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|  | An analysis of the major federal goals in |
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| topics for deli | beration by the 95th Congress. The paper focuses on |
| labor market eff | fects of postsecondary education, future policy |
| questions, fede | al efforts to achieve equal opportunity, efforts to |
| ease financial | drdens on students (incIuding tax credit plans). |
| federal support | to institutions, shifts in enrollment distribution, |
| and higher educ | ation budget options: issues in FY1977 and options for |
| FY1978. The las | includes an analysis of the 1978 options ${ }^{\text {ampact on }}$ |
| future budgets. | Substantial numerical data are presented in tabular |
| form. No recomm | endations are mode. (MSE) |



Febiruary
1977


US DEPARTMENT OF HEALTH
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# POSTSECONDARY EDUCATION: THE CURRENT FEDERAL ROLE AND ALTERNATIVE APPROACHES 

## The Congress of the United States Congressional Budget Office

## PREFACE

In 1977, the Members of the 95 th Congress have the opportunity to redefine the federal role in postsecondary education through their budget and appropriations decisions. In reaching these decisions, the Congress will consider the effects on students and their families, and on educational institutions. More than likely they will grapple with several important financial and social issues: equal educational opportunity, the "squeeze" on middle-income families, and faltering institutions. This analysis focuses on the major federal goals in postsecondary education and the effects of federal programs on these goals. The Congress will be deliberating on these questions in the context of such issues as grade inflation, declining college entrance exam scores, and non-traditional students.

The report was prepared by Richard Wabnick with the assistance of Steven Chadima, Alan Fein, and David S. Mundel, all from the Human Resources Division of the Congressional Budget Office, under the direction of David $S$. Mundel and C. William Fischer. In accordance. with CBO's mandate to provide objective and impartial analyses of budget issues, this report contains no recommendations.

Special thanks go to Betty Ingram of the Human Resources Division for her patience and skill throughout the preparation of the paper. The manuscript-was-edited by John $F$. Burby and prepared for publication under the supervision of Johanna Zacharias with the invaluable assistance of Patricia Knapick.

Alice M. Rivlin Director

February 1977

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The passage of the 1976 Amendments to the Higher Education Act in late September last year established, at least for fiscal year 1978, the general structure of federal postsecondary education programs. The oudgetary issues in this field that will confront the 95 th Congress therefore, will not center around overall authorization. Instead, the Congress will be concerned primarily with matters of appropriations and program funding. In other words: how should the money already authorized for postsecondary education he spent? And, what is the best way to go about achieving federal goals in this field? These are the issues analyzed in this report.

Federal policy concerning higher education is focused on three main, assisting objectives: providing equal educational opportunities to all Americans; maintaining the financial stability of colleges and universities; and relieving the financial burden on the femilies of students. The appropriations an \& budgetary choices for fiscal year 1978 in higher education primarily involve the allocation of federal funds among programs and the relative emphasis among the three principal goals.

Before taking up the long-range allocation questions, the Congress will make decisions on several programs for fiscal year 1977 that are administered by the Office of Education and that now operate under a continuing resolution.

This report first addresses the three general goals of federal policy in higher education and analyzes the effectiveness of present programs in meeting those goals. It then goes on to present options that illustrate the kinds of choices the Congress may make in deciding whether or not to change the existing patterns of funding for higher education. Three options are offered for short-term fiscal year 1977 decisions and four options for fiscal year 1978. The latter options range in cost from $\$ 3.9$ billion for current policy levels to $\$ 5.0$ billion for changes in programs that would increase federal support for all eligible students, including those from low-, moderate-, and middle-income families. The budgetary impacts of these fiscal year 1978 option's, over the next five years are also presented.
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## THE FEDERAL ROLE AT A GLANCE

In fiscal year 1977, the federal government will spend $\$ 14.3$ billion on higher education programs. This represents about 30 percent of the total costs of higher education. 1/ The scale of the federal effort means that federal expenditures have substantial effects on higher education enrollments, costs. directions, and strategies. Higher education policy also affects the nation's ability to meet the three broad goals..

The relationship between family incomes and enrollment rates, the distribution of studfints among types of schools, and the matter of students completing college have led to the federal concern with equality of opportunity. Regardless of achievement level, the likelihood of a high school graduate's enrolling in postsecondary education depends on his family's income level. For example, about 50 percent of the medium-achievement high school graduates from families with incomes of $\$ 7,500$ or less enrolled in postsecondary institutions. In contrast, about 75 percent of the medium-achievement high school graduates from more affluent families--those with incomes of $\$ 15,000$ or more--went on for higher education.

Cost is another major concern. A second goal of federal policy, therefore, is to ease the financial burdens of families supporting children in college. The expense of attending college has risen about 45 percent over..the last five years. In the fall of 1970, the average cost was about $\$ 1,650$; by the fall of 1975 , it had risen to about $\$ 2,400$. Although incomes have risen. faster

1/ These funds include federal support for research and development conducted by academic institutions; federal support for students provided by the Social Security Administration, the Veterans Administration and the Department of Health, Education, and Welfare; and tax expenditures.
than costs during these years, many families still feel either squeezed out of higher education or restricted in their choice of an institution.
$\dot{A}$ third federal goal is to help keep institutions - financially alive and productive Various studies indicate that many postsecondary institutions are in financial trouble, although some observers question these findings. Other studies show that research universi-ties--particularly private ones--are in worse financial distress than other kinds of institutions. This may result from declines in federal support for graduate students, unchanging levels of federil support (in constant dollars) for academic science, and the inability of institutions to enlist support from state governments.

Federal expenditures for higher education are provided through three mechanisms:
o Student assistance, provided through grants, lowinterest subsidized loan programs, and subsidized jobs. (Student assistance is provided both directly to students and through programs in which educational institutions admindister and disburse aid. In fiscal year 1977, about $\$ 7.9$ billion will be provided in student aśsistance.)
o. Federal programs that provide assistance to institutions in the form of research contracts, categorical aid programs, and construction loans. (Institutional aid will total $\$ 4.8$ billion in fiscal year 1977.)

- Federal tax expenditures to help fund higher education. (Tax laws allow parents to claim a child in schrol as a dependent even though the child's inceme :-wceeds that allowed for other dependents. ne law also exempts scholarships from taxatinr and allows deductions for contributions to educational institutions. Tax expenditures for postsecondary education will total $\$ 1.7$ billion in 1977 .)

Each program affects the achievement of one or more federal objectives. Student assisiance programs lower the net cost of college to recipient students and their families. These reductions can increase the likelihood of enrollments, alter the distribution of students among types of institutions, and reduce the financial burdens on students and their families. The effects of these programs--whether they promote equal opportunity or reduce financial burdens--depend in large part on whether or not aid is given to low- and moderate-income students or to middle-income students. Most programs assist several income groups, but in varying proportions. The following table illustrates this pattern.

PROGRAM DISTRIBUTION OF STUDENT ASSISTANCE FUNDS AMONG . STUDENTS BY FAMILY INCOME, FISCAL YEAR 1977 OUTLAYS


SOURCE: CBO estimates based on Basic Grants application data, fiscal operatlons reports, and unpublished OGSL data.
\#/ Includes some self-supporting students.
Student assistance and other programs also have - different effects on institutions, their revenues, and their educational capacities because of differences in the types of institutions the programs tend to support. For example, about 68 percent of Basic Grant funds flow to students in public institutions, while, only 55 percent of Direct Loan funds go to these institutions. Aid to developing institutions is directed primarily toward predominantly black schools ( 60 percent). Eighty percent of federal research and development funds go to public colleges and universities; 20 percent flow to private institutions.

Although it is not possible to make direct connections between particular programs and particular goals, programs can be linked with the predominant goals or purposes they serve. The following table shows that more than half of all federal support for higher education is directed toward achieving equality of opportunity.

FEDERAL POSTSECONDARY EDUCATION FUNDING FOR FISCAL YEAR 1977, a/ BY GOAL, b/ IN MILLIONS OF DOLLARS

| Goal | Outlays |  |
| :--- | :---: | :---: |
|  | Dollars | Percent |
| Equality of Opportunity | 7,362 | 51.2 |
| Easing the Financing Burden | 2,222 | 15.5 |
| Institutional Capacities | 4,769 | $\underline{33.2}$ |
| Total | 14,367 | 100.0 |

a/ Estimated.
b/ See Chapter I for a list of programs included in these categories.

## FEDERAL POSTSECONDARY FUNDING OPTIONS

The current mix of policies and programs in the higher education budget represents one choice of focus and intensity for the federal effort in postsecondary education. Alternative distributions of funds and levels of funding would represent different degrees of commitment to the threo goals of federal postsecondary education
policy and different applications of funding instruments. 2/

Decisions that the Congress will be asked to make about fiscal year 1977 supplemental appropriations and the fiscal year 1978 budget resolutions will provide an opportunity to examine alternative funding mixes. For example, for fiscal year 1977, student assistance funding might be kept at fiscal year 1976 levels (as in the continuing resolution), essentially cutting back support in "real" terms. Or "real" support could be maintained by fully funding the Basic Grants program and increasing aid to other programs in line with increases in higher education costs generally.

These somewhat restricted possibilities will be less important to the size and shape of the federal higher education budget than the wider-ranging fiscal year 1978 decisions will be. Four illustrative options provide an indication of the scope and variety of effects that can

2/ Only a portion-- $\$ 3.2$ billion ( 22.3 percent) in fiscal year 1977 outlays--of the federal higher education budget is contained in the higher education subfunction (502) of the budget. This subfunction does not include veterans' benefits (702), social security student benefits (601), or support for academic research. It does, however, contain most of the "controllable" programs that can be considered to be largely oriented toward higher education goals. Consequently, the budget options addressed in this report deal solely with changes in support for subfunction 502 activities.
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be achieved within the limits of recently enacted authorizations for subfunction 502 programs:

Option I for 1978: "Current policy"--maintain funding for higher education programs (subfunction 502) at current real levels (allowing adjustments for inflation).
Option II for 1978: Increased emphasis on equality of opportunity for low- and moderateincome students--increased support for programs targeted toward lowand moderate-income students (family incomes \$0-10,000).

Option III for 1978: Increased emphasis on easing the financial burden for middle-income students--increased support for students from families with incomes between $\$ 10,000$ and $\$ 15,000$.

Option IV for 1978: Combined emphasis on equality of opportunity and easing of financial burden--increased support for programs aiding low-, moderate-, and middle-income students.

The budget options range in total cost from $\$ 3.9$ billion (Option I) to $\$ 5.0$ billion (Option IV). In emphasis, they range from an extension of existing policy to higher levels of aid for all eligible students. As shown in the table below, Option I would provide $\$ 1.08$ billion to support equal opportunity for low-income students, while Option IV would increase support for this goal to $\$ 1.14$ billion. Option I would allocate $\$ 451$ million for moderate-income students, while Option IV would provide $\$ 583$ million for increased equality of opportunity for these students. The amount of support provided for reducing the college financing burdens facing middle-income families (those with incomes between $\$ 10-15,000$ ) would range from $\$ 529$ million (Option I) to $\$ 787$ million (Option IV).

ILLUSTRATIVE BUDGET OPTIONS IN HIGHER EDUCATION FOR FISCAL YEAR 1978, DISTRIBUTION OF STUDENT ASSISTANCE BY INCOME ŁEVEL UNDER EACH OPTION; IN MILLIONS OF DOLLARS

|  | $\underset{\mathrm{I}}{\text { Option }}$ | $\begin{gathered} \text { Option } \\ \text { II } \end{gathered}$ | $\begin{aligned} & \text { Option } \\ & \text { III } \end{aligned}$ | Option IV |
| :---: | :---: | :---: | :---: | :---: |
| Total Budget Authority a/ | 3,879 | 4,702 | 4,531 | 4,971 |
| Major Student Assistance Activities $\underline{b} /$ | 3,333 | 3,864 | 3,781 | 4,071 |
| Total Support Received from Major Student Assistance Activities by Family Income Level |  |  |  |  |
| \$ 0-7,500 | 1,083 | 1,097 | 1,042 | 1,142 |
| 7 7,500-10,000 | 451 | 603 | 535 | 583 |
| 10,000-15,000 | 529 | 695 | 736 | 787 |
| 15,000 and up | 550 | 612 | 617 | 645 |
| Self-Supporting Students c/ | 717 | 852 | 850 | 914 |

a/ Budget subfunction 502 ,
b/ See Chapter I for included programs.
c/ Self-supporting students are predominantly in the \$0-10,000 income category.

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During the past five years, federal support for higher education not only has grown by 40 percent but has also been increasingly directed toward support of students rather than colleges or universities. In fiscal year 1977, nearly 70 percent of the federal budget for higher education represented direct aid to students, indirect aid provided through the schools they attended, or tax expenditures designed to help parents pay the costs of higher pducation. In addition, slightly more than half of all student aid, direct and indirect, was designed to equalize educational opportunities by assisting students from low- and moderate-income families.

The emphasis on student aid'has been growing since 1944, when G.I. Bill benefits began flowing to veterans attending school after high school. In 1958, the National Defense Education-Act-expanded aid to students with a subsidized student loan program administered by colleges and universities. The Higher Education Act of 1965 authorized new forms of aid such as the Guaranteed Student Loans (GLS) and the Educational Opportunity Grant (EOG) programs. That same year, Social Security payments and payments under other income maintenance programs $1 /$ were made available to eligible families with dependents in college. Finally, in 1972, the Higher Education Act was amended to authorize Basic Educational Opportunity Grants (BEOG), which increased the aid available to low- and moderate-income students.

The 1972 amendments also expanded several other programs to "prepare students from low-income families for postsecondary education" and to "encourage qualified youths with financial or cultural need" who have the potential for postsecondary education. Table. 1 shows the existing degree of emphasis on student assistance.

[^0]Pable 1. The federal postsecondary education budget by FUNDING MECHANISM, FOR FISCAL YEAR 1977, a/ IN MILLIONS OF DOLLARS

|  | Outlays |  |
| :--- | :---: | :---: |
| Funding Mechanism | Dollars | Percent |
| Diret Student Assistance | 6,848 | 47.7 |
| Campus-based Student Assistance | 1,036 | 7.2 |
| lnstitutional Assistance | 4,769 | 33.2 |
| Tax Expenditures | 1,715 | -11.9 |
| Tatal | 14,368 | 100.0 |

SCURCE: Unpublished agency outlay estimates.

## (2) EStimated.

Federal programs in support of postsecondary educa$t i o h$ are funded through a variety of budget functions and Elpfunctions. The majority of controllable funds appear in Office of Education-administered higher education Drograms (subfunction 502), but a large portion of the Eederal support is in the veterans function (702), the Eocjal security segment of the income assistance function (601), and scatt: red among functions for various other agencies which support research and development at colLefes and universities. The distribution of federal postsecondary funding by budget function is shown in Thple 2. The budget options discussed in this report deal primarily with resources allocated to subfunction 502 programs.

Federal postsecondary policy functions within a Complex system that is marked by diversity of students, inftitutions, and sources of support. Students in the pofsecondary system have differing abilities and differinf financial and educational needs. The array of institutions is wide, ranging from large public and private research-oriented universities to small, not-for-profit, private liberal arts schools to profit-making vocational trade schools. The federal network of assistance also is coordinated with support from other sources, including states, localities, private donors, and students and their families.

TABLE 2. FEDERAL POSTSECONDARY EDUCATION FUNDING BY BUDGET FUNCTION, FOR FISCAL YEAR 1977, a/ IN MILLIONS OF DOLLARS

| Function | Dollars | Outlay |
| :--- | :---: | :---: |
| 502 | 3,201 | Fercent |
| 702 | 3,859 | 22.3 |
| 601 | 1,183 | 26.9 |
| Research | 4,409 | 8.2 |
| Tax Expenditures | 1,715 | 11.9 |
| Total | 14,367 | 100.0 |

SOURCE: Unpublished agency outlay estimates:

## a/ Estimated.

## FEDERAL HIGHER EDUCATION GOALS

The federal government seeks to meet three primary goals through its funding of postsecondary education.

First, it attempts to provide equal educational opportunities for all potential students. This entails filling a wide range of financial, cultural, and educational needs for minority students, educationally disadvantaged students, and students from low- and moderateincome families. These programs, designed to increase enrollments and completion rates, include: Basic and Supplemental Educational Opportunity Grants, Social Security educational benefits, Special Services for Disadvantaged Students, and other student assistance programs. The veterans' readjustment benefit program works toward the same goal by equalizing the educational opportunities of former servicemen.

Second, federal assistance serves to ease the burden of financing college enrollment for students and families. Programs oriented toward this purpose include the Guaranteed Student Loan Program through which the government enables lending institutions to make subsidized loans to
students; and tax provisions which allow parents to continue to claim students as dependents even if earnings of the students would ordinarily disqualify them as dependents, and which exclude scholarships from taxation. Other student assistance programs--including those primarily oriented toward the equality-of-opportunity objec-tive--also reduce the financial burdens resulting from postsecondary enrollment.

Third, federal assistance serves to maintain and improve educational institutions. The government continues to support particular categories of institutions including: developing institutions, land-grant colleges, and special institutions for the deaf and blind. A large portion of federal financing of institutions is in support of research activities. However, this federal research support is only indirectly institutional support. The federal government has made available loans for college housing and other facilities construction during periods of expanded enrollment. In addition, the Congress has authorized, but never funded, direct cost-of-education payments to schools based on overall enrollment levels and enrollment of federal aid recipients in particular institutions. Tax policies that allow deductions for contributions to educational institutions also provide indirect federal assistance to institutions.

Although it is not possible to connect all programs to particular goals (e.g., student aid both helps students and may result in increased enrollmenis and increased tuition revenues that assist institutions), programs can be linked witl the dominant goals they are intended to meet. Table 3 shows the share of federal higher education support that is directed toward achieving equality of opportunity.

## LABOR MARKET EFFECTS OF POSTSECONDARY EDUCATION

Persons with postsecondary training continue to be more likely to be employed and to receive higher wages than persons without such training. However, much debate and analysis have recently been devoted to the question

TABLE 3. FEDERAL POSTSECONDARY EDUCATION FUNDING BY GOAL, a/ FOR FISCAL YEAR 1977, b/ IN MILLIONS OF DOLLARS

|  | Goal Outlay |  |
| :--- | :---: | :---: |
| Dollars | Percent |  |
| Equality of Opportunity |  |  |
| Easing the Financing Burden | 2,362 | 51.2 |
| Institutional Capacities | $\underline{4,783}$ | 15.5 |
| Total | 14,367 | $\underline{33.3}$ |
|  |  | 100.0 |

SOURCE: Unpublished agency outlay estimates.
a/ Programs for equality of opportunity are: (1) Basic Grants; (2) Supplemental Grants; (3) College WorkStudy; (4) Direct Loans; (5) Special Services for Disadvantaged Youth; (6) Social Security educational benefits; and (7) Veterans' benefits.

Programs for financing burden are: (1) Guaranteed Loans (including default fund); (2) State Student Incentive Grants; (3) tax provisions; and (4) minor scholarships.

Programs for institutional support are: (1) Developing Institutions, Cooperative Education, Veterans' Cost-of-Instruction Payments; (2) Facilities Fund; (3) Special Institutions; and (4) research and development funds.
b/ Estimated.
of whether the value of a college education, either to an individual or to society, is declining. 2/

In 1974 and 1975, when the overall unemployment rates were 5.6 percent and 8.5 percent respectively, the rates for recent high school graduates were 9.8 percent and 13.6 percent, while the rates for recent college graduates were at 5.0 percent and 8.3 percent. However, as Table 4 shows, racial unemployment data reveal that sometimes there are barriers to jobs that even a college diploma cannot overcome. Nonwhites have higher unemployment rates than whites at all levels of postsecondary educational attainment, $3 /$ although the unemployment rates of nonwhites and the gap between nonwhite and white rates both are lower among more educated individuals.

2/ Richard Freeman, "Overinvestment in College Training?" and Martin Carnoy and Dieter Marenbach, "The Return to Schooling in the United States, 1939-69," both in Journal of Human Resources, Summer 1975. Richard Raymond and Michael Sesnowitz, "The Returns to Investments in Higher Education: Some New Evidence," Journal of Human Resources, Spring 1975. Walter McMahon, Nguyen Hoang, and Alan Wagner, "Returns to Investment in Higher Education," Faculty Working paper at the University of Illinois (Urbana/Champaign), February, 1976.

3/ This comparison does not hold for recent college graduates in 1975. Due to a small sample size for nonwhite college graduates, the differential. between the white and nonwhite rates ( 8.4 percent versus 6.2 percent) is not statistically significant.

TABLE 4. UNEMPLOYMENT RATES BY EDUCATIONAL ATTAINMENT AND ${ }^{+}$RACE, AGES 16-24, FOR OCTOBER 1974 AND OCTOBER 1975 (PERSONS NOT ENROLLED IN SCHOOL) :

|  | Years <br> of School | Percent |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | White and Nonwhite | White | Nonwhite |
| $\begin{aligned} & \text { October } \\ & 1974 \end{aligned}$ | 12 | 9.8 | 8.7 | 17.7 |
|  | 13-15 | 7.1 | 6.4 | 13.9 |
|  | 16 or more | 5.0 | 4.3 | $13.2 \mathrm{a} /$ |
| $\begin{aligned} & \text { October } \\ & 1975 \end{aligned}$ | 12 | 13.6 | 12.3 | 24.1 |
|  | 13-15 | 10.5 | 12.3 9.3 | 24.3 |
|  | 16 or more | 8.3 | 8.4 | 6.2 a/ |

SOURCE: Bureau of Labor Statistics.:
a/ These rater; shou:d be viewed cautiously because they have large standard errors due to the small sample size from which they were computed.

Must persons who complete some form of postsecondary training make more money than persons who do not. As shown in Table 5, the average college graduate earned $\$ 15.260$ in 1975, while the average high school graduate earned $\$ 8,790$. However, in 1975 constant dollars (i.e., dollars with equivalent purchasing power), a person with a college degree had a lower average annual income in 1975 ( $\$ 15,260$ ) than a college graduate in $1969(\$ 16,117)$, but suffered less of a drop than students at other educational levels. The additional income gained by completing college as opposed to simply graduating from high school also declined in real terms between these $t_{\text {wo }}$ years.

In a recent study of the rates of return to a college education, Richard Freeman concludes that rates of returns to private and social investment in college training are diminishing and that in 1974 the rates for both were less than 10 percent. 4/ Other researchers disagree. Some

4/ Freeman, op. cit.

TABLE 5. AVERACE ANNUAL INCOME OF INDIVIDUALS TWENTY-FIVE YEARS OLD AND OVER, BY EDUCATIONAL ATTAINMENT, FOR 1969 AND 1975 (IN CONSTANT 1975 DOLLARS)

|  | 1969 |  | 1975 |  |
| :---: | :---: | :---: | :---: | :---: |
| Educational Level | Income | Income Added Over High School | Income | Income Added Over High School |
| Completed Grade School | 5,073 |  | 5,682 |  |
| High School Dropout | 8,314 |  | 6,820 |  |
| Completed High School Only | 9,560 |  | 8,790 |  |
| Completed 1-3 Years College | 12,097 | 2,537 | 10,556 | 1,766 |
| Completed 4 Years College | 16,177 | 6,617 | 15,260 | 6,470 |

SOURCE: Census Bureau data.
claim that rates of return have been relatively stable and suggest that "the lack of evidence of diminishing returns can only be explained by the presence of a groving demand for educated manpower and graduates in possession of the newer skills." $\underline{5} /$ Much of the debate centers on whether or: not there is a downward trend in rates of return. Most analysts agree that there still exists a positive return to investment in postsecondary education and that the , returns are greater if the education is completed.

## FUTURE POLICY QUESTIONS

Against this background, two questions are crucial to the design and evaluation of future federal higher education budgets:

5/ McMahon and others, op. cit,
o What is the current status of each of the problems/goals toward which federal policy is oriented?
o What are the effects of alternative federal policies on each of these problems or goals?

The succeeding three chapters will consider these questions as they relate to each federal goal.

## CHAPTER II FEDERAL EFFORTS TO ACHIEVE EQUALITY *OF OPPORTUNITY

Opportunities for postsecondary education remain sl.bstantially unequal among students from families with different incomes. For example, about 50 percent of mediumachievement high school graduates from lower-income families (\$0-7,500 annual incomes) went on to postsecondary education, compared with about 75 percent of similar achievement, higher-income (above $\$ 15,000$ ) graduates. Lower-income students also are less likely to enroll in higher-priced schools and less likely to complete their postsecondary educations. Federal student assistance programs can help correct these inequalities by producing lower net prices for students. These price reductions, in turn, increase the likelihood of enrollment, particularly among students from lower-income families.

## CURRENT LEVELS OF EDUCATIONÁL OPPORTUNITY

There are many ways of defining educational opportunity. Some definitions emphasize the inputs of the educational process; others the outputs. For example, the authors of the first Coleman report, who were commissioned to study educational opportunity at all levels, chose to measure equality of educational opportunity through an output measure--academic achievment. 1/ In analyzing the effectiveness of federal assistance in postsecondary education, two input variables and one output variable are often used as important measures of educational opportunity. On the input side, they are: (1) student access to some form of postsecondary education and (2) student choice among educational options. On the output side, persistence in school and the resulting likelihood of completion are important.

[^1]
## Access 2/

Sixty percent of the 1972 high school graduating class planned to attend some form of postsecondary education, according to a national sample survey of 1972 high school seniors. (See Table 6.) Of the 40 percent who did not plan to attend, almost one-half came from the lowest 25 percent of the income (SES) 3/ distribution. Thus,

TABLE 6. PERCENT OF PLAN FULFILLMENT FOR POSTSECONDARY EDUCATION FOR HIGH SCHOOL SENIORS, FALL 1972 a/

|  | Activity in Fall 1972 |  |  |
| :--- | :---: | :---: | :---: |
| Plans in Spring 1972 | Attended | Did Not Attend | All <br> Activities |
| Planned Postsecondary <br> Education | 44 | 16 | 60 |
| Did Not Plan Post- <br> secondary Education | 6 | 34 | 40 |
| All Plans | 50 | 50 | 100 |

SOURCE: National Longitudinal Study of the High School Class of 1972: Planning and Activity States Analyses. Prepared for the National Center for Education Statistics by the Research Triangle Institute, September 1975.

2/ Data on accessibility of postsecondary schooling measures: (1) students' plans to attend school, which combine their desire to attend with their perception of their chances of attending and (2) school enroll: ment rates, which measure the barriers to access for certain groups and the supply of places in schools.

3/ Socioeconomic status (SES) is a composite index comprised of (1) father's education, (2) mother's education, (3) parental income, (4) father's occupation, (5) household items.
access seems to be limited for lower-income students who face or perceive financial, educational, and/or social barriers to entry.

For the group which did not attend school beyond high school, 40 percent said they did not do so for economic reasons (either the need for money themselves or their families, or the lack of money for school). This sampling of students suggests that about 20 percent of all graduating high school seniors (three million graduates in 1972) would report that they either could not or would not forego possible earnings or that they were simply priced out of the postsecondary education marketplace.

As can be expected, the students least likely to enroll are low-achievement students from families with low incomes. As income and achievement rise, so do rates of enrollment. Table 7 displays enrollment rates of students by income and achievement. 4/

TABLE 7. PERCENT OF ENROLLMENT RATES BY INCOME CLASS AND ACHIEVEMENT LEVEL, FALL 1972


SOURCE: Compiled by College Entrance Examination Board under contract to the National Center for Education Statistics.
a/ These groupings are approximate.

4/ The achievement measure is computed from rank in class and secondary school grade point average as reported by high school counselor.

## Choice

On average, most students who plan (in the spring of their senior year of high school) to enroll in a particular postsecondary institution do, in fact, carry out the plan. Fulfillment of plans does, however, vary with family income. For example, 87 percent of the students from higher-income families who planned to attend a fouryear college or university did so, while only 71 percent of their lower-income counterparts with similar plans did so. (See Table 8 for details.)

TABLE 8. PERCENT OF STUDENTS FULFILLING PLANS TO ATTEND SCHOOL, BY SOCIOECONOMIC STATUS (SES) a/ AND TYPE OF SCHOOL, 1972

| Plans in | Fulfilled <br> Plans | Did Not <br> Fulfill <br> Plans b/ |
| :--- | :--- | :---: |
| Spring 1972 |  | $\ddots$ |
| High SES | 49.7 | 50.3 |
| Voc-Tech | 68.8 | 31.2 |
| 2-year college | 87.4 | 12.6 |
| 4-year college |  |  |
| Middle SES | 52.1 | 47.9 |
| Voc-Tech | 61.8 | 38.2 |
| 2-year college | 79.1 | 20.9 |
| 4-year college |  |  |
| Low SES | 42.7 | 57.3 |
| Voc-Tech | 58.5 | 41.5 |
| 2-year college | 71.2 | 28.8 |
| 4-year college |  |  |

SOURCE: See source for Table 6.
a/ See footnote 3/ in this chapter.
b/ Includes some students who planned a specific type of postsecondary education but attended another. For details, see Appendix, Table A-1.

The difference between actual enrollment patterns of groups of potential students and their plans to attend is caused primarily by lack of effective choice. Choice can be limited for reasons of money (different schools have different prices), academic standing (not all students may be admitted to all schools), and location (not all students live in geographic proximity to all types of schools).

## Persistence

. Completing school is an important component of educational opportunity. The evidence suggests that the rate of persistence is higher for students at four-year institutions than at two-year colleges. In a follow-up study of the 1966 freshman class, Alexander Astin found that 66 percent of the entering students at two-year colleges returned for a second year while 78 percent of those entering four-year schools returned. 5/ Because of the limitations of their choice among institutions, a larger percentage of low- and moderate-income students attend schools with lower persistence rates.

Persistence does not seem to vary by race or income-once allowances are made for institution type. Most recent evidence supports the conclusion that once students are enrolled, race is not a strong determinant of persistence. In fact, within given income and achievement levels, persistence of blacks slightly exceeded that of whites over a period of two years after they entered postsecondary schools in October 1972. There is, however, some evidence of higher dropout rates for blacks attending predominantly white colleges as opposed to primarily black institutions.

## EFFECTS OF FEDERAL PROGRAMS ON EDUCATIONAL OI PORTUNITY

Since the primary federal mechanisms that influence educational opportunity provide financial assistance and

[^2]incentives to students, two questions should guide an effort to design a budget that is oriented toward equality of opportunity:
o Do financial incentives affect access, choice, and persistence?

- Do federal programs create financial incentives for the types of students who experience equality of opportunity problems?

Several studies have attempted to describe the effect of price changes on enrollments. 6/ Their results show that students respond positively, by enrolling in greater numbers, to actions which reduce their tuition charges. The most recent studies (which use data from between 1966 and 1972) indicate that enrollments will increase by between 0.04 and 1.25 percent for every $\$ 100$ reduction in tuition charges. Several of the studies demonstrate that lower-income students respond more positively to tuition reductions. No studies have yet determined whether different forms of student assistance--grants, loans, or job subsidies--have different effects on student enrollment decisions.

Shifts in enrollment among types of schools can be expected if financial incentives are made large enough, but the size of subsidy necessary to alter student choices is highly uncertain. 7/ To the extent that choice is

6/ For a review of several of the most recent studies, see Jackson and Weathersby, "Individual Demand for Higher Education," Journal of Higher Education, November/December 1975.

7/ Additional research studies aimed at investigating these incentive effects are currently being supported by the Department of Health, Education, and Welfare and the U.S. Office of Education.
affected by financial incentives and that types of institutions (e.g., two-year versus four-year colleges) affect student completion rates differently, financial incentives can affect persistence and completion rates. Some studies report that lack of financing is an important reason for students dropping out of school.

Students from low- and moderate-income families and students with low academic achievement levels fare less well in any of the measures of equality of opportunity-access, choice, and persistence. From the available evidence, it seems that their behavior could be influenced by financial incentives.

Since 1972, the federal government has turned the focus of most of its direct financial assistance to lowand moderate-income students in an effort to enhance financial incentives. As shown in Table 9, about 55 percent of fiscal year 1977 outlays for student assistance funds will flow to dependent students from families with incomes of less than $\$ 10,000$.
table 9. distribution of fiscal year 1977 outlays a/ for student assistance funds by income, in millions of dollars

|  |  |  | Outlays |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Major St | udent b/ |  |  |  |  |
| Income Range of Families of | Assi pro | tance rams | Social Out | ecurity |  |  |
| Dependent Students | Dollars | Percen | Dollars | percent | Tot |  |
|  |  |  |  |  |  |  |
| \$0-7.500 | 895 | 35 | 343 | 29 | 1,238 | 33 |
| 7,500-10,000 | 370 | 14 | 461 | 39 | 831 | 22 |
| 10,000-:5,000 | 440 | 17 | 237 | 20 | 678 | 18 |
| 15,000-50,000 | 198 | 8 | 95 | 8 | 294 | 8 |
| 20.000 aud up | 72 | 3 | 47 | 4 | 119 | 3 |
| All Self-Supporting Students | 595 | 23 | 0 | 0 | 595 | 16 |
| Total | \$2,570 | 100\% | \$1,183 | 100\% | \$3,755 | 100\% |

SOURCE: CBO estimates.
a/ Estimated.
b/ Included are Basic Grants, Supplemental Grants, Direct Loans, College Work-Study, and Guaranteed Loans.
c/ Agency estimates as of December 1976.

Not all student assistance programs target their funds similarly and, as a result, they will have differential effects on student access and choice. While about 41 percent of Basic Educational Opportunity Grant funds flow to eligible dependent students with family incomes below $\$ 7,500$, only about 26 percent of the subsidized. loans provided through the Guaranteed Loan program have been made to these low-income students. The other student assistance programs fall somewhere in between. (See Figure 1.)

Also, a small amount of assistance is aimed specifically n.t lower-achievement students through programs which provide remedial and other special services for potential postsecondary students. In the fiscal year 1977 Labor-HEW appropriations bill, about $\$ 70 \mathrm{million}$ was appropriated for these programs.

Figure 1.
Percentage of Funds and Recipients in Major Student Assistance Programs by Income Class, Fisial Year 1977 Outlays


* GSL distribution includes self-supporting student.
tjurce. CBO estimates based on Basic Grants applicant data, fiscal operations reports, and unpublished OGSL data.

LEGEND

|  | $\begin{aligned} & \$ 0- \\ & \$ 7,499 \end{aligned}$ |
| :---: | :---: |
|  | \|\$7,500 - |
|  | $\begin{array}{r} \$ 10,000 \\ \$ 14.999 \end{array}$ |


K Selfsupporting Students

Available evidence suggests that, over the past nine years, federal programs have eased the financial burden for students from families with low and moderate incomes. The financial burden for middle-income families, calculated as a percentage of family income, has remained relatively stable during that time. One indication of the effect on low-income families is that full-time enrollment by students from families with incomes below $\$ 6,000$ a year actually increased during the $1975-1976$ school year.

## CURRENT LEVELS OF FINANCIAL BURDEN

It is often asserted that postsecondary education is becoming too expensive and that students, particularly those from middle-income families, no longer can afford to attend. Two perspectives on trends in the higher education system can help to demonstrate whether or not this assertion is correct. First, the enrollment rates of the traditional college-age population can be examined to determine if there have been differential changs in enrollment rates among different income groups. econd, changes in college costs relative to changes in family incomes and other sources of student financial support from which those costs are borne can be examined to investigate financing burdens, directly.

## Patterns of College Attendance

The decision to attend college ("participation") is a complex one; it involves factors for which measurement tools are inexact or nonexistent. While it is not possible to fully assess the underlying influences on observed enrollment changes, shifts in participation by the traditional college-going population are an indicator of the collective effects of changes in family income, college costs, financial aid, attractiveness of a college education, military draft requirements, timing of college attendance, and other factors.

Between 1970 and 1975, the total full-time participation rates of the 18-24-year-old population decreased by an average of less than 1 percent (see Table 10 and Figure 2). However, this average masks considerable differences among the participation rates of different family income groups. Full-time participation by students from families in the lowest income group (under \$6,000 in 1975 dollars) increased by 13.6 percent and more than doubled on a part-time basis. At the same time, attendance on a full-time basis among students from the next higher income group ( $\$ 6,000-\$ 9,000$ in 1975 dollars) declined 14.2 percent during the last six years. The groups for whom the least change was noted (on a full-time basis) were those whose family incomes in 1975 dollars were over $\$ 9,000$ (they experienced enrollment decreases of around 5 percent or less over the six-year period).

TABLE 10. PERCENT INCREASE (+) OR DECREASE (-) IN PROPORTION CF POPULATION 18-24 YEARS OLD ENROLLED FULL TIME IN COLLEGE, BY FAMILY INCOME, 1970-1975; INCOMES IN THOUSANDS OF 1975 DOLLARS

|  | $0-6$ | $6-9$ | $9-12$ | $12-15$ | $15-20$ | 20 and | TOTAL |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1970-1973$ | -6.4 | -22.4 | -20.6 | -22.6 | -13.3 | -9.7 | -8.0 |
| $1973-1975$ | +24.3 | +10.6 | +22.8 | +22.4 | +10.8 | +6.5 | +7.7 |
| $1970-1975$ | +13.6 | -14.2 | -2.6 | -5.3 | -3.9 | -3.9 | -0.9 |

SOURCE: CBO estimates based on Census Bureau data.

The 1973-1974 school year saw a substantial decrease in full-time attendance among this age group (partly attributable to the cessation of the draft), especially among potential students from families with incomes under $\$ 15,000$ (in 1975 dollars). These trends largely reversed themselves by the 1975-1976 school year. (Data for the current school year are not available at this time.)

Figure 2.
Percent of 18-24-Year-Old From Primary Families Enrolled Full Time in College by Family Income: 1970-1975


Source: Appendix Table A-5.

Family Income and College Costs
It is often noted that the costs of attending college are rising faster than inflation and, consequently, increasing in real terms (i.e., relative to other goods and services). While college costs have tended to rise faster than the consumer price index (the usual measure of "inflation"), they have not risen as rapidly as the family inccmes from which most of those costs are paid until very recently. Figure 3 and Table 11 display median

Figure 3.
Family Income and Student Charges, 1967-1975


Student Charges as Percent of Income of Families
With 18-24-Year-Old Dependents, 1967-1975
Percent


TABLE 11. FAMILY INCOME AND STUDENT CHARGES, 1967 AND 1975

|  | Median <br> Income <br> Do1lars <br> 1967 | $\begin{aligned} & \text { Family } \\ & \text { (in } \\ & \text { a/ } \\ & 1975 \end{aligned}$ | Student Charges (in Dollars) 1967 , 1975 |  |  | Student Charges <br> as Percent of <br> Income <br> 1967 <br> 15 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PUBLIC INSTITUTIONS |  |  | 1,026 |  | 14710 |  |  |
| All Families b/ | 6,811 | 11,505 |  |  |  | 15.6 | 14.9 |
| Families with 18-24-year-old dependents | 7,923 | 13,199 |  |  |  | 12.9 | 13.0 |
| Families with 18-24-year-old dependents in college | 0,816 | 16,784 |  |  |  | 10.5 | 10.2 |
| PRIVATE INSTITUTIONS |  |  | 2,124 |  | 3,744 |  |  |
| All Families | 6,811 | 11,505 |  |  |  | 31.1 | 32.5 |
| Families with 18-24-year-old dependents | 7,923 | 13,199 |  |  |  | 26.8 | 28.4 |
| Families with 18-24-year-old dependents in college | 9,816 | 16,784 |  |  |  | 21.6 | 22.3 |

SOURCE: Bureau of the Census, Current Population Reports; and National Center for Education Statistics (NCES).
a/ Family incomes are those reported in the Bureau of the Census October Current Population Survey when other detailed questions about education are asked. The traditional and more comprehensive reporting of incomes is done in March of each year. The Bureau of the Census reports that, for the above period, October median family incomes ranged from 82 to 86 percent of the median family incomes reported in March.
b/ A census family is two or more persons related by blood, marriage or adoption and residing together. All such persons are considered members of the same family. A primary family includes a head of household (family dosignated) as one of its members. Excluded from the sample of primary families here are those in which the $18-24-y e a r-o l d$ dependent is either the designated head, the wifo, or married.
family incomes from 1967 to 1975 of primary families $1 /$ with dependent members 18-24 years old (the traditional college-age population); and total student charges (including tuition, fees, room and board) at public and private institutions during the same period. From 1967 to 1974, the median income of families with 18-24-year-old dependents rose 54.5 percent, while charges at public colleges rose 52.5 percent and at private institutions, 48.9 percent. For that median family, 1974 charges for one student--including room and board but before financial aid--represented about 12.5 percent of family income if the student attended a public college, and about 25.2 percent if the student attended a private college. In both cases, the figure was slightly less than in 1967. However, during the last year for which these data are available (Fall 1974 to Fall 1975), the median income of families with 18-24-year-old dependents rose only 5 percent while college-going costs continued their steep climb, increasing over 9 percent at public institutions and over 18 percent (NCES estimates) at private institutions. While some of the small rise in median family income may be attributed to increased joblessness resulting from the recession in 1975, it appears that, since academic year 1974-1975, college attendance expenses have risen faster than the family incomes from which they are financed.

These figures reflect increases in gross college costs before receipts of financial aid. Of even greater importance is the degree to which net college costs have changed relative to parental income during the past several years. No trend for any one income group can be assessed because data for even five years ago are not available by family income. However, trends in total federal commitment to student aid programs shed light on this question. While median family incomes have kept pace, by and large, with total college costs, student financial aid programs have increased dramatically. Between school years 1967-1968 and 1975-1976, when the

1/ See footnote b/ to Table 11.
median incomes of families with 18-24-year-old dependents rose 67 percent, public college costs rose 67 percent and private college costs rose 73 percent; appropriations for student aid programs rose 252 percent on a per fulltime equivalent (FTE) student basis. These statistics indicate that, on average, net charges to students as a percent of family income have dropped considerably during the past nine years. Much of the increase in federal aid can be attributed to the Basic Grants program which is targeted toward students from low- and moderate-income families. The program most heavily utilized by students. from middle-income families--Guaranteed Student Loans-grew 54 percent per FTE student during the same period; the average loan grew about 60 percent. In sum, taken together with the relationship between the growth in cos'ts and median incomes, this information indicates that net charges faced by students from low- and moderate-income families have dropped as a percent of family income in the last nine years. The net charges as a percent of family income that students from middleincome families face have remained about the same.

## EFFECTS OF FEDERAL PROGRAMS ON EASING FINANCIAL BURDENS

The potential effects of student assistance programs on financing burdens vary significantly among the programs. The principal variations result from the different subsidy patterns-among students by family income--created by the programs. These differences are illustrated in Table 12.

TABLE 12. AVERAGE STUDENT ASSISTANCE PER ENROLLED DEPENDENT STUDENT FOR FISCAL YEAR 1977, INCOMES IN THOUSANDS OF DOLLARS

|  |  | Family Income Levels |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A11 |  |  |  |  |  |
| Program | Incomes | 0-7.5 | 7.5-10 | 10-15 | 15-20 | 20 and up |
| Basic Grants | 89 | 240 | 141 | 53 | 10 | a/ |
| Supplemental |  |  |  |  |  |  |
| Grants | 18 | 47 | 39 | 13 | 4 | 1 |
| Direct Loans | 25 | 37 | 33 | 22 | 19 | 6 |
| College WorkStudy. | 31 | 65 | 57 | 24 | 15 | 5 |
| Guaranteed Loans | 31 | 54 | 58 | 36 | 43 | 4 |
| Average Student Assistance per Dependent Enrollee | 194 | 443 | 428 | 148 | 91 | 16 |

SOURCE: CBO estimates.
a/ Less than $\$ 1$.

## TAX CREDIT PLANS

Among the alternatives being considered to supplement current programs are tax credit plans. A wide variety of plans have been proposed which differ with respect to eligible population, maximum credit, income cutoffs, expenses covered, and operating characteristics (i.e., refundable or not). Most of the recent proposals are aimed at assisting middle-income and upper-income families who receive relatively less aid through current student assistance programs. However, those plans which subsidize a large portion of the student population (unlike student assistance programs) offer institutions the opportunity to raise charges (up to the maximum credit) without seriously jeopardizing enrollments.

One proposal is a nonrefundable tuition tax credit (becoming effective January 1,1978 ) which may be claimed for each full-time dependent student. Under this proposal, a credit against taxes pain would be allowed equal
to 100 percent of the first $\$ 100$ in tuition and fees paid for higher education during 1978, rising to $\$ 150$ in 1979, $\$ 200$ in 1980 , and $\$ 250$ in 1981 and thereafter.

The tax expenditures (or revenue loss) generated by this proposal would be about $\$ 550$ million in the first fiscal year after it went into effect and would grow to about $\$ 1.3$ billion by the fourth year. $2 /$ Once the maximum credit levels off, then tax expenditures would closely follow enrollment fluctuations. (See Table 13.)

TABLE 13. ESTIMATED TAX EXPENDITURES UNDER TUITION TAX CREDIT PROPOSAL, a/ FISCAL YEARS 1978-1983

| Fiscal Year | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Tuition <br> Credit |  | $\$ 100$ | $\$ 150$ | $\$ 200$ | $\$ 250$ | $\$ 250$ |
| Tax Expenditure <br> (In Millions <br> of Dollars) | -- | 543 | 805 | 1,082 | 1,326 | 1,318 |

SOURCE: CBO estimates.
a/ Assuming an effective date of January 1, 1978.
The beneficiaries under this tax credit plan are distributed among income classes almost exactly as students are distributed, ercept that families with tax liabilities below the maximum credit (generally low-income families) will benefit only to the extent of their tax liability. The distribution of the subsidy is weighted toward middleand upper-income families by (1) the fact that they are more likely to have enrolled dependents and (2) the fact that they can take full advantage of the subsidy. In fiscal year 1979, families with incomes over $\$ 20,000$ would receive 56 percent and those with incomes below $\$ 9,000$ would receive 11 percent of the tax creditimbenefit. By fiscal year 1983, these shares would become 78 percent and 6 percent, respectively, as family incomes grow. (For details, see Table 14.)

## 2/ Based on a CBO cost estimate.

TABLE 14. PROJECTED DISTRIBUTION OF TAX EXPENDITURES UNDER TUITION TAX CREDIT PROPOSAL BY INCOME, FISCAL YEARS 1979-1983, IN MILLIONS OF DOLLARS

| Adjusted Gross Income | 1979 |  | 1980 |  | 1981 |  | 1982 |  | 1983 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \% | \$ | $\%$ | \$ | $\stackrel{\%}{0}$ | \$ | $\%$ | \$ | \% |
| \$0- 9,000 | 60 | 11 | 67 | 8 | 75 | 7 | 78 | 6 | 67 | 5 |
| 9-15,000 | 90 | 17 | 106 | 14 | 126 | 12 | 110 | 8 | 96 | 7 |
| 15-20,000 | 90 | 17 | 143 | 16 | 150 | 14 | 169 | 13 | 123 | 9 |
| $\begin{aligned} & 20,000 \text { and } \\ & \text { up } \end{aligned}$ | 303 | 56 | 500 | 62 | 731 | 68 | 970 | 73 | 1,033 | 78 |
| All Incomes | 543 | 100 | 805 | 100 | 1,082 | 100 | 1,326 | 100 | 1,318 | 100 |

SOURCE: CBO estimate.

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A few years ago, the incidence of financial distress appeared widespread as colleges and universities confronted a combination of recession-induced revenue declines, inflated costs, and uncertain levels of federal and state support. Currently, the financial condition of postsecondary institutions appears more solid, although not all studies agree on this point. Some colleges continue to experience financing problems; some states have decreased the rate of growth of their support for public institutions; and the expectations of stable (i.e., not growing) future enrollment have led some observers to predict a new round of financial distress. Federal programs can affect financial viability by providing institutions with direct support or by helping students pay tuitions and fees.

Three measures provide important guidelines for the development of federal policy toward institutional viability: (a) the financial conditions of different types of institutions; (b) enrollment patterns among different types of institutions; and (c) the pattern of federal financial support for different types of institutions. The first measure--financial condition--indicates the kinds of institutions, if any, that have funding difficulty. The second measure--enrollments--indicates the degree to which changes in the number of students are affecting the financial well-being of institutions and the potential for using student aid programs to help institutions. The third measure--federal support--suggests the impact that changes in emphasis among different federal programs (student arsistance, institutional aid, and R\&D) might have on differe $1 t$ institutions of higher education.

## RECENT $\because$ UDIES

ree recent independent studies of postsecondary it. ticutions agree that, during 1972-1975, some institutions were losing ground financially and others
were on the verge of backsliding. 1/ A disproportionate number of these, according to a study sponsored by Change magazine, were private institutions. Among private institutions, both the Change study and Lanier/Anderson study reported that research universities were slipping more rapidly--mostly because of a loss of federal graduate and research support. The Bowen/Minter study reports some improvement in financial conditions during the end of this period and expresses some optimism for the four-year private institutions which the authors surveyed. No study reported that financial distress was restricted to any particular class of institutions and no study found that financial distress resulted primarily from any single factor.

The Bowen/Minter study concludes that between 1974 and 1975 the private four-year colleges not only held their own financially but increased in net worth by 5 percent and reduced their net debt burden. Bowen and Minter report that, of the approximately 100 institutions in their sample, 52 percent were holding steady and 26 percent were gaining ground between 1969 and 1974. The remaining 22 percent suffered some form of financial decline. Enrollment, overall, increased 1 percent during each of the last two years, while the rate of attribution remained essentially unchanged. Bowen and Minter conclude that "in the ability to attract and hold students, the private sector appears to be holding its own."

1/ The Bowen and Minter study (Second Annual Report on Financial and Educational Trends in the Private Sector of American Higher Education, 1976) relied on national data, survey responses, and institutional financial audits and concentrated on four-year private institutions. Two other studies, Lanier and Anderson's (A Study of the Financial Condition of Colleges and Universities: 1972-1975) and the Change magazine sponsored study (The Financial Condition of Higher Education) relied on institutionally reported financial data (Higher Education General Information Survey), but they used very different methodologies.:

However, Bowen and Minter itemize some evidence of "weakness or potential deterioration" by noting that institutional revenues did not keep pace with inflation (using CPI as measure) and that this prevented schools from allocating funds for educational improvements or for salary increases. They also note that the proportion of the student bodies drawn from out of state appears to be declining slowly. The impact of this fact, Bowen and Minter observe, "varies widely among institutions depending on the traditional geographic sources of their students" but may disproportionately affect those private schools which depend on a national clientele. They further conclude that "most of the evidence of weakness is related to the unusual inflation of recent years."

Lanier and Anderson concentrate on the effects of inflation on expenditures. They employ several well-known price indexes for higher education, in contrast to Bowen and Minter, who rely upon the Consumer Price Index. They conclude that "the financial condition of higher education has been progressively deteriorating in recent years' $2 /$ and find that roughly one-third of all institutions face serious financial difficulties. The authors do not, however, specify the types or dimensions of the problens. Lanier and Anderson include private research universities in their examination and report a severe decline in expenditures per full-time student in those schools. This may explain why the Lanier/Anderson figure of one-third is somewhat greater than the 22 percent figure of "institutions losing ground" used by Bowen and Minter.

The Change-sponsored study 3 / is unique in several aspects. First, 2,163 institutions--almost the universe of higher education institutions--were examined, using

2/ As written by Hans Jenny in Herher Education and the
$\frac{\text { Economy }}{\text { 1976). }}$ (American Assuciation of Higher Education, 1976).

3/ Authored by Lupton, Augenblick ard Heyison and pub1.f.shed in September 1976.
their HEGIS-reported data. 4/ Second, the authors employ a comparative statistical technique $5 /$ to develop financial health indicators for institutions. The results present the most pessimistic view among the three studies, and the validity of the findings has been questioned widely. 6/ Using data for fiscal years 1972 through 1974, the authors rank 49 percent of all institutions as relatively unhealthy or unhealthy. Among privately controlled institutions, they characterize more than 65 percent as relatively unhealthy or unhealthy. For predominantly black institutions, this figure was 53 percent. Among schools that offer doctoral programs the authors report a significant number of small private colleges and universities to be relatively unhealthy or unhealthy. The time period of this study's data is slightly different from that of the other two and covers years when institutions overall were faring less well, which may be one reason for its more pessimistic findings.

Aside from the combined evidence presented by these three studies, the picture of institutional health is fairly static and there are almost no data on financial status for the academic year 1976-1977. Research in the field tells little about the past performance of institutions by which to judge whether or not they are worse off today; obviously, even less is known about future conditions. Recent declines in the rate of inflation may have ameliorated the expenditure difficulties which confronted all types of schools during the 1972-1975 period.

## SHIFTS IN ENROLLMENT DISTRIBUTIONS

Student enrollments are the backbone of financial viability for most institutions. Among public institutions,

4/ Higher Education General Information Survey conducted annually by the National Center for Education Statistics.

5/ Discriminant analysis.
6/ Including by some of the researchers who helped to initially define the indicators of financial health utilized in the study.
state appropriations, which are often based on enrollment levels, amount to about 40 percent of total revenues. Tuition and fees provide almost 15 percent of revenues for public institutions. At private colleges, tuition and fees contribute over one-third of total revenues. Thus, enrollment changes can significantly influence the financial health of colleges and universities, individually and as a whole. 7/

Between 1971 and 1975, full-time equivalent enrollments (FTE) of students in post secondary institutions increased 18.8 percent for allinstitutions. At püblic two-year colleges, enrollments rose 48.6 percent--the largest increase experienced by any type of institution during that period. About 22 percent more students (on an FTE basis) enrolled at all public institutions (universities, other four-year colleges and two-year schools) in the fall of 1975 than in 1971. Over the same time span, the influx at private institutions amounted to a 9.3 percent increase with private universities experiencing only a 3.3 percent increase. (See Table 15.)

TABLE 15. FULL-TLME EOUIVALENT ENROLLMENTS BY TYPE OF INSTITUTION, FALL 1971 and 1975, in thousands

| Year | Public |  |  |  | Private |  |  |  | A11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Univer- } \\ & \text { sity } \end{aligned}$ | 4-year | 2-year | Al1 | University | 4-year | 2-ycar | Al1 | A11 |
| 1971 | 2,032 | 1,739 | 1,614 | 5,385 | 572 | 1,144 | 110 | 1,826 | 7,211 |
| 1975 | 2,263 | 1,913 | 2,397 | 6,574 | 590 | 1,288 | 118 | 1,996 | 8,570 |
| Percent |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Increase } \\ & 1971-1975 \end{aligned}$ | 11.4 | 1.0 .0 | 48.6 | 22.1 | 3.3 | 12.5 | 7.1 | 9.3 | 18.8 |

SOURCE: National Center for Education Statistics, published and unpublished

7/ See National Center for Education Statistics, Current Funds Revenues, fiscal year 1875 (to be published).

## PATTERNS OF FEDERAL SUPPORT TO INSTITUTIONS

About one-third of every federal student assistance dollar is channeled to private institutions and the other two-thirds to public colleges and universities. About 80 percent of federal research funds are received by public institutions ( 71 percent-at...the university level), while only 20 percent go to private colleges and universities. Table 16 displays estimated fiscal year 1977 outlays for student aid and research funds.

As noted earlier, if any one type of higher education institution can be clearly defined as experiencing financial difficulties during recent years, it is the private research university. 8/ These institutions, however, receive less than 10 percent of the funds from both student assistance programs and research and development efforts. Institutions with financial problems would not be well served by simple expansion of either student assistance or research programs, which dominate current federal activity; both forms of assistance are too widely distributed to reach troubled institutions. A targeted assistance program --similar to the Aid to Developing Institutions Program designed to $\dot{\text { äid }}$ minority institutions--would help research universities more efficiently.

8/ It should he noted, however, that not all or even a majority of these institutions are financially troubled.

TABI.F. 16. DISTRIBUTION OF MAJOR FEDERAL STUDENT ASSISTANCE AND RESEARCH FUNDS, a/ BY INSTITUTION TYPE AND CONTROL b/ FOR FISCAL YEAR 1977, IN MILLYIONS ÓF DOLLARS

|  |  | Public |  |  |  | Private |  |  |  |  | A11 Schnols |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A11 | University | $\begin{aligned} & 4- \\ & \text { Year } \end{aligned}$ | 2Year | Voc. | All | Univer sity | 4Year | $\stackrel{2-}{\text { Year }}$ | Voc./Proprietary $9 /$ |  |
| Student Assistance Programs | $\begin{array}{r} \$ 1,637 \\ \% \end{array}$ | $\begin{array}{r} 974 \\ 38 \end{array}$ | $\begin{array}{r} 252 \\ 10 \end{array}$ | $\begin{array}{r} 396 \\ 15 \end{array}$ | $\begin{array}{r} 16 \\ 1 \end{array}$ | $\begin{array}{r} 930 \\ 36 \end{array}$ | $\begin{array}{r} 286 \\ 11 \end{array}$ | $\begin{array}{r} 425 \\ 17 \end{array}$ | $\begin{array}{r} 61 \\ 2 \end{array}$ | $\begin{array}{r} 165 \\ 6 \end{array}$ | $\begin{array}{r} 2,100 \\ 10 \end{array}$ |
| Research Funds d/ | $\begin{array}{r} \$ 3.527 \\ \% \\ 8 \end{array}$ | $\begin{array}{r} 3,130 \\ 71 \end{array}$ | $\begin{array}{r} 265 \\ 6 \end{array}$ | $\begin{array}{r} 132 \\ 3 \end{array}$ | -- | $\begin{array}{r} 882 \\ 20 \end{array}$ | $\begin{array}{r} 441 \\ 10 \end{array}$ | $\begin{array}{r} 353 \\ 8 \end{array}$ | $\begin{array}{r} 44 \\ 1 \end{array}$ |  | $\begin{array}{r} 4,409 \\ 100 \end{array}$ |
| Total Student Assistance and Research Funds | $\begin{array}{r} \$ 5,164 \\ \% \\ \% \end{array}$ | $\begin{array}{r} 4,104 \\ 59 \end{array}$ | $\begin{array}{r} 517 \\ 7 \end{array}$ | $\begin{array}{r} 528 \\ 8 \end{array}$ | $16$ | $\begin{array}{r} 1,812 \\ 26 \end{array}$ | $\begin{array}{r} 727 \\ 10 \end{array}$ | $\begin{array}{r} 778 \\ 11 \end{array}$ | $\begin{array}{r} 105 \\ 2 \end{array}$ | $\begin{array}{r} 165 \\ 2 \end{array}$ | $\begin{gathered} 6,981 \mathrm{e} / \\ 100 \end{gathered}$ |

SOURCE: CBO estimates based on Office of Education outlay data and National Science Foundation research support data.
a/ Estimated.
b/ Refers to public or private financial control of institutions.
c/ Privately funded institutions that provide training in profit-making skills.
d/ Research and other support including personnel training.
n! Outlays for other 502 programs, social security benefits, veterans' benefits, and tax expendtures are not included.

## FISCAL YEAR 1977 ISSUES

Before the Congress can tackle the fiscal year 1978 budget process, it must resolve some potential fiscal year 1977 funding issues. First, and most immediate, is the expested funding shortfall in the Basic Grants student assistance program. This shortfall is due to an unexpectedly large number of eligible applicants and will require additional funds--about $\$ 200$ million--to meet commitments during this academic year (1976-1977). Such funds may be transferred 1/ from the fiscal year 1977 continuing resolution to this program because the fiscal year 1977 budget target has not yet been exceeded. As of October 1, 1976, outlays for enacted legislation amounted to $\$ 18.5$ billion cor:pared to the functional target of $\$ 22.2$ billion in outlays and $\$ 24$ billion in budget authority.

Second, since many higher education programs were not reauthorized before the fiscal year 1977 Labor-HEW appropriations bill was passed, they are now funded under a continuing resolution at their fiscal year 1976 levels. The programs affected include the Office of Education student and institutional assistance programs in subfunction 502 , but not veterans' benefits, social security educational benefits, and most research programs (which have already been funded for fiscal year 1977). However, a combination of inflationary pressures, legislative pressures, and changes.in participation rates could force a consideration of supplemental appropriations for some of these programs.

Supplemental requests probably will be made before the continuing resolution expires on March 31, 1977. Action is not required before that time because the relevant programs are all forward-funded (i.e., obligations can be made in

[^3]fiscal year 1977, but most outlays will occur in fiscal year 1978).

Four out of the five major student assistance programs will absorb most of the attention for supplemental requests to fiscal year 1977 budget authority. The Basic Grants (BEOG) program may require more funds (in addition to those necessary for school year 1976-1977) than currently appropriated because of possible increases in rates of participation. Supplemental appropriations may also be considered for the Supplemental Grants (SEOG), College Work-Study (CWS), and Direct Student Loans (NDSL) programs. Funding for Guaranteed Student Loans (GSL)--the fifth major student assistance program--contained in the fiscal year 1977 appropriations bill and the continuing resolution, is more than sufficient to cover subsidy requirements without additional appropriations.

Three options illustrate the range of possible fiscal year 1977 appropriations activity. 2/

Option I for 1977: No supplemental appropriations. Funding for programs remains at fiscal year 1976 levels.

Option II for 1977: Supplemental appropriations for BEOGs to fully fund awards at $\$ 1,400$ maximum. Continue campus-based student aid funds at fiscal year 1976 support levels.

Option III for 1977: Supplemental appropriations for BEOGs to fully fund awards at $\$ 1,400$ maximum and inflationary growth (9.6 percent) in funding for campus-based programs.

2/ These potential actions, which in some cases would require creating additional budget authority, can be accommodated by the $\$ 24$ billion target in the 1977 second budget resolution for function 500 , since enacted legislation at the end of the session totalled only $\$ 16.2$ billion in budget authority.

Table 17 displays the funding patterns under these options.

TABLE 17. FISCAL YEAR 1977 SUPPLEMENTAL APPROPRIATION OPTIONS, IN MILLIONS OF DOLLARS

|  | Option I |  | Option II |  | Option III |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Supp. <br> Funds | Total Funds | Supp. Funds | Total <br> Funds | Supp. Funds | Total Funds |
| BEOGs | \$ 0 | \$1,326 | \$275 | \$1,600 | \$275 | \$1,600 |
| SEOGs | 0 | 240 | 0 | +1,600 | 20 | +1,600 |
| CWS | 0 | 390 | 0 | 390 | 40 | 430 |
| NDSL | 0 | 334 | 0 | 334 | 36 | 370 |
| GSL | 0 | 400 | 0 | 400 | 0 | 400 |
| TOTAL | 0 | \$2,690 | \$275 | \$2,964 | \$371 | \$3, 060 |

SOURCE: CBO estimates.
Option I for 1977 would provide $\$ 1.3$ billion for the equality of opportunity objective (aid to low- and moderateincome students) and $\$ 2.7$ billion in student aid that would reduce the financing burdens facing all students. Because of short-funding, the maximum. BEOG award would be below \$1,400.

Option II for 1977 would add $\$ 275$ million to student aid appropriations and provide an additional $\$ 149$ million in support for low- and moderate-income students beyond that provided by Option I. Option'III would provide $\$ 370$ niliion more for student aid and an additional $\$ 192$ million in assistance for low- and moderate-income students than jption I. The distribution of support for students under these options is given in Table 18.

TABLE 18. DISTRIBUTION OF STUDENT ASSISTANCE BY INCOME UNDER ILLUSTRATIVE FISCAL YEAR 1977 OPTJONS, IN MILLIONS OF DOLLARS

| Incomes | Option I |  | Option II |  | Option Itr |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maintains Funding at 1976 Level |  | Full BEOGs with 1976 Level CampusBased Aid |  | Full BEOGs with Inflated Campus Based Aid |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Parental Income of - |  |  |  |  |  |  |
| Dependent Students |  |  |  |  |  |  |
| \$ 1 0-7,500 | 932 | 35 | 1,044 | 35 | 1,073 | 35 |
| \$ 7,500-10,000 | 390 | 15 | 427 | 14 | 441 | 14 |
| \$10,000-15,000 | 468 | 17 | 505 | 17 | 523 | 17 |
| \$15,000-20,000 | 221 | 8 | 226 | 8 | 235 | 8 |
| \$20,000 and up | 74 | 3 | 75 | 3 | 82 | 3 |
| Self-Supporting Students | 606 | 23 | 687 | 23 | 707 | 23 |
| All Students | 2,690 | 100 | 2,964 | 100 | 3,060 | 100 |

SOURCE: CBO estimates.
The Distribution of support among students at different types of institutions is affected only slightly by these supplemental appropriation options. However, the amounts awarded to students in the various types of institutions would change. Option I for 1977 would provide $\$ 786$ million in.assistance to students at private institutions. Options II and III would provide. $\$ 872$ million and $\$ 909$ million, respectively. As shown in Table 19, other types of institutions would also be affected differentially.

TABLE 19. DISTRIBUTION OF STUDENT ASSISTANCE AMONG INSTITUTIOAS FOR FISCAL YEAR 1977 SUPPLEMENTAL APPROPRIATION OPYIONS, IN MILLIONS OF DOLLARS

|  | Option I |  | Option II |  | Option III |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Public |  |  |  |  |  |  |
| University | 1,008 | 37.5 | 1,107 | 37.5 | 1,155 | 37.7 |
| 4-Year | 273 | 10.1 | 1, 298 | 10.1 | 1,1504 | 9.9 |
| 2-Year | 406 | 15.1 | 458 | 15.5 | 471 | 15.4 |
| Vocational | 17 | 0.6 | 18 | 0.6 | +19 | 15.4 0.6 |
| Private |  |  |  |  |  |  |
| University | 292 | 10.9 | 319 | 10.8 | 333 | 10.9 |
| 4-Year | 450 | 16.7 | 486 | 16.5 | 503. | 16.4 |
| 2-Year | 63 | 2.3 | 70 | 2.4 | 71 | 16.3 |
| Private Proprietary | y 183 | 6.8 | 199 | 6.7 | 203 | 6.6 |
| Total Funds ${ }^{\text {a/ }}$ | 2,690 | 100.0 | 2,955 | 100.0 | 3,060 | 100.0 |

SOURCE: CBO estimates based on Basic Grant applicant data, fiscal operations reports, and OGSL data.
a/ Totals may not add due to rounding.

## FISCAL YEAR 1978 OPTIONS

After the fiscal year 1977 issues are resolved, the Congress can turn its attention to budget and appropriations choices for fiscal year 1978. Choices involving student aid and institutional assistance (including research support) will be made as the Congress develops the First Concurrent Resolution on the Budget. Much of the support provided by student assistance programs (e.g., social security and veterans' educational benefits) is relatively "uncontrollable." Consequently, more.attention will be devoted to other grant, loan, and work-study programs.

Because research support decisions usually are made on grounds other than providing support for higher education, the following illustrative options for fiscal year 1978 do not include changes in research support. However, research funds can have a significant effect on the financial stability of some institutions and therefore are, in
fact, one aspect of overall federal policy on higher education. The illustrative budget options discussed below include several alternative higher education funding arrangements derived from the goal discussions in Chapters II through IV.

Essentially, there are dozens of higher education budget options that could place different emphases among the three federal objectives and allocate resources differently among federal programs. The following four options illustrate the differential effects that can be achieved within the limits of current authorizations for subfunction 502 programs.

Option I for 1978: "Current policy"--maintain funding for higher education programs (subfunction 502) at current real levels (allowing adjustments for inflation). 3/

Option II for 1978: Increased emphasis on equality of opportunity for low- and moderateincome students--increased support for programs targeted toward lowand moderate-income students (family incomes between $\$ 0$ and $\$ 10,000$ ).

Option III for 1978: Increaser emphasis on easing of financial burden for middle-income stu-dents--increased support for programs aiding middle-income students.

Option IV for 1978: Comi ned emphasis on equality of opportunity and easing of financial burdens--increased support for programs which assist low-, moderate-, and middle-income students.

What are the likely effects of these budget options? They will certainly influence the distribution of support among the types of institutions and, as a result, affect the financial viability of the higher education system as a whole.

[^4]Before assessing more specific effects, two aspects of these budget options should be noted. First, none is explicitly designed to increase emphasis on the financial condition of postsecondary institutions. 4/ Second, distribution estimates for increased funding of student assistance programs do not take into account possible changes in enrollment patterns.

## Option I for 1978: Current Policy

This budget option involves funding most higher education programs (in subfunction 502) at constant real levels. Under this option, the BEOGs program would be short-funded, because the program's current policy funding level ( $\$ 1.65$ billion) sets an effective maximum award at about $\$ 1,200$; it does not allow full funding at the expanded maximum award level of $\$ 1,800$. Support for the Guaranteed Student Loan Program would increase in real terms, because eligibility for subsidies was expanded to include students from families with adjusted family incomes of up to $\$ 25,000$. $5 /$ The total subfunction 502 budget authority for Option I for 1978 would be $\$ 3.9$ billion.

Of the $\$ 3.3$ billion that would go to students through major Office of Education (OE) programs, $\$ 1.5$ billion (46... percent) would go to low- and moderate-income students and $\$ 529$ million ( 16 percent) would go to middle-income students with family incomes of $\$ 10,000-15,000$. Public and private institutions would receive $\$ 2.1$ bilion ( 63 percent) and $\$ 1.2$ billion respectively from the student and institutional assistance included in Option $I$ for 1978.

4/ Current federal institutional aid programs are not well designed to target assistance toward institutions that face financial problems. Conceivably, increased support for research and development could ameliorate some of the institutions' specific problems, but decisions to increase support for these activities will be based on programmatic and scientific needs, not just higher education needs.

5/ This is equivalent to approximately $\$ 31,000$ in adiusted gross income.
$\frac{\text { Option II for }}{\text { Opportunity fot }}$
This optior would involve increasing support beyond that provided in Option I for 1978, for programs that are targeted toward low- and moderate-income students (\$010,000 family incomes). Basic Grants program support would be increased beyond current policy levels up to the amount necessary to fund a $\$ 1,400$ maximum award ( $\$ 1.9$ billion). Although the legislation authorizes an $\$ 1,800$ maximum for fiscal year 1978, this "short-funding" approach maintains the program's targeting on low- and moderate-income students. Support for Supplemental Grants would be increased from $\$ 257$ to $\$ 443$ million. This entails full funding the initial grant authorizations and renewal grant requests (approved by an Office of Education panel) at their fiscal year 1976 level. Funding for the WorkStudy program would be substantially increased to $\$ 480 \mathrm{mil}-$ lion; Direct Loan funding would be increased to its maximum authorization limit of $\$ 400 \mathrm{million}$. This option also would provide an additional $\$ 100 \mathrm{million}$ for special services for students from disadvantaged backgrounds.

The total cost of Option II for 1978 would be $\$ 4.4$ billion (for subfunction 503). Of the share of this budget going to major OE student assistance programs, about $\$ 1.7$ billion ( 44 percent of student assistance funds) would go to low- and moderate-income students. The average student aid award to low- and moderate-income dependent students would increase by approximately $\$ 130$ over the current policy level.

Option II for 1978 would not significantly alter the distribution of federal support among types of institutions from the current policy base. However, private colleges and universities would receive $\$ 1.4$ billion, compared with the $\$ 1.2$ billion they receive under the current policy option, and public institutions would receive $\$ 2.4$ billion in federal support under Option II, compared with $\$ 2.1$ bil.. lion under the current policy option.

Under Option II for 1978 and the following two options, three institutional aid programs-community college support, continuing education programs and facilities construction
programs--would receive an additional $\$ 200$ million under a newly enacted "trigger" mechanism. 6/

Option III for 1978: Increased Emphasis on Easing the Financial Burden for Middle-Income Students

This option provides full funding of Basic Grants (\$2.1 billion); cuts back Supplemental Grants, College Work-Study, and Direct Loans to current policy levels (\$1.0 billion total); maintains Guaranteed Loans at current policy level (\$.7 billion); and increases funding for the State Student Incentive Grants program (to \$0.1 billion). The tutal cost of this option would be about $\$ 4.5$ billion, and middle-income students would receive $\$ 0.7$ billion in student assistance--about $\$ 0.2$ billion more than under the current policy option. The average assistance to dependent college students with family incomes between $\$ 10,000$ and $\$ 15,000$ would be about $\$ 150$ more than under current policy.

Compared to the current policy option, Option III would direct an additional $\$ 0.3$ billion to public institutions and an additional $\$ 0.2$ billion to private institutions.

Option IV for 1978: Combined Emphasis on Equality of Opportunity and Easing the Financial Burden for Low-, Moderate-, and Middle-Income Students

Option IV, which combines the changes oi Options II and III, would have a total budget of $\$ 5.0$ billion. Of this amount, $\$ 4.1$ billion would be earmarked for student assistance-- $\$ 1.7$ billion for low-income/moderateincome students and $\$ 0.8$ billion for middle-income students.

6/ The "trigger" mechanism requires that, for every two dollars above a "trigger" level appropriated for four student assistance programs--Basic Grants, Supplemental Grants, College Work-Study and Direct Loans-one dollar must be appropriated for these three institutional aid programs up to a maximum of $\$ 215$ million. The "trigger" level in fiscal year 1978 is the greater of the sum of fiscal year 1977 appropriations for the four student assistance programs or $\$ 2.8$ billion.

Under this option, support to public institutions would increase by $\$ 0.5$ billion ( 24 percent) over the current policy base; support to private institutions would increase by $\$ 0.3$ billion ( 19 percent).

Tables 20,21 , and 22 detail the budgets and funding patterns created by the sour illustrative budget options.

## Five-Year Cost Implications of 1978 Eudget Options

The net growth in costs over five years under these options will be relatively modest--ranging between 6 and 11 percent. Option I (the curcent policy option) will grow by 8 percent between fiscal years 1978 and 1982, from $\$ 3.9$ billion to $\$ 4.2$ billion. Option II will increase the most--10.7 percent--to $\$ 5.2$ billion. Option III will increase the least- -6.3 percent--to $\$ 4.8$ billion. Option IV, which combines the program changes of Options II and III, will grow from $\$ 5.0$ billion to $\$ 5.4$ billion, a 9.2 percent increase. (See Table 23 for details.)

These modest cost increases result from the offsetting pattern of growth between the Basic Grants program and other student assistance programs. Since higher incomes reduce grant eligibility, requirements for Basic Grants will fall as real incomes rise. 7/

[^5]TABLE 20. PROGRAM REQUIREMENTS UNDER ALTERNATIVE FISCAL YEAR 1978 BUDGET OPTIONS, IN MILLIONS OF DOLLARS

| Programs | Option I | Option II | Option III | Option IV |
| :---: | :---: | :---: | :---: | :---: |
| Basic Grants | 1,648 a/ | 1,889 b/ | 2,096 c/ | 2,096 c/ |
| Supplemental Grants | 257 | 443 d/ | 257 | 443 d/ |
| College Work-Study | 418 | . 480 | 418 | 480 |
| Direct Loans | 358 | 400 | 358 | 400 |
| Guaranteed Loans e/ | 652 | 652 | 652 | 652 |
| Sub-Total for Major Student Assistance | $(3,333)$ | $(3,864)$ | $(3,781)$ | $(4,071)$ |
| State Incentive Grants | 47 | 47 | 100 | 100 |
| Special Services | 75 | 175 | 75 | 175 |
| Developing Institutions | 120 | - 120 | 120 | 120 |
| Other Institutional Support | 141 | 333 f/ | 292 f/ | $342 \mathrm{f} /$ |
| Other 502 Programs | 163 | 163 | 163 | 163 |
| Total, 502 Programs | 3,879 | 4,702 | 4,531 | $\overline{4,971}$ |

SOURCE: CBO estimatès.
a/ Inflates a 1977 appropriation of $\$ 1,326$ million plus a supplemental of $\$ 211$ million.
b/ CBO estimate for reduced version of $\$ 1,800$ BEOG program with effective maximum equal to $\$ 1,400$ at 85 percent participation.
c/. CBO estimates at 85 percent participation of $\$ 1,800$ fully funded.
d/ Allows for funding of initial awards at authorization limit and continuing awards at their fiscal year 1976 panel-recommended ... funding level inflated (to $\$ 243$ million).
e/ CBO estimates of funding requirements with new special allowance rate provisions and $\$ 25,000$ subsidy eligibility limit, assuming full availability and use of additional capital.
f/ See footnote 6/ in this chäpter.

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65
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TABLE 21. DISTRIBUTION OF MAJOR STUDENT ASSISTANCE, BY INCOME LEVEL, FOR FISCAL YEAR 1978 BUDGET OPTIONS, IN MILLIONS OF DOLLARS

| Income | Option I |  | Option II |  | Option III |  | Option IV |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | $\begin{aligned} & \text { Per- } \\ & \text { cent } \end{aligned}$ | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | $\begin{aligned} & \text { Per- } \\ & \text { cent } \end{aligned}$ | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | Per- | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | Percent |
| Parental Income of Dependent Students |  |  |  |  |  |  |  |  |
| \$ 0-7,500 | 1,083 | 32.5 | 1,097 | 28.4 | 1,042 | 27.6 | 1,142 | 28.1 |
| \$ 7,500-10,000 | 1,451 | 13.5 | 603 | 15.6 | 535 | 14.1 | 383 | 14.3 |
| \$10,000 - 15,000 | 529 | 15.9 | 695 | 10.2 | 736 | 19.5 | 787 | 19.3 |
| \$15,000 - 20,000 | 237 | 7.1 | 287 | 7.4 | 299 | 7.9 | 318 | 7.8 |
| \$20,000 and up | 313 | 9.4 | 325 | 8.4 | 318 | 8.4 | 327 | 8.0 |
| Self-Supporting Students | 717 | 21.5 | 852 | 22.0 | 850 | 22.5 | 914 | 22.5 |
| All Students | 3,333 | 100.0 | 3,864 | 100.0 | 3,781 | 100.0 | 4,071 | 100.0 |

SOURCE: CBO Estimate.

TABLE 22. DISTRIBUTION OF MAJOR STUDENT ASSISTANCE PROGRAMS a/, BY INSTITUTION TYPE AND CONTROL b/ FOR FISCAL, YEAR 1978 BUDGET OPTIONS, IN MILLIONS OF DOLLARS

| Income | Option I |  | Option IJ |  | Option III |  | Option IV |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dol- <br> lars | Percent | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | percent | Dollars | Percent | $\begin{aligned} & \text { Dol- } \\ & \text { lars } \end{aligned}$ | Percent |
| All Institutions | \$3,333 | 1 CO | 3,864 | 100 | 3,781 | 100 | 4,071 | 100 |
| Public | 2,090 | $6{ }^{\circ} \mathrm{C}$ | 2,446 | 63.3 | 2,416 | 63.9 | 2,597 | 63.8 |
| - University | 1,228 | 36.8 | 1,441 | 37.3 | 1,425 | 37.7 | 1,527 | 37.5 |
| Other 4-Year | 354 | 10.6 | 394 | 10.2 | 393 | 10.4 | 415 | 10.2 |
| 2-Year | 489 | 14.7 | 583 | 15.1 | 590 | 15.6 | 631 | 15.5 |
| Vocat-ional | 2.1 | 0.6 | 23 | 0.6 | 23 | 0.6 | 24 | 0.6 |
| Private | 1,238 | 37.1 | 1,414 | 36.6 | 1,361 | - 36.0 | 1,470 | 36.1 |
| University | 349 | 10.5 | 410 | 10.6 | 393 | 10.4 | 432 | 10.6 |
| Other 4-Year | 567 | 17.0 | 645 | 16.7 | 616 | 16.3 | 668 | 16.4 |
| 2-ǐear | $76$ | 2.3 | 89 | 2.3 | 87 | 2.3 | 94 | 2.3 |
| Voc./Proprietary | c/ 252 | 7.6 | 274 | 7.1 | 272 | 7.2 | 285 | 7.0 |

SOURCE: CBO estimates.
a/ Estimated.
b/ Refers to public or private financial control of institutions.
c/ Privately funder institutions that provide training in profit-making skills.

TABLE 23. FIVE-YEAR COST PROJECTIONS UNDER FISCAL YEAR 1978 OPTIONS, IN MILLIONS OF DOLLARS

|  | Option I | 1979 | 1980 | 1981 | 1982 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total | \$3,879 | \$3,961 | \$4,060 | \$4,118 | \$4,188 |
| Major Student Assistance | $(3,333)$ | $(3,379)$ | $(3,441)$ | $(3,455)$ | $(3,477)$ |
| Other 502 Programs. | (546) | (581) | (628) | (663) | (712) |
|  | Option II | 1979 | 1980 | 1981 | 1982 |
| Total | \$4,702 | \$4,878 | \$4,991 | \$5,086 | \$5,206 |
| Major Student Assistance | $(3,864)$ | 3,986 | 4,040 | 4,070 | 4,114 |
| Other 502 Programs | (838) | (892) | (951) | $(1,016)$ | $(1,092)$ |
|  | Option III | 1979 | 1980 | 1981 | 1982 |
| Total | \$4,531) | \$4,603 | \$4,703 | \$4,749 | \$4,815 |
| Major Student Assistance | $(3,781)$ | $(3,804)$ | $(3,852)$ | $(3,839)$ | $(3,837)$ |
| Other 502 Programs | (750) | (799) | (851) | (910) | (978) |
|  | Option IV | 1979 | 1980 | 1981 | 1982 |
| Total | \$4,971 | \$5,135 | \$5,240 | \$5,320 | \$5,428 |
| Major Student Assistance | ( 4,071 ) | $(4,176)$ | $(4,218)$ | $(4,228)$ | $(4,255)$ |
| Other 502 Programs | (900) | (959) | $(1,022)$ | $(1,092)$ | $(1,173)$ |

APPENDIX
$\qquad$

TABLE A-1. PERCENT OF PLAN FULFILLMENT FOR HIGH SCHOOL SENIORS, BY SOCIOECONOMIC STATUS a/ (SES) AND TYPE OF SCHOOL, 1972

| Plans in Spring 1972 | , Activity in October 1972 |  |  |  | $\begin{aligned} & \text { All } \\ & \text { Activities } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Voc-Tech School | $\begin{aligned} & 2-Y e a r \\ & \text { College } \end{aligned}$ | $\begin{aligned} & \text { 4-Year } \\ & \text { College } \end{aligned}$ | Other Activities |  |
| HIGH (SES |  |  |  |  |  |
| Voc-Tech School | 49.7 | 15.5 | 3.3 | 31.5 | 100.0 |
| 2-Year College | 3.5 | 68.8 | 14.0 | 13.8 | 100.0 |
| 4-Year College | 1.0 | 5.4 | 87.4 | 13.2 | 100.0 |
| Other Plans | 7.0 | 9.6 | 9.6 | 73.8 | 100.0 |
| All Plans | 5.0 | 18.0 | 56.8 | 20.1 | 100.0 |
| MIDDLE (SES) |  |  |  |  |  |
| Vou-lech Scriool | 52.1 | 9.0 | 1.3 | 37.6 | 100.0 |
| 2-Year College | 6.1 | 61.8 | 8.3 | 23.7 | 100.0 |
| 4-Year College | 7.3 | 9.0 | 79.1 | 9.5 | 100.0 |
| Other Plans | 5.2 | 6.4 | 3.0 | 85.3 | 100.0 |
| All Plans | 8.8 | 17.3 | 27.9 | 46.0 | 100.0 |
| LOW (SES) |  |  |  |  |  |
| Voc-Tech School | 42.7 | 7.5 | 3.2 | 46.6 | 100.0 |
| 2-Year College | 6.3 | 58.5 | 7.3 | 28.0 | 100.0 |
| 4-Year College | 2.8 | 8.2 | 71.2 | 17.7 | 100.0 |
| Other Plans All Plans | 5.4 | 2.8 | 1.9 | 89.8 | 100.0 |
| All Plans | 9.3 | 10.9 | 16.5 | 63.3 | 100.0 |
| SOURCE: $\begin{aligned} & \text { National } \\ & \text { Planning } \\ & \\ & \text { National } \\ & \\ & \text { Triangle }\end{aligned}$ | Longitudinal Study of the High School Class of 1972: and Activity States Analyses. Prepared for the Center for Education Statistics by the Research Institute, September 1975. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| a/ Sociotionomic (1) father's e income; (4) fa | tatus is an index comprised of five components: ucation; (2) mother.'s education; (3) parental her's occupation; (5) household items. |  |  |  |  |

TABLE A-2 PERCENTAGE OF FISCAL YEAR 1977 OUILAYS IN EACH MAJOR FEDERAL STUDENT ASSISTANCE PROGRAM, BY INCOME CLASS


SOURCE: CBO estimates based on Basic Grants applicant data, fiscal operations reports, and OGSL data.
a/ Includes some self-supporting students.
b/ Less than 1 percent.
table a-3 distribution of siudent assistance by income, under illustrative fiscal year 1977 OPTIONS, IN MILLIONS OF DOLLARS


SOURCE: CBO estimates,
a/Included in above distribution.

TABLE A-4 FAMILY INCOME AND SIUDENT CHARGES, 1967-1975


SOURCE: Bureau of the Census Current Population Reports and National Center for Education Statistics data,
a/ Fanily incomes are thos: renorted in the Bureau of the Census October Current Population Survey when other detailed questions about erius.tice are as'ed. The traditional and more comprehensive reporting of incomes is done in March of each yec:. 'th.- bu:cau of the Census reports that for the above period Octnber median family incomes ranged from 82 to 06 per rent of the median family incomes reported in March.
b/ A census fanily is iso or nc:: persons related by blood, marriage, or adoption, and residing together. All such persons are cunsidexid vembers of thes same family, Columns (2) and (3) are incomes of primary families. A primary fanily incluws a head of the household (family designated) as one of its members. Excluded from the sanale of primy families here are those in which the $18-24$-year-old dependent is either the designated head, the witt, w married, Only those in which the 18 - 24 -year-old dependent is attending college full time are arcluld in Column (3).

TABLE A-5 ROPULATION $18-24$ YEARS OLD IN PRIMARY FAMLIIES AND PERCENT ENROLLED FULL TTME AND PARC TIME IN COLLEGE, BY FAMILY INCOME, 1970-1975, CIVILIAN NONINSTITUTIONAL POPULATION IN THOUSANDS


Percent of Population Enrolled

Full Tine:

sourfer: CBO estimates based on U.S. Bureau of the Census data.


[^0]:    1/ These other payments are nominal and will not be included in this analysis.

[^1]:    1/ James S. Coleman et al.,Equality of Educational Opportunity, Washington, U.S. Government Printing Office, 1966.

[^2]:    5/ Alexander Astin, College Dropouts: A•National Profile, American Council on Education Research Reports (Washington, D.C., 1972).

[^3]:    1/ The Administration has the authority to transfer these funds, with the understanding that a future supplemental request will restore them.

[^4]:    3/ Including the potential 1977 supplemental for Basic Grants.

[^5]:    7/ Assuming no change in the contribution schedule over the five-year period.

