This paper, the fourth article in a series of AAHE research reports, summarizes the findings of recent research on the problems and proposed remedies of college finances. Studies are discussed that examine: (1) the evidence of the financial plight of higher education; (2) the patterns of state support; (3) patterns of federal support; and (4) proposals for increased aid, including the arguments for and against institutional grants and/or aid to students, as well as some of the formulas for institutional grants that have been suggested. (AF)
College Finances: Ills and Remedies by Virginia B. Smith

This series of AAHE research reports is made possible by a grant from the W. K. Kellogg Foundation. The goal of the series is to summarize the thrust of current research on selected topics and to speculate on what this research implies for future practice.

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The period from 1957 to 1967 was American higher education's golden decade, at least in financial terms. During that time, expenditures of the nation's colleges and universities rose from $5 billion to $15 billion, a 300 percent increase. In the same period, estimated enrollment rose from 2.5 million to 5.5 million, a 220 percent increase (1). But growth in revenue had not kept pace with rising costs. The late 1960's brought increased evidence that higher education was in a state of financial distress far more drastic than the usual institutional problem of making ends meet.

Evidence of Financial Difficulty

Early warnings of this distress came from administrators and from higher education associations. In October of 1967, Fortune magazine suggested that many private institutions "were living with a formula for bankruptcy." Fortune had obtained financial forecasts from 20 private institutions and predicted, on the basis of these forecasts, that the combined deficits of these twenty would be $3 million by the spring of 1968, and by 1978 the deficits would climb to $110 million, or about 17 percent of the institutions' operating budgets (2).

It was in part because of the growing concern over college and university financing that the Carnegie Foundation for the Advancement of Teaching appointed the Carnegie Commission on Higher Education in 1967 to study and make recommendations about all major aspects of higher education in the United States. One of the Commission's first publications was a study of the economics of major private universities by Princeton economist William G. Bowen (3). Bowen carefully analyzed past and projected revenue and expenditures at three major private universities and concluded that such institutions could be expected to have a deficit of from $20 to $28 million a year by 1975-76.

Since 1967, studies of private higher education in seven states provided further evidence of the financial plight of private institutions. In all seven—New York (4), Missouri (5), Illinois (6), Texas (7), California (8), Massachusetts (9), and Indiana (10)—researchers predicted growing deficits in the private sector. Underscoring the pessimism of these predictions is the fact that the more recent the study the more certain and dire the forecast of deficits. This could, of course, simply reflect a difference in state conditions. Nonetheless, the two state studies completed in 1970—in Indiana and Massachusetts—conclude that private higher education in those states will be facing deficits of $39 million and $50 million respectively by the middle of this decade (9, 10). And the recently completed survey by the Association of American Colleges shows a rapidly deteriorating financial situation in private colleges, with an estimated total deficit over the last four years of $370 million in the private sector (11).

Although most of the research and warnings about impending bankruptcy had initially focused on private institutions, there were, as early as 1967, some indications of financial stringency in the public sector. In that year, it was estimated that one of every seven public universities would reject qualified in-state applicants and two of every seven would reject qualified out-of-state applicants. One-tenth of the state and land-grant institutions raised admission standards for in-state students in 1967, and one-sixth raised them for out-of-state students (12). In addition, comparative studies of the public and private sectors suggested that public institutions were less well off than private in terms of space per student and expenditures per unit (13, 14, 15).

By the end of 1970, there was substantial evidence of financial problems in many public institutions. In a survey of state colleges and universities, over four-fifths reported that their state appropriations were inadequate to meet the current year's needs, and three-fourths reported that appropriations fell short of their current year's needs, and three-fourths reported that appropriations fell short of their budget requests. Many institutions were delaying new programs, cutting back existing programs, postponing salary increases, and not filling vacant positions (16).

In December 1970, preliminary results of a Carnegie Commission study of the financial status of 41 public and private colleges and universities were released. Cheit, the study director, concluded after detailed examination of the finances of these 41 institutions that American higher education is in a "new depression." Using the 41 institution study as a basis, the Commission staff estimated that some 500 public and private colleges and universities were in financial difficulty and another 1,000 were headed for trouble (17).
Patterns of State Support

In 1960, state appropriations for higher education totalled $1.4 billion. By 1970, they had quadrupled to $6.1 billion. M. M. Chambers proposes that states can and should increase their support of higher education operating expenses to a total of $10 to $12 billion by 1980 (18).

Except for student aid programs totalling about $200 million and some funds appropriated for state coordinating agencies, most of the $6.1 billion of state aid to higher education is in the form of general operating support. Over 90 percent of all of the state institutional aid goes to public colleges and universities. Only in Pennsylvania and New York do the funds channeled to private colleges and universities amount to a significant part of the total higher education outlay.

Those states granting aid to private institutions employ many techniques for channeling this aid:

Direct institutional grants for general support to selected institutions. Pennsylvania, rather than establishing more private institutions, has given some support to selected private institutions to help them meet expenses and increase enrollment while maintaining moderate tuition levels. Temple University, University of Pennsylvania, University of Pittsburgh, and certain special purpose institutions in the technical and health science field have received such support. Last year Wisconsin made similar grants to the College of Medicine at Marquette and Ohio to the Case-Western Reserve Medical School (18). States usually base their selection of the private institutions to receive general support grants on two major criteria: (a) Is the institution in need? And (b) does it provide a higher education program or programs for which the state lacks adequate capacity?

Categorical grants to private colleges and universities (grants for specifically designated purposes). Two states provide some construction grants to private institutions, and eleven states have created agencies to make it possible for private institutions to borrow construction funds through the issuance of tax exempt bonds. New York provides funds to establish endowed chairs for highly distinguished professors (19). While this type of aid appears to have small impact on altering the private nature of the institution, it does little to help the institution that has difficulty meeting its general operating expenses.

Direct institutional grants based on a special purpose formula. Two states employ this mechanism through which grants are distributed to institutions on the basis of state needs or goals. For example, Florida, in need of more medical manpower, grants the University of Miami Medical School a specified amount for Florida residents enrolled in the school (18). Connecticut, wishing to encourage private institutions to increase their enrollment of Connecticut students, has instituted a program of grants to institutions in which the amount of the grant is determined in part by the size of the institution's increased enrollment of Connecticut residents (19).

General purpose formula grants to all nonsectarian private institutions in the state. This technique is based on a general formula designed to allocate funds equitably among all private colleges and universities to which the state can constitutionally give support. The elements of the formula usually are: (a) a measure of institutional output, such as degrees awarded, or (b) a measure of input—for example, enrollment or institutional expenditures, or (c) some combination of input and output measures. Only New York now uses a general purpose formula for channelling support funds to its private institutions. Following the proposals of the Bundy report (4), the New York program provides for annual grants of $400 for each undergraduate degree granted by the institution and $2,400 for each graduate degree. New York channeled some $20 million to private institutions through this program in its first year (18).

Indirect aid to private institutions through tuition equalization grants. Some states concerned about the differences in tuition levels at public and private institutions have established tuition grant programs specifically designed to narrow that gap. Under the Iowa program, introduced in 1969, financially needy students may obtain grants equal to tuition and fees at the private institution less the average amount of tuition at state universities (established at $610 for the first year of the program), but in no event more than $1,000. Connecticut's new program also includes a tuition equalization feature as do programs in certain other states (19).

Patterns of Federal Support

Federal support for higher education totalled $7.7 billion in 1958 and increased to $4.7 billion in 1968. The Carnegie Commission has proposed that federal aid to higher education be increased to approximately $13 billion by 1980 (20).

Although federal general-support funds are given to selected institutions, such as Howard University and Gallaudet College, and to national service schools and land-grant colleges and universities, most federal grants to institutions are for specifically and often quite narrowly designated purposes. In determining eligibility for grants, the federal government has treated public and private institutions alike except that grants may not be used for sectarian purposes. Student aid programs apply equally to students attending public or private colleges and universities.

Proposals for Increased Aid

Proposals designed to increase the flow of government aid to higher education have taken many forms. At the state level, in addition to requests for increased appropriations for public institutions, there have been proposals in almost all states for higher levels of support for student aid and for new types of student aid programs. Relatively new at the state level are proposals for general support grants to private colleges and universities and fairly radical suggestions for channelling all higher education funds through students.

Proposals for increased aid from the federal government call for a continuation of, and an increase in levels of funding for, existing categorical grant and student aid programs. In addition, there has been a growing demand for some kind of institutional support program for both public and private institutions, and for the development of substantially modified student loan programs.

Through Institutions or Through Students?

There seems to be little argument that increased state and federal aid is essential. But there has been and continues to be debate over whether the additional funds should be channeled primarily through students or through institutions. In
a recent article, Kenneth Roose summarized the arguments for channeling funds through students:

The case, then, for aid to students and for more nearly pricing education at its true cost is fourfold: aid to students leads to a more effective use of resources and, consequently, enhances the national welfare; it can enlarge educational opportunity for low-income and disadvantaged groups; it requires institutions and educational programs to be more responsive to consumers; and it makes possible continued and effective competition between public and private institutions of higher education. (21)

An important element of Roose's summary is that it would be accomplished by "pricing education at its true cost." Increased student aid will improve the institution's financial condition only to the extent institutional funds otherwise used for student aid are freed for other purposes or to the extent the institution raises its tuition. If, however, an institution's financial problems result from operating at less than capacity, the increased enrollment resulting from higher levels of student aid may improve the institution's financial condition.

Some proposals for student aid, such as the Opportunity Bank (22), clearly intend an increase in tuition. Other proposals, by severely limiting the loan portion of the total complex federal aid package (13, 20), hope to keep down the impact on tuition and any negative social consequences that would result from full-cost tuition. For a thorough analysis of a variety of student loan proposals, the reader should see Credit for College: Public Policy for Student Loans, by Robert Hartman (23).

Under a plan recommended by the Governor's Commission in Wisconsin, all state institutional support would be eliminated and state funds would be channeled through students. The Commission recommended a voucher system for higher education under which all students would receive a basic grant of $500 and a supplementary grant based on their financial ability to pay. Institutions would collect full tuition from the students, rather than receive appropriations from the legislature (29).

Few higher education leaders see the argument as an "either-or" proposition, but rather in terms of relative emphasis.

Institutional Grants

A variety of formulas for institutional grants have been proposed. Potential impacts of some of these have been compared in recent articles (25, 26, 14). Below, central elements of the following are discussed: the Miller bill (27, 28), Quie bill (29), the federal aid proposals of various higher education associations (30, 31, 32), one version of Howard Bowen's proposal (33), and the proposals of the Carnegie Commission (20) and the Department of Health, Education, and Welfare (13).

Level of funding

Almost all proposals that include levels of funding limit the amounts awarded to a relatively small proportion of total operating costs:

- The program of grants to private institutions recently proposed in Illinois limits the level of funding to about 5 percent of the private sector's operating costs.
- Institutional grants under the Miller Bill, when it was first proposed, would have totalled $150 million. This was subsequently increased to $400 million, representing less than 3 percent of higher education's current fund expenditures.
- Carnegie Commission proposals for general-support aid to institutions total about $1.2 billion in the initial year, representing about 7 percent of higher education's operating costs.
- HEW proposals total about $900 million in the initial year, or 5 percent of current fund expenditures.

Selection of institutions for aid

Under the Miller bill, the Quie bill, and the proposals of Howard Bowen and several higher education groups, all accredited public and private nonsectarian institutions are eligible for aid. Under the Carnegie and HEW proposals, although all accredited institutions are eligible as in the proposals mentioned above, determination of the extent to which institutions participate in the grant program involves a further selection process.

The Carnegie grants are in the form of cost-of-education supplements tied to the number of students holding federal educational opportunity grants and doctoral fellowships. HEW grants depend on the amount of educational opportunity grants and NDEA and work-study payments received by students enrolled in the institution and the number of federal doctoral fellowship holders at the institution. A portion of the Illinois grant depends on the number of Illinois scholarship and grant holders at the institution. Thus, under all of these formulas, the amount of the grant depends, at least in part, on the selection of the institution by students in particular categories. Under both the Carnegie and HEW proposals these categories are undergraduate students from low-income families and students with outstanding academic ability at the advanced graduate level. Under the Illinois proposal, the special category includes both the highly able undergraduate and the undergraduate that qualifies for a financial aid grant.

Emphasis on output or input criteria

The present New York program relies solely on an output criterion (degrees awarded). The Quie Bill includes input criteria for two-year colleges (enrollment) and output for other institutions (baccalaureate degrees awarded). Under this bill, the average grant to colleges awarding less than 200 degrees is over three and a half times the average at a college awarding 10,000 degrees.

The Miller Bill includes criteria of both types for all institutions (credit hours in science, degrees awarded in science programs, and state proportions of the national total of 18 to 21 year olds). The AAU and the ACE proposals suggest including two input criteria: expenditures and enrollment.

Under an additional criterion, employed in the Miller bill, HEW, and Carnegie proposals, a part of the amount granted is based on the total federal research grants to the institution. The Bowen proposal relies heavily on output criteria—level and rate of growth in expenditures. Using degrees awarded as a criterion may penalize institutions such as community colleges which have higher attrition rates and from which students may transfer to upper division work without earning a degree. It is also possible that heavy emphasis on degrees could dilute degree standards and possibly distort educational choice. On the other hand, placing emphasis on numbers of students may detract from
quality. Enrollment criteria benefit the larger public institutions more than small and high-cost private institutions.

If the formula places too heavy an emphasis on the level of institutional expenditures, it could operate in the same way as cost-plus arrangements—that is, reward inefficiency, provide no incentive for better use of resources, ignore economies of scale, and provide a greater proportion of the funds to relatively rich institutions.

Cost differentials among levels of instruction

Initially the Miller bill differentiated between undergraduate and graduate but not between first-level and advanced graduate students. The revised bill incorporated a distinction between the two graduate levels. Almost all the proposals make some differentiation among instructional levels, but the degree of differentiation varies. In those programs where doctoral students are included as an element in the formula on a highly selective basis, the differential is somewhat greater than where all doctoral students are considered. For example, the Carnegie ratio between undergraduates and doctoral students is 1:7 and New York’s is 1:6.

Differences in intent

The approach in grant programs such as those in the Quie bill, the Bowen, and AAU proposals, the New York program, and other general-purpose formulas is to devise a mechanism for the most equitable system of allocation of funds among institutions. Proposals that use special-purpose formulas are also interested in equitable distribution, but based on how well a college or university is meeting a particular national goal. HEW and Carnegie institutional grant proposals, for example, are concerned with the extent to which institutions are serving needy students and with the excellence of doctoral and research programs, both matters of national concern. The Miller bill emphasizes the quantity and quality of the institution’s science programs.

A general-purpose formula relying on input and output criteria that merely reflect existing relationships in higher education could have the undesirable effect of reinforcing the status quo. On the other hand, the danger that must be guarded against with a special-purpose formula is the possibility of encouraging advancement of some programs at the expense of others.

Conclusion

A full analysis of the advantages or disadvantages of any particular institutional grant proposal cannot be made outside the context of the total pattern of federal aid. The impact of a formula varies depending on whether or not there are in existence adequate programs to support specific purposes such as construction, student needs, library improvements, and technology.

REFERENCES