This paper summarizes the current status of the National Institute of Education (NIE) plans for programs and organization as of the beginning of the 1973 fiscal year. The author considers the purpose of NIE as outlined in the NIE enabling legislation, lists the goals of education, and examines the problems that arise in trying to achieve those goals. Abstracts of specific NIE programs to address educational problems are presented in the areas of information collection and analysis, resource development, educational systems, and directed programs. Some of the programs are described, including home-based education, employer-based education, community participation, post-secondary education, student self direction, increasing the productivity of education, developing new measures for education, and research and development on the implementation of successful NIE programs. The document concludes with a chart and a description of the NIE organizational structure. The functions of the major organizational components are described.
NIE ARCHIVES COLLECTION
DO NOT DISCARD

Planning Status, July 1972.
Harry Silberman.
This paper summarizes the current status of NIE plans for programs and organization. No attempt is made to justify these plans as that is done elsewhere. (1) The purpose here is to provide in a single short statement a complete picture of NIE plans at the beginning of FY '73.

I. Purpose of NIE

The National Institute of Education has been established to help the country carry out its commitment to provide quality education for all its citizens at a reasonable cost. The NIE legislation specified that the Institute shall seek to improve education, including career education, in the United States through:

(A) helping to solve or alleviate the problems of, and achieve the objectives of American education;

(B) advancing the practice of education, as an art, science, and profession;

(C) strengthening the scientific and technological foundations of education; and

(D) building an effective educational research and development system.

(1) See References, page 36
II. Goals of Education

To achieve its purpose, NIE must be able to identify the goals of American education, but in a pluralistic society it is difficult to specify a set of goals with which everyone will agree: a student may expect to learn how to understand and accept himself; parents may expect the school to develop skills and attitudes which will ensure "success" in their children as they reach adulthood and also to provide adequate custodial care during working hours; the community may expect a new school to raise property values; the society may expect education to develop manpower resources to meet demands of production and service; educators may expect professional working conditions and adequate compensation from the system.

Over all such differences, a dominant function of education is to serve an assimilation role by establishing a set of common values which will enhance and maintain a unified and cohesive American society. Foremost among such values are the social goals: to develop a sensitivity to the needs of others; not only others with whom one associates, but others on opposite sides of the earth as well as those on the other side of the tracks. It is also important for people to learn how to learn, to develop the desire for improvement, to be flexible in a rapidly changing world, and to master a range of communication skills. In addition, aesthetic and leisure values are as important as are career goals in a world that is rapidly transferring its useful and productive roles to technology. Education must also equip people with the skills to diagnose social problems and find solutions, to change society where necessary, to rectify serious inequities, and inefficiencies, to hold peers and elected representatives accountable.

The above goals must be translated into appropriate operational contexts if they are to guide the efforts of NIE in promoting the reform and renewal of American education. Then the NIE agenda for NIE must address problems that prevent education from achieving such objectives if the leadership potential the Institute is to be achieved.
III. Problems in Achieving Educational Goals

By absolute standards it is clear that American education is very healthy. A growing percentage of our population is receiving an education; a growing percentage of the GNP is spent on education; instructional staffs have grown while teacher-pupil ratios have declined; illiteracy rates have declined; achievement and aptitude test scores have improved; and a greater number of poorly served students are receiving special help than ever before.

But by relative indicators, using the equality criterion, American education is not so healthy. The programs of the '60's haven't equalized educational achievement. Critics have blamed the schools, the students, the home, and the society for our inability to promote educational equity. We have raised our expectations of how much schooling people should have. Rapid changes in our society, the diminishing role of the home, and changes in the workplace have imposed impossible demands on schools and colleges. Analysts also point to contradictory and shifting goals as part of the problem. For example, we want a very selective, high quality education, but at the same time we call for more equality and egalitarianism; we want the efficiency of centralization and also seek greater local participation through decentralization.

Once we have identified the goals of American education we still face obstacles in achieving them. The problems most frequently cited as obstacles assume the following dimensions:

(1) Access—Though all citizens are expected to enjoy equal treatment in the distribution of public goals and services, the distribution of fiscal resources and the achievement of educational benefits are grossly inequitable.
(2) Participation--The American educational system provides too few opportunities for involvement of concerned parents and citizen groups in decisions that affect their children and has become non-responsive and non-adaptable to the needs of its clients.

(3) Productivity--Educational expenditures have risen faster than growth in the economy and has required increasing effort by taxpayers, but the educational system has been technologically non-progressive.

(4) Substance--Schools and colleges have become increasingly isolated from the mainstreams of society. The substantive content of what is taught too often lacks authenticity, and fails to adequately prepare students for employment.
IV. NIE Programs to Address Educational Problems

The program suggestions that are most often proposed to overcome the above obstacles and alleviate educational problems require that certain factors be changed:

- Laws—Since present educational arrangements are intimately tied to a network of legal obligations and responsibilities, major modifications of the educational system often cannot be undertaken until legal barriers have been removed such as antiquated tax laws, or credentialing laws.

- Incentives—Education can be modified in a fundamental way only if prevailing incentive conditions can be changed to stimulate a demand for improved services.

- Information—Reform of the educational system will require substantial modifications in the quality and quantity of information available to those who must pay for, receive, provide, and guide the development of educational services.

- Agents—The individual purveyors of education services, the media, materials, and settings where education takes place, must be arranged and delivered in new ways if education is to reflect the values and demands of the broader society.
NIE programs call for substantial experimentation with these four variables. Program plans have taken into consideration not only the initial proposals of the President, but also, the deliberations of the Congress on the Institute legislation. They reflect both new initiatives and NIE's responsibility to assume management of certain on-going research and development activities previously supported by the Office of Education.

Before summarizing the NIE program areas it should be noted that research and development will not solve problems in a year or two—or even in a decade. Most certainly a long, sustained effort will be required. In most cases NIE will develop a menu of workable programs available to local option; but such programs can not be certified as the answer to everyone's educational problems. We must not overpromise. The proposed new program initiatives together with the continuation and expansion of on-going programs do, however, represent some first steps in problem solving:

A. They will establish a process for collecting, analyzing and systematizing information in order to identify emerging educational problems and to determine how or whether NIE programs can be of any assistance in their solution.

B. They will continue and expand present efforts to strengthen the country's R&D capability by: supporting vigorous programs of research, supporting special types of institutions, supporting researcher training internships, and providing a continuing source of information about research efforts.
C. They will continue present efforts to improve current practices in the educational system by: supporting the development of curriculum programs and their associated instructional support systems (staff training, management systems, etc.); and supporting experimental schools. They will also launch some new initiatives including: the development of new measures and indicators of progress toward educational goals that are important but not presently being measured, (2) the development of curriculum programs to help people become self directed learners, and (3) the identification of possible technological developments that may be used to increase the productivity of our educational system.

D. They will address major problems with a series of directed programs designed to establish new forms of education making greater use of such resources as the home, the community, and employers in providing education services to people of all ages from young infants to the poorly served clientele at the post-secondary level. One of these directed programs will be devoted to studying obstacles in implementing new forms of education.
V. NIE Program Abstracts

A. Information collection and analysis

If the programs of NIE are to be relevant to the emerging problems of education, a mechanism must be established for sensing and anticipating future problems. NIE must know what students, parents, and taxpayers are thinking about education and must be able to predict acceptability of new programs. It must have a significant information collection and analysis program in order to identify problems, to analyze them and to determine how or whether research, development, or other activities of NIE can solve or alleviate them.

NIE will not duplicate the substantial data collection efforts of the Office of Education, the National Assessment of Educational Progress, the Census Bureau and other agencies. It will, however, supplement such sources - for example, by a program to determine research needs as viewed by educators and citizens and through major longitudinal studies of school, family, and community. It will synthesize and analyze data already available in order to assist decision makers in schools and colleges, communities, States, the Congress, and the Executive Branch. The following paragraphs describe the major information and analysis program activities planned for 1973.

A.1. Needs assessment

The NIE will make decisions about what R&D programs to fund and give advice on educational action to other government and
educational leaders. To do this well, the Institute will need up-to-date information on the state of education, opinions of the population about education, and information on trends that help anticipate changes in society. This up-to-date information should include:

- Data on demographic trends, societal events, and changes in values that might help predict and prevent future problems.

- Surveys of popular attitudes covering what each of the large constituencies of education believe is important, what kinds of programs they prefer, and what problems they are most concerned about.

- Data on educational performance in relation to broad problem areas such as central-city schools, use of resources, and levels of citizen participation in education.

Such information collected by NIE will provide a picture of emerging problems in education areas and will help assure that NIE programs are responsive to national concerns.

A.2 Analysis and program planning

Needs assessment data may reveal problems to be solved, but they do not suggest solutions. The available information on the status of research and development in most fields is organized to provide neither a clear picture of the solutions available nor an unequivocal estimate of their likely effectiveness. The major gap in organization has been the lack of conceptual integration of the thousands of discrete R&D projects that have been completed. Therefore, a second program to synthesize existing R&D knowledge and plan new programs is planned.
There are several important outcomes from such compiling and analysis of R&D findings. Without an explicit effort to organize what we have learned from past R&D efforts, we shall continue to travel the same cul-de-sacs. An institutionalized memory of past failures will conserve NIE resources so that new program plans will be more likely to have a cumulative effect. Another possible outcome of a systematic NIE attempt to synthesize R&D is more realistic advice for legislators and executives at Federal, State, and local levels, who must make decisions on educational policy about solutions that work or do not work. Where solutions to problems are not available, where knowledge gaps prevent analysis and existing R&D activities are not already underway, alternative program plans will be prepared for new NIE research initiatives. Thus, NIE might support directed studies on such topics as school finance, organization reform, or accreditation and certification practices. Longitudinal studies of entire communities might also be undertaken to assess the relative influence of major determinants of educational achievement, e.g., family, mass media, peer culture, employer practices, schooling, etc.
B. Resource development

To achieve NIE's goals will require far more dependable knowledge about the processes of learning and education than now exists or can be expected from present research and development in this field. Unless NIE undertakes a vigorous program to build an effective R&D system and to strengthen the country's R&D capability and resources, there is little possibility of discovering such knowledge. Accordingly, a major portion of NIE funds will be devoted to activities which will (1) add new knowledge and extend the base of existing knowledge, (2) assure an adequate pool of manpower to study education problems in the future years, (3) provide a continuing source of information about research efforts, and (4) support special types of institutions which engage in education research and development. These activities are summarized below.

B.1. Unsolicited research

The National Institute of Education will support proposals which promise to extend our knowledge about education and learning. Such proposals will be received on an "unsolicited" basis from individuals and institutions and approved on the grounds of merit by a peer review system. They will be addressed to identification of the characteristics of students or educational systems and of home, school, and community variables that are important to learning.

They will involve all levels of education and will engage the efforts of many disciplines--such as economics and anthropology--problems. This program can thus play an important role in attracting new talent to research in education and in developing teaching and learning theory.
The unsolicited research is not necessarily tied to any immediate development effort. Individual projects may be large or small and should comprise R&D that is pertinent to the whole of the educational enterprise including education by employers, adult education, preschool education, and education as it proceeds via public television, libraries, and museums.

B.2. Research training

If educational research is to be upgraded, the NIE will have to provide opportunities and inducements to attract and train able young men and women from a variety of disciplines and professional fields. The Office of Education has conducted a program of grants to encourage quality training of educational researchers and research related personnel. The program was originated to meet a need generated by the approximately 30 fold increase in Cooperative Research funds over the past decade together with a shift in emphasis from conventional research studies to large scale development efforts. Individuals completing such training are employed by local State and Federal education agencies, in institutions of higher education, and in public and private research and development organizations.

NIE will complete current Researcher Training commitments, and will continue to support training activities, particularly emphasizing internships and apprenticeships on major R&D problem solving projects. The National Center for Educational Statistics is conducting a study of education R&D personnel and training requirements which will help to guide future NIE activity.
B.3. Communication support system

NIE must establish mechanisms for communication with educational agencies, the general public, and policy makers. New information generated by NIE programs and the results of evaluation studies on effectiveness of programs must be disseminated so that people will know what works, how it works, and under what circumstances. The objective is to improve the ability of decision makers to make informed choices about education services.

Through grants and contracts, this program operates the Education Resources Information Center (ERIC) and supports the preparation of summaries of current knowledge and practices related to education written in non-technical language for use by teachers and other educators.

B.4. Institutional development

Over the past several years, a network of 23 research and development institutions has been established through various efforts of the Office of Education. OE has found that these institutions are now reaching a point where a change in their relationship with the Federal Government is appropriate. That is, although some institutions are new or in a developmental phase, others have reached a level of maturity and expertise that would allow them to compete for program funds from HEW and other sources. Therefore a new Institutional Support Policy is being initiated. Its two main characteristics are:
Those institutions which are still in the developmental phase will continue to receive support as institutions.

Decisions about support of the work of the "mature" institutions will be made on a programmatic rather than on an institutional basis.

This change in approach, on which considerable Office of Education planning and review has already been completed, is consistent with preliminary planning by the National Institute of Education. NIE will look to the labs and centers as major resources for the conduct of its sponsored work, but commitments to support such work will require specific program objectives and specific completion dates. Under this concept, as on-going programs are completed, funds become available for allocation to new programs. A source of institutional support independent of program support will also be reserved for new or developing institutions created in response to national priorities.
C. Educational systems

One of the central purposes of NIE is to improve educational practice. But the American education system is a massive enterprise; decisions are made by 50 State Departments of Education, as well as by city educational systems, and by thousands of school boards, which function, more or less, in independent fashions. Clearly, such a system will not be easy to change. Any suggestion that assumes that desired significant changes can be decreed, bought, or otherwise pushed seems unrealistic. We must elevate the public understanding of education; raise the level of debate as to realistic goals for education; and carry out research and development to meet such goals.

Programs presently conducted by the R&D Centers, the Regional Educational Laboratories, and the Experimental Schools Program are for the most part intended to improve educational practice and will continue to receive the bulk of program support within NIE. In addition, NIE will initiate a limited number of new programs in the Educational Systems Area on topics that have been identified as important. Each of the program areas are described below.

C.1. Instructional development

The purpose of this program is to make the methodology and content of instruction more responsive to student needs. This area continues over the years as the "classic" area of educational R&D, for the needs of students are constantly changing as the values of the society at large change. Two decades ago, for example, developers met public concern about U.S. competition in science by building sophisticated new physics and math courses. Experience gained in this effort demonstrated that problems related to instructional
development and instructional support are so complex and multi-faceted that they require large scale comprehensive efforts if significant progress is to be made toward their amelioration. The Regional Laboratories and Research and Development Centers were initiated to carry out such efforts. When wide-scale testing programs showed an almost shocking lack of achievement in basic skills, the new R&D Centers and Regional Laboratories developed programs to teach reading and math. Several of these programs are now becoming available to practitioners. During the same years that citizens were becoming concerned about basic skills, a strong interest in vocational and practical career education also appeared and programs for vocational education were developed. Finally, many of our current curriculum development efforts reflect the recent humanistic emphasis in education.

The greatest challenge to R&D in instruction now is building curricula for people who face a life of rapid social change in careers and in life styles generally. Students need complex skills to adapt, and they become alienated when instruction seems unnecessary or irrelevant; apathy sets in when schools offer passive learning in a world that seems active. The purpose of 1973 activities in this area is to develop school-based instructional programs that address these current concerns. A variety of programs are supported in areas of academic, career, and social skills, with the major efforts occurring in the Regional Laboratories and the Research and Development Centers.
All programs of the Laboratories and Centers slated for transfer to NIE are undergoing a special review during the spring and summer of 1972. The system for conducting the review has been designed with the assistance of some of the foremost evaluation experts in the country. The general framework of the plan is built on a panel system which stresses selection and orientation of outstanding non-government experts. A Master Panel will oversee the entire operation, give advice on the allocation of funds among major priority areas, and make funding recommendations. Based on the recommendations of the review panel, the NIE will negotiate with the Laboratories and Centers for the purchase of individual programs.

C.2. Instructional support systems

In itself, the instructional development work is insufficient to change educational practice. Improvements are also needed in the procedures used by educators to plan, manage, organize, and evaluate their programs. Improvements are also needed in the procedures for staff recruitment, selection, and development. Therefore NIE will support programs and projects within this area.

One group of programs and projects is directed toward the improvement of organizational structures and processes. Studies are concerned with elements of classroom organization, teacher behavior, and school administration. They are concerned with tools for selection, analysis, and presentation of data for determining educational goals and evaluation of programs.

A second group of programs is directed toward personnel selection and training. The present decline in teacher shortages provides a timely opportunity to develop recruitment, training, and retention policies that will be more sustainable.
educational personnel. For example, one problem with present educational training and certification procedures is that they are not performance-based. While they include a supervised practice teaching experience, the degree and certification are awarded on the basis of credit hours of course work, rather than on the basis of the teacher's having demonstrated an ability to successfully provide learning experiences for students.

A third program has to do with the identification and dissemination of successful practice. Teachers often engage in creative and intuitive practices that result in successful learning for their students. They find activities that motivate because the content is interesting or the presentation makes it fun. They learn how to help students help each other, or where to find new instructional resources in the community. Frequently, though, only the teacher's immediate friends learn about the new idea that works so well, because there is no systematic way to identify and provide information about it to other people. The purpose of this program would be to identify successful examples and provide information about them to policy-makers, educators, students, parents, and the general public.

Like the Instructional Development Area, most programs currently funded in the Instructional Support Systems Area are operated by the Regional Laboratories and Research and Development Centers. They will be reviewed during the summer of 1972 as part of the assessment program described in the section above on the Instructional Development Program. Most will be completed as originally planned or in modified form, allowing for approximately level funding in FY 1973.
C.3. Experimental schools

The Experimental Schools program provides a unique opportunity for five-year testing of comprehensive alternatives to present educational practices, procedures, and performance. By supporting a limited number of large-scale comprehensive experiments with a major focus on documentation and evaluation, Experimental Schools will serve as an effective bridge from research, demonstration, and experimentation to actual educational practices.

In addition, for research to be carried into practice, the practitioner needs a form of documentation and a type of evaluation data that can only be gathered through far more extensive efforts over longer periods of time than is now common. Such evaluation and documentation is an integral component of and represents a major program commitment of Experimental Schools.

This program will continue to monitor and support operational projects already started and will select for support five new projects in FY '73.

C.4. New initiatives

In FY '73, new starts in the area of educational systems will include programs designed to:

. Develop new measures for education
. Promote student self-direction
. Increase productivity of educational institutions

Each of these is described briefly below.
New measures. The measures most widely used in our educational institutions are intended to assess intelligence and certain limited areas of academic achievement. Students, parents, and teachers have in recent years complained, often vigorously, that these measures:

- Discriminate unfairly against minority groups who do not share the majority cultural background of those who prepare the tests.
- Do not measure accomplishment in problem-solving, aesthetics, social relationships and emotional maturity—areas of increasing importance for our society.
- Do not provide any means of measuring either the effectiveness or the efficiency of our educational institutions.

This program will attempt to produce techniques of measuring these variables, such measures that will provide data:

- On which to base resource allocation.
- For credentialing purposes.
- For measuring student progress in important areas not now being measured.

Self-directed education. When most students leave school, they do not know how to use the basic academic and problem-solving skills they have learned in school. They cannot easily direct and continue their own education; but must return for yet another teacher-led class if they want to learn more. The purpose of this program is to examine current techniques to make students more independent in learning and to combine and adapt those techniques into an integrated over-all program of instruction.
Specifically, the program will attempt to devise instructional techniques and materials that will:

- Allow educators to more nearly match an individual student's learning style and interests with his instructional program.
- Permit the student to explore actively those subjects of interest to him, thereby increasing his motivation to learn.
- Develop the student's ability to continue his education independently after leaving formal institutions of education.

**Productivity.** The productivity of our educational institutions is a matter of widespread concern in the profession and among the public. Throughout the nation, taxpayers have demonstrated a reluctance to pay more for education while at the same time demanding an increase in the quality and variety of educational services. The purpose of this program is to develop a technology for providing more and better educational services at moderated costs: that is, improving educational productivity.

Each of these new areas will begin with exploratory analysis in 1973. By the end of the fiscal year development efforts will begin in one or more of them.
D. Directed Programs

The NIE legislation specifies that the new agency shall address major problems in education. This section describes a category of directed programs to address fundamental problems that have not yielded to solutions involving improved schooling. These programs are intended to produce new and distinctly different forms of education. These forms will make greater use of such resources as the home and family, the community, and employers in providing education services to people of all ages. One such program will study the obstacles to implementing new forms of education. Projected activities in this area for FY '73 include:

- Exploration of the possibility of Home-Based Education, including development of home learning centers where small groups of children come to learn together at a neighbor's home.

- Continued development of the Employer-Based Education model, designed to give students a variety of learning experiences in settings provided by public and private employers.

- Development of alternative means of increasing individual and Community Participation in determining what kinds of educational services are offered to which clients.

- Development of Post-Secondary Alternatives that will make it easier for the adult student to gain access to the particular set of services he requires.

- Continued Research and Development on Implementation of successful products of the research and development activities of the Institute.
D.1. Home-based education

Recent evidence suggests that alternative programs for education in the home might have substantial impact on what students can accomplish later on in school. For example, Mostellar and Moynihan (1972) have just published a reanalysis of the Coleman data, confirming the importance of out-of-school influences on learning; success of parent-tutoring programs of several Regional Laboratories; and learning gains made by children who watch Sesame Street, show that carefully designed programs for education in the home can produce significant student gains; finally, studies of early learning suggest that developing ways to help mothers help their own children may be effective in improving education. Even when mothers work, data reported by the White House Conference on Children show that overwhelmingly their choice for child care is another home. Yet, educational research has thus far focused on ways to improve education in institutions rather than homes. To fill this gap, NIE will explore ways of complementing current education by making use of home learning centers in neighborhoods and expanding efforts in the home-based career education model that was begun in USOE.

During the coming year, the NIE will review current efforts relating to home-based education, including those sponsored by other agencies such as OCD, and will design and implement a major comprehensive program to support education in the home. Though identification of program components will require further study, there is likely to be a need for developing educational experiences for small groups of children who learn together in homes, for measures of social and physical development of children in such
home learning centers, for ways to select and train parents who will be most successful in such teaching situations, and for ways to coordinate home and school learning experiences so they become a total educational program.

D.2. Employer-based education

The primary thrust of this program is to integrate schools with society; to open our economic institutions, from large bureaucratic corporations to local post offices and real estate agencies, and give them an explicit role in education. All students would participate, not just a selected group. Part of the motivation for this program is to expose learners to a broader sample of authentic career role models: adults who are mathematicians, company managers, expert accountants, lawyers, architects, salesmen, etc. This may be especially important for female students whose contact with women career models has been highly constrained to the "female" occupations: nurse, teacher, housekeeper. Few female accountants, engineers, or business executives are found among the ranks of elementary school teachers.
More specifically, the purposes of the R&D effort in employer based education are to:

- Provide career experiences to students at employer's sites.
- Increase the variety of adults in different career roles available as models to students.
- Give students access to accurate career information.
- Facilitate recurrent cycles of education and employment in adult life.

During the next year, the NIE will review current efforts relating to employer-based education including the employer-based consortia and the residential project at Glasgow, Montana, established by USOE's Career Education Task Force. Though identification of program components will require further study, many of the elements contained in the R&D program section of the USOE Task Force on Career Education and subsequently presented in A Research and Development Agenda for the National Institute of Education April 15, 1972, by the NIE Planning Unit, will be pursued in this program.
D.3. Community participation

The purpose of this program is to explore alternative means of organizing and governing education to provide more opportunity for individuals and groups to choose the kind of education they want for themselves and their children. Its object is to find improved mechanisms for attaining the traditional objective of local control of education.

Americans have always preferred a system of locally controlled education in order to assure that its education institutions would be responsive to the wishes of the people of the individual neighborhoods and municipalities. Recently, however, many observers have noted a surprising uniformity among schools across the nation; data from the Coleman report on Equality of Educational Opportunity tend to confirm this observation. As the institutions become more alike, the population is becoming more diverse in its educational values and aspirations. Individual citizens in the cities, the suburbs, and in rural areas voice a rising frustration at their inability to get the kind of educational services for themselves and their children that they want.

Several unique experiments in control of local education exist, like voucher systems and performance contracting, which attempt to improve mechanisms for decision-making. NIE will review these and other relevant development efforts. Based on this review and extensive consultation with both experts in the field and educators at the state and local levels, the NIE will design and initiate a program to explore the effectiveness of alternative methods of providing better opportunities for individuals and groups to choose the kind of education they want for themselves and their children.
D.4. Post-secondary alternatives

In the case of post-secondary education, as with elementary and secondary education, there is a remarkable uniformity among the institutions, and a corresponding inability to respond to particular needs of individual students in a flexible manner. It is difficult for the wage-earner to get advanced education without abandoning his job, difficult for the self-educated to obtain credentials that recognize his accomplishments, difficult for the mother to continue her education when her children are young, difficult for any student to gain a degree without taking coursework that is irrelevant to his objectives, and difficult for the badly prepared student to enter the mainstream of academic studies. This program is addressed to the needs of these and other people who require options in post-secondary education that are not now available.

Efforts in Fiscal 1973 will be devoted to a careful analysis of the state of post-secondary education and selection of program components that fill needs in the area. Among other efforts, the Institute will explore problems in "unbundling" higher education into discrete components—provided by both the public and private sectors.
Research and development on implementation

The purpose of this program is to develop and test alternative methods of promoting implementation of successful products of the research and development activities of the Institute. Traditional dissemination, represented by mailings of brochures or films from federal sources, the State education agency, or even a local superintendent's office, simply does not satisfy the needs of local educators who want to implement new programs to improve instruction. There are at least two approaches that seem likely to assure more success. One is to provide direct personal contact with individuals who know where and how to obtain the information or technical assistance needed by local educators.

The experience of the Cooperative Extension Service of the Department of Agriculture in helping farmers adopt improved practices and technology demonstrates the importance of person-to-person communication. A system of educational Extension Agents to work the same way will be developed and tested.

The second, and perhaps the most important effort, will be to promote changes in the incentives for local educators to innovate. Educators, like any other people, must function in a system that rewards innovative behavior before they will make an effort to locate and implement proven innovations. When such systems are in place, it becomes important to make certain that new materials and techniques are easily obtained at a reasonable cost in money, time, and effort.
During 1973 this program will expand the Educational Extension Agent program and design a rigorous program for its evaluation. In addition, it will explore the use of incentives and new delivery systems. Current experiments with new systems will be examined and analyzed to identify techniques that are most promising and to determine whether programs that have failed have flaws that can be overcome.
VI. NIE Organization

The Education Amendments of 1972 established an Education Division in the Department of Health, Education, and Welfare. The Education Division will be headed by an Assistant Secretary for Education and will report to the Secretary. The Division will be composed of the NIE and the Office of Education.

A proposed interim NIE organization is shown in Figure 1. It has the following major educational units:

- National Council on Educational Research
- Director's Office
- Office of Policy, Planning, and Evaluation
- Bureau of Resource Development
- Bureau of Educational Systems
- Bureau of Directed Programs
- Bureau of Administrative Services

This is a programmatic organization that reflects the R&D plan described in earlier sections of this paper and follows the purposes described in the NIE legislation. The functions of each of the organizational units are briefly summarized below.

1. National Council on Educational Research

The council will conduct an annual review of the status of educational research and development, recommending policy for educational R&D to the President, Congress, the Secretary of HEW, and the Director of NIE. It will guide the activities of the Institute and will play a strong advocacy role for the NIE programs. The council will consist of 15 members appointed by the President and confirmed by the Senate. Other ex-officio members who are officers of other government agencies will also be designated by the President to serve on the council.
Figure 1

NIE Organization
2. Director's Office

The Director of NIE is the chief administrative officer for the agency and is responsible for providing national leadership in educational research and development. He will preside over a cabinet consisting of his Deputy and the heads of the major organizational units that report to him. The cabinet will assist the Director in making decisions about NIE activities in the context of the policy guidance provided by the National Council and by the Administration as interpreted by the Assistant Secretary.

3. Office of Policy, Planning, and Evaluation

This unit will provide the staff support for decision making by the Director and his cabinet. It has four primary functions: Policy Analysis, Program Planning, Program evaluation, and Management Planning.

A. Policy Analysis

An important share of NIE's attention should be devoted to broad policy issues related to education. Much of this work may be done intramurally as part of a "think tank" operation in which senior staff on temporary leave from their home institutions spend their time at NIE in an attempt to synthesize what is known about crucial issues and make recommendations to governmental officials on matters pertaining to education. This function also includes the needs assessment activities mentioned earlier in section V.A.
B. Program Planning

Major new program initiatives must be carefully planned and be exposed to a systematic approval process to avoid duplication and program fragmentation and to provide for public acceptance. Staff members may be assigned to program planning for a period. If their program plans are approved by the Director and cabinet, these people would be assigned to work on the new program in one of the operating bureaus, thus maintaining continuity between planning and program implementation.

C. Program Evaluation

To provide for objectivity, the evaluation function in NIE should be separated from day-to-day program monitoring. The evaluation function makes comparisons among programs and contributes information necessary to budget allocation decisions. The monitoring function, on the other hand, is nurturant and the staff responsible for daily contact with the grantees and contractors naturally identify with "their" programs and serve as advocates. Mixing the evaluation and nurturant roles tends to perpetuate weak programs and consequently these functions should be separated. The operational branches will manage programs and the evaluation branch will independently assess them.
D. Management Planning

The recommendations for new programs that emerge from the policy analysis and program planning functions and the recommendations for revising ongoing programs that emerge from the evaluation function, must be merged and integrated with available financial resources in the form of alternative NIE budget proposals for decision by the Director. In addition, once an NIE budget proposal is approved, management information must be collected to keep track of progress on the major programs of the Institute. This function will also include liaison with OMB and HHS and will evaluate the internal management of the Institute.

4. Bureau of Resource Development

This Bureau would be responsible for helping to strengthen the country's R&D capability. It would serve four of the functions specified by legislation: to increase knowledge through research; to support the training of educational R&D personnel; to support the development of institutions devoted to educational R&D, and to disseminate knowledge that results from R&D. This Bureau would develop R&D resources in the form of knowledge, personnel and institutions necessary for improving education. The functions described in section V.B. will be performed by this Bureau.
5. Bureau of Educational Systems

This Bureau would be responsible for helping to improve educational practice in the American education system, one of the purposes of NIE that is specified in the legislation. It would include much of the work currently being conducted in Regional Research Laboratories and in R&D Centers. It would also include the work currently being performed under the Experimental Schools Program. In addition some new initiatives will be explored for future support. The functions of this Bureau are summarized in Section V.C.

6. Bureau of Directed Programs

The Education Amendments Act authorizes NIE to undertake activities to promote the reform and renewal of American education. The function of this Bureau is to produce new and distinctly different forms of education. This bureau will operate somewhat differently from the other Bureaus; it will take a more active role in implementing program plans and directing the work of contractors. It will conduct mission oriented R&D to address major problems. The functions of this Bureau are summarized in section V.D.

7. Bureau of Administrative Services

This Bureau would perform the functions related to Personnel, Contracts, finance and General Services. For these functions, NIE will make use of existing services in HEW and USOE until such services can be established within NIE.
REFERENCES

1. FY '73 Budget
2. Interim Organization Document
3. Four R&D Analyses and the Summary
4. January Interim Report
5. July 1972 Report
6. RAND Preliminary Report
7. RAND July Report
8. RAND Management Report
9. Disciplinary Meeting Reports