for Illinois public universities and private institutions were defined as the average tuition and fees weighted by full-time equivalent (FTE)

enrollment plus weighted room and board plus average transportation, book and supply costs as reported by the College Board's *College Costs & Financial Aid Handbook* for the Midwest region of the United States. Community college costs do not include room costs.

The last major source of data came from the Illinois Department of Employment Security (IDES) and the U.S. Bureau of Labor Statistics (BLS). IDES provide data from their Occupational Employment Status Survey on their Web site ([www.lmi.ides.state.il.us](http://www.lmi.ides.state.il.us)) including the 25<sup>th</sup> and 75<sup>th</sup> percentile wage levels by occupation. The 25<sup>th</sup> percentile income in each occupation was used as the "starting" salary and the 75<sup>th</sup> percentile wage was used as the "high" salary in our debt/income analysis.

From the database analysis we tracked increases in size and volume of Stafford student loans. From IBHE data we tracked total financial aid changes and changes in Illinois college tuition and fees. From the repayer's survey, we obtained information about other debt carried by repayers, behavior changes made due to repayment, and repayers' attitudes toward their debt. The BLS/IDES employment data provided us with income data for our debt to income ratio calculations.

## **Do Illinois Students Really Need to Borrow More?**

This question usually comes with several other implied questions that also need to be addressed. The concern is not simply whether students really need to borrow more but whether some students are already borrowing more than they need. Defining "need" can be tricky; for our purposes need will be defined as "the inability to cover the cost of college attendance to the extent that college cost becomes an insurmountable barrier." Operationally, it is whether the remaining expenses of college after all grant aid and existing federal loans have been applied, can be covered by the student and his or her family. The question of whether or not students need to borrow more hinges on the relationship among these factors; or more specifically, the relationship of the changes among these factors.

### **Need, Access and Choice**

The concept of need embodies the concepts of access and choice. Students may have no "need" at the lowest-cost option for postsecondary education available to them but have considerable "need" if they attend the schools of their choice. For the purpose of this paper, we are concerned with access to a public four-year institution. If a student cannot earn a bachelor's degree from a public four-year institution in Illinois because it costs too much, then there is a financial barrier to access.

Other school options are legitimate choices. The two-year community college option coupled with two-years at a four-year school is an economical option successfully completed by many students. For others, a private school, regardless of cost, would be a better choice. Illinois considers college choice to be an important consideration, so much so that it provides some aid to students

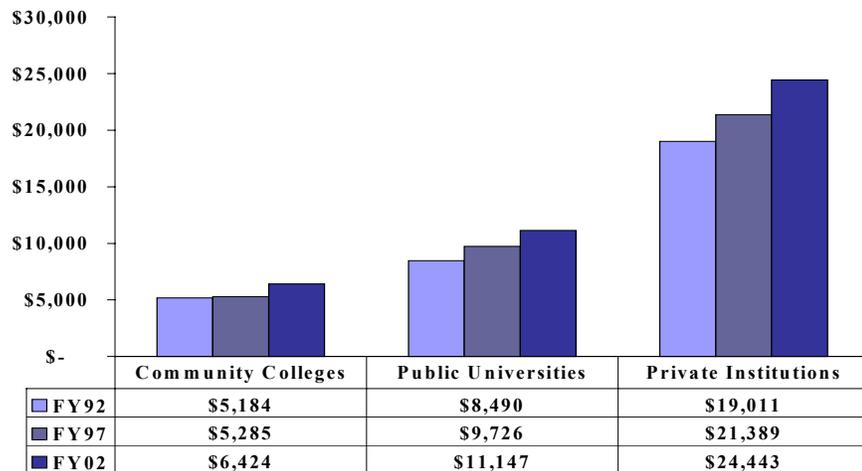
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from lower- and middle-income families (who might have family incomes too high to receive aid at public four-year schools) to help them afford a private college.

### College Costs

At Illinois public universities, tuition and fees now average \$4,786 (FY2002) and total college costs average \$11,147. Private universities have tuition and fees that average \$16,888 and an average total cost of attendance of \$24,443. Community colleges look like a bargain in comparison with tuition and fees of \$1,731 and total costs of \$6,424. As shown in Figure 2, the costs for all sectors have increased, and increased considerably for public universities and private schools since 1992. Private school costs have increased \$5,432 *beyond the rate of inflation* in 10 years. Public university increases are roughly half that, \$2,657, over the same period. Even community college costs have increased faster than inflation (\$1,240), although much less than the four-year schools.

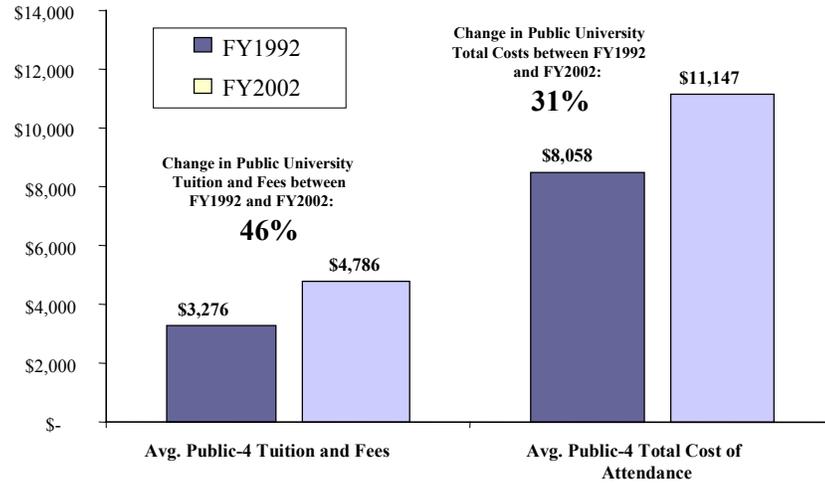
**Figure 2: Illinois College Attendance Costs (in constant 2001 dollars)**



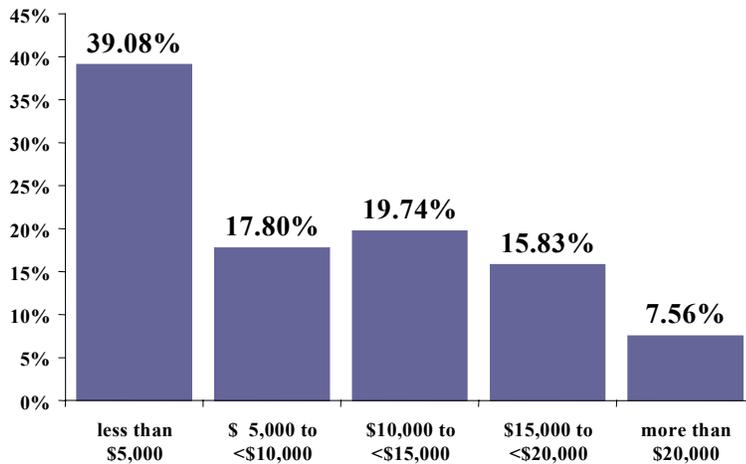
The increases in total costs of college attendance have been driven by increases in tuition and fees. Real increases in tuition and fees range from 29.2 percent at community colleges to 46.1 percent at public universities. Private college tuition and fees increased 36.3 percent over the decade. Figure 3 illustrates how tuition and fee increases are driving up total costs for public universities.

Despite the price increases, nearly 40 percent of Illinois students attending four-year institutions are paying less than \$5,000 in annual tuition and fees (Figure 4). But this situation may soon be changing, and not for the better. Table 1 shows the proposed increases in tuition and fees at public universities for FY2003.

**Figure 3: Change in Illinois Public University Costs, FY1992, 02, Constant FY\$2002**



**Figure 4: Distribution of Undergraduates at Illinois Four-Year Institutions, by Institution Cost, FY2002**



**Table 1: Illinois Public University Tuition and Fees, FY2003 (estimated)**

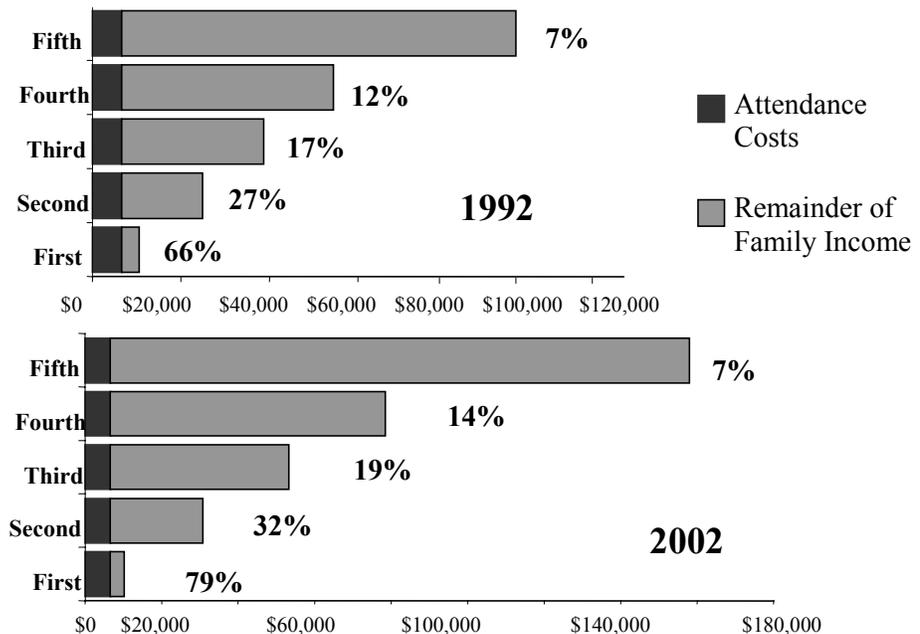
School Name	Tuition and Fees, FY 2002	Tuition and Fees, FY 2003	Percentage Increase
Illinois State	\$4,691	\$5,350	14%
SIU -Carbondale	\$4,248	\$4,864	15%
SIU -Edwardsville	\$3,385	\$3,852	14%
UI- Springfield	\$3,964	\$4,228	7%
Northern Illinois	\$4,953	\$5,326	8%
UI-Urbana	\$5,970	\$7,312	22%
UI-Chicago	\$5,620	\$6,992	24%
Eastern IL	\$4,244	\$4,864	15%
Western IL	\$4,474	\$4,798	7%
Northeastern IL	\$3,200	\$3,330	4%

## Affordability

Our total college attendance costs of \$11,147 (public university), \$24,443 (private college) and \$6,424 (community college) ranks us a little lower in cost than average but higher than the “best” states according to “Measuring Up: 2000” which has become to be know as the “report card.” The report card calculates the percent of average annual family income required to pay for all college expenses less all available financial aid. Illinois community colleges required 22 percent of annual income, public university costs were 24 percent and private college costs were 52 percent of average income. This compared to 17, 19 and 30 percent for the “best states” and 22, 26 and 56 percent for the “average” state.

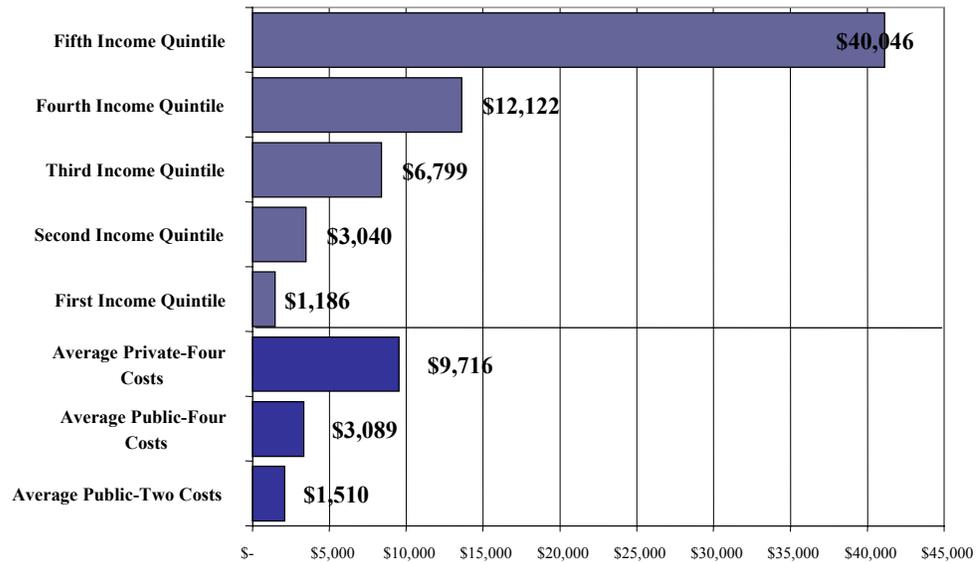
Stating college costs in terms of average family income hides some real differences in ability to pay. Figure 5 shows the percentage of family income required to pay for attendance at a public university by income quintile for 1992 and 2002. In 1992, the situation was bad enough for first-income quintile families – a year’s attendance at a public university would take 66 percent of this income quintile’s pre-tax income. However, by 2002, the situation was even worse, consuming 79 percent of income. Second, third and fourth-income quintile families also saw attendance costs consume larger portions of their income. Only the fifth-income quintile families, the very richest, with average family incomes well over \$100,000, saw their incomes keep up with college costs.

**Figure 5: Percent of Illinois Annual Family Income Required to Pay Public University Attendance Costs, by Income Quintile, FY1992, FY2002**



Looking at just the changes in income and college costs over the decade highlights the problem. As shown in Figure 6, the increase in the annual cost of a public four-year education increased by more than the total increases in income for first and second-income quintile families. Put another way, first income quintile families saw their real incomes increase by only 9 percent and second income quintile families increased their incomes by 11 percent over the decade. At the same time, tuition and fees at Illinois public universities increased 46 percent and the total cost of attendance increased by 31 percent during the same period. Clearly, without increases in financial aid, these families are experiencing more difficulty paying for college now than ten years ago.

**Figure 6: Real Changes in Illinois Income and College Costs from 1992-2002**



### Grant Aid

The addition of grant aid changes the picture somewhat. Illinois has a large need-based grant program, the Monetary Assistance Award (MAP), that provides significant financial aid (up to nearly \$5,000 per year) for tuition and fees. Table 2 shows changes in the average MAP grant awards for first, second and third income-quintile families, in constant 2002 dollars for 1992 and 2002.

Average MAP grant increases for first income quintile families at public universities have increased 55 percent over the decade, by \$1,706 to a total of \$4,786. The \$1,706 is only about half of the increase in the cost of a public university education. For second income quintile families, the increase is even less, \$520, or about one-sixth of the increase in public university attendance. The grant to third income-quintile families disappeared altogether. Clearly, MAP is losing ground in its attempt to cover tuition and fees.

The other major source of need-based financial aid is the federal Pell grant. In 2002, Illinois students who qualified for Pell and who attended a public university received an average grant of \$1,988. Adding the state and federal

**Table 2: Changes in the Average MAP Grant at Public Universities for First, Second and Third Income Quintile Families, in constant 2002 dollars, FY1992, FY2002**

	FY1992	FY1997	FY2002	\$ change	% change
<i>in constant FY2002 dollars</i>					
<b>1st Quintile</b>					
<b>MAP Grant</b>	\$ 3,080	\$ 4,074	\$ 4,786	\$ 1,706	<b>55%</b>
<b>Average Family Income</b>	\$ 12,959	\$ 14,385	\$ 14,145	\$ 1,186	<b>9%</b>
<b>2nd Quintile</b>					
<b>MAP Grant</b>	\$ 3,080	\$ 3,200	\$ 3,600	\$ 520	<b>17%</b>
<b>Average Family Income</b>	\$ 31,005	\$ 32,441	\$ 34,824	\$ 1,246	<b>11%</b>
<b>3rd Quintile</b>					
<b>MAP Grant</b>	\$ 364	\$ -	\$ -	(\$ 364)	<b>(100%)</b>
<b>Average Family Income</b>	\$ 50,393	\$ 51,444	\$ 57,192	\$ 6,799	<b>13%</b>
<b>Average Public University ...</b>					
<b>Tuition and Fees</b>	\$ 3,276	\$ 4,074	\$ 4,786	\$ 1,510	<b>46%</b>
<b>Total Cost of Attendance</b>	\$ 8,490	\$ 9,726	\$ 11,147	\$ 2,657	<b>31%</b>

grant aid together and subtracting it from the cost of attendance at a public university yields the out-of-pocket costs for students by income quintile. These out-of-pocket costs include both the “expected family contribution (EFC)” as well as any remaining need. The EFC is as much a rationing mechanism as it is an indicator of actual ability to pay and for many families, in the first and second income quintiles especially, it must come out of current income. In a recent survey of MAP recipients who were attending college full-time, only 24 percent said that their parents had been able to put any money aside ahead of time for college.

*At most, Stafford loans can cover one-half of the expected out-of-pocket costs faced by middle-income families.*

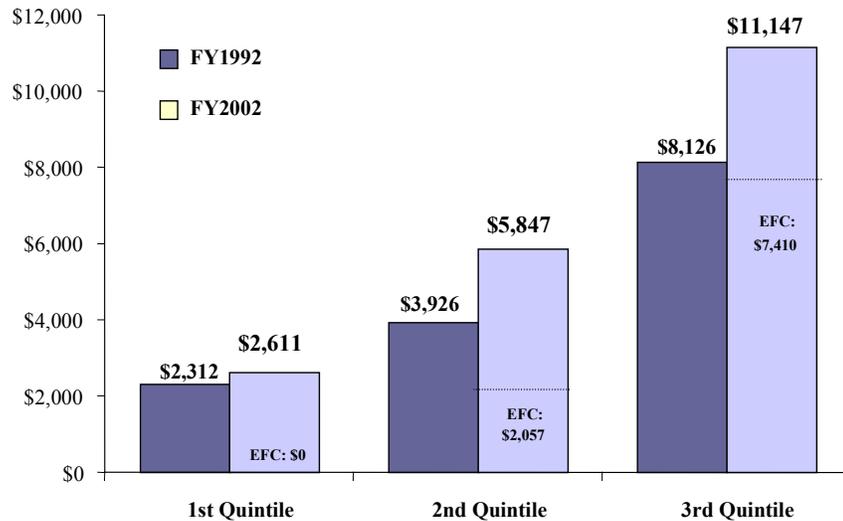
Table 3 shows how these out-of-pocket costs have changed over the decade. After grant aid is subtracted, the out-of-pocket costs for first income-quintile families is about \$2,600, up from \$2,200 ten years ago. These costs are all remaining need because first income-quintile families all have a zero EFC. The \$2,600 can be covered by existing Stafford student loan limits (\$2,625 for dependent freshman, \$3,500 for sophomores and \$5,500 for juniors and seniors) for all years of college. However, the picture is not as bright for second income-quintile families. Their out-of-pocket costs are over \$5,800, too large to be completely covered by even the junior/senior loan limits. The freshman loan limit would only cover half. Third income quintile families, with an average income of \$57,000 would have to come up with the entire cost – over \$10,000 or about one-sixth of their pre-tax income. At most, loans can cover half this amount.

In contrast, in 1992, second income-quintile families could cover all but freshman year costs with existing student loan limits and third income-quintile families could cover about two-thirds of the cost with the upper division loan limits. Figure 7 illustrates the out-of-pocket costs for the first three income-quintiles and the percentage of these costs that are part of the EFC.

**Table 3: Out-of-Pocket costs for Illinois Dependent Students at Public Four-Year Institutions**

Direct Costs to Students and/or Parents after Pell and MAP	Constant FY2000 Dollars	
	FY1992	FY2002
Public Four Average Cost	\$7,969	\$11,147
1st Quintile: Pub-4 EFC + remaining need	\$2,170	\$2,611
2nd Quintile: Pub-4 EFC + remaining need	\$3,685	\$5,847
3rd Quintile: Pub-4 EFC + remaining need	\$7,627	\$11,147
1st Quintile: contribution/income	17.70%	18.50%
2nd Quintile: contribution/income	11.60%	16.60%
3rd Quintile: contribution/income	16.00%	19.60%

**Figure 7: Illinois Public University Total Costs that are a Family's Responsibility (Out-of-Pocket costs), by Quintile (Total College Costs minus Pell and MAP)**



### Current Loan Levels

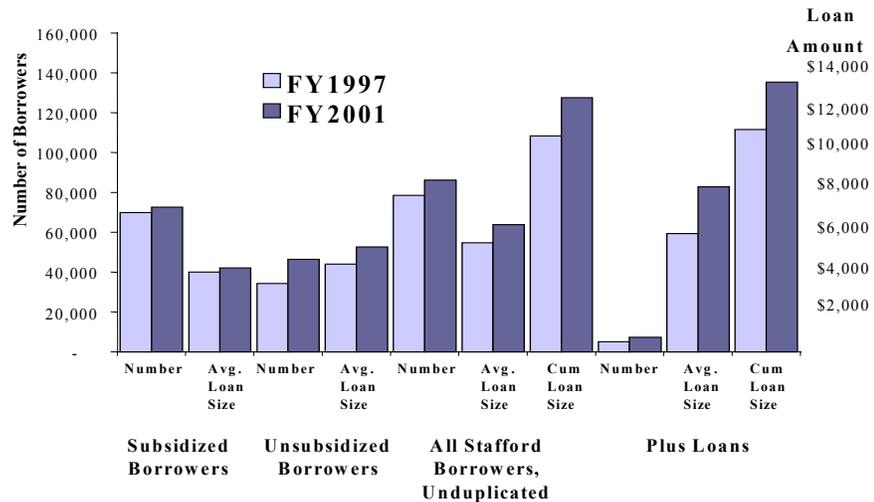
Both the number of Stafford loan borrowers and the amount borrowed annually has increased over the decade. About half of all students attending a four-year school now borrow at least once while attending (Table 4.) About 45 percent borrow at public universities and about 50 percent borrow at private colleges. The average cumulative debt for those attending public universities is about \$14,000 and for those at private institutions, about \$16,500. Both numbers must be increasing, as shown in Figure 8, because the marginal loans (the most recent loans) are increasing.

**Table 4: Average Cumulative Debt Level for Illinois Students**

	% who borrow	Freshman	Sophomore	Junior	Senior
<b>Public Universities</b>	44.4%	\$ 3,308	\$ 6,173	\$ 9,279	\$ 13,944
<b>Private Universities</b>	50.4%	\$ 4,027	\$ 7,577	\$ 11,474	\$ 16,485
<b>Community Colleges</b>	3.2%	\$ 3,202	\$ 5,464	\$ -	\$ -

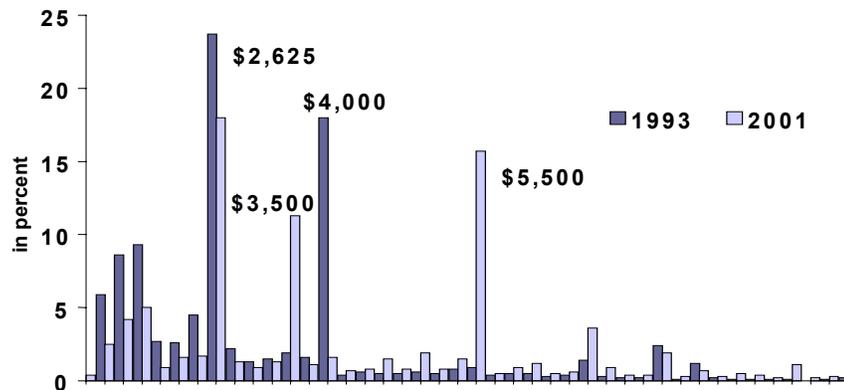
Figure 8 compares the number and size of ISAC guaranteed loans in 1997 with 2001. Average loan size for ISAC-guaranteed subsidized loans increased from \$3,997 to \$4,207 and for unsubsidized loans from \$4,391 to \$5,280 in just four years. The average cumulative loan size increased from \$10,848 to \$12,747 during the same period. Cumulative Plus loan size increased by even more; from \$11,152 to \$13,535, an increase of 21 percent. The total number of borrowers increased by 10 percent over the period, with most of the increase coming in new unsubsidized loans. This translates into a larger total debt burden at graduation. This debt also comes with a higher price tag because more of the debt is unsubsidized Stafford loans, increasing the amount owed when the interest is capitalized. More students are borrowing and more students are borrowing more, and often are paying more interest.

**Figure 8: Number and Amount of ISAC Guaranteed Loans – Subsidized, Unsubsidized, Plus, 1997, 2001**



The increased level of borrowing is pushing students up against the loan limits. In FY2001 51 percent of the loans guaranteed by ISAC were made at or near the limits, compared to 44 percent in FY1993. Figure 9 shows how the pattern of “stacking” at the loan limits is repeating the pattern that occurred before the last change in loan limits. Student loans are stacked at \$2,625 (freshman limit);

**Figure 9: Percentage of ISAC-Guaranteed Loans at Limits – 1993, 2001  
Do Illinois Students Really Need to Borrow More?**



\$3,500 (sophomore limit); and \$5,500 (junior and senior limit) in 2001; in 1993 they were stacked at \$2,625 (freshman and sophomore limit) and \$4,000 (junior and senior limit).

There appears to be no “one size fits all” answer here. There is considerable evidence that many students are borrowing at the Stafford maximums. Over 50 percent of the Stafford loans made are stacked at one of the three dependent limits. The current loan limits are not sufficient to cover out-of-pocket costs for second and third income quintile families at a public university.

The situation will be worse in FY2003. Indications are that family incomes are stagnant for most income quintiles and even declining for first income-quintile families. Some public universities’ tuition and fees may see the largest increases in a decade. The largest need-based grant program in Illinois, MAP, has been cut by \$38 million (roughly 10 percent) resulting in reduced awards for all recipients. It would not be overstating the problem to suggest that the out-of-pocket costs for many attendees at public universities could increase 20 percent or more next year and family incomes will not keep pace. Some students in Illinois currently do need to borrow more to attend a public university and the number and the magnitude will only increase in the foreseeable future.

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### **Can Illinois Students Afford to Borrow More?**

A Texas study “Education on the Installment Plan” phrases it rather nicely: “Is the nation asking its youth to make investments that they cannot afford?” For the answer to this question, looking at total student loan debt alone is not sufficient. Income must also be considered. A \$20,000 student loan debt might be very burdensome for someone making \$30,000 per year; however a \$60,000 income might be sufficient to make repaying the loan manageable.

Many analyses of the economic returns to college have concluded that a bachelor’s degree adds at least one-half million dollars to lifetime income. But this is based on averages and there is much dispersion around the mean. In

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addition, the economic returns from a college education are not always seen in often low starting salaries and most students are expected to begin repaying their student loan debt six months after leaving school. It comes as no surprise that most student loan defaults occur within the first two years of repayment. So starting incomes as well as lifetime incomes are important variables to look at when trying to assess debt burden.

### **Income Expectations – the Wage Premium**

Emphasizing the “wage premium” associated with college degrees can be misleading and probably understates the benefits of going to college. Jobs for college-educated workers tend to have non-monetary benefits such as better working conditions, more interesting work and, perhaps, a more interesting life. A college education is more than a meal ticket. As Ruth Simmons, President of Brown University says “Education does not exist to provide you with a job. This is ... where we’ve gone awry. Education is here to nourish your soul.”

That may be true of the type of education provided at a school like Brown, but many schools seem to exist solely for the purpose of “ushering” students from one socioeconomic class to another by upgrading job skills. Certainly parents, who still pay much of the cost of educating their children, are looking for a tangible return on their investment and most economists are attributing the rise in college attendance rates to the better job opportunities a college education affords. Without some real economic benefits, college would once again be the exclusive province of the wealthy and the brilliant.

There is no dispute that historically the aggregate wage premium for a Bachelor’s degree has been robust. But lumping all college degrees together and using average income obscures some important, and often contradictory, information: (1) A college degree today doesn’t necessarily get a graduate the same job that a college degree commanded thirty or even twenty years ago; (2) national average income figures bear little relationship to most people’s incomes; and (3) *when* you receive your income can be as important as *how much* you receive. Care should be taken when attempting to estimate the returns to higher education.

Using BLS/IDES data we constructed Illinois-specific lifetime income ranges for groups of professions based on education levels. We split the most common professions into four categories based on education level: no postsecondary education (includes apprentice programs); vocational training, associate’s degree, and bachelor’s degree. The division was based on the level of education for each position as determined by BLS but there is some overlap. Some technical jobs such as a heating and cooling specialist, can be obtained by prior work experience, an apprentice program or a vocational certificate. Nurses can become qualified through an associate’s degree program, a bachelor’s program or even an advanced degree.

To determine lifetime income, a working life of 44 years was assumed (forty years past the bachelor’s degree.) Again, this is rather arbitrary and can vary by profession. People who do physical labor often retire early because the physical demands become onerous. Others are in professions where peak performance often occurs later in life and working until age 70 is not uncommon. We also did

not account for the ease with which people in certain fields can change jobs or “move up” into management positions. Nor did we modify the lifetime incomes by the probability of being unemployed that would yield an “expected value” of lifetime employment. All of these omissions understate the return to education.

We used cross-sectional data to get an inflation-adjusted future income stream. By assigning a starting wage that corresponded to the BLS/IDES 25 percentile wage for that profession and an ending wage that was the 75 percentile wage rate. We grew out the starting wage at a rate calculated to yield the ending wage in year 44. The sum of the non-discounted income stream is the gross lifetime income.

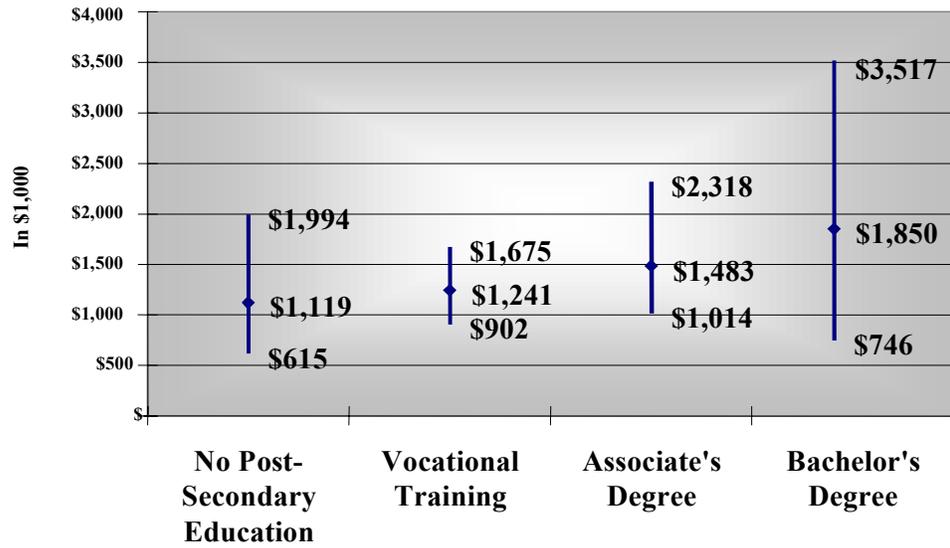
We modified this figure by assuming that payback of a student loan was required and subtracted these payments from gross income, yielding a net lifetime income. For professions requiring no postsecondary education (or jobs requiring an apprentice program) there was no student loan debt assigned. For jobs requiring vocational training, the assumption was one \$2,625 loan. A two-year associate degree “cost” \$6,000 and the debt level attached to a bachelor’s degree was \$16,000. The interest rate was calculated at 6 percent; the loans were assumed to be subsidized and the payback period was ten years. All incomes listed in the following figures are assumed to be “after debt” income.

Figure 10 shows the range of Illinois lifetime incomes by level of postsecondary education. Jobs requiring no postsecondary education had lifetime earnings from \$615,000 (waiter) to \$1,994,000 (electrician.) The median lifetime income for this group was \$1,119,000. For workers with vocational training the range was \$902,000 to \$1,675,000 with a median income of \$1,241,000. Those with associate degrees saw lifetime incomes in the range of about a million dollars (court reporter) to \$2,318,000 (electric tech) and a median income of about one and one-half million. Bachelor degree recipients had the widest dispersion on lifetime income: from \$746,000 (pre-school teacher) to \$3,517,000 (engineer.) The median income of those with bachelor’s degrees was \$1,850,000. It is clear that while having a bachelor’s degree does provide an opportunity for the recipient to earn more money than those with less education, it is by no means a certainty. The field of endeavor matters a great deal. While a comparison of the median incomes shows recipients of bachelor’s degrees have a median lifetime income that is more than \$700,000 greater than those with no postsecondary education; it is also quite possible to have a bachelor’s degree and earn roughly one-third of what someone with no postsecondary education is receiving. But, in general, in Illinois, the lifetime returns to postsecondary education are significant and repayment of student loans impacts the analysis very little.

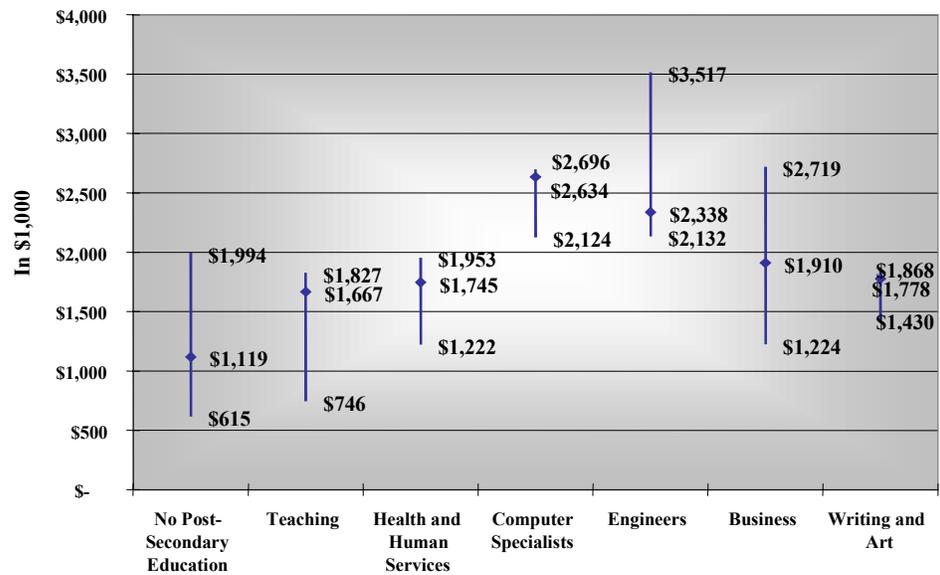
***It is clear that while having a bachelor’s degree does provide an opportunity for the recipient to earn more money than those with less education, it is by no means a certainty. The field of endeavor matters a great deal.***

Figure 11 shows lifetime income for different majors, all requiring a bachelor’s degree. Net lifetime income varies dramatically for students with different majors and careers, and has an impact on the amount of student loan debt that they can handle. In general, students in computer science or engineers see strong returns on their investment dollars; the returns to those majoring in business in general see decent returns but those in teaching, health and human services and writing and art may find college a poor deal, at least financially.

**Figure 10: Illinois Workers' Lifetime Income, by Level of Education, in \$1,000**



**Figure 11: Illinois Workers with Bachelor's Degrees Lifetime Income, by Profession, in \$1,000**

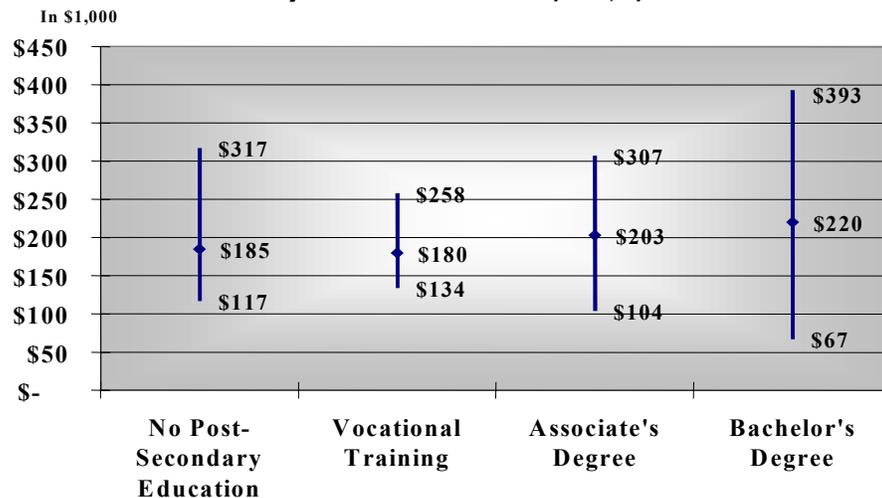


## Timing is Everything: The First 10 Years After Graduation

Most students must start paying off student loans six months after they graduate or leave school when paychecks are smallest. Most defaults on student loans occur within the first two years of repayment. One problem is that while most of the payoff to education is back-loaded; most of the cost is front-loaded. Median starting salaries vary dramatically from major to major but most are significantly less than the salaries 35 year-olds make, much less those aged 45 or 55.

The difference in income between those with a college degree and those without, increases with age, with much of the increase occurring later in life. Many starting salaries, regardless of the education required, are in the \$20,000 to \$27,000 range. Considering that the job seeker with a college degree has given up four productive work years to attend college as well as taken on \$16,000 in student loan debt, the range on beginning salaries becomes very small. Figure 12 illustrates the range of incomes, by education level for the first 10 years after high school. Workers who earned a four-year degree gave up four years of work; their 10-year income is really only 6 years. For those with associate's degrees, their 10-year income is 8 years and for those with vocational degrees, 9 years.

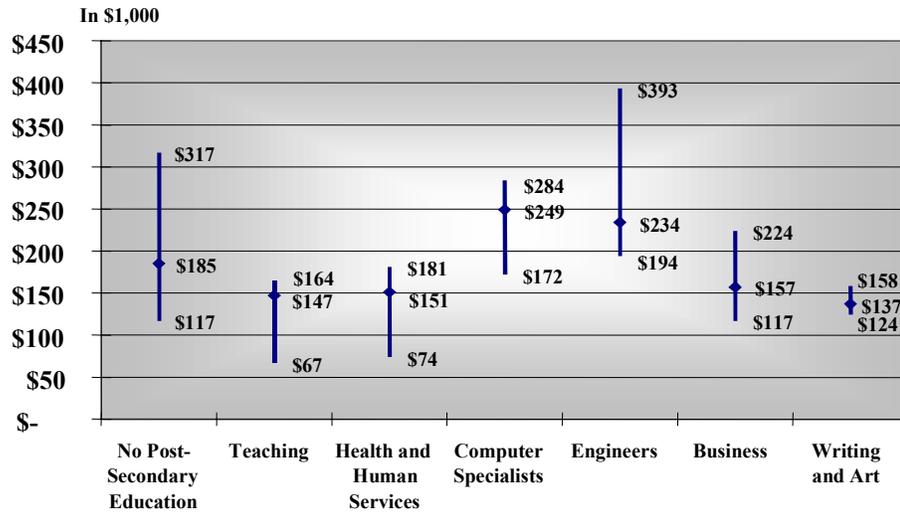
**Figure 12: Illinois Workers' 10-Year Income, by Level of Education, in \$1,000**



The ranges represented in this graph are much narrower and closer together than those in shown in Figure 10. The median incomes, in particular, are very close. Many professions that require associate's or bachelor's degrees actually have a ten-year net income level lower than those professions that require no postsecondary education at all. The "after-debt" income of a pre-school teacher is about half of what a waiter received. The court reporter who labored two-years to get her degree is making only one third of what the high school graduate who went into the electrician apprentice program is taking home. Clearly, at this stage of life, the financial returns to higher education are not apparent.

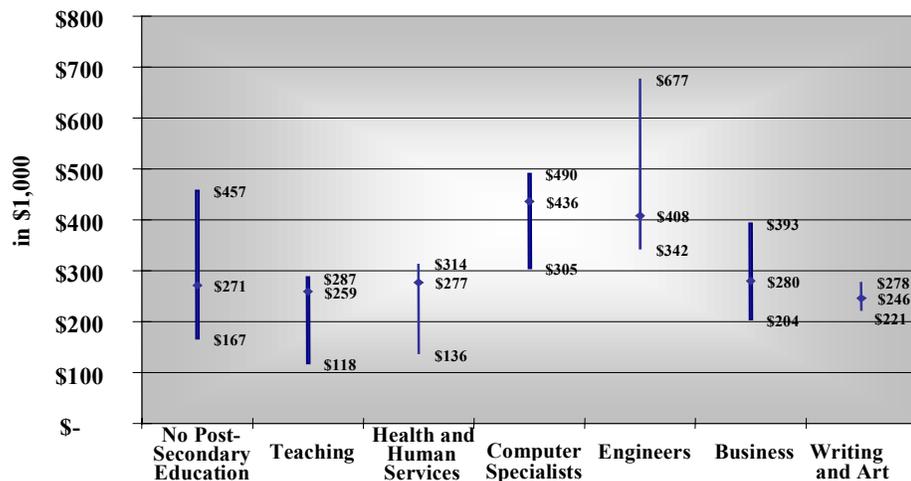
Figure 13 shows that the pain is not equally distributed among all majors. Teachers, workers in health and human services, writers and artists and some business majors see very little return on their four-year investment in their early years in the work force. However, those in computer science or engineering are already enjoying generally high returns on their investments.

**Figure 13: Illinois Workers with Bachelor's Degrees  
10-Year Income, by Profession, in \$1,000**



These numbers look a little better if the time frame is extended to 14 years to cover the four years of undergraduate work plus ten working years (Figure 14.) But the economic returns to a four-year college still are not obvious unless the field of endeavor is computer science or engineering.

**Figure 14: Illinois Workers with Bachelor's Degrees  
14-Year Income, by Profession, in \$1,000**



Fourteen years after high school or ten years after college, many college graduates are seeing essentially no economic returns to their degrees. Their “after-debt” 14-year median incomes are about the same or even less than those who did not attend college at all. If no debt payments had been made, the median incomes for the workers with Bachelor’s degrees would shift up by \$21,000, or about 8 percent of the cumulative income to this point. Increased debt levels that would occur if loan limits were raised would make this already disappointing return even less rewarding.

## **The Importance of the Debt Ratio**

The measure of debt distress that is most often used is the ratio of monthly student loan payments to monthly gross income. It is generally agreed that when this ratio exceeds 8 percent, real debt burden may occur. This figure was calculated in 1986 by the National Association of Student Financial Aid Administrators (NASFAA) and has been adopted as a benchmark ever since. Other studies have used values from 5 percent to 15 percent of gross income as the point where real debt burden begins.

*No meaningful discussion about loan debt can occur without a discussion about income levels necessary to repay the debt.*

No meaningful discussion about loan debt can occur without a discussion about income levels necessary to repay the debt. Doctors often graduate with loan debt in excess of \$100,000 yet few default or defer buying homes or starting a family. The most common defaulter on student loans has loan debt around \$2,000. Lifetime income is an important consideration when evaluating whether or not to raise student loan limits, but most defaults occur within two years of repayment, putting special emphasis on starting salaries and the relationship between monthly debt payments and early monthly incomes.

Figure 15 shows student loan debt ratios by profession during the first year of employment. Each profession has three ratios presented. The ratios at the ends of the range line indicate the highest and lowest debt ratio calculated from the starting salaries derived from the BLS/IDES data. Note that many professions have starting salaries that are yielding debt ratios well in excess of 8 percent.

The ratio next to the tick mark is the actual debt ratio for each profession calculated from survey data of Illinois repayers that is described in more detail in the next section. The actual ratios generally fall within the ranges specified, and in some cases lie about the calculated range even though the debt levels for these repayers is less than the current average cumulative amounts and some of the repayers have been working for several years, presumably increasing their annual incomes in the process.

These fluctuations are all based on different starting salaries since all “students” were assigned the same loan debt of \$16,000 (a little over \$21,000 with interest.) Again engineers and computer specialists have low debt ratios as do nurses while nearly all social workers, English and fine arts majors and some teachers and business majors are at or above the 8 percent figure. The actual average debt ratios from the repayers survey show a similar pattern – social workers and

English majors in repayment difficulties, teachers, engineers and business majors probably coping, and nurses and computer programs in good shape.

**Figure 15: Student Loan Debt Ratios during the First Year of Employment**

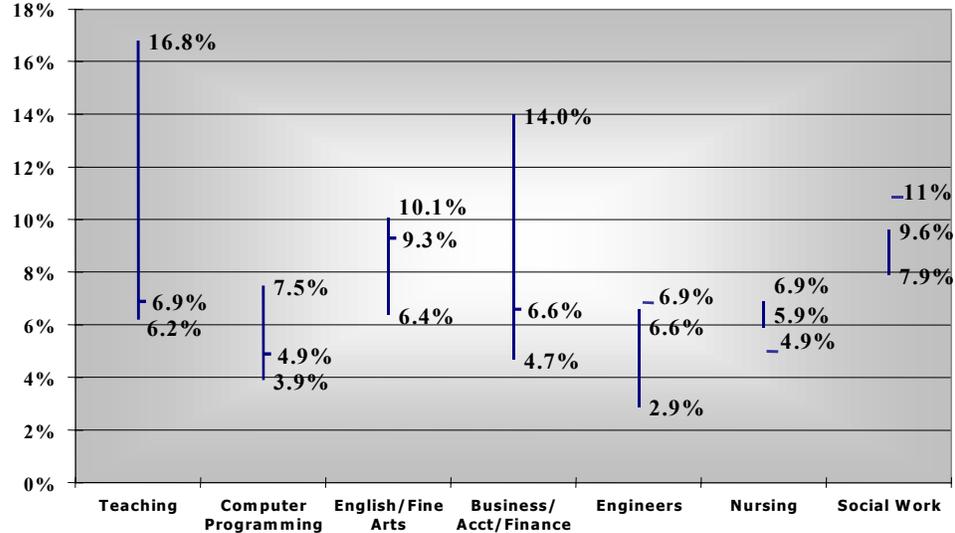


Table 6 lists the current average cumulative debt levels by sector and class level. Graduating seniors at public universities who borrow (44%) have a cumulative debt level of almost \$14,000. Those at private universities who borrow (50%) have an average cumulative debt level of almost \$16,500. At starting salaries of \$24,000 to \$32,000, their prospective debt ratios range from 9.2 percent to 5.8 percent. Since the average loan is now over \$4,000, the cumulative debt levels will be closer to the private university level in FY2001. This constricts the range of debt ratios to the higher end: 6.9 percent to 9.2 percent. Many new graduates are going to emerge from college with debt ratios in excess of 8 percent.

**Table 6: Loan Levels and Debt Ratios in Illinois, FY2001**

	<i>Average Cumulative Debt Level</i>						Debt Ratio Range*
	% who borrow	Freshman	Sophomore	Junior	Senior	Monthly Payment	
Public Universities	44.4%	\$ 3,308	\$ 6,173	\$ 9,279	\$ 13,944	\$ 155	5.8% to 7.7%
Private Universities	50.4%	\$ 4,027	\$ 7,577	\$ 11,474	\$ 16,485	\$ 183	6.9% to 9.2%
Community Colleges	3.2%	\$ 3,202	\$ 5,464	\$ -	\$ -	\$ 61	3.0% to 4.5%
Proprietary Schools	87.0%	\$ 5,247	\$ 10,713	\$ -	\$ -	\$ 119	5.9% to 8.9%

\* University ratios based on a starting salary range \$24,000 to \$32,000

\* Community College and Proprietary ratios based on starting salaries from \$16,000 to \$24,000

A debt ratio of 8% is generally considered to be the maximum for a manageable debt burden.

Community college debt levels are lower and few community college students borrow. Therefore, lower starting salaries are matched with lower debt levels and the debt ratio range of 3 percent to 4.5 percent appears to be manageable. The majority of students who attend proprietary schools, however, borrow nearly \$11,000 to pay for their schooling. This translates into a debt ratio range of 5.9 percent to 8.9 percent.

This analysis does not account for the probability of unemployment during the ten-year repayment period nor does it account for decreasing debt ratios as incomes increase. The former could be accounted for by multiplying the annual wage times the probability of being employed (e.g.  $0.96 * \$24,000 = \$23,040$ ), creating an “expected annual salary.” This would generally impact community college and proprietary students more than four-year students because unemployment rates are often, but not always, higher for the jobs students are prepared to do when they graduate from two-year colleges. Adding an unemployment component would increase the debt ratios. Calculating an average debt ratio from the debt ratio for each of the ten years of repayment would generally lower the debt ratios because income often rises over the repayment period. Over the ten year period, we calculated reductions generally of 0.5% to 1.5%. The determining factor is how fast income grew during the ten-year repayment period – professions that required bachelor’s degrees generally saw more income growth than professions that required two-year degrees or less.

A third factor that may be important but is not included in this analysis is the potential for job advancement, and the increase in salary that accompanies it. A bachelor’s degree often provides entry into a job that is a springboard to other, better paying jobs. These job upgrades are difficult to estimate or predict and are not included in the analysis. To the extent that they exist, not including them may overstate the debt ratio.

## Conclusion

*In Illinois, students in the second and third income quintiles who wish to attend a four-year public school are seeing levels of out-of-pocket costs that exceed the loan limits now in place.*

In Illinois, students in the second and third income quintiles who wish to attend a four-year public school are seeing levels of out-of-pocket costs that exceed the loan limits now in place. Students are maxing out at the loan limits – and more students are using loans to get through college. Plus loans are available but less than ten percent of parents are using them; however these numbers are also increasing as is the level of cumulative debt.

Community college students have not seen the huge increases in college costs that students attending four-year schools have experienced over the decade. Community college students in Illinois traditionally do not borrow to finance their education – less than five percent of community college students have Stafford loans. Community college tuition and fees are well within even the current low freshman loan limits (\$2,625.) Students attending private schools borrow most frequently and the largest amounts. Although the presence of considerable institutional aid is available for students at private schools, the tuition and fees they pay are often three to four times that of public schools

requiring them to borrow at the current loan maximum levels. Do students need to borrow more? The answer is a qualified “yes” – some students probably do, particularly those in the second and third income quintile that attend four-year institutions, given the current income, tuition and fees and grant levels present.

Can current undergraduates afford to take on more debt than current repayers? Only in some instances. Students who major in certain fields at four-year institutions may have sufficient income to handle higher debt levels. However, students training for many popular and necessary lower paying occupations at both two- and four-year schools are already showing signs of stress as measured by the total student loan debt to annual income ratio. At the current loan levels, dependent students graduating with a four-year degree can incur up to \$23,000 in debt and are already averaging over \$16,000; increasing the freshman and sophomore limits to match the junior and senior limits will send this level higher. Given the large number of starting salaries in the \$24-30,000 range, \$23,000 of debt is very high, creating a debt ratio of 10.2 percent on a \$30,000 income.

At some point the financial payoff to an education needs to be considered when giving out loans. Students who borrow too much relative to future income can have many miserable years even if they do not default. On average, students probably cannot handle much more debt than they are graduating with right now. However, some students in occupations such as engineering or computer science with high starting salaries could afford to borrow more but these students comprise a very small percentage of those seeking higher student loan limits.