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Federally-supported social research and development (R&D) includes projects directed toward improving the well-being of people and programs in the areas of: education, staffing, health, income security, social services, housing and community development, civil rights, transportation, and crime. Social R&D projects are intended to provide knowledge for policymakers in developing national social policies. Findings/Conclusions: Federal R&D is generally authorized in broad subject areas to serve state and local government agencies and is of limited use to national policymakers. Social R&D agency planning is fragmented and decentralized and permits agencies wide latitude. Guidance for monitoring social research and development is vague or nonexistent, and the dissemination of social R&D results has been relatively ineffective and uncoordinated. Such factors as the inaccessibility of information has made use of social R&D results difficult. Officials in policymaking positions in 10 Federal agencies and departments expressed dissatisfaction with Federal management in the planning and monitoring of social R&D and the dissemination and use of results. Recommendations: The Office of Science and Technology Policy and the Office of Management and Budget should work together to: develop and test alternative systems to obtain the information needs of national policymakers; require that such a system be augmented by procedures for informing policymakers of the type and relevancy of the information available; develop formal mechanisms for encouraging cooperative efforts between agencies; and evaluate the methods used by each agency to manage social R&D. (RRS)

14100

REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Social Research And Development Of Limited Use To National Policymakers

Department of Health, Education, and Welfare and Other Federal Agencies

Federal social research and development generates information to improve the formulation of social policy and to enhance the effectiveness of agencies' programs.

The results of social research and development, however, are generally of limited use to national policymakers because

--social research and development has been authorized in broad subject areas, for the most part to serve agencies and State and local governments;

--planning has been fragmented according to the organization of agency activities;

--the dissemination of results has been relatively ineffective and uncoordinated; and

--utilization has been hindered by factors such as inaccessibility of results.

HRD-77-34

APRIL 4, 1977

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-176765

To the President of the Senate and the
Speaker of the House of Representatives

This report summarizes the results of our examination of the role of social research and development in formulating social policy.

We made our review at Senator Hubert H. Humphrey's request. It was prompted by the Senator's interest in seeing that the Congress has access to the best information available in formulating social policy and that the investment in social research and development expands the knowledge base for policy.

At the request of the Senator's office, we did not obtain formal written comments from the agencies included in our review. However, agency officials had an opportunity to review our findings, conclusions, and recommendations; and we considered their views in preparing the report.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Director, Office of Science and Technology Policy; and the Secretary of Health, Education, and Welfare.

Elmer B. Staats

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

SOCIAL RESEARCH AND DEVELOPMENT OF LIMITED USE TO NATIONAL POLICYMAKERS
Department of Health, Education, and Welfare and Other Federal Agencies

D I G E S T

How does social research and development help to formulate social policy? (See p. 1.) Theoretically, it helps by providing at the executive and legislative levels an adequate body of information to use in designing national social policies for programs such as family and child welfare. However:

--Federal research and development was generally authorized in broad subject areas to serve agencies and State and local governments and was of limited use to national policymakers. (See p. 24.)

--Social research and development agency planning was fragmented according to the way agency activities were organized and, at the Department of Health, Education, and Welfare (HEW), was not responsive to top management's guidance which in part contained provisions for plans to coordinate research and development activities and synthesize resulting knowledge. (See p. 42.)

--Guidance for monitoring social research and development was vague or nonexistent. (See p. 45.)

--The dissemination of social research and development results has been relatively ineffective and uncoordinated and several factors, such as inaccessibility of results, have made using them difficult. (See pp. 54 and 55.)

Research and development is used here to mean: research (both basic and applied), development

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and demonstration projects, program evaluations, policy analyses, cost-benefit studies, social experimentation, systems analyses, and statistical activities (including those related to social indicators and human resources accounting which relate to the quality of life for persons in the United States). (See p. 1.)

Social research and development includes projects directed toward improving the well-being of people and programs in the areas of education, staffing, health, income security, social services, housing and community development, civil rights, and crime. Projects concerning international relations, military activities, aerospace and intelligence activities, and biomedical research were not reviewed. (See pp. 1 and 2.)

This review reports on how social research and development activities have developed and provided knowledge for national policymaking. GAO has not attempted to judge the scientific merit of individual social research and development projects nor to evaluate program results in relation to agency mission goals. Thus, this report should not be used as a basis for concluding that the activities discussed had deficiencies which seriously prevented some worthwhile accomplishments. (See p. 2.)

Officials in policymaking positions in 10 Federal departments and agencies which administer research in this area indicated dissatisfaction with Federal management in the planning and monitoring of social research and development and the dissemination and use of its results. (See pp. 68 and 69.)

The National Science and Technology Policy, Organization, and Priorities Act of 1976 provides an opportunity for strengthening central coordination of social research and development and improving the integration of research and development into national policy. (See pp. 56 and 57.)

The Director of the Office of Science and Technology Policy should work closely with the

Director of the Office of Management and Budget to:

--Develop and test alternative systems whereby the information needs of national policymakers can be obtained and made better known to Federal research and development administrators.

--Require that once a system is selected, it be augmented by procedures for informing policymakers of the type and relevancy of information available.

--Develop formal mechanisms which would encourage cooperative efforts between agencies in developing and supporting statistical systems to generate data useful to national policymakers for decisionmaking purposes.

--Evaluate the methods used by each executive agency to manage social research and development, giving attention to the areas of coordinating, monitoring of performers, and disseminating and using results. (See p. 58.)

As requested, GAO did not obtain formal comments from any of the Federal agencies involved. However, GAO discussed this report with officials of HEW, the Office of Science and Technology Policy, and the Office of Management and Budget and considered their views in preparing it.

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ABBREVIATIONS

ASPE	Assistant Secretary for Planning and Evaluation
GAO	General Accounting Office
HEW	Department of Health, Education, and Welfare
NCES	National Center for Educational Statistics
NCHS	National Center for Health Statistics
NIE	National Institute of Education
NSF	National Science Foundation
OE	Office of Education
OHD	Office of Human Development
OMB	Office of Management and Budget
R&D	research and development
R&E	research and evaluation
SRS	Social and Rehabilitation Service

CHAPTER 1

INTRODUCTION

In November 1974, Senator Hubert H. Humphrey asked us to examine Federal social research and development (R&D) and determine its contribution to the formulation of national social policy. (See app. I.) Senator Humphrey stated that the expenditures invested in social R&D ought to result in an adequate knowledge base. Nevertheless, as the Congress addressed major national social policy issues, information needed to design effective policies was often inadequate.

As a result of these concerns, Senator Humphrey requested us to examine

--organizational and managerial arrangements within the executive branch for conducting social R&D and for making the results available to the Congress in a usable form,

--policies and procedures actually followed by agencies carrying out social R&D, and

--methods for assuring accountability and objectivity of researchers and ways to enhance the relevance of their products for the formulation of national policy.

We were also asked to identify any changes in legislation or procedures which the Congress should consider to (1) guarantee the objectivity and relevance of social R&D and (2) equip itself to take advantage of the resources of the social R&D industry in the formulation of social policy.

Because of the widespread interest in these issues, Senator Humphrey agreed to allow us to issue this report to the Congress.

DEFINITION OF FEDERALLY SUPPORTED SOCIAL R&D

We defined R&D as research (both basic and applied), development and demonstration projects, program evaluations, policy analyses, cost-benefit studies, social experimentation, systems analyses, and statistical activities (including those related to social indicators and human resources accounting which relate to the quality of life for persons in the United States). Social R&D included projects directed toward improving the well-being of people and programs in the areas of

education, staffing, health, income security, social services, housing and community development, civil rights, transportation, and crime. However, projects concerning international relations, military activities, aerospace and intelligence activities, and biomedical research were excluded from our definition of social R&D.

In this report we have categorized information about federally supported social R&D into three activities: (1) research and demonstrations (including experiments), (2) program evaluations, and (3) statistics.

The purpose of this review is to describe how social R&D activities have developed and provided knowledge to national social policymakers. These persons include individuals or groups of individuals, such as the Congress, Congressional Members, or high level executive agency personnel who, through legislative or executive means, are in a position to affect national social programs.

We did not attempt to judge the scientific merit of social R&D. Nor did we evaluate any R&D program results in relation to agency mission goals. For these reasons, we do not believe that this report should be used as a basis for concluding that any activities discussed had deficiencies which seriously hindered achieving worthwhile accomplishments for other than national social policy purposes. Also, it should be noted that enabling legislation may limit the scope and extent of research so that it is narrow in focus and its results are of limited use to national social policymakers.

During our review we were unable to obtain a list of national social policy issues which could be attributed directly to relevant policymakers. However, in an effort to identify the nature of such issues, we obtained some information from the Congressional Research Service. The Service assists the Congress in analyzing, appraising, and evaluating pending legislative proposals and in promoting policy research.

In carrying out these responsibilities the Service publishes issue briefs on matters which it considers to be of major concern to the Congress. These briefs contain a definition of an issue, some explanation and analysis of it, and its significance, as well as other pertinent information. Some of the issues listed by the Service include school busing, child care, mandatory retirement, medical malpractice, and national health insurance.

As directed, we did not obtain formal comments from any of the Federal agencies involved. However, we discussed the contents of the report with officials of the Department of Health, Education, and Welfare (HEW); the Office of Science and Technology Policy; and the Office of Management and Budget (OMB) and considered their views in preparing it.

FEDERAL SOCIAL R&D FUNDING INFORMATION

The amount of funding which can be identified as going to social R&D varies with its definition. However, we obtained estimates of funding for social R&D from three sources. The following chart shows actual and estimated Federal funding for (1) social R&D for fiscal years 1974-76 as compiled by the Federal Council for Science and Technology, (2) evaluation activities by domestic agencies for fiscal year 1975 as shown in a joint OMB and GAO study, and (3) statistical programs for fiscal years 1974-76 as shown in the Special Analysis, Budget of the U.S. Government, Fiscal Year 1976.

	FISCAL YEAR (note a)		
	1974 actual	1975 estimate	1976 estimate
	(millions)		
(1) Social R&D (note b)	$984	$1,013	$1,128
(2) Evaluations	-	116	-
(3) Statistics	399	482	529

a/Since the data was collected by different sources for separate purposes, an overlapping of funds may exist.

b/This total generally represents research projects conducted in social areas but may also include some statistics and evaluations.

Our analysis of the above data showed that in fiscal year 1974, HEW accounted for about 60 percent of the obligations for social R&D activities, 54 percent of the obligations for program evaluation activities, and 27 percent for statistical activities. In our opinion, this concentration of federally supported social R&D activities has provided HEW with the

greatest opportunity to develop management techniques in this area. Consequently we concentrated our audit effort on HEW.

FREQUENT CHANGES IN RESPONSIBILITY HAVE CHARACTERIZED THE ADMINISTRATION OF FEDERAL SOCIAL R&D

A 1967 staff study for the Research and Technical Programs Subcommittee, House Committee on Government Operations, showed that information on social R&D was not only unavailable on a regular basis but had never been assembled by the Federal Government.

Over the past 20 years Government-wide responsibility for science policy development has involved the National Science Foundation and numerous Presidential advisory organizations. This responsibility has been occasionally altered as Presidents established and abolished various advisory organizations. The initial emphasis was focused on defense and space programs and was later expanded to include such areas as health aspects of environmental agents. (For further details of past Federal efforts to coordinate social R&D, see app. II.) The most recent attempt to focus national programs on science and technology was made with the passage of the National Science and Technology Policy, Organization, and Priorities Act in May 1976. This act established a science and technology policy for the United States. (See ch. 6.)

CHAPTER 2

LIMITS ON THE USEFULNESS OF SOCIAL R&D RESULTS FOR NATIONAL POLICYMAKERS

None of the Federal agencies or departments in our review had established information systems for identifying the specific research and development information being sought by national policymakers. Without such information no means exists for making sure that social R&D has been designed or performed in a manner likely to provide useful results to national policymakers.

Notwithstanding the foregoing limits for assessing the impact of R&D information, we believe that:

--Although demonstration projects were authorized for funding in broad areas, most projects carried out in these areas were too narrowly focused to produce knowledge important to national policymakers.

--Evaluation projects were planned in an unsystematic way; as a result, identifying their focus and potential usefulness for national policymaking purposes was difficult.

--Statistical data could not show the relationship between inputs (which policymakers can affect) and end products and, as a result, were of limited use to national policymakers.

MANAGEMENT OF SOCIAL R&D HAS PLACED LIMITED EMPHASIS ON IDENTIFYING NATIONAL POLICYMAKERS' NEEDS

No Federal organization has been actively establishing or recommending a national strategy to guide executive agencies in carrying out social R&D. The task of selecting research areas for funding has rested, for the most part, with each agency.

The Office of Management and Budget limits its social R&D role primarily to reviewing agency program strategies. Agencies are advised by OMB to coordinate research efforts to eliminate unintentional duplication and to obtain maximum benefits from acquired related knowledge.

In addition, with the implementation of the President's Reorganization Plan No. 1 of 1973 responsibility for the advising, coordinating, and evaluating functions for civil

R&D matters was transferred to the Director of the National Science Foundation (NSF). Thus, before the establishment of the Office of Science and Technology Policy, if any agency was responsible for assuring that social R&D was designed or performed with national policymakers in mind, it would have been NSF.

NSF-sponsored efforts to make social R&D more useful for national policymaking

In May 1975 NSF submitted a letter to OMB seeking comments on a report by the Federal Council for Science and Technology Task Group on Social R&D. The purpose of this report was to explore the desirability of creating an interagency committee on social R&D to address a growing concern that:

> "* * * publicly funded social programs have an uneven if not inadequate conceptual or scientific base; that R&D directed at resolving this concern as well as providing systematic increases in knowledge about humankind and its near environment is either not occurring and/or not available to public decision makers."

The proposed charter for the interagency committee contained a statement that the following tasks should be performed through a concerted effort:

> "* * * (1) identify the issues relating to the conduct of Federal Social R&D; (2) initiate activities that will both focus on the identification of Social R&D needs and the manner in which they are translated into policy-relevant research agenda; and (3) begin to develop interagency efforts for more rational conduct of R&D to solve pressing social problems."

The Chairman of the Federal Council for Science and Technology established the Interagency Committee on Social R&D. An organizational meeting was held in June 1975 by the Federal Council during which details for establishing the Committee were discussed. The first Committee meeting was held in December 1975. In March 1976 we were informed by an official of NSF that no further meetings would be held pending the organization of the new Office of Science and Technology Policy, which was established by legislation in May 1976. In October 1976 another meeting was held to continue the business of organization and prepare for transition into the new administration.

Under the law establishing the Office of Science and Technology Policy, the Federal Council for Science and

Technology was abolished. In its place the legislation provided for a Federal Coordinating Council for Science, Engineering, and Technology. Under this Council the Interagency Committee on Social R&D was renamed the Human Resources and Community Development Committee.

Prior GAO report on NSF program to help solve major national problems

The NSF program most relevant to national policymaking was established in March 1971. This program, Research Applied to National Needs, was to focus NSF's most problem-oriented research into a single program dealing more directly with selected environmental and social problems and opportunities for future technological development to help solve major national problems. In a November 5, 1975, report, 1/ we stated that the primary areas for improving management of the program included developing formal procedures for identifying problem areas for research or for identifying specific research program objectives within problem areas. We also reported that a need existed for mandatory use of planning guidelines with emphasis on early identification and active involvement of research users.

Executive agency questionnaire

In our questionnaire 2/ to Federal executive agency officials, we asked their views on (a) what effect social R&D does have on the formulation of national policy and (b) what effect social R&D should have on national policy. Their responses were as follows:

	Responses	
	Does have	Should have
Little or no effect	11%	-%
Some effect	54	-
Moderate effect	31	26
Substantial effect	4	52
Very large effect	-	20
No opinion	-	2

1/"Opportunities for Improved Management of the Research Applied to National Needs (RANN) Program" (MWD-75-84).

2/We solicited the views of 54 top management Federal agency officials concerning their experiences with the management and results of federally supported social R&D activities. We received responses from 47 of those officials. The results of those questionnaires are the basis used for the executive branch questionnaire results presented in this report. For an overview of the results of our questionnaire see app. III.

These results indicate that executive agency officials believe that social R&D should have significantly more effect than it presently has on national social policy. Some officials expressed the opinion that an interpreting agency should be established to act as a medium between the Congress and the executive branch.

Also in a related question, approximately 36 percent of the respondents believed there was a need for Federal guidance on national needs and priorities, 36 percent did not express a need for guidance, while about 28 percent had either no opinion or a mixed opinion about a need for such guidance.

FOCUS OF R&D ACTIVITIES PRIMARILY WITHIN SOCIAL PROGRAM AREAS

The focus of Federal social R&D is gradually narrowed from broad subject areas specified by the authorizing legislation, to narrower subject areas by the appropriation process, to specific projects which address the problems of administrators of Federal or federally supported social programs. These projects are often of limited use in dealing with national policy issues.

Within the Department of Health, Education, and Welfare, expenditures for many R&D projects tend to focus on the same social program areas as in previous fiscal years and the social legislation most recently enacted. We interviewed officials in the Office of the Assistant Secretary for Planning and Evaluations (ASPE) to determine their role in focusing R&D projects. They said that social R&D is a decentralized operation and that HEW agencies are generally allowed to plan and select their own R&D projects. We were informed that in line with this concept, ASPE believes that over the long run R&D adds knowledge to a general topic area while dealing with specific program questions and striving for program and administrative improvements.

HEW-appropriated funds for R&D are administered by agencies and staff offices and are obligated on a project basis. We examined the R&D review process at the Social and Rehabilitation Service (SRS), the National Institute of Education (NIE), and to a limited extent ASPE. The funds estimated for those agencies in fiscal year 1976 were:

Agency	Estimated funds
SRS:	
Social services	$ 3,075,000
Health services	2,500,000
Income maintenance	3,100,000
NIE	70,000,000
ASPE (policy research)	24,950,000

These agencies were selected to enable us to obtain a better perspective of how social R&D is addressed at different levels within HEW. ASPE is the principal advisor to the Secretary of HEW on health, education, and welfare policy planning and program evaluation. ASPE is in a position to concern itself with social R&D issues on a departmentwide basis. On the other hand, SRS and NIE conduct research which, because of legislative or program responsibility, is generally more narrow in scope.

Characteristics of SRS research and demonstration projects

SRS administers Federal programs which provide social, income maintenance, medical, family and child welfare, and other necessary services to children and families in need.

To analyze research and demonstration projects administered by SRS, we randomly selected 43 projects from 110 projects approved in fiscal year 1974 and 120 projects approved in fiscal year 1975. The following table illustrates the characteristics of the sample selected.

Sections of the Social Security Act authorizing the projects	Fiscal year 1974 Universe	Fiscal year 1974 Sample	Fiscal year 1975 Universe	Fiscal year 1975 Sample
Research, training, or demonstration projects involving child welfare services (section 426):				
Grants	4	1	3	1
Contracts	5	1	0	0
Cooperative research or demonstration projects involving virtually all programs authorized by the Social Security Act (section 1110):				
Grants	42	8	32	6
Contracts	21	4	10	2
Demonstration projects involving public assistance programs other than child welfare (section 1115):				
Grants	32	7	50	8
Waiver only (note a)	6	1	25	4
Total number of projects	110	22	120	21
Total Federal funds involved	$7,849,000	$1,533,000	$7,869,000	$1,840,000

a/Waiver of compliance with a provision of the Social Security Act necessary for a State to carry out a demonstration project.

From the 43 research and demonstration projects, we selected 24 grants funded through fiscal year 1975. Our analysis of these grants showed that $2.5 million of Federal grant money had been expended on these projects from fiscal years 1972 through 1975. An additional $3.9 million of grantee money was matched to these funds. Also, $8.7 million was added, on a matching basis, from Federal program funds. This resulted in a research and demonstration effort totaling $15.1 million--$12.6 million more being used for R&D activities than the amount charged to R&D.

For example, for fiscal year 1974, a section 1115 demonstration grant was given to North Dakota to establish a comprehensive and integrated rural human services delivery system. The amount of the section 1115 grant was $87,119 and $2,367 was added by North Dakota, bringing the total to $89,486. These funds were then used on a 25 percent-75 percent matching basis to obtain an additional $268,435 under other titles of the Social Security Act. Thus, the original 1115 demonstration grant of $87,119 charged to R&D resulted in a demonstration project totaling $355,554.

The above-mentioned analysis is presented for the purpose of demonstrating

--how funds in addition to those appropriated specifically for social R&D projects could be obtained for such purposes and

--that the precise calculation of the funds involved in obtaining social R&D information would be difficult.

SRS research and demonstration projects focused primarily on program problems within States

Project focus--To determine the focus of SRS research and demonstration projects concerning social programs, we established the following categories and placed the projects we selected into them:

--Outreach operations--attempting to locate and enroll all potential program beneficiaries.

--Administrative management--collecting program information including costs and effects on persons served.

--Administrative experimentation--examining alternatives to actual program administration or operations.

--Program alternatives--determining how the need for a program can be reduced by finding other means to achieve program goals.

--Program sufficiency--examining the sufficiency of appropriations in comparison with legislative intent for the program.

--Other aspects--entailing projects which did not fit any of the above categories.

On a multiple-count basis (five projects concerned two or more program aspects), about 82 percent of the sampled projects concerned administrative management or administrative experimentation.

An example of one of the demonstration projects categorized as focusing on administrative management is entitled, "Instrumentation for Improving Agency Administration." The following is an excerpt describing the focus of that grant:

> "Accomplishment of the proposed project * * * can be expected to result in information, procedures, and materials for (1) reducing administrative costs and improving effectiveness of service-delivery agencies; (2) reducing administrative costs and error rates, and improving effectiveness in income-maintenance agencies; and (3) providing individuals at State, local, and Federal levels with means for making better decisions and developing improved programs concerned with training, administration, supervision, and staffing."

An example of an administrative experimentation project is a demonstration grant entitled, "Cost of Social Services R&D." The following is an excerpt describing the focus of that grant:

> "To demonstrate the utility of units of service as the basis for determining the intensity at which a service was provided and the total cost of the service to the agency." 1/

Geographic focus--Although a national policy issue has been selected for a demonstration project, the importance of project results to a policymaker is affected by the extent of the geographic experiences which are the basis for policy implications. These experiences must be assumed to be only a sample of those which might be encountered nationally. For sample experiences to be accepted as representative of national experiences, researchers must first identify the

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1/A unit of service was defined as a quantifiable measure of the level of intensity at which a service is delivered during a given report period. For example, services provided under the auspices of State agencies usually are paid for on the basis of time (an hour or a day), an activity (an examination or an evaluation), a commodity (a meal or a contraceptive device), or some combination of such basic units.

factors which affect the experiences and then illustrate that sample values of each factor are representative of the Nation.

To examine and illustrate the geographical focus of demonstration projects, we established the following categorical locations for experiences being studied:

--Within a county.

--Within more than a county but within a State.

--Within more than a State but within a region.

--Within more than a region to national.

We had some difficulty in determining the geographic focus of projects. However, we made a judgment based on (1) a project statement identifying the officials (or a governmental level) to benefit from the project and (2) our opinion about whether the described project experiences could be considered representative and statistically sufficient to warrant some official social program action.

The following excerpts from project descriptions illustrate the judgment we used for placing projects in their respective geographic categories.

Example A--The following excerpt illustrates a project focus of "within more than a county but within a State." This project was awarded to the New York State Department of Social Services to study the management of adoption services. The project experimental base was primarily New York State.

> "As presently designed there are minimal opportunities for users outside of New York State to become involved in actual project operation. However, every effort will be taken to incorporate as wide a variety of input from users as possible including: Telephone surveys; Mail surveys and correspondence; On-site visits to selected States; Attendance at national and regional adoption meetings."

Example B--The following excerpt illustrates a project focus of "within more than a region to national." This project was awarded to the Research Center, National Planning Association, and was titled "State Income Distributions for 1975 and 1980."

> "The basic objective of this project is to provide previously unavailable detailed projections * * *

for estimating State costs and caseloads for SRS programs."

End products were statistical tables for each State.

On the basis of such geographic focus assignments, we found only six (about 14 percent) of our sample projects had a national geographic focus. The largest geographic focus (20 projects or about 46 percent) was "within more than a county but within a State."

These projects are primarily focused on the administrative aspects of social programs and are limited to experiences within a single State. Although projects of this nature may be useful to State and local officials and SRS personnel, we believe that the scope of project results, without additional research, limits their usefulness to national policymakers.

SRS officials believe that the limited scope of some projects is, in part, due to enabling legislation. For example, SRS's R&D dollars are tied to provisions of the Social Security Act. Under section 1115 of the act, demonstration authority is limited to payments to States to cover the costs of projects.

Difficulty exists at NIE in focusing R&D projects for assisting national policymakers

NIE, established in 1972, has been given lead responsibility for administering a research program to address educational issues. NIE's statutory authority vests in its Director and the National Council on Education Research broad latitude in the accomplishment of NIE's mission. NIE priorities, once formulated, are to be translated into operational plans composed of specific activities and projects. To plan and implement research in priority areas, NIE has established six program groups which focus primarily on practical school problems. These program groups are responsible for administering a contract and grant program to effectively address these problems through research. To assist the groups in developing specific research programs, the Director, through the Office of Planning, Budget, and Program Analysis, provides general guidance, including areas of concentration, budget planning figures, and interpretation of congressional intent.

This guidance affords much latitude for focusing research projects within a priority area. The Director provides feedback to program groups on their R&D plans; but, with very few exceptions, the program group project priorities are completely accepted.

We reviewed the planning activities of the program groups and found that their goals and subgoals were also broad. For example, one group's goals were to (1) improve the knowledge about the relationship between education and work and (2) increase the contribution education makes to individuals' abilities to choose, enter, and progress on worthwhile work. NIE officials agreed that the group goals lacked necessary quantification and that the degree of their specificity varied. For the general lack of specificity of work goals NIE officials cited such reasons as

--diverse and disjointed continuation projects were inherited from the Office of Education and the Office of Economic Opportunity;

--program group conferences used to identify R&D priority issues have lacked experienced personnel; and

--NIE, a relatively new organization, was sometimes preoccupied with overall problems of establishing an organization.

We believe, and agency officials concurred, that NIE should attempt to formulate more specific goals within program groups. By not having more specific goals, the program groups have difficulty focusing their research projects. A recent evaluation of NIE by a panel of independent consultants also concluded that the staff appeared to have differing perceptions of the major role of the agency and to be uncertain about how individual projects related to overall goals. In addition, researchers dealing with these differing perceptions have expressed a need for more and clearer communication from NIE about its plans, priorities, and operations.

NIE officials informed us that while they believe that their authorizing legislation makes no specific reference to generating knowledge to improve the effectiveness of social policy formulation, they attach great importance to generating such knowledge. Examples of activities providing knowledge to policymakers include congressionally mandated studies, testimony, and the offering of advice directly to the Congress.

Also, officials at NIE believe education to be a particularly sensitive area in Federal-State relations, not only because control of education lies with the States (and localities), but also because it is heavily value-laden. Thus, knowledge obtained for State, local, and even individual use may often be the most appropriate way of improving the effectiveness of social policy formulation in the area of education.

The passage of Public Law 94-482 on October 12, 1976, established the Federal Council on Educational Research and Development. The Director of NIE was designated to act as Chairman of this Federal Council. The Federal Council, in part, will promote coordination between programs and activities of the Institute and related programs and activities of other Federal agencies. Also, the Federal Council will make a report to the Congress and the President on the status of educational R&D, and make recommendations on effective means for the dissemination of educational R&D.

We believe that the creation of this Federal Council provides an opportunity for NIE as well as other Federal agencies to better coordinate R&D and produce results which will be more useful to national policymakers.

ASPE conducts some research focused toward policymakers

According to HEW's budget presentation, ASPE policy research is unique in two aspects. First, it is the only comprehensive assessment of the impact of social policies and programs on poverty populations. Second, the planning, evaluation, and coordination functions of ASPE provide opportunities for addressing policy issues not covered in other agencies. Included in this group's research are experiments on income maintenance and health insurance.

ASPE reports annually to the Congress on policy research activities. The general focus of this research for fiscal year 1975 was on the causes and conditions of poverty. The report stated:

> "A key consideration in the choice of specific research projects is the potential impact which the acquisition of new knowledge can have on the formulation or modification of major Departmental policies and programs. A high priority is therefore given to projects which have a direct bearing on such policy areas as welfare reform, national health insurance, management and delivery of human service programs, and care of the disabled and institutionalized."

However, the potential impact of specific research objectives and priorities is only broadly stated in that report. For example, the report described major specific research objectives and priorities of current and past research programs. The report stated that the research in the priority area of income maintenance and employment would include analysis of:

--The determinants of family income and changes in income over time.

--The effectiveness of public income maintenance and employment-related programs in achieving their objectives, including analysis of costs, benefits, and any adverse effects.

--Participation in income maintenance and employment-related programs, including participation in multiple programs and the effects of receipt of multiple benefits on the combined distribution of benefits and economic incentives.

--The relationship of family income and economic status to broader concepts of well-being, including social status, family functioning, job satisfaction, and emotional well-being.

Without more clearly defining the potential impact of these research objectives and priorities, a question remains as to whether the current group of objectives and priorities has a higher potential impact than any alternative group.

ASPE also supports some interdepartmental research projects which focus on HEW priorities and those of other departments. An example is the Supported Work project 1/ which is also supported by the Ford Foundation and the Departments of Labor, Housing and Urban Development, and Justice. This project involves demonstrations at 13 sites. These demonstrations represent a social initiative and not a research experiment. The objectives of the program are:

> "* * * to identify and measure the impact of supported work on program participants (i.e., to determine whether a more or less standardized treatment program directed at a group of hard-to-employ persons will improve their employability and income) and to determine the costs and benefits of mounting supported work projects."

In our opinion, officials responsible for administering policy research at the assistant secretary level of HEW have the greatest opportunity for learning from national policymakers what knowledge can be expected to have the greatest impact. However, on the basis of interviews with officials of ASPE, we concluded that this learning was not being accomplished.

1/This project was to provide opportunities for useful work for very hard-to-employ people.

ASPE officials informed us that they believe part of the problem is that (1) specific R&D knowledge, to be developed for meeting future years' policy decisions, is not highly predictable in most cases in the social area and (2) it is difficult to elicit from high level policymakers their specific long-term knowledge requirements. Consequently, accurate targeting of social R&D on future knowledge requirements has not occurred, and national policymakers often lack needed information at specific decision points.

Also, we noted a lack of formal arrangements within HEW to develop a systematic R&D effort. A long-range plan does not exist in the domestic area. The majority of ASPE research consists of the continuation of the income maintenance and national health insurance projects transferred from the Office of Economic Opportunity rather than projects designed to resolve specific social policy concerns.

FOCUS OF PROGRAM EVALUATION ACTIVITIES

In a September 1975 survey of Federal evaluation activities, OMB stated that HEW has the most extensive evaluation activity of any Federal domestic agency. Most of the HEW evaluations are conducted by contract under 1-percent evaluation set-aside authorities. 1/ These authorities allow the Secretary to use up to 1 percent of funds appropriated under certain statutes for program evaluation.

Focus of HEW evaluation is unsystematic and obscure

In an August 16, 1973, memorandum, the Secretary of HEW used the following classification to categorize evaluation activities:

--"Management or administrative efficiency evaluations - These are to focus on how well and efficiently DHEW is carrying out established objectives. They do not normally question objectives or basic program strategy, and this category includes audits, assessment of milestone achievements, procedural analysis, analysis of consumer response, and broad assessment of managerial effectiveness."

1/Most of the 1-percent evaluation authorities are contained in section 513 of the Public Health Services Act (42 U.S.C. 229b) and section 207 of the Older Americans Act (42 U.S.C. 3054).

--"Program strategy evaluations - These examine the major choices of reaching desired outcomes such as alternative delivery systems, efficiency of alternative techniques, and program interactions.

--"Program impact or benefit evaluations - These measure the actual effects of one or more programs on their beneficiaries."

We could find no evidence that such classifications had been used for managing evaluation activities, for providing related budgetary information, or for any compilation of evaluation projects.

We examined the HEW Evaluation Digest for fiscal year 1974. This digest lists most of the evaluation projects initiated or continued during fiscal year 1974 by HEW. It is given to all upper level executives in HEW and is available to Members of Congress.

The following sample project descriptions from the digest are presented to illustrate the unsystematic way these projects are described. This practice precludes our identifying and illustrating the focus of the 217 projects and limits their usefulness to national policymakers.

(a) Evaluation of the emergency medical services demonstration projects

A $400,000 contract

"To coordinate the assessment activities in each specific project in an effort to identify factors within an emergency medical services system that influence patient outcome."

(b) Long-term care reimbursement experiments--evaluation of experiments in intermediate care facilities and homemaker and day-care services under section 222 of Public Law 92-603

A $479,000 contract for

"An evaluation of five research demonstration projects in long-term care for Medicare and Medicaid patients designed to compare the most traditional means of long-term care with models of less intense care."

(c) A longitudinal evaluation of the Emergency School Aid Act Pilot Program (continuation)

A $1,067,568 contract for a study to evaluate

"* * * the national impact of the Emergency School Aid Act Pilot Program on a nationally representative sample of minority students. Objectives of the study include: 1) evaluating the cumulative effects of different types of treatments under various exposure durations; 2) determining the differential effectiveness of local programs; and 3) comparing successful local projects to similar but unsuccessful projects in an effort to determine the difference between success and failure."

(d) Evaluation of the Home Start Program

A $612,701 contract for

"An assessment of the effectiveness of Home Start demonstration projects and derive from them program models and cost-effectiveness estimates for wider application."

(e) Short-term evaluations and evaluation support activities

$560,000 set aside

"To provide computer and consultant services in support of a variety of evaluation activities."

The above project descriptions not only indicate the difficulty national policymakers would have in trying to identify both a project focus and a composite focus across projects but also some of the commonality among demonstration activities, program evaluation activities, and statistical activities. For instance, project (b) concerns an evaluation of five research demonstration projects, and project (c) concerns estimates and measures of precision which are common to statistical activities. Therefore, in most instances, the total amount of funds expended on gaining knowledge in a particular social area could be obtained only by identifying and summing the relevant funding effort in all the demonstration, evaluation, and statistical activities.

FOCUS OF STATISTICAL ACTIVITIES

Statistical activities lack focus

Federal statistical activities primarily lack focus and generally are not coordinated or comparable. As a result, the

statistical data being generated is of limited use to national policymakers. The following is a list of Federal statistical activities.

(1) General-purpose statistical agencies

a. The Bureau of the Census, in the Social and Economic Statistics Administration of the Department of Commerce, compiles and publishes statistical compendia. Basic among these is the annual Statistical Abstract of the United States, which presents summary statistics on subjects such as crime, health, the environment, and the economy.

b. The Bureau of Labor Statistics in the Department of Labor is the Federal Government's principal factfinding agency in the field of labor economics. It is the principal source of statistical information on such subjects as the labor force; employment and unemployment; productivity and technological developments; and the structure and growth of the economy.

c. The Statistical Reporting Service is responsible for most of the general-purpose statistical programs and for coordinating all statistical work in the Department of Agriculture.

d. The National Center for Health Statistics in HEW compiles national health statistics.

e. The National Center for Education Statistics in HEW is responsible for statistics relating to the education system.

(2) Analytic and research agencies

a. The Council of Economic Advisers in the Executive Office of the President is responsible for continuing analysis and interpretation of economic trends.

b. The Bureau of Economic Analysis in the Department of Commerce prepares the economic accounts of the United States and interprets economic developments in light of these accounts and other pertinent information. The accounts provide a quantitative review of production, distribution, and use of the Nation's output.

c. The Economic Research Service in the Department of Agriculture is responsible for preparing statistical and economic analyses and publishing the outlook for farm products. Among its important research studies and statistical series and analyses are those related to farm population, prices, and income; food consumption; farm costs and returns; and agricultural productivity.

d. The Board of Governors of the Federal Reserve System analyzes economic and credit conditions and occupies an important place in the Federal statistical system as the primary source of statistics on money and banking.

e. The Bureau of Mines in the Department of the Interior is the principal source of statistics on production; consumption; and stocks of minerals, metals, and mineral fuels.

f. The Consumer and Food Economics Institute in the Department of Agriculture compiles and analyzes statistics on household consumption, dietary adequacy, and rural family living.

g. The Employment and Training Administration in the Department of Labor makes an annual report to the President on staffing requirements, resources, utilization, and training. A statistical appendix contains tables on labor force employment and unemployment, population projections, employment and education attainment, staffing requirements, and staffing program statistics.

h. The Department of Housing and Urban Development publishes statistics on such subjects as housing sales and completions, market absorption of new rental units, and mortgage lending activities.

(3) Administrative and regulatory agencies

Most Federal agencies collect some statistical information in the course of their administrative operations. Some of these statistics are used to aid the agency in administering or evaluating a specific program. Others, obtained as a byproduct of operating responsibilities in a specific field, not only serve administrative purposes within the agency but

also contribute importantly to the store of information which is valuable to other agencies and the public.

Federal statistics not focused to fulfill needs of policymakers

Federal statistics are provided in many agency publications (distributed to some Federal officials on a routine basis and to other officials and the general public upon request) as well as in specially prepared formats for internal use only. For the purposes of this review, we selected the contents of the OMB publication "Social Indicators, 1973" as being derived from generally available Federal statistics and as a basis for remarks about their usefulness to policymakers.

In general Federal statistics are collected, processed, and provided on a single index about aggregate social and economic activity. At the time of our review, "Social Indicators, 1973" was the most recent Federal publication of its kind. It contains a collection of statistics selected and organized to describe social conditions and trends in the United States. The social conditions and trends are in the eight major social categories of health, public safety, education, employment, income, housing, leisure and recreation, and population.

Within each of these categories, broad areas of social interest--or social concerns--have been identified. In the area of health, for example, the identified social concerns are long life, life free from disability, and access to medical care. The concerns have been defined and selected to reveal the general status of the entire population; to depict conditions that are, or are likely to be, dealt with by national policies; and to encompass many of the important issues facing the Nation.

The introduction to that publication provides the following remarks about its contents:

--"For each of the identified social concerns, one or more indicators--statistical measures of important aspects of the concerns--have been identified."

--"* * * and would reveal not only the status of the population in relation to a perceived social objective,

but it would also furnish some idea of what forces were influencing that status. At the present time, not enough is known about the cause and effect of social conditions to develop ideal indicators. * * *"

--"The choice of indicators is based upon two main criteria: That the indicators measure individual and family (rather than institutional or governmental) well-being and that they measure end products of, rather than inputs into, social systems. In education, for example, the indicators were selected to measure individual achievement and attainment rather than inputs, such as school budgets, classroom construction, and the number of teachers."

In our opinion, the lack of statistical information showing the relationships between inputs (which policymakers can affect) and end products illustrates that this information is of limited use to national policymakers.

Prior GAO report shows that Medicaid statistics are of limited use to policymakers

An example of the inadequacy of Federal statistics was presented in a February 11, 1976, GAO report. 1/ In this report we examined the reasons for the rising costs of the Medicare and Medicaid programs. We reported that the costs of Medicaid services were increasing because of inflation, probably the use of more extensive types of services, more people becoming eligible, and the program's additional benefits. However, because of inadequate data, we were unable to determine the amount of the increases due to each of these factors.

CONCLUSIONS

Federal R&D is being authorized in broad subject areas primarily to serve agencies and State and local governments. While we are not questioning the quality and intent of the Federal R&D efforts analyzed, which may be partly the result of legislative constraints, no pervasive effort exists for making sure that social R&D is useful and related to the needs of national policymakers. For social R&D to better fulfill these needs, some centralized form of coordination must be established.

1/"History of the Rising Costs of the Medicare and Medicaid Programs and Attempts to Control These Costs: 1966-1975" (MWD-76-93).

CHAPTER 3

SOCIAL R&D PLANNING IS DECENTRALIZED AND PERMITS AGENCIES WIDE LATITUDE

Our review of procedures for the planning of social research and development showed that:

--Only a few executive agency policymakers expressed satisfaction with the Federal Government's planning performance.

--The executive branch has not established criteria for overseeing the social R&D planning.

--The Department of Health, Education, and Welfare agencies' long-range (5 years) and fiscal year planning were not responsive to top management guidance and generally did not describe the knowledge to be developed to make or revise specific national policy decisions.

--Statistical planning (long-range and fiscal year) was only informally coordinated among statistical agencies and did not describe the intended use of the data to be collected.

We did note, however, that some efforts have been made to provide a coordinated R&D approach to social problems.

We were unable to find any standard planning requirements or processes for accomplishing Federal social R&D. Therefore, since we reviewed only selected HEW agencies which conduct social R&D, exceptions to our descriptions of the procedures used by these agencies may exist. Nevertheless, we believe that based on our discussions with Assistant Secretary for Planning and Evaluation officials the observations which we have associated with the planning activities generally represent the type of planning undertaken by HEW agencies.

EXECUTIVE AGENCY QUESTIONNAIRE

In a questionnaire, we asked executive agency officials to indicate their degree of satisfaction with the research planning performance exhibited by the Federal Government in the social R&D area. The following schedule summarizes their responses.

Evaluation of Government performance in planning research	Degree of satisfaction			
	Satisfied	Partially satisfied	Dis-satisfied	No opinion
Relating research to national social problems	-%	63%	33%	4%
Identifying the best areas or issues for research	11	51	33	5
Establishing clear agency goals	2	57	39	2
Setting priorities for areas of research	7	52	39	2
Identifying gaps in research	9	60	29	2

The above table shows that a large percentage of policymakers were less than satisfied with the Federal Government's performance in research planning.

LACK OF CRITERIA WITHIN EXECUTIVE BRANCH FOR CARRYING OUT SOCIAL R&D ACTIVITIES

The Office of Management and Budget exercises primarily a budgetary review role over the social R&D activities within Federal departments and agencies. No OMB directive has established standardized, acceptable, or preferable criteria for departmental and agency planning of social R&D activities.

The Domestic Council was established in the Executive Office of the President on July 1, 1970, to assess national needs, coordinate the establishment of national priorities, and provide a rapid response to Presidential policy needs. According to a Council official, no executive branch organization was actively involved in long-range goal setting for the Nation or for synthesizing and adapting social R&D-developed knowledge for national policymaking purposes.

HEW AGENCIES WERE GENERALLY NOT RESPONSIVE TO PLANNING GUIDANCE

In assessing HEW agencies' responsiveness to planning guidance for program administration, we reviewed both long-range (fiscal years 1976-80) and short-range (one fiscal year) planning. We analyzed (1) the Secretary's planning guidance

for calendar year 1974 which required the preparation of the most recent long-range plan and (2) fiscal year planning guidance from top management agency officials to evaluate Social and Rehabilitation Service short-range planning for fiscal year 1975 and National Institute of Education short-range planning for fiscal years 1975 and 1977.

Long-range planning guidance

On March 19, 1974, the Secretary of HEW issued a planning guidance memorandum which addressed (1) forward planning for fiscal years 1976-80, (2) development of budget proposals and supporting legislation for fiscal year 1976, and (3) fiscal year 1975 operational planning. The memorandum provided procedural and other general guidance for research, evaluation, and statistical activities with emphasis on planning for fiscal years 1976-80.

In his memorandum the Secretary stated that:

> "I am particularly concerned that planning of knowledge development activities be improved. The quality of research, evaluation, and statistical data efforts affect all our programmatic decisions. As such, I want plans for these activities to be related to other planning and budgeting activities, and to maximize the return of information needed for all types of planning. Specifically, planning of research, evaluation, and statistical data activities is to be coordinated closely with planning of programmatic activities to produce information of the right sort and at the right time to support attainment of the Department's goals, and to support the development of policies, legislation and budgets."

The following specific points in the Secretary's guidance were to be considered:

> "* * * • ways to improve the management and efficiency of research, evaluation, and statistical activities, including the opportunities to consolidate research activities, either legislatively or administratively, and the development of mechanisms to disseminate research findings more effectively;
>
> • how we can better collect information on both favorable and unfavorable impact of programs on clients, including client perceptions; * * *."

We believe that the emphasis which the Secretary placed on the coordination of R&D to support the attainment of the Department's goals and policies represents an appropriate approach to making the results of social R&D useful to policymakers.

Long-range planning unresponsive to Secretary's concerns

Long-range plans for SRS and NIE did not identify the procedures specifically called for in the Secretary's memorandum to make certain that the results of research, evaluation, and statistical activities would be properly coordinated and produce information which could be used in attaining the Department's goals as well as in the developing of policies, proposed legislation, and budgets. In our opinion, such omissions detracted from the responsiveness of each of these plans.

SRS long-range planning

We reviewed the August 1974 edition of the SRS fiscal years 1976-80 long-range plan to see how responsive it was to the Secretary's planning guidance. Although the plan contained considerable descriptive information, the descriptions did not show how project results would relate, either individually or collectively, to program objectives in support of Departmental goals and policy decisions. In our opinion the plan was unresponsive to the Secretary's guidance because it did not address

--how the relationship between research, demonstration, evaluation, and statistical activities and program objectives could be made as clear and specific as possible;

--what opportunities existed to consolidate research activities, either legislatively or administratively, or to develop mechanisms to disseminate research findings more effectively to support policy decisions; and

--how both favorable and unfavorable information from programs affecting clients, including client perceptions, could be better collected.

In our opinion the SRS long-range plan did not describe how the planned activities would affect HEW's goals or how HEW would support the development of policies, legislation,

or budgets. We believe that planning information more responsive to the Secretary's guidance would provide information describing expected results from projects. That is, agency planning should more directly address policy issues.

NIE long-range planning

The NIE planning process was not only subject to 1974 planning guidance from the Secretary and ASPE but also to general guidance established on June 23, 1972, by the National Council on Educational Research, under Public Law 92-318. The Council consisted of 15 members appointed by the President, by and with the advice and consent of the Senate, the Director of NIE, and such other ex officio members who are officers of the United States.

NIE officials said that because of budget uncertainties, the inexperience of their organization, and the inability of the Council to get more involved with NIE's planning, NIE did not develop a long-range plan in response to the Secretary's 1974 guidance.

NIE informed us that it is further developing its procedures for identifying important problems, planning R&D programs, and seeking greater coordination of educational R&D. NIE also stated that it is currently developing a long-range planning system which will involve integration and balancing of a number of inputs, some of which are already operative. Long-range plans will be developed through the identification of educational problems of concern by such groups as the National Council on Educational Research, the Congress, and officials of the executive branch. Also, promising R&D approaches will be identified through such means as conferences and planning studies, recommendations by external review panels, and NIE staff analysis.

Short-range planning guidance

The Secretary's planning guidance memorandum for 1975, issued March 20, 1975, did not require formal preparation and submission of an updated long-range plan. However, the guidance did require the preparation of a fiscal year 1976 R&D plan. The Secretary's planning guidance was amplified by instructions issued on September 1, 1975. The most important features of these instructions were:

--Acknowledgment that research, evaluation, and statistical activities were knowledge-development activities which affected all programmatic decisions.

--These activities would be coordinated closely with planning of programmatic activities to produce pertinent and timely information to support the development of policies, legislation, and budgets.

--Plans would be approved directly by the agency heads. (ASPE officials informed us that they were authorized to take exception to the plans, but such exceptions seldom occurred.)

--Coordination of plans was urged and would be accomplished through distribution of information copies of agency-developed plans.

--A mechanism for reviewing projects was required, but each agency could choose how such review would be accomplished.

--Project findings were to be cumulative and introduced into program decisions and policy recommendations.

This guidance also noted that:

> "Although specific review procedures are likely to vary across agencies, we believe there are some common objectives which an agency-initiated project review should address. These include:"
>
> * * * * *
>
> --"To safeguard against unconstructive duplication and redundancy in federally supported research and evaluation; and"
>
> * * * * *
>
> --"To ensure that projects are integral and not extraneous to an agency's research and evaluation strategy, and to ensure that project findings will be cumulative."

ASPE supplemented that guidance for research, evaluation, and statistical activities and stressed "the importance of synthesis of research and evaluation findings so that this information is introduced into program decisions and policy recommendations."

SRS fiscal year planning

Within SRS, the Office of Research and Demonstrations and the Office of Program Analysis and Evaluation prepared R&D strategies for the following broad areas: income maintenance, health services, and social services. Research and demonstration plans within each of these areas were prepared primarily by three officials in the Office of the Associate Administrator for Planning, Research, and Evaluation. Information for this planning was obtained (1) through informal comments from appropriate program officials and staff members; (2) from projects proposed, but not funded in prior years; and (3) from projects funded in prior years that were being considered for continuation.

This planning was not responsive to the Secretary's March 1975 guidance because descriptions of individual projects did not provide information on (1) using the results to make or revise specific policy decisions or (2) making sure that project findings will be cumulative and that there will be no unintentional overlaps among the various research and evaluation (R&E) activities.

NIE fiscal year planning

In response to an August 30, 1974, memorandum from ASPE requesting information on NIE's research, evaluation, and statistical activities for fiscal year 1975, NIE submitted only brief descriptions of current commitment-base projects for proposed funding. These projects were distributed under the broad subject areas shown in the following table.

Subject areas	Number of proposed projects
Essential skills	19
Methodology and measurement	2
Basic studies	4
Policy studies	6
Multicultural activities	5
Productivity	7
Education and work	12
Local problem solving	4
Vouchers	2
Experimental schools	6
Dissemination activities	7
Education R&D system	3
International	1
Other	1

The shortcoming of NIE's fiscal year 1975 research was later acknowledged by the following statement in its fiscal year 1976 plan:

> "It is also evident in comments from appropriations committees and members of Congress throughout consideration of the FY 75 appropriation that 'goal oriented' research was expected and that evidence of such an orientation had been lacking in budget submissions of the agency."

According to an NIE official, uncertainty about the size of NIE's budget hindered thorough fiscal year planning until the development of the fiscal year 1977 plan. The NIE plan was developed in response to guidance furnished by the NIE Office of Planning and Management. Input for the guidance also came from ASPE, the Congress, and the National Council on Educational Research.

The planning guidance furnished by the Office of Planning and Management for that fiscal year included guidance furnished by the National Council on Educational Research and provided decision criteria, including

"• Degree to which the proposal reflects:

"- A national priority need in education
"- An informed understanding of
  - the problem
  - the state of knowledge related to the problem
  - the state of practice related to the problem
  - the experience of other Federal efforts to deal with the problem
  - appropriate methodology for addressing the problem

"• Degree to which the proposal addresses specific Congressional, Departmental, Council, and Constituency Priorities.

"• Degree to which a successful contribution to alleviating the problem can be anticipated."

The Office of Planning and Management issued the guidance to the various offices within NIE for their use in developing detailed plans. The plans developed by these offices were

combined to form a composite NIE plan, which was then submitted by the Director to the Council for approval.

In our opinion, the fiscal year 1977 NIE plan is not written in a way that highlights or explains the extent to which the above decision criteria were considered and thus is not responsive to the guidance. The plan is also fragmented by having been independently developed in subject areas associated with organizationally assigned responsibilities.

Planning problems also acknowledged in Office of Human Development planning guidance

The following excerpts from the Office of Human Development (OHD) guidance issued on September 9, 1974, candidly discussed both the strengths and weaknesses in planning for research and evaluation projects:

> "The OHD forward planning process is unique in the Department in that it is target-group oriented. This approach is totally appropriate to R&E planning. It allows us to go beyond the immediate impact of OHD resources on our clients or efficiency of our programs, and to consider all the problems faced by our target populations or subpopulations. We can conduct special studies which explore the social and individual causes of problems, as well as strategies for their resolution. We can also investigate needs of our populations met wholly or partially by other agencies' efforts, and examine the nature and magnitude of unmet needs."

* * * * *

> "R&E planning is often unsystematic. Establishing priorities is difficult unless long-term goals and good planning tools are available. Consequently, projects may often be funded although they do not respond to an agency's major information needs. Even if such projects produce interesting results, the information cannot be used. Many research projects explore important topics, but do not seem to help an agency achieve its goals or objectives. Such projects may not have been adequately directed or controlled by the sponsoring agency. Lack of government direction greatly reduces the likelihood of obtaining useful results."

* * * * *

"There is much talk about the importance of disseminating and utilizing R&E findings, yet little has been done to establish appropriate management systems. When final project reports are not or cannot be used, the purpose of conducting the project must be questioned."

* * * * *

"Many criticisms have been leveled against Departmental R&E planning in past years. It has been claimed that R&E expenditures in some agencies do not generate policy-relevant information, and furthermore, do not even provide for demonstrations that have implications for a broader audience."

STATISTICAL PLANNING NOT COORDINATED

Our review of statistical planning included consideration of both long-range and short-range aspects. We found that statistical planning was only informally coordinated among statistical agencies and often did not describe the intended uses for the data collected. However, many of the deficiencies contributing to this problem have been recognized and actions have been planned to provide better and more relevant statistical information for national policymakers.

Statistical long-range planning

In 1974 the Statistical Policy Division of OMB began efforts to establish the elements of a planning process which was to be in effect during fiscal year 1977. These elements were: (1) identification of present and future statistical needs, (2) identification of methodologies and conceptual approaches for meeting statistical needs, (3) analysis of the feasibility of suggested approaches, (4) establishment of priorities among the various demands for statistics, and (5) implementation and refinement of plans as experience is gained and as priorities change. As of June 1976 OMB had not issued a directive requiring Federal departments and agencies to develop and submit long-range statistical plans in accordance with these elements.

Health Resources Administration plan acknowledges need for improvement of health statistics

Within HEW we reviewed the Health Resources Administration forward plan. This plan included a section concerning the National Center for Health Statistics (NCHS). In our opinion, this plan was not fully responsive to the Secretary's 1974 long-range planning guidance because (1) the strategy for health statistics did not consider the relationship between research, evaluation, and statistical activities and (2) it provided no estimates of the benefits expected from using products to be developed by implementing planned statistical activities.

Although we believe that the plan was not responsive to the Secretary's guidance for the above reasons, it did detail existing deficiencies in health statistical data and presented a strategy which included the following initiatives for correcting them.

--The number one priority was to accelerate the growth of the cooperative health statistics system which was to collect data at the best-equipped level (national, State, and local) and share it with all levels. The goal was to provide comparable and uniform health information and statistics at those levels and to minimize the proliferation of redundant noncomparable data systems by Federal health programs.

--The sample size of the health interview survey 1/ would be expanded to enable (1) greater satisfaction of demand for health data on specific topics, (2) more detailed cross classification of health and demographic characteristics, (3) measurement of infrequently occurring events, and (4) provision of more timely data.

--A reimbursable work program would be established within NCHS to satisfy requests for technical assistance and to conduct studies based on NCHS programs and special surveys. Better coordination and reduced duplication and overlap among surveys would result in reduced

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1/The health interview survey is a method in which a national sample of households is interviewed for the purpose of obtaining national data on the health status and utilization of health service for various groups.

burden on respondents, greater uniformity of definitions and classifications, uniform standards for quality control, administrative efficiencies in the review and clearance process, and greater cost effectiveness.

The NCHS program plan also considered (1) a statistical research program to promote the publication and dissemination of the results of statistical research and (2) the coordination of health statistical activities to reduce redundancy and operating costs and produce comparable data from diverse systems. The plan contained the opinion that a delay of NCHS efforts might mean that the Federal Government may have to pay several times for the collection, processing, and analysis of very similar data.

Statistical fiscal year planning highlighted project efforts and not desired results

Statistical planning has been primarily used for budgetary purposes and has not been formally coordinated with program groups and other statistical agencies. As a result, statistics were neither comparable nor uniform among agencies. We reviewed the characteristics of the fiscal years 1976 and 1977 plan for the National Center for Educational Statistics (NCES) and for health statistics.

NCES planning

Planning by NCES is subject to guidance not only from OMB and the Secretary of HEW but also from the Advisory Council on Education Statistics. The major activities discussed in the fiscal years 1976 and 1977 plan are multiyear projects whose long-term success depends on consistent execution of a carefully designed and agreed upon plan. The plan provided new emphasis on serving Federal policymakers, including the Congress and its staff and agencies within the Education Division. New emphasis was placed on long-range planning for statistical development that would be integrated and compatible with similar efforts in other Federal statistical agencies and would quickly provide services for a variety of users.

The plan calls for NCES to assume the role of the major education statistical agency and serve as the principal source of data and analysis in support of educational policy R&D. However, the Center's plan stated that a target date for assuming

this role was considered inappropriate partly because its budgetary outlook was uncertain. The plan cited NCES publications which were part of a deliberate, coordinated effort to move NCES from the stance of an agency whose role has been responsive and archival to one which is active and anticipatory of need. NCES claimed responsibility for the provision of statistics and analyses which were used to support the development of educational policy and the review of program impact. However, our review of NCES projects contained in the fiscal years 1976 and 1977 plan indicated only a minimal effort had been made to provide analysis for support of policy decisions.

We reviewed selected project descriptions contained in the plan. We examined these descriptions to determine the interrelationships among the NCES projects and the extent to which project justifications provided useful information. Included in each project description were topics on coordination, related work, and methodology.

The information furnished under these three topics was generally narrative and could not easily be compared or integrated across projects. The type of information provided in statistical project descriptions was limited to the following:

--The coordination topic was generally limited to explaining the process and the organizations involved, but did not include detailed plans on how coordination would be accomplished.

--Related work was usually described by listing a collection of other research projects, but the relevance or implications of the related work was not included.

--Methodology was explained through an identification of the type of information to be collected but not how this information would be used.

We believe that the issues discussed under these three topics are important in obtaining maximum use of statistical projects. Therefore, in our opinion, an effort should be made to better describe each project's intended use and its relationship to other projects.

Project descriptions contained no information which explained how statistics developed by these projects would be used to affect policy or program decisions. We question the basis for judging the relevance of the data to be obtained and provided without an explicit plan for using the data.

The problems inherent in compiling comparable educational statistics are noted in the following excerpt from a project included in the Center's plan for fiscal years 1976 and 1977 entitled, "A Taxonomy of Subject Matter for All of Education, and Other Selected Dimensions of Educational Information."

> "The proposed project is justified in that there is no comprehensive classification of the subject matter presented and learned from early childhood education through all levels and types of education, to and including graduate levels. A consequence is a serious lack of comparability and compatibility of information concerning subject matter, a problem which can be corrected only through the acceptable classification of subject matter categories and elements to be applied in records, reports and other communication in education."

Health statistics planning

The Health Statistics Plan for fiscal years 1976-77, dated November 1975, emphasized HEW's current health statistical activities. In its overview, the plan recognized the need for developing a systematic data base capable of satisfying the multiple needs at the State and sub-State levels and for national policymaking and evaluation of the impact of major Federal programs. The extensive and fragmented health statistics system included 214 health data project systems, of which 111 were general purpose, or projects which presumably could satisfy the needs of many users of data, and 103 were related to specific programs, or projects which only focused narrowly on federally funded projects. The following are excerpts from the plan's overview:

> "The present general purpose data systems were not designed to measure changes in accessibility to services, the way services are provided, the nature of facilities used, and other factors involved in the changing financing and delivery patterns at the State and local level. Further, most of the data currently collected is not very 'current' by the time it is made available for review and analysis."

* * * * *

"Agencies operating the various health programs tend to make demands on communities for collecting or providing data specific to their own mandated program needs for planning, monitoring, and evaluation, without regard for the needs of other programs. This results in overlapping, redundant data collection activities that place unnecessary burdens on respondents and produce volumes of expensive data that cannot be aggregated because they are not compatible."

* * * * *

"Obviously, then, there is a clear need for formal mechanisms for reaching basic decisions regarding cooperative efforts between agencies in the development and support of statistical systems. A cross-cutting, coordinated effort can be extremely beneficial to filling the overall information needs for: monitoring changes in the health field; making resource allocation decisions; and minimizing the public burden."

The plan included the following limitations:

--Although the scope of the plan was HEW-wide, the descriptions of current activities and proposed actions were primarily those involving the Public Health Service.

--Statistical activities that were one-time surveys, special studies, and administrative data systems were excluded. Such exclusions can result in duplication of effort.

--The plan did not do as well as was initially anticipated in examining the impact of existing data systems on the respondents in terms of reporting burden and overlap, in clearly setting priorities for action, and in clearly articulating the roles and responsibilities of various HEW components in health statistical activity.

--Costs for health statistics systems were rough approximations because criteria for subdividing program management costs from data systems costs were inconsistent, overhead costs were often vastly underestimated, and non-HEW costs were ignored.

General purpose statistics programs were classified according to the subject area on which data was collected: health status, health resources, utilization of health care in all settings, and health care expenditures. The plan for these areas described the data as being incomplete, inadequate, and inaccurate. Problems relating to the data systems for specific programs were also identified in the plan and generally concerned the management and monitoring of data systems.

Prior GAO review at NCHS

Problems in health statistics surfaced during our review of family planning programs. We examined NCHS' role in developing and operating a coordinated reporting system for family planning programs in the United States. The objectives of this reporting system were to provide national and area statistics on the status of family planning services and provide basic program planning and evaluation data for the efficient and effective development, operation, and evaluation of family planning programs. In a report to the Congress dated April 15, 1975, 1/ we stated that the national reporting system was not a useful source of management information essential for efficient and effective development, operation, and evaluation of family planning programs nationwide. We further noted that statistical reports generated by the system could not be relied upon.

As a result we recommended that HEW have the information needs of management determined and have a reporting system or systems to meet these needs developed. HEW concurred with our recommendation.

SOME EFFORTS HAVE BEEN MADE TO PROVIDE A COORDINATED R&D APPROACH TO SOCIAL PROBLEMS

Some efforts have been made to provide a coordinated approach to understanding and solving social problems. Examples of such efforts include the establishment of (1) the Technical Working Group by ASPE to assist in providing and improving income security data and models and (2) the Manpower Demonstration Research Corporation to examine the concept of providing opportunities for useful work for the hard-to-employ. These efforts are examples in which social R&D was coordinated among agencies and across program areas.

1/"Improving Federally Assisted Family Planning Programs" (MWD-75-25).

Working group established to develop better policy data

In a November 1973 memorandum, ASPE announced the establishment of the Technical Working Group on data and models relating to income security. The objectives of the group were to assist in providing and improving the data and models critical to the analysis, formulation, and assessment of policies relating to income security. ASPE wrote:

> "The need for better data for policy uses has become quite apparent as we have attempted to formulate a more rational system of means-tested programs including welfare reform and health insurance."

A review of the minutes of the Technical Working Group meetings showed that on April 16, 1974, the group proposed that a new income survey 1/ be made since it was a subject of primary concern. The group agreed to continue serving "as a mechanism for discussions of other data collection/modeling activities of general interest." In a January 13, 1975, memorandum, ASPE recommended to the Secretary that HEW design a new income survey. The rationale for that recommendation was

> "* * * the inadequacies of current income data and other household characteristics data are substantial. Cost-estimating models used by SSA [Social Security Administration], SRS, and ASPE for SSI [Supplemental Security Income], welfare reform, and health insurance have been inaccurate in part because of the deficiencies of the underlying data."

Although we found it difficult to assess the impact which the exchange of knowledge has had on the members of the group, a primary achievement over a year's existence has been the multiagency support obtained for undertaking a task such as the new income survey. The perceived need for the Technical Working Group and ASPE's acknowledgment of the inadequacies of current income data and other household characteristics data were evidence of the limitations of centrally guided, agency-accomplished planning and coordinating.

1/The purpose of the survey was to provide improved information on the income and characteristics of the population and participation in Government programs.

In other words, no one agency perceived these inadequacies to be sufficiently serious to take the lead and motivate other Federal agencies to commit research, evaluation, and statistical resources.

In our opinion, the establishment of such a group has provided an opportunity for coordinating the developing knowledge for assisting national policymakers in dealing with multiagency issues.

Nonprofit organization used for planning coordinated research

The Manpower Demonstration Research Corporation--a nonprofit, tax-exempt, publicly supported organization--was established in 1974 to develop, administer, and finance a national demonstration of a concept called supported work. By providing opportunities for useful work for the very hard-to-employ, the program seeks to apply new approaches to their problems and to ease their transition into the regular labor market.

The primary function of the corporation was to supervise and measure the performance of the demonstrations from both an operational and research standpoint. The corporation took a new approach to the administration of a complex project in which different funding sources (the Departments of Labor, Housing and Urban Development, and Justice; HEW; and the National Institute on Drug Abuse) had mutual interests.

CONCLUSIONS

In the area of social R&D, agency planning has been oriented toward activities rather than results. The contents of the plans we reviewed were fragmented according to the way agency activities were organized. The guidance from the Secretary of HEW did require provisions for coordinating plans and synthesizing the demonstration, evaluation, and statistical activities. However, agency plans were generally not responsive to this guidance. Also, social statistics were developed without explanations of how they were to be used to affect policy or program decisions and without guaranteeing the comparability of data from diverse systems.

On the other hand, some efforts have been made to provide a coordinated approach to understanding and solving social problems. These include the establishment of the Manpower Demonstration Research Corporation and the ASPE Technical Working Group.

CHAPTER 4

MORE GUIDANCE NEEDED IN MONITORING SOCIAL R&D PROJECTS

The Office of Management and Budget exercises primarily a budgetary review role over the social research and development activities within Federal departments. Yet, OMB has issued no directive establishing standardized or preferable criteria for monitoring social R&D performers; and the criteria established by the Department of Health, Education, and Welfare for monitoring project performers was so broad that it was often of limited use to agency officials. Also, a uniform methodology for monitoring social R&D projects has not yet been established by HEW. As a result, monitoring practices varied widely.

PROJECT MONITORING POLICIES WERE VAGUE OR NONEXISTENT

Policies governing the monitoring of a project performer under grants and contracts have been broad and may require

--site visits to review accomplishments and management control systems and

--review of specifically required periodic reports about project activities, analyses, and problems.

Beginning with the premise that social R&D project performers were seeking and developing information or knowledge not possessed by the agency, project monitors generally have had a weak frame of reference in which to perform their monitoring.

In general, the extensiveness and intensity of contractor monitoring may vary but was primarily limited to provisions written into the contract. In addition, at the agencies we reviewed, specific guidance for project monitoring was lacking. For research grants, the HEW Staff Manual on Grant Administration advised:

> "The degree of granting agency review or direction exercised may vary from project to project under these approval requirements, depending upon the amount of detail used in stating the objectives of the research effort."

During our review of the National Institute of Education, we noted that an opportunity exists for more consistent and effective project monitoring of R&D projects. We found

--a lack of detailed, formal guidance for assessing projects and

--inadequate staffing procedures which resulted in (1) some monitors being overloaded with projects and (2) monitors being assigned to oversee projects in areas where they have little expertise.

According to NIE officials, they are in the process of completing a major effort to develop and codify their monitoring procedures with the aim of maximizing the effectiveness of the projects they support. The Director of NIE has specified such actions as equalizing monitor's workloads, assigning projects according to the disciplinary strengths of staff members, and offering incentives for efficient and sensitive monitoring.

At the Social and Rehabilitation Service, established guidelines for the monitoring of social R&D projects did not exist. We found

--project officers being responsible for monitoring as few as 1 and as many as 18 projects simultaneously,

--progress reports submitted as often as monthly or as infrequently as semiannually, and

--project officers not visiting or making different numbers of visits to projects.

Although we have no basis to believe that the above factors resulted in social R&D projects being completed at SRS in a less than satisfactory manner, we believe that established guidelines would have resulted in more consistent and effective monitoring of projects.

Executive agency questionnaire

In our executive agency questionnaire, we asked officials to express their degree of satisfaction with the management performance exhibited by the Federal Government in monitoring research in progress. Of those responding, 15 percent were satisfied, 62 percent were partially satisfied, 19 percent were dissatisfied, and 4 percent had no opinion. We believe that the responses to this question suggest a need for the

Federal Government to play a stronger role in monitoring R&D projects.

Prior GAO review of monitoring at the National Center for Health Services Research

On April 6, 1976, we issued a report 1/ on the monitoring of grants and contracts at the Public Health Service's National Center for Health Services Research. In that report we pointed out that circumstances similar to those discussed in this report existed at the Center. The Center

--had not clearly defined the role its project officers were to fulfill in carrying out monitoring activities and

--had not established any procedures or guidelines for carrying out monitoring responsibilities.

We recommended, and the Secretary of HEW concurred, that the Center

--clearly define and make known the role of a project officer and

--develop guidelines and procedures to be followed by project officers in carrying out their monitoring responsibilities.

CONCLUSIONS

At HEW more guidance is needed for the development of procedures to be used for the monitoring of social R&D performers. The guidelines which were used for establishing monitoring policies and procedures were vague or nonexistent.

1/"Grant and Contract Activities of the National Center for Health Services Research" (MWD-76-89).

CHAPTER 5

THE PROCESS OF DISSEMINATING AND USING SOCIAL R&D RESULTS IS UNSYSTEMATIC

No generally applicable or enforced policy exists regarding the Federal Government's dissemination of social research and development information. Although dissemination was not necessarily restricted, information was usually provided only to persons who had specifically requested it or to those whom the project officer considered directly concerned.

The dissemination of social R&D material included information about (1) approved but not completed projects and (2) the results of completed projects. The former described current research projects and when the results of the research would be available. The latter described what had been learned from one or more projects and the cumulative impact of projects.

The utilization of social R&D was hindered by factors including the inaccessibility and irrelevance of social R&D results and the complexity and size of the social R&D system.

THE PROCESS OF DISSEMINATING R&D RESULTS IS UNSYSTEMATIC AND INCONSISTENT

We examined the processes used to accumulate and disseminate social R&D project results to determine their effectiveness in providing relevant information to policymakers. The information services covered in our review included both general-purpose service (such as the National Technical Information Service, Department of Commerce, and the Smithsonian Science Information Exchange, Inc.) and special purpose Services (such as the Educational Resources Information Center, supported by the National Institute of Education). We believe these information services reflected the state of the art for acquiring, storing, and providing reports to interested parties upon request. We, therefore, interviewed officials at these information services responsible for disseminating information. Generally, because of the unsystematic way social R&D results were accumulated, major dissemination systems had only limited capability for satisfying policymakers. In addition, we observed instances of a lack of coordination among the dissemination systems themselves.

Executive agency questionnaire

In our executive agency questionnaire, we asked officials about their satisfaction with dissemination of social R&D research results or research interpretations. Of the officials responding to this question, only 11 percent were satisfied, 55 percent were partially satisfied, 30 percent were dissatisfied, and 4 percent had no opinion. We believe that these responses support our contention that the dissemination of research results is usually unsystematic and inconsistent.

Lack of specific policy affects dissemination

As a rule, a varying number of officials and/or external consultants read the final report of a social R&D project. Based on that reading, the individual may send information about the report to another individual or to a particular information service.

At NIE we found that the dissemination of educational R&D results was unsystematic and unplanned. Specifically, a need existed for a formalized dissemination policy. The absence of an overall policy has resulted in uncoordinated and sometimes conflicting dissemination strategies and priorities.

The dissemination of R&D results at the Social and Rehabilitation Service was generally the responsibility of the project officer; however, no specific requirement for dissemination existed. In addition to internal distribution, the project officer may send final reports and/or abstracts to certain parties who have shown an interest in the project. In our review of completed and ongoing research projects sampled at SRS for fiscal years 1974 and 1975, we noted that the results of only two of nine completed projects were being prepared for transmission to the National Technical Information Service although SRS officials said there was an informal requirement that all final reports be sent to the Service.

In our April 6, 1976, report on the Department of Health, Education, and Welfare's National Center for Health Services Research, we reported on the timeliness of the submission of final reports on social R&D conducted under contracts and grants under the Center's research program. At the Center final reports were to be submitted by performers upon completion or termination of a contract or grant. However, of 18 grant projects which had terminated between June 30, 1974,

and December 31, 1974, copies of only 7 final reports were in project officers' files as of June 30, 1975. Of 22 contract projects which had terminated between January 25, 1974, and February 20, 1975, we found that only 16 final reports had been received as of June 30, 1975.

Three project officers at the Center stated that some grantees have been more than a year late in submitting their final reports. Project officers admitted that they have no other recourse but to continually request a final report when they have not received one from a completed grant. Although contractors did not receive full payment until a final report was submitted, the final payment was usually considered too small to give contractors much incentive to submit the report.

Reports selected by the Center for distribution were sent to the National Technical Information Service, Department of Commerce, which made them available upon request. During this review, we submitted a list of final reports for 36 contracts and grants to the Center to determine how many projects had been submitted to the Information Service. Only 13 had been submitted.

Social R&D results are accumulated in an unsystematic way for policymakers' use

The National Technical Information Service and Smithsonian Science Information Exchange had only a limited capability of satisfying requests for social R&D project reports concerning social policy because of the purposes for which these organizations were established. The National Technical Information Service was established to simplify and improve public access to Department of Commerce publications and to data files and scientific and technical reports produced by Federal agencies and their contractors. As such, the Service has been primarily a distributor rather than an evaluator. It serves best by using the researcher-prepared descriptions of the contents of accessible files and reports. These descriptions were generally brief and did not convey related policy implications. Such descriptions enabled the Service to serve the varied interests of the greatest number of persons in society rather than specific groups, such as policymakers.

The Smithsonian Science Information Exchange operations were designed to help researchers, research managers, and program directors keep informed about activity in their fields of interest. As a result, it had been serving as a primary

source for information on research in progress rather than research results and their policymaking implications.

These services also had been unable to obtain an inventory of all completed reports or ongoing projects. For example, Federal agency use of the National Technical Information Service as a marketing agent was strictly voluntary and originating organizations were charged a processing fee of $40 for each document marketed. As a result, the Service was deprived of a comprehensive inventory and provided its customers with little knowledge about available reports. The Smithsonian Science Information Exchange's inventory of social R&D projects was reported to be incomplete in a March 1, 1972, GAO report. 1/ One reason we believe the situation still exists is that agencies are not required to submit information to the Exchange.

Dissemination of education information fragmented and uncoordinated

Responsibility for developing and disseminating research results on improved educational practices has been fragmented among Federal agencies. In a 1975 memorandum to the Commissioner of the Office of Education (OE) and the Director of NIE, the Assistant Secretary for Education stated:

> "Components within the Education Division are presently engaged in a variety of activities leading to improvement in education. However, these activities are, for the most part, diffused, uncoordinated, and operating in isolation."

To obtain a better perspective of these problems we surveyed the dissemination of R&D results and related information in education. Our survey took into consideration the results of a recent NIE-funded study which noted that 39 Federal agents or national advisory councils were charged with responsibility for disseminating educational products and practices. Furthermore, the study pointed out that no system existed for disseminating these educational products and practices.

1/"Effectiveness of Smithsonian Science Information Exchange Hampered by Lack of Complete, Current Research Information" (B-175102).

Attempts to organize educational R&D

Special purpose services have attempted to obtain, handle, and provide information on a particular subject; for instance, the Educational Resources Information Center has concentrated on educational information. NIE's fiscal year 1977 program referred to the Center as:

> "* * * the largest screened educational knowledge base in the world, and one of the most extensively used formal information systems in any field or discipline."

The Center included 16 clearinghouses and a clearinghouse information analysis program, which provided research-based information in forms useful to education practitioners and other user services. Nevertheless, the fiscal year 1977 NIE plan revealed improvements needed in the Center's system and included

> "* * * a variety of types of education-relevant information (data, promising practices, law, etc.) that are not properly organized for search and retrieval; technical means for file organization need to be improved; and improved physical access to the education data base is required."

Little coordination exists among and within Federal agencies

Little systematic effort exists among and within Federal agencies to coordinate activities to help guarantee more comprehensive provision of educational information services within agencies. Policymaking, funding, and operating decisions were often made for similar programing purposes by different groups, without knowledge of what others had been doing, where they had been putting their resources, and to what extent specific needs had been met. The following are examples which we believe demonstrate the lack of coordination among dissemination systems:

--In the National Science Foundation, the teacher and resource centers conduct their activities in isolation of each other and often do not share the products of their programs. Also, the centers are not linked to HEW programs.

--Although both vocational education and special education centers serve the handicapped, no link between networks or sharing of resources exists.

--Nothing coordinates national centers with related activities, such as the General Services Administration's National Audiovisual Center, NIE's Center for Vocational & Technical Education, OE's National Center on Education Media and Materials for the Handicapped, and NIE's Educational Resources Information Center Clearinghouse in Career Education.

--No element interfaces the Bureau of Indian Affairs' Indian Education Resources Center with OE's Office of Indian Education activities.

--OE, NIE, and NSF support national clearinghouses, but there has been no link among these activities. There has been an International Clearinghouse on Science & Mathematics receiving NSF funds and an Educational Resources Information Center Clearinghouse on Science, Mathematics, and Environmental Education receiving NIE moneys.

USE OF R&D RESULTS HINDERED BY SEVERAL FACTORS

We examined the use of social R&D results and found that:

--Executive agency officials were not satisfied with the use of social R&D results.

--Fragmentation in the research structure, inaccessibility and irrelevance of results, and impersonality in disseminating results hinder the use of social R&D results.

However, some project results were being compiled for use by policymakers.

Executive agency questionnaire

In our executive agency questionnaire, we asked officials to comment on the degree to which they were satisfied with the translation of research results into usable products and/or techniques for problem solving. Of those responding, only 2 percent were satisfied, 49 percent were partially satisfied, 45 percent were dissatified, and 4 percent had no opinion.

This dissatisfaction can be expected because information about project results presumably highlights only what is covered in a project with the hope that the contents will be examined by and influence unforeseen policymakers, rather than identifying policy implications covered in the report.

Thus, it would appear that the policy implications associated with project results could be ascertained only by identifying, acquiring, and reviewing project reports on topics possibly relevant to policy issues.

Several factors hindered effective use of education R&D

We examined the NIE Dissemination and Resources Group's fiscal year 1977 program plan. This plan recognized the problem of limited utilization of the results of educational R&D. The plan also concluded that more R&D results and methods must be used by administrators and decisionmakers in education.

The plan also stated that survey after survey tended to confirm that information resulting from educational research went unused. The plan mentioned the following reasons for this problem:

Fragmentation--Research is structured and results are reported in accordance with the diverse interests, needs, and methods characterizing each of many relevant academic disciplines. Thus, the organization of substance, professional allegiance, and prevailing modes of communication serve to fragment information.

Inaccessibility--Despite the proliferation of information resources noted above, access remains spotty and haphazard. Studies show that educators feel they lack information--probably because of fragmentation, inaccessibility, lack of knowledge of existing resources, and inability to use what is available.

Irrelevance--Even when R&D-based information or products are available and there is expressed desire to use them, they often appear irrelevant or unsuitable to the problem at hand. Research results are reported through channels and in forms mainly of interest to fellow researchers, or perhaps developers.

Impersonality--Diffusion research (examining information used in such clinical systems as medicine, mental health practice, penology, and education) has documented again and again that the most effective transmission of new knowledge and improved practice takes place through human intermediaries. Yet, current information systems are largely document based; delivery mechanisms have been designed around papers, articles, books, or summaries; and very little use has been made of interpersonal communication channels.

Also, the plan described two factors of the operating education system which were particularly critical.

Complexity--Some observers have described the education system and institutions within it as organized anarchy. Though the system and professions related to it are highly organized, decisionmaking power is diffused (both vertically and horizontally) through many structures and several governmental layers. Goals are often ambiguous, yet expectations are high. Value conflicts abound and conditions vary markedly from school to school, community to community, and State to State.

Size--Relevant to the use of systematically developed information are the following numbers: In the public elementary and secondary school system alone there are 2.3 million teachers and administrators, over 16,000 separate school districts, 80,000 school buildings, and over 100,000 individuals directly involved with management as school board members and other policymakers.

In our opinion the above factors affect not only educational R&D but in some way the entire Federal social R&D system. These problems become vastly more complicated in processing and providing knowledge not only about special issues in education but also about multiple-subject social issue areas (for example, urban problems which involve single-subject social issue areas such as transportation, poverty, crime, and health).

NIE officials informed us that they have a major objective of making knowledge obtained from R&D available in forms useful to policymakers, educators, and others concerned with education. In progress is an attempt to devise new procedures for the synthesis of knowledge, use this information to influence future research, and then develop a better means of putting such knowledge into forms more directly usable to policymakers and others concerned.

Some project results compiled for policymakers' use

Some efforts are being made within HEW to provide policy-relevant information to national policymakers. These efforts include such methods as (1) policy implications memoranda developed by OE, (2) Assistant Secretary for Planning and Evaluation reports and papers generated on a self-initiated or request basis, and (3) the publication of the "Policy Analysis Source Book for Social Programs."

Within OE we found that, upon request or at the discretion of a project officer, policy implications memoranda were prepared on the basis of contractor-submitted reports. The content of such a memorandum generally consisted of (1) a summary of project findings, (2) some policy options for consideration, and (3) a recommendation on which option should be approved.

Within ASPE, technical analysis papers were prepared either on a self-initiated basis or as a result of policy interest on a particular topic. These papers contain a synthesis of project results and studies considered relevant to issues which concern policymakers. However, these papers had a tendency to emphasize the complexity of policy issues and the limitation of available data.

ASPE also conducts studies as a result of direct congressional interest. An example of this is a recent study, "The Measure of Poverty." This study was mandated by the Education Amendments of 1974 and was published to assist the Congress and the executive branch in deliberating over Federal programs and for other general analytical purposes.

The National Planning Association, with support from NSF and HEW, published in November 1975 a two-volume Policy Analysis Source Book for Social Programs. The book contains about 3,750 abstracts concerned with policy issues and the analysis of social programs. However, it should be noted that at the conclusion of our review, specific plans for updating this information had not been made.

Policy implications memoranda, technical analysis papers, and the Policy Analysis Source Book for Social Programs illustrate that attempts are being made to provide information from social R&D projects to policymakers. However, because no basis exists for determining the use derived from these projects' results, we were unable to estimate their benefits.

CONCLUSIONS

The process of disseminating social R&D results by agency administrators to meet national policymakers needs has been relatively ineffective. In many instances policies and procedures for disseminating R&D project results have been either nonexistent, or responsibility has not been clearly fixed. This lack of dissemination criteria has led to uncoordinated dissemination efforts and untimely reporting by agency administrators.

However, efforts are being made within HEW to provide policy-relevant information to national policymakers. These

efforts include technical analysis papers and policy implications memoranda.

Several factors which hindered the usefulness of social R&D were (1) the results of research are fragmented in accordance with diverse interests; (2) access to information remains haphazard; and (3) R&D information is often irrelevant or unsuitable to the problem at hand.

CHAPTER 6

OPPORTUNITIES EXIST FOR R&D TO BETTER SERVE POLICYMAKERS

Improvements [illegible] social conditions in the United States can be affected a[illegible]l governmental levels by

--Federal policymakers who legislate Federal programs,

--Federal and State policymakers who establish and enforce rules and regulations for Federal programs, and

--local policymakers who establish local processes and procedures to serve the public.

We were not aware of any means for assessing the extent to which these policymakers have been, are being, and are likely to be served by federally supported social research and development. We believe that such assessments are not likely to be made until the administration of federally supported social R&D has been centrally coordinated.

The recent passage of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (Public Law 94-282) should provide an opportunity to centralize responsibility for social R&D. During our review some executive agency officials expressed concerns about the passage of legislation of this type. These concerns included the adding of an additional bureaucratic layer and the loss of research benefits for other than national policymaking purposes. However, we believe that, given proper consideration, these problems should not hinder the development of a useful R&D system.

RECENT LEGISLATION PASSED TO PROMOTE THE EFFECTIVE APPLICATION OF R&D

The National Science and Technology Policy, Organization, and Priorities Act of 1976 was enacted on May 11, 1976, to provide a comprehensive survey of ways for improving Federal activities in scientific research and information handling. Among the many findings of the Congress which lead to the enactment of the law were:

--That there should be a continuing national investment in science, engineering, and technology which is commensurate with national needs and the economic situation.

--That the scientific and technological capabilities of the United States can help improve the quality of life and anticipate and resolve critical and emerging national and local problems.

--That the many large and complex scientific and technological factors which increasingly influence the course of national and international events require appropriate provision, involving long-range planning and immediate program development to incorporate scientific and technological knowledge into the national decisionmaking process.

Because of these concerns, the Congress declared that science and technology should contribute to attaining priority goals, including:

1. Improving the quality of health care available.

2. Increasing the quality of educational opportunities available.

3. Promoting the conservation and efficient use of natural and human resources.

4. Improving housing, transportation, and communications systems and assuring the provision of effective public services.

The act provides for (1) establishing an Office of Science and Technology Policy in the Executive Office of the President; (2) establishing an Intergovernmental Science, Engineering, and Technological Advisory Panel to identify and define civilian problems at State, regional, and local levels; (3) establishing a Federal Coordinating Council for Science, Engineering, and Technology to consider problems and developments affecting more than one Federal agency; and (4) having the President transmit an annual science and technology report to the Congress which would discuss such issues as an inventory and forecast of critical and emerging national problems.

We believe that the full and effective implementation and operation of the act holds promise of solving many of the problems, including identifying and setting priorities of major national social policy issues for research, improving coordination among Federal departments and agencies and between them and State and local governments, and improving dissemination of research results.

RECOMMENDATIONS

With the recent passage of the National Science and Technology Policy, Organization, and Priorities Act of 1976, an opportunity for strengthening the central coordination of social R&D has been established. A major purpose of this act is to provide a comprehensive survey of ways to improve Federal activities in scientific research and information handling. Therefore, we recommend that the Director of the Office of Science and Technology Policy, in close coordination with the Director of the Office of Management and Budget:

--Develop and test alternative systems in which national policymakers can convey their needs for Federal social R&D information to Federal R&D administrators. These systems could include soliciting and periodically updating a list of social R&D priority needs of policymakers.

--Augment this system with procedures for informing national policymakers of the type and relevancy of information available. (Also included in that effort should be the integration of demonstration, evaluation, and statistical data which is presently fragmented among various agencies.)

--Develop formal mechanisms which would encourage cooperative efforts among Federal agencies in the development and support of statistical systems to generate data useful to national policymakers for decision-making purposes.

--Evaluate the methods used by each executive agency in managing social R&D to identify how the present management system can be made more effective. As a minimum, such evaluation should be made with a view toward:

1. Developing a method for coordinating knowledge development in priority areas across agencies, within Departments, and across Departments.

2. Establishing more specific guidelines for the monitoring of project performers.

3. Providing more appropriate methods for the dissemination and accessibility of information about R&D efforts and results.

4. Developing methods for enhancing the use of results of projects to be undertaken.

CHAPTER 7

SCOPE OF REVIEW

To gain some insight into the organizational and management arrangements within the executive branch for conducting social research and development, we interviewed Office of Management and Budget officials and reviewed OMB publications. To determine what policies and procedures were followed within agencies of the executive branch, we focused our review on the Department of Health, Education, and Welfare. At HEW we:

--Reviewed documents and interviewed officials in the Office of the Assistant Secretary for Planning and Evaluation.

--Interviewed officials at the Social and Rehabilitation Service and the National Institute of Education and examined characteristics of sample demonstration projects administered by SRS.

--Examined HEW publications concerning policy research and program evaluations.

We also interviewed officials at the Educational Resources Information Center; the National Technical Information Service; the Smithsonian Science Information Exchange; the Congressional Budget Office; the House Information Systems, Committee on House Administration; and the Senate's Computer Services Subcommittee, Committee on Rules and Administration.

To add additional perspective to our work, we used a specially prepared questionnaire to solicit the views of 54 Federal agency officials concerning their experiences with the management and results of federally supported social R&D activities. (See app. III.) These officials were selected because of their presumed influence in social policymaking within HEW; the Departments of Housing and Urban Development, Transportation, Commerce, Agriculture, Labor, and the Interior; National Science Foundation; Environmental Protection Agency; and the Veterans Administration. Questionnaire results are presented in the report as relevant issues are discussed. We also reviewed completed and ongoing GAO work for findings relative to social R&D and have made appropriate references to this work throughout the report.

HERMAN E. TALMADGE, GA., CHAIR.
JAMES O. EASTLAND, MISS. CARL T. CURTIS, NEBR.
GEORGE MC GOVERN, S. DAK. GEORGE D. AIKEN, VT.
JAMES B. ALLEN, ALA. MILTON R. YOUNG, N. DAK.
HUBERT H. HUMPHREY, MINN. ROBERT DOLE, KANS.
WALTER D. HUDDLESTON, KY. HENRY BELLMON, OKLA.
DICK CLARK, IOWA JESSE HELMS, N.C.
COTYS M. MOUSER, CHIEF CLERK

United States Senate
COMMITTEE ON
AGRICULTURE AND FORESTRY
WASHINGTON, D.C. 20510

November 7, 1974

B-176765

The Honorable Elmer B. Staats
Comptroller General of the United States
General Accounting Office
Washington, D. C.

Dear Mr. Comptroller General:

Federal expenditures for social programs are approaching $200 billion a year. Of this amount, 1-2% is allocated for social research and development which supports the work of an estimated 50,000 research and development professionals.

Social R&D is justified as generating knowledge to improve the effectiveness of social policy formulation and enhance the program effectiveness of mission agencies. However, serious questions have been raised about the utility and utilization of large portions of federally supported social R&D.

Federally supported social R&D takes a variety of forms. For example, it is estimated that:

- $500-600 million is spent annually for behavioral and social science research.

- $300-$400 million is presently committed to social experiments (e.g. income maintenance and housing allowance experiments).

- $200-$400 million annually is being devoted to program evaluation activities.

- $400-$500 million is used to generate social and economic data.

- $1,000 to $2,000 million goes for the support of demonstration projects.

There is a presumption that expenditures of these magnitudes ought to result in an adequate knowledge base. Nevertheless, as Congress addresses major national social policy issues, information and explanations needed in the design of effective policies are often

found to be inadequate. Whether we are concerned with growth policy, environmental policy, health policy, educational policy or regulatory policy, both information and access to it remain serious limitations. While all uncertainty cannot be eliminated, the present state of social R&D--fragmented, uncoordinated and seemingly unplanned-aggravates the problem of reaching a sound political consensus.

Early in the 1960's, a Senate committee under my leadership undertook to survey much of what is now the social R&D area and made recommendations. Certain aspects of the problem have been examined by non-governmental organizations like the Association of Land Grant Colleges and the National Academy of Sciences. O.M.B., I understand, has also attempted a number of surveys of various aspects of the social R&D area although the results have not been made available to Congress. What is lacking, however, is a current comprehensive examination of social R&D and its potential contribution to the legislative process. I strongly urge G.A.O. to undertake such a study.

The study should seek answers to a number of questions. These include the following:

- What are the organizational and management arrangements within the Executive Branch, (1) for the conduct of social R&D and, (2) for making the results available to Congress in a usable form?

- What policies and procedures are actually followed within the mission agencies of the Executive Branch: (1) in the identification of future needs for policy and program knowledge, (2) in the definition of R&D problems, (3) in the selection and monitoring of performers and, (4) in the dissemination of results in usable form? In this connection, I believe it would be useful to document the important improvements, if any, that have been made in the past five years.

- What can be done to assure the accountability and objectivity of social R&D performers and to enhance the relevance of their products for the formulation of national policy?

APPENDIX I

-What changes in legislation or procedures should Congress consider in order, (1) to insure the objectivity and relevance of the investment in social R&D and, (2) to equip itself to draw on the resources of the social R&D industry in the formulation of the social policy?

In summary, I have long had an active interest in helping to insure that in formulating legislative policy Congress have access to the best information available. The present large scale investment in social R&D ought to expand the knowledge base for policy. Unfortunately, in my view, the recent haphazard growth of social R&D and inadequate attention to how social R&D is initiated, executed and utilized impede the exercise of the Congressional legislative and orversight role. Therefore, I am requesting the G.A.O. undertake an indepth study of the organization and management of the Executive Branch for the production and utilization of social R&D. The emphasis of the study, as I see it, should be on the utilization of the results social R&D in the formulation of national policies. The report of G.A.O. should be available to Congress by January, 1976.

With every best wish.

Sincerely,

Hubert H. Humphrey

HUBERT H. HUMPHREY

PAST FEDERAL EFFORTS TO COORDINATE R&D

Federal efforts to coordinate and furnish guidance in the area of research and development have been numerous. Organizations similar to the Office of Science and Technology Policy have been established periodically; and the responsibilities, authority, and goals of these organizations have varied throughout the years.

The history of these efforts is divided into four distinct periods during which the Federal Government attempted to coordinate research and development. These periods included placing responsibility in

--the National Science Foundation during the 1950s;

--several Presidential advisory organizations during the late 1950s, 1960s, and early 1970s;

--the Director of NSF in 1973 to advise and coordinate civilian R&D functions; and

--the Presidential level with the establishment of the Office of Science and Technology Policy in 1976.

Following is a more detailed history of some of these efforts to coordinate R&D.

NATIONAL SCIENCE FOUNDATION

In 1950 the Federal Government established NSF. In addition to providing direct support for basic research and science education, NSF was to (1) develop and encourage the pursuit of a national policy for promoting basic research and education in the sciences, (2) evaluate scientific research programs undertaken by Federal agencies, and (3) correlate its scientific research programs with those undertaken by individuals and by public and private research groups.

In 1954, Executive Order 10521 explicitly instructed NSF to recommend to the President policies for the Federal Government which would strengthen the national scientific activity and furnish guidance in defining the Federal Government's responsibility in the conduct and support of scientific research.

Responsibility for coordinating Federal policies was transferred from NSF to the Executive Office of the President

with the President's Reorganization Plan No. 2 of 1962. The President explained

> "* * * the Foundation, being at the same organizational level as other agencies, cannot satisfactorily coordinate federal science policies or evaluate programs of other agencies. Science policies, transcending agency, need to be coordinated at the level of the President, drawing upon many resources both within and outside of government. * * *"

VARIOUS PRESIDENTIAL ADVISORY ORGANIZATIONS

Over the years, the following were established in the Executive Office of the President: a Special Assistant to the President for Science and Technology, 1957; the President's Science Advisory Committee, 1957; and the Federal Council for Science and Technology, 1959. The President's Reorganization Plan No. 2 of 1962 included establishment of the Office of Science and Technology to give statutory authority to the Executive Office arrangement and afford the Congress more access to scientific information.

The first Director of the Office of Science and Technology served simultaneously as the science advisor to the President with the official title of Special Assistant to the President for Science and Technology, Chairman of the President's Science Advisory Committee, and Chairman of the Federal Council for Science and Technology. Thereby, the Office of Science and Technology Director and those organizations were responsible to the President for scientific policy and advice.

In that capacity, they initially focused on defense and space programs, generally selecting issues for review, evaluation, and coordination rather than trying to coordinate, analyze, or appraise all agency R&D programs and budgets. During the last few years of the Office of Science and Technology's existence, it surveyed and evaluated numerous governmental research programs on health aspects of environmental agents, such as chemicals and drugs. It found imbalances and made recommendations to correct these situations. Similar activities by the Presidents' Science Advisory Committee and the Office of Science and Technology contributed to decisions on the space shuttle, the breeder reactor, the thermonuclear fusion program, and cancer and heart efforts, as well as decisions on military R&D programs.

Deficiencies in Federal R&D were hinted at by the President in a July 13, 1969, statement.

> "We can no longer afford to approach the longer-range future haphazardly. As the pace of change accelerates, the process of change becomes more complex. Yet at the same time, an extraordinary array of tools and techniques has been developed by which it becomes increasingly possible to project future trends--and thus to make the kind of informed choices which are necessary if we are to establish mastery over the process of change.
>
> "Therefore, I have today ordered the establishment, within the White House, of a National Goals Research Staff. This will be a small, highly technical staff, made up of experts in the collection, correlation, and processing of data relating to social needs, and in the projection of social trends.
>
> "The functions of the National Goals Research Staff will include:
>
> --forecasting future developments, and assessing the longer-range consequences of present social trends.
>
> --measuring the probable future impact of alternative courses of action, including measuring the degree to which change in one area would be likely to affect another.
>
> --estimating the actual range of social choice--that is, what alternative sets of goals might be attainable, in light of the availability of resources and possible rates of progress.
>
> --developing and monitoring social indicators that can reflect the present and future quality of American life, and the direction and rate of its change."

The Research Staff issued a report "Toward Balanced Growth: Quantity with Quality," July 4, 1970, which defines the questions, analyzes the debates, and examines the alternative sets of consequences.

"For too long a time, we as a Nation have responded to problems in a reactive fashion, concentrating our time, money, and energy on treating them on an emergency basis, with consequences that could have been avoided if we had exercised more foresight. One of the central lessons of our present difficulties is that we must learn to anticipate both problems and opportunities--in a sustained and systematic way--in advance of their occurrence. * * *"

The staff was abolished after publication of that report.

Pursuant to Reorganization Plan No. 2 of 1970, the Domestic Council was established in the Executive Office of the President effective July 1, 1970. Among the Council's many purposes was to formulate and coordinate domestic policy recommendations to the President.

In September 1971 during the Domestic Council's search for new technology opportunities, the President announced 1/ that in the next session of the Congress he would present "new programs to insure the maximum enlistment of America's technology in meeting the challenges of peace." The President's special message to the Congress on science and technology, dated March 16, 1972, called for a strong new effort to marshal science and technology in the work of strengthening the economy and improving the quality of life. The President also stressed the need to take a strategic approach to the planning and management of R&D to meet civilian needs. The message requested congressional support for elements of a proposed new Federal strategy and identified certain problem areas for priority treatment.

The President called for a new sense of purpose and a partnership in science and technology.

"* * * We must define our goals clearly, so that we know where we are going. And then we must develop careful strategies which bring together the Federal Government, the private sector, the universities, and the States and local communities in a cooperative pursuit of progress. * * *"

"* * * In all these efforts, it will be essential that the American people be better equipped to make

---

1/In an address to the Congress on stabilization of the economy, September 9, 1971.

wise judgments concerning public issues which involve science and technology. As our national life is increasingly permeated by science and technology, it is important that public understanding grow apace."

TURN OF COORDINATION ROLE TO THE NATIONAL SCIENCE FOUNDATION

Less than 1 year after the issuance of his special message on science and technology, the President dismantled his science advisory organizations. Reorganization Plan No. 1 of 1973 abolished the Office of Science and Technology. The Special Assistant to the President for Science and Technology and the President's Science Advisory Committee were abolished, in effect, when the President accepted the resignations of the persons occupying the subject positions and made no new appointments. The reorganization transferred the advising, coordinating, and evaluating functions for civil R&D matters back to the Director of NSF.

ESTABLISHMENT OF THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY

The most recent action concerning the administration of R&D occurred on May 11, 1976, when the Congress passed the National Science and Technology Policy, Organization, and Priorities Act of 1976. With the passage of this act and the establishment of the new Office of Science and Technology Policy, the Federal Council for Science and Technology was abolished.

OVERALL RESULTS OF EXECUTIVE AGENCY QUESTIONNAIRE

To determine how effectively social research and development was serving executive agency policymakers, we obtained the opinions of executive agency officials by means of a questionnaire. We received responses from 47 of the 54 agency officials to whom we sent questionnaires. Responding to our questionnaire were officials from the Departments of Health, Education, and Welfare; Housing and Urban Development; Transportation; Labor; Agriculture; the Interior; and Commerce and the Environmental Protection Agency, the Veterans Administration, and the National Science Foundation. Following is a summary of the questionnaire information provided in the report in order to give an overview of the results of our questionnaire.

EFFECT OF SOCIAL R&D ON NATIONAL POLICY

To obtain an overall view of the effectiveness of social R&D, we asked executive agency officials their views on (a) what effect social R&D does have on the formulation of national policy and (b) what effect social R&D should have on national policy. Their responses were as follows:

Questionnaire choice	Responses: Does have	Should have
Little or no effect	11%	-%
Some effect	54	-
Moderate effect	31	26
Substantial effect	4	52
Very large effect	-	20
No opinion	-	2

Responses to this question clearly indicate that social R&D is having significantly less effect on national policy than executive agency officials believe it should.

NEED TO PROVIDE FEDERAL GUIDANCE ON NATIONAL NEEDS

In connection with the above question, we also asked if these officials felt they needed Federal guidance on national needs and priorities. They responded as follows:

	Percent
Need for guidance	36
No need for guidance	36
No opinion or mixed opinion	28

Responses to this question clearly indicate that a need exists for evaluation of the present role the Federal Government plays in providing guidance in the social R&D area.

DEGREE OF SATISFACTION WITH FEDERAL GOVERNMENT'S GUIDANCE IN MANAGEMENT

To evaluate the management performance being exhibited by the Federal Government in the social R&D area, we requested officials to express their satisfaction with various aspects of management. Following are their responses categorized to show their satisfaction beginning with the area in which they are least satisfied.

Area	Satisfied	Partially satisfied	Dissatisfied	No opinion
Utilization	2%	49%	45%	4%
Planning:				
Relating research to national social problems	-	63	33	4
Identifying the best areas or issues for research	11	51	33	5
Establishing clear agency goals	2	57	39	2
Setting priorities for areas of research	7	52	39	2
Identifying gaps in research	9	60	29	2
Dissemination	11	55	30	4
Monitoring	15	62	19	4

RELATED REPORTS ISSUED BY GAO SINCE 1972

Report title	Number	Issued
National Science Foundation - Supported Science Education Materials: Problems In Evaluation, Distribution, And Monitoring	HRD-76-134	10/20/76
The National Assessment of Educational Progress: Its Results Need To Be Made More Useful	HRD-76-113	7/20/76
Experimental Schools Program: Opportunities To Improve The Management Of An Educational Research Program	MWD-76-64	4/27/76
Agricultural Research--Its Organization And Management	RED-76-92	4/ 9/76
Grant And Contract Activities Of The National Center For Health Services Research	MWD-76-80	4/ 6/76
Observations On Collection And Dissemination Of Scientific, Technical, And Engineering Information	GGD-76-66	3/19/76
History Of The Rising Costs Of The Medicare And Medicaid Programs And Attempts To Control These Costs: 1966-1975	MWD-76-93	2/11/76
Opportunities For Improved Management Of The Research Applied To National Needs (RANN) Program	MWD-75-84	11/ 5/75
Administration Of The Science Education Project "Man: A Course Of Study" (MACOS)	MWD-76-26	10/14/75
The Need For A National Ocean Program And Plan	GGD-75-97	10/10/75
Improving Federally Assisted Family Planning Programs	MWD-75-25	4/15/75
Need For A National Weather Modification Research Program	B-133202	8/23/74
Research And Demonstration Programs To Achieve Water Quality Goals: What The Federal Government Needs To Do	B-166506	1/16/74
Educational Laboratory And Research And Development Center Programs Need To Be Strengthened	P-164031(1)	11/16/73
Means For Increasing The Use of Defense Technology For Urgent Public Problems	B-175132	12/29/72

APPENDIX IV

Report title	Number	Issued
Observations Of Various Organizations And Individuals On Certain Aspects Of Federal Support Of Problem-Oriented Research	B-133183	3/28/72
Effectiveness Of Smithsonian Science Information Exchange Hampered By Lack Of Complete, Current Research Information	B-175102	3/ 1/72

PRINCIPAL HEW OFFICIALS RESPONSIBLE FOR ADMINISTERING ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office From	To
SECRETARY OF HEALTH, EDUCATION, AND WELFARE:		
Joseph A. Califano, Jr.	Jan. 1977	Present
David Mathews	Aug. 1975	Jan. 1977
Caspar W. Weinberger	Feb. 1973	Aug. 1975
Frank C. Carlucci (acting)	Jan. 1973	Feb. 1973
Elliot L. Richardson	June 1970	Jan. 1973
ASSISTANT SECRETARY FOR PLANNING AND EVALUATION:		
Gerald H. Britten (acting)	Jan. 1977	Present
William Morrill	June 1973	Jan. 1977
Stuart Altman (acting)	Apr. 1973	June 1973
Lawrence E. Lynn	June 1971	Apr. 1973
ADMINISTRATOR, SOCIAL AND REHABILITATION SERVICE:		
Don I. Wortman (acting)	Jan. 1977	Present
Robert Fulton	June 1976	Jan. 1977
Don I. Wortman (acting)	Jan. 1976	June 1976
John A Svahn (acting)	June 1975	Jan. 1976
James S. Dwight, Jr.	June 1973	June 1975
Francis P. DeGeorge (acting)	May 1973	June 1973
Philip J. Rutledge (acting)	Feb. 1973	May 1973
John D. Twiname	Mar. 1970	Feb. 1973
DIRECTOR, NATIONAL INSTITUTE OF EDUCATION:		
Harold L. Hodgkinson	July 1975	Present
Emerson J. Elliott (acting)	Oct. 1974	July 1975
Thomas K. Glennan	Oct. 1972	Oct. 1974