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ABSTRACT

This report attempts to define the nature and dimensions of the "college affordability crisis." It covers trends in college costs, student ability to pay, and some of the ways in which affordability problems are being addressed. The report finds that while annual growth in college costs has slowed, cost continues to exceed growth in family income and in the Consumer Price Index, but it notes that high tuition is not universal. It discusses student and family concerns about affordability and debt burdens on students after they leave college.It also notes that institutional reactions to these concerns include an increase in college-supported student aid. In looking at why college costs are rising, it notes that one factor is reduced growth in state funding, but also finds that an increasing number of private four-year colleges discount tuition. The report also discusses changes in federal student aid; looks at other explanations for the growth in tuition, including colleges' financial conditions; reviews policymakers' positions and views on affordability; and gives examples of how the media looks at affordability. Appendix tables provide comparative tuition data vis-a-vis income and enrollment, and grant aid as a percentage of total costs. (Contains 60 references.) (CH)

# College Affordability

## A Closer Look At The Crisis



Jerry S. Davis

SallieMae Education Institute

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SallieMae Education Institute

# College Affordability

## A Closer Look At The Crisis

by Jerry S. Davis
Vice President for Research,
Sallie Mae Education Institute

# Foreword

We all are better served if all Americans who have the ability and desire to attend college have the opportunity to pursue and achieve their educational goals. Their educational achievement is necessary for our nation to compete in today's international economy. However, on an almost daily basis, we see or hear media accounts describing soaring college tuitions and how difficult paying for college is becoming for students and families.

Public and private policy-makers who are responsible for keeping college affordable need to better understand the characteristics and causes of the crisis so that they can better deal with its many manifestations.

For these reasons, I am pleased that the Sallie Mae Education Institute is making this report available to policy-makers and to the higher education community in general. It provides an overview of the "college affordability crisis" and offers some guides to further investigation of the issues. The report reviews many issues surrounding rising college costs, describes the circumstances from the viewpoints of students, parents, public policy-makers, and college administrators, and looks at how different parties currently are trying to keep college affordable. It concludes by offering some approaches to lessening the negative effects of rising costs on students and families.

The report's author is the Institute's vice president for research and is well qualified to address the topic. He wishes to acknowledge the help of four persons who read drafts of the report and offered suggestions to improve it. They include Joseph D. Creech, of the Southern Regional Education Board; Kingston Johns, Jr., formerly of the College Board; John B. Lee of JBL Associates; and Dennis J. Martin, of Washington University at St. Louis. He also thanks Jaci King and the members of the American Council on Education's Student Aid Research Association for their advice during the project. Cindy Buchanan and Deborah Ankrom of Sallie Mae are thanked for their excellent work in preparing the manuscript for production.

The views expressed in this report are those of the author and should not be ascribed to the persons or organizations acknowledged above, or to the board of directors of the Sallie Mae Education Institute.

All of us at the Institute sincerely hope that readers find this report useful as well as interesting. I hope that it provides a framework to guide dialogues on college affordability and that these dialogues lead to solutions to the crisis. The Institute hopes to take part in these dialogues and will do all it can to help keep college affordable.

Larry A. Hough
Chairman
Sallie Mae Education Institute

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# Executive Summary

This research report is intended to help inform discussions on the nature and dimensions of the college "affordability crisis," so that solutions to it can be more readily crafted. It describes trends in college costs and student ability to pay them; discusses why such matters have grown in importance during the 1990s; and describes ways affordability problems are being addressed. The major findings are as follows:

The annual growth in college costs has slowed in the 1990s, but it still exceeds the growth in family incomes and the Consumer Price Index.

One-fifth to one-half of four-year college undergraduates and their parents have major concerns about financing a college education and are not prepared to do it.

Access to four-year colleges for lower- and lower-middle-income students has diminished since the early 1980s.

Four-year college enrollments generally have grown because increased financial aid helped students overcome cost barriers; tuition increases have not cut middle- and upper-income student incentives to enroll since attending college results in dramatically higher lifetime earnings; and, more students and parents are borrowing to pay the rising costs.

During the 1990s, federal student aid has kept pace with the growth in enrollments and costs at public colleges and has nearly kept pace with them at private colleges. But growth in federal *grant* assistance has lagged behind at both types of four-year colleges.

Between 1984 and 1993, public and private colleges increased their current fund spending by about 11 percent more than was necessary to have kept up with growing enrollments and inflation. College spending on student aid grew at double the rate of spending on all other items.

In general, colleges raised tuitions to make up for shortfalls in other revenue sources, and to pay rising faculty salaries, defray increased administrative costs, increase institutional student aid and improve their programs, services and financial conditions.

There appears to be little resistance among state legislators to continued tuition increases at public colleges, primarily because other demands on state revenue are considered more pressing. More than a few states, however, have reacted to concerns about rising tuitions by creating savings and tuition prepayment programs.

Many recent media accounts, and reader responses to them, show growing disapproval of college cost increases. Colleges are described as mismanaged and overpriced. College faculties are criticized for lack of productivity. And college administrations are characterized as bloated.

High tuitions and rapid growth in college costs are not universal. Four-year public college tuitions in 19 states are relatively low and/or have not grown much in comparison to family incomes. One-fourth of four-year private colleges have tuitions under $7,300 and the median tuition is $10,435. In 1994-95, about 68 percent of all full-time undergraduates at four-year colleges and universities enrolled where tuitions were under $5,000.

With the student financial aid available today, the vast majority of students in the vast majority of places across the nation can and do find the financial means to attend a four-year college.

Although the college affordability crisis is neither uniform nor universal, if college costs continue to rise faster than student ability to pay them from family or financial aid resources, the crisis will become pervasive.

The study findings suggest a different approach to the college affordability crisis. Rather than looking at data presumed to represent some national situation and concluding that a college affordability crisis is omnipresent, public and private policy-makers should look for signs of crisis among different kinds of students at different types of colleges. Then they can identify and address the factors that have created each specific crisis. Are family incomes not keeping pace with rising college costs? Are family savings being depleted for other expenses? Are costs to students rising more than is necessary to provide needed programs and services? Are financial aid resources lagging behind financial need?

Some actions that would help avoid a universal college affordability crisis were discussed. Colleges should keep costs from climbing faster than the financial resources of the students and families they intend to serve. Since borrowing for college is likely to increase, the public and private sectors should implement programs whose loans do not become excessively burdensome or costly to repay. More states could develop and implement "tuition prepayment" and "tuition savings" plans, and such programs could be made available on a nationwide basis.

There is still time to avoid a college affordability crisis of universal proportions and to solve the smaller crises that currently exist for many students. Colleges, governments, and the private sector can cooperate to do this. It is hoped that this report helps them do so.

# Introduction

Today the mass media, public policy-makers, college administrators, and others are giving much attention to rising costs of attendance and to whether college is becoming unaffordable for most Americans. Many observers have described the present "college affordability" situation in terms of a crisis for students and families, for the nation, or for colleges themselves. Such concerns are not new, especially for students and families.

Since the end of World War II, providing financial access to college for all who can benefit from it has been one of the nation's primary goals, although the focus on which groups of students can or cannot afford to enroll frequently has changed. During the late 1940s and the 1950s, the federal government focused on providing veterans with education benefits and access to college, most states expanded their low-cost public college systems, and many states and local communities began building two-year community colleges. During the 1960s, the focus was on providing access for minority/poverty students, largely through federal funding of campus-based student aid programs, while lower and lower-middle income students' needs were addressed through expansion of community college systems and federal loan programs.

By the late 1970s and throughout the 1980s, the needs of middle-income students drew attention, while the nation continued trying to help less affluent students gain access to college. These four decades of effort and activities more than tripled the percentages of adult Americans with four or more years of college training, from 6.2 percent in 1950 to 21.3 percent by 1990 (USDE, 1995).

During the 1990s, the gap between the lifetime earnings of those with college degrees and those without them continues to widen. This has given much greater importance to attending college. Now rising college costs have caused many parents to worry that the education they consider vital to their children's success and well-being is becoming affordable only to the wealthy.

Accordingly, a broad range of issues arise in discussions of college affordability. These include such things as adequate levels of student aid funding, appropriate balances between grants and other types of student aid, growing education loan indebtedness as more students and parents borrow to pay for college, college costs that are growing faster than the incomes used to pay them, and reasons why colleges charge high tuitions.

The purpose of this report is to help inform discussion on the dimensions and nature of the affordability crisis, so that solutions to it can be more readily crafted and targeted. This report describes the trends in college costs and affordability; offers reasons why and how these matters have become so significant in the 1990s; and discusses some ways affordability problems are being addressed.

The word "crisis" is used so frequently in media accounts and policy discussions that it has come to describe almost any situation, regardless of its characteristics. To support clearer communications, in this report a "college affordability crisis" is deemed to exist when there is evidence that prospective students cannot attend college or when current students must drop out for financial reasons. In view of the importance of higher education to students and the nation, an affordability crisis also exists when current economic and other trends *are expected to result* in students becoming financially unable to enroll.

From the policymaking perspective, the important difference between these two kinds of crises lies in the types of actions higher education leaders and public policy-makers must take to address the problems.

A college affordability crisis is deemed *not* to exist when student and family financial circumstances do not preclude college attendance. Nor is there a crisis when trends show that college costs are stable or declining *in relation to student and family ability to pay them from their own and/or from financial aid resources*. Just as the actions taken by higher education leaders and public policy-makers should differ in the presence of the two types of affordability crises, so should their actions to further educational opportunities be different in the absence of a crisis.

## How Fast Are College Costs Growing?

This report concerns costs of attending four-year public and private colleges, with the primary focus on undergraduate study. It is recognized that being able to pay the costs of postsecondary education at many two-year colleges, graduate and professional schools, and business, trade, and technical schools are valid concerns of millions of students. However, the recent focus on college affordability by the media, policymakers, and the public in general has largely been on undergraduate study at four-year colleges. So that is the focus here. Examining trends in affordability for all types of students at all types of postsecondary institutions was beyond the scope of time and resources available to this particular project.

Just how fast are four-year college costs growing? Table 1 shows the average annual growth rates in college costs for three periods--1975 to 1985, 1985 to 1995, and 1975 to 1995. Total average costs at both college types grew at *lower* annual rates during the most recent decade. For example, total public college costs grew at an average annual rate of 8.0 percent between 1975 and 1985 but by only 6.2 percent between 1985 and 1995. Private college costs grew by 9.7 percent in the earlier decade and by only 6.6 percent in the later one.

*Average college costs have not grown as fast in the most recent years as they did in earlier years*. So why is affordability of such concern now? A simple but often overlooked explanation is that recent percentage rate increases in costs represent larger dollar amounts than they once did. For example, a 6 percent increase in public college costs in 1986 represented about $232 (6 percent of $3,859 equals $231.54). But a 6 percent increase in 1996 would mean a $419 increase. The contrast at the private colleges is even greater. A 6 percent increase in total average costs in 1986 would have amounted to about $554. In 1996, it would be nearly twice as much, about $1,054. Therefore, while the growth *rates* have slowed, the annual *dollar* increases have grown significantly.

Two other reasons that college costs are causing distress are that they are growing faster than the family incomes of those who must pay for them, and also faster than costs of most other goods and services. Table 2 shows the average annual percentage increases in the Consumer Price Index (CPI), median family incomes, and college costs for the past two decades.

TABLE 1

**Mean Annual Rates of Growth In College Costs at Four-Year Colleges, By Control, 1975 to 1995**

| | Public Tuition and Fees | | Private Tuition and Fees | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| 1975 to 1985 | 8.7% | 2.90 | 10.2% | 2.10 |
| 1985 to 1995 | 8.0% | 2.10 | 7.3% | 1.84 |
| 1975 to 1995 | 8.4% | 2.50 | 8.8% | 2.43 |
| | **Public Room and Board** | | **Private Room and Board** | |
| | Mean | SD | Mean | SD |
| 1975 to 1985 | 7.4% | 2.90 | 8.9% | 2.04 |
| 1985 to 1995 | 5.0% | 1.34 | 5.5% | 1.88 |
| 1975 to 1995 | 6.2% | 2.51 | 7.2% | 2.55 |
| | **Public Total** | | **Private Total** | |
| | Mean | SD | Mean | SD |
| 1975 to 1985 | 8.0% | 2.61 | 9.7% | 2.02 |
| 1985 to 1995 | 6.2% | 1.17 | 6.6% | 1.43 |
| 1975 to 1995 | 7.1% | 2.21 | 8.1% | 2.35 |

SD = Standard Deviation of the mean.
*Source: U.S. Department of Education, Digest of Education Statistics, 1995, and estimates.*

The data show that college costs rose faster than median family income and faster than the costs of other goods and services, i.e., faster than the CPI. Here is how the average annual growth rates in college costs compare to growth rates in median family incomes for the two decades:

| | *Public College Costs* | *Private College Costs* |
|---|---|---|
| 1975 to 1985 | 0.6 points higher | 2.3 points higher |
| 1985 to 1995 | 2.4 points higher | 2.9 points higher |

*In absolute dollars and in dollars relative to family incomes and costs of other goods and services*, average college costs grew more between 1985 and 1995 than between 1975 and 1985, at both public and private colleges. There is another way of expressing the increase in costs versus family incomes. Table 3 on page 8 displays the changes in average tuitions and total costs and their relationships to median family incomes for a longer time period. In the thirty years between 1957 and 1987, total costs at the four-year public colleges represented between 12.7 percent (in 1977) and 14.6 percent (in 1957) of median family incomes. But in 1992 total costs rose to 16.4 percent, and by 1995 to 17.3 percent, of median family income.

A similarly dramatic increase in costs relative to median incomes occurred at the four-year private colleges between 1987 and 1992. In

TABLE 2

**Mean Annual Increases In Consumer Price Index, Median Family Incomes, and College Costs, 1974 to 1995**

| | **Consumer Price Index** | | **Median Family Incomes** | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| 1975 to 1985 | 7.2% | 3.45 | 7.4% | 2.08 |
| 1985 to 1995 | 3.5% | 1.08 | 3.7% | 1.94 |
| 1975 to 1995 | 5.4% | 3.13 | 5.6% | 2.73 |

| | **Public College Costs** | | **Private College Costs** | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| 1975 to 1985 | 8.0% | 2.61 | 9.7% | 2.02 |
| 1985 to 1995 | 6.2% | 1.17 | 6.6% | 1.43 |
| 1975 to 1995 | 7.1% | 2.21 | 8.1% | 2.35 |

SD = Standard Deviation of the mean

*Source: U.S. Department of Education, Digest of Education Statistics, 1995, and estimates.*

1987, total costs represented 34.4 percent of the median family income but by 1992 they represented 41 percent. By 1995, costs were up to 43.3 percent of the median family income.

It should be noted that the actual "net" costs students had to pay in 1992 and 1995 did not rise as much as the total average costs suggest. This is because colleges spent much more on financial aid to help cut student expenses. Nevertheless, the "sticker prices" represented by the figures in Table 3 are the ones prospective students and their families see when they begin to consider attending college. That the "sticker price" rose by amounts representing larger percentages of the typical family income likely contributed toward heightened concerns about college affordability and to a sense of crisis among many students and families.

## High Tuitions Are Not Universal

In spite of the increases in average college costs nationwide, high tuitions and dramatic growth in them are not universal.[1] Tuitions nationwide at four-year public colleges represent about 8 percent of the median household income (see Table A-1 in Appendix A). However, tuitions in 14 states represent under 7 percent of their median household incomes: Alaska, Arizona, Colorado, Florida, Georgia, Hawaii, Idaho, Nevada, North Carolina, Oklahoma, Tennessee, Texas, Utah, and Wyoming. On the other hand, eight states have tuitions representing *11 percent or more* of their median household incomes: Delaware, Maine, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, and Vermont.

The ratios of four-year public college tuitions to incomes vary considerably among states. So does the *growth* in tuitions. Average 1994 four-year public college tuitions nationwide took a 2.27 percentage point larger share of *per capita* income than did the 1980 tuitions, 13.62 percent versus 11.35 percent (see Table A-2). However, per capita incomes grew at *higher* rates than college tuitions in nine states: Florida, Hawaii, Illinois, Kansas, Mississippi, Nevada, South Dakota, Tennessee, and Wisconsin. Additionally, the 1994 tuitions took less than 1 percentage point more of per capita income than did 1987 tuitions in seven states: Alabama, Alaska, Georgia, Louisiana, Nebraska, South Carolina, and Washington. There was less than a 2 percentage point increase in the share of per capita income taken in another nine states: Arizona, Kentucky, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oregon, and Utah. Tuitions in 15 of these 25 "lower growth" states represented under 8 percent of their respective household incomes in 1994.

[1] In this report, "tuitions" and "tuition charges" include tuition and standard fee charges, which sometimes represent significant proportions of the total. For purposes of brevity "and fees" is deleted from the text and tables.

TABLE 3

**Median Family Incomes, Average Tuition and Total Costs at Four-Year Colleges, and Costs as a Percent of Income, 1957-58 to 1995-96, Selected Years**

PUBLIC COLLEGES

| Years | Median Income | Average Tuition | Percent of Income | Total Costs | Percent of Income |
|---|---|---|---|---|---|
| 1957-58 | $ 4,966 | $ 155 | 3.1% | $ 725 | 14.6% |
| 1962-63 | 5,956 | 205 | 3.4 | 790 | 13.3 |
| 1967-68 | 7,933 | 310 | 3.9 | 1,091 | 13.7 |
| 1972-73 | 11,116 | 500 | 4.5 | 1,555 | 14.0 |
| 1977-78 | 16,009 | 655 | 4.1 | 2,038 | 12.7 |
| 1982-83 | 23,433 | 1,031 | 4.4 | 3,196 | 13.6 |
| 1987-88 | 30,970 | 1,531 | 5.0 | 4,403 | 14.2 |
| 1992-93 | 36,573 | 2,349 | 6.4 | 6,020 | 16.4 |
| 1995-96 | 40,611 | 2,848 | 7.0 | 7,013 | 17.3 |

PRIVATE COLLEGES

| Years | Median Income | Average Tuition | Percent of Income | Total Costs | Percent of Income |
|---|---|---|---|---|---|
| 1957-58 | $ 4,966 | $ 526 | 10.6% | $ 1,196 | 24.1% |
| 1962-63 | 5,956 | 905 | 15.2 | 1,575 | 26.4 |
| 1967-68 | 7,933 | 1,302 | 16.4 | 2,323 | 29.3 |
| 1972-73 | 11,116 | 1,914 | 17.2 | 3,265 | 29.4 |
| 1977-78 | 16,009 | 2,700 | 16.9 | 5,003 | 31.2 |
| 1982-83 | 23,433 | 4,639 | 19.8 | 7,126 | 30.4 |
| 1987-88 | 30,970 | 7,116 | 23.0 | 10,659 | 34.4 |
| 1992-93 | 36,573 | 10,294 | 28.2 | 15,009 | 41.0 |
| 1995-96 | 40,611 | 12,239 | 30.1 | 17,613 | 43.3 |

* Total Costs = Tuition and fees and room and board.

*Source: U.S. Department of Education, Digest of Education Statistics 1996, and U.S. Bureau of the Census*

Four states with higher tuition growth *rates* had tuitions representing under 7 percent of household incomes (Colorado, Idaho, Tennessee, and Texas). Therefore, "soaring tuitions" should not be a major issue in almost 38 percent of all the states, because they represent a relatively low proportion of household incomes and/or they have grown slowly relative to growth in incomes.

Just as high tuitions at public colleges are not universal, high tuitions are not the norm at all private colleges. According to a College Board (1996) data file, one-fourth of the four-year private colleges and universities had 1995-96 tuitions under $7,300. The median tuition amount was $10,435. About 13 percent had tuitions above $16,000 and, as will be shown below, large shares of those tuition charges were offset by institutional student financial aid.

In spite of the concerns over affordability, many full-time undergraduate students are enrolled at colleges where tuitions are relatively low. About 42 percent of all 1994-95 full-time undergraduates *at four-year colleges and universities* were enrolled where annual tuitions were under $3,000 (see Table A-3). Almost 68 percent were enrolled at colleges with tuitions under $5,000.

Over one-fourth of the full-time undergraduates at private colleges were enrolled with tuitions under $10,000. Only 7 percent of the private college undergraduates, and just 2.1 percent of all full-time undergraduates, were enrolled where tuitions were $20,000 or more. Under 8 percent of all undergraduates were enrolled where tuitions exceeded $16,000.

## Student and Family Concerns About Affordability

Given the increases in college costs, it is not surprising that research on national samples of college students and their families shows growing concerns about affordability. For example, the annual **American Freshman: National Norms** survey reports from the Cooperative Institutional Research Program (CIRP) of ACE and UCLA show how the proportion of freshmen who worry about college affordability grew during the past decade.

According to the CIRP surveys, about 63 percent of 1985 public and private *university* freshmen had *some* concerns about financing their college education and 13 percent reported *major* concerns. By 1995, about 70 percent of university freshmen were concerned and 18 percent reported major concerns. The changes among *four-year college* freshmen were similar. About 66 percent of 1985 public and private four-year college freshmen expressed some concerns about financing college and 15 percent reported major ones. By 1995, the proportions had risen to 73 percent and 20 percent, respectively. There were only slight differences in the proportions of freshmen at public and private institutions who were worried about financing their educations. *This suggests* *that whether their institutions were public or private made little difference in students' concerns about financing college.*

While anxiety about affordability increased among entering college freshmen, so did the importance of student financial aid. The CIRP survey data in Table 4 show that the proportion of public university freshmen who considered financial aid offers *very important* in selecting their institutions almost doubled. Financial aid became very important to almost as many freshmen at public *universities* as at public four-year *colleges*, 23.6 percent versus 28.8 percent, although university students generally come from more affluent families.

TABLE 4

**Percentages of Freshmen Saying Financial Aid Offers Were Very Important In Selecting Their Current Colleges, By College Types, 1985, 1990, and 1995**

| | Public Colleges | | Private Colleges | |
|---|---|---|---|---|
| | Universities | 4-Year | Universities | 4-Year |
| 1985 | 12.3% | 23.8% | 28.7% | 32.8% |
| 1990 | 19.2 | 26.3 | 35.3 | 44.2 |
| 1995 | 23.6 | 28.8 | 40.5 | 49.4 |

In 1985, 28.7 percent of private *university* freshmen and 32.8 percent of private four-year *college* freshmen said financial aid was very important to selecting their institutions. By 1995, the respective percentages had risen to 40.5 percent and 49.4 percent.

Although trends in concerns about affordability among *parents* of college students have not been traced over time, the results of a 1996 study of 800 randomly selected parents of college-bound high school students were revealing (Miller, 1997). About 52 percent of parents agreed that college is something they want for their children but they don't know how to pay for its costs; 28 percent said they considered a college education a luxury; and 23 percent said their child would consider only public colleges. Eight out of ten of these latter respondents said cost was their reason for considering only public colleges. *It should concern college administrators that 15 percent of the parents of college-bound children said that college is not worth the money.*

The parents in Miller's study were asked which of several actions they might take to help make college affordable. Here are the salient findings:

(1) 71 percent would choose a state college over a private college for their child;

(2) 67 percent would use costs to limit the range of colleges considered;

(3) 54 percent would send their child to a school that is not their first choice because it is less expensive;

(4) 53 percent would send their child to a school that is not their first choice because a financial aid award makes it less expensive;

(5) 48 percent would ask their child to live at home while attending college; and,

(6) 41 percent would ask their child to attend a community college and then transfer to a four-year college.

It is clear that many of these particular parents were very concerned about college affordability and were prepared to take some major steps to deal with the problem. What is not clear are what effects large numbers of parents taking such actions might have on future private or public college enrollments.

A 1992 survey of 17,000 parents of high school seniors by the National Center for Education Statistics examined, among other things, the parents' plans for financing their childrens' higher education (Miller, 1996). The survey found that one-third of parents had not yet begun to prepare for the costs of college and one-fourth had only begun saving within the three previous years. Of those who had saved for college, about one-third had saved between $1,000 and $5,000.

The parents anticipated using grants and scholarships (60 percent), work-study programs (47 percent), and loans (45 percent) to help pay for college. They did not express much willingness to go into debt for their children's educations. About one-third said they would not go into debt, while almost one-fourth said that they would borrow less than $2,500. Miller concluded that, "while most parents report that they do anticipate that their dependents will go to college, they do not appear in the aggregate to make the investments needed to make college a successful endeavor (Miller, 1995, p.4)". *These findings suggest that parental anxiety about affording college might be exacerbated by the fact that relatively few have done much to prepare for the costs.*

Education and college costs made the list of top worries in another study of American adults. **The Washington Post's** (1996) nationwide survey of adults' opinions on things that worried them a great deal showed that college costs ranked fourth. About 62 percent worried that the American educational system will get worse instead of better; about 61 percent worried that crime will increase; 61 percent worried that AIDS will become more widespread; and 58 *percent worried that a good college education is becoming too expensive.*

There is another direct indicator that college costs are becoming less affordable, the sharp increase in borrowing to meet those costs. For example, between FFY 1990 and FFY 1993, the number of students who received federal Stafford Loans and SLS Loans to attend public and private four-year colleges rose by 53 percent, from 1,766,000 to 2,703,000, and the amounts borrowed rose by 72 percent, from $7.8 billion to $13.44 billion (U.S. Department of Education, 1994).

Precise data on the numbers of borrowers and amounts borrowed by students at four-year colleges for more recent years were not available. However, the number of Stafford Loans made to all students in FFY 1996 was 42 percent greater, and the total amount borrowed was 60 percent greater, than the respective FFY 1993 figures (U.S. Department of Education, 1997). Decreasing proportions of loans and loan dollars are going to students at less-than-four-year institutions. Therefore, it is likely that over 3,800,000 students at four-year colleges got more than $21.5 billion last year. This would mean that, during this decade, the annual number of four-year college borrowers has grown by 115 percent while their annual amounts borrowed has increased by 176 percent.

The growth in borrowing has led to renewed concerns about the effects of education loan debt burdens on students after they leave college. For example, a 1995 study found that: (1) borrowing for college is increasing fastest among students at public colleges and universities; (2) students with the highest financial need are increasing their debt levels at faster rates than are other students; (3) students and families feel great anxiety about the burdens that student loans place on their lifestyle, career, and educational objectives; (4) the rising cost of college combined with additional loan debt will cause hardships for students and families; and (5) that student loan debt is a very serious problem for a significant number of students and families (The Education Resources Institute and The Institute for Higher Education Policy, 1995).

A 1994 symposium sponsored by the American Council on Education focused attention on the "explosion in student borrowing," the educational and societal implications of increased debt burdens, and the policy implications of increased borrowing (Galloway and Hartle, 1994). The symposium participants could not agree whether there was currently a student loan debt crisis for all borrowers or for only those who planned to enter careers with lower earnings potential or those professional school borrowers who had accumulated large debts. They generally concluded that if the trends in increased student borrowing extended very far into the future, it would result in detrimental effects to many borrowers and sharply reduce the benefits of their education for themselves and for society.[2]

Staff at USA Group, the nation's largest student loan guarantor, noted that borrowers left four-year colleges in 1996 owing an average cumulative student loan debt of $10,146, which was 15 percent more than the $8,858 average balance for borrowers who left in 1995 (USA

2 Concerns about student loan debt burdens did not arise in the 1990s. See for example, Janet S. Hansen's **Student Loans: Are They Overburdening A Generation** (1987) and the College Scholarship Service's **Colloquium on Student Loan Counseling & Debt Management** (1986).

Group, 1996). In spite of this sharp increase, USA Group reported that, "Most college graduates can successfully manage their student loans." This is because borrowers who owe as much as $12,500 would need annual incomes of only $22,749 for their monthly payments not to exceed the 8 percent debt-to-income ratio recommended by most lenders. A debt of $10,000 would require an annual income of just $18,199 to maintain the 8 percent debt-to-income ratio. However, if student loan debts continue to rise at the annual rate of 15 percent, it will not be long before many college graduates will find themselves with burdensome student loan debts.

That more families are having difficulty in meeting college costs is reflected in the fact that more parents are getting federal PLUS loans to help defray expenses. In 1987, only 286,000 parents accepted PLUS loans, in the average amount of $2,893. By 1995, over 790,000 parents got PLUS loans, in the average amount of $3,480 (U.S. Department of Education, 1995).

The evidence above indicates that meeting college costs is a growing problem, and perhaps a crisis for some students. However, other evidence suggests that rising college costs might not represent a crisis-level problem. First of all, more students were enrolled full-time in four-year colleges in 1995 than ever before (U.S. Department of Education, 1995). That enrollments grew at all is surprising, since the number of high school graduates dropped by almost 12 percent between 1985 and 1990. Then the number of high school graduates grew by about 10 percent between 1990 and 1995. *Therefore, although there generally were fewer high school students graduating each year, more students enrolled in college.*

In every state, greater proportions of high school graduates than ever before continued their education in 1994 (Davis, 1996). If college affordability had reached crisis proportions everywhere, one would expect decreasing percentages of high school graduates to enroll. Or, at the very least, one would not expect the percentage to increase. However, just the opposite happened.

Between 1985 and 1993, private college enrollments grew in all but six states (U.S. Department of Education, 1995). The six states included Arkansas, Connecticut, Maine, Ohio, South Carolina, and South Dakota. Since concerns about college costs heightened in the most recent years, it is perhaps more significant that private college enrollments grew in all but eleven states between 1990 and 1993: Alaska, Arkansas, Connecticut, Iowa, Louisiana, Mississippi, South Carolina, South Dakota, Tennessee, Vermont, and Virginia (U.S. Department of Education, 1995). If the nation is in the midst of a college affordability crisis, then enrollments at private colleges, where tuitions are much higher than at public colleges, should have fallen in recent years. But in the large majority of states they did not.

Enrollments might not have fallen because increased available financial aid to attend private colleges helped offset higher tuitions. This is likely the case. Increases in financial aid apparently reduced the growth in "net" tuitions (tuition costs after grant awards) for many students, or otherwise private college enrollments would not have grown.

It is possible that more students and parents became concerned about college affordability while simultaneously choosing to make greater sacrifices to meet the costs. Therefore, enrollments have not yet declined. Mortenson (1996) described the situation as one in which many students cannot afford to go to college because costs are so high and financial aid resources are not keeping pace with the growth in tuitions. However, at the same time, students cannot afford *not* going, because college graduates are likely to earn hundreds of thousands of dollars more than non-graduates during their lifetimes. Miller's (1997) research found that many parents strongly believe that college is vital to their children's success. Consequently, many students and parents sacrifice current living standards and/or accept loan indebtedness to invest in a college education they believe will yield significant payoffs. This might explain why affordability concerns have not yet resulted in drops in college attendance or overall decreases in college participation rates.

McPherson and Schapiro (1996) agreed that higher lifetime earnings for college graduates provide a substantial incentive to enroll despite rising costs. However, they reported that students from lower-income families are much more price-sensitive than students from middle- and upper-income families. Therefore, enrollment rates for the lower-income students have not grown as much as rates for other students. They wrote, "it appears that net tuition increases of $1,000 to $1,500 for middle- and upper-income students have not been enough to deter enrollment in the face of high economic returns to college (McPherson and Schapiro, 1996, p. 17)." They noted that Kane (1995) found that the gap in enrollment rates for students from families in the lowest income quartile and students from more affluent families grew by 12 percentage points between 1980 and 1993. Thus a great portion of the increase in college enrollment could be attributable to rising enrollment rates among the affluent and non-traditional age students.

Other data support Kane's assertion that access to college for lower income students is a growing problem. These data are displayed in Table 5, derived from original and updated data from a 1989 study (Davis and Johns, 1989). The table shows the percentages of freshmen from families with below-median incomes at different college types from 1966 through 1993. If the family incomes of college freshmen were representative of incomes of *all families with college-age children*, then 50 percent of freshmen would have incomes below the "all families" median income. But they do not.

The All Colleges column shows that the percentages of freshmen from families with incomes below the median rose from 34.6 percent in 1966 to 49.6 percent in 1981. In 1981, student access to colleges in general was apparently not heavily influenced by their family incomes. Since 1981, the percentage of freshmen with below-median incomes

TABLE 5

**Percentages Of Freshmen With Family Incomes Below The All Families Median, Select Years, By College Types**

| Years | Public Universities | Private Universities | Public 4-Year | Private 4-Year |
|---|---|---|---|---|
| 1966 | 22.9% | 21.1% | 46.1% | 26.6% |
| 1971 | 28.6 | 27.2 | 50.5 | 34.6 |
| 1976 | 34.6 | 30.3 | 48.3 | 32.9 |
| 1981 | 38.2 | 25.2 | 52.3 | 41.5 |
| 1986 | 32.2 | 25.2 | 43.4 | 37.7 |
| 1993 | 31.1 | 22.4 | 41.2 | 35.0 |

| Years | Public 2-Year | Protestant 4-Year | Catholic 4-Year | All Colleges |
|---|---|---|---|---|
| 1966 | 40.0% | 31.3% | 27.5% | 34.6% |
| 1971 | 54.0 | 41.1 | 38.8 | 45.6 |
| 1976 | 56.5 | 43.5 | 40.3 | 44.5 |
| 1981 | 58.4 | 49.4 | 42.5 | 49.6 |
| 1986 | 56.5 | 41.9 | 35.2 | 43.5 |
| 1993 | 57.5 | 38.5 | 36.4 | 42.6 |

has fallen, to 43.5 percent in 1986 and to 42.6 percent in 1993. The percentage has fallen least at public two-year colleges, from 58.4 percent to 57.5 percent. It has fallen most at public four-year colleges, from 52.3 percent to 41.2 percent, and at Protestant church-related four-year colleges, from 49.4 percent to 38.5 percent. Access for students with below-median incomes to most types of four-year colleges and universities apparently has diminished since 1981. Therefore, while college enrollments continue to grow, the evidence strongly suggests that the growth is not among students from less affluent families. For these students, there is an affordability crisis.

## College Reactions To Concerns About Affordability

College governing boards and administrators decide to increase tuitions and that leads to concerns about affordability. Many have recognized and responded to those concerns. Perhaps the best evidence of their response is found in increasing college expenditures on student financial aid. Between 1984 and 1993, colleges and universities increased the annual amounts of financial aid they awarded to their students by over 206 percent, from $3.67 billion to $11.24 billion (Barbett and Korb, 1995, 1996). Between 1990 and 1993 alone, the total aid dollars rose by about 49 percent, from $7.55 billion to $11.24 billion. The College Board estimated that institutional aid dollars rose by 21 percent between 1993 and 1995 (The College Board, 1996).

College spending on student aid grew at a much greater rate than did spending on all other budget items. Here are the percentage increases on student aid and all other Current Fund Expenditures(CFEs) between 1984 and 1993 and between 1990 and 1993:

| | 1984 to 1993 | 1990 to 1993 |
|---|---|---|
| Student Aid Expenditures | 206.3% | 48.9% |
| All Other Current Fund Expenditures | 87.9% | 17.0% |

College spending on student financial aid nationwide grew at more than double the rate of current fund spending on all other expense categories between 1984 and 1993. Even more significantly, between 1990 and 1993, college spending on financial aid grew by almost *triple* the rate of other expenditures.

In spite of the tremendous increase in spending on student aid, students and families were required to defray larger shares of college expenses with net tuition payments. The proportion of all college *expenditures* defrayed by net tuition revenues (tuition minus institutionally funded student aid) rose from 19.6 percent in 1984 to 21.6 percent in 1993. Here are the percentages of annual total CFEs covered by net tuition revenue from 1984 to 1993:

| | | | |
|---|---|---|---|
| 1984 | 19.6% | 1989 | 20.3% |
| 1985 | 19.5% | 1990 | 20.4% |
| 1986 | 19.7% | 1991 | 20.8% |
| 1987 | 19.8% | 1992 | 21.3% |
| 1988 | 20.1% | 1993 | 21.6% |

These data show that a major reason college tuitions rose is that tuition revenue was asked to cover larger portions of total CFEs. Furthermore, the annual *increases* in percentages of expenditures defrayed by net tuition revenues were higher in the three most recent years (which might have contributed to heightened concerns expressed in the media).

Colleges have done other things to offset higher tuitions. A recent GAO report identified some strategies colleges (and states) are using to address affordability (Joyner, 1996). Some colleges have tried to cut their costs by helping students reach graduation more quickly. Colleges are doing this through improved academic advising, limiting the number of required credits for graduation, and helping students avoid having to take remedial courses by giving high school students a clearer understanding of what is needed to prepare for college-level work. A recent survey by the National Association of State Universities and Land Grant Colleges found that 82 percent of public four-year colleges had left administrative or staff positions unfilled or cut, 76 percent had deferred building repairs or rehabilitation, and 67 percent had made changes in budgeting practices to increase accountability (Henderson, 1996)

## Why College Costs Are Rising

Even though colleges have increased spending on student aid at more than double the rate of increase in all other expenditures, students and families are paying a growing share of all college expenditures. Why is this the case? Why are college expenditures rising, and why must students and families pay larger shares of those costs?

At the beginning of this decade, Hauptman (1990) conducted a study of such questions and made his report to The College Board and the American Council on Education. In **The College Tuition Spiral,** he identified and tested five basic hypotheses on the rise of college costs:

(1) Colleges face increasing prices for what they purchase.

(2) Colleges are using tuition increases to finance expanded or improved services.

(3) The share of revenue from sources other than tuition is contracting.

(4) Increased availability of student aid has led colleges to raise their student charges.

(5) Competitive pressures have convinced many colleges to increase tuitions.

Hauptman concluded that the strongest factor underlying growth in *public* college tuitions was the slowing of state funding. As states spent funds on other things, such as health care, welfare, and prisons, public colleges were forced to raise tuitions to make up for the shortfall. The primary cause of growth in *private* college tuitions in the 1980s was the need to pay for improved facilities and services, higher faculty salaries, and more student aid.

About both the public and private sectors, Hauptman wrote, "the decline in the traditional college-age group in the 1980s...has been a major influence on recent tuition increases. Level enrollments have made it more difficult for institutions to spread their fixed costs over growing numbers of students, thereby contributing to pressures to raise tuitions. Increased spending for recruitment and retention of non traditional students also has contributed to higher costs (Hauptman, 1990, pp. 11-12)."

Regarding his major hypotheses, Hauptman concluded that:

> (1) Colleges were paying more for the goods and services they purchased, including salaries and benefits for their faculty and other employees.
>
> (2) There was evidence in the form of higher expenditures per student that colleges increased the amounts of goods and services they provided students.
>
> (3) Reduced revenue from endowments and private gifts was not a major factor in tuition growth in the 1980s, but losses of government appropriations, especially from the states, influenced the rate of increase in tuitions.
>
> (4) Increased availability of federal student aid had little to do with increases in tuitions and other charges. In fact, real losses in federal student aid led to higher tuitions because more colleges tried to compensate for those losses with institutionally funded aid. Most of the funds for that aid came from tuition revenue rather than endowment earnings or other sources.
>
> (5) Many colleges, especially private ones, decided to compete for students on the basis of improved facilities and services, which they paid for by increasing their tuitions.

Hauptman described how colleges were unlike other "industries" in that competition drove prices upward, not downward:

> "In general, colleges in the 1980s tended to increase their prices as competition for students intensified. One reason for this is that some leading institutions in the late 1970s and early 1980s apparently concluded that they were underpriced relative to their market value, and that many students and their families could and would pay more than they were being charged. This kind of pricing strategy could be justified as long as student aid budgets also were increased, so that needy students would not be denied the opportunity to attend as a result of higher sticker prices (Hauptman, 1990, page 19)."

Hauptman's conclusions about the tuition spiral generally were accepted by the higher education community and by many if not most public policy-makers. How have these hypotheses and conclusions held up since his report?

Patterns of funding from endowment income and private gifts, grants, and contracts remained stable between 1984 and 1993, representing approximately the same proportions of revenue each year. But state government funding of colleges continued to shrink. Between 1984 and 1993, state appropriations fell from 28.5 percent to 21.1 percent of total current funds revenues (Barbett and Korb, 1995, 1996). Had state appropriations continued to play the same role in college financing during these eight years, 1993 appropriations would have been 35 percent greater than the actual amount. (This would have meant tuitions could have been 27 percent *lower* than they actually were in 1993.)

The prices of goods and services colleges purchase continued to grow at a higher rate than inflation. Between 1984 and 1993, the Higher Education Price Index (HEPI) rose at an average annual rate of about 4.7 percent.[3] During this same time period, the CPI rose by only 3.7 percent per year. Therefore, since it cost colleges more to operate, it is logical to expect at least some of those costs to be transferred to students in the form of higher tuitions.

Between 1984 and 1993, total Current Funds Expenditures (CFEs) for all colleges rose from $89.9 billion to $173.3 billion (Barbett and Korb, 1995, 1996). At the same time, full-time-equivalent enrollments grew by 15.6 percent. If college expenditures had grown *only in proportion to the enrollment increase between 1984 and 1993*, the colleges would have spent $104 billion, rather than over $173 billion. But expenditures also were affected by inflation. When the effects of increased enrollment *and inflation* are considered, total CFEs should have been about $156 billion--if the colleges had *not* spent more money on services and programs for students and other clients. *But actual college expenditures grew 10.9 percent more than expected solely due to inflation and enrollment increases.*

Figure 1 on page 20 graphically displays the effects of rising enrollments, inflation, and "additional" expenditures on CFEs for all colleges. The bottom portion of the figure shows how CFEs would have grown if they had risen only at the rate of increase in enrollments. The middle portion shows how CFEs would have grown if they had only needed to compensate for changes in enrollments *and inflation*. It is readily apparent that inflation added the largest portion of dollars to the CFEs during the years under analysis. The top portion shows the "additional" CFE dollars, i.e., those spent beyond amounts needed to cover the effects of inflation and rising enrollments. After a rather constant increase between 1984 and 1990, the gap started to widen in 1991 and has grown since then.

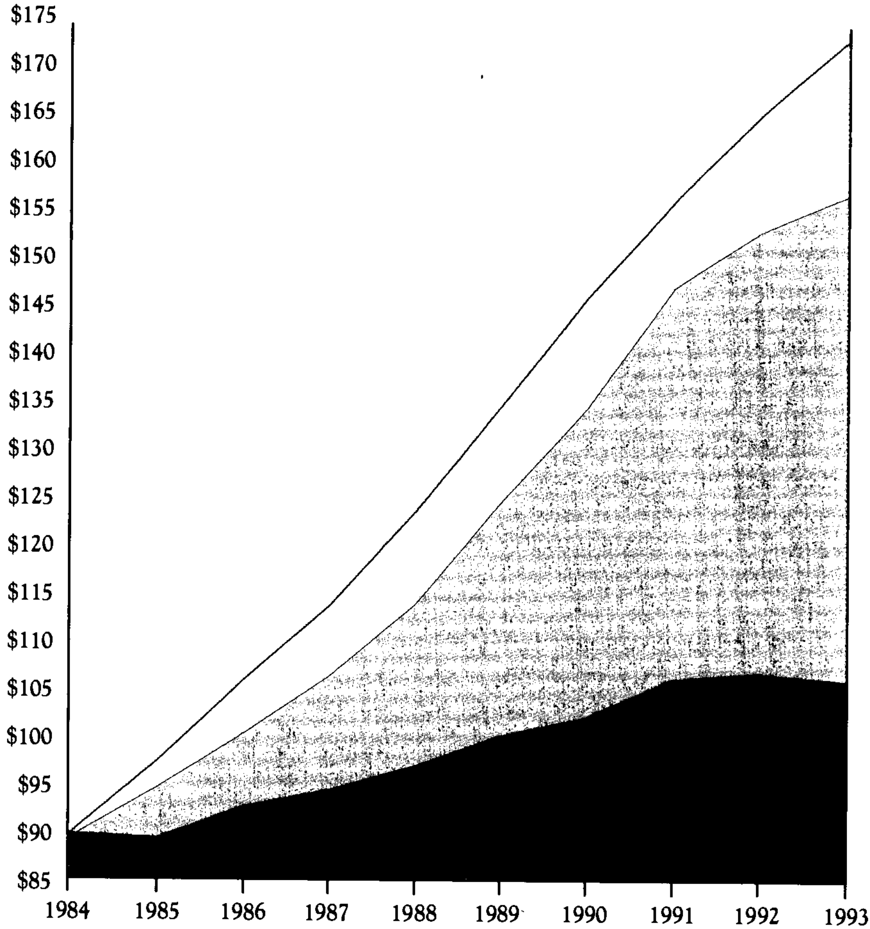
In 1984, tuition revenue totaled $21.28 billion and represented about 23.7 percent of total college expenditures. Suppose college spending had risen only at the rate of inflation and enrollment increases, and tuition revenue continued to defray the same 23.7 percent of expenditures. Then, in 1993 tuition revenues would have totaled $37.09 billion ($156.48 X .237 = $37.086). But expenditures actually rose to $173.3 billion. Suppose tuition revenue covered 23.7 percent of the *actual* expenditures. It then would have represented about $41.1 bil-

[3] The Higher Education Price Index was developed in the 1970s to provide a government statistic to measure changes over time in the price of goods and services colleges must purchase to operate.

FIGURE 1

Total Actual and Adjusted Current Fund Expenditures By All Colleges, 1984-85 to 1993-94

(Dollars in Billions)




☐ Actual CFE

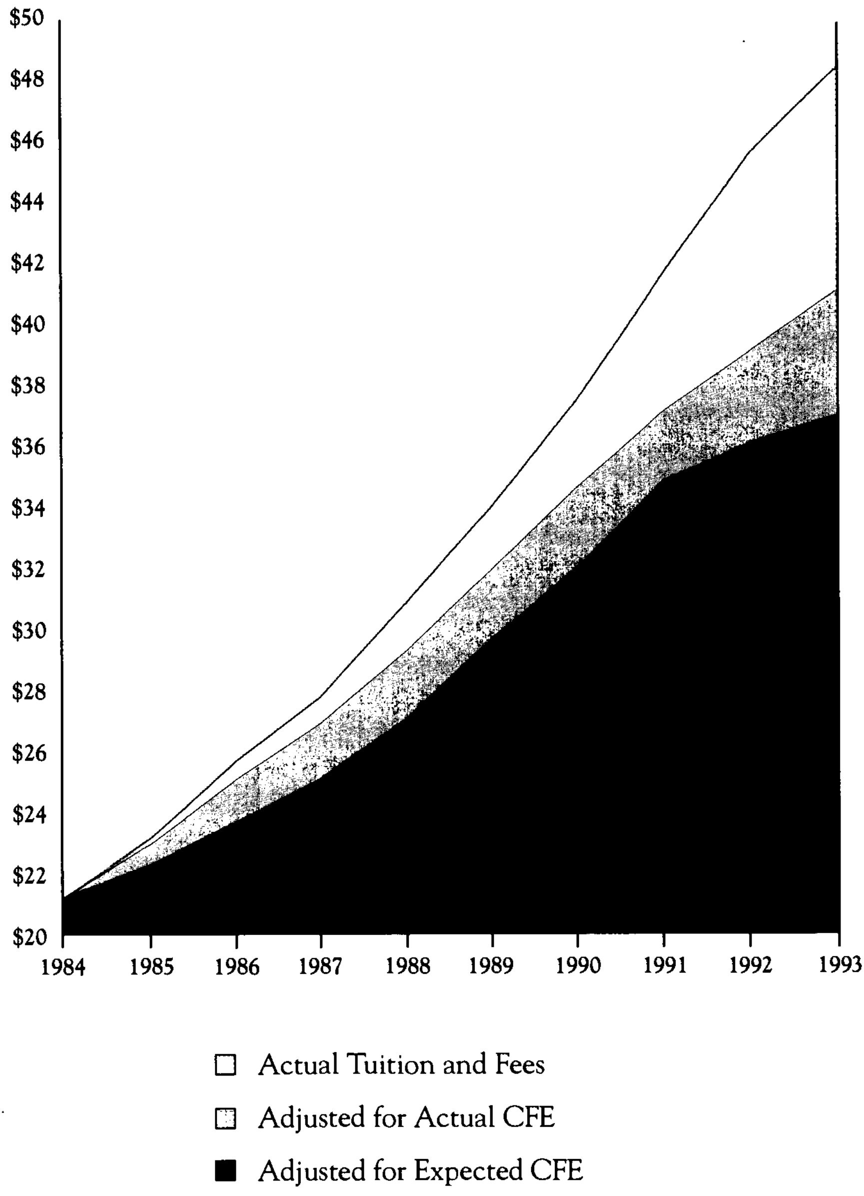
☐ Adjusted for Enrollment and Inflation

■ Adjusted for Enrollment

FIGURE 2

**Total Actual and Adjusted Tuition and Fee Revenue For All Colleges, 1984-85 to 1993-94**

**(Dollars in Billions)**



lion. Therefore, additional spending by colleges added about $4.01 billion to student tuition changes ($41.10 - $37.09 = $4.01).

But the actual tuition revenue in 1993 was $48.6 billion, or $7.5 billion more than the "expected" $41.1 billion *after the effects of inflation and enrollments are considered*. Therefore, the loss of state appropriations (and revenue from other sources) likely drove tuitions up by another $7.5 billion ($48.6 - $41.1 = $7.5). Thus tuition revenue was $11.5 billion more than it would have been if colleges had not increased their spending *and if* their revenue from other sources, particularly appropriations from states, had not diminished.

Figure 2 on page 21 illustrates how tuition and fee revenue was affected by increases in CFEs. The bottom portion of the graph shows how much revenue would have been needed to continue to defray a constant percentage of CFEs if expenditures rose only at the rates of inflation and enrollments. The middle portion shows how much revenue would have been needed to cover a constant percentage of the growth in the *actual* CFEs. The top portion of the graph shows the additional amounts of tuition and fee revenue that were the consequence of passing a greater share of CFEs on to students and their parents.

It is apparent that even if tuition had continued to defray a constant percentage of CFEs, inflation in those expenditures would have resulted in substantial growth in tuition charges. About 56 percent of the total growth in tuition revenue between 1984 and 1993 can be attributed to inflation and enrollment growth, 19 percent can be attributed to spending beyond amounts needed to match inflation, and the remaining 25 percent is attributable to tuitions defraying a greater share of college expenditures.

Public and private colleges have very different revenue structures, with private colleges receiving proportionately twice as many dollars from tuition and fee revenue. Therefore, it is appropriate to separate the data for the two college types and then examine what happened between 1984 and 1993. Because tuition and fee revenue are used in part to offset tuition costs to students with financial aid, it also is important to examine net tuition revenues. Table 6 displays the data.

Between 1984 and 1993, FTE enrollments grew by almost 17 percent at public colleges and by 12 percent at private colleges. Current Funds Expenditures (CFEs) grew by much higher rates, 87 percent and 102 percent, respectively. Tuition revenue at both types of colleges grew faster than CFEs, as did financial aid from the colleges. At public colleges, net tuition revenue grew by almost 131 percent while gross tuition revenue grew by 142 percent. At the private colleges, net tuition revenue grew much more slowly than tuition revenue, 102 percent versus 121 percent. *That net tuition revenue grew more slowly indicates that institutional financial aid kept pace with rising costs.*

The bottom half of Table 6 shows how increased enrollments and inflation in the HEPI affected both types of colleges. If the public colleges had increased their spending at just the *combined* rate of inflation in enrollments and costs, they could have spent about 5 percent *less* in

TABLE 6

**Comparisons of Current Funds Expenditures, Tuition Revenue, and Net Tuition Revenue, By College Types, 1984-85 and 1993-94 (dollar amounts in billions)**

| | Public Colleges | | | Private Colleges | | |
|---|---|---|---|---|---|---|
| | 1984 | 1993 | Change | 1984 | 1993 | Change |
| Current Funds Expenditures | $58.3 | $109.3 | + 87.5% | $31.6 | $64.0 | +102.5% |
| Tuition Revenue | $ 8.6 | $ 20.8 | +141.9% | $12.6 | $27.8 | +120.6% |
| Financial Aid | $ 1.4 | $ 4.2 | +200.0% | $ 2.3 | $ 7.0 | +204.3% |
| Net Tuition Revenue | $ 7.2 | $ 16.6 | +130.6% | $10.3 | $20.8 | +101.9% |

Source: Barbett and Korb (1995)

| | Public Colleges | Private Colleges |
|---|---|---|
| CFE Adjusted For Enrollment and Inflation | $102.94 | $53.54 |
| Tuition Revenue For Adjusted CFE | $ 15.27 | $21.38 |
| Expected TR For Actual CFE | $ 16.21 | $25.56 |
| TR Change Due to Spending | $ 0.94 | $ 4.18 |
| Percent TR Change For Spending | + 6.2% | +19.5% |
| TR Change Due to Cost Shift | $ 4.62 | $ 2.26 |
| Percent TR Change Due to Cost Shift | + 28.5% | + 8.8% |
| Net Tuition Revenue For Adjusted CFE | $ 12.83 | $17.50 |
| Expected NTR For Actual CFE | $ 13.63 | $20.92* |
| Net TR Change Due to Spending | $ 0.80 | $ 3.30 |
| Percent Net TR Change For Spending | + 6.2% | +18.8% |
| Net TR Change Due to Cost Shift | $ 2.98 | (0.12) |
| Percent Net TR Change Due to Cost Shift | + 21.9% | – 0.7% |

* Note: Since expected Net Tuition Revenue was higher than actual NTR, the increase due to spending was: $20.80 - $17.50 = $3.30

1993, $103 billion versus $109 billion. Private colleges could have spent 16 percent less, $53.5 billion versus $64 billion. So both types of colleges spent more than was expected simply due to effects of inflation and enrollment increases.

If tuition revenue at public colleges had covered the same proportion of CFEs in 1993 as in 1984, 14.8 percent, *and public college expenditures grew at just the rate of inflation and enrollment increases*, then they could have charged students $15.27 billion in tuition ($102.94 X 0.148 = $15.27). If public colleges had charged the 1984 proportion of *actual* CFEs to tuitions in both years, then tuitions would have cost students $16.21 billion ($109.3 X 0.148 = $16.2). Therefore, additional spending resulted in a 6 percent increase in tuition charges ($16.21 versus $15.27).

However, the public colleges actually charged students $20.83 billion for tuition in 1993, which was $4.62 billion more than was needed to cover additional spending ($20.83 - $16.21 = $4.62). Therefore, it can be said that tuition charges were 28 percent greater than necessary to have covered inflationary spending, because the colleges shifted greater proportions of their costs to their students ($4.62 divided by $16.21 = 0.285).

Similar comparisons were made for net tuition revenue. Net tuition revenue increased by 6 percent due to additional spending. But it grew by 21.9 percent as a consequence of shifting greater proportions of costs to students. Put another way, net tuition revenue grew by $3.8 billion ($16.6 - $12.8 = $3.8) with 22 percent of that growth due to additional spending and 78 percent due to transferring larger shares of costs to students.

At the private colleges, the increase in tuition revenue needed to cover additional spending was 19.5 percent, versus only 6.2 percent at public colleges. The increase in private college tuition revenue due to shifting costs to students was only 8.8 percent, versus 28.5 percent at public colleges. However, when the data for *net* tuition revenue are examined, it is found that net revenues were 18.8 percent greater due to additional spending. Moreover, net tuitions were *not* increased because a growing share of costs were shifted to students. *Tuition revenues actually were 0.7 percent less than they would have been if all cost increases had been transferred to private college students.*

There were very different explanations for changes in net tuition revenue at public and private colleges. At public colleges, only 22 percent of the increase in charges was due to increased spending but 78 percent was due to transferring a greater share of costs to students. At private colleges, 100 percent of the increase was due to additional spending with none of the increase attributable to shifting greater *shares* of costs to students. Students had to pay greater costs, but not a greater *share* of the increased costs.

Another way of comparing the data for public and private colleges is to examine the percentages of CFEs covered by *net tuitions* in both years:

| | 1984-85 | 1993-94 | Difference |
|---|---|---|---|
| Public Colleges | 12.5% | 15.2% | +2.7% |
| Private Colleges | 32.6% | 32.5% | -0.1% |

Private college students had to pay slightly *smaller* shares of their colleges' CFEs with net tuition in 1993 than in 1984. The public college students had to pay considerably *larger* shares in 1993 than in 1984.

Both types of colleges collectively increased spending more than was expected from increased enrollments and inflation of the HEPI index. What types of expenditures grew the most? Table 7 shows that the largest percentage increases were as follows:

| *Public Colleges* | | *Private Colleges* | |
|---|---|---|---|
| Financial Aid | 200% | Financial Aid | 204% |
| Research | 120% | Public Service | 200% |
| Public Service | 104% | Mandatory Transfers | 125% |
| Mandatory Transfers | 100% | Student Services | 113% |
| Student Services | 96% | Research | 104% |

The fastest growing expenditure areas were the same for both types of colleges. Both types of colleges placed very high emphasis on increasing their student financial aid expenditures. In three other expenditure areas that most directly affect students--instruction, academic support and student services--the public colleges increased spending by 79 percent, from $27.3 billion to $49.0 billion, and private colleges increased expenditures by 102 percent, from $11.8 billion to $23.9 billion.

The public colleges collectively increased spending on construction, academic support, and student services by just 1 percent more than would have been expected on the basis of larger enrollments and inflation, $49.0 billion versus $48.2 billion. However, private college spending exceeded expectations by 19 percent, $23.9 billion versus $20.0 billion. No research evidence was available to determine whether additional spending improved the programs and services to students. However, that enrollments increased during this time period suggests that the programs and services became more attractive to many students.

These findings on trends in college finance support the observation that many private colleges decided to compete for students on the basis of programs and services, raised tuitions to support improvements in those areas, and increased expenditures on financial aid to try to ameliorate the effects of tuition increases on enrollments.

TABLE 7

**Current Funds Expenditures of Public and Private Colleges, By Purpose, 1984-85 to 1993-94 (dollar amounts in billions)**

| | Public Colleges | | | Private Colleges | | |
|---|---|---|---|---|---|---|
| | 1984 | 1993 | Change | 1984 | 1993 | Change |
| Instruction | $20.3 | $35.7 | + 76% | $ 8.5 | $17.1 | +101% |
| Research | 5.1 | 11.2 | +120 | 2.4 | 4.9 | +104 |
| Public Service | 2.3 | 4.7 | +104 | 0.5 | 1.5 | +200 |
| Academic Support | 4.3 | 8.0 | + 86 | 1.8 | 3.6 | +100 |
| Student Services | 2.7 | 5.3 | + 96 | 1.5 | 3.2 | +113 |
| Institutional Support | 5.2 | 9.3 | + 79 | 3.4 | 6.6 | + 94 |
| Operation and Maintenance | 5.0 | 7.4 | + 48 | 2.3 | 3.9 | + 70 |
| Financial Aid | 1.4 | 4.2 | +200 | 2.3 | 7.0 | +204 |
| Mandatory Transfers | 0.6 | 1.2 | +100 | 0.4 | 0.9 | +125 |
| All Other Items | 11.4 | 22.3 | + 96 | 8.5 | 15.3 | + 80 |
| E&G Expenditures | $46.9 | $ 87.1 | + 86% | $23.2 | $48.9 | +111% |
| Total Expenditures | $58.3 | $109.3 | + 87% | $31.6 | $64.0 | +102% |

Source: Barbett and Korb (1995, 1996)

## Increasing Tuition Discounts

Increasing numbers of four-year private colleges chose to "discount" larger shares of tuitions by awarding grants and scholarships. The practice was most common among colleges with between 1,000 and 2,000 students and also tuitions in excess of $10,000. Table 8 shows the median tuition "discount" percentages of four-year private colleges in 1988 and 1993, by enrollments.[4]

In 1988, the median discount percentage was 14 percent for all four-year private colleges and universities. In that year, the colleges with the highest median discount percentages had tuitions over $15,000 and

[4] The "discount percentage" is simply the dollars of financial aid expenditures divided by total tuition revenues.

enrolled between 1,000 and 2,000 students, 22.7 percent; tuitions over $15,000 and enrolled over 2,000 students, 17.5 percent; and, tuitions between $10,000 and $15,000 and enrolled between 1,000 and 2,000 students, 17.4 percent.

By 1993, the median discount percentage had risen to almost 18 percent. In that year, the colleges with the highest discount percentages had tuitions above $10,000 and fewer than 2,000 students. The colleges with the greatest *increases* in median discount percentages were colleges with below 1,000 students with tuitions over $15,000, from 15.4 percent to 31.7 percent; colleges with enrollments between 1,000 and 2,000 with tuitions between $10,000 and $15,000, from 17.4 percent to 26.0 percent; and colleges with enrollments between 1,000 and 2,000 with tuitions over $15,000, from 22.7 percent to 31.2 percent.

Even more revealing data are displayed in the bottom half of Table 8, in the form of percentages of four-year private colleges with 30 percent or larger discounts. In 1988, only 8.1 percent had such high tuition discount levels. By 1993, the proportion had risen to 18.8 percent. Over half the colleges with $15,000 tuitions and fewer than 1,000 students had tuition discounts of 30 percent or more. Over one-third of the colleges with tuitions between $10,000 and $15,000 and *under* 2,000 students and those colleges with $15,000 tuitions and *over* 2,000 students discounted their tuitions by 30 percent or more.

These data suggest that colleges with $10,000 or higher tuitions and relatively few students (i.e., fewer than 2,000) decided to raise tuitions and discount them with student aid to compete with larger private colleges. Many of these private colleges may soon reach levels of discounted tuitions that seriously stress their financial situations. A few already are spending half as much on student financial aid as they are on instruction. Thus instructional quality may be sacrificed to spending on tuition discounts in an attempt to compete with the larger, more prestigious private colleges.

These data on Current Funds Expenditures, revenues, tuitions, and net tuitions indicate that four of Hauptman's conclusions still apply as reasons for rising college tuitions. A fifth conclusion, that availability of federal student aid had little to do with increases in tuitions, continues to be supported by the data. Here is how tuition and federal student aid increased between 1985 and 1990, and then between 1990 and 1995, by college types:

| | *1985 to 1990* | *1990 to 1995* |
|---|---|---|
| 4-Year Private College Tuition | 48.4% | 34.7% |
| 4-Year Public College Tuition | 43.2% | 50.7% |
| Federal Student Financial Aid | 33.4% | 77.7% |
| Federal Grant Aid | 23.7% | 22.1% |

TABLE 8

**Median Tuition Discount Percentages and Percentages of Colleges With 30 Percent or Larger Tuition Discounts, Four-Year Private Colleges, By Tuitions and Enrollments, 1988 and 1993**

**Median College Discount Percentage**

| | Below 1,000 | | 1,000 to 1,999 | | 2,000 or More | | All Sizes | |
|---|---|---|---|---|---|---|---|---|
| Tuitions | 1988 | 1993 | 1988 | 1993 | 1988 | 1993 | 1988 | 1993 |
| Under $7,000 | 12.6% | 12.5% | 10.0% | 13.9% | 6.3% | 6.9% | 9.5% | 10.6% |
| $7,000 - $9,999 | 15.6 | 20.3 | 14.0 | 18.2 | 11.5 | 14.8 | 13.6 | 17.6 |
| $10,000 - $14,999 | 16.3 | 23.7 | 17.4 | 26.0 | 13.3 | 18.6 | 14.8 | 21.2 |
| $15,000 Plus | 15.4 | 31.7 | 22.7 | 31.2 | 17.5 | 23.5 | 19.0 | 26.5 |
| All | 13.9% | 15.5% | 16.2% | 20.7% | 12.9% | 17.3% | 14.0% | 17.9% |

**Percentages Of Colleges With 30% or Larger Discounts**

| | Below 1,000 | | 1,000 to 1,999 | | 2,000 or More | | All Sizes | |
|---|---|---|---|---|---|---|---|---|
| Tuitions | 1988 | 1993 | 1988 | 1993 | 1988 | 1993 | 1988 | 1993 |
| Under $7,000 | 12.0% | 16.5% | 14.3% | 17.5% | 0.0% | 4.0% | 9.6% | 14.0% |
| $7,000 - $9,999 | 17.0 | 21.1 | 8.0 | 10.7 | 1.1 | 5.7 | 9.5 | 13.3 |
| $10,000 - $14,999 | 18.8 | 36.2 | 6.0 | 38.2 | 1.4 | 4.9 | 6.9 | 22.5 |
| $15,000 Plus | 0.0 | 58.3 | 10.0 | 35.0 | 1.5 | 22.1 | 4.2 | 36.7 |
| All | 14.9% | 21.7% | 8.5% | 26.4% | 1.1% | 7.9% | 8.1% | 18.8% |

Source: Federal IPEDS Survey Data, FY1988 through FY1993.

Federal student financial aid grew by 33 percent between 1985 and 1990 while private college tuitions grew by 48 percent and public college tuitions grew by 43 percent. Then, when growth in federal aid more than doubled in the latter five-year period, private college tuition growth slowed. While federal aid grew by almost 78 percent, public college tuitions grew by only 7.5 percent more than when federal aid was growing by 33 percent. Federal *grant* aid grew at roughly the same rate during both time periods. Thus it appears that tuition increases still are unrelated to increases in federal student aid.

## Changes In Federal Student Aid

Since the federal government is the largest source of student financial aid for four-year college students, it is appropriate to more closely examine the growth in these resources. Table 9 displays the estimated total "generally available" federal aid awarded to public and private four-year college students between the 1982 and 1993 academic years.[5] The

TABLE 9

**Estimated Total Generally Available Federal Aid to Four-Year College Students, Pell Grants and SEOG Aid, and Percent Grant Aid, By College Types, Academic Years 1982-83 to 1993-94**

*(dollar amounts in millions)*

| | Public Colleges | | | Private Colleges | | |
|---|---|---|---|---|---|---|
| | Total Aid | Pell and SEOG | Percent Grants | Total Aid | Pell and SEOG | Percent Grants |
| 1982 | $ 4,349 | $1,085 | 24.9% | $3,986 | $ 787 | 19.7% |
| 1983 | 4,719 | 1,216 | 25.8 | 4,353 | 842 | 19.3 |
| 1984 | 5,114 | 1,303 | 25.5 | 4,466 | 858 | 19.2 |
| 1985 | 5,296 | 1,491 | 28.2 | 4,516 | 959 | 21.2 |
| 1986 | 4,770 | 1,400 | 29.4 | 4,437 | 883 | 19.9 |
| 1987 | 4,979 | 1,478 | 29.7 | 5,005 | 923 | 18.4 |
| 1988 | 5,762 | 1,775 | 30.8 | 5,514 | 1,080 | 19.6 |
| 1989 | 6,169 | 1,898 | 30.8 | 5,742 | 1,142 | 19.9 |
| 1990 | 7,000 | 1,936 | 27.6 | 6,413 | 1,165 | 18.2 |
| 1991 | 8,204 | 2,258 | 27.5 | 7,340 | 1,348 | 18.4 |
| 1992 | 8,989 | 2,473 | 27.5 | 7,777 | 1,442 | 18.5 |
| 1993 | 12,168 | 2,315 | 19.0 | 9,012 | 1,359 | 15.1 |

Note:"Total Aid" includes Pell Grants, SEOG Grants, CWSP Awards, Perkins Loans, Stafford Loans, SLS Loans, and PLUS Loans.
Source:The College Board, Trends in Student Aid, 1982 to 1992 and Trends in Student Aid, 1986 to 1996

[5] Generally available aid is defined as aid from programs with the most liberal eligibility criteria. Therefore, the aid is "generally available" to students regardless of their academic merit, program of study, year in school, or type of postsecondary educational institution. In 1995-96, the programs identified in Table 9 provided over 94 percent of total federal aid to all students at all postsecondary institutions.

total aid columns include aid from the federal Stafford Loan, Perkins Loan, and PLUS Loan programs; the Federal Work-Study program; and the Pell Grant and SEOG Grant programs. Between 1982 and 1993, this federal aid to public college students grew by over 180 percent, from about $4.3 billion to nearly $12.2 billion. Federal aid to private college students grew by over 125 percent, from just under $4 billion to just over $9 billion.

Because Pell Grant and SEOG Grant awards do not have to be repaid, nor do they require employment in exchange for the assistance, they represent the most valuable types of federal student aid. Aid from these two programs grew by 113 percent at the four-year public colleges and by 73 percent at the four-year private colleges.

Between 1982 and 1989, from 25 to 30 percent of the federal aid to the public college students came from the Pell Grant and SEOG Grant programs. Just under 20 percent of the generally available federal aid to private college students was from these two programs. However, during the 1990s, the *proportion* of federal aid in the form of grant assistance decreased substantially at both types of colleges. Between 1989 and 1993, total aid at the public colleges grew by 97 percent, but grant aid grew by only 22 percent. The respective percentages at the private colleges were 57 percent and 19 percent. Growing amounts and shares of federal student aid are in the form of long-term loans that must be repaid. This trend continued through the 1996-97 academic year.

Changes in enrollment could have made the growth in total aid less valuable if enrollments grew faster than aid and, therefore, more students needed assistance. Table 10 accounts for changes in enrollment by describing aid in terms of federal aid per full-time undergraduate student.[6] Between 1982 and 1993, federal aid per student increased by 153 percent at the public colleges, from $1,359 to $3,439, and by 118 percent at the private colleges, from $2,582 to $5,638. So the *per student aid* grew at slower rates than the *total aid* at both types of colleges: 153 percent versus 180 percent at the public colleges, and 118 percent versus 126 percent at the private colleges.

The Table 10 columns displaying federal aid as a percent of average costs show how per student aid changed with regard to costs. Between 1982 and 1985, federal aid at the public colleges represented 42 percent to 43 percent of average costs. Then the percentage dipped to 35.9 percent in 1986 and stayed below 38 percent through 1990. In 1991

6 The figures for federal aid per student are slight over estimates of the actual amounts of available aid to full-time undergraduates. This is because between 10 percent and 15 percent of the total federal aid each year is awarded to part-time students and graduate/professional school students. There was no way of estimating what percent of the aid went to such students evety year. So it was assumed that all the federal aid went to full-time undergraduates. While this means that the "per student" amounts are 10 to 15 percent greater than the actual amounts, the decision did not significantly affect the ability to assess the observed trends in per student aid.

TABLE 10

**Estimated Average Federal Aid Per Full-Time Undergraduate, Average Total Costs, and Federal Aid As A Percent of Total Costs, By Four-Year College Types, 1982-83 to 1993-94 Academic Years**

| | Public Colleges | | | Private Colleges | | |
|---|---|---|---|---|---|---|
| | Total Available | Average Costs | Percent of Costs | Total Aid | Average Costs | Percent of Costs |
| 1982 | $1,359 | $3,196 | 42.5% | $2,582 | $7,126 | 36.2% |
| 1983 | 1,460 | 3,433 | 42.5 | 2,994 | 7,759 | 38.6 |
| 1984 | 1,600 | 3,682 | 43.5 | 3,086 | 8,451 | 36.5 |
| 1985 | 1,660 | 3,859 | 43.0 | 3,140 | 9,228 | 34.0 |
| 1986 | 1,485 | 4,138 | 35.9 | 3,075 | 10,039 | 30.6 |
| 1987 | 1,512 | 4,403 | 34.3 | 3,428 | 10,659 | 32.2 |
| 1988 | 1,704 | 4,678 | 36.4 | 3,632 | 11,474 | 31.6 |
| 1989 | 1,782 | 4,975 | 35.8 | 3,763 | 12,284 | 30.6 |
| 1990 | 1,976 | 5,243 | 37.7 | 4,141 | 13,237 | 31.3 |
| 1991 | 2,295 | 5,695 | 40.3 | 4,669 | 14,273 | 32.7 |
| 1992 | 2,519 | 6,020 | 41.8 | 4,873 | 15,009 | 32.4 |
| 1993 | 3,439 | 6,365 | 54.0 | 5,638 | 15,904 | 35.4 |

and 1992, the percentage of costs represented by federal aid returned to the levels of the early 1980s. Then, in 1993, it shot up to 54 percent, because of increased borrowing.

There was a somewhat similar pattern observed at the private colleges. Between 1982 and 1985, federal aid represented about 36 percent of costs. Then it dropped to 30.6 percent in 1986, climbed a little to 32.2 percent in 1987, and then stayed under 31 percent through 1990. In 1991 and 1992 it rose to over 32 percent and then it rose again, to 35.4 percent in 1993, due to increased borrowing by students and parents.

Because precise amounts of federal aid that went only to four-year public and private colleges in the years since 1993 were unavailable, it was impossible to estimate what the percentages might be in more recent years. However, total generally available federal aid to students at all postsecondary institutions rose by 20 percent between 1993 and 1995. Therefore, it is virtually certain that the percentages of costs represented by federal aid at both types of four-year colleges were higher in 1995 than in 1993. (It is also likely that the percentages for 1996 were higher still.)

It is reasonable to conclude that growth in federal aid *in toto* more than kept pace with growth in undergraduate enrollments and costs at four-year *public* colleges during the 1990s. It is also reasonable to conclude that per student federal aid represented a greater percentage of average costs in recent years than it did during the 1980s.

The picture at the four-year *private* colleges is not as clear. Federal aid represented a growing percentage of average costs at the private colleges during the 1990s. The percentage is very likely larger now than it was in the *late* 1980s. But it is not clear that the percentages in the most recent years are greater than those of the *early* 1980s. Therefore, the most reasonable (or cautious) conclusion is that federal aid at the private colleges has nearly kept pace with growth in costs and enrollments but it very likely defrays a slightly smaller proportion of average student costs now than in the 1980s.

It is argued that the growth in federal aid has been mostly in the loan programs and that growth in grant aid has lagged far behind the demand for it (e.g., Mortenson, 1996). The concern is that students must borrow more to meet their costs of attendance, so their total educational costs are much higher. This, in turn, may have created a financial barrier to some students, especially those from lower-income families. Between 1982 and 1992, the per student Pell Grant and SEOG Grant rose by 103 percent, from $341 to $693, at the public colleges and by 77 percent, from $510 to $904, at the private colleges (see Appendix Table A-4). In 1982, per student grant aid at the public colleges represented 10.7 percent of average costs. By 1992 the proportion had risen to 11.5 percent. *So it appears that federal grant aid did keep fairly close pace with growth in enrollments and costs at the four-year public colleges during that ten-year period.*

The situation at the four-year private colleges was not as good. In 1982, per student grant aid represented 7.1 percent of total average costs at the private colleges. The percentage stayed above 7 percent until 1986, when it decreased to 6.1 percent. It stayed between 5.7 percent and 6.2 percent from 1987 to 1992. Federal grant aid apparently did *not* keep pace with growth in enrollments and costs at the four-year private colleges during the late 1980s and early 1990s.

What has happened since 1992? It is very likely that the percentages shrunk at both types of colleges between 1992 and 1995, because total Pell Grant and SEOG Grant aid to all postsecondary students *decreased* by 11 percent (The College Board, 1996). So those who are concerned that federal grant aid has not kept pace with the demand for it are correct in that rising costs and enrollments have diminished the value of federal grant aid.

But what effect might this loss of grant aid have had on affordability? Suppose the per student federal grant aid fell by 11 percent at each college type between 1992 and 1995. This would have represented an average loss of $76 at the public colleges and $99 at the private colleges. It is difficult to imagine that average losses of under $100 in grant aid *during a three-year time period* could have had any significant effect on student ability to afford college. Even as much as a 20 percent loss in average grant aid would have represented just $139 at the public colleges and only $181 at the private colleges and those losses are likely to have only very modest effects.[7]

To summarize, during the 1990s, generally available federal student aid at the four-year *public* colleges has kept pace with growth in enrollments and costs and it likely defrays a *higher* percentage of costs now than during the late 1980s. During the 1990s at the *private* colleges, generally available federal aid has nearly kept pace with growth in costs and enrollments, but it likely defrays a slightly *smaller* proportion of average student costs now than in the early 1980s. Federal *grant* assistance has lagged behind growth in both costs and enrollments at both types of colleges during the 1990s.

It should be mentioned here that state governments annually provide over $3 billion in grant assistance to postsecondary students, double the amount provided in 1987 (The College Board, 1996). However, over 60 percent of all the grant dollars from state programs are awarded to students in just five states: California, Illinois, New Jersey, New York, and Pennsylvania (NASSGAP, 1996). New York and New Jersey annually award more than $1,100 in state grants per full-time undergraduate but 17 states award under $100, and another ten award between $100 and $200, per undergraduate. Therefore, it is difficult to meaningfully describe any average or nationwide effects of state grant assistance on college affordability. So, none are offered in this report.

## Other Possible Reasons Why Tuitions Grow

Are there other explanations for growth in tuitions? A GAO report mentioned growth in administrative expenditures, in research spending, and student services expenditures (Joyner, 1996). That report said that increased administrative expenditures for recruiting students, expanded computer services, and compliance with burgeoning federal regulations added to college costs.

Research expenditures were the second fastest growing item at public colleges and fifth fastest growing item at private colleges. But the GAO

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7 The figures for federal grant aid per full-time undergraduate student are only slight over estimates of the actual amounts of aid available to them, because only undergraduates are eligible to receive Pell Grants and few Pell Grant and SEOG Grant dollars are awarded to part-time students.

report said that "whether increased net research expenditures contributed to the increase in tuition prices is a matter of debate within the higher education community (Joyner, 1996, p.32)."

Student services expenditures were among the fastest growing items at both types of colleges, fifth at the public colleges and fourth at the private colleges. The GAO report offered explanations for increased spending on student services:

> "One reason given is that student demographics have been changing. A growing number of students attending college are older, and many of them attend on a part-time basis. These students tend to need more remedial services, counseling, and administrative support. Another reason offered is that students in general appear to want and expect more personal counseling, tutoring, and mentoring, all of which require more support staff and facilities (Joyner, 1996, p. 34)."

A 1996 survey of college academic vice presidents identified increases in several expense items during the past ten years (El-Khawas and Knopp, 1996). Table 11 displays the percentages of colleges where various expense items took larger or smaller shares of the college budgets than they did ten years ago. Over eight out of ten colleges spent larger shares of their budgets on electronic infrastructure and computing operations. Over six out of ten spent larger shares on faculty salaries. Four out of ten public, but eight out of ten private, colleges devoted greater shares of their budgets to institutionally funded student aid.

About four out of ten colleges said they spent more on renovation and construction. But significant proportions of both public and private colleges spent *smaller* shares of their budgets on construction and renovation, 18 percent and 13 percent respectively. This latter finding suggests that some colleges may have deferred spending on construction and renovation due to lack of funding and/or choosing to spend resources elsewhere.

Over four out of ten colleges spent more on development, in large part because colleges are becoming more dependent on diverse sources of revenue to offset costs and suppress tuition increases. That 82 percent of the private colleges spent more on institutionally-funded student aid and 64 percent increased spending on admissions and recruitment supports the earlier observation that competition for students has increased and that net tuition is playing a greater role in that competition. Four out of ten public colleges increased spending on admissions, recruitment, and financial aid, possibly trying to increase tuition revenues to help offset losses of revenue from state appropriations, or merely trying to remain competitive.

TABLE 11

**Percentages of Colleges Identifying Changes Since 1985 In the Share of Budget Required By Various Expenses, By Control**

| | Public Colleges | | Private Colleges | |
|---|---|---|---|---|
| | Larger | Smaller | Larger | Smaller |
| Electronic Infrastructure | 94% | 1% | 83% | 4% |
| Computing Operations | 86% | 2% | 83% | 6% |
| Faculty Salaries | 63% | 10% | 61% | 12% |
| Institutionally-Funded Student Aid | 40% | 5% | 82% | 3% |
| Admissions and Recruitment | 39% | 10% | 64% | 6% |
| Development | 42% | 8% | 52% | 10% |
| Renovation of Facilities | 43% | 16% | 41% | 14% |
| Construction of New Facilities | 38% | 20% | 38% | 11% |
| Student Support Services | 36% | 16% | 41% | 7% |

Source: Campus Trends, 1996

## College Financial Conditions

Have attempts to meet the competition for students had positive effects on the colleges' financial conditions? About 40 percent of academic vice presidents rated their colleges' overall financial condition "excellent" or "very good" (El-Khawas and Knopp, 1996). Respondents from private colleges were somewhat more likely than their public college peers to make these high assessments, 44 percent versus 38 percent. About 23 percent of public college respondents, but only 12 percent of private college respondents, rated their colleges' financial conditions "fair" to "poor." The college respondents rated the adequacy of student financial aid on their campuses as follows:

| | *Excellent/ Very Good* | *Good* | *Fair/Poor* |
|---|---|---|---|
| Public Colleges | 28% | 44% | 28% |
| Private Colleges | 39% | 42% | 19% |

Given that 88 percent of private college respondents rated their colleges' financial conditions from "good" to "excellent" and 81 percent said that adequacy of student financial aid on their campuses was "good" to "excellent," it is likely that a pattern of increasing tuitions and partially offsetting them by increased student financial aid will continue to be observed at many private colleges.

Here is another look at responses from public colleges on the questions of financial condition and adequacy of student financial aid:

| | *Financial Condition* | *Adequacy of Student Aid* |
|---|---|---|
| Excellent/Very Good | 38% | 28% |
| Good | 39% | 44% |
| Fair/Poor | 23% | 28% |

Public college respondents were more likely than private college respondents to consider the adequacy of their student aid as just "fair/poor" or "good," 72 percent versus 61 percent. They also were more likely than their private college peers to rate their colleges' overall financial conditions just "fair/poor" or "good," 62 percent versus 56 percent. Perhaps many public college administrators will attempt to increase their institutionally-funded student aid. This would give them the ability to increase tuition revenue and improve their colleges' overall financial conditions, a course that many private colleges apparently have followed.

## Public Policy-maker Views On Affordability

As college tuitions rose rapidly in the 1980s and into the 1990s, public policy-makers expressed concerns and attempted to address the issues. Describing a few here will illustrate their reactions.[8]

Concerns about rising costs during the early 1980s led Congress to ask the U.S. Department of Education to study why costs had changed, to forecast future costs and their effects on colleges, students, and families, to make recommendations on how such changes in costs can be minimized in the future, and to outline policy options to help minimize changes and costs. The results of that request were reported in **The Escalating Costs of Higher Education** (Kirshstein, *et al.*, 1990).

That paper identified reasons for increases in costs which generally matched those described earlier in this report:

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[8] That college costs and affordability were of much concern to policy-makers and academicians before the 1990s is evidenced by the many references cited in the bibliography that precede 1990.

"In part, costs rose as a result of budgetary pressures, either to cover rising expenditures (such as faculty compensation) or to make up for shortfalls in other revenue sources (such as government appropriations). Tuitions also rose in response to growing demand for a college education, manifested in a willingness to pay higher tuitions. This strong demand may have encouraged some institutions to raise tuitions in order to finance additional expenditures (Kirshstein, et al., 1990, p.iii)."

Two estimates of future college tuitions were made in the report, the first on the basis of 1980 to 1989 trends in tuitions and the second on projected growth in student expenditures. Here were the estimates for 1995, along with the actual average tuitions:

| | *Public 4-Year Colleges* | *Private 4-Year Colleges* |
|---|---|---|
| Based on Trends | $2,168 | $12,517 |
| Based on Expenditures | $1,904 | $10,305 |
| Actual Average Tuitions | $2,845 | $12,235 |

Average tuitions at public colleges easily exceeded either projection, primarily because reductions in state appropriations drove tuition charges sharply upward. On the other hand, the estimate based on tuition growth patterns for private colleges was very close to the actual average tuition. The estimate based on projected expenditures was much lower, because Kirshstein *et al.* could not anticipate that college expenditures would greatly exceed the rate of inflation. These estimates illustrate the difficulty in making accurate estimates of *nationwide* changes in average college tuitions.

Kirshstein *et al.* described several options available to colleges to limit institutional spending and, therefore, the need to pass on rising costs to students. Cutting faculty salaries was not considered a viable option because of increasing faculty shortages and competition from outside higher education. But filling vacant faculty positions with part-time faculty was suggested as a cost-saving device. It should be used cautiously, however, since the quality of instruction might drop.

Eliminating faculty positions by dropping courses or curricula was considered viable, when the demand for such courses and programs is minimal. Kirshstein *et al.* noted that some colleges have dealt with cutbacks by developing consortia which let students "cross-enroll" in courses without the formal process of transfer of credit. Developing consortia to share library resources was also suggested as a means of cutting expenses.

As this report was being written, the United States Congress was considering and offering amendments to the Clinton Administration's

Hope Scholarship proposal, which would provide all students with a $1,500 refundable tax credit for full-time tuition in their first year of college and another $1,500 in their second year if they stay off drugs and earn at least a B average in their first year. The Congress was also offering additional proposals in the form of bills which would: (1) allow parents to deposit up to $1,000 a year per child in accounts for college without having to pay taxes on the interest; (2) permit students to deduct from their taxable income up to $2,500 a year in interest paid on student loans during their first five years after college; (3) end taxation of student earnings from the College Work-Study Program; (4) make funds disbursed from state pre-paid tuition accounts tax-free to students; and (5) allow penalty-free withdrawals from Individual Retirement Accounts if the funds are used to pay for the costs of higher education (Burd, 1997).

That so many different proposals are being offered to help pay for college costs, and that Congress is devoting much time to the matter, indicates that affordability is likely to remain an important political issue at the federal level.

Because the largest single source of funds supporting public colleges come from state governments, it is important to examine state legislators' views. For her National Education Association study of state legislators, Ruppert (1996) asked them to indicate which of several actions their assemblies were likely to take in the next three to five years to fund higher education. There were five actions that at least four out of ten legislators "agreed" or "strongly agreed" would be taken: (1) charging non-residents higher tuition, 73 percent; (2) charging resident students higher tuition, 56 percent; (3) linking funding to statewide education priorities, 52 percent; (4) adopting new institutional funding formulas, 45 percent; and (5) linking funding to institutional or student performance, 44 percent. These findings suggest that legislator resistance to tuition increases is relatively weak.

Ruppert (1996) learned that the lower a state's average public college tuition and fees, the more likely the state legislature will be to increase both resident and non-resident tuitions. This finding suggests that many of the 19 states identified earlier as unlikely to have college affordability problems may soon have them, since most are "low tuition" states.

In its paper, **Ten Public Policy Issues for Higher Education in 1996**, the Association of Governing Boards of Universities and Colleges (AGB) identified "cost containment and productivity" as a top issue for its members (AGB, 1996). The AGB paper predicted that several Congressional committees will hold hearings that focus public attention on the tuition growth, that several states may place caps on tuition and intensify their examination of faculty workloads and productivity in attempting to control costs, and that the concept of "learning productivity" will become a concern in more and more states.[9] The AGB paper said that decisions by states about placing restrictions on tuition increases "will come down to a tradeoff between price and quality, with advocates of higher tuition arguing that continued increases are the only way to ensure quality when state funding is declining (AGB, 1996, p. 8)."

Two of the AGB predictions were referenced in the 1995 Issues Survey of the American Association of State Colleges and Universities (AASCU), which found that "accountability" and "graduation rates" were high priority issues to policy-makers in its members' states (AASCU, 1995). Here are the percentages of different types of leaders who identified these issues as high priority ones:

| | *Accountability* | *Graduation Rates* |
|---|---|---|
| Governors | 58.5% | 18.9% |
| Legislators | 71.7% | 37.3% |
| Higher Ed Systems | 43.4% | 39.6% |
| College CEOs | 35.8% | 54.7% |

These survey results are similar to Ruppert's (1996) findings on legislator interest in accountability and linking performances of institutions to their appropriations levels.

During the past nine years, Congress held two particularly important hearings on the subject of rising college costs. The earlier hearing was in September 1987, before the House of Representatives Subcommittee on Postsecondary Education, and it involved 20 witnesses from diverse backgrounds who described several reasons behind rising college costs (U.S. House of Representatives, 1988). The witnesses' observations on reasons for rising costs generally closely corresponded to causes described earlier in this report.

The latter hearing occurred before the House of Representatives Subcommittee on Postsecondary Education, Training, and Life-Long Learning in July 1996. This hearing's eight witnesses included two college presidents, two students representing national student associations, a dean of a college of education, two research/policy analysts, and a Bureau of Labor Statistics analyst (U.S. House of Representatives, 1996) After examining the explanations for escalating costs, witness David Breneman responded to the question of what the federal government should do about rising tuitions:

> "Is there anything the federal government could or should do to intervene into these matters? I see little of practical effect that could (or should) be done. While federal support for student aid is

[9] "Learning productivity" refers to issues of on-time graduation, attrition, faculty and student performance.

vital to students and institutions, it is still a modest part of the total revenue picture for most institutions, and provides limited opportunity for leverage. The one federal program that had the potential to influence pricing in public institutions was the State Student Incentive Grant Program (SSIG), but that potential was never used, largely because of a tradition of not seeking to use federal student aid programs to influence the setting of tuition levels (Breneman, 1996)."

Thomas Kane, another witness, told the Subcommittee that college tuitions had increased due to the value of higher education in the labor market and because states were unable to match appropriations with the rising demand for college (Kane, 1996). He asserted that the cost pressures are likely to get worse, because the size of the college-age population is projected to grow by 19 percent in the next fifteen years, thus creating more demands on colleges. This view is in contrast to Hauptman's (1990) assertion that diminished growth in enrollments during the 1980s resulted in higher tuitions.

It is possible that both views are correct, for the time periods under consideration. Many colleges currently are operating at capacity, so a large influx of students will require expansion of staff, faculty, and facilities, which will increase college spending. During the 1980s, many colleges had room for more students and could have economized by spreading their fixed costs among larger numbers of students---had the students been available. It is also possible that during the late 1990s some states with excess capacity for students will be able to suppress the growth in tuitions by spreading costs among more students.

Although states generally were described above as contributing to the affordability problem through reduced spending on higher education, more than a few states have taken steps to help students and families meet rising costs. For example, the GAO study found that the Virginia Council of Higher Education had recommended to the state legislature that tuition be held constant for 1996 and 1997; the Massachusetts Higher Education Coordinating Council reduced 1996 tuitions for state residents by 5 percent at four-year colleges; and Washington implemented a policy that restricts tuition increases to about 4 percent for two years (Joyner, 1996).

Another state response to rising tuitions is to create tuition savings and prepayment programs. A GAO study of these actions described three types of prepayment programs: contract, tuition credit, and certificate programs (Joyner, 1996). In contract programs, the purchaser contracts for a predetermined amount of education with its cost based on current tuition levels. In tuition credit programs, purchasers start accounts and make deposits for prepaid units of postsecondary education. In certificate programs, participants buy certificates from the state that are redeemable for a percentage of a college's tuition and fees. In the Massachusetts version of this prepayment plan, the state commits to pay the face value of the certificate plus interest compounded annually at a rate equal to 2 percent above the Consumer Price Index. Colleges absorb the difference if their costs rise faster than the value of the certificates.

Nine states have implemented prepayment plans: Alabama, Alaska, Florida, Massachusetts, Michigan, Ohio, Pennsylvania, Texas, and Wyoming. Up to a dozen more are considering implementing some type of prepayment plan (New York Times, 1996).

Some states have created debt instruments identified as college savings bonds. The bonds generally are zero-coupon, sold at a discount, with the difference between their face value and purchase price representing interest. Interest on the bonds is exempt from federal and state taxes (by the issuing state). Other states allow citizens to save money in special college savings accounts, usually with a trust which invests the money for them, and typically with a guaranteed minimum interest.

These efforts by states to make college affordable, when taken in the context of reductions of direct support of colleges through appropriations, suggest that many states try to balance college student needs against other demands on their revenue. Breneman's (1996) view on public college tuitions summarizes the dynamic tension between states allowing public college tuitions to rise and their attempts to help their citizens cope with the rising costs: "Tuition in the public sector should be seen as a politically negotiated price, determined by the history and dynamics of each state."

## Media Reports On Affordability

During the past year, dozens of articles on rising college costs and the problems students and families have in meeting them appeared in newspapers and journals. Describing each article is beyond the scope of this report. However, three in particular serve as good examples of them all. A series of articles by Eng and Heller in the **Philadelphia Inquirer** (1996) focused on soaring costs at the more elite private colleges and the affordability of public colleges for students from families with modest incomes. The series was very critical and attributed much of the tuition increases to mismanagement and the absence of good business practices at universities. It also emphasized problems with rising loan debt burdens as students borrow to meet the "soaring" costs and cautioned against the dangers to colleges' financial health brought about by large tuition discounts.

**Newsweek** (1996) devoted several pages to "those scary college costs." The tone of its articles was also critical, with much of the focus on tuitions and costs at private universities. College administrative staffs were described as "bloated," the tenure system was attacked as adding to costs by protecting an expensive, aging, and unproductive professoriate, and colleges were criticized for protecting research and Ph.D. programs ("which are dear to professors' hearts and also attract grant money") at the expense of undergraduate programs. The practice of tuition discounting was also disparaged because it threatens some colleges' financial stability.

The third article, in the **U.S. News and World Report,** was equally critical of rising college costs and colleges' inability to suppress costs in a timely fashion by employing new technologies for instruction and administration. An explanation for the slowness to change was offered:

> "One explanation for the slow pace of change is that most tenured faculty members are exceedingly comfortable with the academic status quo. After all, they enjoy guaranteed employment, make their own schedules, spend most of their working hours in extraordinarily pleasant environments, experience far less on-the-job stress and have the luxury of far more discretionary time than most other professionals. Why rock the boat? (U.S. News and World Report, 1996, p. 44)."

Few of the articles reviewed offered much praise for college attempts to suppress costs or increase student aid to help meet them. None of the articles displayed much understanding of the diversity of colleges and their tuition levels, or the fact that the vast majority of students attend relatively low cost institutions.

## Summary of Findings

Many things were learned from this examination of college affordability issues. They are briefly summarized as follows.

College costs are rising but they are not rising as fast in the 1990s as they did in the 1980s. However, recent annual tuition increases have exceeded the growth in family incomes and the Consumer Price Index. Therefore, it is becoming more difficult for many students and families to pay for college with current incomes. This has, in turn, drawn attention to college costs from policy-makers, the media, and the public.

One-fifth of the four-year college freshmen have major concerns about financing their education and nearly one-third say financial aid was very important in selecting their colleges. Many parents are concerned about college affordability. One study found that over half the parents of college-bound high school seniors wanted their children to go to college but did not know how to pay for its costs. Another survey of high school seniors' parents found that one-third had not prepared for the costs of college and one-fourth had only begun saving within the three previous years. A third survey found 58 percent of adults worried that a good college education is becoming too expensive.

Evidence shows that access to college for lower- and lower-middle-income students diminished after the early 1980s. These students definitely have a growing affordability problem.

Although nationwide average tuitions are rising, high tuitions and rapid growth in college costs are not universal. In 19 states, four-year public college tuitions are relatively low and/or have not grown much in comparison to family incomes. Neither are high tuitions found at all four-year private colleges. One-fourth have tuitions under $7,300 and the median tuition is $10,435. About 68 percent of all full-time undergraduates at four-year colleges and universities in 1994-95 enrolled where tuitions were under $5,000.

In apparent contradiction to rising concerns about college affordability and growing access problems of students from lower- and lower-middle-income families, more students are enrolled in four-year colleges than ever before, and greater percentages of high school graduates than ever before are continuing their education in all states. Moreover, enrollments at the higher cost, private colleges grew in all but eleven states between 1990 and 1993.

It was suggested that more students enrolled because: (1) they and their parents sacrifice current living standards and/or accept loan indebtedness to meet the college costs; (2) recent net tuition increases have not cut middle- and upper-income student incentives to enroll; (3) more children from affluent families and more nontraditional students helped swell attendance; and (4) increased financial aid from the colleges helped students surmount the cost barriers.

Many colleges recognized and responded to affordability concerns. Between 1984 and 1993, college spending on student aid grew at double the rate of spending on all other items. However, in spite of this growth in spending on student aid, net tuition revenues after financial aid defrayed larger percentages of college current fund expenditures.

Both public and private colleges increased spending beyond amounts necessary to cover the combined effects on operating costs of inflation and rising enrollments. It was estimated that 22 percent of the growth in net tuition at public colleges could be attributed to this additional spending. However, 78 percent of the growth in net tuition was the result of shifting larger shares of costs to students when financial support from state governments and other sources diminished. Private colleges collectively increased spending by almost 20 percent more than demanded by inflation and enrollments. But the private colleges collectively spent a large proportion of increased tuition revenue on student aid, so the share of their current funds expenditures covered by net tuition revenues did not increase.

There was no available research to prove that the additional spending by colleges improved the quality of education for students. However, it is reasonable to assume that many student consumers believed there were significant improvements, because enrollments grew at the vast majority of institutions. Besides increasing spending on student aid, colleges increased spending on student services, electronic infrastructure, renovation and construction of facilities, and computing operations, likely making themselves more attractive to students.

Raising tuitions while simultaneously spending more on student aid paid off in increased enrollments and improved financial conditions at many colleges. In response to an ACE survey, almost nine out of ten academic vice presidents at private colleges, and over eight out of ten at public colleges, rated their institutions' financial conditions "good," "very good," or "excellent."

The effects of tuition increases were partially offset by increases in federal student financial aid. Annual federal student aid awards from the Stafford Loan, Perkins Loan, and PLUS Loan programs; the Federal Work-Study program; and the Pell Grant and SEOG Grant programs to students at all four-year colleges grew by 155 percent between 1982 and 1993, from about $8.3 billion to over $21.2 billion.

During the 1990s, federal student aid at four-year *public* colleges has kept pace with growth in enrollments and costs and it likely defrays a *higher* percentage of costs now than during the late 1980s. At *private* colleges, generally available federal aid *nearly* kept pace with growth in costs and enrollments, but it likely defrays a slightly *smaller* proportion of average student costs now than in the early 1980s. Growth in federal *grant* assistance has lagged behind growth in costs and enrollments at both types of four-year colleges.

Public policy-makers showed concern about rising college costs when the tuition escalation began in the early 1980s. Several Congressional hearings and mandated studies were conducted. In general, the hearings and research indicated that colleges raised tuitions to: (1) make up for shortfalls in other revenue sources; (2) pay faculty salaries that grew as growing proportions of the faculty matured; (3) cover increased costs for administration; (4) increase institutional student aid in response to slowdowns in federal and state spending on student aid; and (5) respond to a growing demand for a college education.

In spite of concern about rising costs, the results of a recent NEA survey showed little resistance among state legislators to continued tuition increases at public colleges. However, more than a few states reacted to concerns about rising tuitions by creating savings and prepayment programs to help those who cannot afford the costs.

Finally, recent media accounts, and reader responses to them, showed that public disapproval of rising college costs is very likely growing. Colleges were described as mismanaged and overpriced. College faculties were criticized for lack of productivity, and college administrations were characterized as bloated.

Therefore, although there are reasonable explanations for rising college tuitions, although greater per student expenditures by colleges have likely improved their quality, and although higher tuitions generally have not yet diminished enrollments, the trends are disturbing. When tuitions are raised again, higher education likely will experience more widespread and negative reactions by students and parents, the media, policy-makers, and the general public.

## Discussion

Much of the evidence described above in this report appears to fit the criteria for a "college affordability crisis" set forth in the introduction. That is, a crisis exists when there is evidence that prospective students cannot attend college or when current students must drop out for financial reasons, and a crisis also exists when current trends *are expected to result* in students becoming financially unable to enroll.

The widespread attention given to college affordability by the mass media and public policy-makers implies that a crisis exists, and that the situation is rapidly getting worse. Average college costs for the nation have risen dramatically, *and faster than the incomes used to pay them*, a trend of circumstances that, if left unaddressed, is likely to result in many students becoming financially unable to enroll.

Students from lower-income families are increasingly under-represented in four-year colleges and universities and college participation rates among persons with lower socioeconomic statuses are declining, indicating that they face a college affordability crisis.

However, declining four-year college participation rates among lower-income students may represent more than *just* a financial problem. Their financial circumstances are very likely only one of several factors that make it difficult for lower-income students to enter four-year colleges. They may lack the quality and/or quantity of academic preparation needed to be admitted. They may believe they cannot succeed in college, or that the difficulties they will encounter in attending will be greater than the likely benefits. They may not be in close enough proximity to a college to make going convenient. Or their family members may discourage them from attending. These and other factors could present far greater barriers to attendance than do rising college costs.

In spite of these indications of crisis, other evidence suggests that college affordability is not a crisis for everyone or for all colleges. It was shown, for example, that four-year public college costs in 19 states are low relative to family incomes in those states and/or they have not grown faster than incomes in recent years.

Moreover, student financial aid amounts awarded to four-year college students are growing. Total federal aid to students during the 1990s kept pace with costs and enrollments at four-year public colleges and nearly kept pace with them at four-year private colleges.

However, nearly 97 percent of the growth in federal aid in this decade was in loans. The growth in borrowing suggests that it is becoming more difficult for students and families to pay for college from current incomes. But whether they are unable to meet college costs without loans, or whether more are choosing to borrow and pay for college from future earnings is unknown. Undoubtedly many *must* borrow, but how much borrowing is discretionary is not known.

How much influence, if any, knowledge that loans generally are available has on student and parent willingness to save (or sacrifice) for college also is unknown. If the availability of loans has suppressed savings, then increases in college costs could seem difficult to afford.

Further research on the reasons why students (and parents) borrow is needed. More research on the effects of rising student loan indebtedness on borrower choices of occupations and careers, on their economic lifestyles, and on the benefits they derive from a college education largely funded by borrowing is needed.

Although the situation is not as bad in many states as it is in others, for the nation as a whole, college costs have risen faster than the incomes used to pay them. What does this mean in terms of the ability to attend college? The data showed that four-year public college costs represented an additional 0.9 percent more of the median family income in 1995 than in 1992. However, that percentage was equal to only $365 (0.009 times the median income of $40,611 equals $365.50). Four-year private college costs represented 2.3 percent more of median family income, or about $934, in 1995 than in 1992.

The $934 larger share of median income to pay costs at the private colleges represents a significant dollar increase. Unless it was offset by funds from another source, it also shows that paying private college costs became considerably more difficult. However, it is difficult to consider the $365 increase to pay for higher costs at the public colleges "significant" since it represents only $30 per month over a calendar year. At some income levels, $30 a month would be a great burden, but it probably is not burdensome at the median or higher income levels. And financial aid resources grew to help meet the additional costs.

There is likely no single generalization about college affordability that fits all students, families, and colleges across the nation. *But it seems clear that with the financial assistance that is available, the vast majority of students in the vast majority of places across the nation currently can and do find the financial means to attend a four-year college.*

Those who describe the *current* circumstances as a crisis for everyone everywhere, or use evidence of crises for some students as indication that all students face affordability problems, do disservice to the many who aspire to college. Depictions of "soaring costs" and "financial aid gaps" dash the hopes of students and parents who already know paying for college will not be easy. Discussions only of "crises" make paying the costs seem impossible, so many may just give up plans to attend.

It is a much wiser course of action to look for signs of crisis among different kinds of students at different types of colleges, and in different states, than to look at data presumed to represent some national situation and conclude that an affordability crisis is universal (or uniform). It is better to identify students whose financial ability to attend college is threatened and then look for the factors that have created their specific affordability crisis. Are their family incomes not keeping pace with rising college costs? Are family savings being depleted for other expenses? Are costs charged to students rising much more rapidly than is necessary to provide them with the needed programs and services?

Although there currently is no universal college affordability crisis, if college costs continue to rise faster than student and family ability to pay them from their own or from financial aid resources, the crisis could become pervasive.

Rising college tuitions must be addressed. It is not enough for colleges to cut the growth in tuitions (or net tuitions) to rates that are lower than those of previous years. Colleges must try to keep costs from climbing faster than the family financial resources of students they intend to serve. Although for years it has been difficult for many students to afford the costs of attendance, colleges must take steps to assure that it does not become an even greater burden.

Colleges that are unable to suppress tuition growth will likely face two crises of their own: a "credibility crisis" and then an "enrollment crisis." They will have growing difficulty in defending their tuitions and other charges to students, parents, and to other constituents they serve. If the colleges' explanations for tuition charges (or tuition increases) lack credibility to their constituencies, then their programs, products, and services will lose credibility and their entire institutions will suffer. This will be followed by declining enrollments, costing the colleges operating revenue, and making it harder to successfully compete for students (also for support from donors, legislatures, and others who provide vital revenue to higher education).

Although the strategy apparently has worked well in the past, increasing tuitions while spending more on student financial aid, or "tuition discounting," is unlikely to remain a viable financial strategy for many private colleges. Some private colleges are near the point where they are spending more than half as much on "tuition discounts" as they are on instruction and other programs that provide the things students expect from attendance. If instead of spending on instruction, academic services, and student services the colleges are spending on "tuition discounts," their quality of education will deteriorate. It is difficult to offer an inferior or deteriorating product and successfully compete with others based on "net price."

State legislators exhibit little resistance to raising tuitions (or to letting them rise after cutting appropriations) at public institutions. Other competing demands on state revenue are just too great. This means that four-year public college tuitions are likely to continue to grow while their administrators seek ways to restructure their revenue streams and cut expenditures.

Regardless of how much public and private four-year college tuitions grow, unless grant and other student assistance increases, or students and parents can cover more of the costs from earnings and savings, borrowing will continue to increase.

Because federal and state student grant programs face keen competition for appropriations from other government-funded programs, and because grant programs historically have seldom kept pace with the demand for their awards, most grant programs are unlikely to grow fast enough to suppress future needs to borrow.

Since borrowing will increase, it is important that the public and private sectors create and implement loan programs whose repayment terms do not become excessively burdensome. The federal government currently plays the primary role in providing loans to students. But more states could help by providing "loan forgiveness" programs that repay loans when borrowers fulfill some public need after leaving college, for example, providing medical service to a disadvantaged community, or teaching in schools or academic subjects with teacher shortages.

The private sector participates in loan programs by providing capital, loan servicing, and secondary markets. Private companies and corporations could include repaying student loans as a part of their compensation programs and help reduce loan burdens.

Colleges can help reduce loan burdens by counseling students and parents about discretionary borrowing, and by teaching students how to establish and stay within a personal budget.

Several states are developing and implementing "tuition prepayment" and "tuition savings" plans. More states could implement them. These kinds of programs could also be made available nationwide. The private sector could participate in public plans by agreeing to match deposits to increase the yield on participants' savings. Public policy-makers could work with the private sector to create more and better programs that provide effective incentives to families to save for college costs.

There is still time to avoid a college affordability crisis of universal proportions and to solve the smaller crises that currently exist for many students. Colleges, governments, and the private sector can cooperate to do this. They can work together to help keep college costs as low as possible while developing and setting up new and better ways to help students and families pay those costs. It is hoped that this report helps them to do this.

# APPENDIX

## APPENDIX TABLE A-1

### Tuition At 4-Year Public Colleges Compared To Median Household Incomes

| | Average Tuition In 1995-96 | Median Household Income in 1994 | Tuition As A Percent of Income |
|---|---|---|---|
| AL | $2,234 | $27,196 | 8.21% |
| AK | 2,502 | 45,367 | 5.52 |
| AZ | 1,943 | 31,293 | 6.21 |
| AR | 2,062 | 25,565 | 8.07 |
| CA | 2,918 | 35,331 | 8.26 |
| CO | $2,458 | $37,833 | 6.50% |
| CT | 3,828 | 41,097 | 9.31 |
| DE | 3,962 | 35,873 | 11.04 |
| FL | 1,790 | 29,294 | 6.11 |
| GA | 2,076 | 31,467 | 6.60 |
| HI | $1,524 | $42,255 | 3.61% |
| ID | 1,714 | 31,536 | 5.44 |
| IL | 3,388 | 35,081 | 9.66 |
| IN | 3,040 | 27,858 | 10.91 |
| IA | 2,565 | 33,079 | 7.75 |
| KS | $2,110 | $28,322 | 7.45% |
| KY | 2,160 | 26,595 | 8.12 |
| LA | 2,139 | 25,676 | 8.33 |
| ME | 3,562 | 30,316 | 11.75 |
| MD | 3,572 | 39,198 | 9.11 |
| MA | $4,178 | $40,500 | 10.31% |
| MI | 3,789 | 35,284 | 10.74 |
| MN | 3,108 | 33,644 | 9.24 |
| MS | 2,443 | 25,400 | 9.62 |
| MO | 3,007 | 30,190 | 9.96 |

APPENDIX TABLE A-1 (continued)

| | Average Tuition In 1995-96 | Median Household Income in 1994 | Tuition As A Percent of Income |
|---|---|---|---|
| MT | $2,346 | $27,631 | 8.49% |
| NE | 2,294 | 31,794 | 7.22 |
| NV | 1,830 | 35,871 | 5.10 |
| NH | 4,537 | 35,245 | 12.87 |
| NJ | 3,848 | 42,280 | 9.10 |
| NM | $1,938 | $26,905 | 7.20% |
| NY | 3,697 | 31,899 | 11.59 |
| NC | 1,622 | 30,114 | 5.39 |
| ND | 2,211 | 28,278 | 7.82 |
| OH | 3,664 | 31,855 | 11.50 |
| OK | $1,741 | $26,991 | 6.45% |
| OR | 3,241 | 31,456 | 10.30 |
| PA | 4,693 | 32,066 | 14.64 |
| RI | 3,619 | 31,928 | 11.33 |
| SC | 3,103 | 29,846 | 10.40 |
| SD | $2,549 | $29,733 | 8.57% |
| TN | 2,001 | 28,639 | 6.99 |
| TX | 1,832 | 30,755 | 5.96 |
| UT | 2,007 | 35,716 | 5.62 |
| VT | 5,521 | 35,802 | 15.42 |
| VA | $3,965 | $37,647 | 10.53% |
| WA | 2,726 | 33,533 | 8.13 |
| WV | 1,992 | 23,564 | 8.45 |
| WI | 2,555 | 35,388 | 7.22 |
| WY | 2,005 | 33,140 | 6.05 |
| Nationwide | $2,865 | $32,264 | 8.88% |

Source: GAO/HEHS-96-213R States' Average College Tuition

APPENDIX TABLE A-2

## Public Tuition As A Percentage Of Per Capita Income, By States, 1980 to 1994

| | 1980-81 | 1987-88 | 1994-95 | 1980 to 1994 Change | 1987 to 1994 Change |
|---|---|---|---|---|---|
| AL | 10.4% | 13.2% | 13.9% | +3.5% | +0.7% |
| AK | 5.8 | 8.7 | 9.5 | +3.7 | +0.8 |
| AZ | 8.1 | 10.6 | 12.2 | +4.1 | +1.6 |
| AR | 11.4 | 12.4 | 14.4 | +3.0 | +2.0 |
| CA | 2.1 | 3.1 | 5.6 | +3.5 | +2.5 |
| CO | 11.5% | 13.5% | 15.9% | + 4.4% | +2.4% |
| CT | 6.5 | 8.4 | 13.1 | + 6.6 | +4.7 |
| DE | 17.5 | 23.1 | 30.0 | +12.5 | +6.9 |
| DC | 3.1 | 5.2 | 4.6 | + 1.5 | -0.6 |
| FL | 7.5 | 7.9 | 7.1 | - 0.4 | -0.8 |
| GA | 8.0% | 9.1% | 9.5% | +1.5% | +0.4% |
| HI | 3.2 | 5.2 | 4.7 | +1.5 | -0.5 |
| ID | 7.7 | 6.1 | 10.1 | +2.4 | +4.0 |
| IL | 4.8 | 6.5 | 6.1 | +1.3 | -0.4 |
| IN | 12.2 | 15.4 | 17.6 | +5.4 | +2.2 |
| IA | 11.2% | 14.0% | 16.7% | +5.5% | +2.7% |
| KS | 12.1 | 11.8 | 10.6 | -1.5 | -1.2 |
| KY | 9.9 | 9.9 | 11.5 | +1.6 | +1.6 |
| LA | 7.4 | 14.4 | 14.7 | +7.3 | +0.3 |
| ME | 14.7 | 12.7 | 19.2 | +4.5 | +6.5 |
| MD | 9.6% | 10.2% | 14.3% | +4.7% | +4.1% |
| MA | 9.4 | 8.9 | 12.3 | +2.9 | +3.4 |
| MI | 12.9 | 16.0 | 19.3 | +6.4 | +3.3 |
| MN | 7.4 | 9.3 | 11.4 | +4.0 | +2.1 |
| MS | 12.2 | 15.0 | 14.0 | +1.8 | -1.0 |

## APPENDIX TABLE A-2 (continued)

| | 1980-81 | 1987-88 | 1994-95 | 1980 to 1994 Change | 1987 to 1994 Change |
|---|---|---|---|---|---|
| MO | 8.7% | 11.1% | 16.7% | +8.0% | +5.6% |
| MT | 7.2 | 7.2 | 13.0 | +5.8 | +5.8 |
| NE | 8.7 | 8.5 | 9.2 | +0.5 | +0.7 |
| NV | 6.2 | 7.2 | 5.8 | -0.4 | -1.4 |
| NH | 23.3 | 18.8 | 24.8 | +1.5 | +6.0 |
| NJ | 6.9% | 8.0% | 9.8% | +2.9% | +1.8% |
| NM | 7.6 | 7.8 | 9.3 | +1.7 | +1.5 |
| NY | 8.5 | 7.9 | 9.0 | +0.5 | +1.1 |
| NC | 7.1 | 6.8 | 8.5 | +1.4 | +1.7 |
| ND | 10.6 | 11.9 | 12.9 | +2.3 | +1.0 |
| OH | 12.7% | 14.3% | 16.9% | + 4.2% | +2.6% |
| OK | 6.5 | 7.9 | 10.9 | + 4.4 | +3.0 |
| OR | 9.4 | 10.6 | 12.1 | + 2.7 | +1.5 |
| PA | 16.2 | 18.1 | 21.7 | + 5.5 | +3.6 |
| RI | 11.2 | 14.4 | 22.1 | +10.9 | +7.7 |
| SC | 10.0% | 15.0% | 15.7% | +5.7% | +0.7% |
| SD | 14.1 | 15.9 | 13.3 | -0.8 | -2.6 |
| TN | 10.0 | 10.9 | 10.8 | +0.8 | -0.1 |
| TX | 5.7 | 7.3 | 10.7 | +5.0 | +3.4 |
| UT | 10.3 | 10.6 | 11.6 | +1.3 | +1.0 |
| VT | 31.8% | 38.9% | 47.3% | +15.5% | +8.4% |
| VA | 8.8 | 11.0 | 14.8 | + 6.0 | +3.8 |
| WA | 6.8 | 7.4 | 8.2 | + 1.4 | +0.8 |
| WV | 7.1 | 11.3 | 14.8 | + 7.7 | +3.5 |
| WI | 12.2 | 13.1 | 12.5 | + 0.3 | -0.6 |
| WY | 7.2 | 6.4 | 8.8 | + 1.6 | +2.4 |

Source: U.S. General Accounting Office, Tuition Increasing Faster Than Household Income and Public Colleges' Costs, August 1996

APPENDIX TABLE A-3

## Percentages of Full-Time Undergraduates Enrolled at Public and Private Four-Year Colleges and Universities, 1994-95, By Tuitions

**Private Colleges**

| | Percent of Private College Students | Percent of All Undergraduates |
|---|---|---|
| Under $5,000 | 4.4% | 1.3% |
| $5,000 - $6,999 | 6.3 | 1.9 |
| $7,000 - $9,999 | 17.9 | 5.3 |
| $10,000 - $11,999 | 16.4 | 4.9 |
| $12,000 - $13,999 | 17.1 | 5.1 |
| $14,000 - $15,999 | 11.7 | 3.5 |
| $16,000 - $17,999 | 7.3 | 2.2 |
| $18,000 - $19,999 | 11.9 | 3.5 |
| $20,000 or More | 7.0 | 2.1 |
| Total | 100.0% | 29.8% |

**Public Colleges**

| | Percent of Public College Students | Percent of All Undergraduates |
|---|---|---|
| Under $1,000 | 0.4% | 0.3% |
| $1,000 - $1,999 | 28.7 | 20.2 |
| $2,000 - $2,999 | 29.7 | 20.8 |
| $3,000 - $3,999 | 26.1 | 18.3 |
| $4,000 - $4,999 | 9.8 | 6.8 |
| $5,000 - $5,999 | 5.0 | 3.6 |
| $6,000 or More | 0.3 | 0.2 |
| Total | 100.0% | 70.2% |

APPENDIX TABLE A-4

## Estimated Average Pell and SEOG Grant Aid Per Full-Time Undergraduate, Average Total Costs, and Grant Aid as a Percent of Total Costs, By Four-Year College Types, 1982-83 to 1993-94 Academic Years

| | Public Colleges | | | Private Colleges | | |
|---|---|---|---|---|---|---|
| | Pell/SEOG Per Student | Average Cost | Grants/ Cost | Pell/SEOG Per Student | Average Cost | Grants/ Cost |
| 1982 | $341 | $3,196 | 10.7% | $510 | $ 7,126 | 7.1% |
| 1983 | 339 | 3,433 | 9.9 | 579 | 7,759 | 7.5 |
| 1984 | 376 | 3,682 | 10.2 | 593 | 8,451 | 7.0 |
| 1985 | 467 | 3,859 | 12.1 | 667 | 9,228 | 7.2 |
| 1986 | 436 | 4,138 | 10.5 | 612 | 10,039 | 6.1 |
| 1987 | 449 | 4,403 | 10.2 | 632 | 10,659 | 5.9 |
| 1988 | 525 | 4,678 | 11.2 | 711 | 11,474 | 6.2 |
| 1989 | 548 | 4,975 | 11.0 | 748 | 12,284 | 6.1 |
| 1990 | 546 | 5,243 | 10.4 | 752 | 13,237 | 5.7 |
| 1991 | 632 | 5,695 | 11.1 | 858 | 14,273 | 6.0 |
| 1992 | 693 | 6,020 | 11.5 | 904 | 15,009 | 6.0 |
| 1993 | 673 | 6,365 | 10.6 | 850 | 15,904 | 5.3 |

Source:The College Board, Trends in Student Aid, 1982 to 1992 and Trends in Student Aid, 1986 to 1996

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