R E P O R T R E S U M E S

ED 017 074 EA 001 173

PROBLEMS INVOLVED IN COOPERATION BETWEEN UNIVERSITIES AND GOVERNMENT AGENCIES.

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PUB DATE 67

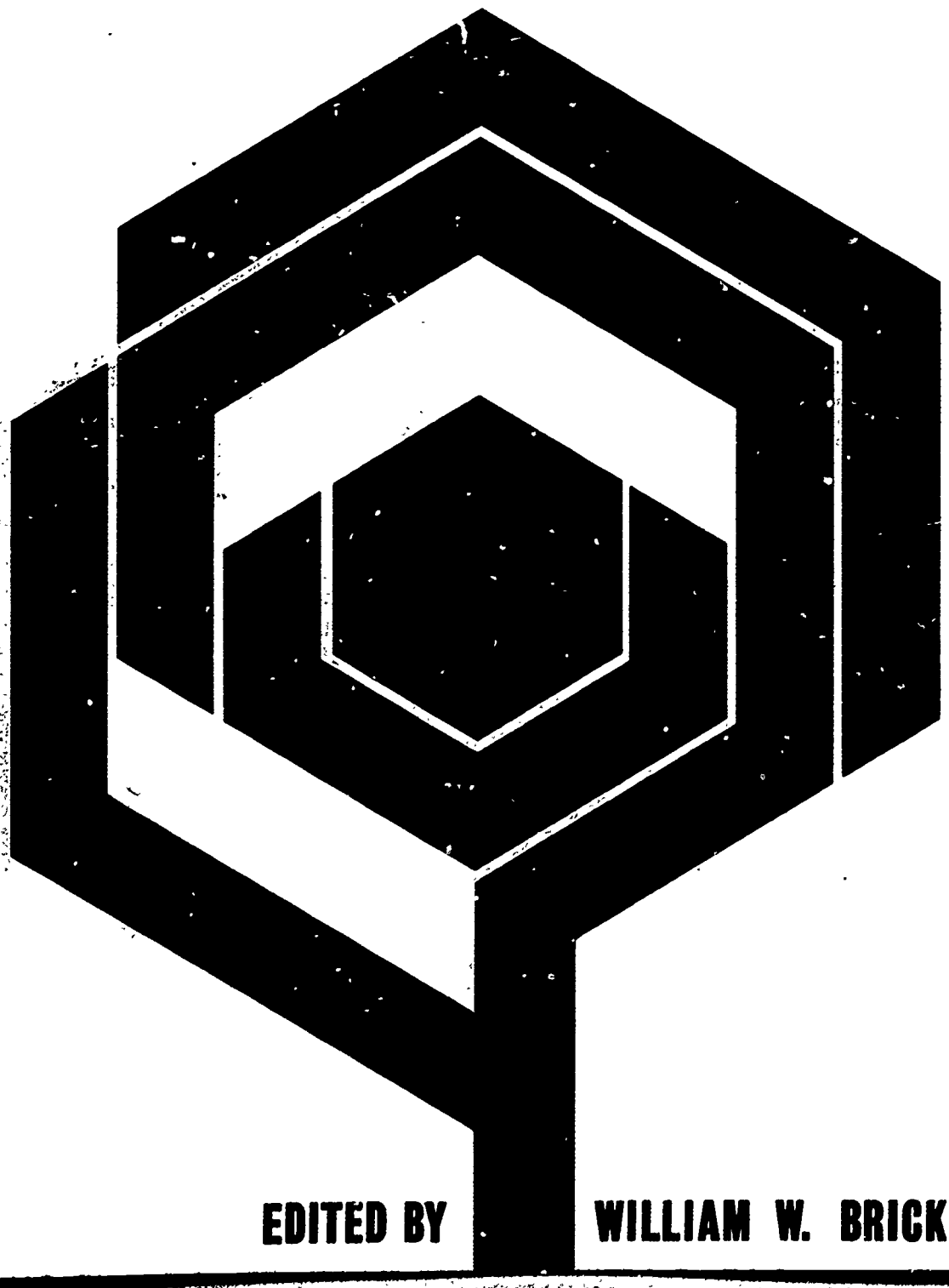
EDRS PRICE MF-$0.25 HC-$1.08 25P.

DESCRIPTORS- *UNIVERSITIES, *FEDERAL GOVERNMENT, HIGHER EDUCATION, *GOVERNMENT ROLE, FEDERAL AID, *EDUCATIONAL OBJECTIVES, FEDERAL PROGRAMS, GRANTS, STUDENT ATTITUDES, RESEARCH PROJECTS, HUMANITIES, SOCIAL SCIENCES, EDUCATIONAL CHANGE, *TEACHER SHORTAGE, PHILADELPHIA,

THE UNRESOLVED PURPOSE OF EDUCATION IN A DEMOCRATIC SOCIETY--WHETHER ACADEMIC OR PRAGMATIC GOALS SHOULD PREVAIL--IS IDENTIFIED AS THE BASIC CAUSE OF THE CONFLICT BETWEEN THE FEDERAL GOVERNMENT AND INSTITUTIONS OF HIGHER EDUCATION. SINCE WORLD WAR II, FEDERAL SUPPORT HAS BEEN INCREASINGLY DIRECTED TOWARD ACTION PROGRAMS, INCLUDING SPECIAL GOVERNMENT SPONSORED SOCIAL WELFARE PROJECTS AS WELL AS STUDIES SUPPORTED BY NDEA, NSF, NIH, NASA, AND AEC GRANTS. RESULTANT PROBLEMS HAVE INCLUDED TEACHER SHORTAGE CAUSED BY FACULTIES SHIFTING FROM TEACHING TO RESEARCH, DISPROPORTIONATELY LOW SUPPORT FOR SOCIAL AS COMPARED WITH NATURAL AND PHYSICAL SCIENCES, AND THE REMOVAL OF FACULTY FROM EDUCATIONAL ASSIGNMENTS TO PLANNING AND ADMINISTRATIVE POSITIONS IN GOVERNMENT PROGRAMS. SUGGESTIONS FOR RESOLVING THESE PROBLEMS INCLUDE--(1) THE BALANCING OF TEACHING FUNCTIONS AND RESEARCH ACTIVITIES OF COLLEGE AND UNIVERSITY FACULTY MEMBERS, (2) GREATER PARTICIPATION BY REPRESENTATIVES OF HIGHER EDUCATION IN THE PLANNING OF FEDERALLY SUPPORTED PROGRAMS, (3) THE DEVELOPMENT OF ADMINISTRATIVE PRACTICES AND POLICIES IN HIGHER EDUCATION FOLLOWING THE TECHNIQUES OF BUSINESS AND INDUSTRY TO EXPEDITE PROGRAMS OF SHIFTING KNOWLEDGE AND SERVICES, AND (4) INCREASING AND IMPROVED ACADEMIC SPECIALIZATION BY COLLEGES AND UNIVERSITIES, RELYING ON FELLOW INSTITUTIONS TO PROVIDE THE BROAD BASIS REQUIRED FOR REALIZING THE AMERICAN SOCIETY'S DEMOCRATIC IDEALS. THIS PAPER WAS PRESENTED AT THE SCHOOLMEN'S WEEK CONFERENCE (53D, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, MARCH 16-19, 1966), AND THE COMPLETE DOCUMENT, OF WHICH THIS PAPER IS ONE CHAPTER, "EDUCATIONAL IMPERATIVES IN A CHANGING CULTURE," IS AVAILABLE FROM THE UNIVERSITY OF PENNSYLVANIA PRESS, 3729 SPRUCE STREET, PHILADELPHIA, PENNSYLVANIA 19104, FOR $6.00. (JK)

EDUCATIONAL IMPERATIVES IN A CHANGING CULTURE

Fifty-Third Annual Schoolmen's Week Proceedings



EDITED BY WILLIAM W. BRICKMAN

$6.00

EDUCATIONAL IMPERATIVES IN A CHANGING CULTURE

Bold adaptability rather than bland acceptance of change is the keynote of these essays by eighteen prominent American educators.

Eric F. Goldman, historian and former Special Assistant to the President, sees a "Third American Revolution" in the "boom in education and the growth of a whole new industry of major importance—the knowledge industry." He notes that "for the first time in man's five thousand years of history a substantial part of a nation's population is being educated beyond the high school level."

Education must be neither the product nor the parent of these far-reaching socio-cultural-economic changes, says William W. Brickman, editor of the Schoolmen's Week proceedings: "It is more appropriate to consider education and culture as interacting."

In these lucid reports and commentaries, the problems faced by today's administrators, teachers, and students are candidly set forth. The authors examine significant aspects of change in relation to contemporary culture, both in the United States and abroad.

The book is divided into four parts. Part 1, "Educational Challenges," deals with the "Third American Revolution" in the cultural, social, and political spheres and the revolution's impact on education. Part 2, "The Teacher: U.S. and Abroad," discusses conflicting philosophies under-

Educational Imperatives in a Changing Culture

UNIVERSITY OF PENNSYLVANIA

SCHOOLMEN'S WEEK

Schoolmen's Week Meeting, March 16-19, 1966

Educational Imperatives in a Changing Culture

FIFTY-THIRD SCHOOLMEN'S WEEK PROCEEDINGS

Edited by WILLIAM W. BRICKMAN

PHILADELPHIA

University of Pennsylvania Press

Library of Congress Catalog Card Number: 67-24846

7563

PRINTED IN THE UNITED STATES OF AMERICA

To the Memory of
THOMAS WOODY
(1891-1960)
Scholar and Friend

Editor's Preface

The fifty-third Schoolmen's Week conference at the University of Pennsylvania, March 16-19, 1966, was the result of cooperative planning and action. The General Committee for Schoolmen's Week, consisting of University administrators, professors, and other functionaries, as well as neighboring school superintendents and college officials, helped establish the broad policies underlying this annual event.

The day-by-day work, such as the selection of topics and speakers, the logistics, and the multifarious administrative activities, were carried on by the Schoolmen's Week staff, under the direction of the General Chairman, Dr. Edward Janosik, associate professor of political science; Dr. Lee O. Garber, Executive Director, and professor of education; Mr. Edward F. Lane, Executive Secretary, and assistant to the Vice-President for Development and Public Relations; Mrs. Alice M. Lavelle, Administrative Assistant; and the three coordinators—Mr. Richard D. Buckley, instructor of education, for elementary education; Mr. Joseph S. Schmuckler, instructor of education, for secondary education; and myself.

Acknowledgment is also made of the aid and encouragement given by President Gaylord P. Harnwell, Provost David R. Goddard, and Dean Morris S. Viteles and Vice-Dean Ralph C. Preston of the Graduate School of Education. All of these, the speakers and the chairmen—plus many others in the University, other institutions, and various school systems—contributed by their ideas, statements, and presence to the fulfillment of the aims of the conference.

In the preparation of this volume, the editor was aided immensely by the cooperation of Professor Janosik and Mrs. Lavelle. Gratitude

is expressed to them and to the authors who willingly answered queries and consented to condensations and other changes in their essays. The editor is responsible for the selection of these papers from among those which were submitted by the speakers. As can well be understood, space limitations made it impossible to include all the talks.

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University of Pennsylvania
April, 1967

Education and Culture in an Era of Change; an Introduction

All through history, education has undergone change, at varying rates of speed and in correlation with parallel developments in culture and society. The teachings of Socrates, no doubt, were related in some way to what went on in ancient Athens. To say that education is the product of socio-cultural-economic change or that it is the parent of such change is to oversimplify. Rather, it would be more appropriate to consider education and culture as interacting.

Although change in education and, correlatively, in society and culture has been taking place in all periods of history, it is proper to point out that there has been an acceleration of the process of change in the past decade. The stepped-up pace of living in a jet-propelled, technological society has been related to modification of curriculum content, the introduction of new subjects, and the increased utilization of a greater variety of instructional aids. While there have been some alterations in school and society, the question arises as to the status of values and objectives in education. Do these change as did the tools of instruction, or are they perennial and do they determine the direction of educational change?

The following chapters deal with certain aspects of change in education in relation to culture in our age, both in the United States and abroad. There is some emphasis on higher education, where the need for change along the lines of greater cooperative activity has become evident. The chapters comprising the section concerned with this theme have already appeared in slightly altered form in *School and Society*.

It is to be hoped that readers will find the content of the book as a whole conducive to further reflection on the issue of the interrelationship of education and a society undergoing change.

W. W. B.

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18. Problems Involved in Cooperation Between Universities and Government Agencies

JOHN W. SHIRLEY *

So MANY REAMS of paper and gallons of ink have been expended in the analysis and discussion of University-Government relationships, and so many basic issues are yet unresolved, that it seems presumptuous of me to approach this problem again. Yet, without question, the role of government in higher education is one of the most critical matters facing our colleges and universities today, and ways and means of establishing university-government cooperation may well be the most important task to which we can now assign our efforts. Though it would be patently unfair to lay the blame for higher education's monumental problems on government's doorstep, it cannot be denied that recent government actions and federal support have intensified these problems and brought them into focus. Any solution of these educational problems will require a better understanding between government officials and educators than now exists, and a more cooperative effort on the part of all concerned than we have seen in the past.

Possibly the basic underlying cause of the government-education conflict is the unresolved question of the purpose of education in a democratic society. At a recent conference at the University of Pennsylvania,[1] a discussion session was devoted to the question of goals

* Provost, University of Delaware, Newark, Delaware.

[1] A conference commemorating the fiftieth anniversary of the College of

and values in education. Almost diametrically opposed views were given: (1) that education needed to be isolated from the transient economic and social goals of a particular time, to concentrate on unchanging truths and the essential nature of man, and (2) that education could only be reflection of the society which supported it, and should be responsive to the changing needs of the day. Probably the dichotomies are not as black and white as these positions indicate, but educators have been inclined to stress the historical and the traditional, and government has been more concerned with the relevant.

The first federal support for higher education, the Morrill Land Grant Act of 1862, was in essence a federal reaction to the isolation and conservation of the colleges of that day. In this action, the government gave grants of land to each state to enable the establishment of special colleges with commitments to the education of the average citizen—particularly those engaged in agriculture and industry. This was a revolutionary move in an educational world still geared to the classics and to the production of professional men—teachers, preachers, and lawyers. In fact, one university used the federal funds to establish a chair in Greek because they reasoned, a classical education was what the farmers needed.[2] Subsequent federal actions, however, gave support in increasingly large measure for research in applied sciences and for extending the new-found knowledge to the farms and industries of the nation. But these developments were slow and were confined to a handful of special institutions. And even in these institutions, federal support was but a small portion of the total budget.

During World War II, when the government did turn to the colleges and universities of the land for support to the war effort in both teaching and research, any differences in objectives were forgotten. Colleges and universities were quick to assume their responsi-

Graduate Education, January 21, 1966. Panelists were Dr. Edward W. Brice, U.S. Office of Education; Dr. Glenn J. Christensen, Lehigh University; Dr. William H. Cornog, Superintendent of the New Trier Schools, Winnetka, Illinois; Dr. J. Ralph Rackley, Superintendent of Public Instruction, Pennsylvania.

[2] The University of North Carolina. Later, however, North Carolina State was formed to perform the functions originally intended by the Morrill Act.

bility for the common welfare. Isolation and the ivory tower dropped out of fashion. Physicists, chemists, and mathematicians joined the Manhattan Project or the Naval Research Center. English and history teachers taught Air Force physics or astro-navigation. Colleges and government were as one, united by the war against the common enemy.

This unification of purpose and effort paid off more handsomely than even the most optimistic would have predicted. Rockets and atomic power—capable of destruction or of regeneration—were dramatic in their impact on the war. The Kilgore Subcommittee of the Senate Committee on Military Affairs pointed out to President Franklin D. Roosevelt that continued support of science and science education was absolutely essential for the national defense.[3] Scientists were quick to call attention to the peacetime benefits to be derived from continued research and development, and the need for further support of higher educational programs. Dr. Vannevar Bush, at the request of the President, reviewed the Kilgore proposals.[4] He first suggested massive federal support of science research and development through the establishment of a National Science Foundation, responsible directly to the President, operated through long-range programs assigned to the colleges and universities of the nation and subject to their controls.[5] But these recommendations had implications, both political and educational. Universities were fearful lest government sponsored research might be too applied and too narrowly conceived. They wanted institutional grants to be subject to the purposes established by the universities themselves. Government was fearful of turning large sums of federal funds over to universities and their trustees, over whom the government had little or no control. It was not until 1947 that both the House and Senate agreed on a Foundation which would grant funds for science development,

[3] A brief history of governmental activity during this period is included in *Federal Support of Basic Research in Institutions of Higher Learning* (National Academy of Sciences—National Research Council, Washington, D.C., 1964). This is important background reading for anyone interested in this growth.

[4] Vannevar Bush, *Science—the Endless Frontier: A Report to the President on a Program for Postwar Scientific Research* (Washington, D.C., 1945).

[5] *Ibid.*, p. 9.

but leave the control largely to the institutions. But this action was vetoed by President Truman on the grounds that:

> [this bill] would, in effect, vest the determination of vital national policies, the expenditure of large public funds, and the administration of important government functions in a group of individuals who would be essentially private citizens.[6]

It was in this general context that the final act establishing the National Science Foundation was passed in 1950 and Dr. Alan Waterman became its first director. Early policies spelled out the fact that while grants or contracts were to be made generally on specific research or development projects, the government was to retain most of the decision-making responsibilities for the assignment of Federal funds. Future federal investments in higher education—in spite of the continued protests of the colleges and universities—were to follow this pattern.

During the next fifteen years, federal spending for research and development increased at the astounding rate of approximately 20 per cent each year to a total of over $16 million in 1965.[7] Of this total federal spending for research, more than $1.8 million were budgeted in institutions of higher education—more than 15 per cent of the total operating budgets of the 2,000 colleges and universities of the nation. National Science Foundation support for research, a modest million dollars in 1952, had risen to more than $300 million. National Institute of Health grants for 1965 amounted to over half a billion dollars; Defense projects almost that amount; NASA research grants were nearly $100 million and the Atomic Energy Commission more than $60 million.[8] Both the rate of this growth and the magnitude of the federal role in subsidizing the total educational picture have been matters of concern to educational administrators. Programs and grants have come faster than plans, staffs, and facilities

[6] Quoted in *Federal Support in Basic Research . . . , op. cit.*, p. 34.
[7] Representative Henry S. Reuss, "Research: the Midas Touch," *The Nation*, January 17, 1966, p. 69.
[8] Detailed figures of grants to specific institutions are included in the appendixes of House Report No. 1158 (U.S. Government Printing Office, Washington, D.C., 1965)—*Eighteenth Report of the Committee on Government Operations: Conflicts Between the Federal Research Programs and the Nation's Goals for Higher Education.*

could handle them. In the face of universal demand, faculty members could not be found to perform the research being supported. Graduate faculty and facilities were not adequate to cope with the increased number of graduate students being supported and trained on federal funds. And the burgeoning of these activities came just at the time that the post-war babies were crowding into colleges and universities inadequately manned and equipped to handle increased undergraduate student numbers and mushrooming knowledge at the same time. The leisurely ivory tower of pre-World War II became a thing of the past. The campus became a beehive of frenzied activity. College deans and presidents of necessity became less and less academic and more and more like business executives as they met each new problem with at least a temporary solution. A number of national studies were made to try to resolve some of the issues between educators and the government agencies and policies,[9] and most national organizations devoted sessions to the discussion of possible ways of bringing them together.

As educational administrators were expressing alarm over the institutional effects of governmental support of special educational areas, especially about the way in which the sciences were overbalancing the humanities and social sciences, students, too, began to bring charges that the educational times were out of joint. They complained that universities were getting too huge and impersonal as a result of their new opulence, that research had come to overshadow teaching in the eyes of the faculties, that students had become only numbers in the automated records of mechanical educational factories. Their complaints were echoed by large segments of the faculties—particularly those in the less supported areas, but surprisingly enough by many of the young graduate teaching and research assistants who were supported by federal grants which had made their education not only possible, but profitable. These complaints were echoed by parents, concerned citizens, and by school teachers and

[9] See, for example, the statement by the President's Science Advisory Committee entitled, *Scientific Progress, the Universities, and the Federal Government* (The White House, Washington, D.C., Nov. 15, 1960), and the previously cited *Federal Support of Basic Research in Institutions of Higher Learning.*

administrators who took some comfort in finding the colleges and universities under some of the pressures they had long endured. As all know, 1965 was a year of student sit-down strikes, teach-ins, demonstrations, marches on the White House, and of faculty and administration conferences, committee investigations, and general soul-searchings.

All of these factors led inevitably to a federal investigation of these matters. A subcommittee on Research and Technical Programs of the Committee on Government Operations, under the chairmanship of Representative Henry S. Reuss of Wisconsin, staged a full-dress investigation of what they called the "conflicts between the federal research programs and the nation's goals for higher education." This study addressed itself to many facets of the current problems: the diversion of professors from teaching to research, and the inequities which resulted from concentrating funds in limited areas of natural and physical sciences in the graduate schools of relatively few of the nation's ranking universities. It also called attention to the students' protests against the lack of interested and experienced professors. To investigate these problems, the committee sent to some 300 educators, administrators, and distinguished citizens, a letter of inquiry on five fundamental aspects of the matter: (1) the effects upon the students of the emphasis upon research rather than teaching; (2) the results of this research upon the faculty in terms of possible shift in loyalties from the campus to government, profession, or industry; (3) the difficulties and distortions of the institutions caused by curricular imbalances, concentration of funds in larger research-oriented institutions in selected areas, and the shifts in institutional purposes and programs to conform to the demands for research; (4) the effects upon the graduates in terms of shifts of careers from teaching to research, and the possible over-emphasis in presently popular disciplines and scarcity in others currently less in demand; and finally (5) a consideration of possible methods of improving the government's future role in the use of research funds and other supports for higher educational programs.[10]

[10] 89th Congress, 1st Session, House of Representatives, Committee Print. *Conflicts Between the Federal Research Programs and the Nation's Goals for Higher Education* (Washington: U.S. Government Printing Office, 1965). The

More than 200 replies to these questions were received by the committee, most of them thoughtful and comprehensive. Nearly every conceivable point of view is represented in these replies, as was also the case in the formal hearings held by the committee in June, 1965.[11] To recount or summarize these diverse opinions would be fruitless. The summary report of the committee to the House of Representatives on October 13, 1965,[12] though to some it appears biased, appears to me to reflect a reasonable analysis of the testimony presented. In addition, it brings together a large number of statistics on the distribution, nature, and scope of federal support of research, on the effects of this research support on graduate programs, and the benefits and harms which the nation and its colleges and universities have reaped from federal grants and contracts. Every educational administrator should go through it carefully.

Recognizing that "too many scientists and engineers have been diverted . . . into research work, and too few are available for teaching," [13] the Reuss Committee report suggested that the government take steps to reverse this direction. Scientific manpower data should be maintained by the Bureau of the Budget, and the balance between teaching functions and research activities controlled. The Bureau of the Budget should alert the agencies to tailor their programs to meet this balance. In addition, government should stress teaching at all levels; all graduate students holding Federal fellowships should be required to teach; science teaching fellowships, matching research fellowships, should be instituted; and Presidential awards recognizing and rewarding outstanding undergraduate teaching should be begun.[14]

General support of education on a much broader base should be established, the committee report continued. Project awards should

procedures of the Committee and the questionnaire issued are both given in the Introduction to this volume, pp. 1-3. This volume also contains partial replies from more than 80 correspondents. A second volume (Part 2) carries on from pages 115 to 520.

[11] *Hearings Before a Subcommittee of the Committee on Government Operations*, Eighty-Ninth Congress, First Session, June 14, 15, and 17, 1965 (Washington: U.S. Government Printing Office, 1965).

[12] Cited above, footnote 8.

[13] *Ibid.*, p. 26.

[14] *Ibid.*, pp. 26-27.

be modified to cover all geographic areas of the nation and should go to a much larger number of institutions than at present. Panels of reviewers should be drawn from a wide range of colleges and should represent broader and more varied points of view. The currently small programs of unrestricted institutional grants should be widely expanded, and general support for scholarship and instruction in the areas of the humanities and social sciences should be massively increased.[15] Few educators would quarrel with these recommendations; they directly reflect the pleas and requests of the colleges for the past decade.

But anyone who expected the conclusions of the Reuss Committee to have an immediate impact on Federal appropriations for educational support was probably disappointed in the President's budget as presented to the Second Session of the Eighty-Ninth Congress this year. Except for some implementation of the National Humanities Foundation and a slight increase in institutional grants occasioned by increased research funds, the budgets for the major granting agencies continue along the same lines as before. As a matter of fact, from the point of view of the colleges and universities, the already-acute problems stand to be intensified rather than diminished. The high level funding of the National Defense Education Act has suddenly thrown new billions of dollars into national education both in new programs and augmented old ones. For the fiscal year starting in July of 1966, the President's message to Congress estimates that "promotion of higher education will amount to 3.8 billion." [16] The bulk of these funds are earmarked for research and training in areas vital to the national defense, health, or welfare. But an increasing number of programs are action programs tied to special projects of the New Society. These pose new drains on limited academic personnel and draw the teacher more and more away from the campus and the classroom.

The roles of education and government are becoming intermingled more than they have ever been in the past. Generally speaking, education has been concerned with the preparation of the oncoming

[15] *Ibid.*, pp. 45-57.
[16] *Higher Education and National Affairs*, Vol. XV, No. 2. (January 25, 1966), p. 2.

generation for entrance into society, or for readjustment to change. Government has been the operational body in areas of public welfare and economic and social development. But the Great Society is changing this as universities are being asked to assume partnership roles in Federal programs. As one example, the Poverty Program is permeating many aspects of our academic programs. Not only are our colleges of education being asked to institute special programs to train teachers for the disadvantaged and the handicapped; they are also being requested to make regional plans for reform and to establish consultative services to work with the schools and with other civic and social agencies engaged in this area. Technical Services Divisions are being established in every state university to work with industry to help raise the economic potential of underdeveloped districts. And extension activities for retraining adults to meet technologic change are being supported on a scale never before dreamed of.

All of these activities are worthy of the best efforts of our colleges and universities. But the simple fact is that higher education is not geared to add these duties on to those already assumed. Availability of federal funds does not produce the specialists needed, and colleges and universities have entered into stiff competition to hire away from each other those few specialists who do exist. Where a dozen water resources programs were manned last year, federal sponsorship is creating fifty this year, so that every expert is sought by a dozen universities, though he can serve but one. Next year the call may be, and appropriations made available, for landscape beautification or air purification. Colleges may then be left with unsupported specialists in one area while they go into made competition for specialists in another.

If we are to live with these new circumstances, we must be realistic in what our goals are and flexible in adapting them to meet new demands and conditions. Instead of responding to government by protest after the fact, we must become more intimately involved in planning. Liaison efforts must be increased. As federal influence extends to more and more colleges, the liaison base must be expanded in proportion. Legislators and agency officials must be made aware of the full implications of their actions—both in establishing new grants and in curtailing old ones. But if the arguments for change

are persuasive, the institutions must be willing to accept change and to accept the consequences.

Internally, educational institutions must change, too. Present practices and policies of administration are too rigid and inflexible to adapt to the rapid changes of the modern world. Decisions—even the decisions on which grants and contracts to seek and accept—must be made more rapidly than ever before, and on sounder analysis of the full implications of the decision than has been possible up to this time. Colleges must adopt more of the techniques of business and industry; research and analysis, computerized and technological, must be employed to the full extent. The delays of committee action, extended discussion, and full faculty consensus may not be tolerable in programs of constantly shifting knowledge and services. More educational leadership need be exerted at all levels, with more freedom of movement for students, faculty, administrators, and trustees. There must be less talk of tradition and tenure, and more concern for opportunity and relevance.

And as institutional autonomy in budget is already crumbling, it is becoming clear that institutional autonomy in education may have to go. The day is at hand when each college and university must recognize that it can no longer assume the total mission of higher education. It is as foolish in the last third of the twentieth century for a college or university to take all knowledge to be its province as it was for Bacon to do so in the seventeenth. By virtue of size, universities have been able to encompass most fields of knowledge long after individual faculties have been forced to specialize. But the vast university appears to be breaking up into smaller units. If this process continues, colleges and universities must specialize—must limit their scope of operations, relying on fellow institutions to round out the educational whole. How this is to be done is not now totally clear, though it is certainly apparent that the present cut-throat competition between institutions is ineffective and outmoded and must be stopped. The new age of increased educational responsibilities will call for a cooperation and mutual support that will change the basic nature of our colleges and universities. Perhaps the day of the generalist is dead and all education will be specialized. Perhaps the day of the student's study on a single campus is gone. Perhaps

the new generation will see a peripatetic student body, migrating like the students of the middle ages in search of the total knowledge they need. There is evidence that this is well established now at the graduate level—the tendency may expand to the undergraduate education. With over 2,000 colleges, all expanded many times in size, facilities, and faculties, all specializing in a limited number of areas, all supported largely from federal funds (and students with federal scholarships and fellowships and carrying institutional supporting grants wherever they go)—it just may be that this dynamic society may continue to educate its young people on a broad and universal basis in accordance with its democratic ideals.

We need not only to recognize the problems existing between the colleges and the federal granting agencies. We need to face up to them, and to find solutions for them.

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