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ABSTRACT

This paper is an attempt to draw together some of the criteria and information by which one might project the proper amount and form of federal financial support to higher education. The paper takes into account the financial crunch in higher education, the financial burdens on students and families, and the 1971-72 higher education legislation. It is summarized that federal aid to higher education should be in such a form and such an amount as to: (1) maximize the resources available from state and local governments, students and parents, and productivity increases in higher education; (2) compensate for persisting inefficiencies in state support of higher education; (3) compensate for an inadequate state tax base; and (4) reflect truly national goals such as (a) increasing the proportion of low income youth attending higher education, (b) supporting research, and (c) reducing state and regional disparities in available public services. In general, these guidelines suggest a form of federal support that would feature aid to students, institutions, states, educational programs, and categorical research. (Author/HS)

FEDERAL SUPPORT FOR HIGHER EDUCATION: BUDGET ALTERNATIVES AND IMPLICATIONS

D. Bruce Johnstone
January, 1972

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FEDERAL SUPPORT FOR HIGHER EDUCATION: BUDGET ALTERNATIVES AND IMPLICATIONS

I

New Demands Upon the Federal Budget

The Evolving Federal Role in Support of Higher Education

As higher education becomes increasingly preoccupied with financial concerns, more and more hope is being placed upon the federal government as a major source of new revenue to both students and institutions. Today, for example, the federal budget is being called upon:

1. To restore and to increase support for organized research and the construction of academic facilities--support which has suffered relative declines in recent years;

2. To further equality of higher educational opportunity through national programs of need-based student assistance, including grants, subsidized loans, and job aid;

3. To redress the growing imbalance between the public and private higher education sectors, an imbalance fostered by the prevailing pattern of state assistance which aids publicly controlled institutions but not those privately controlled institutions providing the same service (and presumably contributing in roughly equivalent measure to the social good);

4. To provide a variety of "special programs" which typically have little immediate, visible "output" (e.g., experimental curricula), or having a politically weak clientele (e.g., open enrollment or compensatory education programs) and which are thereby more vulnerable to local than to national budgetary scrutiny; and

5. To assume a share of the general revenue needs of higher education out of the federal budget in recognition of the incapacity of either state or student/family budgets to keep up with the rapid growth of costs of higher education.

Such "demands" would represent a major expansion in both the scope and the level of federal financial support to higher education. Yet, such an expanding role for the federal government has been evolving over the past decade , only given hightened visibility with the recent (as yet unresolved) revisions in the basic federal higher education legislation and with the sharply worsening financial fortunes of many of our colleges and universities.

Federal funds flowing to students and institutions of higher education increased from about $1.3 billion in 1962 to about $5.1 billion in 1970 and were projected to reach $6 billion by fiscal year 1972.[1] Much of this increase over the past decade has been in federal support of research and graduate training, especially in the areas of health and science. The federal government has also, however, assumed in this period important roles in support of facilities construction and student assistance, two areas which had once been considered the sole responsibility of state governments and private

[1] Special Analysis: Budget of the United States Government, Fiscal Year 1972, Washington, D.C., 1971, p. 118.

philanthropy. With the Higher Education facilities Act of 1963, the federal government assumed a portion of the burden of providing facilities for the rapidly expanding enrollments of that decade. With the National Defense Education Act of 1958, the federal government assumed responsibility for supporting students in fields of critical national need. And with the passage of the Higher Education Act of 1965, the federal government became a principal purveyor of grants and other forms of assistance to the needy. While general, unrestricted federal aid to institutions of higher education remains a matter of considerable controversy, such aid may not be inconsistent with the trend of federal support over the past decade--a trend which has transferred the role of the federal government in support of higher education from one which was clearly supplementary to the role of the states to one which is truly complementary and may someday become equal or even superior to the role of the states.

This is particularly true as a greater and greater public priority is placed on such clearly national goals as expanding and equalizing higher education opportunities. The pressure on the federal budget is also heightened by the increasing inadequacy of state financing, due to the enormous demands on state budgets, coupled with generally inelastic, inequitable, inefficient, and politically vulnerable tax systems. With rising real per-student costs plus continued projected increases in enrollments, the pressure for greatly increased federal aid to higher education will continue to be a prominent element in future federal budgetary decisions.

Higher Education and the Federal Budget

This paper is an attempt to draw together some of the criteria and information by which one might project the "proper" amount and form of federal financial support of

higher education. Neither the criteria nor the information provided here is presumed to be adequate to that task. However, as the demands for federal support increase, in intense competition with the multitude of other demands upon the federal budget, we must begin to consider how priorities are to be established in the budget process and what our major information "gaps" are. This paper is written as a modest contribution toward those objectives.

The projected $6 billion of federal "support" for higher education in 1971-72 encompasses a wide range of federal agencies and programs, only some of which may be directly relevant to a consideration of budget alternatives and the needs of education. This analysis will therefore concentrate primarily upon the federal support of students and institutions--as opposed to the direct support of organized research. The analysis will further concentrate on those programs in which the budget alternatives are most open, and in which legislative and executive decisions may have the greatest impact on the general financial health of students and institutions. Of the projected $6 billion of "federal outlays for higher education," for example, a little over half was programmed for the support of students. Of that $3 billion, however, nearly 58%--about $1.735 billion--is in the form of entitlements to veterans and children of social security recipients, and is generally not in the control of the yearly budget process. Of the remainder, about $843--or 28%--is in Office of Education programs of support to needy students. And of that amount, only about $575 million was projected to be spent on the combined Educational Opportunity Grant and College Work Study Programs.[2] Similarly, Federal aid to institu-

[2] Ibid, pp. 126-128; and The Budget of the United States Government: Appendix, Fiscal Year 1972, Washington, D.C., 1971, pp. 446-448. The numbers are tentative and probably too high; the important point to be made is the relatively modest scope of those programs which receive the great share of attention in the budget process.

tions constituted about 20% of the projected $6 billion; yet many of those funds went to specific programs such as cost-of-education allowances attached to NIH and NSF fellowships, grants for the training of students in health and rehabilitation professions, college housing, and ROTC. While the funding--or particularly a change in the funding--of any of these programs can have at least a short-run impact on either students or institutions, many programs may have little bearing on the long run financial health of most of our colleges and universities, and the crucial budgetary decisions may center upon a very few.

Sections II and III will look at the current financial problems as they affect both institutions and students. Section IV will consider the criteria for establishing the "proper" amount and form of federal aid to higher education. Section V will look at the pending legislation in light of these criteria.

II

The Financial "crises" in Higher Education

Red Ink in Academia

Almost without exception, colleges and universities in the early 1970's have found themselves in short-run financial difficulties, and most consider the projected gap between revenues and costs to be a major long run crisis, threatening the financial viability and even the very existence of many colleges and universities. Without the benefit of "profits" or "earnings," however, it is difficult to judge precisely the financial status of institutions or the extent and depth of the alleged financial "crisis." Some

indications of financial difficulties are the devices being used to cut costs: curtailing special programs and services; freezing new faculty appointments, salary increases, sabbaticals, and travel; or deferring maintenance and new capital construction. To the degree that the educational "product" suffers through such cuts, of course, there may indeed be an educational crisis, although such cuts do not necessarily threaten the survival of the institutions, themselves.[3]

Similarly, higher tuitions may be taken as evidence of rising costs and may constitute serious problems for some students and families. Rising tuitions, however, are part of the financial "crisis" of the colleges only to the degree that the higher tuitions create undesireable shifts in the socio-economic compositions of the student body, cause a diversion of resources from educational programs into the student aid budgets; or lead to an enrollment loss and a drop in net tuition revenues (in which case the tuition increase was simply an improper rather than a merely "unfortunate" response to the rising costs.)

The clearest prima facie evidence of financial crisis of colleges and university is the growing deficits in their current accounts. Deficits incurred by private institutions are generally reflected in a change in asset position as unrestricted assets are either liquidated for current revenue or pledged as collateral for new liabilities. A survey of all private four-year accredited colleges reported projected deficits among the 544 responding institutions totalling $ 87 million for 1970-71. That study estimated the

[3]It may also be revealing to note those areas in which institutions have not made expenditure cuts. A recent survey suggests that, in many cases: "economies such as increases in teaching loads and class sizes and reductions in the number of small sections appear not to have been made. Indeed, the opposite seems to have been the case." Columbia Research Associates, The Cost of College, Cambridge, Mass., October, 1971.

total accumulated deficits of the nation's private colleges and universities between fiscal years 1968 and 1971 to be nearly $370 million.[4] A follow-up to this survey estimated that 107 of the colleges which responded would have totally depleted their liquid assets by 1970-71, had deficits remained at the reported 1968-69 levels. On the basis of the revised 1970-71 budget estimates, 122 institutions will have now depleted their liquid assets and, at the moment, may be reasonably be called "broke." At this rate, 254 institutions in the sample, or an estimated 365 of the nation's 762 private accredited four-year institutions will have zero liquid assets within 10 years.[5] With no liquid assets, of course, an institution finally makes (if possible) whatever drastic changes are necessary to bring the books into balance, finds a new charitable lender or donor, or goes out of business.

The major private universities of New York, including Columbia, Cornell, N.Y.U., Syracuse, Rochester, and Fordham, reported combined budget deficits of $23.4 million in 1969-70; $29.9 million in 1970-71; and an estimated $29.6 million in '971-72. From 1966 to 1971, these six private universities have liquidated $74 million in assets and borrowed against another $50 million to meet their deficits.[6]

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[4]William W. Jellema, The Red and The Black: Special Preliminary Report on The Financial Status, Present and Projected, of Private Institutions of Higher Learning, Association of American Colleges, Washington, D.C., undated (January, 1971).

[5]William W. Jellema, "Redder and Much Redder: A Follow-up Study to'The Red and The Black'," Association of American Colleges, Washington, D.C., undated (1971).

[6]The Commission on Independent Colleges and Universities, State of New York, "A Plan of Action for Financing Higher Education in the State of New York," December, 1971.

But deficits are also emerging in the public colleges and universities where the enrollment pressures are greatest and where higher educational needs must compete with other increasingly ravenous public sector demands on the limited tax dollar. Alabama A & M, Florida State, Oklahoma State, Rutgers, Houston, Michigan, Maine, Alaska, and Vermont universities all reported deficits for 1970-71, and a study by the National Association of State Universities and Land Grant Colleges reported that the total may reach 15 or 16--within an additional 60 institutions kept solvent only by the severest economy measures.[7]

Another documentation of the financial crisis in higher education was prepared by Earl Cheit for the Carnegie Commission on Higher Education.[8] Cheit studied basic income and expenditure information for 41 private and public colleges and universities, in 21 states and the District of Columbia, supplemented by campus interviews with the president and other administrative officers of each institution. On the basis of Cheit's findings, the staff of the Carnegie Commission estimated that roughly 1,000 institutions enrolling 4 million students (56 percent of total enrollment) could be considered "heading for financial trouble." An additional 540 institutions, enrolling 1.6 million (21 percent) of the nation's students are considered already "in financial difficulty." About 800 institutions enrolling about 1.7 million (23 percent of all students) may be termed "not in trouble." In all, approximately 66 percent of the

[7]Garvin Hudgins and Ione Phillips, People's Colleges in Trouble: A Financial Profile Of the Nation's State Universities and Land Grant Colleges, National Association of State Universities and Land Grant Colleges, Washington, D.C., undated (1971).

[8]Earl F. Cheit, The New Depression in Higher Education, New York, 1971.

nation's 2,340 institutions were either "headed for trouble" or already "in financial difficulty."[9] Cheit's projections, too, showed that cost growth probably will outstrip income growth by an annual margin of several percentage points, meaning that schools must find even more new money, make even greater expenditure cuts, or do both.

"Crisis" in Perspective

There can be no doubt of the widespread, serious, and immediate financial difficulties among our colleges and universities. Whether there is a general, long-run financial crisis, however, has been questioned by some observers.[10] Their contention is that the current "crisis" is more a composit of quite different kinds of financial difficulties plaguing different kinds of institutions, ammenable to different remedies, and carrying quite different long-run implications.

Research universities for example, are suffering heavily from cut-backs in federal research grants and graduate student fellowships, exacerbated by over-commitments to expensive tenured faculty made during the period of rapidly increasing federal

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[9] Carnegie Commission on Higher Education, press release, December 3, 1970.

[10] See for example, Alice Rivlin, "Statement before the Special Subcommittee on Education of the House Committee on Education and Labor," April 22, 1971; Frederick E. Balderston, "Varieties of Financial Crisis," in American Council on Education, Universal Higher Education, Washington, 1971; Columbia Research Associates, The Cost of College, Cambridge, October, 1971, (OEC-0-70-5023); and Michael Clurman, "Does Higher Education Need More Money?" in The Economics and Financing of Higher Education in the United States, a compendium of papers submitted to the Joint Economic Committee of the Congress, Washington, D. C., 1969.

research support. Some state institutions in some states are suffering acutely due to legislative recalcitrance in maintaining the rate of growth of support which they enjoyed during the 1960's. A number of private institutions overextended themselves in an effort to expand enrollment and/or "quality," incurring commitments to capital outlays, tenured faculty, and student aid in the face of increased competition from the public sector, the limited demand for high cost "prestige" undergraduate education, and the 1969-71 economic recession which turned potential students toward lower cost institutions. Other institutions, especially the small, rural, religious, single-sex, and "local" colleges are finding that fewer of today's young people want that institutional "type," regardless of cost or quality.

It is questionable whether difficulties attributable to an economic recession (shared by almost everyone), to bad management, to structural shifts in student demand, and to cutbacks in governmental aid constitute the same degree of "crisis." A more productive approach to the acknowledged, pervasive, and immediate financial difficulties of our colleges and universities would perhaps be to look at the various sources of the "crisis" and address public remedies to each, where appropriate.

The Sources of Financial "Crisis"

The roots of the crisis, then, lie in a number of factors, chief of which are:

1. Rising real unit costs,
2. Rising institutional aspirations and commitments,
3. State budgetary stringency,
4. Increasing competitive disadvantage of the private sector,
5. Decreasing federal research support.

Rising Real Unit Costs. Higher education, like most "service" industries, is a highly labor intensive industry. One reason for the great rise in costs over the past decade has been a rapid increase in the price of the faculty labor input due to faculty salaries increasing at a rate considerably in excess of the rate of growth of prices and wages as a whole. Real faculty purchasing power, for example, increased at an average annual rate of about 4% from the mid-fifties to the mid-sixties.[11] To the degree to which this increase in faculty salaries represented an historical "catch up," the high annual rates of increase in faculty salaries may have run its course. Faculty salaries may no longer be demonstrably "out of line" with commensurate positions elsewhere in the public and private sectors. Furthermore, the current glut of Ph.D.'s has turned the academic labor market into a decided buyer's market. Faculty salary increases in the 1970's, then, will probably drop to a rate much closer to the prevailing rate of increase of wages and salaries as a whole.

The rise in real unit costs in higher education, however, is primarily a function of the lack of demonstrable productivity increases. Even if faculty salaries were to rise only at the rate of increase of wages and salaries in general, the unit costs of the product--e.g., per hours taught, degrees conferred, or full-time equivalent enrollment served--will still rise relative to the costs of products where productivity increases are in evidence or relative to prices in general.[12]

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[11] AAUP Committee Z, "At the Brink: Report on the Economic Status of the Profession," AAUP Bulletin, June, 1971, p. 224.

[12] See William G. Bowen, The Economics of the Major Private Universities, the Carnegie Commission on Higher Education, Berkeley, 1968, pp. 12-16. This work was updated in "Economic Pressure on the Major Private Universities," in The Economics and Financing of Higher Education in the United States, A Compendium of Papers Submitted to the Joint Economic Committee, Washington, D.C., 1969, pp. 399-439.

A recent study measuring "output" by credit hours showed no productivity increase in higher education over the years studied, 1930-1967.[13] But casual empirical observation may provide a better demonstration. While educational technology may well have increased the "output" of the universities, we have little means of measuring "better" research (made possible, for example, by computers), "better" teaching (through electronic aids, larger libraries, more comfortable classrooms, etc.), or "more valuable" service to society (through expanding educational opportunities or creating an ever more enlightened citizenry). Our measure of output is still the number of students serviced, and the infusion of new technology has done little to increase the number of bodies taught per instructor or per dollar's worth of administrative overhead.

For this reason, there are some who feel that true solutions to the financial "crisis" must be directed toward the cost side, with a primary emphasis on overcoming the stagnation in productivity. Steps have, of course, been taken to cut costs. These have included: deferring maintenance, reducing travel allowances and support staff; eliminating new innovative ventures; and freezing promotions, faculty salary increases and new hiring--to name a few of the most frequently cited.[14] But most of these, like bookkeeping manipulations which may cover temporary deficits, are short-run at best, and may (e.g., deferring maintenance and liquidating endowment) actually exacerbate the problem in the long run. Others, such as curtailment of new

[13] June O'Neil, Resource Use in Higher Education, Carnegie Commission on Higher Education, Berkeley, 1971.

[14] See Cheit, op. cit., pp. 83-90; Jellema, op. cit., pp. 9-10; and Hudgins and Phillips, op. cit., pp. 4-8 for cost cutting methods reported in these surveys.

programs and elimination of faculty support services, may have deleterious effects on the quality of the educational product. New technologies--such as computers, instructional television, new multi-purpose instructional facilities--have probably served as (or more) often to increase costs as to decrease them, with the additional facilities either being under-utilized, providing additional services to the faculty and administration, or presenting the institution with costly maintenance bills.

Any substantial gain in productivity short of a credible demonstration of qualitative improvements in "output" will have to come through:

1. An increase in the student-faculty ratio, brought about by increasing average class sizes and/or teaching loads; or

2. A decrease in the amount of student-faculty contact needed to produce a unit of out-put--e.g., fewer "credits" required for a degree.

Few issues within academe are as hotly debated as the question of productivity and "proper" student-faculty ratios. Those who claim the ratio could increase with no adverse effect on education generally point to the fact that most classes are larger than 16 (or whatever the current ratio at a particular institution might be) anyway, and that the elimination of many small classes of 5 to 15 students could affect a cost saving with no impact on the majority of class sizes.[15] The proponents of higher student-faculty ratios also point to the plethora of research over the past 30 years showing "no significant

[15]For the classic presentation of this point of view, see Beardsley Ruml and Donald Morrison, Memo to A College Trustee: A Report on Financial and Structural Problems of the Liberal College, New York, 1959. For a more recent analysis of productivity in liberal arts colleges, see Howard R. Bowen and Gordon K. Douglass, Efficiency in Liberal Education, New York, 1971.

difference" in learning between large and small classes.[16] On the other hand, those who claim that we need more--not fewer--small classes, learning options, and individualized instruction maintain that: (1) students like small classes better, and thus may be more affected regardless of what standardized tests may show; (2) there are certain kinds of educational objectives which "must" be pursued with a high degree of student-faculty contact (again, regardless of what standardized tests reveal with respect to other educational objectives); (3) students are already disaffected by the impersonality of much of their college and university experience; and (4) open enrollment and expanding opportunities to less well (traditionally) prepared students will similarly require more faculty-to-student contact. In addition, of course, low student-faculty ratios are simply in the best interests of most of the academic establishment, whose rewards are based largely on what they are able to do with the time they have free from teaching responsibilities.

Although higher student-faculty ratios will be strongly resisted, some movement in this direction appears inevitable, if only by such unfortunate devices as legislatively mandated teaching loads in state institutions. At the very best, we can expect increasing ratios in some institutions for which a very low student-faculty ratio is a luxury beyond their means. We will also see efforts to economize on high cost graduate and specialized programs through more institutional specialization (and inter-institutional co-operation) and through increasing reluctance to sanction new programs. In time, increases in productivity may come about through shortening the amount

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[16] Much of this research is summarized in Robert Dubin and Thomas C. Taveggia, The Teaching-Learning Paradox, Eugene, Oregon, 1968.

of time and contact hours needed to produce the baccalaurate and higher degrees.[17] But none of these productivity gains is certain, and none seems even promising for solutions to the immediate financial problems of higher education.[18]

Rising Institutional Aspirations and Commitments. Higher education has been called upon to perform new and more expensive functions. The explosion of knowledge and the emergence of entirely new fields of study; the enormous increase in research capabilities--and costs--occasioned by the computer; increased enrollment in high cost graduate programs; the emergence of the university as an active participant in the affairs of the community; and the challenge of expanding higher educational opportunities to low income and minority youth...such commitments have, in a sense, been "imposed" on the university, and have brought additional costs which the institutions could often not afford.

Although the distinction is somewhat artificial, one can also point to a similar range of essentially "self-imposed" aspirations and commitments. State colleges have sought to become universities; regional universities have competed for the cream of the graduate student candidates in order to become "national" universities; small colleges have raised "quality" (i.e., hired more and higher priced professors) and increased scholarships to compete for the rather fixed pool of top high school graduates;

[17]This is actually increasing "productivity" only if we assume that the current B.A. "product" today has improved markedly over time, and that we are recognizing past increases in qualitative productivity by redefining "output" to correspond to that lower qualitative level which existed in the past.

[18]See Virginia Smith, "More for Less: A New Priority," in American Council on Education, Universal Higher Education, Washington, D.C., 1971.

and colleges and universities alike have seized upon the trend toward special programs and special institutes, responding not so much to an external, but to an internal, "faculty-imposed" demand for such specialized activities. The magnitude of financial difficulties may be the same, and there is little merit in trying to lay "fault" for commitments which are now outrunning resources. But there are instances where the only reasonable solution may simply be for the institution to "uncommit" itself of dreams of doctoral programs or becoming the "Oberlin of the Southwest."

State Budgetary Stringency. State legislative budgetary recalcitrance is another factor contributing to the financial difficulties of state colleges and universities. The combination of continued enrollment expansion, recessionary revenue shortfalls, increasing demands on the state budget from other sectors (e.g., welfare costs), and political disenchantment with students, professors, and administrators alike has caused a slowdown in the rate of growth of state appropriations to higher education, as well as a decline in real per student state support for some public institutions. State appropriations for current higher education expenditures (including state scholarship programs) totaled $7.7 billion for fiscal year 1972. While this constituted a two-year gain of $1.5 billion, or nearly 25%, over the 1970 appropriations, this rate of increase was considerably below the percentage increases prevailing from 1965 to 1970.[19]

[19] M.M. Chambers, Appropriations of State Tax Funds for Operating Expenses of Higher Education, National Association of State Universities and Land Grant Colleges, Washington, D.C., undated (January, 1972).

Aggregate figures, of course, mask considerable variance among states and among appropriations to institutions or systems within any given state. Obviously, many states, many systems, and many institutions continue to receive sufficient--perhaps even generous--support. Nevertheless, the allocations to some institutions are undoubtedly inadequate, given increased costs and enrollments, to maintain a given level of real per-student support. The National Association of State Universities and Land Grant Colleges estimated that operating budgets, on the average, must increase by 10% a year simply to maintain a "standstill budget"--i.e., constant real per-student expenditures. On this basis, 44 of its member institutions, in 29 states and the District of Columbia, reported "less than standstill budgets" for 1970-71.[20] Of the 97 state institutions surveyed most recently by the NASULGC, 54 reported average yearly increases of less than 10% over the past two years. Five state institutions reported f.y. 1972 appropriations which were below those recieved in f.y. 1970.[21] Particularly hurt seem to be the state universities and land grant colleges which are losing support relative to the more rapidly growing state 2-year and 4-year college systems.

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[20]Garven Hudgins and Ione Phillips, Peoples Colleges in Trouble: A Financial Profile of the Nation's State Universities and Land Grant Colleges, National Association of State Universities and Land Grant Colleges, Washington, D.C., n.d. (1971), pp. 21-22.

[21]M. M. Chambers, op.cit., pp.i-ii

Increasing Competitive Disadvantages of the Private Sector. A major problem of the private institutions has been the constraint on their ability to raise tuitions--a constraint imposed not simply by the absolute amounts required to "break even," but by the existence of a public institution "down the street" giving away the same product for a fraction of the cost. The ratio of public to private tuitions increased from 1:2.57 in 1939-40 to 1:4.13 in 1967-68, and the gap is still growing.[22] Tuition and fees at private institutions increased at an average real annual rate of 3.9% in the 1960's and have been projected to continue increasing at a real annual rate of 3% throughout the 1970's. Tuitions and fees at public institutions, meanwhile, increased at an average real annual rate of 2.1% in the 1960's and the Office of Education projects a general continuation of this rate in the 1970's.[23] The absolute tuition and fee differential between a public 2-year college and a private 4-year university has increased from $867 in 1959-60 to $1607 in 1969-70, and may well exceed $2500 by 1979-80.[24]

The proportion of students served by the private sector has decreased rapidly--from 50% in 1959 to 40% in 1960 to 25% in 1970 and projected to decrease to approximately 20% by 1980.[25] This will mean, particularly with a leveling off both of the size of the

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[22] The Capital and the Compus: State Responsibility for Postsecondary Education, A Report and Recommendations by the Carnegie Commission on Higher Education, New York, 1971.

[23] National Center for Educational Statistics, Projections of Educational Statistics to 1979-80, Washington, D.C., 1971, pp. 106-107. (Author's calculations using data in table #49, showing estimated and projected average charges in 1968-69 dollars).

[24] See table 2, p. 21, below.

[25] New Students and New Places: Policies for the Future Growth and Development of American Higher Education, A Report and Recommendations by the Carnegie Commission on Higher Education, New York, October, 1971, pp. 17 and 136-137.

college age cohort and of the rate of increase in the proportion of that cohort going on to higher education, an absolute enrollment decline for some private institutions of higher education. This decline, in fact, is already in evidence as the opening 1971 undergraduate enrollment declined by 4.5% at private universities and rose by only 0.4% in private 4-year colleges. The Carnegie Commission on Higher Education estimated 11^.000 unfilled student places in the fall of 1971, over half occurring in the private 4-year colleges.[26] While some of these colleges may be able to cut factor inputs and raise tuitions enough to survive, others may have to close down, attempt to become public, or drastically alter the kind of education provided or clientele served.

Decreasing Federal Research Support. Federal research support grew rapidly during the middle 1960's and fell off equally drastically at the end of the decade. Federal support of academic science, the largest component of these obligations, increased at an average annual rate of 18% during the fiscal years 1963-66. In f.y. 1967, the rate of increase dropped to 7%; in f.y. 1968 to 1%; and in f.y. 1969 to less than o.5%. In addition, these funds were disbursed more widely than in the past, although the top 100 recipient institutions still received 80% of all support. Clearly, many institutions are receiving significantly less research support in real terms than in recent years, although the impact of cutbacks is felt primarily in the major research universities.[27]

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[26] "110,000 Openings Went Begging in Freshmen Classes this Fall," The Chronicle of Higher Education, December 13, 1971.

[27] National Science Foundation, Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1969, Washington, D.C., 1970, pp. xi-xii and 2-3.

III

Financial Burdens Upon Students and Families

Student and/or Family-Borne Costs of College

Rising costs of higher education, of course, mean rising costs to students and/or families. Tuition and fee income currently accounts for about 16% of public and 40% of all private institutional expenditures for "educational and general" purposes. If tuition and fee income is restricted to the more narrowly defined "instruction and departmental research" categories, it accounts for about one-third and about four-fifths of the expenditures of public and private institutions, respectively.[28] As long as costs are rising, tuitions and fees will rise. If per-student costs rise at a real rate, and if tuitions and fees continue to account for their past share of current operating expenditures, tuitions and fees will rise at a rate in excess of the rate of increase of prices as a whole. In the 1960's, in fact, tuitions and fees grew more rapidly than median family income, as shown in table 1. While real median family income increased some 39% between 1959 and 1969, tuitions and fees, in constant dollars, grew at rates ranging from 34% at public universities to 98% at public two-year colleges. However, when room and board costs, which grew considerably less rapidly, are added, the "cost of college" grew somewhat less than median family incomes over the past decade .

The Office of Education projects a real annual rate of increase in tuition and fees of about 2% for public institution and 3% for private institutions for 1969-70 to

[28] National Center for Educational Statistics, Financial Statistics of Instituitons of Higher Education: Current Fund Revenues and Expenditure 1968-69, Washington, D.C., 1970, computed from data in table 1, p. 15.

Table 1

Real Increases in College Costs and Median Family Incomes, 1959 to 1969

	1959	1969	Percent Increase
Tuition and Required Fees, in 1969-70 dollars			
Public 2-year	$ 95	$ 188	98%
Public 4-year	205	310	51
Public university	307	412	34
Private 4-year	941	1471	56
Private university	1210	1795	48
Tuition, Fees, Room, and Board Costs in 1969-70 dollars			
Public 2-year	711	957	35
Public 4-year	942	1147	22
Public university	1144	1342	17
Private 4-year	1837	2435	33
Private university	2214	2905	31
Median Family Income in 1969 Prices	6808	9433	39
Consumer Price Deflator (1959=100)	100	121.9	22

Tuition, Fees, Room, and Board costs taken from National Center for Educational Statistics, Projections of Educational Statistics to 1979-80, Washington, D.C., 1970, pp. 106-107. More recent data suggest that 1969 figures may be low; see below, p. 20.

Median family incomes and consumer price deflators taken from Economic Report of the President, 1971, Washington, D.C., 1971, pp. 200 and 220.

1979-80. Tuition and fees over the 1970's based on these projections and on various projections and on various projections of rates of inflation are shown in table 2. If anything, the 1969-70 estimates may be low, especially for public institutions. Median tuition and fees at the 275 member schools of the American Association of State Colleges and Universities rose 14% from the 1968-69 to the 1969-70 academic year, another 6.85% in 1970-71, and still another 8.3% for the 1971-72 academic year. The 113 members of the National Association of State Universities and Land Grant Colleges reported tuition and fee increases over this same three-year period of 6.5%, 6.7%, and 8.8%.[29]

More important than required tuition and fees, of course, are the total costs of attending college, including room, board, travel, and other maintenance expenditures. While data on total costs vary greatly among different students at any given school, and are perhaps even more hazzardous to project into the future, some estimates for 1969-70 and extrapolated to 1972-73 are shown in table 3. These estimates show average student/family costs for 1972-73 to range from about $1600 at a 2-year public college to nearly $4000 at a private 4-year institution. Assuming an aggregate degree credit enrollment of about 8.7 million students, students and their families will have to pay nearly $22 billion for higher education in 1972-73.[30]

Meeting the Costs: Student Assistance

Unquestionably, such costs are beyond the reach of many families without some assistance in the form of grants, job aid, and loans. An estimate of total direct student

[29] AASCU and NASULGC, "Joint Report on 1970-71 Student Charges," press release October 25, 1970; and "Joint Report on 1971-72 Student Charges," press release October 10, 1971.

[30] This aggregate figure does not include costs for non-degree or part-time students. While these costs are much more difficult to estimate, they would substantially raise this total.

Table 2
Tuition and Required Fees, 1959-60, 1969-70, and
Estimated to 1979-80 in Constant and Current Dollars

	Constant 1969-70 Dollars			Current Dollars (with high, medium, and low estimates of inflation for the 70's)				
	1959-60	1969-70	1979-80	1959-60	1969-70	1979-80		
						3% yearly inflation	4% yearly inflation	5% yearly inflation
Public, 2 year	$ 95	$ 188	$ 267	$ 74	$ 188	$ 359	$ 395	$ 435
Public, 4 year	205	310	425	159	310	571	629	692
Public, University	307	412	546	239	412	734	808	889
Private, 4 year	941	1471	2033	732	1471	2732	3009	3312
Private, University	1210	1795	2396	941	1795	3220	3547	3903

Source: Projections of Educational Statistics to 1979-80, National Center for Educational Statistics, U. S. Office of Education, Washington, D. C., 1971, tables 49-50, pp. 106-108.

Table 3

Student- and Family-Borne Costs of Higher Education, Per-Student and National Aggregate Estimates, 1969-70 and 1972-73, by Level, Control, and Residence Status

	Per Student and Aggregate Costs, 1969-70						Per Student and Aggregate Costs, 1972-73					
	Per Student Cost of College, 1969-70				Degree Credit Enrollment 1969-70 (thousands)	Aggregate Costs by Level, 1969-70 ($ millions)	Per Student Cost of College, 1972-73				Degree Credit Enrollment 1972-73 (thousands)	Aggregate Costs by Level, 1972-73 ($ millions)
	Tuition & Fees	Room & Board	Other	Total			Tuition & Fees	Room & Board	Other	Total		
	$	$	$	$		$	$	$	$	$		$
Pub. 4-yr. Commuter	438	400	774	1612	808	1,302.5	507	437	846	1790	957	1,713.0
Pub. 4-yr. Resident	438	905	691	2034	3233	6,575.9	507	1018	755	2280	3828	8,727.8
Priv. 4-yr. Commuter	1597	400	832	2829	295	834.6	1902	437	909	3248	313	1,016.6
Priv. 4-yr. Resident	1597	1044	819	3460	1674	5,792.0	1902	1174	895	3971	1775	7,048.5
Pub. 2-yr. Commuter	223	400	849	1472	1131	1,664.8	258	437	928	1623	1392	2,259.2
Pub. 2-yr. Resident	223	886	801	1910	283	540.5	258	997	875	2130	348	741.2
Priv. 2-yr. Commuter	1065	400	832	2297	48	110.3	1268	437	909	2614	35	91.5
Priv. 2-yr. Resident	1065	1044	819	2928	71	207.9	1268	1174	895	3337	52	173.5
Totals					7,543	$17,028.5					8,700	$21,771.3

Explanation of Table 3

Tuition and fees for 1969-70 were taken from totals reported in Haven and Horch (below) minus an estimated $200 for books and supplies (following general College Scholarship Service guidelines) which was then added to the items summarized in the "other" column. Private 2-year tuition and fees were taken from U.S.O.E. estimates. The Haven and Horch data on tuition and fees for public 2- and 4-year and private 4-year institutions were slightly above U.S.O.E. estimates as reported in Projections of Educational Statistics to 1979-80 (below). Room and board for resident students was taken from Haven and Horch; private 2-year colleges were assumed to be the same as private 4-year. Room and board costs for commuters was estimated to be $400.

All estimated 1972-63 costs were extrapolated from the 1969-70 figures assuming an average annual rate of inflation of 3% plus an additional 3% annual real increase in private tuitions and fees, an additional 2% annual real increase in public tuitions and fees, and an additional 1% annual real increase in resident room and board costs, following U.S.O.E. projections reported in Projections of Educational Statistics to 1979-80 (below).

Degree credit enrollment for 1969-70 by public and private, 2- and 4-year institutions is taken from Fall Enrollment in Higher Education, 1969 (below). The percentage of commuting students were assumed to be: 80% for public 2-year, 20% for public 4-year, 15% for private 4-year, and 40% for private 2-year. These estimates were based in part upon reports from the Haven and Horch survey and in part upon the "distance from home" data supplied by the annual survey of the American Council on Education (National Norms for Entering Freshmen). Total degree credit enrollment for 1972-73 was estimated at 8,700,000--a moderate increase over the older projections reported in Projections of Educational Statistics to 1979-80 (below), but consistent with the actual 1969-70 and 1970-71 enrollment over those projections.

Sources for Table 3

Elizabeth W. Haven and Dwight H. Horch, How College Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores in 1969-70, College Scholarship Service of the College Entrance Examination Board, 1971, (preliminary draft); National Center for Educational Statistics, Fall Enrollment in Higher Education, 1969; Supplementary Information and Summary Data, Washington, 1970; National Center for Educational Statistics, Projections of Educational Statistics to 1979-80 (1970 Edition), Washington, D. C., 1971.

assistance from all sources for 1969-70 is given in table 4. To this direct student assistance, of course, could be added indirect federal and state support of institutions which maintain tuition and fees well below per-student instructional costs. The principal form of indirect student support, of course, is state aid to public institutions. From the federal government, such indirect assistance includes a portion of the grants and loans subsidies in support of facilities construction, equipment purchase, research, and other institutional support. In addition, there is the even more indirect and unbudgeted federal assistance through tax deductions which benefit students and/or families, including: (a) the tax deductibility of private and corporate gifts to colleges; (b) the tax free status of student grants and fellowships, and (c) the special dependency regulation allowing parents to continue claiming dependency exemptions on students regardless of the student's income as long as the parent continues to contribute to at least 50% of support costs.[31]

To what degree does federal assistance, in fact, meet the needs of students who would not otherwise be able to attend college? This question, in turn, can be broken down into three components:

1. To what degree is assistance (of whatever amount) targeted upon students with the greatest need?

2. To what degree does assistance actually meet quantitative estimates of "need"?

3. To what degree are students from low income families in fact attending college, relative to equally able youth from higher income families?

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[31] David Mundel, "Federal Aid to Higher Education: An Analysis of Federal Subsidies to Undergraduate Education," unpublished manuscript, Cambridge, Mass., December, 1971, pp. 74-76.

Table 4

Sources of Student Assistance, 1969-70

	Millions of dollars
I. Grants	$
Educational Opportunity Grants	165
G. I. Bill	665
Social Security [a]	114
Other Federal Grants [b]	163
State Scholarships and Grants [c]	240
Grants from Colleges [d]	400
Other Private Sources	50
Total, Grants	1797
II. Employment	
Federal Work Study	147
College Job Aid [d]	265
Total, Employment	412
III. Loans	
Federally sponsored [e]	1,168
College, non-federally insured [f]	30
State and "other," non-federally insured [f]	40
Total, Loans	1,238
IV. All Student Assistance	3447

[a] Social security assistance estimates range as high as $500 million for all assistance given to youths of college age. HEW, however, estimates that only about $114 million of this actually goes to youths attending college full time.

[b] Post-baccalaurate, pre-doctoral support, principally from O.E., N.A.S.A., N.S.F., A.E.C., and N.I.H. See Federal Interagency Committee on Education, "Pre-doctoral Fellowships and Traineeships," unpublished Memorandum, November 16, 1971.

[c] Of this amount, about $191 million was awarded on a basis of need. See Joseph D. Boyd, "1970-71 Comprehensive State Scholarship/Grant Programs," Illinois State Scholarship Commission, October, 1970 (mimeographed).

[d] USOE reports a figure of 724 million for "institutional aid." This figure, however, includes institutional loans, the institution's contributions to the NDSL loan fund, and all student employment managed or contracted by the institution (less the federal Work-Study share). From this figure has been subtracted $29 million for the Institutional contribution to the NDSL fund and an estimate of $30 million for direct institutional loans. The remaining $665 million was divided, somewhat arbitrarily, into an estimated $400 million for grants

(e.g., scholarships, tuition rebates, etc.) and $265 for institutionally supported student employment. This 60-40 ratio of grant aid to job aid reflects the ratio in 1965-66 when National data last provided this breakdown. See Paul F. Mertins, Financial Statistics of Institutions of Higher Education: Student Financial Aid, 1965-66. U.S.O.E. (OE-52011-66) p.4.

(e)Includes (in millions of dollars) $286.4 in National Defense Student Loans; $840 in Guaranteed Student Loans; $28.2 in National Institutes of Health Loans; $8.9 in Law Enforcement and $4.2 in Cuban Student Loans.

(f)Estimate based on Sanders and Nelson (see below).

Sources of Data: The estimates are based on the following sources: Office of Education and Related Agencies Appropriations for 1972. Hearings before a Subcommittee of the Committee on Appropriations, U. S. House of Representatives, Part I; Mathmatica, Inc., "Inventory of Student Financial Aid Programs: Phase I Report," Bethesda, Md., February, 1971 (OEC-O-70-4751); Edward Sanders and James Nelson, "Financing of Undergraduates, 1969-70," College Entrance Examination Board, Washington, D.C., April, 1970.

The Targeting of Federal Aid. Research by David Mundel on the distribution of 1966-67 federal direct and indirect student assistance suggests that federal aid was then only very imperfectly targeted on the needy. Federal assistance, due primarily to social security benefits, was distributed slightly progressively among students from families with incomes below $10,000, but was distributed slightly regressively to students from families with above $10,000 annual incomes.[32]

Of the four direct aid programs within the budget of the Office of Education, the Educational Opportunity Grants, Work Study Assistance, and National Defense Student Loans are quite effectively targeted. These forms of assistance are allocated to states on the basis of a formula, and then to institutions on the basis of institutional applications. E.O.G.'s are limited to students from families with annual incomes below $9,000 or expected family contributions below $625. The National Defense Student Loans have no statutory family income limits, but the Office of Education suggests that they be given to students from families with below $15,000 adjusted gross incomes. Work Study also has no prescribed limit, except that preference, again, is to be given to needy students. The distribution of these aid funds by family income is shown in table 5.

While this aid is effectively targeted upon the neediest students upon receipt by the institution, the allocation of funds at the national level among states and the allocation at the state level among regions and institutions may be less effective. More fully effective targeting of federal assistance requires modifications in the allocation formulas in order to better target funds upon the states, counties, and institutions which have the greatest numbers of needy students.[33] More seriously compromising the "targetedness" of federal

[32] Ibid., p. 79.

[33] "State Grants by U. S. Given Mixed Verdict," Chronicle of Higher Education, November 8, 1971. This article reports on a study conducted for the Office of Education by Nathalie Friedman and James Thompson, Bureau of Applied Social Research, Columbia University.

Table 5

Distribution of Federal Student Assistance
by Family Income,
Fiscal Year 1970

Family Income	Educational Opportunity Grants	College Work Study	National Defense Student Loans	Guaranteed Student Loans
$ 0- 2,999	30.8	27.5	22.0	11.0
3,000- 5,999	41.9	29.2	25.0	12.5
6,000- 7,499	15.3	14.8	14.0	7.8
7,500- 8,999	7.9	11.2	12.0	8.8
9,000-11,999	4.1	17.3	16.0	20.0
12,000-14,999			11.0	19.2
15,000-				20.6

Source: Bureau of Higher Education, Factbook: Summary of Program Information Through Fiscal Year 1971, Office of Education, Washington, D.C., Nov., 1971.

student aid has been the great increase in current and future budgets for costs of the Guaranteed Student Loan Program, which, as shown in table 5, is not at all targeted upon the needy (by legislative design). The degree to which future federal aid will be targeted on the most needy will depend largely on the growth of the three need-based programs relative to the growth of non-targeted loans and the growth (or the beginning) of direct federal institutional aid. Even institutional aid, of course, can be "targeted" to some degree by attaching aid to the number or dollar volume of need-based student grants, or by targeting the aid directly to the kinds of institutions (e.g., "developing institutions," or two-year colleges) which tend to serve needy youth. However, while data is incomplete and trends are not yet clear, it would appear that federal aid is and will continue to be only minimally targeted upon low income youth. The current Administration, however, is strongly committed to targeting, and it may be assumed that Administration budget requests, to the degree made possible by authorizing legislation, will continue to favor the targeted programs.

The Adequacy of Federal Aid. The second question--the degree to which federal student assistance is "adequate to the task"--is more difficult to answer with any quantitative precision. Current levels of federal need-based assistance are shown in table 6. How adequate is this volume of aid, assuming the equalization of higher education opportunities to be primarily a federal responsibility? The College Scholarship Service and The American College Testing Program provide instruments to measure "fair" parental and student contributions. Using the C.S.S. needs analysis and the distribution of federal, state, and institutional assistance by level of family income, Sanders and Nelson estimated an aggregate $1.1 billion "deficit" in all sources of assistance--

Table 6

Federal Need-Based Student Assistance Programs, Fiscal Years 1970-72

	Fiscal Year 1970				Fiscal Year 1971				Fiscal Year 1972			
	Appropriations ($ mill.)	Outlays ($ mill.)	Total Program Expenditure ($ mill.)	Number of Students Aided (thous.)	Appropriations ($ mill.)	Outlays ($ mill.)	Total Program Expenditure ($ mill.)	Number of Students Aided (thous.)	Appropriations ($ mill.)	Outlays ($ mill.)	Total Program Expenditure ($ mill.)	Number of Students Aided (thous.)
Educational Opportunity Grants	164.6	142.6	142.6	280	167.7	160.7	160.7	290	175.3	197.1	197.1	297
College Work Study Assistance	152.5	172.1	200.3	403	158.4	190.5	215.5	430	401.0	199.6	286.0	545
National Defense Student Loans	194.7	194.5	280.9	455	243.0	231.7	364.3	560	293.0	295.4	434.7	649

Explanation of Table 6

Educational Opportunity Grants are "foreward funded": Appropriations in a fiscal year authorize obligations for the following fiscal year. The $175.3 million f.y. 1972 appropriation, then, is for f.y. 1973. College Work Study appropriations through f.y. 1970 authorized obligations for the respective calendar year; in f.y. 1971, C.W.S. was also placed on a full "foreward funding basis." NDSL is funded only for the current fiscal year.

Appropriations authorize obligations. Outlays (i.e., expenditures) for a given fiscal year will differ from obligations (not shown in table 4) by past obligations spent in the current fiscal year as well as current obligations carried over to future fiscal years.

Total program expenditures add to federal outlays any amount of institutionally contributed funds (e.g., 20% employer contribution to C.W.S.). The NDSL Program expenditures also include new loans made from the revolving funds (i.e., from repayments of past loans). E.O.G.'s are to be "matched" by at least an equal volume of other assistance, which can include work study or NDSL loans. Outlays, however, still constitute the total funds identified as "E.O.G.'s."

Sources for table 6. Office of Management and Budget and Office of Education data, on request, January, 1972.

in 1969-70--presumably recovered by "excess" student borrowing and/or parental contribution or by students making do on tighter budgets.[34]

Such an approach, however, does not provide an estimate of student assistance needed to "equalize opportunity" in any given year. In the first place, it attributes a "deficit" to students already enrolled who, by definition, do not actually need this "deficit" met in order to induce their enrollment. In the second place, this approach makes no attempt to estimate the student aid cost of inducing the enrollment of "equally able" students from low income families who are currently not enrolled--presumably due, in large part, to inadequate assistance.

We have, in fact, no estimates of the amount of aid needed to induce enrollment of students of varying ability levels and family incomes. It is reasonable to assume, however, that low income students may need assistance even beyond the amount generally expected from parents of a student who will attend without direct aid. There are several reasons for this. First, students from low income families, in spite of the targeting of National Defense Student Loans, may find additional credit more difficult to obtain. Not only are such students less familiar with banks and bank credit, but there is some evidence that banks have discriminated against low income and/or minority students in the awarding of guaranteed student loans.[35]

Second, students from low income backgrounds may be more affected by the cost of foregone earnings. To highly motivated, traditionally college-oriented youths from middle and upper income homes, the job of a semi-skilled worker may never be considered a viable option, nor the earnings considered truly "foregone". To many

[34] Ibid, p. 8.

[35] Lybrand, Ross Bros. & Montgomery, Survey of Lender Practices Relating to the Guaranteed Student Loan Program Established by the Higher Education Act of 1965, Committee on Education and Labor, U. S. House of Representatives, March, 1971.

youths, especially from low income background, however, such a job may be a very real option--and the foregone $7,000 annual income a very real cost, not only to himself, but possibly to his or her family.

Third, some colleges will decline to even admit students who have obvious financial needs beyond the capacity of that college's aid budget. Rather than admit the candidate but decline aid, colleges may discriminate against candidates from low income families whom they feel they cannot assist adequately. Thus, low income may be a barrier to admission, at least to many private colleges, irrespective of ability or academic qualification.[36]

A quantitative assessment of the adequacy of federal student assistance, then, would require: (1) an estimate of the number of youth, by ability level and income, who ought to be enrolled in higher education, in both the short and the long run; and (2) some knowledge of students' demand behavior, sufficient to provide an estimate of the amount of federal aid necessary to induce this amount of enrollment. Neither ingredient is available to us at this time. Hence, the most fruitful approach toward assessing the adequacy of federal financial aid may be to rephrase the question in the third form: How "equal," in fact, is the opportunity for higher education? If we cannot directly calculate the proper amount of aid, we can at least deduce whether, by virtually any criteria, that aid is now adequate on the basis of enrollment in higher education by ability and family income.

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36 Panel on Student Financial Needs Analysis (Alan Cartter, Chairman, New Approaches to Student Financial Aid, College Entrance Examination Board, New York, 1971, p. 27.

The (In) equality of Higher Educational Opportunity. One way of estimating the "success" of student aid in equalizing higher educational opportunities is by examining longitudinal studies of enrollment and retention of students from various socio-economic backgrounds. Table 7, compiled from Project Talent data, shows the percent of students in the early 1960's entering college, by academic ability and socio-economic status. At all ability levels, the percentage of higher S.E.S. students is two or three times greater than the percentage of low S.E.S. students entering college. It is significant, however, that of those who do enter the first year out of high school, the percentage completing college within five years, as shown in table 8, does not differ appreciably according to socio-economic status of family.

The Project Talent data also, as shown in table 9, reveals the socio-economic barriers to graduate and professional education. While these barriers are much less pronounced than those to college entry, they still contribute to the inequality of opportunity and, when combined with the barriers to college entry in the first place, illustrate the formidable obstacles to professional and graduate level training faced by low income youths.

Findings similar to the above have also been reported from the Little-Sewall survey data in Wisconsin. High ability students from the top socio-economic quartile were 1 1/2 times as likely to go on to some form of post-secondary education and 2 times as likely to go on to college and to graduate from college as were those from the low socio-economic quartile. At lower ability levels, the inequalities were even more pronounced: high S.E.S. students from the low ability quartile were 2 1/2 times as likely to go on to some form of post-secondary education, 4 times as likely to go on to college, and 9

Table 7

Percent of High School Students Entering College Within One Year and Within Five Years After Graduation, by Ability and Socio-Economic Status of Family

The first percentages shown in each column refers to students entering within one year of high school graduation. The figures in parentheses are those entering within 5 years of graduation.

Ability by Quintile	Socio-economic Status of Family by Qartile			
	I (high)	II	III	IV (low)
I (high)	82 (95)	66 (79)	55 (67)	37 (56)
II	69 (84)	50 (63)	38 (52)	25 (36)
III	56 (69)	33 (46)	23 (34)	14 (24)
IV	38 (56)	22 (34)	16 (27)	10 (17)
V (low)	27 (40)	15 (28)	13 (19)	8 (15)

Source: Robert H. Berls, "Higher Education Opportunity and Achievement in the U. S.," in The Economics and Financing of Higher Education in the United States, A compendium of Papers Submitted to the Joint Economic Committee of the Congress, Washington, D. C., 1969, pp. 149-150

Table 8

Percent of Students Entering College
in First Year Out of High School Who Complete College
Within Four Year, by Academic Ability and Socio-economic Status
of Family

Ability	Socio-Economic Status of Family			
	I (high)	II	III	IV (low)
I (high)	78	63	66	66
II	59	56	57	66
III	48	52	47	54
IV*	44	35	37	38
V (low)*	30	45	23	29

Source: Same as table 7.

Table 9

Percent of Students Earning a B.A.
Who Enter Graduate or Professional School the Following Year,
by Academic Ability and Socio-Economic Status of Family

	Socio-Economic Status of Family			
Ability	I (high)	II	III	IV (low)
I (high)	54	51	42	31
II	42	41	29	49
III	43	40	34	18
IV*	40	26	30	25
V (low)*	46	14	33	13

*Very small cell sizes

Source: Toward a Long Range Plan for The Federal Financial Support for Higher Education (The Rivlin Report), H.E.W., Washington, D. C., January, 1969, p. 58.

times as likely to graduate from college as low S.E.S. youth from the same ability quartile.[37]

Cross sectional data on college enrollment by family income level is more readily available than longitudinal data described above, although it aggregates the effect of family income on high school graduation and "ability" with the effect of family income on college enrollment, per se. A breakdown of the 1970 undergraduate full-time fall enrollment by income quartiles revealed: 15% from the first (low) family income quartile, 20% from the second, 28% from the third, and 37% from the top quartile of family income.[38]

The annual survey of entering college freshmen conducted by the American Council on Education provides data on the distribution of entering freshmen by family income. Even though students are generally thought to under-report their family incomes, table 10 shows the heavily disproportionate enrollment of students from high income families.

Comparison of percentage enrollment from low income families over time is difficult because all incomes are rising, and "below $6000" reflects a far greater degree of both absolute and relative poverty in 1969 than it did in 1967. One would thus expect the percentage of students reporting incomes below $6000 to decline over time--as it did by 30%--from 1965 to 1967. The percentage of all U. S. families with incomes below $6000, however, declined over these years by 37%. Thus it is possible

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[37] William H. Sewell, "Inequality of Opportunity for Higher Education," American Sociological Review, 36:793-809, October, 1971.

[38] Mathematica, Inc., "Enrollment and Financial Aid Models for Higher Education," Bethesda, Maryland, 1971 (prepared for the Office of Program Planning and Evaluation, USOE), p. 17.

to infer some trend toward more equal representation of the poor in higher education from the data in table 10. This inference is strengthened by the fact that inflation has increased the absolute degree of poverty associated with these low income categories.

The cross sectional figures reported above begin with college students and distribute them according to reported family incomes. A different perspective may be attained by surveying families directly , correlating enrollment by income according to the proportion of families (by income level) with college-age children who report one or more of these children currently enrolled full-time in higher education. This statistic is now compiled annually by the Bureau of the Census. While 66% of families with incomes over $15,000 and one or more child of college age (18-24 years old) reported a child currently enrolled full-time, only 16% of those families with incomes under $3,000 so reported. These data, showing the impact of race as well as income, are in table 11.

In spite of the increasing need-based federal student aid programs, then, financial barriers to students from low and low-middle income families are still formidable, although perhaps lessening. Aid targeted upon these students must increase if we are to further equalize the opportunities for higher education. With less than $275 million in need-based aid from state governments,[39] the burden of equalizing opportunities will continue to fall heavily upon the federal budget. The enrollment inducing impact of federal aid, however, is probably limited for that aid given (or proposed to be given) for facilities construction, academic research, or unrestricted institutional aid. While this is not to deny the wisdom of any federal aid in such categories, such aid requires justification on grounds other than the equalization of higher educational opportunity.

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[39] Joseph D. Boyd, "1971-72 Undergraduate State Scholarship/Grant Programs," Illinois State Scholarship Commission, Deerfield, Illinois, 1971 (mimeographed).

Table 10

Family Incomes of Entering Freshmen
Compared to all U.S. Families, 1965, 1967, and 1969

	Family Income, 1969		Family Income, 1967		Family Income. 1965	
	Reported by Entering Freshmen, Fall 1970	Total US	Reported by Entering Freshmen, Fall 1968	Total US	Reported by Entering Freshmen, Fall 1966	Total US
Under 4,000	5.9%	14.5%	6.3%	18.6%	6.6%	23.8%
4,000 - 5,999	7.7	11.3	10.3	14.3	12.9	17.2
6,000 - 7,999	10.7	13.7	15.5	17.2	17.3	19.2
8,000 - 9,999	13.3	14.4	16.9	15.4	16.9	14.5
10,000 -14,999	31.0	26.7	27.2	22.4	25.2	17.7
15,000 -24,999	20.5	15.7	16.5	9.6	14.0	6.2
25,000 and over	10.9	3.7	8.3	2.4	7.1	1.5

Source: Reported family incomes of entering freshmen were taken from American Council on Education, National Norms for Entering Freshmen - Fall 1966,...Fall 1968,... and Fall 1970, Washington, D.C., 1966, 1968, and 1970.

Total U.S. family income is from U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 80, "Income in 1970 of Families and Persons in the United States," Washington, D.C., 1971, Table 13, p. 27.

Table 11

Proportion of Families With College-Age Children Reporting One or More in Full Time Enrollment in Higher Education, by Income and Race, October, 1970

Family Income	All Families		White Families		Black Families	
	Number with Children Age 18-24 (thousands)	Percent Reporting One or More enrolled full time	Number with Children Age 18-24 (thousands)	Percent Reporting One or More enrolled full time	Number with Children Age 18-24 (thousands)	Percent Reporting One or More enrolled full time
Under $3,000	704	14%	389	15%	308	12%
3,000 - 4,999	926	20	645	24	263	12
5,000 - 7,499	1,402	30	1,145	31	245	27
7,500 - 9,999	1,500	38	1,330	38	136	28
10,000 -14,999	2,322	46	2,158	46	133	38
15,000 and over	1,760	62	1,701	62	44	66
Totals	8,614	40%	7,368	42%	1,129	22%

Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 222, "School Enrollment: October 1970," Washington, D.C., 1971, p. 35.

IV

Federal Aid to Higher Education

Criteria for the Public Support of Higher Education

The sections above have described some of the increasing financial pressures felt by both institutions and students. The higher education community, understandably, is turning to the federal government for a solution to these problems. There are, however, a myrid of programs, agencies and ideas seeking larger amounts and even larger shares of the federal budget. Budget decisions, then, must be based on some criteria for the optimal amount and form of public assistance to higher education.

In theory, the proper amount and form of public subsidy would be determined by answers to the following questions:

1. How much of the various products of higher education--including the education of freshmen and seniors; the production of A.S.'s, B.A.'s; J.D.'s, and Ph.D.'s; the output of pure and applied research, and the provision of public service--do we need? At what point, in other words, will the added social benefit (public and private) to more of any one of these "products" be clearly less than the added social benefit which might be achieved by the allocation of these resources (including students' time) to some alternative public or private enterprise?

2. To what degree will individual market decisions fail to induce "enough" of any of these products, either because some of the benefits are not captured by those who must bear the cost (i.e., public benefits or externalities) or because individual market decisions are made under constraints of ignorance,

discrimination, or lack of investment opportunities (i.e., market imperfections)?

3. How much public subsidy, and in what form, is needed to supplement the private returns (which may be zero in cases such as pure research or public service) and induce the socially optimal amount of each of the given "products" of higher education?

In practice, of course, we have unambiguous answers to none of these questions. Furthermore, the relevance of such a "simple" perspective to federal budgetary policies is distinctly limited by a number of confounding, "real world" issues. These include:

1. The interaction of federal and state budgetary decisions. The amount and form of the federal subsidy can only be rationalized within a framework of total public subsidy--meaning state (and even local) in addition to federal. Yet, these sources are not independent, and changes in federal support may induce qualitative or quantitative increases or decreases in state support. Thus, the optimal amount and form of federal aid must anticipate the collective budgetary reactions of the 50 states.

2. Equity considerations. The amount and form of the public subsidy to higher education is affected by the "equity" as well as the "efficiency" implications of "who pays and who gains" from the public subsidy to higher education. Much of the recent disenchantment with state subsidies to low tuition public institutions has been predicated on the charges that: a) the recipients of those subsidies are predominently the children of the middle and upper classes, and b) the costs are borne, to a considerable degree, by the old, the childless, and the poor. The latter charge, of course, is a function of

the regressivity of the state tax systems. The former is a function of an entire range of socio-economic barriers to entry into the different levels of the post-secondary educational system, combined with an elitist tradition of spending more money on those students who are the brightest, the best prepared, and the most motivated.

Preoccupation with these equity considerations may overshadow the possible inefficiencies in any system of public subsidy via low tuitions to all. Defenders of low tuition, for example, will claim that inequities ought to be corrected through tax reform, additional public subsidies to the poor, more aid to the public two- and four-year colleges, open enrollment, and reforms in primary and secondary education, rather than through an abandonment of the low tuition principle. It is undoubtedly true that the inequities of publicly supported low tuition will be diminished to the degree that: (1) higher education, at least the early years, becomes more nearly universal; (2) resources, at least for these "universal" years, become distributed more equally among all institutions (e.g., between the junior college system and the lower divisions of the state university); and (3) the incidence of these costs becomes less regressive, either through reforms in state tax systems or through a shift of the public burden to the federal purse. The subsidy system could still, however, be inefficient to the degree that: (1) "too much" of any particular output of higher education was induced by the subsidy (i.e., marginal social costs exceeding marginal social returns); or (2) subsidy was wasted on some students who were willing and able to take an "optimal" amount of education without the subsidy--the subsidy thus becoming a pure income transfer rather than a behavioral inducement. This distinction between "equity" and "efficiency" considerations may be somewhat artificial (the pure income transfer is probably as inequitable as it is inefficient),

but difference in perspectives and in policy implications should be kept in mind.

Politics and the vulnerability of public expenditures. Budgetary decisions are, in the end, political decisions, affected by the perception on the part of executive and (especially) legislative decision-makers of popular willingness to sacrifice current consumption for taxes in support of a particular public, or partially public, enterprise. Today, conventional wisdom (at least of the liberal bent) maintains that public expenditures for "human programs"--e.g., education, health, welfare, child care, manpower training, etc.--are more vulnerable to budget scrutiny and "economizing" than are public expenditures for defense, technology, or hardware--e.g., the B-1 Bomber, the space shuttle, or the Lockheed Aircraft Corporation. The extent of this bias may be open to some debate, but there can be no doubt that an enterprise, the outputs of which continue to elude our measuring instruments (if not our faith), will be particularly vulnerable to "taxpayer backlash." There also can be no doubt that the search for a more efficient distribution of a given--or even a greater--volume of public subsidy to higher education has and will continue to be interpreted by both the higher educational community and its political allies as a quest for less aggregate public subsidy. In fact, of course, many--perhaps most--of those who apply "welfare" criteria to the public subsidy of higher education are firmly committed to a strong and growing higher educational establishment and even to more public subsidy (albeit only in certain forms) to higher education. But regardless of the worthy sentiments behind proposals for more efficient distribution of public subsidies, there are many legislators, especially at the state level, who are eager to seize upon any convenient rationale for cutting back on aid to higher education for any number of reasons having to do with neither equity nor efficiency.

Political resistance to such "efficiency" reforms as greater targeting of the public subsidy on the poor, then, may place in the same bed: (1) those who see such a move as a strategic attack upon the general public support of higher education; (2) those who would be delighted to reduce over-all public support, but who would not support increased aid to the poor even as a pretense for reducing aggregate commitments; and (3) those who wish to appeal to those families now benefiting most from the current system of support to higher education.

Political considerations, then, may make certain forms of public support to higher education more resistant than others to the vagaries of political decision-making. Aid to institutions may--or may not--be more "stable" and insulated from public attitudes toward higher education than aid to students. G.I. entitlements without respect to need may be an inefficient way of transferring income to veterans in compensation for low service pay, but they may also be a politically stable way of inducing higher educational enrollment from many whose higher education will bring a public as well as a private benefit. Work study programs undoubtedly subsidize the institutions more than the students, and are possibly less efficient than an equivalent amount in grant or loan subsidies which might keep the students' time better focused on his studies. "Workfare not welfare," however, has a certain political popularity today, and it is quite possible that need-based grants can be authorized and funded at more generous levels with a work element attached. The point, very simply, is that budgeting is an intensely political process, and "politics" has an important and legitimate role in the calculation of the optimal amount and form of federal aid to higher education.

Market imperfections. Market imperfections, of course, are part of the economic rationale for the public subsidy of higher education. Some of these "imperfections" include: The general absence of long range debt, or of any kind of equity finance, opportunities for meeting the direct costs of education; socio-economic and even racial discrimination in the allocation of credit to students; the lack of information about economic returns to higher education in general--much less the returns to that education provided by a specific institution or program of study; and the absence of foregone earnings as a "behaviorally relevant" cost to students faced with middle and upper-class parental and peer pressure to "get a college education." Market imperfections in the financing of higher education, in fact, may be so pervasive as to extend far beyond the typical market aberrations which the welfare economist purports to cure with an injection of public subsidy. It may even be, as some would claim, that a market perspective, even as a point of departure, is not only irrelevant but possibly invidious to the financing of higher education. Students may be so ignorant of what kind of education will bring the greatest return (whether monetary or otherwise) and so incapable of judging what institutions can best provide this education that we must totally abandon the market model and allocate resources directly to institutions, and implicitly to students, on the grounds that "we" (i.e., some public, quasi public, or "professional" authority) know better than students how much and what kind of education is in their best interest.

It is more likely that the market model does, indeed, have great relevance, and that an infusion of consumer power (i.e., the disbursement of public subsidies to students rather than institutions) would have healthy educational as well as financial consequences to higher education--at least in the long run. But again, we must temper the conventional

prescriptions of welfare economics with a recognition of the truly extraordinary imperfections in the private market demand for higher education.

The Amount and Form of Federal Aid

Given the criteria and the caveats summarized in the preceeding section, the federal aid to higher education should be in such a form and in such an amount as to:

1. Maximize the resources available from: (a) state and local governments, (b) students and parents, and (c) productivity increases in higher education. Federal aid should be designed to maintain state effort and to reward states making greater contributions to higher education in relation to per capita income. At the same time, federal aid should encourage greater contributions from students andfamilies who are willing and able to pay more. This suggests provision of available and manageable student loans, as well as policies which encourage states to direct their efforts more toward the needy student and less toward low tuitions for all which simply displaces potential student and parental contributions. Finally, federal aid should be distributed in a form which will reward institutions for increasing productivity and using their available resources in the most efficient way.

2. Compensate for persisting inefficiencies in state support of higher education. Federal aid will probably have to be designed in a way which will put a disproportionate amount of federal resources into the private sector.

3. Compensate for an increasingly inadequate state tax base. In all likelihood, the relative inelasticity and instability of state tax systems will require the federal nment to bear an increasingly larger share of whatever the public support of higher

education is to be. Federal aid, then, should be presented in such a form as to encourage and facilitate not only a permanent but an increasing federal role in the public support of higher education.

4. Reflect truly national goals such as: (a) increasing the proportion of low income youth attending higher education; (b) supporting research and the creation of new knowledge; and (c) reducing state and regional disparities in available public services. Federal aid should be greatly increased to needy students and to institutions which demonstrate a willingness and a capacity to serve these students. Federal aid should be maintained and possibly increased in support of research, but with a clearer expression of research priorities and a more stable commitment of support.

In general, these guidelines suggest a form of federal support which would feature:

* Aid to students, targeted on low income youth and allocated on a formula which recognizes the greater need of students preferring to attend private colleges and universities. Tuition, in other words, would be part of the "needs" test.

* Aid to institutions, accompanying the need-based student grants and conditioned by the institutions' provision of special services to these marginal students as well as a maintenance of, if not an increase in, productivity.

* Aid to states, in the form of incentives for the reform of state financing policies and a greater targeting of aid upon the needy.

* Aid to educational programs, which constitute viable educational experiments having considerable "risk" (i.e., a low probability of demonstrable and immediately useable returns) and a clearly national pay-off.

* Aid to categorical research, funded through the budgets of the appropriate departments and agencies; and

* The provision of expanded student loan programs, featuring more available credit, longer and more flexible terms (for larger debts), and the concentration of loan subsidies on forgiveness of repayments contingent upon low future income of the borrower.

Unfortunately, we can say much less about the proper amount of federal aid. This will depend very largely upon the future resource requirements of higher education. These requirements, in turn, will be a function of:

1. The number of students to be served;
2. Non-teaching (e.g., research, public service) demands on colleges and universities; and
3. The marginal unit costs of the instructional, research, and service demands implied by #1 and 2.

The number of students to be served is a function of the size of the college-going age cohort and the percent of the cohort who will be seeking places. The age cohorts throughout the 1980's, of course, have already been born, and we can fairly precisely estimate their annual rate of growth. The rate of increase in the latter

part of the decade of the seventies will drop, reflecting the decline in birthrates of the late 1950's. The size of the age cohorts may enter a period of slight absolute decline in the 1980's, due to the decline in the absolute number, as well as the rate of increase, of births during the 1960's.[40]

At the same time, the proportion of youth seeking higher education will continue to increase (although probably at a slightly declining rate). In addition, the average number of years of education (i.e., the span of the relevant age cohort) will probably continue to increase, reflecting increased graduate and professional study. Enrollment estimates, summarized in table 12, suggest an increase of between 3.5% to 4.0% between 1971-72 and 1972-73, and an increase of about 40% between 1971-72 and 1980-81.

The production of knowledge and the provision of public service, too, are functions of the college and university which will continue to require even more resources. The production of knowledge, for example, increases the obsolescence of past knowledge, stimulates new application and new demand for knowledge, and creates new demands on institutions for synthesizing and storing this escallation of knowiedge. With a growing and increasingly technological economy, and with increasing demands upon university based expertise in the analysis and solution of social problems, there will be an increasing need for resources to support the "non teaching" functions of higher education.

Finally, resource needs will increase simply due to increasing costs, whether at the rate of inflation, as a whole, or at a real rate reflecting increased unit costs of the labor intensive "production" of higher education.

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[40] New Students and New Places: Policies for the Future Growth and Development of American Higher Education. A report and Recommendations by the Carnegie Commission on Higher Education, New York, 1971, pp. 43-44 and 128-129.

Table 12

Degree Credit Enrollment in Higher Education,
Current and Projected

	Total Degree Credit Enrollment	Enrollment by Level and Control				Undergrad-Grad. as Percent of Age Cohort			
		Public 4-Year	Private 4-Year	Public 2-Year	Private 2-Year	Total Undergrad.	Undergrad. as % of 18-21 Cohort	Total Grad.	Grad. as % of 22-24 Cohort
	A	B	C	D	E	F	G	H	I
1960-61	3,583	1,724	1,408	392	59	3,227	33.8%	356	5.2%
1969-70	7,543	4,041	1,969	1,414	119				
1970-71	7,770	4,162	2,028	1,457	123	6,840	47.6%	930	9.2%
1971-72	8,390	4,614	2,014	1,678	84				
1972-73	8,700	4,785	2,088	1,740	87				
1980-81	11,650	5,776	2,029	3,691	154	10,080	59.2%	1,570	12.6%

Sources: National Center for Educational Statistics, Fall Enrollment in Higher Education, 1969, and Projections of Educational Statistics to 1979-80; and Carnegie Commission on Higher Education, New Students and New Places, New York, 1971, Appendix B. Columns B-E for 1970-71, 1971-72, and 1972-73 and Column A for 1972-73 author's estimates.

It is very difficult, however, to translate these "resource requirements" into optimal or even necessary amounts of federal assistance. The Carnegie Commission, in its revised recommendations for the federal support of higher education, recommended for 1970-71: $2,420 billion for student aid ($1,265 billion for need-based grants); $950 million for institutional aid following student grants; $1.650 billion in support of research, and $1,350 for construction, special programs, and experimental programs, and the like--for a total of $6,370 billion. While such totals are difficult to compare with existing programs, the Carnegie Commission recommendations for 1970-71 exceed the estimated federal aid for that year by about $1.25 billion in need-based student aid; $1 billion in aid for institutions (accompanying student grants), $1 billion in aid for construction, and $0.2 billion for new programs.[41] The Higher Education Associations in March, 1971, testified in favor of appropriations which exceeded the administration's budget requests by over $600 million for support of construction, by $60 million in support of developing institutions, and by smaller amounts in support of increased funding for fellowships, instructional equipment, library resources, and community services.[42] Also in March of 1971, the Higher Education Associations testified in favor of authorizations totalling $1 billion for unrestricted institutional aid, $1.5 billion in construction grants and loans--plus general "maintenance of effort" in most other federal programs.[43]

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[41]The Carnegie Commission on Higher Education, Quality and Equality: Revised Recommendations New Levels of Federal Responsibility for Higher Education, New York, 1971.

[42]Testimony of John W. Oswald, representing The Higher Education Associations, in Office of Education and Related Agencies: Hearings Before a Subcommittee of the Committee on Appropriations, House of Rep., Part I, 92nd Congress, 1st Session, pp. 365-369.

[43]Testimony of James P. Cosand, for the Higher Education Associations, in Higher Education Amendments of 1971: Hearings Before the Special Subcommittee on Education of the Committee on Education and Labor, House of Rep., Part I, 92nd Congress, 1st Session, pp. 488-498.

None of these estimates was prepared in an attempt to find a "socially optimal" level of federal aid. Rather, a certain "scope" of higher education was presumed proper and the federal government was assigned major responsibility for the additional resources, largely through institutional aid. There are a number of reasons why the higher education community should claim "needs" of this magnitude and in this form. In the first place, higher education has always struggled for its dollars and may always consider itself slightly starved for public resources: like any recipient of public funds, it has learned to ask for far more than it knows it will get in order to preserve its case for more next time. Second, the institutions will always prefer direct unrestricted aid rather than student grants which require institutions to raise tuitions and submit to a market test. Third, the higher educational community will not (perhaps correctly) admit to the charge that a major portion of the fiscal crisis lies on the cost-productivity side of the ledger. Finally, the higher educational community will always prefer to deal with one federal government than with 50 erratic and increasingly hostile state governments and legislatures.

What, then, is the "truly sufficient but efficient" amount of federal aid needed in the years ahead? The answer, very simply, is that we do not know: We do not know how much higher education is in the public interest...much less how much public subsidy is called for to induce that "proper amount...much less how much of that public burden ought to be borne by the federal budget. <u>But neither do these gaps in our knowledge constitute a practical barrier to the determination of federal budget policy, at least within the forseeable future.</u> We can say with relative certainty that there are large unmet needs which are quite assuredly a federal responsibility--particularly the removal of financial barriers to higher education--and that federal aid <u>in the proper form</u> will have

to increase enormously before we have to seriously wonder whether our marginal social returns are nearing our marginal social costs.

V

The 1972 Higher Education Legislation

Pending before a House and Senate Conference Committee as of this writing is Senate Bill S.659, passed on August 8, 1971, and House Bill H.R. 7248, passed (as an amendment to S.659) on November 4, 1971.[44] While both versions call for greatly increased levels of federal aid to higher education, they differ substantially in the means by which this aid would be allocated: (1) between institutions and students; (2) among institutions, by type (e.g., public or private, two-year, four-year, or university) and size of enrollment; and (3) among students, according to income of the family, level of education, or cost of the college attended. While the appropriations process, of course, will impose its own priorities on the various components of the final act, the resolution of these differences in the authorizing legislation will also impose certain priorities on alternative policy goals such as: strengthening the private sector, lowering the cost of higher education to the neediest students, or fostering change in the basic structure of higher education.

The Distribution of Aid Between Institutions and Students

The differences between the House and Senate versions are clearest on this issue. The House bill, in a significant departure from past federal policy, places

[44] Actually, S.659 as amended by the House and returned to the Senate was sent back to the Senate Labor and Public Welfare Committee rather than being sent directly to a Conference. This was to give the Senate a chance to tack its own desegregation aid amendments on to the higher education bill in response to such a similar House move. It is unlikely that the higher aid bill per se will be changed on the new trip through the Senate.

the new emphasis on direct aid to institutions. Full funding of the House institutional aid formula would amount to about $1 billion--which is, incidently, the "target" proposed by the higher education associations in testimony before the House of Representatives, (above, p. 40). The federal student aid programs are left basically intact. While no specific authorizations are provided beyond f.y. 1972 for the Equal Opportunity Grant programs, the Committee Report provided "reasonable estimates," beginning at $245 million for f.y. 1973 and increasing to $320 million for f.y. 1976.[45] Even if these "suggestions" had been incorporated into authorizations, they would have been generally in keeping with the rate of increase of authorizations which were provided in the 1965 Higher Education Act. The additional federal aid in H.R. 7248, in response to the current financial difficulties of higher education, is clearly in aid to institutions.

In sharp contrast, S.659, as passed by the Senate, provides massive increases in student grants. These grants have been presented as "entitlements," with analogy drawn to the G.I. Bill, although the new "Basic Educational Opportunity Grants," like all other student assistance programs attached to the 1965 Higher Education Act, are fully dependent upon the yearly appropriations process. Full funding of the "Basic Grants" of S.659 has been estimated at $939 million, with full funding of all of its student aid programs estimated at $1.8 billion.[46] The Senate Bill also provides direct institutional aid, but authorizes no funds until all undergraduate student aid programs have been fully funded. Since full funding would appear to be all but impossible, the

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[45] Higher Education Act of 1971: Report No. 92-554 (to accompany H.R. 7248), House of Representatives, 92nd Congress, 1st Session, p. 89.

[46] These estimates were made by Jack Morse of the American Council on Education in a public memorandum entitled "The Pell Bill," dated September 15, 1971. The student aid model developed by Mathmatica, Inc., estimated 1971-72 costs of a $1200 "entitlement" as $788.75 million. Mathmatica, Inc., Enrollment and Financial Aid Models for Higher Education, Bethesda, Maryland, 1971, p. 41.

Senate version, in effect, excludes direct institutional aid.

It would seem likely that some form of compromise will be reached on this issue, if only to remove institutional aid from hostage to the full funding of student aid. Resolution of the "student versus institutional aid" question, then, would be left to the yearly appropriations process. In the short run, the more substantive issues separating the two bills deal with distributing whatever is ultimately to be budgeted for the institutional and student aid components.

The Distribution of Aid to Students

The major issues in the distribution of student aid are: (1) the degree to which the available aid is "targeted" upon the very neediest; (2) the degree to which the higher costs of private colleges affect the determination of "need"; and (3) the degree to which students with similar "need" (however determined) are to be treated equally, as opposed to the current system in which students under identical circumstances of need may be treated quite differently in different states or even at different institutions in the same state.

The "Basic Educational Opportunity Grants" of the Senate Bill are determined only on the basis of a uniform, national test of the family's capacity to pay, based, on income, assets, other children in college, unusual expenses, etc. Every student is entitled" to a basic grant of $1400 less his family contribution--not to exceed 50% of total costs of education, nor to be paid if below $200. All students from families in the same financial circumstances thus receive identical grants. These grants would not reflect differing costs between public and private institutions except for the "50% of actual costs" ceiling which would probably apply predominently to very needy students

attending very low cost public institutions. The higher costs of private institutions, however, can still be met through the Supplementary Educational Opportunity Grants which would be disbursed by the college to students who could not otherwise meet the costs of that institution. Presumably, such aid would go preponderately to the neediest students at private institutions.

The Basic Grants in the Senate version would be highly targeted upon the neediest at full funding. At less than full funding, however, the grants to which students would otherwise be "entitled" would be reduced proportionately for all students. Alternative systems for distributing amounts less than full funding could preserve a greater degree of targeting--e.g., lowering the "entitlement," revising the "capacity to pay" formula, or distributing grants to the neediest first.

The House version preserves the existing system of allocating student grants first to states, then to institutions within the states, and finally to students at the discretion of the financial aid officer. H.R. 7428 does improve on the current state allotment formula by considering the number of children in poor families and the number of high school graduates as well as the number of full-time equivalent students in a given state. The three-part formula should direct a bit more of the funds to states with more needy youths and to states with a net out-migration of students. Most important, however, is the explicit decision not to apply uniform national standards, but to leave the basic determination of "need" in the hands of the college financial aid officer.

Distributing aid to students via state and institutional "shares"-- as opposed to directly to the students--will undoubtedly have some impact on the ultimate distribution of the aid. Most likely, it will lead to less targeting on the poor, more aid to students

enrolled at private colleges, and somewhat less interstate redistribution of income. With control over the actual disbursement of awards, the financial aid officer can use the available federal grant, loan, and job assistance in whatever combination fits the enrollment priorities of the college. Knowing the complex motivational variables which determine the enrollment behavior of students, the financial aid officer might well be in the best position to determine just how much (and no more) aid is needed to induce the enrollment of a given individual, and thus to maximize the enrollment inducement out of a given volume of subsidy. At the same time, awarding grants only through institutions may do little to induce the enrollment of one who may need the assurance of some minimal support before he or she decides to try to enter college. Nor does institutionally disbursed aid promote the "consumer power" of the student over the form and structure of his education. Finally, the financial aid officer might use the aid for quite different purposes--e.g., to "outbid" other colleges for especially talented students through promises of more aid or of more grants within the total aid package. And there is evidence that the poor in the past have generally had to cover a larger part of their "need" through loans and work study than less needy students.[47] Financial aid officers might be motivated in quite the opposite direction were institutional aid given as a function of number of needy students enrolled. In general, however, the more directly the student can secure the aid--or at least be assured of how much he will get--without the intervention of the institution, the more efficient should be the use of the public subsidy as an inducement to the enrollment of the needy.

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[47]See Panel on Student Financial Need Analysis, New Approaches to Student Financial Aid, College Entrance Examination Board, New York, 1971, p. 29. Black students, due at least in part to lower family income and to attendance at lower cost colleges, have significantly less resources at their disposal than do white students ($1,923 for black sophomores compared to $2,528 for white sophomores) and borrow significantly more of what they have ($406 in loans for the average black sophomore compared to $245 for the average white). See Haven and Horch, op. cit., p. 20.

The Distribution of Aid to Institutions

A given volume of federal direct institutional aid may be distributed quite differently among institutions and may advance (relatively) quite different goals underlying a program of general institutional aid. A virtually unlimited set of formulas and conditions can be devised to meet any number of goals. Table 13 outlines one such set of goals which might be attached to institutional aid, together with some suggested formulas and conditions which might best achieve those goals. The list is somewhat arbitrary, and the relationship between goals and formulas is admittedly speculative. In fact, many goals are quite complementary--or at least not contradictory--and most formulas have combined elements outlined in table 13, in pursuit of several of the goals suggested there.[48] Nevertheless, such an exercise does suggest that "institutional aid" has little meaning apart from a specific formula, and that there are trade-offs and even fundamental inconsistencies among possible goals of general institutional aid. And this exercise further suggests that budgetary decisions may very well be influenced by the probable consequences of whatever formula does emerge from the new federal higher education legislation.

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[48] Table 13 is drawn, in part, from analyses of institutional aid contained in: A Report and Recommendations by the Carnegie Commission on Higher Education, Federal Support for National Contributions: Institutional Aid to Colleges and Universities, New York, 1972 (reprinted in full in The Chronicle of Higher Education, Dec. 13, 1971); Selma J. Mushkin, "Public Financing of Higher Education," in American Council on Education, Universal Higher Education:Costs and Benefits, Washington, D.C., 1971, pp. 82-106; Wayne Kirschling and Rudy Postweiler, "General Educational Assistance: A Scheme that Depends on the Educational Efforts of the States and the Attendance Choice of Students," Western Interstate Commission for Higher Education, Denver, Colorado, November, 1971 (preliminary draft); and Robert W. Hartman, "Educational and Economic Consequences of General Federal Aid to Higher Education," the Brookings Institution, March, 1971 (unpublished).

Table 13
Alternative Goals and Formulas for the Distribution
of Federal Institutional Aid

Goals of Federal Institutional Aid	Formulas and Conditions for Distribution of Aid
1. Assume general responsibility for some portion of all institutional expenditures.	1. Virtually no way to distribute "neutrally": definition of "enrollment" (e.g., full-time equivalency, degree credit, degrees granted, etc.) will affect distribution among institutions. An objective of "general support" needs further criteria to justify a particular formula.
2. Strengthen particular types of institutions--e.g., junior colleges, small liberal arts colleges, or research universities.	2. Enrollment weighted according to particular objective--e.g., extra aid to first-time enrolees or to lower division to help two-year colleges; extra aid to first "X" (some small number) of enrollment to help small colleges; or extra aid to graduate students or Ph.D.'s conferred to help research universities.
3. Strengthen poorest schools.	3. Enrollment weighted by "institutional need" as determined by per-student expenditures--i.e., fund aid to poorest schools first.
4. Induce enrollment of needy students.	4. Enrollment or rate of increase of enrollment of number of recipients of federal student need-based grants (would benefit relatively public and two-year colleges), or dollar volume of federal student need-based grants (would benefit relatively private colleges and universities).
5. Induce greater attention to educational needs of the poor and/or "marginal" student.	5. Same as above (#4) with condition that funds go toward "special services"; funds might also be based on "courses successfully passed" or even "degrees awarded" to recipients of federal need-based grants.
6. Induce maximum state aid.	6. Any formula weighted by "state effort" of state in which student is resident.
7. Induce distribution of state aid more according to student need (and implying higher tuitions at public institutions).	7. Any formula weighted by number of students carrying, or dollar volume of, state need-based grants.
8. Induce "efficiency" or more "productivity" within the institution.	8. Enrollment weighted according to "capacity"--e.g., minimum student-faculty ratios.

The Senate bill distributes aid according to enrollment of recipients of Basic Educational Opportunity Grants, weighted to give proportionally higher accompanying grants to smaller institutions. Any "cost of education" type institutional aid (i.e., attached to student aid) will tend, of course, to favor colleges which enroll more needy students. By restricting the qualifying student grant to the "Basic Grant" as opposed to an "E.O.G. type" student grant, and by aiding institutions on the basis of the number of enrolled grantees rather than the dollar volume of student grants at a given instituion, the Senate version as it now stands should benefit community and comprehensive colleges--modified by the "small school" supplements which may divert more aid into the smaller and predominently private liberal arts colleges.

The House version would distribute two-thirds of the aid to institutions on the basis of full-time equivalent enrollment, weighted to give a greater amount of aid on the basis of upper division and graduate enrollment, and supplemented by additional aid to the first 300 enrolees--a less "targeted" form of aid to the smaller colleges than the Senate version which takes into account total enrollments. The other one-third would be based on the total amount of federal student aid funds carried to that institution. The effect of the combination of formulas and conditions is not entirely clear. Without the small college supplement, the House version would benefit (relatively) research universities. The supplementary grants to the first 300 enrolees may shift some benefit over to the very smallest (and probably the very poorest) of the private four-year colleges. Both the House and the Senate bills require a "maintenance of operational expenditures," based on the average per-student operating expenditures of

the last two (House) or three (Senate) years.

The complex interaction of formulas in the two versions, plus the uncertainty of the form of student aid which will emerge from conference make it very difficult to predict the distributional effect of a probable compromise version of institutional aid. Even if institutional aid were to be based on enrollment of federal student aid recipients, for example, modification of the "less than full funding" provision in the student aid section, or extension of institutional aid to enrollment of all federal student grant recipients, would have slightly different consequences. What becomes increasingly clear is the fundamental differences between the approaches of tying institutional aid to enrollment or to the recipients (or the dollar volume) of student aid had already been greatly compromised in both the House and Senate version through combined formulas, small college supplements, and the like. At this point, the differences between the current House and Senate versions, or their likely compromises, bear little relationship to any coherant set of goals underlying institutional aid.

Budget Implication for Fiscal 1973

The absence of new authorizing legislation in time for preparation of the Administration's 1973 budget requests will probably lead to a "hold the line" budget, with a very moderate increase in the combined E.O.G.-Work Study program, additional funds requested for operation of the Guaranteed Student Loan Program, some new money in aid to developing institutions (reflecting administration viewpoint that there is no general institutional financial crisis), and a continuing erosion