

State

of

DIFFUSION

Defining Student Aid
in an Era of Multiple Purposes

The Institute for Higher Education Policy

Prepared for The New Millennium Project on
Higher Education Costs, Pricing, and Productivity

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The Institute for Higher Education Policy is a non-profit, non-partisan organization whose mission is to foster access to and quality in postsecondary education. The Institute's activities are designed to promote innovative solutions to the important and complex issues facing higher education. These activities include research and policy analysis, policy formulation, program evaluation, strategic planning and implementation, and seminars and colloquia.

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PREFACE

This report is one in a series published under the aegis of The Institute for Higher Education Policy's *New Millennium Project on Higher Education Costs, Pricing, and Productivity*. Sponsored by The Institute for Higher Education Policy, The Ford Foundation, and The Education Resources Institute (TERI), the project is a multi-year effort to improve understanding and facilitate reform of the complex system for financing higher education.

The report was drafted by Alisa Federico Cunningham and Thomas Parker, with primary analytic support and guidance provided by Jane V. Wellman, Colleen O'Brien, Jamie Merisotis, Katheryn Volle Harrison, and other Institute staff. We would like to thank the members of the project Advisory Group, who provided excellent feedback and advice on earlier drafts of the report. We also would like to express our appreciation to the many other colleagues who provided comments and ideas for the report, including Jerry Davis, Brian Fitzgerald, Larry Gladieux, William Goggin, John Lee, Barbara McFall, Kenneth Redd, Scott Swail, and Thomas Wolanin. Special thanks to our colleagues at The Ford Foundation for their ongoing encouragement and support for our work in this area, especially Jorge Balan, Alison Bernstein, and Steven Zwerling. We heartily acknowledge the contributions of these individuals to this report and recognize that they are not responsible for any errors of omission or interpretation contained herein.

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EXECUTIVE SUMMARY

Over the last several decades, higher education has become increasingly important to the social and economic welfare of both individuals and the nation as a whole. The benefits of higher education have encouraged a more diverse pool of students to participate, accompanied by a growing demand for financial aid. As needs and expectations have increased—extending beyond the early goals of economic growth and access for needy students—the types and purposes of student financial aid have changed. This diffusion of purposes has eroded the focus of the financial aid system as a whole and clouded the public’s understanding about what student aid is, what its goals are, and who should receive it. This confusion presents a growing challenge for the continued support and expansion of student aid programs.

The purposes of student aid have become so fragmented that they may conflict with each other; success in some aid programs may erode the effectiveness of others. At the very least, several of the goals appear to be at odds with the fundamental desire to address “need” by assisting low-income students financially. For example, tax credits tend to improve affordability for middle-income students rather than for low-income students. To a certain extent, the resources directed toward one goal cannot be spent on the other goals. Policymakers must decide which student aid purposes are justified, based upon a clear understanding of each purpose and the associated economic and social benefits. To lay the foundation for making such decisions, this report describes the development of student aid policies and explores the multiple purposes toward which various types of aid are now directed.

Since the enactment of the G.I. Bill in 1944, the importance of student aid policy has grown in response to emerging societal goals. This evolution has contributed to both an expansion of the scope of aid programs and a fragmentation of aid purposes. Although the distinctions are not clear-cut, the transformation of student aid policy has occurred over three periods:

- During the *national economy* era from the end of World War II to the mid-1960s, federal student aid was targeted to meet one primary goal—furthering the country’s economic health and competitiveness—while institutional policies were focused on maximizing scarce financial aid dollars.
- Beginning with the Higher Education Act of 1965 and extending through the 1970s, a deliberate expansion of goals led to the *universal access era*, as federal policy began to focus explicitly on issues of individual access to higher education, and need-based student aid programs at all levels flourished.
- Finally, since the early 1980s, the *diffusion of purposes era* has continued to stretch the scope of student aid by creating programs to meet new goals, as well as attaching even more purposes to existing aid programs.

This diffusion has resulted in several purposes spread among the various forms of financial assistance. Deciding how to align a specific aid program with these purposes involves a complex assessment of the original intention of the program, the effect of the aid on students, the type and source of the aid, and the way in which the aid is allocated to students. The goals of need-based aid programs differ from those of merit-based programs, for example, and grants have different incentive effects on students than do loans. Nevertheless, the purposes may be broadly described as follows:

- *Encouraging access and choice for qualified needy students* through need-based student aid from a variety of sources, which is awarded according to need analysis formulas that take into account both income and price of attendance;
- *Furthering persistence toward a degree* through need-based grant and work-study programs, which enable recipients to continue to participate in higher education;

- *Promoting affordability for lower-income students* through grant aid, which lowers the net price faced by recipients in the long run;
- *Promoting affordability for middle-income students* through tax breaks and unsubsidized loans, which enable recipients to keep pace with rising tuition levels;
- *Rewarding student scholarship/merit* through merit-based student aid programs, which are awarded primarily at the institutional level, but also increasingly at the state and federal levels;
- *Targeting specific groups and priorities* through specially directed aid programs, which provide benefits for veterans or other targeted groups, frequently in exchange for service;
- *Improving institutional financial and administrative accountability* through loan default rate limits in particular, which exclude institutions with excessive default rates from federal Title IV student aid programs;
- *Managing institutional enrollment* through admissions and aid policies, which redirect tuition revenue from some students to others via institutional aid; and
- *Redistributing state taxpayer revenue* through state need-based aid programs, which allocate taxpayer subsidies across higher education sectors and partially replace direct state appropriations to institutions.

In most cases, a particular student aid program—and a distinct pool of funds—is expected to address several purposes simultaneously. Thus, the goals of student aid overlap considerably. For example, when a student receives a Pell Grant, the same aid dollars may be directed explicitly toward encouraging that student to enroll in an institution, promoting the student's continued participation in higher education, and enabling the student to afford that education in the long term. In addition, indirect purposes may be assigned to those student aid dollars—for example, the student may only use the grant at an institution whose loan default rate falls within certain limits.

Keeping in mind the overlapping nature of student aid programs and their purposes, it also is possible to compare the portion of total student aid funds awarded to all postsecondary students that is dedicated to each purpose.

For example:

- An estimated 59 percent of all student aid awarded to students in 1998-99—approximately \$39 billion—was directed toward access and choice for needy students. In comparison, only 5 percent, slightly more than \$3 billion, was used to reward merit.
- The proportion of total student aid that directly addresses persistence—35 percent, or \$23 billion in 1998-99—was somewhat smaller than the proportion targeting access and choice.
- The introduction of tax credits and the explosion of borrowing under the unsubsidized loan program have led to a larger proportion of total student aid directed toward affordability for middle-income students—32 percent, compared to the 28 percent of all student aid that was directed at affordability for needy students in 1998-99.
- In 1998-99, about 60 percent of all student aid, or \$39 billion, was assigned the secondary purpose of improving institutional financial and administrative accountability, one measure of which is loan default rates.
- Institutions' use of both need- and merit-based aid for managing enrollment size and composition involved 17 percent of all student aid funds in 1998-99—more than \$11 billion. In contrast, the use of state need-based aid to redirect taxpayer subsidies to needy students played a relatively minor role—only 4 percent of total student aid, less than \$3 billion, addressed this purpose.

It is important to remember that due to the extent of overlap among student aid programs and purposes, the distribution of student aid funding among different purposes cumulatively adds to far more than 100 percent.

Identifying the overlap and competition among the multiple purposes of student aid is not just an analytical

exercise; the diffusion also has had the practical effect of creating a splintered constituency of beneficiaries and political interests who have a stake in existing financial aid policies. These participants invariably support the continued diffusion of purposes, rather than running the risk of eliminating specific goals and the accompanying program(s) and funding. The natural consequences of this situation are proposals that refine or attempt to reform issues at the margins rather than address fundamental choices. At the same time, society's notion of "educational opportunity" appears to have broadened since the universal access era, suggesting that there are good reasons to incorporate other purposes in addition to access and choice. Indeed, we may be moving toward a dynamic model that integrates a wide array of purposes for financial aid in ensuring educational opportunity.

It may be impossible—and, in fact, undesirable—to call for a return to the relatively narrow focus of student aid on access and choice that dominated the universal access era. But it is possible for policymakers to move forward, using the lessons learned through student aid's progressive accumulation of purposes as a guide. Policymakers must:

- Evaluate the extent to which the existence of multiple purposes for student aid represents a "drag" or reduces the efficiency of the funding directed toward specific goals;
- Recognize the possibility that funds directed toward some purposes may displace funds that address other goals;
- Acknowledge the fact that students are affected differently by specific types of financial aid and clarify which students are being targeted by specific aid programs, while at the same time maintaining a broad political base of support for aid programs;
- Realize that the various partners in the provision of financial aid—the federal government, states, institutions, and others—tend to have distinct sets of goals; and
- Improve availability of data—disaggregated between graduate and undergraduate, and merit- versus need-based aid—in order to make decisions about the relative importance and effectiveness of various aid purposes.

In taking these steps, policymakers must keep in mind the considerable benefits of postsecondary educational opportunity. They must consider whether the vehicle of student financial aid should be used to accomplish purposes that are secondary to the achievement of opportunity. If they do not heed the lessons of history, the diffusion of purposes and goals for student aid is likely to continue.

I. INTRODUCTION

Student aid is becoming more and more vital to the higher education enterprise. The total amount of financial aid awarded to students over the past two decades has increased at a dramatically faster rate than enrollment levels (See Figure One). Today, almost half of all students receive some form of financial aid (NCES, 1996). As the availability of student aid has grown, a clearer understanding of the way in which financial aid operates within the U.S. system of higher education is essential.

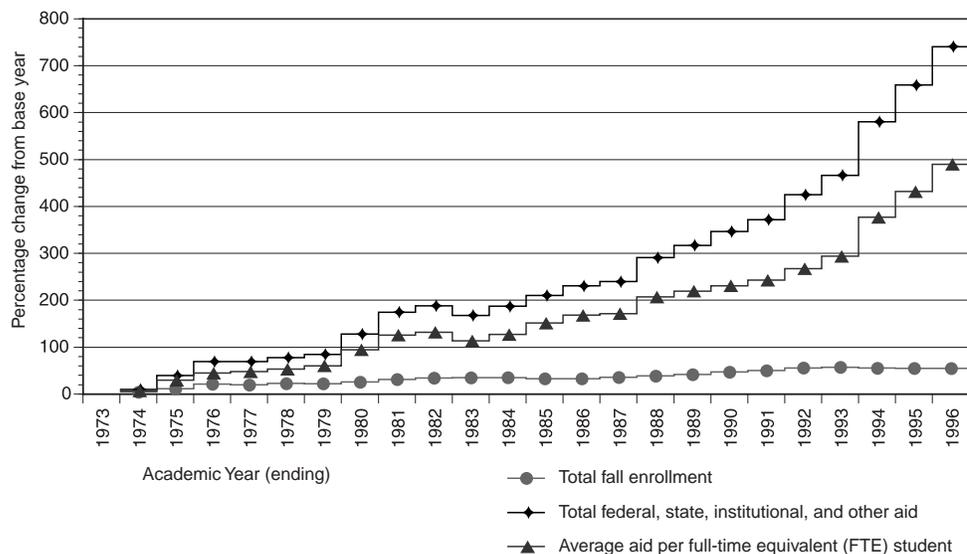
The student aid system is not static; rather, in its evolution over the last several decades, the variety of programs that comprise the system have been required to address multiple, and sometimes contradictory, goals. As needs and expectations have increased—extending beyond the early goals of economic growth and access¹ for needy students—the types and purposes of aid have changed. For example, the increasing focus on affordability for middle-income students has generated the growing use of tax credits and unsubsidized loans as student aid tools.

This report seeks to improve understanding of student assistance by outlining the historical purposes of financial aid and their progression over time. The current goals of financial aid are explored in depth, with attention given to the specific types and forms of aid that are

directed toward each goal. The report concludes by reviewing the importance of clarity in discussing the objectives of particular financial aid programs and the potential implications of overlapping purposes for future policy.

Student aid is defined in this report as financial assistance that is awarded to students to help pay for postsecondary education. It is distinct from other indirect forms of financial assistance for higher education—such as state appropriations to public institutions for operating expenses, which reduce the overall prices paid by all students, and the tax benefits available to private, non-profit institutions. Financial aid may come from various sources, including the federal government, states, postsecondary institutions, employers, and philanthropic organizations. It also comes in several forms: grants, loans, work-study, specially directed aid (such as military aid, veterans' benefits, and social security benefits), and tax credits.²

Figure One: Changes in Fall Enrollment and Student Aid, 1972-73 to 1995-96



Note: 1995-96 enrollment figures are preliminary.
Source: College Board, 1998; NCES, 1998.

¹ Access may be defined as the ability to attend a postsecondary institution.

² The range of available tax deductions (such as deductions for student loan interest) and other provisions may be considered to be student aid as well (see The Institute for Higher Education Policy and TERI, 1997). However, this report does not address the issue of tax deductions.

Two important caveats are necessary. First, the main focus of this report is on undergraduate assistance, which makes up the lion's share of direct governmental aid. Making distinctions between undergraduate and graduate or professional student assistance is important, because different pricing strategies are used at each level and because public policy goals vary considerably.³ However, because of the ways in which financial aid data are collected, it is often difficult to distinguish between the two. Whenever possible, data are presented on undergraduates only, and mention is made when funds for all postsecondary students, including graduate and professional students, are cited.

Second, this report does not address the important issues of early awareness, information, and counseling. No matter how efficient and fair the system might become in providing financial assistance, it will be of little use to needy individuals who do not know about the existence of aid and the importance of going to college. Early awareness activities and the provision of guidance are as much a part of the student aid system as are the intricacies of loan and grant programs. However, this report focuses specifically on *financial* aid and its purposes.

³ To learn more about financial aid for graduate and professional students, see the Council of Graduate Schools website (www.cgsnet.org) or the National Association of Graduate-Professional Students website (www.nagps.org/index_high.html).

II. HISTORICAL PATTERNS OF FINANCIAL AID

The development and distribution of financial aid has taken place within a framework of goals set by society. This framework is not static, but has changed with perceived social and economic needs (See Figure Two). Historically, “the federal government was only a minor partner in the enterprise of paying for college” (Hansen, 1991, p. 4). When financial aid was available to students, it came primarily through institutional and philanthropic aid to the “worthy poor,” although a few states had grant or loan programs. Most government support for higher education came via assistance to institutions—for example, the Morrill Act of 1862 encouraged states to establish public universities by providing federal land and financial support (Rainsford, 1972). State appropriations for the operating expenses of public institutions remain an essential source of funding today.

Since World War II, however, student aid policy has grown in importance in response to emerging societal goals. This evolution has contributed to both an expansion of the scope of aid programs and a fragmentation of aid purposes. Although the distinctions are not clear-cut, the transformation of student aid policy has occurred over three periods:

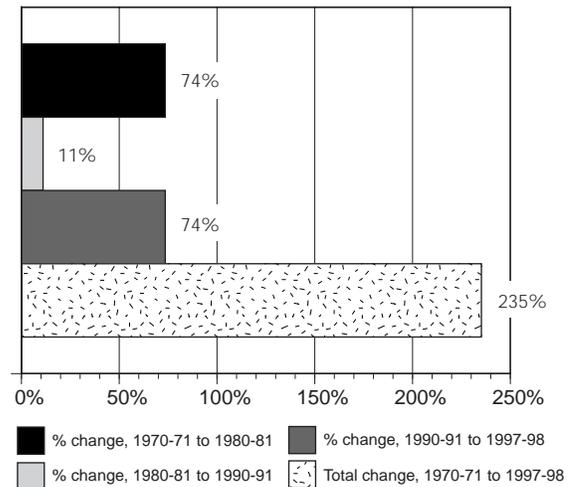
- the national economy era;
- the universal access era; and
- the diffusion of purposes era.

A. The National Economy Era

Immediately after World War II, federal student aid was focused on one primary goal: to further the country's economic health and competitiveness. The enactment of the G.I. Bill—officially known as the Serviceman's Readjustment Act of 1944—was motivated largely by national economic self-interest. Many in Congress feared that the volume of returning soldiers would lead to unemployment and displacement of those who had entered the workforce during the war, as had been the post-World War I experience. The G.I. Bill was conceived, in part, as a way to place large numbers of veterans in higher education, giving the economy time to adjust to post-war changes and allowing for a gradual assimilation of sol-

Figure Two: Growth in Total Aid Awarded to Postsecondary Students

In constant dollars



Note: 1997-98 data are preliminary.
Source: College Board, 1998.

diers into the workforce. The bill, which targeted a specific portion of the population with particular needs and goals, marked the first time that a major federal higher education program provided aid to students rather than to institutions (ACSFA, 1994).

National economic self-interest continued to be the chief motivating force behind federal aid policy after the launching of the Soviet Sputnik satellite in 1957, as federal money bolstered science education, languages, and area studies. Aid was administered through the National Defense Education Act (NDEA) of 1959, which created the first federal program of generally available need-based aid, known as the National Defense Student Loan (NDSL) program (ACSFA, 1994). With the NDEA, the federal government assumed more of the burden of financing higher education as part of its traditional responsibility for national defense. Individuals clearly benefitted from both the G.I. Bill and the NDEA, but the aid was driven more by national manpower needs than by specific concerns with equity or opportunity.

During this period, higher education institutions increasingly used student aid policies in a systematic way to maximize scarce financial aid dollars. This stemmed from changes resulting from the G.I. Bill as well as increasing competition for students among the established eastern colleges. The College Scholarship Service (CSS) developed a methodology for objectively assessing how much families could contribute toward the price of higher education and worked with colleges to determine how the gap between college prices and family contributions should be met. Private institutions then agreed to use this method and committed themselves to admitting students regardless of their ability to pay. In this way, they attempted to eliminate price differences as a factor in needy students' choice of college. At the same time, students with the greatest promise were to be matched with the best educational alternatives, as admission to selective institutions would be based on merit. In practice, this framework helped build the case for public support of student aid by representing a new vision in which the higher education system could "reconcile the claims of need and merit" (McPherson and Schapiro, 1998, p. 7).

B. The Universal Access Era

The passage of the Higher Education Act (HEA) of 1965 as part of the War on Poverty initiated a deliberate expansion of the purposes of federal policy. President Johnson and his advisors firmly believed that enabling low-income people to obtain higher education was crucial to eliminating poverty in America. Individuals benefitting from government aid for education would collectively help reach this national policy goal. The goals of national economic progress and individual prosperity became more intertwined than ever before.

The goal of eliminating poverty through access to higher education was furthered through need-tested grants and campus-based student support programs. In the period immediately following the passage of the HEA, federal administrators looked to existing systems of need analysis (such as the CSS methodology) and to higher education institutions to determine eligibility, make awards, and deliver aid under the new federal programs (Fitzgerald, 1991). Such campus-based programs included Equal Opportunity Grants (EOGs), College Work-Study (CWS), and the existing National Defense Student Loans.

Because of the success attained by the individual beneficiaries of the G.I. Bill and the various provisions of the Higher Education Act, the general public and Congress had an increased understanding that higher education was crucial to achieving both individual and national economic prosperity. The passage of legislation creating what is now the Pell Grant (originally known as the Basic Educational Opportunity Grant) program as part of the reauthorization of the HEA in 1972 advanced this understanding. Federal policy began to focus explicitly on individual access to higher education as a goal in itself. As Congress developed the Pell Grant program, it chose to fund students directly—thus encouraging institutional competition—rather than allocating funds to institutions, as with the campus-based programs. The Pell program was designed to serve as the main source of financial aid for low-income students and came to function as the foundation for aid packages (The Institute for Higher Education Policy and TERI, 1995b). In the rhetoric of the time, the Pell Grant program was considered to be a "universal G.I. Bill" (Kramer, 1998). The existing campus-based programs were retained to provide supplemental aid, and merit-based aid continued to exist alongside the myriad need-based programs throughout this period.

State student aid programs also blossomed during this period as federal matching funds through the State Student Incentive Grant (SSIG) program encouraged states to create and expand scholarships (ACSFA, 1994). Unlike state appropriations for the operating expenses of public institutions—which subsidize students of all income levels—aid to students could be targeted more directly toward the neediest students to use at the institution of their choice. This expansion coincided with the development of the community college movement and the open admissions movement (Eaton, 1992), which enabled increasing access for a wider variety of students.

Pressure to help middle-income families grew during this period. Both the original passage of the HEA and the subsequent reauthorization in 1972 included ample provision for aid to middle-income Americans through the Guaranteed Student Loan (GSL) Program, which was based on the assumption that the middle class could repay debt without excessive burden. The loan program

was so popular that in 1978 Congress passed the Middle Income Student Assistance Act (MISAA), which extended access to guaranteed student loans to all Americans, regardless of income. MISAA was proposed as a way to help improve the affordability of higher education for the middle class without resorting to tuition tax credits—a politically popular idea at the time. Eligibility based on student need was reinstated in 1981, however, after the Reagan Administration began efforts to reduce federal student aid.

C. The Diffusion of Purposes Era

During the 1980s, the Reagan Administration attempted to cut back on student aid, putting an end to the rapid growth of assistance throughout the 1970s. Funding for a number of federal student aid programs was reduced (ACSFA, 1994). The purchasing power of federal aid declined for several years, and states and institutions could not compensate fully for these losses (Hansen, 1991). Although many government programs were examined for potential cost savings during this period, these actions also reflected the ideological belief that the federal government should not play a role in financing higher education (see Bell, 1988). After the end of the Reagan Administration, however, student aid overall resumed its growth, although in a different manner than under the universal access period.

Throughout this era, even as cutbacks were being made, additional purposes have been attached to student aid to address problems or to justify the continuation or expansion of aid programs. As a result, the system of financial aid has become increasingly diffuse and complex.⁴ In turn, the wider scope of the system has influenced the growth of the various types and sources of student aid. For example, the increasing use of student loans during this era has been accompanied by concerns regarding the cost to the federal government of paying off defaulted loans. As

a result, another purpose was attached to existing financial aid programs—institutional eligibility for federal aid began to be used as a tool to fight rising loan default rates, especially among proprietary institutions.

Financial aid also has become an important tool for higher education institutions. Institutions use their own aid as a vehicle for managing the size and composition of enrollment by redistributing tuition revenue from students who can afford the price toward those who cannot. During the early part of this era, this practice was used primarily by private institutions. It has since become increasingly popular in public institutions as well.

In addition, the goal of affordability has become more prominent in public debates about financial aid. While maintaining at least a rhetorical commitment to using Pell Grants to ensure universal access to higher education, Congress has insisted on expanding aid for middle-income Americans to address rising tuition levels. During the 1992 reauthorization of the Higher Education Act, for example, all income and eligibility limits were removed in one federal program, Parent Loans for Undergraduate Students (PLUS), and an unsubsidized Stafford loan program was introduced for students who do not demonstrate financial need for the subsidized Stafford loan. These changes—as well as the continued rise in tuition levels—contributed to an explosion in student borrowing (The Institute for Higher Education Policy and TERI, 1995a). More recently, federal student aid policies underwent another fundamental shift with the introduction of tax policies such as the Hope Scholarship, which also address issues of affordability for middle-income families.

Over this period of diffusion, therefore, various aspects of the financial aid system have taken on a range of new purposes, from accountability to affordability. These purposes are explored more fully in the following sections.

⁴ Several observers have noted that student financial aid has taken on an increasing number of purposes over time, especially federal aid. For example, see the various papers collected in ED, 1995b; Hansen, 1991.

III. THE MULTIPLE PURPOSES OF AID

Today's financial aid policies reflect, in part, the changing influences of partners in the aid system—governments, institutions, philanthropy, and students and families. Over time, many of these partners have championed the multiple roles and purposes of aid. Therefore, they have expected aid to accomplish much more than what is often its stated goal. As a result, a diversity of purposes are now assigned to financial assistance by the various partners.

The current purposes of student aid may be broadly grouped into the following categories:

- *Encouraging access and choice for qualified needy students* through need-based student aid from a variety of sources, which is awarded according to need analysis formulas that take into account both income and price of attendance;
- *Furthering persistence toward a degree* through need-based grant and work-study programs, which enable recipients to continue to participate in higher education;
- *Promoting affordability for lower-income students* through grant aid, which lowers the net price faced by recipients in the long run;
- *Promoting affordability for middle-income students* through tax breaks and unsubsidized loans, which enable recipients to keep pace with rising tuition levels;
- *Rewarding student scholarship/merit* through merit-based student aid programs, which are awarded primarily at the institutional level, but also increasingly at the state and federal levels;
- *Targeting specific groups and priorities* through specially directed aid programs, which provide benefits for veterans or other targeted groups, frequently in exchange for service;
- *Improving institutional financial and administrative accountability* through loan default rate limits in particular, which exclude institutions with excessive default rates from federal Title IV student aid programs;

- *Managing institutional enrollment* through admissions and aid policies, which redirect tuition revenue from some students to others via institutional aid; and

- *Redistributing state taxpayer revenue* through state need-based aid programs, which allocate taxpayer subsidies across higher education sectors and partially replace direct state appropriations to institutions.

It is important to keep in mind that specific aid programs or types of aid may be targeted toward more than one purpose, while others are more narrowly defined. Primary purposes, such as encouraging access and choice and rewarding merit, tend to directly affect the students who receive financial aid. In general, the relevant aid programs were created specifically to address these purposes. Other purposes are secondary: they represent policy goals that were attached to already existing aid programs, such as improving institutional accountability through loan default reduction initiatives. In most cases, a specific aid program or type of aid is expected to address several of the purposes simultaneously. In the following discussion of purposes, total amounts of aid are assigned to each goal.

A. Encouraging Access and Choice for Needy Students

The overwhelming majority of student financial aid is intended to provide access for eligible needy students who aspire to postsecondary education. Thus, most aid programs are need-based: funds are awarded to students on the basis of need analysis formulas that take into account low levels of family resources, high prices of attending a particular institution, or both. In general, more aid is supposed to be awarded under such formulas to students with greater need. Because need analysis formulas tend to include a price component, these programs also attempt to allow needy students to choose the type of institution they attend.

ACCESS

The increased financial aid levels of the 1970s—in the universal access era—were accompanied by growth in total enrollment. Between 1972-73 and 1981-82, total

Net Prices and Financial Aid

The effects of student aid frequently are described in terms of how the aid received by a student reduces the total price of attendance faced by that student; this is known as net price. However, calculations of net price may differ depending on which types of aid are subtracted from the total price. The different conceptions of net price are important to understanding the purposes toward which various forms of student aid are directed.

According to the National Commission on the Cost of Higher Education, access may be described by the total price of attendance minus *all financial aid* received, whereas total price minus *grants only* is a better measure of affordability (Cost Commission, 1998). This conception assumes that although loans must be repaid eventually—and thus represent costs to students or their families—they enable students to enroll in a postsecondary institution. Loans are equal to grants in meeting immediate financial need. Therefore, they enable access in the short term. Over time, however, loans do not reduce the net price of education to the student because the principal (and the interest) must be repaid. Similarly, work-study funds must be earned by the student (a form of repayment). In the long run, therefore, only grant aid is included in the student's net price.

The conception of net prices presented in this report is based upon the Cost Commission's framework. In the analysis of access, for example, "out-of-pocket price" is used to represent total price minus all financial aid. In the section on affordability, grants alone are subtracted from the price of attendance to represent "net price." These definitions also have implications for the assignment of various types of student aid to the major purposes presented in this report.

From the perspective of the *intention* of student aid, only need-based aid directly addresses the goals of both access and affordability; non-need-based aid is usually intended to reward performance or attract students from certain demographic groups. Nevertheless, non-need-based aid does defray the price of attendance faced by students. From the perspective of aid's *effect* on students, both need- and non-need-based aid actually affect access and affordability by reducing net prices paid. In keeping with the Commission's definition, the net price figures (grants and all aid) used in this report include both need- and non-need-based aid.

enrollment in higher education grew by 34 percent, from 9.2 million to 12.4 million students. Meanwhile, the percentage of high school graduates ages 16 to 24 who were enrolled in college the October following graduation rose from 49 percent in 1972 to 54 percent in 1981 (See Table One). Participation rates continued to increase through the 1980s and 1990s.

Although some observers attribute the steady increases in enrollment to broader trends, historical comparisons ("before and after" studies) and econometric studies generally have found that financial aid has a positive influence on

student decisions to attend college (McPherson, 1988; St. John, 1991; Heller, 1997).⁵ By lowering the net price faced by students, financial assistance can encourage enrollment and make higher education more accessible (McPherson and Schapiro, 1998). At the same time, it appears that students with varying characteristics react differently to changes in tuition and financial aid (Heller, 1997):

- Students from lower-income families tend to be more sensitive to tuition and aid when making enrollment decisions than do students from middle- and upper-income families.

⁵ These studies have some methodological problems. In the case of historical comparisons, the results may have been influenced by other factors, such as broader societal or educational trends. Further, some of the statistical models may omit key relationships or explanatory variables (McPherson, 1988).

Table One: Immediate Transition from High School to College

Percentage of high school graduates ages 16 to 24 enrolled in college the October following graduation

	Total	Low income	High income	White	Black	Hispanic
1972	49.2%	26.1%	63.8%	49.7%	44.6%	45.0%
1981	53.9%	33.6%	67.6%	54.9%	42.7%	52.1%
1996	65.0%	48.6%	78.0%	67.4%	56.0%	50.8%

Note: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent. The period between 1972 and 1981 mirrors the height of the "universal access" era.

Source: NCES, 1998, p. 46.

Table Two: Out-of-Pocket Price Patterns Among Full-Time, Dependent Undergraduates, 1995-96

By family income and institutional type

	Private, non-profit four-year	Proprietary	Public four-year	Public two-year
\$0-\$9,999	\$4,735	\$4,651	\$2,947	\$2,581
\$10,000-\$19,999	\$4,732	\$5,136	\$3,307	\$2,921
\$20,000-\$39,999	\$5,974	\$5,801	\$4,222	\$3,851
\$40,000-\$59,999	\$7,379	\$6,871	\$5,309	\$4,336
\$60,000 and up	\$11,088	\$8,213	\$6,568	\$4,002

Note: Out-of-pocket price equals price of attendance minus all aid. Analysis includes all dependent, full-time students, even those who did not receive aid. Private, non-profit two-year institutions were excluded due to low sample size.

Source: NCES, 1996.

- Black students are more sensitive to changes in tuition and aid than are white students; the evidence is more mixed for Hispanic students.
- Community college students are more sensitive to price than are students in four-year public institutions, most likely because of the concentration of lower-income and minority students in this sector.⁶

According to 1995-96 data, full-time, dependent undergraduates who had the lowest income levels and those who attended the most expensive institutions—private, non-profit four-year schools—more frequently received need-based aid of any type from any source. They also tended to receive the greatest average amounts of such aid (See Figures Three and Four).⁷ The patterns suggest that need-based aid is being targeted toward students who exhibit the most need, in terms of both price of attendance and ability to pay.

Need-based financial aid tries to address this uneven reaction to prices by targeting funds toward those who are most price sensitive—low-income students. At the same time, need-based aid tries to broaden access to more expensive institutions—or student "choice"—by including the price of attendance in the criteria for need.

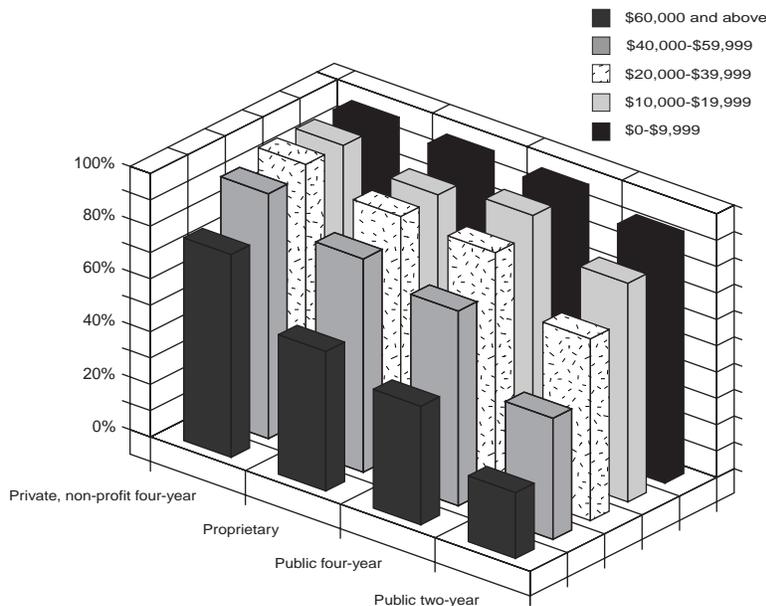
An analysis of out-of-pocket price patterns takes this one step further.⁸ In a 1991 report, the Congressional Budget Office (CBO) used data from the 1986-87 academic year to reveal that out-of-pocket prices for full-time, depen-

⁶ In this report, the descriptions of both public and private two-year institutions also include less-than-two-year institutions.

⁷ Only the average amounts received by proprietary school students did not match this trend—proprietary institutions are relatively expensive and the average amounts of aid received were disproportionately low.

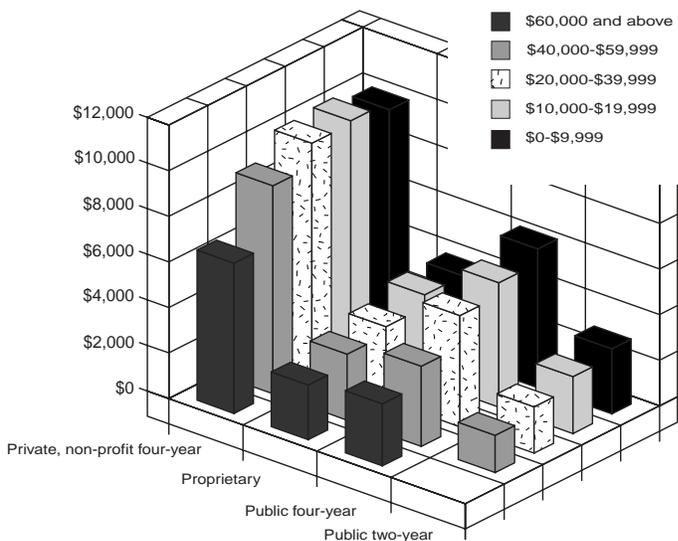
⁸ In this analysis of out-of-pocket price patterns (called simply "net cost" in CBO, 1991), all financial aid is subtracted from total price in order to best capture issues of access. The subtracted aid includes both need- and non-need-based aid, in line with the Cost Commission's definition and the perspective of the student. See discussion on p. 8.

Figure Three: Percentage of Full-Time, Dependent Undergraduates Receiving Need-Based Aid from Any Source, 1995-96



Note: Private, non-profit two-year institutions were excluded due to low sample size. Source: NCES, 1996.

Figure Four: Average Amount of Need-Based Aid Received by Full-Time, Dependent Undergraduates, 1995-96



Note: Amounts are only for those students who received aid. Private, non-profit two-year institutions were excluded due to low sample size. An average was not available for students at public two-year institutions with family incomes of \$60,000 or more due to low sample size. Source: NCES, 1996.

dent students declined as the ability to pay decreased within each institutional type. In other words, students with more need faced lower out-of-pocket prices than their counterparts with less need at the same institutional type (CBO, 1991). Analysis of similar data from 1995-96 indicates that this relationship generally continues to hold (See Table Two). These data suggest that financial aid overall is directed toward economically disadvantaged students—those who need aid most in order to attend a postsecondary institution. Aid causes out-of-pocket prices to be relatively lower and presumably encourages access.

Nevertheless, there is evidence to suggest that financial aid does not meet the full need of all students. This is especially salient given the fact that lower-income students tend to be more sensitive to a given level of unmet need than higher-income students (Choy, 1998). Indeed, with all of the changes in and strengthening of need-based aid programs, participation rates are still closely associated with socio-economic status. High school graduates from higher-income families remain significantly more likely to attend college than their counterparts from lower-income families (Gladioux and Swail, 1998).⁹

CHOICE

Debate continues over *which* institutions represent basic access.

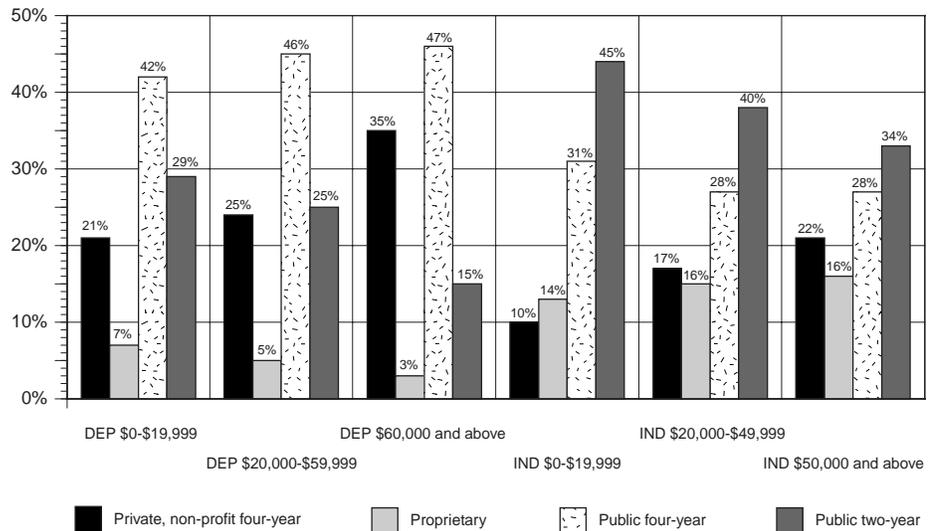
⁹ In addition, evidence from Davis (1997) suggests that although college enrollments continue to grow, this growth is not among students from lower-income families, especially at four-year institutions.

Although student “choice” largely has been framed in terms of public versus private institutions, the distinction between two-year and four-year institutions has become increasingly important. Despite the targeting of need-based financial aid toward lower-income students, the “opportunity to attend a flagship public university or indeed any four-year public institution is importantly constrained by income in many states” (McPherson and Schapiro, 1998, p. 42).

Two types of students—low-income and independent—have become disproportionately concentrated in two-year institutions, generally reflecting the lower tuitions and higher accessibility of these institutions (See Figure Five).

The distribution of need-based aid apparently has not been able to offset these trends, despite the fact that within each income category, students at higher-priced institutions in 1995-96 received greater average amounts of aid (NCES, 1996). One reason lies in the inclusion of the price of college in need analysis formulas. Price was included so that aid programs could help address student choice. However, under this system, one student’s need may surpass that of another solely due to attendance at a higher-priced institution rather than a lower ability to pay. The ultimate result may be that need-based aid to higher-income students—particularly through loan programs—is subsidizing choice (Brewer and Kaganoff, 1997), while current levels of need-based aid do not necessarily encourage choice among institutions for lower-income students. For example, Pell Grants now cover such

Figure Five: Type of Institution Attended by Undergraduates, by Family Income and Dependency Status, 1995-96



Note: Private, non-profit two-year institutions were excluded due to low sample size; therefore, the percentages for each category of undergraduates do not add up to 100.

Source: NCES, 1996.

a low proportion of the average price of attending a four-year institution—especially in the private sector—that enrollment shifts are not likely (The Institute for Higher Education Policy and TERI, 1998).

On the federal level, need-based aid includes the Pell Grant program, the campus-based programs, and the subsidized Stafford loan program. In 1997-98, federal aid awarded to graduates and undergraduates totaled \$27 billion under these programs (College Board, 1998). States and institutions also award aid to students based on need; some use the federal need analysis methodology, while others use their own formulas, or a combination of the federal formula and their own criteria. In 1997-98, states awarded \$3 billion in need-based aid to undergraduates (NASSGAP, 1999). In the same year, we estimate that approximately \$9 billion in need-based institutional aid was awarded to undergraduates and graduate students. This assumes that 76 percent of institutional aid awarded at all institutions was need-based, as was estimated for 1991-92 (McPherson and Schapiro, 1998; College Board, 1998).¹⁰

¹⁰Data on state aid from NASSGAP include primarily grant and scholarship programs. Although there is little data available on state-sponsored loan programs, the College Board (1998) estimated they totaled \$345 million in 1997-98. In addition, NASSGAP data for 1997-98 shows \$11.6 billion in other aid (loans, work-study funds, and scholarships), which includes some federal dollars administered by state agencies. However, the data cannot be easily disaggregated into need-based state aid.

B. Furthering Persistence Toward a Degree

Many of the same student aid programs are used not only to promote access to higher education, but also to encourage all students to continue to participate in higher education. In general, however, grant programs—and, to some extent, work-study programs—are better targeted toward persistence than loan programs.

While there are other important factors in students' decisions to continue or drop out of college (see Tinto, 1987), studies have found that "student financial aid, when awarded in a sufficient amount and through an appropriate combination of programs, has a positive influence on... program completion" (HECB, 1995, p. 3). The overall effect of aid is to enable recipients, who usually have fewer socio-economic resources and would otherwise tend to have higher drop-out rates, to persist at least at the same rate as non-recipients. This suggests that aid has a positive and equalizing effect on degree attainment (The Institute for Higher Education Policy and TERI, 1995b). However, different types of aid have varying effects on persistence.

Grant aid tends to have the greatest positive effect. For example, Pell Grants appear to make a "positive difference in the persistence of undergraduates from the lowest two socioeconomic (SES) quartiles" (Lee, 1998, p. 74). In the lowest quartile, 55 percent of those with a Pell Grant either graduated or were still enrolled after five years, compared to 41 percent of those without a Pell Grant. In addition, a study by the U.S. General Accounting Office (GAO) estimated that African-American students receiving \$1,000 in grant aid over the average grant level have a 7 percent lower probability of dropping out and Hispanic students have a 8 percent lower probability, controlling for such factors as student ability and family background (GAO, 1994). College work-study appears to have a positive influence on student persistence up to a moderate number of hours per week, beyond which it diminishes college performance (HECB, 1995).

The effect of loans is more varied. For example, research has found that loans as the sole source of aid have a

negative or neutral impact on retention, but when combined with other types of assistance, they may enhance persistence (HECB, 1995). The potential adverse impact of loans may be especially relevant for low-income students and minorities. For example, a GAO study found that "loans never significantly reduced the dropout probability for low-income students and actually increased the probability in the third year" (GAO, 1995, p. 26). It is also important to note that loans present a huge burden for non-completers, who do not necessarily experience the benefits of higher income from their college experience.¹¹

On the federal level, a combined total of \$7 billion was awarded to undergraduate and graduate students through the Pell Grant, SEOG, and SSIG programs in 1997-98, and slightly more than \$1 billion was awarded in federal work-study funds (College Board, 1998). Approximately \$11 billion in grants or tuition discounts was awarded by institutions in 1997-98 (College Board, 1998). In addition, in 1997-98 more than \$3 billion was awarded to undergraduates through state grant programs (NASSGAP, 1999).

C. Promoting Affordability

Many in the higher education community believe that price increases and escalating student loan debt may be posing an increasing burden for middle- and low-income students or may be restricting their choice of schools. Middle-income families, in particular, have vocalized their concerns. These issues address affordability, or whether the money students and their families actually pay to attend college is within their reach. In general, aid that does not need to be repaid with money or service has the most impact on long-term affordability.

At the same time, different types of student aid address affordability for different groups of students. Affordability for needy students is addressed primarily through the impact of grant aid on net price patterns, whereas the predicted effects of new tax legislation and the growth of federal unsubsidized loans are most relevant to affordability for middle-income students. These two aspects of affordability are considered below.

¹¹These findings are consistent with our definitions of net price, in that loans allow students to gain access, whereas grants (which affect affordability) offer longer-term support that encourages persistence.

EFFECTS OF GRANT AID ON AFFORDABILITY FOR NEEDY STUDENTS

According to a recent study (The Institute for Higher Education Policy and TERI, 1998), the capacity of need-based grant aid to improve the affordability of higher education gradually has been eroded, as grant aid has not kept pace with rapidly escalating tuition levels. Need-based grant awards are covering a lower percentage of the average price of attending college than they did 20 years ago. In 1976-77, the average Pell Grant award covered 19 percent of the average undergraduate price at private four-year institutions and 39 percent at public four-year institutions, but by 1996-97 the average award covered only 9 percent and 22 percent, respectively (See Table Three). State need-based grants also are covering a smaller proportion, while institutional grants have remained relatively stable over the last decade.

Affordability for needy students also can be examined through patterns of net prices—similar to the analysis for access, but measuring the total price minus *grant aid*, rather than the total price minus all aid.¹² Average net prices increased between 1989-90 and 1995-96 for most families, with the important exception of public two-year institutions (The Institute for Higher Education Policy and TERI, 1998). In addition, in 1995-96 net prices exceeded average expected family contributions (EFCs)—a rough measure of what families are able to pay on their own—for virtually all income categories and institutional types. If net prices are greater than EFCs, then students who attend school must pay more than need analysis has determined they can pay—they have “unmet need.” This was especially true for low-income students attending four-year institutions, suggesting that higher education is becoming less affordable for these students because the countervailing effects of need-based grant aid are eroding.

A total of \$7 billion was awarded in federal need-based grant aid to undergraduate and graduate students through the Pell Grant, SEOG, and SSIG programs in 1997-98 (College Board, 1998). In 1997-98, almost \$9 billion in need-based grant aid was awarded by institutions to all students (estimated from College Board, 1998; and McPherson and Schapiro, 1998), while almost \$3 billion was awarded to undergraduates only through state need-based grant programs in 1997-98 (NASSGAP, 1999).

EFFECTS OF UNSUBSIDIZED LOANS AND TAX BENEFITS ON AFFORDABILITY FOR MIDDLE-INCOME STUDENTS

An unsubsidized loan option for the federal Stafford program was introduced in 1992-93, largely to address many families’ need to pay rapidly escalating tuition levels.¹³ Unsubsidized loans are available to students regardless of need. In the subsidized loan program, the government pays the interest while borrowers are enrolled. For unsubsidized loans, in-school interest charges are added to the borrower’s total cost.¹⁴ Since its inception, rates of growth in the unsubsidized loan program have been substantially higher than in the subsidized loan program, and unsubsidized loans now account for almost 40 percent of federal student borrowing through the Stafford program (College Board, 1998). Although these loans are sometimes used by lower-income students, they are directed primarily at middle-income families whose children do not qualify for grants and subsidized loans.

More recently, Congress and the Clinton Administration have supported tax credits as a way to address the affordability issue, primarily for middle-income families.¹⁵ Use of the tax code for higher education represents a fundamental change in approach, as federal student aid

¹² This net price analysis includes both need- and non-need-based grants to be consistent with the Cost Commission’s definition and students’ perspective of net price. See discussion on p. 8.

¹³ Unsubsidized loans, which must be repaid, affect affordability in a slightly different manner than do grants or tax credits. In essence, they represent a “guarantee” by the federal government that families can gain access to resources to pay for college, and do not have to rely on private capital markets. For many families who do not have “need”—and can therefore “afford” college in the long term—unsubsidized loans make it easier for them to come up with fluid resources.

¹⁴ It is important to note that even “unsubsidized” loans involve an element of government subsidy—for example, rates of interest on the loans may be lower than market rates.

¹⁵ Although tax credits are not grants *per se*, they do not need to be “repaid” with money or service, and therefore can be viewed as affecting affordability.

Table Three: Pell Grant Awards as a Share of Average Undergraduate Tuition, Fees, and Room and Board, 1976-77 to 1996-97
In current dollars

Academic year ending:	Actual maximum Pell Grant award	Percent of private four-year price of attendance covered	Percent of public four-year price of attendance covered	Average Pell Grant award (aid per recipient)	Percent of private four-year price of attendance covered	Percent of public four-year price of attendance covered
1977	\$1,400	35%	72%	\$759	19%	39%
1978	\$1,400	33%	69%	\$758	18%	37%
1979	\$1,600	35%	75%	\$814	18%	38%
1980	\$1,800	36%	77%	\$929	19%	40%
1981	\$1,750	31%	69%	\$882	16%	35%
1982	\$1,670	26%	58%	\$849	13%	30%
1983	\$1,800	25%	56%	\$959	13%	30%
1984	\$1,800	23%	52%	\$1,014	13%	30%
1985	\$1,900	22%	52%	\$1,111	13%	30%
1986	\$2,100	23%	54%	\$1,279	14%	33%
1987	\$2,100	21%	51%	\$1,301	13%	31%
1988	\$2,100	20%	48%	\$1,303	12%	30%
1989	\$2,200	19%	47%	\$1,399	12%	30%
1990	\$2,300	19%	46%	\$1,438	12%	29%
1991	\$2,300	17%	44%	\$1,449	11%	28%
1992	\$2,400	17%	42%	\$1,530	11%	27%
1993	\$2,400	16%	40%	\$1,543	10%	26%
1994	\$2,300	14%	36%	\$1,506	9%	24%
1995	\$2,300	14%	34%	\$1,502	9%	23%
1996	\$2,340	13%	33%	\$1,515	9%	22%
1997	\$2,470	13%	34%	\$1,577	9%	22%

Note: Average tuition, fees, and room and board figures for 1986-87 and later years reflect 20 meals per week rather than meals served 7 days per week and, therefore, are not entirely comparable with figures for previous years.
Source: College Board, 1997; NCES, 1997; ED, 1998b (as presented in The Institute for Higher Education Policy and TERI, 1998).

traditionally has focused on targeted, need-based aid for several decades. The new policies, which took effect in 1998, are expected to provide approximately \$40 billion in tax relief over five years (Conklin, 1998). The most important of these new initiatives include:

- Hope Scholarships, which are aimed at the first two years of undergraduate study, provide a nonrefundable tax credit for 100 percent of the first \$1,000 of allowable expenses and 50 percent of the second \$1,000 for each eligible dependent; and

- Lifetime Learning Credits, which are available to undergraduates, graduate students, and working Americans, provide a nonrefundable 20 percent tax credit on the first \$5,000 of tuition and fees through 2002, and the first \$10,000 thereafter (Cost Commission, 1998).

These initiatives will primarily reward middle-income families and students who are most likely to have enough tax liability to receive the full credit amount and face net tuitions that exceed \$2,000. For eligible students attending public institutions, the Hope Scholarship should repre-

sent a substantial discount on sticker prices (Zucker, 1998). This evaluation assumes that institutions will not raise tuition levels to “absorb” the tax credits—it remains unclear whether they will refrain from doing so. Legislative analysts in at least two states (North Carolina and California) are considering recommending that public tuitions be raised to capture some of the benefits of tax credits (for example, see LAO, 1998).

The price reductions generated by the tax credits will address affordability, but not access, for two major reasons. They are directed primarily toward middle-income families who would probably attend college without the tax incentive; and the financial benefits are gained post-enrollment, after tuition has already been paid (The Institute for Higher Education Policy and TERI, 1997). In addition, students at higher-priced institutions will benefit more than students at lower-priced institutions (Conklin, 1998).

At the same time, these credits will have little effect on the lowest-income Americans—to be eligible for the tax credits, a person needs to have tax liability and to file a tax return. The long-term danger also exists that tax policy programs will cut into the political support for increases in money available for established need-based student aid programs, and will give states and institutions incentives to decrease their own aid contributions (McPherson and Schapiro, 1997; The Institute for Higher Education Policy and TERI, 1997). For example, a top U.S. Department of Education official recently argued against raising the maximum Pell Grant award because it would cancel some of the tax benefits that would otherwise be claimed by Pell recipients (Hebel, 1999).¹⁶ It is unclear what the long-term results of the tax initiatives will be—more overall resources for higher education or a redistribution of those resources.

By 1997-98, unsubsidized Stafford loans awarded to all postsecondary students totaled almost \$12 billion (College Board, 1998). In addition, tax credits are expected to provide approximately \$40 billion in tax relief over five years, with an estimated \$9 billion in the first year (Conklin, 1998).

D. Rewarding Student Scholarship/Merit

The goal of rewarding student performance in postsecondary education has a long history of influencing financial aid policies. Decisions based on academic merit—above average performance—take place on the institutional, state, and federal government levels. Merit criteria include such measures as grade point averages and standardized test scores.¹⁷

Non-need-based aid is not exactly the same as merit-based aid. The majority of non-need-based aid programs include academic merit criteria, but not all programs do—some are geared specifically toward athletic ability, ethnicity, or other non-need criteria. At the same time, merit criteria are attached to a few need-based aid programs, especially at the state level, and a substantial number of aid programs require “satisfactory progress.” Finally, some merit-based aid is awarded to students who have need. There seems to be no clear dichotomy between merit- and need-based aid. Given the available data, however, it is useful to use non-need-based aid as a proxy for merit-based aid, especially at the institutional and state levels.

INSTITUTIONAL MERIT AID

During the 1950s, the consensus among selective private institutions on financial aid was that admission would be based on merit, but scholarship aid would be awarded almost exclusively on the basis of need. However, the

¹⁶ An increase in the Pell maximum would substitute grant funding, which is subject to the vagaries of the budget process, for tax credit funding, which is an entitlement program. The official suggested, instead, that Pell recipients be allowed to take full advantage of the tax credits, while more Pell funds go to students who are too poor to qualify for the tax benefits. However, critics argue that retargeting the additional Pell funds is not politically feasible due to the potential loss in middle-class support for the program.

¹⁷ Much debate surrounds the definition of “merit.” The definition used in this report is closest to achievement, whereas others have defined merit as the extent to which actual performance exceeds the expected performance.

awarding of scholarship aid based on merit continued to be a part of the higher education system and has risen in recent years. According to a 1994 survey, 94 percent of public four-year institutions and 86 percent of private four-year institutions offer merit awards (Sequitur Corporation, 1994). Such awards of merit aid may be attempts by schools of lesser reputation or quality to attract students away from more prestigious institutions, or may represent competition among roughly equivalent schools for the top students (McPherson and Schapiro, 1998).

Non-need-based grant aid awarded by institutions has grown as institutions increasingly have resorted to using merit aid as an incentive for certain categories of students. Non-need-based grant aid per freshman grew rapidly between 1983-84 and 1991-92, with an annual real growth rate of 13 percent. In 1991-92, non-need-based aid accounted for 56 percent of institutional aid at public institutions, 21 percent at private institutions, and 24 percent at all institutions—although the average amounts are greater at private institutions. In addition, the least selective institutions tended to spend more on non-need-based awards (McPherson and Schapiro, 1998).¹⁸ More recent analysis by Heller and Laird (1999) found that between 1989-90 and 1995-96, the *average amount* of non-need-based grant awards at all four-year institutions grew faster than the average amount of need-based awards, although the *number* of need-based awards grew faster.¹⁹

STATE MERIT-BASED PROGRAMS

Many states have student aid programs in which recipients must demonstrate academic merit to be eligible for the program. Criteria may include ranking within high school graduating classes, minimum cumulative GPAs, or test scores. In addition, many states use academic standards to determine continued participation in the programs. Some of these state programs are completely non-need-based, while others are need-based programs that have a merit component.

In 1997-98, only 17 percent of the state grant assistance awarded to undergraduates was non-need-based. Since the mid-1980s, however, non-need-based grant funds have grown at a higher rate than have need-based grants in most years (See Table Four). In 1997-98, for example, non-need-based dollars for undergraduates increased by almost 18 percent from the previous year after adjusting for inflation, compared to an increase of 5 percent for need-based grants (NASSGAI 1999).

One of the best-known state aid programs is Georgia's merit-based HOPE scholarship program, which began in 1993 with the hope of encouraging high-achieving students to attend college in their home state. The program assumes that if the opportunity for aid is available, high school students will work harder to achieve it. The HOPE program requires recipients to have a B average or better and covers all or part of tuition at public colleges. As a result, Georgia's public institutions are admitting more students with good grades and test scores (Healy, 1997). One study found that "borderline" HOPE scholarship recipients had higher college GPAs and had earned more credits than their peers who had not received scholarships (Strosnider, 1997). Largely as a result of the HOPE program, about 85 percent of undergraduates in Georgia received some form of state grant assistance during the 1997-98 academic year (Salzer, 1999).

However, several concerns about the program have been raised. A recent study found that only about one-third of HOPE Scholarship recipients in 1997-98 continued to receive the scholarships in their sophomore year. This precipitous decline has raised questions about the unintended negative consequences of providing such a large amount of assistance to first-year students, only to see that funding disappear the following year (Selingo, 1999). Grade inflation also may be a byproduct of the scholarships, and African-American freshmen may be more likely to lose their scholarships after the first year than their white classmates (Healy, 1997). In addition, Pell Grant recipients gen-

¹⁸ Athletic scholarships were excluded from non-need-based grant dollars in their analysis. In addition, non-need-based aid was calculated in 1991 dollars per full-time freshman, including those that did not receive aid. Their analysis, based on data from Peterson's Annual Survey of Undergraduate Institutions and Financial Aid Supplement, represents a subset of institutions.

¹⁹ Their analysis was based on 1995-96 National Postsecondary Student Aid Study (NPSAS) data, focusing on full-time, dependent students. Students who attended specialized institutions were excluded, as were students from proprietary schools. Finally, students who received athletic scholarships were excluded from the analysis. One should note that according to the NPSAS variables, non-need-based aid includes only aid that is non-need; need-based aid includes some aid that has merit criteria.

Table Four: Trends in State Grant Aid for Undergraduates, 1976-77 to 1997-98

Academic year	<i>Need-based grants:</i>		<i>Non-need-based grants:</i>	
	Constant 1997-98 dollars (in millions)	Annual % change	Constant 1997-98 dollars (in millions)	Annual % change
1976-77	\$1,794			
1977-78	\$1,904	6%		
1978-79	\$1,863	-2%		
1979-80	\$1,800	-3%		
1980-81	\$1,545	-14%		
1981-82	\$1,528	-1%		
1982-83	\$1,577	3%		
1983-84	\$1,644	4%	\$165	
1984-85	\$1,762	7%	\$182	10%
1985-86	\$1,834	4%	\$177	-3%
1986-87	\$1,946	6%	\$188	6%
1987-88	\$1,944	0%	\$202	8%
1988-89	\$1,921	-1%	\$228	13%
1989-90	\$1,981	3%	\$243	6%
1990-91	\$2,021	2%	\$245	1%
1991-92	\$2,102	4%	\$227	-7%
1992-93	\$2,240	7%	\$234	3%
1993-94	\$2,449	9%	\$270	15%
1994-95	\$2,626	7%	\$388	44%
1995-96	\$2,574	-2%	\$430	11%
1996-97	\$2,624	2%	\$467	9%
1997-98	\$2,761	5%	\$552	18%

Note: Constant dollars were calculated using the Bureau of Labor Statistics' CPI-U (1982-84 = 100), adjusted for academic years. Non-need amounts prior to 1983-84 were not available.

Source: NASSGAP, various years. Historical NASSGAP data were used wherever possible to reflect updates.

FEDERAL MERIT SCHOLARSHIPS

On a more limited scale than institutions and states, the federal government attempts to promote student achievement through several specially targeted aid programs. For example, the Byrd Honors Scholarship program awards scholarships for postsecondary study to students who show promise of continued academic excellence, while the Jacob K. Javits Scholarship program provides fellowships to highly meritorious students who are pursuing doctoral degrees in arts, humanities, and social sciences (ED, 1997b). Scholarships also are awarded to pre-doctoral students through the National Science Foundation and the National Institutes of Health.

More stringent efforts to tie federal tuition assistance to classroom performance have been attempted. President Clinton's original Hope Scholarship tax credit proposal required students to earn a B average to receive the credit for a second year (Martin, 1997). The requirement was defeated after college and student groups expressed concern that it would have disproportionately hurt low-income students and would have forced colleges to report grades to the Internal Revenue Service. However, the final version does obligate students to meet the same satisfactory progress standards (defined as a C average or other academic standing demanded by the institution) as required in other federal student aid programs.

In 1997-98, approximately \$3 billion in non-need-based institutional aid was awarded to undergraduates and graduate students.

This assumes that 24 percent of institutional aid awarded at all institutions was non-need-based, as was estimated for 1991-92 (McPherson and Schapiro, 1998; College Board, 1998). Overall, states awarded \$552 million in non-need-based grants to undergraduates in 1997-98 (NASSGAP, 1999). Finally, approximately \$112 million was awarded to all students through federal merit-based grant programs (College Board, 1998).²⁰

erally do not receive Georgia HOPE scholarships, meaning that the program is essentially means-tested for those with the lowest incomes. The progress of this program has been watched closely by other states, and similar programs have been established in Florida, Louisiana, Kentucky, and South Carolina (SREB, 1998).

²⁰ There may be other federal merit-based programs, such as ROTC scholarships, that are not included in the College Board data.

E. Targeting Specific Groups and Priorities

Several federal student aid programs are designed to meet specially directed purposes, such as educational benefits to military personnel, veterans, and other groups. Unlike other federal student aid programs, which are generally available to all students who meet need or other eligibility criteria, specially directed federal aid programs are often targeted narrowly to a group or category of intended recipients.

These programs can be loosely grouped into several categories:

- *Programs that provide funds in exchange for service or employment.* These programs include benefits for veterans and military personnel, as well as national service under AmeriCorps and similar programs.
- *Programs that provide funds to a certain subset of students.* These programs are targeted to groups that have faced discrimination, such as American Indians, or to students that are entering critical fields, such as health professions. Frequently, these programs also involve a need-based component.
- *Programs that provide funds to top academic performers on a competitive basis.* These programs are included in the federal, merit-based aid programs discussed above.

The funding for these programs can vary greatly, and programs may shift with Congressional priorities—for example, veterans' benefits have decreased steadily since the 1970s.

In 1997-98, the federal government awarded \$2 billion in specially directed aid to all postsecondary students, including more than \$1 billion in veterans' benefits and \$474 million in military benefits (College Board, 1998).

F. Improving Institutional Financial and Administrative Accountability

Although no aid program was specifically created for this purpose, student aid at the federal level is increasingly being touted as a vehicle to encourage increased account-

ability at institutions of higher education, especially with respect to the loan default rates of their students. The functions of ensuring institutional accountability are shared by the federal government, states, and private accrediting agencies. States are responsible for licensing institutions, whereas accrediting agencies serve as a means of conducting non-governmental, peer evaluation of educational institutions and programs. The federal role involves the gatekeeping function that controls access to federal Title IV student aid programs: eligibility and certification; program reviews by ED staff; audit resolutions; and default reduction efforts (ED, 1995a).

Over the past decades, several programs that address accountability have been attached to student aid, including selective service compliance, drug enforcement, and other policies. More recently, State Postsecondary Review Entities (SPREs) were created by Congress in 1992 to provide structure and funding to assist states in their licensing function; certain "triggers," such as high loan default rates or inadequate audits, would have determined whether schools should be allowed to continue their participation in federal student aid programs. However, the program was dismantled in 1995 before most SPREs had even begun operation (see ED, 1994; Zook, 1995; Jaschik, 1995).

For the last decade or more, the U.S. Department of Education has concentrated its regulatory efforts on "at-risk" institutions with a history of problems in managing their financial aid programs (Burd, 1996). The Department has focused on improving accountability through maximum limits on loan default rates. The Higher Education Amendments of 1992 and 1998 mandate that institutions with default rates of 25 percent or more for three consecutive years face a loss of eligibility in the Federal Family Education Loan (FFEL) and Federal Direct Student Loan (FDSL) programs and in the Pell Grant program. In addition, institutions with one-year default rates of 40 percent may have their eligibility for all Title IV student aid programs restricted or terminated (ED, 1998a). As a result of these gatekeeping efforts, a total of 672 institutions had lost eligibility to participate in Title IV student aid programs by 1996—381 for poor performance and 291 through the ongoing re-certification process (ED/CFO, 1996). In addition, 203 institutions were no longer eligible to participate in loan programs due to high default rates.

Table Five: Student Loan Default Rates, Fiscal Years 1990 to 1996

Proportion of borrowers entering repayment in a given fiscal year who default by the end of the following fiscal year

Fiscal Year	All institutions	Proprietary	Public four-year	Public two-year	Private four-year	Private two-year
1990	22.4%	41.2%	7.0%	17.2%	6.5%	18.5%
1991	17.8%	36.2%	6.6%	14.8%	5.9%	14.9%
1992	15.0%	30.2%	7.0%	14.5%	6.4%	14.3%
1993	11.6%	23.9%	6.9%	14.5%	6.2%	13.5%
1994	10.7%	21.1%	6.8%	13.8%	6.3%	13.5%
1995	10.4%	19.9%	7.1%	14.2%	6.9%	14.4%
1996	9.6%	18.2%	7.0%	13.2%	6.5%	14.0%

Sources: ED, 1997a and 1997c; Burd, 1997 and 1998.

These default reduction initiatives—combined with improved job prospects for college graduates in a healthy economy and efforts by private lenders to change business practices to address high default rates—have helped to reduce the national cohort default rate from a high of 22 percent for the FY 1990 cohort to 10 percent for the FY 1996 cohort (the most recent year for which such information is available). In particular, a sharp drop in historically high default rates for proprietary schools has occurred—from a high of 41 percent in FY 1990 to 18 percent in FY 1996—partly because many of the worst institutional offenders have been rendered ineligible or have closed (See Table Five).

Despite the effectiveness of these measures in reducing default rates, students at institutions that fail to meet these standards are denied access to student aid funds—a considerable loss, given the amount of funding involved. The danger of this focus on punitive measures is that some institutions that serve low-income populations, who are at higher risk of dropping out, may be excluded unfairly from participation in federal student aid programs (The Institute for Higher Education Policy and TERI, 1995b). To partly address this issue, Congress and the Department have made exclusions for certain types of institutions; Historically Black Colleges and Universities (HBCUs) and tribal colleges are currently exempt from sanctions (ED, 1997c). In addition, the 1998 HEA reauthorization provided the Secretary of Education with more flexibility to consider mitigating circumstances and to prevent schools from becoming ineligible for Title IV aid despite high default rates—for example, if only a small proportion of stu-

dents takes out loans at the institution, or if the institution has a disproportionate number of low-income students and has a relatively high graduation rate.

About \$38.5 billion in Title IV student aid funds were awarded to all postsecondary students in 1997-98 (College Board, 1998). Title IV aid programs include Pell Grants, Stafford loans, Perkins loans, the federal work-study program, and other generally available federal aid programs.

G. Managing Institutional Enrollment

Most institutions use their own financial assistance as a tool to manage their revenue and enrollment (McPherson and Schapiro, 1998). The recruitment and selection of new students is no longer solely an admissions issue, but also involves the generation of student revenues and the management of student aid funds (Jenny, 1996). This purpose has grown in importance over the last decade, as private and public institutions have increased the volume and uses of their aid. Overall, between 1987-88 and 1997-98, institutional grants awarded to postsecondary students grew by 111 percent in constant dollars, while total federal student aid increased less rapidly, by 70 percent (College Board, 1998).

According to McPherson and Schapiro (1998), institutional uses of student aid now range from the “need-blind, full-need” approach, in which students are admitted without

regard to financial need and are funded to the extent of their need, to the “strategic maximization” approach, in which institutions deliberately shape a financial aid strategy that optimizes the two goals of admitting the best students and obtaining as much revenue from them as possible. Most institutions fall somewhere between these two extremes. All are forced to make decisions regarding whether to consider need when admitting students and whether to meet full need when offering financial aid packages.

Under need-blind, full-need admission policies, institutions use external financial aid (from federal, state, and private sources) to the fullest extent possible, then meet remaining student need with need-based institutional grants and loans (Hubbell, 1992). Portions of tuition revenue are redistributed toward grants—especially through the use of various forms of tuition discounting, which effectively reduces the net price paid by certain students. In general, students who can afford to pay more for higher education do so, and a portion of the tuition they pay is redirected to help meet the needs of disadvantaged students.

At the same time, institutions offer merit-based aid to attract students with specific, desirable characteristics. These can range from students with athletic or academic talents to those from cultural backgrounds that are attractive to the institution and its goals of diversity. Frequently, merit-based institutional aid is awarded on a competitive basis.

Most colleges now provide aid to a substantial proportion of their students. Between 1986-87 and 1992-93, institutional grants increased rapidly for students from all income groups, although they still make up a relatively small percentage of gross tuition at public institutions (McPherson and Schapiro, 1998). By 1995-96, 43 percent of undergraduates at four-year private, non-profit institutions received institutional aid, with an average award of \$5,140, and almost 16 percent of undergraduates at public four-year institutions received an average of \$2,163 in total institutional aid (NCES, 1996).²¹ Ac-

ording to a 1996 survey of more than 300 independent institutions by the National Association of College and University Business Officers (NACUBO), tuition discounting continues to accelerate. In fact, “at many colleges and universities fewer than 10 percent of students actually pay the published tuition” (Lapovsky, 1997).

However, all but a few—mostly private—colleges are finding the need-blind, full-need approach to tuition discounting too costly (Hauptman, 1997). With the full sticker price being paid by a declining percentage of students, institutions have increasingly been forced to ration student aid funds. These policies have taken many forms, including the following (McPherson and Schapiro, 1998):

- *Preferential/differential packaging*, in which aid packages with more grants and less loans are offered to more desirable students;
- *Gapping*, in which students are offered aid packages that make up only a specific percentage of need;
- *Admit/deny*, in which marginal students are admitted without regard to need but then are denied financial aid; and
- *Need-aware second review*, in which parents’ ability to pay is considered in admissions decisions.

According to a 1994 survey of 584 colleges and universities,²² only one-fifth of both public and private four-year institutions met 100 percent of demonstrated need for all admitted students. Gapping was the most common strategy employed by both types of institutions to distribute aid, followed by preferential/differential packaging and admit/deny admission policies (See Figure Six). At the same time, 69 percent of private four-year institutions and 24 percent of public four-year institutions indicated that the percentage of their operating budget devoted to student aid increased over the previous five years (Sequitur Corporation, 1994).

²¹ At other institutions, the figures were significantly lower: 8 percent received an average of \$570 at public two-year institutions; 10 percent received an average of \$1,576 at proprietary schools; and 21 percent received an average of \$1,514 at two-year private, non-profit institutions (although for the latter category, the sample size was low).

²² The respondents included both private and public institutions: 64 percent were private four-year, 28 percent were public four-year, and the remaining 8 percent were either two-year institutions or did not provide their control. The report was prepared for the National Association for College Admission Counseling (NACAC) by the Sequitur Corporation and represents the NACAC membership.

Thus, institutions have gradually migrated from “need-blind” to “need-aware” admissions policies. With this new agenda in mind, their goals have ranged from maximization of net tuition revenue, to recruitment of selective students, to increasing student diversity. This use of student aid for enrollment management clearly works best for schools with substantial resources from which to draw, such as endowment income. Given continued competition between schools, however, the trend

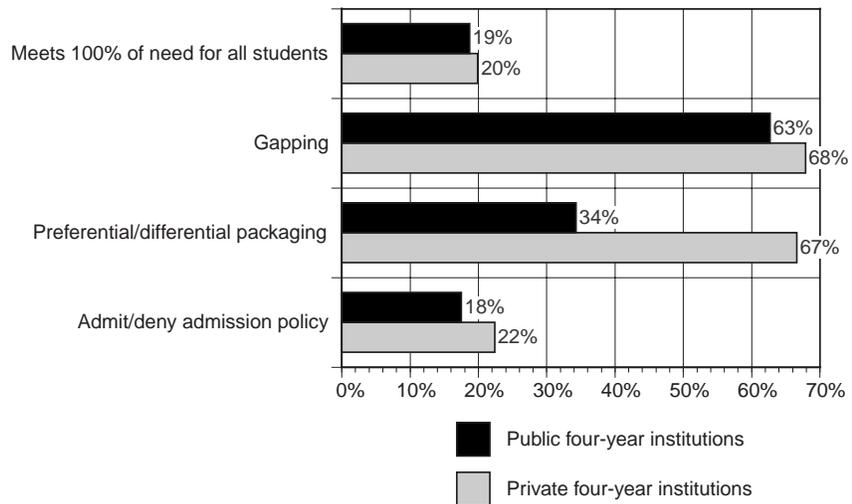
toward tuition discounts and creative financial aid packaging appears likely to continue. In fact, several prestigious private universities have recently announced that they are adding millions of dollars to their financial aid budgets, most of which will go to middle-income students. This may prompt demands for even bigger discounts from colleges with less name recognition (see, for example, Gose, 1998).

Institutional grants awarded to all postsecondary students—including both need-based and non-need-based aid—reached \$11 billion in 1997-98 (College Board, 1998).

H. Redistributing State Taxpayer Revenue

Financial aid can be used to redistribute revenue among students not just inside institutions, but across higher education sectors as well. This moves a step beyond the enrollment management strategy, in which institutions make strategic

Figure Six: Strategies Used by Four-Year Institutions to Distribute Aid, 1994



Source: Sequitur Corporation, 1994.

choices to redistribute tuition revenue away from some students toward institutional aid for other students, but is very similar in its effects. For instance, state need-based grants can be used to channel taxpayer money directly to needy students throughout higher education systems, rather than indirectly through state appropriations to public institutions for operating expenses.²³ This use of state aid comprises one aspect of the “high tuition/high aid” model.

Only a portion of a higher education institution’s revenue is generated by tuition and fees. The remainder comes from federal and state government appropriations, endowment income, and other non-tuition income. This allows the price of the average student’s education to fall below what it costs to provide that education (Winston, 1997). Traditionally, states have provided the foundation for public sector subsidization with direct appropriations to institutions, enabling public institutions to hold their tuitions at relatively low levels. However, a decrease in the importance of revenue from state appropriations and other public sources, as a percentage of total revenues,

²³ It is important to note that the approach to redistributing revenue differs somewhat between private and public institutions, largely because tuition is the largest source of revenue for private institutions, while state and local appropriations remain the largest source of funding for public institutions. Thus, the broader, systemic high tuition/high aid model is most relevant in the public sector, while private institutions have taken the lead in using more narrowly focused enrollment management techniques. Ultimately, increased competition may be the driving force for private institutions, whereas the fiscal pressure imposed by state governments may be motivating public institutions (McPherson and Schapiro, 1998).

Table Six: Percentage Share of Total Revenues by Source, 1980-81 to 1994-95

Public Institutions	1980-81	1990-91	1994-95
Tuition and fees	13%	16%	18%
Federal government	13%	10%	11%
State government	46%	40%	36%
Local government	4%	4%	4%
Gifts	3%	4%	4%
Endowment	0%	0%	1%
Other	22%	25%	26%
Total	100%	100%	100%

Private Institutions	1980-81	1990-91	1994-95
Tuition and fees	37%	40%	42%
Federal government	19%	15%	14%
State government	2%	2%	2%
Local government	1%	1%	1%
Gifts	9%	9%	9%
Endowment	5%	5%	5%
Other	27%	27%	27%
Total	100%	100%	100%

Note: Because of rounding, details may not add to totals. Private institutions include both non-profit and for-profit.
 Source: NCES, 1997 (as presented in The Institute for Higher Education Policy, 1999).

without regard to student need (Wellman, 1996). According to the economists' argument (see, for example, Fischer, 1990; McPherson and Schapiro, 1991), this represents an inefficient use of public resources: middle- and upper-income students who attend public institutions benefit from the low tuition levels as much as needy students, and the lower levels of tuition give an advantage to public institutions over private institutions in competing for students. A high tuition/high aid model, on the other hand, involves withdrawing direct subsidies to public institutions, raising public tuition and fees to close to full-cost levels (or at least closer to private sector prices), and establishing an expanded program of state need-based grants or targeted tuition discounts with the revenue pooled from remaining public subsidies and additional tuition. According to proponents, such a model targets public subsidies more effectively to the needy, enhances competition between public and private institutions (and therefore student choice), and uses tax dollars more efficiently.²⁴

has occurred over the last two decades (See Table Six). For example, between 1980-81 and 1994-95, public revenue as a percentage of total revenue decreased from 63 percent to 51 percent at public institutions (The Institute for Higher Education Policy, 1999). Over the years, many economists have argued that given this relative decline in the public revenue base, subsidies need to be distributed more efficiently—in particular, by simultaneously permitting public tuitions to rise and targeting more state student aid dollars toward needy students.

Currently in the public higher education sector, a substantial amount of taxpayer subsidies goes directly to public institutions on the basis of program costs—more money per student goes to institutions with higher-cost programs,

Practical obstacles remain in using a high tuition/high aid strategy. For example, there is evidence that students respond to “sticker prices” rather than net prices, and so a high tuition/high aid strategy might discourage many students from even applying (Brewer and Kaganoff, 1997; Heller, 1997). Most important, higher tuition does not guarantee that state need-based programs will be funded adequately. If states increase tuition without raising the accompanying aid, they will fail to offer enough support to needy students. Because lower-income students tend to drop out in reaction to prices at a faster pace than do higher-income students (Heller, 1997), access to public universities for lower-income students may be diminished.

Regardless of the predicted consequences, the arguments for a high tuition/high aid model have endured and it

²⁴ The high tuition/high aid approach is generally proposed as a way of redistributing state subsidies only. The federal government is assumed to maintain its need-based financial aid system to ensure access.

appears that many state higher education systems have moved in that direction. Although only a few states have explicit high tuition policies (Lenth, 1993), many state systems appear to be “backing into” a high tuition/high aid strategy. They have seen a decline in the relative role of direct public appropriations and an offsetting increase in the roles of tuition revenue and state-sponsored aid (The Institute for Higher Education Policy, 1999).²⁵ However, it also appears that this *de facto* version of the model

may not be working as planned. As increases in state student aid seem to be occurring in non-need-based programs more than need-based programs, the goal of redistributing subsidies to the neediest students may be jeopardized.

In 1997-98, almost \$3 billion in state need-based grant aid was awarded to undergraduates (NASSGAP, 1999).²⁶

²⁵ Lewis and Winston (1997) also have shown that in the public sector, subsidy resources shifted over the period 1986-87 to 1993-94 from general subsidies to student financial aid, “a clear movement toward a ‘high-tuition/high-aid’ strategy” (p. 21).

²⁶ Data on state aid from NASSGAP include primarily grant and scholarship programs. Although there is little data available on state-sponsored loan programs, the College Board (1998) estimated they totaled \$345 million in 1997-98. In addition, NASSGAP data for 1997-98 shows \$11.6 billion in other aid (loans, work-study funds, and scholarships), which includes some federal dollars administered by state agencies. However, the data cannot be easily disaggregated into need-based state aid.

Shifts in the Composition of Student Aid

The dual purposes of targeting aid toward low-income *and* middle-income students have led to differing visions of the most appropriate forms of aid. For example, federal policy to promote “educational opportunity” has gradually shifted from providing large amounts of grants and scholarships to providing large amounts of loan money and, more recently, tax credits. At the same time, institutions have attempted to compensate for the lag in federal grant aid by increasing their own grant aid to students. This also has served the goal of enrollment management within institutions.

Since the early 1980s, the composition of federal student aid has shifted toward a reliance on loans. This shift has occurred for several reasons:

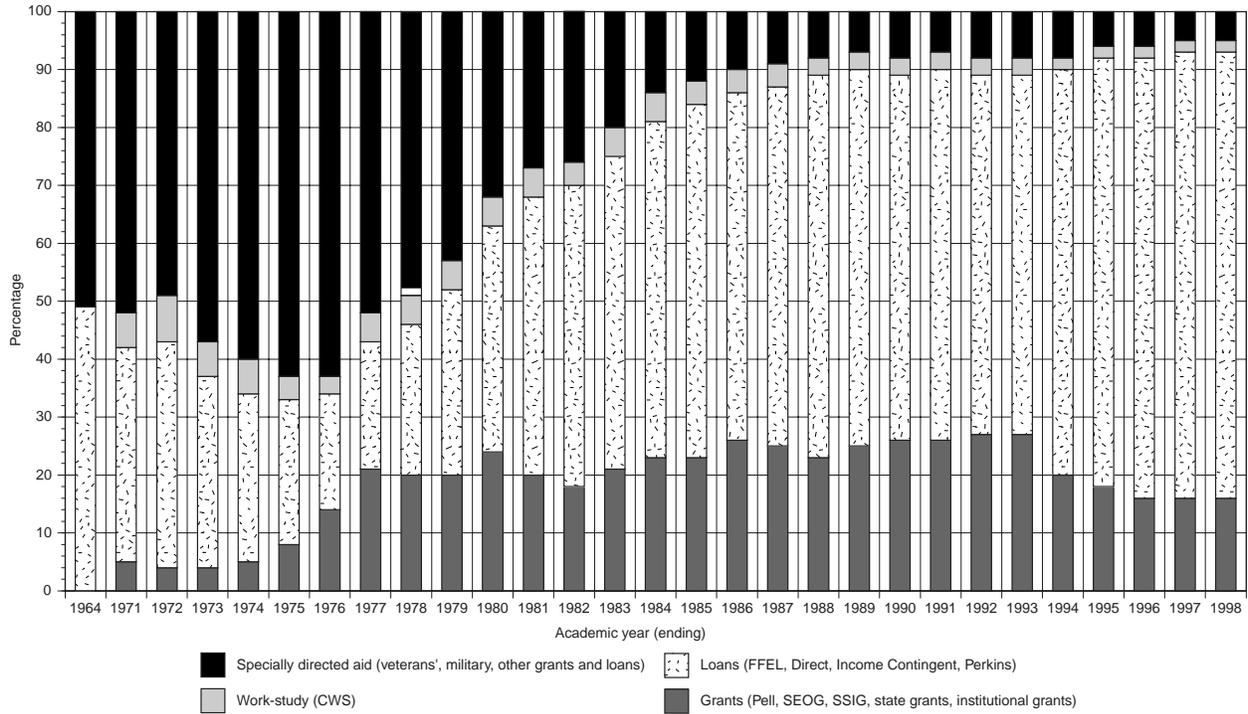
- As the country transitioned from the War on Poverty to the Reagan Revolution and the Contract with America, political support for grants eroded. Despite a recent rebound in support, Congress has not funded the Pell Grant program at its authorized maximum level since 1979-80 (College Board, 1998).
- On the other hand, Congress has substantially increased the less costly loan programs. This grew out of both a desire to help middle-income students afford higher tuitions and increasing attention to budget deficit issues—loans appear “cheaper” to policymakers than grants because the cost does not show up all at once (The Institute for Higher Education Policy and TERI, 1995b).
- Per capita income levels have not kept pace with rapidly increasing tuitions (The Institute for Higher Education Policy, 1999), compounding the cost of aid issue as families increasingly have come to depend on federal aid programs. At the same time, economic changes have placed a growing wage premium on higher levels of education.
- Meanwhile, the passage of time has meant that leaders who were educated through the G.I. Bill have been replaced by policymakers who used student loans to pay for their education. Their attitudinal changes may have contributed to the shift.

As a result, annual federal loan aid awarded to all postsecondary students expanded from almost \$5 billion in 1979-80 to nearly \$34 billion in 1997-98, while federal grants increased by much less—from \$3 billion to \$7 billion. Overall, by 1997-98, federal loans comprised 77 percent of total federal student aid, whereas grants made up 16 percent (See Figure Seven).

This shift has implications for the targeting of financial aid. “Since Pell grant funds are very effectively targeted on low-income students, . . . while federal loan subsidies are distributed much more broadly to middle-income as well as lower-income students, the shift of funding toward loans clearly moves support away from low-income students and toward the middle class” (McPherson and Schapiro, 1998, p. 36). Although the effects have not yet been felt, the recently enacted tax provisions will likely carry this shift even further, as they primarily affect middle-income families. It appears that affordability for middle-income students increasingly may take precedence over affordability and access for the neediest students as a goal for federal student aid.

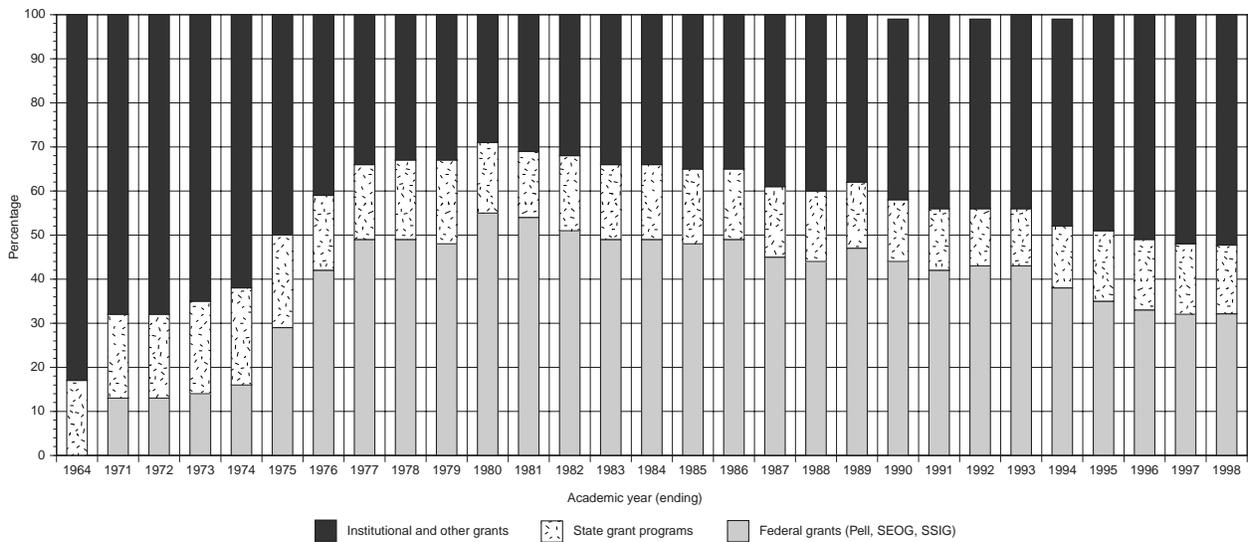
Recent years also have seen a shift from federal grants toward institutional grants, accompanying the increasing use of institutional aid for enrollment management. State grants have remained relatively stable as a proportion of total grant aid, while federal and institutional grant aid have alternated in their positions. At the height of the universal access era in 1977-78, federal grants made up 49 percent of all grants and institutional grants comprised 33 percent. By 1997-98, these roles had reversed—federal grants comprised 32 percent of all grant aid and institutional grants made up over half (See Figure Eight). This shift also has implications for financial aid’s focus—especially if institutions award the grants on the basis of criteria other than need—and raises the issue of whether colleges and universities should be making up for lags in other sources of grant funding (The Institute for Higher Education Policy and TERI, 1998).

Figure Seven: Type of Aid as a Proportion of All Federal Aid, 1963-64 to 1997-98



Source: College Board, 1998.

Figure Eight: Type of Grant Aid as a Proportion of Total Grant Aid, 1963-64 to 1997-98



Source: College Board, 1998.

IV. SUMMARY AND CONCLUSIONS

The U.S. student aid system is complex, with a variety of aid programs directed toward multiple purposes. Some student aid programs have more than one goal, while others are more narrowly targeted. At the same time, the purposes of various forms of student aid may overlap with or even contradict each other. Because of this diffusion of purposes, it has become difficult to generalize about the system as a whole. Rather, each segment of the student aid system must be analyzed in two ways: in relation to what its stated purposes are and in comparison with other segments.

Deciding how to align specific aid programs with specific purposes (See Table Seven) involves a complex assessment of the original intention of the program, the effect of the aid on students, the type and source of the aid, and the way in which the aid is allocated to students. The goals of need-based aid programs differ from those of merit-based programs, for example, and grants have different incentive effects on students than do loans. At the same time, some purposes are specific to institutions or to states and their public higher education systems.

Yet perhaps the most salient aspect of this process is that, in most cases, a particular student aid program—and a distinct pool of funds—is expected to address several purposes simultaneously. For example, when a student receives a Pell Grant, the same aid dollars may be directed explicitly toward encouraging that student to *enroll* in an institution, promoting the student's *continued participation* in higher education, and enabling the student to *afford* that education in the long term. In addition, indirect purposes may be assigned to those student aid dollars—the student may only use the grant at an institution whose loan default rate falls within certain limits, for example.

Keeping in mind the overlapping nature of student aid programs and their purposes, it is possible to examine

the portion of total student aid funds (awarded to all postsecondary students) that is dedicated to each purpose (See Figure Nine).²⁷ This analysis allows for a broad comparison of money allocated to each of the major purposes.²⁸ For example:

- An estimated 59 percent of all student aid awarded to students in 1998-99—approximately \$39 billion—was directed toward *access and choice* for needy students. In comparison, only 5 percent, slightly more than \$3 billion, was used to reward merit.
- The type of aid is relevant in the case of encouraging *persistence*; grants and work-study programs tend to support continuation toward a degree, while loans do not. Thus, the proportion of total student aid that directly addresses persistence—35 percent, or \$23 billion in 1998-99—was somewhat smaller than the proportion targeting access and choice.
- The goal of promoting *affordability for needy students* overlaps considerably with the purposes of access, choice, and persistence, whereas fostering *affordability for middle-income students* usually entails distinct aid programs. The introduction of tax credits and the explosion of borrowing under the unsubsidized loan program have led to a larger proportion of total student aid being directed toward affordability for middle-income students—32 percent compared to the 28 percent of all student aid that was directed at affordability for needy students in 1998-99.
- Virtually all federal student aid—with the exception of specially directed aid—has been assigned the secondary purpose of *improving institutional financial and administrative accountability*, one measure of which is loan default rates. Thus, institutions that fail to meet the default rate limits would be ineligible for Title IV

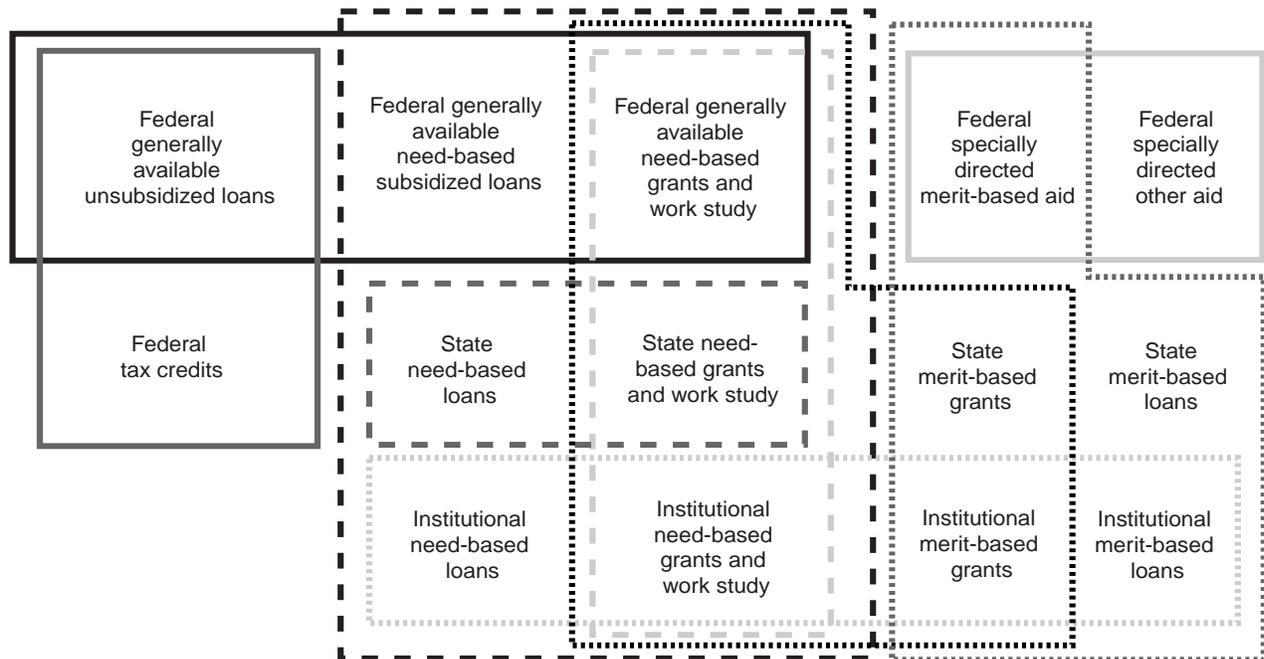
²⁷ Figure Nine does not accurately represent the distribution of public and institutional resources, but rather the amount of student aid awarded to students. A real distribution of resources would only include the funds expended by the government or higher education institutions for student aid—for example, loan subsidies from the federal government would be listed rather than the full amount of loans received by students. Nevertheless, this illustration can give a sense of what proportion of student aid resources are directed toward specific purposes.

²⁸ For each type of aid, figures for the most recent year available (usually 1997-98) were extrapolated to 1998-99 using the average annual increase in the Consumer Price Index over three years. Types of aid may be directed at more than one purpose.

Table Seven: Categorization of Student Aid by Purpose

Purpose	Aid type/source	Program(s)
Encouraging access and choice for needy students	<p><u>Federal need-based aid</u>, which is generally available and is awarded to students based on a federal need analysis formula that takes into account both income and price of attendance.</p> <p><u>State need-based aid</u>, which has varying structures and allocation formulas according to state program; some programs may include merit criteria.</p> <p><u>Institutional need-based aid</u>, which is awarded to students according to the federal methodology, institutional formulas, or a combination of both. Institutional aid can take the form of tuition discounts and frequently supplements federal and state aid.</p>	Pell Grants, Perkins loans, Subsidized Stafford loans SEOG, SSIG, FWS,
Furthering persistence toward a degree	<p><u>Federal grants</u>, which are generally available and are awarded to students based on the federal need analysis formula.</p> <p><u>Federal work-study aid</u>, which also is generally available and is awarded through the federal need analysis formula.</p> <p><u>State grants</u>, which have varying structures and allocation formulas according to state program.</p> <p><u>Institutional grants</u>, which are awarded to students according to the federal methodology, institutional formulas, or a combination of both. Institutional aid can take the form of tuition discounts and frequently supplements federal and state aid.</p>	Pell, SEOG, SSIG FWS
Rewarding student scholarship/merit	<p><u>Federal merit-based aid</u>, which primarily is awarded to students through specially directed, competitive scholarship programs.</p> <p><u>State merit-based aid</u>, which varies according to state program, is usually competitive, and attempts to keep top students in the state. Non-need-based aid, which includes other criteria such as athletic talent, is used as a proxy.</p> <p><u>Institutional merit-based aid</u>, which is awarded to students who meet specific criteria and is usually competitive. Non-need-based aid is used as a proxy.</p>	Byrd Honors Scholarship; Jacob K. Javits Scholarships; National Science Foundation pre-doctoral fellowships; National Institutes of Health pre-doctoral fellowships; and other miscellaneous federal programs
Promoting affordability for needy students	<p><u>Federal need-based grants</u>, which are generally available, are awarded to students based on the federal need analysis formula, and reduce the net price of attendance faced by recipients.</p> <p><u>State need-based grants</u>, which have varying structures and allocation formulas according to state program and reduce the net price of attendance faced by recipients.</p> <p><u>Institutional need-based grants</u>, which reduce the net price faced by recipients and can take the form of tuition discounts. These grants are frequently supplements to federal and state aid.</p>	Pell, SEOG, SSIG
Promoting affordability for middle-income students	<p><u>Tax credits</u>, which may be claimed primarily by students from middle-income families in order to be (partially) reimbursed for higher education expenditures: 1998 was the first year that the credits could be claimed.</p> <p><u>Federal non-need-based loans</u>, which allow (primarily middle-income) students to afford increasing tuition levels.</p>	Hope Scholarship, Lifelong Learning tax credit Unsubsidized Stafford loans
Targeting specific groups and priorities	<p><u>Specially directed federal aid</u>, which is not generally available to all students but rather is targeted toward specific groups of students.</p>	Veterans' benefits, Military aid, Other grants, Other loans
Improving institutional accountability	<p><u>Federal Title IV student aid</u>, which is awarded to only those students who attend institutions that meet eligibility standards, such as default rates.</p>	
Managing institutional enrollment	<p><u>Institutional need-based aid</u>, which can take the form of tuition discounts and is awarded in order to redirect money from students who can afford to pay to those who cannot.</p> <p><u>Institutional merit-based aid</u>, which can also take the form of tuition discounts and is awarded in order to attract students with specific characteristics.</p>	
Redistributing state taxpayer revenue	<p><u>State need-based aid</u>, which is used under the high tuition/high aid model to channel public revenue directly to needy students rather than indirectly through appropriations to public institutions.</p>	

Figure Nine: Student Aid Funds Directed Toward Each Purpose



Legend:

Including estimated amount awarded to both undergraduates and graduate students, 1998-99 (in millions), and percentage of total student aid awarded

Access and choice	— — —	\$39,105	59%	Targeting specific groups	———	\$2,380	4%
Persistence	.....	\$23,026	35%	Improving accountability	————	\$39,463	60%
Rewarding merit	.....	\$3,486	5%	Managing enrollment	.....	\$11,474	17%
Affordability for needy students	- - - -	\$18,623	28%	Redistributing state revenue	- - - -	\$2,853	4%
Affordability for middle class	————	\$20,931	32%				

Note: Percentages do not add to 100 due to overlapping purposes.

The average annual increase in CPI-U (1982-84 = 100) for the past three years (2.4 percent) was used to extrapolate figures for the most recent year available (generally 1997-98) to 1998-99. Types of aid may be directed at more than one purpose. This analysis excludes PLUS and non-federal loans.

Need-based and non-need-based institutional aid was calculated using the total amount from College Board data, and using McPherson and Shapiro's (1998) estimate that 24 percent of all institutional grant aid at four-year institutions in 1991-92 was non-need-based. State grants in this table include both undergraduates and graduate students; in the previous sections, figures referred to only undergraduate aid.

Data on state aid is from NASSGAP, and does not include state-sponsored loan or work-study programs. Although little data on such programs are available, College Board (1998) estimates there was \$345 million awarded in state-sponsored loans in 1997-98. In addition, NASSGAP, data for 1997-98 show \$11.6 billion in other aid (loans, work-study funds, and scholarships) awarded, which includes some federal dollars administered by state agencies. The data are not easily disaggregated into need-based state aid. If readily available, the 1998-99 need-based amount would have been added to the totals for access and choice and redistributing state revenue.

For institutional and state aid, non-need-based aid was used as a proxy for merit-based aid. For the tax credits, Conklin (1998) reported a cost of \$40 billion over five years, with approximately \$9 billion in the first year (1998).

There may be some federal merit-based programs, such as ROTC scholarships, that are not included in the College Board data.

Sources: College Board, 1998; Conklin, 1998; McPherson and Schapiro, 1998; NASSGAP, 1999.

student aid, which accounted for about 60 percent of all student aid, or more than \$39 billion, in 1998-99.

- Institutions' use of both need- and merit-based aid for *managing enrollment* size and composition involved 17 percent, more than \$11 billion, of all student aid funds in 1998-99. In contrast, the use of state need-based aid to redirect taxpayer subsidies to needy students played a relatively minor role—only 4 percent of total student aid, less than \$3 billion, addressed this purpose.

It is important to remember that due to the extent of overlap among student aid programs and purposes, the distribution of student aid funding among different purposes cumulatively adds to far more than 100 percent.

In addition to the overlap, student aid purposes have become so fragmented that they may conflict with each other—success in some aid programs may erode the effectiveness of others. At the very least, several of the goals appear to be at odds with the fundamental desire to address “need” by assisting low-income students financially. For example, merit-based aid appears to disproportionately reward students from higher-income groups. In 1995-96, 16 percent of dependent undergraduates with family incomes of \$60,000 and above received merit-only grants or scholarships, compared to only 7 percent of those with family incomes under \$10,000 (NCES, 1996). In addition, unsubsidized loans and tax credits tend to improve affordability for middle-income students rather than for low-income students. This tension was illustrated in recent discussions regarding the potential trade-off between proposed increases in the maximum Pell Grant award and tax credit benefits received by grant recipients (see Hebel, 1999).

If we were to ignore the overlap among programs and goals, then the competition between purposes can be viewed as a situation in which the resources directed toward one goal cannot be spent on the other goals.²⁹ Although the reality is considerably more complex—there is not always a direct trade-off between purposes—to a

certain extent the whole student aid system represents an interwoven fabric of opportunities and costs. Policymakers must decide which student aid purposes are justified, based upon a clear understanding of each purpose and the associated economic and social benefits. The debate regarding Pell Grant maximums and tax credits illustrates this need for choices. Given a predicted trade-off between grant dollars and tax credit dollars, policymakers must decide how the two programs interrelate, how any action might impact public support, and, ultimately, which form of aid best serves their goals.

Identifying the overlap and competition among the multiple purposes of student aid is not just an analytical exercise; the diffusion also has had the practical effect of creating a splintered constituency of beneficiaries and political interests who have a stake in existing financial aid policies. These participants invariably support the continued diffusion of purposes, rather than run the risk of eliminating specific goals and the accompanying program(s) and funding. The natural consequences of this situation are proposals that refine or attempt to reform issues at the margins rather than address fundamental choices. For example, the most recent reauthorization of the Higher Education Act in 1998 resulted in few major changes to student aid programs; the most visibly debated legislative issue in the months preceding the bill's passage involved proposals to reduce the interest rate on student loans.³⁰

At the same time, society's notion of “educational opportunity” appears to have broadened since the universal access era, suggesting that there are good reasons to incorporate some purposes in addition to access and choice. Indeed, we may be moving beyond the old dichotomies of access versus merit, and the primary as opposed to secondary purposes of financial aid, toward a dynamic model that integrates a wide array of purposes for financial aid in ensuring educational opportunity. Such a model will require a reconceptualization of two fundamental questions: What is educational opportunity? Does student aid promote it?

²⁹ Alternative uses of the resources reflect the “opportunity cost” of choosing a particular use.

³⁰ Other recent proposals that focused on the delivery system, oversight, or other procedural issues include: instituting a performance-based management system within the Department of Education; incorporating “prior-prior” year income into the need analysis formula; and reintroducing time limits on student eligibility for Pell Grants (Phipps, 1998).

It may be impossible—and, in fact, undesirable—to call for a return to the relatively narrow focus of student aid on access and choice that dominated the universal access era. But it is possible for policymakers to move forward, using the lessons learned through student aid's progressive accumulation of purposes as a guide. These lessons have several implications for future policy development and analysis. Policymakers must:

- Evaluate the extent to which the existence of multiple purposes for student aid represents a “drag” or reduces the efficiency of the funding directed toward specific goals;
- Recognize the possibility that funds directed toward some purposes may displace funds that address other goals;
- Acknowledge the fact that students are affected differently by distinct types of financial aid and be clear about which students are being targeted by specific

aid programs, while at the same time maintaining a broad political base of support for aid programs;

- Realize that the various partners in the provision of financial aid—the federal government, states, institutions, and others—tend to have distinct sets of goals; and
- Improve availability of data—disaggregated between graduate and undergraduate, and merit- versus need-based aid—in order to make decisions about the relative importance and effectiveness of various aid purposes.

In taking these steps, policymakers must keep in mind the considerable benefits of postsecondary educational opportunity. They must consider whether the vehicle of student financial aid should be used to accomplish purposes that are secondary to the achievement of opportunity. If they do not heed the lessons of history, the diffusion of purposes and goals for student aid is likely to continue.

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