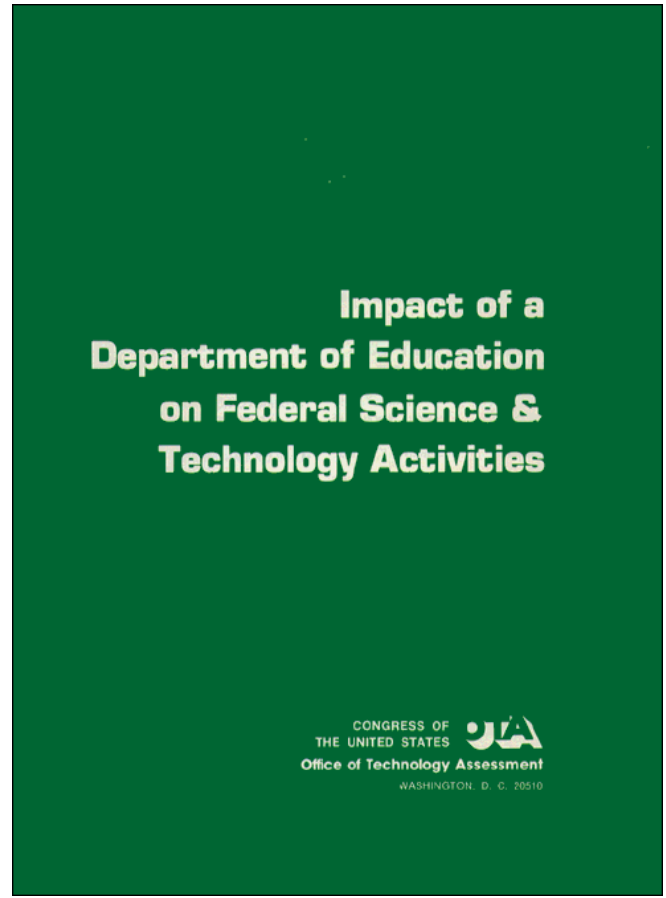
Impact of a Department of Education on Federal Science and Technology Activities

August 1978

NTIS order #PB-286525





Library of Congress Catalog Card No. 78-600085

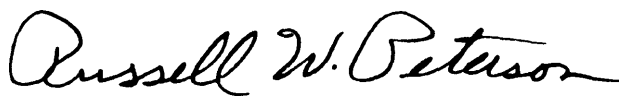
For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 Stock No. 052-003-00573-5

FOREWORD

One of the Office of Technology Assessment's (OTA) primary functions is to anticipate and advise Congress on the potential long-range impacts of technologies, and as a corollary, to anticipate and advise Congress of the long- range impacts on technology of proposed actions. In the latter sense, the proposals to create a Department of Education, which Congress is currently considering, could have significant effects on graduate science and engineering training in this Nation. Therefore, this report examines a range of congressional options available for ensuring that the integrity of the educational process for professional scientists and engineers is maintained in order to preserve this important national resource.

This report reviews how three key elements in the science education process will fare under a new department. These are: the programs of the National Science Foundation's Science Education Directorate; general support programs for graduate science and engineering training across the country; and educational analysis and research which should be the responsibility of an appropriate Federal agency. Key criteria to be utilized in these evaluations are presented for the use of congressional committees. Specific options with regard to higher education in science and engineering and with regard to those educational research and development functions—important for inclusion in the new department-are also presented.

Given the important and far-reaching consequences which could ensue if higher education in science and engineering in this country is not carefully nurtured, OTA is pleased to make this assessment available to the Congress during its deliberations on the proposed Department of Education. .



RUSSELL W. PETERSON
Director
Office of Technology Assessment

ACKNOWLEDGMENTS

We would like to acknowledge the following individuals for reviewing and providing valuable information on the preliminary drafts of Dr. C. Kidd's report: Richard Atkinson, Director, National Science Foundation; Philip Austin, Department of Economics, George Washington University; William Blanpied, National Science Foundation; Langdon Crane, Science Policy Division, Congressional Research Service; John C. Crowley, Director of Federal Relations for Science& Research, Association of American Universities; Marilyn Harris, Senate Committee on Governmental Affairs; Thomas Kramer, House Committee on Science & Technology; Rufus E. Miles, Jr., Woodrow Wilson School of Public & International Affairs; Charles Saunders, Director of Governmental Relations, American Council on Education; Arthur Sheekey, President's Reorganization Project; Allen M. Shinn, Jr., Deputy Assistant Director, Directorate for Science Education, National Science Foundation; and Anne Strauss, Senate Committee on Human Resources, Subcommittee on Health and Scientific Research.

OTA Department of Education Reorganization Project Staff

Ellis R. Mottur, * *R&D Policies and Priorities Program Manager*
Carolee McBee, *Project Leader*
Roslyn Dauber, Analyst
Irene Zarechnak, Clerical Support

Consultant

Charles V. Kidd, *Professor of Public Policy*
Graduate Program in Science and Public Policy
George Washington University

OTA Publishing Staff

John C. Holmes, *Publishing Officer*

Kathie S. Boss Joanne Heming

'Resigned, effective July 31, 1978, to accept position with Woodrow Wilson International Center for Scholars, Smithsonian Institution.

Program on R&D Policies and Priorities Steering Committee

Russell W. Peterson
Director
Office of Technology Assessment

Jerome B. Wiesner
Chairman
Technology Assessment Advisory Council

Lewis M. Branscomb
Chairman
Panel on the Applications of Science and Technology

Harvey Brooks
Chairman
Panel on Health of the Scientific and Technical Enterprise

Gilbert F. White
Chairman
Panel on Decisionmaking on R&D Policies and Priorities

Ellis Mottur
Ex Officio

Health of the Scientific and Technical Enterprise Advisory Panel

Harvey Brooks, ***Chairman***
Benjamin Peirce Professor of Technology and Public Policy
Harvard University

R. Stephen Berry
Professor, Department of Chemistry
University of Chicago

Solomon J. Buchsbaum
Vice President, Network Planning & Customer Service
Bell Laboratories

Barry M. Casper
Professor
Carleton College

James Franklin Childress
Joseph P. Kennedy Sr. Professor of Christian Ethics
Kennedy Center for Bioethics
Georgetown University

Jewel P. Cobb
Dean
Douglass College

Donald W. Collier
Vice President, Technology
Borg-Warner Corporation

Richard B. Freeman
Associate Professor
Department of Economics
Harvard University

Leo Goldberg
Distinguished Research Scholar
Kitt Peak National Observatory

Donald F. Hornig
Director, Interdisciplinary Program in Health
Harvard University

Richard M. Krause
Director, National Institute of Allergy and Infectious Diseases
National Institutes of Health

William J. McGill
President
Columbia University

Robert S. Morison
Visiting Professor
Massachusetts Institute of Technology

David Z. Robinson
Vice President
Carnegie Corporation

Jurgen Schmandt
Associate Dean, Lyndon B. Johnson School of Public Affairs
University of Texas at Austin

H. Guyford Stever
Independent Consultant

Decisionmaking on R&D Policies and Priorities Advisory Panel

Gilbert F. White, *Chairman*
Director, Institute of Behavioral Science, University of Chicago

Robert S. Barrow
Director
Black Economic Research Center

Robert A. Charpie
President
Cabot Corporation

John W. Davis
Attorney
Adams and Davis

Martin Goland
President
Southwest Research Institute

Jerry Grey
Independent Consultant

Gerald B. Grinstein
Attorney
Preston, Thorgrimson, Ellis, Holman & Fletcher

Frederic A. L. Holloway
Vice President for Science and Technology
EXXON Corporation

Edward B. Lindaman
President
Whitworth College

Richard R. Nelson
Professor of Economics
Institute for Social and Public Studies
Yale University

Don K. Price
Professor of Government
John F. Kennedy School of Government
Harvard University

Lola Redford
Chairman of the Board
CAN's Council on Environmental Alternatives

Donald B. Rice, Jr.
President
RAND Corporation

Note: These panels provided advice, critique, and assistance during the project for which OTA is deeply grateful. Although these advisory panels recommended release of the report, OTA assumes full responsibility for the report and the accuracy of its contents.

CONTENTS

Chapter		Page
1.	**Congressional Summary**	**3**
	NSF Education Directorate Programs	**3**
	Criteria for Congressional Evaluation	**5**
	Graduate Science and Engineering Training	**5**
	Educational Analysis and Research	**5**
II.	**Science and Technology Activities of the Federal Government in Relation to a New Department of Education**	**9**
	Introduction	**9**
	A Department of Education and the Education Directorate of the National Science Foundation	*9*
	Background	*9*
	Specific Programs	*14*
	An Alternative Approach: Postponement or Transfer	*18*
	Educational Research and Development Functions Transferred From the Department of Health, Education, and Welfare	19
	Collection and Analysis of Educational Statistics	19
	Administrative Research	19
	Research on Education	**20**
	Should a New Department of Education Be Created?	**21**
	HEW's Education Division	**21**
	A Department of Education and Science	**22**
	Conclusions	**23**
	The NSF Science Education Directorate Programs	**23**
	Is Postponement the Course?	**24**
	Analytic and Research Functions	**24**
Appendix		
	S. 991 -A Bill To Establish a Department of Education, and for Other Purposes	**27**

32-519 0-78 -2

Chapter I

Congressional Summary

Chapter 1

Congressional Summary

On July 18, 1978 the Senate Governmental Affairs Committee marked up a bill to create a new Cabinet-level institution—the Department of Education. This is the first step in a potentially extended congressional process which may lead to formation of a major new governmental entity. To assist Congress in its deliberations on certain aspects of this action, the Office of Technology Assessment (OTA) has examined the potential long-term impacts, both positive and negative, of such a department on three science and technology-related areas:

- Science education programs currently housed in the National Science Foundation (NSF), but slated for transfer in the proposals for the new department;
- Graduate science and engineering education training across the country; and
- Educational analysis and research activities which should be the responsibility of an appropriate Federal agency.

Members of the community most concerned with science and technology issues, including a significant percentage of Congress, will want assurances prior to approval of a new department that the functions mentioned above will not be adversely impacted.

This report assesses potential impacts in each of these areas; suggests appropriate criteria which Congress may utilize to examine the science and technology-related aspects of the proposed department; and spells out the possible congressional options for dealing with science and technology educational issues if such a department is finally approved.

NSF SCIENCE EDUCATION DIRECTORATE PROGRAMS

Probably the key element in the debate about the new department, vis-a-vis science and engineering, is whether the NSF Science Education Directorate programs proposed for transfer will suffer or be enhanced by such a transfer. The importance of this question cannot be measured simply by the seemingly small amount of dollar resources allocated to these efforts in the 1979 budget for NSF. By these standards, the programs might seem to be insignificant, but it has been estimated that the potential impact of these efforts is greatly magnified when the worldwide replication of such science curricula and other science education leadership programs is taken into account. For example, over 70 developed and underdeveloped countries utilize NSF science curricula currently. Thus, NSF science education programs affect not only the quality of the future U.S. supply of trained scientists and engineers, but also the worldwide supply of such human resources, which are so necessary for further development and advancement of all societies. Because of this important multiplicative factor, much of the Congress' concern and hence OTA'S, centers on the possible impact of the proposed department on NSF Science Education Directorate programs. The bulk of this report discusses congressional options for dealing with these science education activities in a manner that will be consistent with a plan to create a Department of Education.

The administration proposal and the Senate bill have both suggested that most of NSF's science education programs be moved to the new department-$56. 18 million of the $77.6 requested in NSF's budget for FY 79. The scientific education community has not supported this move—viewing it as of doubtful benefit to the goals of maintaining high scientific standards, involving the support of the scientific community, and having high visibility which is easier to main-

tain in a small agency. OTA suggests that the Congress may wish to consider the following options with regard to these types of programs:

Option 1

Leave the NSF Science Education Directorate intact.

If creating a Department of Education that encompasses the entire spectrum of educational programs is of utmost importance, then clearly the motivation for including programs in science education at the postsecondary level would be great. However, the challenge will be to coordinate the new department in such a way as to ensure a comprehensive and integrated educational system in the United States. Previous attempts to accomplish this goal via the HEW programs in education were not successful. The difficulties of HEW in this regard should be examined carefully.

Option 2

Allow the new department to begin operations without the NSF Science Education Directorate programs. Move appropriate NSF activities after careful evaluation of their potential for successful operation in the new departmental setting.

The National Foundation on the Arts and Humanities (NFA&H) was originally planned for inclusion in the new department. Because the agency is self-sufficient and successful, it has been proposed that it not be transferred until after the proposed Education Department is operating and can specify a definite need for NFA&H functions. The same reasoning could be applied to NSF.

Option 3

Move selected parts of the NSF Science Education Directorate on an individually assessed basis as soon as a department is formulated.

This option corresponds with the current thinking of the administration and the Senate bill. Following is a description of the Directorate's programs and the pros and cons of transfer. There are five specific programs:

1. ***Advanced Scientific Training, Minorities, Women, and the Handicapped*** in Science. This program constitutes 25 percent of the Directorate's budget. It has been argued that because this program is directed at aspiring scientific professionals it belongs in NSF. Current proposals have not suggested transfer of this activity.
2. ***Science and Society.*** This program has several components aimed at increasing the public's understanding of science. These efforts are inserted into both the formal educational system and informal educational processes, via television. The administration and Senate bill have recommended that part of the program be transferred and part remain at NSF. NSF is very much opposed to splitting the program components because such a split may inhibit the goals upon which the entire effort was initially based.
3. ***Science Education Research and Development.*** This R&D function is aimed at understanding the learning process. This logically serves the objectives of the new department and could increase the speed with which new information would be disseminated within the educational process. The National Institute of Education would be enhanced by the transfer.
4. Support for College and Secondary ***School Students.*** As a faculty improvement program this is considered a strong candidate for transfer since it is aimed at professional training and enrichment. However, NSF fears that some of its current support from university faculty members would be lost with transfer. The issue must be decided based on the relative importance of the establishment of the department versus the maintenance of successfully operating programs.
5. ***Institutional Support to Upgrade Undergraduate Science Teaching.*** The five areas included in this program are: a) assistance to undergraduate science education; b) minority institutions; c) science improvement; d) undergraduate instructional improvement; and e) resource centers for science and engineering. Because these are all aimed at institutional support it is likely

that transfer to the new department would -strengthen the higher education division.

Option 4

Move the entire Directorate to the Department of Education.

Although this alternative was initially considered it has been abandoned because several of the programs (as discussed above) do not substantively apply to education. Any reorganization should be designed to maximize benefits of current and potential work; the dismantling of currently effective programs, not integrally related to education, would be the eventual result if the entire Science Education Directorate were transferred.

CRITERIA FOR CONGRESSIONAL EVALUATION

The wisdom of transferring some or all of the NSF Science Education Directorate programs to the new department can be evaluated by utilizing the following five criteria:

- How important is building up the new department versus maintaining successfully operating programs?
- How will the goal of the program be affected by being housed in the new department?
- What is the present quality and effectiveness of the programs versus their potential increased or decreased performance in a new setting?
- What are the political and administrative considerations involved with transfer and subsequent smoothness of operation?
- How important is the continued involvement of the scientific community, which is more likely if the functions remain in NSF?

GRADUATE SCIENCE AND ENGINEERING TRAINING

Should most or all the NSF Science Education Directorate programs be transferred, the status of postsecondary education in the new department will be of prime importance. If the policy of the department indicates an orientation mainly toward elementary and secondary education, it is possible that graduate training in the sciences and engineering will suffer adversely. Since much of the Nation's economic and social development depends on technological advances provided by trained scientists and engineers, this issue would be of importance and concern to Congress. Congress has two options for ensuring that the proposed Department of Education places appropriate emphasis on graduate training:

Option 1

Make it an explicit part of the department's mission to support and improve graduate training in all areas, including science and engineering.

Option 2

Create a high-level post in the new department responsible for this function, such as an Assistant Secretary for Graduate Education.

EDUCATIONAL ANALYSIS AND RESEARCH

To ensure that the new department has sufficient programs for studying the educational process itself, the following elements should be included:

- educational statistics
- research on education
- administrative research

Since the Department of Health, Education, and Welfare already has programs underway addressing the first two of these areas—the National Center for Educational Statistics and the the National Institute of Education—the Congress need only assure their transfer to the new department in order to have adequate coverage.

To address administrative research needs the Congress could consider the following option:

Establish in the new department an administrative and research function that reports directly to an Assistant Secretary for Administrative and Management Policy.

Chapter II

Science and Technology Activities of the Federal Government in Relation to a New Department of Education

Prepared by Charles V. Kidd, Professor of Public Policy
Graduate Program in Science and Public Policy, George Washington University

Chapter II

Science and Technology Activities of the Federal Government in Relation to a New Department of Education

Prepared by Charles V. Kidd, Professor of Public Policy
Graduate Program in Science and Public Policy, George Washington University

INTRODUCTION

What would be the effects of a new Department of Education on the science education and research, and educational R&D functions of the Federal Government? The answer to this question obviously depends upon the functions, activities, and organization of the new department. The proposal now being most seriously considered would establish a relatively narrowly defined agency by putting the existing Education Division of the Department of Health, Education, and Welfare (HEW), plus some other education activities of HEW, and some education functions from other agencies (of which the most significant would be transfer of the Science Education Directorate of the National Science Foundation (NSF)) into a new Department of Education. This proposal, embodied in the Pen bill (S. 991, see the appendix, and H.R. 9618 identical) and endorsed with some minor reservations by the administration is analyzed in this paper.

A DEPARTMENT OF EDUCATION AND THE SCIENCE EDUCATION DIRECTORATE OF THE NATIONAL SCIENCE FOUNDATION

When attention is centered on the effect of establishing a Department of Education on the R&D functions of Government (including graduate training in the sciences), the most important single consideration by far is whether the Science Education Directorate of NSF should be transferred in whole, in part, or not at all to the proposed department.

BACKGROUND

The Written Record

The case for transfer first appeared in one paragraph of a significant report by Rufus Miles, Jr., A *Cabinet Department* of *Education* (American Council on Education, 1977, page 90):

> The Education Directorate of the National Science Foundation is that part of the Foundation which is most directly related to the pedagogical functions of educational institutions, as distinguished from their research functions. It is concerned with fostering needed innovations in curriculum materials, techniques for the teaching of science, and the use of technological advances for instruction, as well as with the general improvement in the quality of scientific and technical manpower. It constitutes less than ten percent of the total program of the National Science Foundation, most of which is, of course, devoted

to research. It is now time to transfer this small component to the new Department of Education, if one is estabilised. It is unlikely that this transfer would meet with strong opposition from any influential source. 1

The Science Education Directorate is, as Miles notes, more directly related to the pedagogical functions of educational institutions than to their research functions, and the functions of the division are adequately stated. The budget for the division is, as Miles points out, less than 10 percent of the total NSF budget. However, these considerations hardly constitute a full and satisfactory base for the conclusion that "it is now time to transfer this small component to the new Department of Education." The central reason advanced by Miles for transfer is that the functions of the Directorate are more directly related to the pedagogical than to the research functions of educational institutions. This formulation accepts as conclusive a rationale that is, in fact, the issue to be debated. It actually makes a proposition to be tested rather than establishing a case.

The only early statement opposing the transfer has been made by Charles Saunders on behalf of the American Council on Education as an umbrella organization, and seven associates of higher education, including the Association of American Universities and the National Association of State Universities and Land Grant Colleges, to which all universities conducting substantial amounts of research belong. The statement opposing the transfer reads as follows:

> We would oppose transfer of the National Science Foundation's Education Directorate (or for that matter any other part of that appropriately independent Foundation). Most members of the higher education community believe that the location of the Education Directorate within the National Science Foundation affirms the importance of the interdependence of science education and scientific research. To separate the two would inevitably damage the quality of both, by depriving them of their mutually supportive relationship. These programs should be developed and administered with a sensitivity to the science and research environment on campus in which they will function. They should be staffed by professionals, some on temporary assignments from colleges and universities, who are familiar with existing NSF academic science research and training programs and with emerging educational needs and training opportunities. A staff in a separate department, isolated from the Foundation's research environment, in our view, would neither bring the same perceptions and experience to these programs nor attract the quality of experienced individuals drawn to them by the unique research environment of the Foundation. We see no reason to disrupt the present relationship, with the reduced effectiveness which would be bound to occur, for the sake of adding another agency to the new Department of Education.[2]

The interdependence of science education and scientific research is a good general point, but as will be noted below, it is useful to look at specific aspects of the Science Education Directorate of NSF. To separate specific programs might or might not "inevitably damage the quality of both by depriving them of their mutually supportive relationship." The precise nature of the potential disruption, if any, that would follow the transfer of specific kinds of activities now carried on by NSF must be examined. The importance of developing and administering the programs of the NSF Science Education Directorate "with a sensitivity to the science and research environment on campus in which they will function" is also a weighty consideration, but it must be applied to specific programs.

Turning to the strongest opinion expressed in the legislative branch, the Pen bill (S. 991), proposed in Sec. 7(a) 12 that the Science Education Directorate be transferred. The Humphrey bill (S. 225) Sec. 8(d) had the more cautionary proposition that there be:

> . . . transferred to the Secretary all functions of the National Science Foundation which the Director of the Office of Management and Budget determines relate to instructional personnel development programs, instructional pro-

'U.S. Senate, Committee on Governmental Affairs, "Department of Education Act of 1977," Committee Print, 95th Congress, 1st session, U.S. Gov't Print. Off., Washington, D. C., Oct.12 and 13, 1977, p. 174. Miles later indicated that he had not thought in detail of the pros and cons of transfer of functions performed by the NSF Science Education Directorate.

*U.S. Senate, Committee on Governmental Affairs, creating a Department of Education, hearings before a committee of the whole (March 21, 1978). Statement by: Chades B. Saunders, Jr., Director of Governmental Affairs, American Council on Education (p.5).

gram development, and programs in computer innovations designed for use in education.[3]

There are no analyses accompanying the bills and no statements by the sponsoring Senators or Representatives indicating why the various positions have been taken. A range of bills have been introduced in the House, but serious consideration was deferred until early August, pending the establishment of a final position by the administration and passage in the Senate. In the first congressional hearings on a new department,[4] none of the Senators mentioned the issue. Nor did representatives of the National Education Association (NEA), nor any of the six former Commissioners of Education, mention the issue. While the question has been debated more thoroughly in later congressional hearings, it has thus far not been one of the central issues related to creation of a new departments

Finally, there is the position of the administration, which constitutes the most careful analysis of the issues. James T. McIntyre, Jr., Director of the Office, of Management and Budget (OMB), presented the summary views of the administration on formation of a new Department of Education in the form of commments on the Pen bill (S. 991) before the Senate Committee on Governmental Affairs on April 14, 1978. The administration's position recommended transfer of some of the functions of the Science Education Directorate:

> Although we do not advocate the transfer of the entire Science Education Directorate from the National Science Foundation, we think that a Department of Education responsible for improving educational quality should directly involve science education programs designed to upgrade school and college curricula. However, we think that the graduate training and scholarship programs, which recruit and prepare scientists for the Nation's scientific research effort, should remain in NSF, as well as some smaller education programs directed at improving communications between the scientific and nonscientific communities.

The administration position was elaborated by the Office of Science and Technology Policy (OSTP) in testimony given to the same Committee on April 18 by Philip M. Smith, Assistant Director of OSTP. He outlined the rationale for the President's proposals by first stating the advantages and disadvantages of transferring programs:

Transferring the science education programs would have the following ***advantages:***

- A Department of Education, which assumes the responsibility for improving the overall quality of schools and school curricula, should be given responsibility for involving talent, program expertise, and information within the scientific communities.
- Transfer of science education responsibility will improve the likelihood of enlarging Federal impact on the quality of science education programs offered in all the Nation's schools and colleges. The NSF has not had the resources to demonstrate fully and disseminate the products developed with its research and development funds.
- A major department with a mandate to report annually on the "condition of education" and with an annual budget for education programs in excess of $12 billion may be in a better position to articulate appropriate Federal policies and to reallocate available resources to meet all educational needs, including science education.
- Consolidating those Federal educational programs aimed specifically at improving access of minorities, women, and the handicapped will emphasize the administration's commitment to alleviating problems of inequity and discrimination in education.

The proposed transfers could have the following ***disadvantages:***

- Transferring science education programs from NSF could reduce the involvement of the science and research communities in science education.
- An agency without scientific and research talent operating at its helm would be less sensitive to and supportive of science education programs. In contrast, both the

[3] U.S. Senate, op. cit., p.421:S.225, Sec 8(d).
[4] Ibid., S.991, S.255, S.300, S.894, and S. 1685.
[5] Hearings to date: 3/20/78; 4/14 & 4/18/78; 4/27/78; 5/8/78; 5/16 & 5/17/78.

Director and Deputy Director of NSF were trained as research scientists.

- The substantive link between science education programs and basic research programs would be reduced by separating these programs. Science focuses on the creation of new knowledge, and teaching it effectively depends on that knowledge. To minimize this potential disadvantage, the proposed Department of Education would have to work closely with NSF and assure continued scientific input.

- Policies relating to increasing access to and participation in education, which dominate most Federal education programs, might take priority over the policies stressing high standards, excellence, and competition, which are stressed by NSF officials and the NSF Board.

In weighing these advantages and disadvantages, OSTP came to the conclusion that programs should be transferred:

> . . . in those cases where there is a desirability of implementing on a wide basis activities characterized by knowledge dissemination, the widespread introduction of new educational technologies, the training of professionals such as teacher training programs or special assistance programs to help improve the opportunities for sectors of our society such as minorities, women and the handicapped.

On the other hand, OSTP:

> . . . concluded that it is desirable to have a continuing role for NSF in those programs most closely related to science such as the fellowships or those programs where there is a close tie between science and learning. We expect therefore that the NSF will have a continuing and important role in educational research specifically directed at science, knowledge and understanding for both formal education and in broader education of our citizenry concerning science and technology.

Applying these principles to specific programs produced the following proposal, which for the first time stated the details of the President's plan for disposition of the Science Education Directorate:

Disposition	Millions of dollars
Faculty development, undergraduate programs, minority, women, and handicapped programs, R&D, proposed for transfer.	$56.3
Graduate research training and science and society programs remaining at NSF	$21.3
Total	$77.6

Personnel: Approximatel y 90 transfer, approximately 30 remain at NSF.

In summary, the written record to date states three positions:

- Transfer the whole education Directorate (Rufus Miles, Jr., in *A Cabinet Department of Education);*
- Transfer none of the functions of the Directorate (American Council on Education testimony of March 21, 1978); and
- Transfer part of the functions of the Directorate (administration position as stated by OMB and OSTP on April 14 and 18, 1978). (Among all of these documents, only the OSTP statement presented an extended discussion of the issues.)

The discussion in the following pages is an independent effort to provide a fuller anaylsis of the considerations that would lead to any one of these three possible choices. The following text assesses the possible effects of such reorganization on the Federal educational R&D programs, and graduate science and engineering activities.

The Functions of the Science Education Directorate

The content and magnitude of the programs of the NSF Science Education Directorate are shown in table 1, which is derived from the President's budget proposal for fiscal year 1979.

Criteria for Deciding to Transfer Programs

The basic issue is the standard one encountered in all reorganization proposals: what concepts and missions of Government are to serve as the guiding, primary principles for organization? When NSF was established and as it has evolved, science has been considered as a valid central organizing principle. Now, education has become a relatively more significant

Table I.—Possible Effects of Federal Educational R&D Programs and Graduate Science and Engineering Activities

Program description	FY 1979 Budget request (in millions)
Advanced scientific training, and minorities, women, and the handicapped in science	**$17.3**
Fellowships and traineeships, predoctoral and postdoctoral.	14.8
Minorities, women, and handicapped in science	2.5
Science and society	**5.4**
Public understanding of science.	2.4
Ethics and values in science and technology	1.3
Science for citizens.	1.7
Science education R&D and information dissemination	**12.7**
Research in science education	3.9
Development in science education	7.8
Information dissemination	1.0
Support for college and secondary school students and teachers	**12.5**
Secondary school student science training	2.3
Faculty improvement	10.2
Institutional support	**29.7**
Comprehensive assistance to undergraduate science education	14.9
Minority institutions science improvement.	5.0
Resource centers for science and engineering.	2.8
Undergraduate instructional improvement. ...,	7.0
Grand total	**$77.6**

function, and the relative importance of science and education as principles guiding the organization of the Federal Government have to be worked out. The question is whether the set of functions relating to science, and performed by NSF, should redivided in order to form a more unified set of educational functions in a new Department of Education.

The advantages and disadvantages of transfer noted in the OSTP testimony should be borne in mind. They and other relevant considerations can be stated in the form of questions.

1. Importance of a New Department

- What relative weight should be given to establishing a well-rounded new department as contrasted with maintaining the quality and continuity of operating programs?

2. *What Relative Weight Should be Given to the Conflicting Values of Pluralism and Coherence?*

- Should pluralistic maintenance of programs in the same field in a number of agencies be given greater weight if there is a greater component of experimentation in the program? or,
- Should coherence—consolidation of programs in the same field in one agency-be given greater weight if there is greater significance to the building of a new administrative structure and administration of programs which have relatively fixed guidelines?

3. *The Education and Science Environments*

- Will the program flourish best in an atmosphere colored by education or by science?
- Is the program primarily an education program with an incidental science content, or the reverse?
- Is the program directed at professional educators or professional scientists?
- Should educators or scientists have the primary voice in the development, administration, and evaluation of the program?
- Can the optimum mix of educational and scientific influences be attained best in NSF or in a new department?

4. *Quality and Effectiveness of Programs*

- What relative weight should be given to the past effectiveness of programs in their current setting as contrasted with the potential effectiveness in a new setting?

5. *Administrate Considerations*

- Are circumstances such that the function can be administered most efficiently in NSF

or in a new department?

- What attention will be paid to the function at the top of the agency?
- What are the prospects for budgetary support?
- Where are the best people available to administer and advise on the program, currently and in the future?

6. *Political Considerations*

- What political and administrative costs and benefits are generated by transferring programs or by keeping them in NSF?

For several reasons, it is difficult to produce fully persuasive answers to most of these questions. Different persons and groups are inclined to put different weights on various criteria. For example, those who place great weight on the potentialities of a new department for infusing all of education at the Federal level with new leadership and ideas, and for achieving a new coherence for education in the Federal structure incline to favor transfer of most or all of the functions of the Science Education Directorate. Those who place great weight on the need for leadership and scientists, participation of the scientific community, and national competition on the basis of quality recommend that none or few of the functions be transferred.

The structure of the new department is not known yet and it maybe created without detailed specifications. Clear choices are hard to make because it is not known how the transferred functions would fit into the administrative structure of a new department, and hence, whether they would have relatively high or relatively low status, visibility, and access to power. Finally, the quality of potential leadership in a new department is unknown. The administration has recognized the significance of such questions. The OSTP testimony noted that:

> There are many details to be worked out effectively and we are committed to help in this regard to ensure that programs are transferred effectively and that they receive prominence and attention in the Department of Education. Clearly, science programs within a Department having so many elements need to be carefully organized. A broadly based Department would facilitate the type of functional organization that is desirable. This Office will participate in planning and effecting transfers of science education programs to assure an orderly transition.

The Meaning of "Transfer"

Transfer of the functions of the Science Education Directorate can mean amendment of the National Science Act to remove the authority of NSF to conduct activities of the type transferred to a new department, or it can mean transfer of money, people, and current activities to a new department while leaving the NSF statutory authority intact. The primary advantage of the latter course is that it provides flexibility. If functions were transferred to a new department it would be advantageous in some cases to carry on complementary activities in NSF. For example, OSTP pointed out that a new department might not be able to do everything that ought to be done in science education, but that, "the safeguard is that NSF would retain its current broad statutory authority for support of science education." In case things went poorly in the new department, the existence of basic statutory authority in NSF would permit retransfer of functions.

There would appear to be no advantages to be gained by repealing the statutory authority of NSF to carry out transferred functions.

SPECIFIC PROGRAMS

Advanced Scientific Training, Minorities, Women, and the Handicapped in Science

The fellowship and traineeship portion of the program of the Science Education Directorate was initially the sole NSF activity in the educational area. It developed during the 1960's when there was a clear and urgent need to provide a strong Federal stimulus to the training of scientists for an expanding national research program and for an expanding system of higher education. Now there are not general shortages of scientists, although there are specific foreseeable needs of some magnitude. The fellowship and traineeship item (including programs for women, minorities, and the handicapped) now comprises only about 25 percent of the total budget of the Science Education Directorate. Using the argument that a Federal stimulus to the production of scientists is no longer an urgent priority warranting a

separate program in NSF, the program could be transferred to the new department and administered as a segment of a broader fellowship program.

However, there are considerations which argue for continued administration of the fellowship and traineeship program by NSF. For example, the relationships between research and requirements for academic staff on the one hand and the flow of highly trained scientists and engineers continues to be complex, dynamic, and impossible to predict with precision. These characteristics of the system make it important to link support of basic research with fellowships and traineeships in science and engineering. In addition, the Nation needs a central point where attention is paid to the content of graduate and postdoctoral education, to future supply and demand, to the interrelationships between research and graduate education, and to the quality of graduate and postdoctoral programs in the sciences. Another significant consideration is that there are still specific shortages that can be best detected and relieved if the education and training program is closely linked to the research function. Finally, the traineeship and fellowship program of NSF is designed not to improve general access to higher education as a social imperative, but to sustain the quality of personnel in fields of direct significance to NSF and to symbolize the national interest in sustaining high quality in graduate education in the sciences.

All in all, there seems to be no more reason to transfer the NSF trainee and fellowship programs than to transfer similar programs conducted by other agencies, such as NIH.

The case for keeping the $2.5 million program for minorities, women, and the handicapped in NSF is short and powerful. Every major agency of the U.S. Government should be sensitive to and involved with the national effort to do away with discrimination, and the most direct way to do this is to have a specific program directed to that end. The new department will not need the small NSF program to expose it to all aspects of affirmative action or to demonstrate its commitment to doing away with discrimination.

The case for transfer is also short and powerful. Recall that the OSTP testimony stated:

> Consolidating those Federal educational programs aimed specifically at improving access of minorities, women, and the handicapped will emphasize the administration's commitment to alleviating problems of inequity and discrimination in education.

Science and Society

Science and technology play an influential role in most aspects of modern life and a dominant role in many fields. The power of science and technology make it important that the public at large understand the essential nature of science and technology, and that the power of science and technology be used with a sense of responsibility and within an ethical framework that provides appropriate guides and constraints. Attention to these matters is a proper concern of the Federal Government, and the concern is made concrete by the group of NSF activities called science and society, funded at a level of $6 million.

These NSF programs are educational in a very broad sense and could therefore be considered as a logical part of a new department.

On the other hand, the relationships between science and society can best be pondered and studied in the context of scientific and technological activities. Strong links between philosophers, social scientists, biological and physical scientists, and engineers are necessary for effective study of the relationships among science, technology, and society. These links can be forged more effectively in an atmosphere where science rather than education is the dominant theme. The role of science in society is changing. NSF should be both aware of the change and, to a degree, an agent of change. The programs under consideration serve this purpose. Accordingly, NSF has urgent and continuing interests in pursuing these matters, whereas no such stimulus would appear to exist in a Department of Education.

Questions of ethics and values and of public understanding of science involve sensitive issues, which are best approached with oversight provided by independent, informed advisors. The National Science Board performs this function.

It has been recommended that the public understanding of science program within the science and society program be divided; the formal education component moving to the new department and the science policy and broader educational component remaining. It's likely that

32-519 0 -78-4

such division would weaken both aspects. The program was designed to provide the public with information about science and to draw upon the scientific expertise available to NSF.

Finally, there does not appear to be a function or program in a Department of Education into which these NSF activities would fit easily.

Science Education R&D

The Nation needs a broadly based, intellectually vigorous, well-financed, well-directed, and well-advised research program on the important and intractable problem of understanding the learning process. The potentiality of developing such a program would exist in a new Department of Education, and this is one of the reasons for establishing a department. Transfer of the NSF science education R&D programs would add specialized talent, funds, and an informed constituency to the broader effort in the new department. If the program were transferred it would obviously be placed in the National Institute for Education (NIE), which is designed to foster such efforts.

To be useful, the products of research and development on science and education have to be disseminated. NSF has concentrated on research, and its efforts at dissemination have not been outstanding. Indeed, there is a statutory bar to dissemination of curricula by NSF. Accordingly, the dissemination function could be performed better by a department with the propensity, skills, and resources to mount large-scale dissemination programs.

However, there are countervailing considerations which argue for leaving this program in NSF. First, there is a possibility that the gains outlined above would not be realized. NIE has encountered difficulties which have not been entirely overcome. The transfer might well impair the effectiveness of the NSF programs rather than elevate the level of the NIE activity. In addition, the NSF program for science education R&D has been of high quality and, within the areas selected for emphasis, a success. The curriculum development efforts have been clearly superior to those sponsored by the Office of Education. The people involved in the programs have been national leaders. There is much to be said for maintaining diverse approaches to education R&D because the complexity and experimental nature of the subject makes different appreaches desirable. The training curricula developed by the Department of Defense and the language-training curricula and teaching methods developed by the Department of State are other examples of successful specialized efforts.

If program effectiveness, quality, and maintenance of diversity are given primary weight, the case for leaving the program in NSF is strong.

Support for College and Secondary School Students and Teachers

The NSF faculty improvement program, funded at a proposed level of $10.2 million, has a long record of success. Utilizing such devices as summer workshops led by experienced scientist teachers, the quality of science instruction in schools and colleges has been upgraded.

Similarly, the $2.9 million program for secondary school science training has been productive in identifying and encouraging talented young high school students to choose science majors in college.

The strength of the case for transferring these programs to a new department depends heavily upon decisions as to priorities among NSF missions. There is continuing tension between the doctrine that support of the best science is the central role of NSF and the doctrine that improvement of science education at the secondary and college level is an important goal. While the research support goal—and particularly support of basic research—remains the central mission of NSF, a moderate investment in science education is good for the country and good for NSF. More pragmatically, administration of these programs broadens the political support base of NSF beyond the scope of the relatively few institutions with investigators who claim the majority of research funds. From NSF's perspective it would be deleterious to lose a program that serves a wider community.

But even if science education below the graduate level is accepted as an important NSF function, two questions remain. How well can NSF perform the function as compared with a new

Department of Education, and how well might each of the agencies support the function?

Divorcing such programs as improvement of secondary school science training and science faculty professional development from NSF could have serious adverse consequences for the quality of the programs. One of the strengths of these programs as administered by NSF is that they have effectively involved a number of groups of scientists. The participation of high school science teachers, undergraduate teachers, active research scientists, and others expert in theories of learning and teaching have brought unprecedented spark and quality to these efforts. This has not happened to the same degree in similar programs sponsored by the Office of Education, and transfer of the NSF programs to a new department poses a clear danger that the productive, imaginative NSF approaches would be submerged and flattened out. The history to date of efforts along these lines in the Office of Education does not provide grounds for optimism.

However, it is not certain that transfer would have such adverse consequences for these programs. A major reason for establishing a new department is to attract a new and diverse group with fresh ideas as both staff and advisers.

Moreover, the case for transfer is strengthened by the fact that these programs are not closely linked to the research and graduate education mission of NSF.

This suggests that other grounds be explored as the basis for decision, and two candidates appear. One is the desirability of providing a broad base for the new department. Inclusion of a mandate to design and administer programs for science education would bring an interesting, vigorous, and important activity into the department. The generally accepted doctrine that each department in the executive branch should have a scientific component applies to the new department. On these grounds, transfer of the science education activity of NSF would be called for.

The second criterion is administrative feasibility and efficiency. Given the complexity, magnitude, political sensitivity, and social significance of the problems to be solved as a new department concentrates upon the attainment of equal **access** to postsecondary education and to equity **in** sharing the cost of postsecondary education, it would be prudent to avoid taking on additional tasks of an essentially peripheral character, particularly if they are being well-performed elsewhere. It would be unfortunate if transfers into the new department were made to give the appearance of a comprehensive department at the expense of the quality of performance of significant programs. On these grounds, the function would be kept in NSF.

The decision rests on the weight to be given to the various criteria.

Institutional Support

NSF now administers a group of programs that have as a common objective provision of resources to upgrade undergraduate science teaching. These programs are: comprehensive assistance to undergraduate science education, minority institutions, science improvement, undergraduate instructional improvement, and resource centers for science and engineering.

The case for leaving these programs in NSF rests primarily on the grounds that NSF has served a valuable innovative function, has nurtured the programs effectively, administered them well, and secured increasing budgetary support.

On the other hand, there are solid reasons for transferring the function. Of all the functions of the Science Education Directorate, it is the most remote from the central research and graduate education mission of NSF. Conversely, these programs would fit into related programs for institutional support that would be carried on by a new department.

With respect to both the programs for science education R&D and programs for institutional support, prospects for future financing in both NSF and the new department have to be weighed. Looking first at NSF, it is clear that these two programs are far from the top of NSF priorities. Given the immediate urgency of many lines of investigation of the highest scientific significance that are inadequately funded, and of unmet needs for research related to pressing national problems, it seems unlikely that long-range goals for better secondary school and college education in science will be given high priority by NSF. The fact that these programs would be part

of a department with a budget in excess of $12 billion might well make it possible to increase the appropriation substantially if this seemed desirable in competition with other important activities. On the other hand, there is no assurance that this would actually happen. Given the set of priorities facing a new Department of Education, the likelihood of sustained top-level attention to and budgetary support for a small program of secondary and college science education seems remote. The new staff may be more than fully occupied with matters of greater significance in the hectic months that are an inevitable phase of the establishment of a new Federal department.

AN ALTERNATIVE APPROACH POSTPONEMENT OF TRANSFER?

There is an alternative to immediate transfer of programs. That is, programs can be left in NSF for the time being and the question of transfer can be reconsidered later. This is the course that has been recommended by the administration for the National Foundation on the Arts and Humanities for its own programs:

> We recommend against the inclusion of the Arts and Humanities Endowments in S. 991 at this time. We believe, however, that the option of transferring these programs should be reserved for future consideration.

The statement went on to outline why transfer is not recommended at this time:

> Locating the endowments and most education programs within the same department offers opportunities to enhance the quality and diversity of American education. A close alliance between the arts, culture, and education could foster new ways for learning to take place,
>
> On the other hand, elimination of the independent status of the Endowments might significantly alter their existing missions, reduce their visibility, and undermine the effectiveness of their advocacy role.

Analogous considerations apply to the programs of the NSF Science Education Directorate, and the central question is the weight that they should be given. A further factor to be considered is the difficulty of assimilating and effectively administering a substantial number of small programs during the period of stress and confusion that seems to be inevitable when a large Federal Cabinet department is created.

However, there is a rejoinder to this proposal:

1. Once a major Cabinet department is established, it is difficult to transfer programs thereafter.
2. The NSF programs are so small in the context of a new department that the increment of administrative problems created by their immediate transfer, even during a hectic period, would be minor.

EDUCATIONAL RESEARCH AND DEVELOPMENT FUNCTIONS TRANSFERRED FROM HEW

Apart from the question of the implications for science and technology of transfers to a new Department of Education from agencies other than HEW, there are some important considerations relating to the status in a new department of educational research and development now conducted in HEW.

All of the reports' on a new department and all of the bills introduced thus far properly stress such matters as advice to the President on long-range goals and priorities, policies to foster the development of educational resources, conduct of surveys to collect, analyze, and disseminate relevant information, and provision of leadership by conducting studies and making recommendations to facilitate the continuing development of the American educational system. (See, for example, See, 6, *Functions* of S. 991, A Bill to Establish a Department of Education.) There is, in addition, the function of investigating the educational process itself. Effective performance of these functions requires a strong analytical and research capability in the department. This in turn necessitates an appropriate administrative structure.

Three kinds of analytical and research functions can be distinguished.

COLLECTION AND ANALYSIS OF EDUCATIONAL STATISTICS

The National Center for Educational Statistics (NCES) carries primary responsibility for collection and analysis of educational statistics. NCES is a unit reporting to the Secretary of HEW, and it would become a part of any new department. The primary problem to be solved here is to secure funds and staff adequate to give the Nation statistical information that is—to take a rough but usable measure—as complete and useful as that available in the health field. Currently the resources for collection and analysis of statistics are 2 to 3 times as plentiful in health as in education even though total national expenditures for education—$120 billion in 1976—almost equal those for health—$140 billion.

Table 2.—Resources for Health and Educational Statistics

	Staff		Appropriation (in millions)	
	No.	Index	Amt.	Index
National Center for Educational Statistics.	180	100	$14	100
National Center for Health Statistics	550	300	$34	240

This disparity will not be redressed unless there is a stronger administrative voice for education, and for the research function as part of the educational enterprise. The National Center for Educational Statistics should be transferred to the department, and its independence from any operating division should be retained. It should be responsible to a high official in the department. For example, Senator Pen's bill, S. 991, provides for an Assistant Secretary for Evaluation and Planning, and others have advocated that such a position be established. This Assistant Secretary would be the appropriate official to supervise and protect NCES, and to ensure that it is responsive to the needs of those whom it would serve both within and outside the department.

The same goal should be sought if the chosen route is strengthening of the education function in HEW rather than establishment of a new department.

ADMINISTRATIVE RESEARCH

A second analytical and research function is to improve administrative efficiency. Creation of a new Department of Education would require an intensive analytical effort on the distribution of functions, allocation of staff functions, the organization of the Office of the Secretary, lines of authority and responsibility, etc., while the details of the new organization were being worked out. A continuing program of analysis

will be required to keep the administrative structure and process well-tuned. There should be a central point of guidance, stimulus and, to some degree, performance of this function near the top of any new department. Most proposals and most students of organization advocate that an Assistant Secretary for Administration be named by statute. For example, Senator Pen's bill S. 991, proposes an Assistant Secretary for Administrative and Management Policy. The same goal should be sought for administrative research if there is an elevation of the status of education within HEW rather than creation of a new department. That is, establishment of a position of Assistant Secretary for Administration, or a post of comparable rank, to deal with administration of the enhanced education component of HEW.

RESEARCH ON EDUCATION

The third kind of research and analysis is concerned with the process of education itself—how people learn and how the learning process can be made more effective. This includes, among other things, curriculum development, and learning technology. This kind of research is also concerned with structures and processes for education, the management and organization of education, the financing, and the economics of education. This kind of research in HEW is centered in NIE. All of those who have considered the matter agree that the entire Education Division, including NIE, would become a part of any new Department of Education.

As far as organizational shifts are concerned, the desirability of transferring the science education activities of the Science Education Directorate of NSF to a new department, and specifically to NIE, has been analyzed above. If the National Foundation on the Arts and Humanities were transferred, it also would seem desirable to place their educational development activities in NIE.

Improvement and diffusion of learning technology would be an important aspect of science and technology in a new Department of Education. In fact, the opportunity to exploit more effectively such techniques as satellite communication, educational TV through the use of broadcast and cable, computer-assisted learning, and museum exhibits and demonstrations is one of the soundest reasons for setting up a Department of Education. However, the strengthening of these activities will depend primarily upon the firmness with which the techniques are advocated, the attitude of Congress towards funding, and the technical administrative and political skill of those who will operate the programs. Structural problems appear to be minor, and few, if any, transfers of functions from agencies other than the Education Division of HEW are called for.

If general policies and specific lines of research are to be chosen wisely in this most difficult area, NIE must retain its semiautonomous status and it would have to have high status within a new department. One sound way to ensure this status is to make the Assistant Secretary for Research (or for Evaluation, Planning, and Research) also the Director of NIE. It would not seem adequate to have NIE report to an Assistant Secretary.

In conclusion, the needs in research on education are substantive as well as structural. The report of the National Academy of Sciences to the National Institute of Education, Fundamental Research, and the Process of Education (Washington, D. C., 1977) states the central problem:

> The application of science and technology to improve education is of great importance. On the whole, however, we believe that the Federal Government has adopted policies that encourage superficial and wasteful research that has the appearance of relevance but lacks the substance of general principles. We recommend a significant redistribution of emphasis toward more fundamental research in education and toward a more measured approach to education R&D of all kinds. (p. 66.)

SHOULD A NEW DEPARTMENT OF EDUCATION BE CREATED?

This report centers on the effects of establishment of a new Department of Education on the R&D function, and thus assumes, as the basis of that analysis, that such a department may come into being. However, another aspect of the effects of a new department on the R&D functions should be considered. That is, could potential effects upon R&D arising from the creation of a new department be either so favorable or so adverse as to constitute significant arguments for or against establishment of a department? (Recall that a large Department of Education and Science that would include the entire NSF is not under discussion at this point. If such a department were seriously considered, the effects of reorganization upon the R&D function would be a central issue.)

To answer this question, the significance of the effects of creation of a new department on the R&D function must be put in the context of the important issues to be decided before a department is created. Some of the central questions are these;

1. Would a Department of Education be so small as to complicate rather than simplify the tasks of the President?
2. Would secondary education dominate a Department of Education?
3. Would the harm done by disagreements over what should be in a department outweigh the potential benefits from reorganization?
4. Is education as the focus for a new department more urgent than health or income maintenance?
5. Would creation of a Department of Education lead to the assumption of increasing power by the Federal Government over education?

In comparison with such questions, the potentially positive or negative effects of creation of a new department on the R&D function are minor and the case for or against a new department should be made with subsidiary attention to potential effects upon the R&D function.

If a department is not created, most of the functions performed by the NSF Science Education Directorate and the educational R&D functions performed by HEW will continue to be performed well. There is a very strong case for reorganizing HEW to lift the status of education and to create clear lines of authority and responsibility if a new department is not created.

HEW'S EDUCATION DIVISION

It is worthwhile considering briefly the Office of Education programs that the programs of the NSF Science Education Directorate would join in a new department. There are 44 substantial programs in OE.[6] They deal with student support, institutional support, and professional enhancement. The major groups of OE programs have little to do with each other. They do not form an integrated whole. None of them are specifically directed at science or science education. Therefore transfer would not represent completion of a logical scheme, nor would the NSF programs be integrated with the diverse OE programs. Rather they would form a fourth program segment, unrelated to the other three.

'The following are now in HEW's Education Division: Basic Opportunities Grants; Supplemental **Opportunit**, Grants; Work Study; Direct Loan Programs; Incentive Grants for State Scholarships; Special Programs for the Disadvantaged; Developing Institutions Program; Language Training & Area Studies; University Community Services; Aid to Land Grant Colleges; State Postsecondary Education Commissions; Veterans Cost of Instruction; Cooperative Education; Construction Grants & Interests; Intercultural Centers; College Teacher Fellowships; Graduate/Professional Opportunities; Legal Training for Disadvantaged; Public Service Fellowships; Mining Fellowships; Law School Clinical Experience; Wayne Morse Chair of Law & Politics; Library Resources; Metric Education; Gifted & Talented; Community Schools; Careet Education; Consumer Education; Women's Educational Equity Arts in Education; Packaging & Dissemination of Education's TV Programming; Teacher Corps; Teacher Centers; Planning & Evaluation; Guaranteed Student Loan Program; Health Professions Loan Program; Facilities Education Loan & Insurance; Research and Development-Dissemination & Resources; Basic Skills; Education & Work; Finance & Productivity; School Problem-Solving Educational Equity; Postsecondary Improvement-Extending Educational Opportunity & Improving Programs in personnel and instruction; Extending Resources Beyond Campuses; Lifelong Learning; Educational Statistics; Statistical Services; Institute for Museum Services; Educational Policy Research Centers; Support for Advisory Councils.

A DEPARTMENT OF EDUCATION AND SCIENCE

Research and development functions of the Federal Government would be fundamentally affected by a new Department of Education only if the concept were modified to establish a Department of Education and Science. This would involve shifting the entire National Science Foundation (and perhaps some other science activities) to the new department, and a large-scale redistribution of some current functions of HEW. One possibility along this line has been put forward in a report of the Carnegie Council on Policy Studies in Higher Education, *Federal* Reorganization Education and Scholarship (March 1977, p. 9). The Council proposed transferring the income-maintenance functions of HEW to the Labor Department to create a Department of Labor and Human Resources, splitting off the health functions of HEW and concentrating health functions from other agencies to form a Department of Health, and creating a Department of Education and Science by drawing together educational functions from other departments and shifting NSF to the new department. Other configurations such as a Department of Education, Health, and Science, can be easily imagined. The Carter administration has not proposed any such fundamental changes. The problems of designing a relatively simple and modest Department of Education are so difficult that there is no inclination at present to take on the additional political and administrative complexities of fitting together a Department of Education and Science, and of working out the disposition of the health and income maintenance functions of HEW.

It also seems clear that serious initiatives along these lines will apparently not originate in Congress in the absence of a proposal from the administration.

There are powerful reasons for not shifting NSF to a Department of Education and Science. There are also powerful arguments for not shifting the scientific activities of other agencies to a Department of Education and Science. In addition to the fundamental desirability of attaching an appropriate research and development activity to each major Federal department, there is the pragmatic consideration that centralization would put "too many eggs in one basket" in the appropriation process. These considerations are well summarized on pages 69-71 and on pages 100-101 in the Miles report. '

Nevertheless, continuing attention to the ***pros*** and cons of such large-scale shifts can contribute to pending decisions by exposing alternatives which will raise considerations relevant to the current debate. For example, the Carnegie Council, after reviewing the advantages of large-scale shifts of functions, came to the conclusion that, "We are doubtful of the need to create a new Cabinet-level Department of Education. " (page 2). These reasons were given: (1) such a department would be small; (2) education will be an area of relative stability as compared with such fields as energy, health care, and income maintenance; (3) creation of such a department would imply that the Federal Government is assuming basic responsibility for education; and, (4) a department of this kind might give more attention to elementary and secondary education than to higher education.

'Rufus Miles, Jr., A Cabinet Department of Education, monograph published by the American Council on Education, 1976, Wash., D.C.

CONCLUSIONS

This report considers in depth the considerations bearing upon transfer of all or part of the Science Education Directorate of the National Science Foundation to the new Department of Education as proposed by Senator Pen's S. 991. Representatives of the scientific and the academic communities have been skeptical about the wisdom of transferring any of the functions of the Directorate; OMB and the White House have supported transfer of ,those functions that are not closely linked to graduate training and research.

This analysis suggests that the wisdom of transferring each program within the NSF Science Education Directorate be evaluated separately, and the criteria suggested are:

1. How important is building up the new department versus maintaining successfully operating programs?
2. How will the goal of the program be affected by being housed in the new department?
3. What is the present quality and effectiveness of the programs versus their potential increased or decreased performance in a new setting?
4. What are the political and administrative considerations involved with transfer and subsequent smoothness of operation?
5. How important is the continued involvement of the scientific community?

The desirability of building a new department that is comprehensive, well-rounded, and capable of forming a highly integrated educational system must be weighed against the value of pluralism—allowing educational programs to exist in a number of agencies when the educational function is closely and productively linked to other functions such as research, defense, or foreign affairs.

THE NSF SCIENCE EDUCATION DIRECTORATE PROGRAMS

Five programs in NSF's Science Education Directorate must be considered. OMB'S plan would transfer $56.3 million of NSF's fiscal year 1979 budget of $77.6.

Advanced Scientific Training, Minorities, Women, and the Handicapped in Science

This program constitutes 25 percent of the Science Education Directorate's budget. It can be argued that there is no more reason to transfer this program than to transfer the analogous program at the National Institutes of Health. It is likely that such functions would be more efficiently performed by NSF—the agency involved in research and advanced training. Most informed observers agree. The OMB plan does not suggest that this program be moved.

Science and Society

This program has several components, all aimed at increasing the public's understanding of science. Most of these efforts are aimed at informal education of all age groups outside of school. However, formal education is also supported. The informal education function could be considered the responsibility of NSF and not appropriate to a department concerned with education rather than science. The administration proposal recommends that the program should be split, with formal educational activities moving to the new department. NSF contends strongly that it should be deeply involved with the social effects of science and that transfer would weaken both programs by taking them out of a scientific environment.

Science Education Research and Development

This R&D function is aimed at understanding the learning process. This is clearly within the purposes of the new department and would increase its knowledge and expertise in the area. Ideally this topic would be studied in depth and results widely disseminated. At present this is a high-quality program and transfer might undermine the strong professional support that now characterizes the program. Diversity of approach to this important problem is encouraged by support through NSF. The National Institute of Education would be enhanced by this NSF project but it would lose the prestige and strength of NSF

oversight. The administration proposes transfer in order to build a coherent new structure.

Faculty Improvement

Because this is a faculty improvement program not related to research or graduate training, it is a strong candidate for transfer. NSF fears that improvement of the capacity of teachers to teach science would be weakened and that the broad institutional base of the program productively balances the properly elitist base of the NSF research program.

Institutional Support to Upgrade Undergraduate Science Teaching

This program could logically be transferred because of its remoteness from the central research and graduate education mission of NSF. Transfer of the five subareas (1) assistance to undergraduate science education; (2) minority institutions; (3) science improvement; (4) undergraduate instructional improvement; and (5) resource centers for science and engineering would strengthen the new department's higher education division. The effectiveness of the program might decline if it were taken out of a setting where broad participation of scientists is assured,

IS POSTPONEMENT THE COURSE?

No one knows precisely what transition problems a new department would face, but they will be severe. No one can assess how well it will work or its importance in higher education. For these reasons it has been suggested that no functions should be transferred from NSF until the proposed Department of Education has been established and takes definite shape. The wisdom of transfers could then be more firmly assessed. The transfer of the National Endowment on the Arts and Humanities has been postponed on this basis. The argument is equally valid for the NSF functions.

ANALYTIC AND RESEARCH FUNCTIONS

Three kinds of analytic and research functions should be performed by a new department: (1) collection and analysis of educational statistics; (2) administrative research; and (3) research on education. The National Center for Educational Statistics in HEW should be transferred, fortified, and made to report directly to the appropriate Assistant Secretary. Administrative efficiency could be improved through an analytic and research function reporting directly to an Assistant Secretary for Administrative and Management Policy. Finally, HEW's National Institute of Education now conducts research on education and it should be a part of the new department.

APPENDIX

APPENDIX

95TH CONGRESS
1ST SESSION

S. 991

IN THE SENATE OF THE UNITED STATES

MARCH 14 (legislative day, FEBRUARY 21), 1977

Mr. RIBICOFF (for himself, Mr. MAGNUSON, Mr. HUMPHREY, Mr. PELL, Mr. NUNN, Mr. ALLEN, Mr. BARTLETT, Mr. BAYH, Mr. BELLMON, Mr. CHILES, Mr. CHURCH, Mr. CLARK, Mr. CRANSTON, Mr. DECONCINI, Mr. DOMENICI, Mr. EAGLETON, Mr. FORD, Mr. HART, Mr. HEINZ, Mr. HOLLINGS, Mr. INOUYE, Mr. JACKSON, Mr. KENNEDY, Mr. MCGOVERN, Mr. MATSUNAGA, Mr. MELCHER, Mr. MUSKIE, Mr. PEARSON, Mr. RANDOLPH, Mr. SASSER, Mr. SPARKMAN, Mr. STAFFORD, Mr. STONE, Mr. WEICKER, and Mr. WILLIAMS) introduced the following bill; which was read twice and referred to the Committee on Governmental Affairs

A BILL

To establish a Department of Education, and for other purposes.

Be it enacted by the Senate and Howe of Representatives of the United State of America in Congress assembled,

That this Act may he cited as the "Department of Education Act of 1977".

PINDINGS AND PURPOSES

SEQ. 2. The Congress finds that—

(1) education is of fundamental importance to the Nation and it is appropriate to reassess the condition of

education in our Nation to insure that all Americans have an equal opportunity for quality education;

(2) existing Federal programs in support of education are fragmented and often duplicative and should be better coordinated in order to promote quality education:

(3) the role and importance of education increases as our society becomes more complex and new technologies and advancements are developed to meet changing needs;

(4) public policy toward education is vital to the present and long-range interests of the United States;

(5) education must be broadly conceived in terms of all those forces, institutions, and agencies which function as educating influences in the United States; goals and institutions should be enhanced; and

(6) it is essential therefore to establish a Department of Education to provide Federal leadership, to insure effective enforcement of equal opportunity legisin.tion in' education, to weigh and consider major educational policy issues confronting the Nation, and to facilitate a continuing renewal of the educating institutions and policies of the United States.

DEPARTMENT' OF EDUCATION ESTABLISHED

SEC. 3. There is established an executive department which shall be known as the Department of Education (hereinafter referred to as the "Department").

OFFICERS

SEC. 4. (a) The Department shall be administered by a secretary of Education (hereinafter referred to as the "Secret/~ly"), who shall be appointed by the President, by and with tilt' advice and consent of the Senate, and who shall receive compensation at the rate prescribed for level I of the Federal Executive Salary Schedule under section 5312 of title 5, United States Code. The Department shall be administered under the supervision and direction of the Secretary.

(b) There shrill be in the Department an Under Secretary of Education who shall be appointed by the President by and with the advice and consent of the Senate. The Under Secretary shall perform such duties and exercise such powers as the Secretary shall prescribe. During the absence or disability of the Secretary, or in the event of a vacancy in the office of the Secretary, the Under Secretary shall act as Secretary. The Under Secretary shall receive compensation at the rate prescribed for level III of the Federal Executive Salary Schedule established under section 5314 of title 5, United States Code.

(c) There shrill be in the Department a General Counsel and fonr Assistant Secretaries of Education as follows:

(1) Assistant Secretary of Education for Legislative and Public Affairs;

(2) Assistant Secretary of Education for Administrative and Management Policy;

(3) Assistant Secretary of Education for Evaluation and Planning; and

(4) Assistant Secretary of Education for Intergovernmental Relations.

Each of such Assistant Secretaries shall be appointed by the President, by and with the advice and consent of the Senate. Each such Assistant Secretary shall perform such duties and exercise such powers as the Secretary shall prescribe. During the absence or disability, or in the event of a vacancy in the office of the Secretary or of the Under Secre- W, am Assistant Secretary determined according to such order as the Secretary shall prescribe shall act as Secretary. Each Assistant Secretary and the General Counsel shall receive compensation at the rate prescribed for level IV under section 5315 of title 5, United States Code.

POWERS AND DUTIES OF THE SECRETARY

Sec. 5. (a) The Secretary shall be responsible for the exercise of all functions of the Department, and shall have authority to direct and supervise all personnel and activities thereof.

(b) (1) The Secretary is authorized to appoint and fix the compensation of such officers and employees, and

prescribe their functions, as may be necessary to carry out the purposes and functions of this Act.

(2) The Secretary may obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5, United States Code.

(c) The Secretary may promulgate such rules and regulations as may be necessary to carry out the functions vested in the Secretary or in the Department, and may delegate authority for the performance of any such function to any officer or employee under the Secretary's direction and supervision.

(d) The Secretary shall cause a seal of office to be made for the Department, of such design as the President shall approve, and judicial notice shall be taken thereof.

FUNCTIONS OF THE DEPARTMENT

Sec. 6. (a) It is the principal function of the Department to promote the cause and advancement of education throughout the United States.

(b) In addition to any other function of the Secretary under the provisions of this Act, the Secretary is authorized to—

(1) advise the President with respect to the progress of education, including the recommendation of long-range goals and priorities;

(2) develop and recommend to the President appropriate policies and programs to foster the ordl'rly growth and development of the educational facilities and resources of the Unitcd States especially in the light of long-range requirements;

(S) exercise leadership at the direction of the President in coordinating Federal activities affecting education;

(4) conduct continuing comprehensive surveys, and to collect, analyze, and disseminate relevant information, data, and statistics, concerning education in the United States;

(5) provide information and such other assistance as may be authorized by the Congress to aid in the maintenance of efficient school, college, and university or other education systems;

(6) encourage comprehensive planning by State find local governments, especially with respect to coordinating Federal, State, and community educational activities at the local level; and

(7) provide leadership by conducting studies, making recommendations, and administering discrctionary programs to facilitate the continuing development of the American educational system.

TRANSFER OF FUNCTIONS AND AGENCIES

Sec. 7. (a) There are transferred to the Secretary, all functions of the Secretary of Health, Education, and Welfare or the Commissioner of Education, as the case may be-

(1) with respect to and being administered by the Secretary through the Education Division of the Department of Health, Education, and Welfare;

(2) with respect to and being administered by the Secretary through the Office of Child Development of the Department of Health, Education, and Welfare regarding Headstart;

(3) any advisory committee in the Department of Health, Education, and Welfare giving advice to and making recommendations which concern education primarily;

(4) under section 394 of the Communications Act of 1934; relating to Federal grants for the construction of television and radio broadcasting facilities to be used for educational purposes;

(5) with respect to and being administered by the Secretary through the Office of Civil Rights for the enforcement of those provisions of law and education orders which apply to educational institutions, including title VI (insofar as it relates to educational financial

assistance) and titles VII and IX of the Education Amendments of **1972** and Executive Order 11246 (insofar as it pertains to employer's holding Federal contracts in education) ;

(G) with respect to all functions of the National Foundation on the Arts and the Ilumanities including all functions of the National Endowment for the Arts and all functions of the National Endowment for the Humanities;

(7) with respect to all Federal laws concerning the relationship hetween Gallaudet College, Howard University, and American Printing House for the Blind, and the Department of Health, Education, and Welfare;

(8) with respect to the operation of schools for dependents of members of the Armed Force by the Secretary of Defense;

(9) with respect to the operation of schools for Indian children being administered by the Secretary of the interior through the Bureau of Indian Affairs;

(10) with respect to the National School Lunch Act, and the operation of the Graduate School, being administered by the Secretary of Agriculture:

(11) with respect to title IV of the Housing Act of 1950 relating to college housing, being administered by

(12) with respect to and being administered by the Director of the National Science Foundation, the Education Directorate.

(b) In any case where all of the functions of any agency or office are transferred pursuant to this Act, except any committee transferred under subsection (a) (3) of this section, such agency or office shall lapse.

(c) All officers, employees, assets, liabilities, contracts, records, property, leases, obligations, and commitments and unexpended balances of appropriations, allocations, and other funds which the Director of the Office of Management and Budget determines are to be employed, held, or used primarily in connection with any office, agency, bureau, foundation, or function transferred under the provisions of this Act, we hereby transferred to the Department.

ADDITIONAL, TRANSFERS

SEC. 8. The President is authorized to transfer to the Department of Education any other agency or instrumentality of the Federal Government which the President determines has functions relating to education and should be transferred to the Department of Education to promote effciency in Government and to carry out the purposes of this Act. Such transfers shall incorporate, to the extent decmed desiralble, the recommendations of the Federal Interagency Committee on Education as provided by section 12 (c) and

shall be completed within one hundred and eighty days after the date of enactment of this Act. A report describing such transfers shall be submitted to the Congress *not* later than thirty days thereafter.

TRANSFERRED PERSONNEL

SEC. 9 Each officer or employee of the United States or any department or agency thereof who is transferred at any time to the Department of Education shall be deemed, effective as of the date of such transfer, to be an officer or employee of the Department. No reappointment of any such officer or employee shall be required because of his transfer to that Department. Except as otherwise specifically provided by this section, no such officer or employee shall be reduced in rank, grade, seniority, or rate of compensation because of any such transfer.

PROVISIONS OF LAW APPLICABLE TO THE DEPARTMENT

SEC. 10. Except to the extent inconsistent with this Act, all provisions of law applicable to the executive departments generally shall apply to the Department.

REDESIGNATION OF THE DEPATMENT OF HEALTH, EDUCATION, AND WELFARE

SEC. 11. (a) The Department of Health, Education, and Welfare is hereby redesignated the Department of Health and Welfare, and the secretary of Health, Edu-

cation, and Welfare is hereby redesignated the Secretary of Health and Welfare.

(b) Any reference to the Department of Health, Education, and Welfare or the Secretary of Health, Education, and Welfare in any other law, rule, regulation, certificate, directive, instruction, license, or other official paper in force on the effective date of this Act shall be deemed to refer and apply to the Department of Health and Welfare and the Secretary of Health and Welfare, respectively.

FEDERAL INTERAGENCY COMMITTEE ON EDUCATION

SEC. 12. **(a)** There is hereby established a Federal Interagency Committee on Education (hereinafter referred to in this Act as the "Committee").

(b) The Committee shall study and make such recommendations as may be necessary to assure effective coordination of Federal programs affecting education, including—

(1) development of Federal programs in accordance with the educational goals and policies of the Nation;

(2) consistent administration of policies and practices among Federal agencies in the conduct of similar programs;

(3) full and **effective communication** among Federal agencies to avoid unnecesary duplication of activities with respect to education;

(4) adequate procedures for the availability of information on educational matters requested by the Secretary;

(5) recommendations for the improvement of Federal programs for the purpose of aiding students in their transition from school to work; and

(6) full and effectivc cooperation with the Secretary on sicj studies and analyses as are necessary to carry out the purpose of this Act.

(c) The Committee shall, within 90 **days** of the cnactment of this Act or the appointment and qualification of all Committee members, whichever is earlier, reconmend to the President the transfer of such additional responsibilities as may be appropriate.

(d) The Committee shall be composed of the Secretary, who shall be the Chairperson, and one appropriate representative of each of the following agencies: The Department of State, the Department of Defense, the Department of Agriculture, the Department of Commerce, the Department of Labor, the Department of Health and Welfare (as redesignated by section 11 of this Act), the Department of Housing and Urban Development, the National Science Foundation, the National Aeronautics and Space Administration. The

1 Committee shall also include the Chairpersons of the National 2 Endowment for the Arts, and the National Endowment for 3 the Humanities of the Department.

4 (e) The Chairperson may invite Federal agencies, in 5 addition to the agencies which are represented on the Com- 6 mittee under the provisions of subsection (d) of this section, 7 to designate representatives to participate in meetings of the 8 Committee on matters of substantial interest to such agencies 9 which are to be considered by the Committee.

10 (f) The Director of the Office of Management and 11 Budget, the Chairperson of the Council of Economic Ad- 12 visers, and the Executive Director of the Domestic Council 13 may each designate a staff member to attend meetings of 14 the Committee as observers.

15 (g) The Committee shall meet at least six times in 16 each year and shalI prepare an annual report to the Secretary 17 concerning its recommendations.

18 (h) Each Federal agency which is represented on the 19 Committee under the provisions of subsection (d) of this 20 section shall furnish necessary assistance to the Committee 21 in accordance with section 214 of the Act of May 3, 1945 22 (31 U.S.C. 691).

23 NATIONAL ADVISORY COMMISS1ON OX EDUCATION

24 SEC. 13. (n) There is established a National Advisory 25 Commission on Education (hereinafter referred to as tho

1 "National Commission") composed of fifteen members 2 appointed by the President, by and with the advice and 3 consent of the Senate, from among individuals—

4 (1) who have a demonstrated commitment, in 5 public or private industries or organizations, for the 6 enhancement and development of the educational needs 7 and goals of the Nation;

8 (2) who have competence in assessing the progress 9 of educational agencies, institutions, and organizations 10 in meeting those needs and achieving those goals; and

11 (3) who are experienced with the policies or ad- 12 ministration of State and local educational agencies and 13 of insitutions of higher education.

14 Members shall be appointed for terms of three years, except 15 that (A) in the case of initially appointed members, as 16 designated by the President, five members shall be appointed 17 for terms of one year, five members shall be appointed for 18 terms of two years, and five members shall be appointed for 19 terms of three years, and (B) any member appointed to 20 fill a vacancy shall serve the remainder of the term for 21 which the member's prrdecessor was appointed.

22 (b) The National Commission shall–

23 (1) assist the Secretary in the formulation of Fed- 24 eral policy with respect to the appropriat, role of the 25 Federal Government in each action;

(2) review the administration of, general regula-tions for, and operation of Federal education programs;

(3) advise the Secretary and other Federal officials with respects to the educational needs and goals of the Nation and assess the progress of the renewal of appropriate agencies, institutions, and organizations of the Nation in order to meet those needs and achieve those goals;

(4) conduct objective evaluations of specific education programs and projects in order to ascertain the effectiveness of such programs and projects in achieving the purpose for which they are intended;

(5) make recommendations (including recommendations for changes in legislation) for the improvement of the administration and operation of Federal education programs;

(6) consult with Federal, Nate, and local and other education agencies, institutions, and organizations with respect to assessing education in the United States and the improvement of the quality of education, including-,

(A) areas of unmet needs in education, national goals, and changing education priorities, and the means by which those areas maybe met, developed, and achieved;

(B) specific means of improving the quality

and effectiveness of teaching, curriculums, and educational media and of raising standards of scholarship and levels of achievement;

(7) conduct national conferences on the assessment, improvement, and renewal of education, in which national and regional education associations and organizations, State and local education officers and administrators, and other edumtion-related organizations, institutions, and persons (including parents of children participating in Federal educational assistance programs) may exchange and disscminate information on the improvement of education;

(8) conduct, and report on, comparative studies and evaluations of education systems in foreign countries; and

(9) advise and assist in the coordination of all I!'edcral eilucatioual advisory committees, councils or commissions.

(c) The National Commission shall make an annual report, and such other reports as it deems appropriate, to the President and to the Cpmgress, concerning its findings, recommendations, and activities.

(d) In carrying out its responsibilities under this sec**tion, the National Commission shall take, together** with the Secretary, whatever action is necessary to carry out section

448 of the General Education Provisions Act, to devise a manageable and effective advisory structure for the Department. The National Commission shall advise the Secretary on the number of advisory bodies that are necessary and the manner in which such bodies relate to one another. The National Commission shall consult with the National Advisory Council on the Education of Disadvantaged Children, the National Advisory Council on Education Professions Development, the National Council on Education Research, and such other advisory councils and committees as may be appropriate to carry out its functions under this subsection. All Federal agencies are directed to cooperate with the National Commission in carrying out its functions under this subsection.

(c) The National commission is authorized to procure such technical assistance as may be required to carry out its functions and the secretary shall, in addition, make available to the National commission such secretarial, clerical, and other assistance and such pertinent data prepared by the Department as the National Commission may require to carry out its functions.

(f) Members of the National Commission who are not in the regular full-time employ of the United States shall, while attending meetings or conferences of the National Commission or while otherwise engaged in the business of

the National Commission, be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding the rate specified at the time of such service for grade GS-18 under section 5332 of title 5, Unitcd States Code, including traveltime, and while so serving on the bus-mess of the National Commission away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for persons employed intermittently in the Government service.

(g) The president shrill nominate members to the National Commission not later than thirty days after the date of enactment of this Act.

OFFICE OF THE INSPECTOR GENERAL

SEC. 14. (a) As used in this section—

(1) the term “Inspector General” means the Inspector General of the Department;

(2) the term “Deputy” means the Deputy Inspecter General of the Department; and

(3) the term “Federal agency" means an agency as defined in section 552 (e) of title 5, United States Code, but shall not be construed to include the General Accounting Office.

(b) There is hereby established in the Department an Office of Inspector General.

(c) There shall beat the head of the Office an Inspector General who shall be appointed by the President, by and with the advice and consent of the Senate, solely on the basis of integrity and demonstratcd ability and without regard to political affiliation. The Inspector General shall report to and be under the general supervision of the Secretary or, to the extent such authority is delegated, the Under ,Secrctroy, but shall not be under the control of, or subject to supervision by, any other officer of the Department.

(d) There shall also be in the Office a Deputy Inspertor General appointed by the President, by and with the advice and consent of the Senate, solely on the basis of integrity and demonstrated ability and without reguard to political affiliation. The Deputy shall assist the inspector General in the administration of the Office and shall, duriug the absence or temporary incapacity of the Inspector General, or during a vacancy in that office, act as Inspector General.

(c) The Inspector General or the Deputy may be removed from office **by the president.** The President shall communicate the reasons for any such removal to both Houses of Congress.

(f) The Inspector General and the Deputy shall each be subject to the provisions of subchapter III of chapter 73,

title 5, United States Code, not withstanding any exemption from such provisions which might otherwise apply.

(g) It shall be the duty and responsibility of the inspector General—

(1) to supervise, coordinate, and provide policy direction for auditing and investigative activities relating to programs and operations of the Department;

(2) to recommend policies for, and to conduct, supervise, or coordinate other activities carried out or financed by the Department for the purpose of promoting economy and efficiency in the administration of, or preventing and detecting fraud and abuse in, its **programs** and operations;

(3) to recommend policies for, and to conduct, supervise, or coordinate relationships between, the Department and other Federal agencies, State and local governmental agencies, and nongovernmental entities with respect to (A) all **matters relating to the promotion** of economy and efficiency in the administration of, or the prevention and detection of fraud and abuse in, programs and operations administered or financed by the **department, or (B) the identification** and prosecution of participants in such fraud or abuse; and

(4) to keep the Secretary and the Congress fully and currently informed, by means of the reports re-

quired by subsection (i) and otherwise, concerning fraud and other serious problems, abuses, and deficiencies relating to the administration of programs and operations administered or financed by the Department, to recommend corrective action concerning such problems, abuses, and deficiencies, and to report on the progress made in implementing such corrective action.

(h) In carrying out the responsibilities specified in subsection (g) (1), the Inspector General shall have authority to approve or disapprove the use of outside auditors or to take other appropriate steps to insure the competence and independence of such auditors.

(i) In carrying out the duties and responsibilities provided by this section, the Inspector General shall give particular regard to the activities of the Comptroller General of the United States with a view to avoiding duplication and insuring effective coordination and cooperation.

(j) The Inspector General shall, not later than March 31 of each year, submit a report to the Secretary and to the Congress summarizing the activities of the Office during the preceding calendar year. Such report shall include, but need not br limited to-

(1) identification and description of significant of **significant, problems, abuses,** and deficiencies relating to the administration of programs and operations of the Department disclosed by such activities;

(2) a description of recommendations for corrective action made by the Office with respect to significant problems, abuses, or deficiencies identified and described under paragraph (1) ;

(3) an evaluation of progress made implementing recommendations described in the report or, where appropriate, in previous reports; and

(4) a summary of matters referred to prosecutive authorities and the extent to which prosecutions and convictions have resulted.

(k) The Inspector General shall **make reports on a** quarterly basis to the Secretary and to the appropriate committees or subcommittees of the Congress identifying any significant problems, abuses, or deficiencies concerning which the Office has made a recommendation for corrective action and on which, in the judgment of the Inspector General, adequate progress is not being made.

(l) The Inspector General shall report immediately to the Secretary and to the appropriate committees or subcommittees of the Congress whenever the Office becomes aware of particularly serious or flagrant problems, **abuses,** or deficiencies relating to the administration of programs and operations of the Department. The Deputy and Assist-

ant Inspectors General shall have particular responsibility for informing the Inspector General of such problems, abuses, or deficiencies.

(m) The Inspector General (A) may make such additional investigations and reports relating to the administration of the programs and operations of the Department as are, in the judgment of the Inspector General, necessary or desirable, and (B) shall provide such additional information or documents as may be requested by either House of Congress or, with respect to matters within their jurisdiction, by any committee or subcommittee thereof.

(n) Notwithstanding any other provision of law, the reports, information, or documents required by or under this section shall be transmitted to the Secretary and the Congress, or committees or subcommittees thereof, by the Inspector General without further clearance or approval. The Inspector General shall, insofar as feasible, provide copies of the reports required under subsections (j) and (k) to the Secretary sufficiently in advance of the due date for their submission to Congress to provide a reasonable opportunity for comments of the Secretary to be appended to the reports when submitted to Congress.

(0) In addition to the authority otherwise provided by this section, the Inpector General in carrying out the provisions of this section, is authorized—

(1) to have access to all records, reports, audits, reviews, documents, papers, recommendations, or other material available to the Department which relate to programs and operations with respect to which the Inspector General has responsibilities under this section;

(2) to request such information or assistance as may be necessary for carrying out the duties and responsibilities provided by this section from any Federal, State, or local governmental agency or unit thereof;

(3) to require by subpena the production of all information, documents, reports, answers, records, accounts, papers, and other data and documentary evidence necessary in the peformance of the functions assigned by this section, which Subpena, in the case of contumacy or refusal to obey, shall be enforceable by order of any appropriate United States district court;

(4) to have direct and prompt access to the Secretary when necessary for any purpose pertaining to the performance of functions and responsibilities under this section;

(5) in the event that a budget request for the Office of Inspector General is reduced, before submission to Congress, to an extent which the Inspector General deems seriously detrimental to the adequate performance

of the functions nabdated by this section, the Inspector General shall so inform the Congress without delay;

(6) to select, appoint, and employ such officers and employees as may be necessary for carrying out the functions, powers, and duties of the Office subject to the provisions of title 5, United States Code, governing appointments in the competitive service, and the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates;

(7) to obtan services as authorized by section 3109 of title 5, United States Code, at daily rates not to exceed the equivalent rate prescribed for grade GS-18 of the General Schedule by section 5332 of title 5, United States Code;

(8) to the extent and in such amounts as may be provided in advance by appropriations Acts, to enter into contracts and other arrangements for audits, studies, analyses, and other services with public agencies and with private persons, and to make such payments as may be necessary to carry out the provisions of this section.

(p) (1) Upon request of the Inspector General for k-**23 formation** or assistance under subsection (o) (2), the head 24 of any Federal agency involved shall, insofar as **is practicable,**

and not in contravention of any existing statutory restriction, or regulation of the Federal agency from which the information is requested, furnish to the Inspector General, or to an authorized designee, such "reformation or assistance.

(2) Whenever information or assistance requested under subsection (o) (1) or (o) (2) is, in the judgment of the Inspector General, unreasonably refused or not provided, the Inspeotor General shall report the circumstances to the Secretary and to the appropriate committees or subcommittees of the Congress without delay.

(3) In the event any record or other information requested by the Inspector General under subsection (o) (1) or (o) (2) is not considered to be available under the provisions of section 552a(b) (1), (3), or (7) of title 5, United States Code, such record or information shall be available to the Inspector General in the same manner and to the same extent it would be available to the Comptroller General.

(q) The Secretary shall provide the Inspector General and his stall with appropriate and adequate office space at central and field office locations of the Department, together with such equipment, office supplies, and communications facilities and services as may be necessary for the operation of such offices, and shall provide necessary maintenance

serviees for such offices and the equipment and facilities located therein.

(r) (1) The Inspector General shall receive compensation at the rate provided for level IV of the Executive Schedule by section 5315 of title 5, United States Code.

(2) The Deputy shall receive compensation at the rata provided for level V of the Executive Schedule by section 5316 of title 5, United States Code.

(s) There are hereby transferred to the Office of Inspector General the functions, powers, and duties of the Office of Inspector General in the Department of Health, Education, and Welfare established under title II of the Act entitled "An Act to authorize conveyance of the interests of the United States in certain lands in Salt Lake County, Utah, to Shriners' Hospitals for Crippled Children, a Colorado corporation," approved October 15, 1976 (90 Stat. 2429) which the Director of the Office of Management and Budget determines to be principally involved in education.

(t) The personnel, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds employed, held, used, arising from, available or to be made available, of any office or agency the functions, powers, and duties of

which are transferred under subsection (s) are hereby transferred to the Office of Inspector General.

(u) Personnel transferred pursuant to subsection (t) shall be transferred in accordance with applicable laws and regulations relating to the transfer of functions except that classification and compensation of such personnel shall not be reduced for one year after such transfer.

(v) In any case where all functions, powers, and duties of any office or agency are transferred pursuant to this subsection, such office or agency shall lapse. Any per**son** who, on the effective date of this section, held a position compensated in accordance with the Executive Schedule, and who, without **a** break in service, is appointed in the Office to a position having duties comparable to those performed immediately preceding such appointment shall continue to be compensated in the new position at not less than **17** the rate provided for the previous position, for the duration of service in the new position.

SAVINGS PROVISIONS

SEC. 15. (a) All orders, determinations, rules, regulations, permits, contracts, certificates, licenses) and privileges-

(1) which have been issued, made, granted, or allowed to become effective in the exercisc of functions which are transferred under this Act, by (A) any

agency or office or part thereof, any functions of which are transferred by this Act, or (B) any court of competent jurisdiction, and

(2) which are in effect at the time this Act takes effect, shall continue in effect according to their terms until modified, terminated, superseded, set aside, or repealed by the Secretary of Education by any court of competent jurisdiction, or by operation of law.

(b) The provisions of this Act shall not affect any proceedings pending at the time this section takes effect before any agency or office, or part thereof, functions of which are transferred by this Act; but such proceedings, to the extent that they relate to functions so transferred, shall be continue before the Department of Education. Such proceedings, to the extent they do not relate to functions so transferred, shall be continued before the agency or office, or part thereof, before which they were pending fit the time of such transfer. In either case orders shall be issued in such Proceedings) appeals shall be taken therefrom and Payments shall be made pursuant to such orders, as if this Act had not heen enacted; and orders issued in any such proceedings shall continue in effect until modified, terminated, superseded, or repealed by the Secretary of Education, by a court of competent jurisdiction, or by operation of law.

(c) (1) Except as provided in paragraph (2)–

(A) the provisions of this Act shall not affect suits commenced prior to the date this section takes effect, and

(B) in all such suits proceedings shall be had, appeals taken, and judgments rendered, in the same manner and effect as if this Act had not been enacted.

No suit, action, or other proceeding commenced by or against any officer in the officer's official capacity as an officer of any agency or office, or part thereof, functions of which are transferred by this Act, shall abate by reason of the enactment of this Act. No cause of action by or against any agency or office, or part thereof, functions of which are transferred by this Act, or by or against any officer thereof in the officer's official capacity shall abate by reason of the enactment of this Act. Causes of actions, suits, or other proceedings may be asserted by or against the United States or such official of the Department of Education as may be appropriate and, in any litigation pending when this section takes effect, the court may at any time, on its own motion or that of any party, enter an order which will give effect to the provisions of this subsection.

(2) If, before the date on which this Act takes effect, any agency or office, or officer thereof in the officer's offical capacity, is a party to a suit, and under this Act-

(A) such agency or office, or any part thereof, is transferred to the Secretary of Education,

(B) any function of such agency, office, or part thereof; or officer is transferred to the Secretary of Education,

then such suit shall be continued by the Secretary of Education (except in the case of a suit not involving functions transferred to the Secretary of Education in which case the suit shall be continued by the agency, office, or part thereof, or officer which was a party to the suit prior to the effective date of this Act).

(d) With respect to any function transferred by this Act and exercised after the effective date of this Act, reference in any other Federal law to any agency, office, or part thereof, or officer so transferred or functions of which are so transferred shall be deemed to mean the department or officer in which such function is vested pursuant to this Act.

(e) Orders and actions of the Secretary of Education in the exercise of functions transferred under this Act shall be subject to judicial review to the same extent and in the same manner as if such orders and actions had been by the agency or office, or part thereof, exercising such functions, immediately preceding their transfer, action upon the record,

relatings relating to notice, hearings, action upon the record, or administrative review that apply to any function transferred by this Act shall apply to the exercise of such function by the Secretary.

(f) In the exercise of the functions transferred under this Act, the Secretary shall have the same authority as that vested in the agency or office, or part thereof, exercising such functions immediately preceding their transfer, and the Secretary's actions in exercising such functions shall have the same force and effect as when exercised by such agency or office, or part thereof.

(g) The Secretary, in addition to the authority to delegate and redelegate contained in any other Act in the exercise of the functions transferred in this Act to the Secretary may delegate any of such functions to such officers and employes of the Department, as the Secretary may designate, may authorize such successive redelegations of such functions as the Secretary may deem appropriate and may make such rules and regulations as may be necessary to carry out functions of the Secretary.

ADMINISTRATIVE PROVISIONS

SEC. 16. (a) The Secretary is authorized to establish a working capital fund, to be available without fiscal year limitation, for expenses necessary for the maintenance and operation of such common administrative services as the

secretary shall find to be desirable in the interest of economy and efficiency in the Department including such services as a central supply service for stationery and other supplies and equipment for which adequate stocks may be maintained to meet in whole or in part the requirements of the Department and its agencies; central messenger, mail, telephone, and other communications services; office space, central services for document reproduction, and for graphics and visual aids; and a central library service. The capital of the fund shall consist of any appropriations made for the purpose of providing capital (which appropriations are hereby authorized) and the fair and reasonable value of such stocks of supplies, equipment, and other assets and inventories on order as the Secretary may transfer to the fund, less the related liabilities and unpaid obligations. **Such** fund shall be reimbursed in advance from available funds of agencies and offices in the Department or from other sources, for supplies and services at rates which will approximate the expense of operation, including the accrual of annual leave and the depreciation of equipment. The fund shall also be credited with receipts from sale or exchange of property and receipts in payment for loss or damage to property owned by the fund. There shall be covered into the United States Treasury as miscellaneous receipts any surplus found in the fund (all assets, liabilities,

and prior losses) considered above the timeouts transferred or appropriated to establish and maintain such fund.

(b) In addition to the authority contained in any other Act which is transferred to and vested in the Secretary as necessary, and when not otherwise available, the Secretary is authorized to provide for, construct, or maintain the following for employees and their dcpcmlcuts stationed at remote localities:

(1) emergency medical services and supplies;

(2) food and other subsistence supplies;

(3) motion picture equipment and film for recreation and training; and

(4) living and working quarters and facilities.

The furnishing of medical treatment under paragraph (1) and the furnishing of services and supplies under paragraphs (2) and (3) of this subsection shrill be at prices **reflecting reasonable** value **as** determined **by** the **Secretary** and **the** proceeds therefrom shall be credited **to** the **appropriation** from which the expenditure **was made.**

(c) (1) The Secretary is authorized to accept. hold, administer, and **utilize** gifts and bequests of property, both real and personal, for the purpose of aiding or facilitating the work of the Department. Gifts and bequests money and the proceeds from sales of other property received as gifts or

bequests shall be deposited in the Treasury in a separate fund and shall be disbursed upon order of the Secretary.

(2) Upon the request of the Secretary the Secretary of the Treasury may invest and reinvest in securities of the United States or in securities guaranteed as to principal and interest by the United States any monies coutained in the fund provided for in paragraph (1). Income accruing from such securities, and from any other property held by the Secretary pursuant to paragraph (1) shall be deposited to the credit of the fund, and shall be disbursed upon order of the Secretary.

(d) Nothing contained in this section is intended to amend, modify, or repeal any provisions of law administered by the Department of Health, Education, and Welfare which authorize the making of contracts for researah.

ANNUAL REPORT

Sec. 17. The Secretary shall, as soon as practicable after the end of (such fiscal year, prepare a report to the President for submission to the congress on the activities of the Department during the preceding fiscal year. Each such report shall also contain objective data regarding changing trends in education, including enrollments, expenditures, numbers of teachers and other categories of professional and related personnel; special needs of critical concern such as the dis-

advantaged, rural, and urban education, and progress made toward the continuing renewal of education; the results and outcomes of education and schooling, including the overall results on generally recognized standard examinations for entrance to undergraduate and graduate institutions; budget projections for five years based on actaul or anticipated appropriations for the fiscal year in which the annual report is issued; recommendations as to the improvement of programs for the handicapped, recommendations with respect to the advisory structure of the Department including the names and composition of advisory committees and connoils and the relationships the committees and councils bear to one another and recommendations as to the elimination of overlapping advisory committees and similar data.

CONFORMING AMENDMENTS

Sec. 18. (a) Section 19 (d) (1) of title 3, United States Code, is amended—

(1) by striking out "Secretary of Health, Education, and Welfare"; and

(2) by inserting before the period at the end thereof a comma and the following: "Secretary of Health and Welfare, Secretary of Education".

(b) Section 101 of title 5, United States Code, is amended—

(1) by striking out "Health, Education, and Welfare." and inserting "Health and Welfare."; and

(2) by adding at the end thereof: "The Department of Education.".

(c) Section 5312 of title 5, United States Code, is amended—

(1) by striking out

"(10) Secretary of Health, Education, and Welfare

and inserting in lieu thereof

"(0) Secretary of Health and Welfare.";

(2) by striking out "(13)" and inserting in lieu thereof "(14)"; and

(3) by inserting immediately after

"(12) Secretary of Transportation."

the following:

"(13) Secretary of Education.".

(d) Section 5314 of title 5, United States Code, is amended—

by striking out

"(6) Under Secretary of Health, Education, and Welfare."

and inserting in lieu thereof:

"(6) Under Secretary of Health and Welfare."; and

by adding at the end thereof the following:

"(62) Under Secretary of Education.".

(e) Section 5315 of title 5, United States Code, is amended—

( ) by striking out "Assistant Secretaries of Health, Education, and Welfare 5)" and inserting in lieu thereof the following: "Assistant Secretaries of Health and Welfare (4)";

(2) by striking out "General Counsel of the Department of Health, Education, and Welfare." and inserting in lieu thereof the following: "General Counsel of the Department of Health and Welfare."; and

(3) by adding at the end thereof the following:

"(4) Assistant Secretary of Education for Legisla ive and Public Affairs.

"(5) Assistant of Education for Administrative and Management Policy.

"(116) Assistant Secretary of Education for Evaluation and Planning.

"(117) Assistant Secretary of Education for Intergovernmental Relations.

"(118) General Counsel, Department of Education.

" (119) Inspector General Department of Education.".

EXPENDITURES AUTHORIZED

SEC. 19. The Secretary is authorized to make such expenditures **(including expenditures for personal services and rent at the** seat of government find elsewhere, **for** lawbooks, hooks of reference and periodicals, and for printing and binding) as may be necessary to carry out the provisions of this Act, and as may be provided for by the **Congress** from time to time.

APPROPRIATI0NS AUTHORIZED

Sec. 20. Three are authorized to be appropriated such sums as may be necessary to enable the Department to carry out the **provisions** of this Act and to perform any other **duties which may be** imposed upon it by law.

EFFECTIVE?

SEC. 21. The provisions of this Act shrill be effectve on its date of enactment.

95TH CONGRESS
1ST SESSION

S. 991

A BILL

To establish a Department of Education, and for other purposes.

By Mr. RIBICOFF, Mr. MAGNUSON, Mr. HUMPHREY, Mr. PELL, Mr. NUNN, Mr. ALLEN, Mr. BARTLETT, Mr. BAYH, Mr. BELLMON, Mr. CHILES, Mr. CHURCH, Mr. CLARK, Mr. CRANSTON, Mr. DECONCINI, Mr. DOMENICI, Mr. EAGLETON, Mr. Fore, Mr. HART, Mr. HEINZ, Mr. HOLLINGS, Mr. INOUYE, Mr. JACKSON, Mr. KENNEDY, Mr. MCGOVERN, Mr. MATSUNAGA, Mr. MELCHER, Mr. MUSKIE, Mr. PEARSON, Mr. RANDOLPH, Mr. SASSER, Mr. SPARKMAN, Mr. STAFFORD, Mr. STONE, Mr. WEICKER, and Mr. WILLIAMS

MARCH 11 (legislative day, FEBRUARY 21), 1977
Read twice and referred to the Committee on Governmental Affairs