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ABSTRACT

          Updating a 1978 literature review, this document
assembles five articles analyzing recent research on how various
types of educational agencies disseminate information for school
improvement. Each article summarizes literature relevant to one type
of educational agency, discusses interrelationships among the
research findings, and assesses the implications for federal policy
and further research. In the first article, Michael Fullan
synthesizes recent findings on local educational agencies' use of
external resources to improve schools and suggests four types of
needed research. David Clark analyzes reports on the role played in
school improvement by schools, colleges, and departments of education
within institutions of higher education, and calls for further
descriptive and evaluative data. In the third article, Carolyn Moran
and Larry Hutchins examine educational service agencies (including
"intermediate" and "regional" service centers) and ponder the
implications of federal funding cutbacks. Regional education
laboratories and university centers are covered by Leslie Salmon-Cox,
who recommends continued support for these research and development
agencies. Finally, Henry M. Brickell raises questions about the role
of state departments of education in future dissemination and school
improvements efforts. (Author/RW)

DISSEMINATION AND SCHOOL IMPROVEMENT

IN EDUCATIONAL ORGANIZATIONS

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PREFACE

The collection of papers that appear in this report is the result of a collaborative effort among the National Institute of Education, the Far West Laboratory for Educational Research and Development, and students and practitioners of educational dissemination and school improvement activities. Begun in 1978 with the publication of John Emrick and Susan Peterson's A Synthesis of Findings Across Five Recent Studies of Educational Dissemination and Change (Far West Laboratory, 1978), an impressive series of over 30 papers representing the contributions of many scholars and practitioners from throughout the country has followed. Each of the papers has been related to dissemination and the use of information for the improvement of educational practice.

The recently published Improving Schools: Using What We Know, edited by Rolf Lehming and Michael Kane of the National Institute of Education (Sage Publications, 1981) and the selective summary of that volume prepared especially for practitioners; Using Knowledge for School Improvement: A Guide for Educators, edited by Sue McKibbin, Ann Lieberman, and David Degener (Far West Laboratory, 1981) significantly contribute to a major goal of this Educational Dissemination Studies Program (EDSP) publication series; namely, to define areas of agreement and disagreement with the research, development, and practice communities on those factors that are most important in supporting the process of educational improvement.

With the recent shift in federal educational policy toward greater emphasis on state and local educational agencies and encouraging more extensive use of the capacities of other existing educational support organizations, a synthesis and assessment of selected literature describing the various major types of educational agencies in terms of their school improvement capacity seemed timely and useful. EDSP published a comprehensive review of the literature in this area in 1978 (Paul D. Hood et al.; Statewide Educational Dissemination Capacity: A Review of Recent Literature and Current Information, Far West Laboratory). During the ensuing four years, much new research has been produced, and an update is in order. Moreover, while the earlier EDSP review was almost entirely descriptive, the current report goes beyond description to analysis and assessment in terms of implications for federal policy. Because the authors of the five papers are each unusually well qualified to review and interpret the literature in their assigned areas, the individual papers deserve special attention on the part of anyone seeking a cogent and useful orientation to state, intermediate, or local educational agencies, colleges of education, or regional educational laboratories and R&D centers as research and practice improvement agencies.

Paul D. Hood
Educational Dissemination Studies Program

ACKNOWLEDGMENTS

INTRODUCTION

In the spring of 1981, the Educational Dissemination Studies Program (EDSP) proposed to synthesize and interrelate selected studies and research reports describing how various types of organizations disseminate information for school improvement. The synthesis was designed to provide the Research and Educational Practice Unit at the National Institute of Education with additional insights into recent research grouped by five organizational types: school districts; schools, colleges, and departments of education (SCDEs); intermediate service agencies (ISAs); laboratories and centers; and state education agencies (SEAs).

This document presents five papers, each of which summarizes and interrelates relevant research. Implications for federal policy on dissemination for school improvement are then discussed in the papers. Unique conclusions emerge from each work:

- After synthesizing recent research on the use of external resources for school improvement by local education agencies, Michael Fullan suggests four types of studies that should be placed on the national research agenda for LEAs.

- David Clark provides thorough summaries and cross-case analyses of research reports on schools, colleges, and departments of education. He concludes that because SCDEs will continue to play an important role in dissemination and school improvement activities, descriptive and evaluative data about their activities should be collected.

- Carolyn Moran and Larry Hutchins conclude from the research that although intermediate service agencies represent a significant capacity for educational improvement, their future role in the dissemination process is jeopardized by impending federal cutbacks in funding.

- Leslie Salmon-Cox traces the development of labs and centers, recommending that NIE continue the support for these organizations in order to maintain an institutional capacity for educational problem solving.

- In his essay on state education agencies, Henry M. Brickell argues that federally supported SEA efforts to improve schools beyond minimum educational needs are not likely to be maintained by states when federal funding is eliminated. After examining dissemination as a field of study, Brickell offers implications for NIE research on the role of SEAs in dissemination.

Each paper has three components: summaries of research relevant to the organizational type being considered; a comparison of these research findings and a discussion of their interrelationships; and policy implications for further research on dissemination and school improvement. Although the papers vary in the way they address these three components, the essential contents of each can be found in every paper.

The literature included in the five syntheses was selected by NIE's Research and Evaluation Practice staff in consultation with staff of the Educational Dissemination Studies Program at Far West Laboratory. The papers are not intended to provide comprehensive reviews of the literature; rather, their purpose is to analyze significant key documents of special interest to NIE and dissemination practitioners. One study, Performers of Research and Research-related Activities in the Field of Education by Frankel, Sharp and Biderman, was included in several of the reviews because it surveyed a broad spectrum of organizational types.

The five papers in this collection offer informative, thought-provoking perspectives on the roles that various educational organizations play in disseminating information for school improvement.

THE USE OF EXTERNAL RESOURCES FOR SCHOOL IMPROVEMENT
BY LOCAL EDUCATION AGENCIES

Michael Fullan

Introduction

This paper will review and synthesize selected research studies on the topic of local education agency (LEA) use of external resources for school improvement. The paper is divided into three main sections. Section I contains a short summary of four individual research studies, in which the main findings of the reports are highlighted. Also included in Section I are a small number of references to other recent research studies that make an important contribution to the topic under consideration. Section II contains a cross-comparison of the four studies and other references mentioned in Section I, noting similarities and differences. While Section I contains a brief descriptive overview of findings, Section II examines cross-comparisons using a more analytical framework. In the final section, questions of definition of key terms, research gaps, and promising lines of inquiry are noted for the purpose of suggesting a research agenda on LEAs' use of external resources for school improvement.

Three other preliminary comments should be made. First, discussion of the problem of defining terms like "external resources" and "school improvement" will be postponed until the final section. At this point, it should be sufficient to note that external resources include information, programs or products, and people relevant to the provision of assistance for school improvement. School improvement is conceived very broadly to include any individual or organizational outcome representing an improvement over existing conditions. A second introductory comment: My task was to focus on a small number of selected reports, not on the field as a whole. A thorough review would no doubt turn up more information, although such a review would be complicated by the fact that LEA "use of external resources" is not well defined in most research studies of local districts. A third and related point is that LEA use of external resources appears to be a neglected topic of study if we use the LEA as the unit of analysis, i.e., if we examine use of resources from the perspective of the LEA. There have been several excellent studies of the role of external consultants, or of the fate of individual program innovations, but not of the LEA as an entity vis-a-vis the ecology of resource utilization.

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<u>Section 1. A Summary of Selected Studies*</u>

The four primary studies to be reviewed are: Adams's <u>A Survey</u>
<u>of the Capacity of Selected Urban School Districts to Utilize and Dis-</u>
<u>seminate Innovations in Educational Technology</u> (1978); the Alkin et al.
case studies of five school districts, <u>Using Evaluations</u> (1979); the
Lyon et al. survey of <u>Evaluation and School Districts</u> (1978); and por-
tions of the Frankel et al. work on <u>Performers of Research and Research-</u>
<u>Related Activities in the Field of Education</u> (1979). Four other stud-
ies will be referred to although not summarized: (1) the Huron Insti-
tute's study on <u>The Role of Evaluation and Test Information in Public</u>
<u>Schools</u> (Kennedy et al., 1980); (2) Bank's extension of the Lyon study,
<u>School District Management Strategies to Link Testing with Instructional</u>
<u>Change.</u> (1981); (3) the large-scale <u>Study of Dissemination Efforts Sup-</u>
<u>porting School Improvement</u> (Crandall et al., forthcoming); and (4) the
study of <u>Research and Development Utilization</u> (RDU) (Louis and Rosen-
blum, 1981). For further research see also the chapter in Fullan (1982)
on the role of school districts in educational change, which describes
findings based on research in several school districts.

I. Adams. <u>A Survey of the Capacity of Selected Urban School Districts</u>
<u>to Utilize and Disseminate Innovations in Educational Technology</u>
<u>(1978).</u>

The Adams study is based on "an informal survey of 27 large urban
school districts to inquire about their capacities to adapt, utilize and
especially to disseminate innovations in education" (p.1). A telephone
survey was conducted, usually focusing on the heads of departments of
planning, research, or evaluation. Adams classifies the districts into
three groups: those with formal institutionalized processes to identify,
evaluate, and adapt innovations (N=12); those districts in which the
process of knowledge utilization is highly routinized as an ongoing
function of the basic administrative structure (N=8); and those that
have no formal mechanism for dealing with innovations (N=7). There
are brief comments on each district.

The Adams study makes virtually no contribution to our goal of
finding out how districts use resources. The study does not address
its own key question concerning the "capacity" of districts to utilize
innovations. The information presented is extremely superficial and

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*Each study's summary is very brief, providing only highlights. The
purpose is to set the context for more analytical discussion in
Sections II and III.

selective, the conceptual distinction between the first two groups of districts is unclear, and there are really no "findings" beyond a few ad hoc, undeveloped statements.*

The report's one substantive contribution comes in the appendix by Fleming which describes a multi-year reform effort in the Cleveland public schools. The description, essentially relating to insularity and lack of coordination among major groups and elements in the change process, identifies a number of problems relevant to our review. These problems include: (1) school planning teams isolated from central district staff; (2) use of outside-district consultants without provision for follow-through; (3) staff development programs not explicitly focused on the demands of the change programs, lacking follow-through support and evaluation, and conducted in isolation from district support staff; and (4) an overall breakdown of the evaluative information-gathering system due to mistrust and lack of coordination. These "negative" findings are consistent with those from more "positive" cases referred to later, where planning, staff development, and information-gathering systems are linked more tightly to school improvement systems.

M. Alkin et al. Using Evaluations: Does Evaluation Make a Difference? (1979).

Alkin et al. conducted case studies concerning the role of evaluation of ESEA Title I or Title IV-C programs in five school districts.** The five cases were selected on the basis of referrals from professional colleagues, proximity to the researchers' home base, and relative completeness of data. An attempt was made to avoid "showcase" examples. A brief profile of the five districts (identified by pseudonyms) follows:

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* The author notes that the study was informal and the results tentative; but in my assessment, there was little we could confidently refer to as "results."

** Title I (funds for programs for the disadvantaged) and Title IV-C (formerly Title III, providing monies for innovative programs) are funded by the federal government and administered through state departments of education. Evaluation of the programs is a requirement for the receipt of funds.

Figure 1. Profile of Districts

District	Population	Program	Primary Mover
Bayview	McNaught Jr. High, 1150 students (65% black, 22% Mexican-American, 13% white)	MORE (Motivation for Retention-- Title III/IV-C project designed to reduce truancy and dropout by "improving overall academic achievement and general learning environment")	Principal, V-P, and teacher-counsellor working with district's special projects office wrote Title IV-C proposal
Valley Vista	Sierra Elementary School, 780 students (70% black, 11% Mexican-American, 16% white, 3% Asian)	IGE (Individually Guided Education, Title I program; IGE is a program designed to improve achievement through individualization.)	Unclear. Apparently district administration brought IGE to the attention of Title I schools and principal and staff of Sierra decided to adopt it
Rockland	Five of 13 elementary schools in the district qualifying for Title I (mostly white, 12-15% Mexican-American)	K-LEAD (Title I program; a kindergarten learning diagnosis and remedial program involving 120 children-- 24 from each of the Title I schools)	District requested a school psychologist to write a proposal and direct implementation of the Title I program. Close working relationship with principals
Clayburne	Edison High School (up to 250 students, mostly middle-lower-class whites; minority enrollment "well below city average")	Outreach (Title III/ IV-C project--an experimental alternative career high school focusing on career training, on-the-job training, and placement)	District evaluator wrote proposal, associate superintendent strong proponent
Garrison	McNair Elementary School (1200 students, up to 540 involved in the program; population 99% Mexican-American with large percentage monolingual Spanish speaking in early grades)	Alternate Language Strategies for the Second-Language Learner (Title IV-C-- a bilingual program designed to involve students in the development of bilingual-bicultural materials)	School principal and a teacher wrote Title IV-C proposal

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It is very difficult to summarize the main findings of the Alkin case studies. The five cases by definition used external resources for the funding of programs. In four of the five cases (the exception being Valley Vista IGE), the proposals were written by personnel internal to the district. It is unclear, however, how much use was made of external information, ideas, and the like in the preparation of these proposals. The use of external resources for staff development is also not clear, although staff development was part of each program. The question of resource utilization is further complicated because there were at least two separate but overlapping aspects in the cases--one pertaining to resource use for program adoption and improvement, the other to the more specific question of evaluation utilization (the primary interest of Alkin's study).

Alkin and associates do a nice job of identifying the multiple facets of evaluation use. They found that the formal evaluation reports were used actively in only two of the cases (in Rockland, in making decisions about program continuance; and in Garrison, in altering community, district, and funding attitudes). In every case, Alkin found that informal evaluation activities (mini-reports, feedback sessions, informal discussions with evaluators or among users) had a variety of impacts on program leaders and participants, although it was difficult to identify the influences precisely.

Finally, Alkin et al. list eight categories of factors that they believe affect evaluation utilization: (1) pre-existing evaluation bounds (e.g., mandated requirements), (2) orientation of the users (e.g., information interests of users), (3) the evaluator's approach (e.g., involving users, facilitating use of information), (4) evaluator credibility (e.g., specificity of credibility vis-a-vis the program), (5) organizational factors (e.g., district office/school site inter-relationship--which incidentally in most cases was not very close), (6) extra-organizational factors (e.g., community and government agency influence), (7) information content and reporting (e.g., format and substance in terms of test data, program implementation information), and (8) administrator style (defined as organizational skills and initiative).

We will have more to say about the Alkin report in Section II, but all in all it was not intended to zero in on external resources and their impact on improvement. Therefore, while some of the findings are relevant to these topics, the relationship is not systematically explored.

C. Lyon et al. Evaluation and School Districts (1978).

Lyon et al. were interested in the existence and role of evaluation offices in LEAs. They conducted a nationwide survey of 750 LEAs with student populations of 10,000 or above. Among the main findings:

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- Only 43 percent of the 750 districts had a central office responsible for program evaluation. (the percentage may be increasing with most units established since 1970);

- Only 26 percent of the units that did exist reported doing all of the district evaluation--in the rest of the cases, other units in the central office also conducted evaluations;

- Evaluation units received about one third of their funds from federal and state sources, and two thirds from local sources;

- About half of the units did not spend any money on consultants (relying entirely on district personnel);

- About 75 percent said that testing student achievement was the dominant activity;

- There was little evidence that achievement scores or other evaluation data were linked to instructional improvement procedures;

- Evaluation heads were more likely to identify additional staff, increased access to computer time, and information about effective evaluation practices as more important than staff development, communications, and organizational changes.

Lyon et al. also found that only 38 percent of the evaluation units were located in the instructional division (as distinct from being located in the administrative division, or being totally separate). Thus, 62 percent of the units were not in the "instructional line" (p. 36). Of the district evaluation reports examined, only 17 percent described program implementation. Finally, evaluation personnel spent 60 percent of their time with administrative clients (superintendents, board members, federal/state agencies) and some 40 percent with teachers, principals, and parent groups. Time spent with teachers/principals was devoted primarily to inservice workshops, informing them about test administration and interpretation.

In short, there was little use of external resources and limited intra-district coordination of evaluation and program improvement activities.

J. Frankel et al. Performers of Research and Research-Related Activities in the Field of Education (1979).

Portions of the research by Frankel et al. (1979) provide some useful descriptive-overview information relevant to our interests (but again, directly related details are limited). Frankel et al.

conducted a nationwide census of organizations performing educational research, development, dissemination, and evaluation. Their final sample consisted of 1,530 institutions in the public, academic, and private sectors. The public sector included 37 state education agencies, 193 intermediate service agencies, and 401 school districts (minimum enrollment: 10,000). The report contains some interesting comparative analyses, but I will confine my summary to some of the findings most relevant to local school districts:

- Of the total $734 million spent on RDD&E in fiscal year 1976-77, $54 million (or seven percent) was spent by the local districts in the sample.

- In the public sector, over 80 percent of the funds for research came from the federal (46 percent) or state (35 percent) levels.

- About two thirds of the 401 districts spent less than $100,000 on educational RDD&E (19 districts spent more than $500,000).

- One quarter of the districts doing RDD&E had no full-time professionals conducting those activities, and another quarter had only one full-time professional.

- Seventy percent of the districts conducted fewer than 10 projects during the year.

- Projects in the public sector, as would be expected, concentrated on development and evaluation projects as distinct from research.

Frankel et al. conclude that only a small number of districts conduct development and evaluation projects,* and speculate that the use of results (to adopt, modify, discontinue programs, etc.) is less likely when locals are not conducting evaluations, i.e., in situations where either no evaluation is being conducted or where RDD&E is carried out by those outside the district. They imply that more locally based projects would be desirable (p. 185). Of course, the more fundamental question is: What are the characteristics of effective district RDD&E projects compared to less effective ones? This question of effectiveness was beyond the scope of the research by Frankel et al., but their main conclusion--that school districts do not conduct much development and evaluation research--is congruent with other research findings (e.g., Lyon et al.).

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*The researchers note (p. 185) that over one third of school systems reported zero RDD&E activities. This presumably refers to the larger sample they began with, of which only a certain number met their criteria. In any case, their sample was selected on the basis of presumed involvement in RDD&E, and even with this select sample the activity is concentrated in a smaller number of districts.

Other Studies

M. Kennedy et al. The Role of Evaluation and Test Information in Public Schools (1980).

A. Bank. School District Management Strategies to Link Testing with Instructional Change (1981).

D. Crandall et al. Helping Schools Get Better: Strategies for School Development in the 80s (forthcoming).

K. S. Louis and S. Rosenblum. Linking R&D with Local Schools: A Summary of Implications for Dissemination and School Improvement Programs (1981).

There are four other studies relevant to local district improvement processes to which I would like to refer, although it will not be possible to mention more than a few highlights across the studies.*

Kennedy et al. (1980) set out to identify "exemplary school districts" noted for their use of test information to improve instruction. One hundred eleven districts were nominated, from which the researchers selected 18 for closer study. Kennedy et al. stress two major unanticipated variations in the districts:

1. One important variation related to "the institutionalization of decision-making strategies incorporating available data; the practice of collection and applying various kinds of data pervaded the decision-making process of several districts" (p. 16). Many of the exemplary districts systematically collected and used data. The norm was to discuss issues in relation to research data.

2. Districts varied in terms of the presence or absence of major changes. One half of the districts were experiencing at least one major change (strikes, reorganization, desegregation, crises with superintendents). Major changes unconnected with the program were fairly "normal" and affected whether and how information could be used.

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*My brief comments merely introduce these other studies. The original reports should be examined directly.

At the district level, four program themes recurred (p. 47 ff.):

1. Authority. District program directors frequently said that they lacked sufficient authority to supervise programs for which they were responsible.

2. Compliance. Program directors were frequently occupied by providing compliance data to external agencies (state, federal), with little time for interacting with users and focusing on program improvement. (See Elmore [1980] for a discussion of compliance versus capacity.)

3. Funding. Program directors were frequently preoccupied with establishing and maintaining funding, and with staving off budget cuts including complete elimination of their programs. (This was especially true for projects that depended on external funds, but was also the case for those involved in competition within the district for local funds.)

4. Program improvement. In 10 of the 18 districts, program directors gave several illustrations of how they used data to bring about program improvement.

At the school building level, two issues in particular emerged from the Kennedy study. First, in nine districts, school staff indicated that implementation of district policies was a major problem (p. 67), especially because of ambiguity in the policies and/or difficulties in providing requested data. (In this case, greater emphasis on data without corresponding assistance created many more problems than it solved. Concerning "external use," it is also important to note that in this equation, the district office is the external agency and the school the internal one.) Kennedy also found that at the building level, few interviewees had any data at all on building-level issues, and hence few used data to resolve problems (p. 129). (See Neumann's [1981] parallel paper which provides some examples of effective use of data by school principals.)

Lastly, as in the Lyon research, Kennedy and her colleagues found very great variations in the kinds of information gathered and in the way in which districts were organized. One urban district had five evaluators, another slightly smaller district had over 100; one district depended entirely on federal money for its evaluation budget, another for only five percent; some evaluation units designed most of their products for use by the central office, while others saw teachers and principals as their primary clients.

In a follow-up to the Lyon survey, Bank (1981) conducted extensive field work in six school districts selected because of their reputation for linking testing or evaluation activities with instruction. Some familiar findings:

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- All six districts were "in the midst of tumult and problems" (p. 4), e.g., desegregation orders, large population shifts, new immigrants with languages other than English.

- In four of the six districts, testing programs had been developed in response to federal or state funding.

- Three conditions were present to varying degrees in all cases. Bank refers to these conditions as the sine qua non of data-based instructional change strategies: (1) motivation or the presence of a strong incentive to make improvements (e.g., frustration and concern about low achievement; board policies, parent pressure, federal or state requirements, or other external pressures to change); (2) the presence of idea champions--a small group of key people in the district who cared and persisted in advocating the use of test information to improve instruction; and (3) a coordinated delivery system--instead of autonomous units with little interaction, the six districts evidenced coordination and interaction among divisions, units, and schools in the collection and use of testing information. The districts ranged in the formality versus informality of the coordinating system, but all six districts were characterized by frequent interaction and flow of communication and information.*

- Bank discovered three different management approaches to connecting testing and instruction: (1) a personnel or staff development strategy (two districts); (2) a building-level problem-solving strategy (two districts); and (3) an instructionally oriented objectives-based strategy. Bank notes that some districts used mixed approaches, but that most had a fairly coherent primary strategy.

The final two references (Crandall et al., Louis and Rosenblum) represent an important shift in relation to most of the above studies, because they focus on the broader topic of innovations and school improvement rather than on the role of evaluation. Crandall et al. are just completing a large-scale study of Dissemination Efforts Supporting School Improvement (DESSI). Among other things, they have investigated the adoption, implementation, and impact of National Diffusion Network programs, Title IV-C, Bureau of Education handicapped programs, and state education innovative projects. They carried out surveys as well as 12 case studies, and were able to "triangulate" and cross-compare many of their findings. Their study is comprehensive and

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*Note that it is the three conditions in combination that are important.

detailed in analyzing the processes of improvement from adoption through implementation and impact, and in studying intra- and inter-level relationships at the classroom/school, district, state, and federal levels. The final report and full findings are not yet available, and the study is in any case much too comprehensive to discuss in any detail in this paper. Suffice it to say that the study deals extensively with how and why school districts adopt new programs, and with the various kinds of internal (district) and external support and technical assistance necessary for implementation.

The study documents several types of successful outcomes. The findings are consistent with the research discussed in this paper, but are much more specific and explanatory as regards the events and processes of educational change (see also Fullan, 1982). More to the point, the DESSI research demonstrates that there are useful programs, information, and technical assistance externally available for school districts; that effective use depends on a combination of factors related to certain school and school district capacities interacting with external resources; and that when these external resources and internal orientations and capacities are combined, positive school improvement outcomes occur. The DESSI study, in short, is the most direct research examination of the factors related to the topic of this paper. (I refer to it again in Sections II and III, but a systematic interpretation must await the arrival of the full report.)

A second valuable, large-scale study which has become available in the last six months is the research evaluation of the R&D Utilization (RDU) Program (Louis and Rosenblum, 1981a, 1981b). The RDU research is important because it addresses multiple aspects of resource support (including both product and process support) and improvement outcomes (use of new products, increased problem-solving capacities). It is also a well-designed and -documented piece of research. (See Louis and Rosenblum [1981a] for an overview of the project findings and reports.)

The overall objective of the RDU Program was to help schools clarify and solve local problems through the use of external resources (products and technical assistance). Seven major projects were supported by the RDU Program (The Northwest Reading Consortium, the NEA Inservice Education Project, The Consortium of the Network, Inc., and four projects operated by the state education agencies of Georgia, Pennsylvania, Florida, and Michigan). More than 300 schools participated in the program, which was funded for a three-year period.

Only a few of the basic findings will be listed here:

1. Approximately 75 percent of the schools successfully adopted and implemented new programs and practices; externally developed products were found to be very relevant to the needs of schools.

2. External human assistance was found to be very important, if characterized by intensity (frequent interaction), initiation as well as responsiveness,

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and the involvement of a variety of external agents rather than only one.

3. Internal problem-solving activities were important if the following elements were included: an emphasis on building consensus and "ownership" through communication with teachers not on the team; a strongly committed team leader; explicit attention to planning and implementation; and strong but tactful intervention by the field agent, who could connect the schools with necessary resources. A small amount of external funds ($1,000-$8,000 per site) was used at each site, primarily to provide release time for teachers on problem-solving teams.

Louis and Rosenblum draw several conclusions. First, the combination of technological and people/process support is crucial; it is important to provide support for high levels of effort and broad involvement in a problem-solving process designed to decide on and implement new programs and practices. As to the RDU Program's twin goals pertaining to new product use and increased problem-solving capacity, the researchers found relatively high degrees of success in the former but much less evidence of success in the latter. Three years was insufficient to incorporate problem solving that linked intra-school processes with external resources.

Let us now turn to a more analytical treatment of the studies.

Section 2. Cross-Study Comparison

In the four main studies reviewed, the major variables of interest are not isolated and examined directly, so a formal systematic comparison is not possible. To facilitate some cross-study comparison, I have organized this section into two parts. The first presents a simple analytical framework for considering some findings across the several studies. The second part lists some dilemmas, gaps, and unknowns--the latter providing a link to the concluding section of the paper in which some policy/research agenda recommendations are made.

Framework and Findings

Figure 2 represents an overview of the elements of the change process in relation to external resources, school district factors, and improvement outcomes.

Figure 2. Elements in the external resource/ school district improvement process

Internal School District Factors	External Resources		
	Phases of the Change Process		
	Adoption	Implementation	Outcomes
Commitment of leadership to improvement			
Explicit coordination and problem solving at district and school levels	Funding	Funding	Funding
Staff development of administrators and teachers	Information/ programs	Information/ programs	Information/ programs
Evaluation/data gathering linked to use for improvement	Technical assistance/ staff development	Technical assistance/ staff development	Technical assistance/ staff development
Crisis events			

The logic and main concepts of Figure 2 require some comment. First, external resources are classified according to three types: money, information or programs, and technical assistance. This division closely parallels Louis and Rosenblum's threefold classification of resource support in terms of fiscal strategies, technological strategies (information, materials, products,) and process/people strategies. Thus, school districts' use of external resources can be conceived of as involving none, one, two, or all three types of resource support.

Second, there are different phases of the change process. Districts are sometimes exploring, considering, or making decisions about new directions or programs; "adoption" refers to what happens leading up to the first use of new ideas in practice. "Implementation" consists of all those events and activities designed to support actual use of ideas from the time of first attempted use until the new ideas or practices are routinized or rejected--a period nearly always covering more than one school year. "Outcomes" refers to a variety of consequences resulting from the implementation phase. Crandall et al. (forthcoming) identified and assessed five types of outcomes: degree of implementation of a new practice; attitude toward the practice; impact on students, teachers, and the organization; instituionalization; and attitude toward school improvement. Louis and Rosenblum (1981a, p. 149) identified a somewhat similar set of six outcomes: organizational change, scope of implementation, incorporation of the product, incorporation of a problem-solving process, problem resolution, and personal impacts. Note that the three types of external resources may (or may not) be available, or used (to support and/or assess what is happening) at each of the three phases of the change process.

Third, characteristics of the district determine to a great extent whether and how the district combines external resources with internal resources and procedures. Indeed, these characteristics are so powerful that if they tend strongly in the negative direction, no amount of external resources is likely to result in significant improvement; and if they tend strongly in the positive direction, districts can bring about major improvements in the absence of significant outside support. In between these two extremes, the right combination of external resources can help districts to bring about positive change, and in many circumstances small amounts of external resources can make a critical difference. Whatever the situation, the characteristics of the district represent very important variables which heavily influence external use, internal procedures, and consequently school improvement outcomes.

Using this framework as a point of departure, what are the main findings from the studies in Section 1? These main findings, with corresponding references, can be summarized as follows (organized under the three categories):

External Resources

1. External funding does play a major role in providing
   resources for program innovation, evaluation, and other

- improvement-related activities. Six of the eight studies--Adams and Lyon being the exceptions--indicate the presence of major external resources.

2. There is some indication that information/program resources combined with technical assistance/staff development resources are necessary for improvement to occur (Crandall et al., Louis and Rosenblum); stated differently, one type of resource without the other may not have much impact. Inclusion of the third resource--funds--by itself does not mean much, unless the funds are used to purchase program and technical help.

LEAs

3. Although there are no thorough studies of use of external resources, there is considerable evidence in our studies that most districts do not carry out systematic program planning, implementation, evaluation, etc., either through the use of local resources or through obtaining external resources to support these activities (Lyon, Kennedy, Frankel).

4. The smaller proportion of districts that are successful ("exemplary") possess some common properties:, commitment of top leaders and other key advocates; an explicit coordinated delivery system or plan for problem solving, collecting and using information, etc., to bring about improvement; staff development and other forms of technical assistance and support from both internal and external consultants; procedures for using program information and other evaluative data; crisis events as common occurences which either generate pressure for improvement (incentives) or interfere with plans for improvement by diverting energy and attention (Bank, Kennedy, Crandall, Luis and Rosenblum).*

5. Despite some common general properties, variations and uniqueness in conditions and approaches to improvement even among apparently equally successful LEAs were obvious: presence or absence of evaluation or other similar units; differences in how central offices were set up, independent of size of the district; differences in how

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*See also Fullan (1982), Chapter 10, for a review of the role of districts in educational change; and our case study of Adams's district (Fullan et al., 1978), which takes a thorough and systematic approach to using external resources (programs, consultants) for training inside teachers and administrators.

explicit the objectives were, and in how formal the
procedures were; differences in primary strategies
(district-wide staff development versus school-based
problem solving versus district-wide instructionally
oriented objectives-based approaches); differences in
orientation of district evaluators or data gatherers
toward external agencies versus central office staff
versus school-based staff; and the presence or absence
and differences in types of crises faced by districts--
nine of 18 districts in Kennedy's study and six of six
in the Bank study were facing major crises of different
kinds (Alkin, Bank, Kennedy, Crandall, Louis and Rosen-
blum).

Outcomes

6. Except for the Crandall study and the Louis and Rosen-
    blum study, little has been done to relate external and
    district factors to school improvement outcomes. These
    two studies discovered high percentages of success.
    (Several factors should be kept in mind: Success was
    related to the presence of external assistance combined
    with certain LEA and school characteristics as indi-
    cated above; the two studies focused on the population
    of districts/schools that had selected external innova-
    tions, and therefore were working with select samples.)
    The conceptualization and measurement of different types
    of outcomes are major contributions of these studies.
    As for the other six studies, there is either no discus-
    sion of outcomes (Adams, Alkin, Lyon, Frankel) or else
    there is a discussion of positive outcomes but without
    any formal attempt to represent the outcomes (Bank,
    Kennedy).

Dilemmas, Questions, and Gaps

1. We know very little about how LEAs interact with outside
    agencies (in relation to the three types of external re-
    sources--funds, information, technical assistance). Some
    studies have focused on particular products or programs
    but not on the array of information and products avail-
    able.

2. There is no clear distinction of clients in the LEA, es-
    pecially central office versus school personnel. In
    most studies of external resources, we do not get a
    clear differentiation of whether each of these two types
    of clients benefited or not from access to and use of
    external resources. We also need to examine the external/
    internal relationship within the LEA between central off-
    ice and school respectively. (Crandall et al. and Louis
    and Rosenblum address this question.)

3. Is it better for LEAs to concentrate on adopting specific external programs or to attempt to maximize the range of information flowing into the district? Weiss (1979), for example, stresses the incremental enlightenment function of knowledge as distinct from its specific problem-solving role.

4. Is it better to attempt district-wide coordination and program implementation, or to support individual-school-based development?

5. Is it better to have tightly coupled, formal integration and procedures or more informal interaction and coordination?

6. What is the best combination of external and internal resources in terms of developing the LEA's capacity (knowledge, skills) to bring about school improvement?

7. What are the relative roles of and relationships between evaluation and innovation? (Four of the eight studies examined the role of evaluation, while the other four involved research or innovation studies.)

There are more unanswered questions that could be generated, but perhaps the above list is sufficient for drawing some conclusions about future research priorities in the area.

Section 3. Research Agenda Implications

The definitions of the three main concepts presented in Figure 1--external resources, LEA characteristics, and improvement outcomes--are not entirely refined, but as a context for future research they offer some basic guidelines. External resources can be defined in terms of money, information/programs, and technical assistance. In this paper, the operational definitions of LEA characteristics, especially demographic ones, are incomplete; the general list in Figure 1 summarizes some of the main LEA characteristics. Crandall et al. and Louis and Rosenblum have contributed much-needed conceptualization and measurement of improvement outcomes.

There are four types of studies that I would place on the research agenda.

1. Detailed Case Studies of LEAs' Use of External Resources and Related Internal Processes

By far the most important research priority is to discover what the use of external resources looks like from the point of view of LEAs (district and school level included). Taking LEAs as entities, we simply do not know very much about how they think about external resources, how they go about obtaining them, and how they use them. There are studies that have examined particular programs (e.g., Title I, NDN), but these only address segmented use of certain external programs; they do not attempt to capture the totality of LEA involvement with external resources. (For example, these studies tend to examine the impact of particular programs on a district--a kind of outside-in orientation, as distinct from the inside-looking-out orientation I am suggesting.) Thus, my first recommendation is that a small number of very comprehensive comparative case studies be undertaken with the explicit mandate to identify types of external resources, to carry out a careful study of external-internal relationships and internal-internal relationships around the use of external resources, and to assess multiple impacts or consquences.

Two recent efforts might contribute very useful research designs and methodologies to such case studies. Moore and Hyde (1981), focusing on staff development, conducted a first-rate study of all aspects of LEA activity in three urban districts. They discovered many complexities, hidden costs, and unrecognized staff development activities. For example, they found 50 times more staff development going on than district staff developers estimated. Moore and Hyde did a masterful job of identifying different types of activities and calculating various direct and indirect costs. I suspect that a study of the use of external resources in LEAs would uncover similar complexities and hidden uses, and would make a major contribution to this topic. The case studies should in particular use fiscal costs (direct and indirect) as a driving indicator, because this would provide more specific

information about the use of resources. This strategy is also condu-
cive to the identification of concrete activities rather than amorphous
generalizations.

A second model with important empirical and methodological impli-
cations for us is the DESSI case study research of 12 districts. The
cross-site comparison and synthesis of the case studies is especially
useful in suggesting how multiple comparisons can be fruitfully made
and displayed. (See Crandall et al. Miles and Huberman have been
primarily responsible for coordinating much of this research, and have
a separate grant to do further work on the case study comparisons;
but bear in mind that their studies were not designed to do what I am
suggesting here.)

'In brief, I recommend a small number of case studies (something
on the order of three to six) that comprehensively examine the external
resource use question by taking the LEA as an entity.*

2. Survey or Mini-Case Studies of How LEAs Are Organized for External
   Resource Use

All of the studies that have something to say about how LEAs are
organized (central office units, district-school relationships, etc.)
comment on the incredible diversity of set-ups even among LEAs of
comparable size. None of these studies, however, was exclusively inter-
ested in external resource use; most concentrated on the role of evalua-
tion information. It would seem worthwhile to conduct a survey or
series of mini-case studies of a larger number of LEAs (larger than the
case studies would permit) to investigate how the districts are organ-
ized and what consequences this organization has for external/district
office relationships, district office/school relationships, and external/
school relationships. It is important that this be more than an examina-
tion of the formal organizational charts. The study should ask questions
about the interrelationships flowing from the way in which the district
is organized. Of course, the intensive case studies proposed in item 1
would consider these questions, but only for a very small number of
districts. The survey/mini-case studies would include a much larger
sample (perhaps 50 districts selected to represent different sizes and
geographical locations).

3. A Survey of LEA Access to and Use of External Agencies**

It may be that this study could be incorporated into the second

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* I have not attempted to summarize the main variables that should be ex-
  amined in the case studies, but most can be culled from Sections I and
  II and from consulting the Moore and Hyde and DESSI designs.

** The NIR Interorganizational Arrangements (IOA) research program is ad-
   dressing this issue, though possibly without adequate attention to the
   question of variations in access.

recommendation. We want to know about various types and degrees of access that LEAs have to external agencies that provide one or more of the three forms of resource assistance (funds, information, technical assistance). Given the array of different external agencies (state departments, intermediate agencies, labs and centers, universities, etc.), the research question should properly be phrased: "What access to external agencies do different LEAs have and what use of them do they make, and to what extent are these factors related to the location of the LEA?" Proximity to external sources and the particular configuration and role of agencies in the accessible environment of the LEA would be two important variables to study. For this research, a larger-scale survey (N=500 or more) should be used.

4. Additional Synthesis of Selected New Research

The main message of our present review is: There are few direct studies of LEA use of external resources. However, it also seems to be the case that more recent research (cited as our secondary sources-- Kennedy, Bank, Crandall, Louis and Rosenblum) has more to say about LEAs and external resources than do our four primary sources. Since some of this research has just been released--or is not yet available-- and since a more careful search may identify some additional sources of direct relevance, consideration should be given to a review and synthesis of this more recent work. Such a synthesis should attempt a more formal specification of variables within each category, using the present review as a guideline.

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THE ROLE OF SCHOOLS, COLLEGES, AND
DEPARTMENTS OF EDUCATION IN SCHOOL IMPROVEMENT

David L. Clark

Introduction

This knowledge synthesis covers a number of studies that address, at least in part, the role of SCDEs (schools, colleges, and departments of education within institutions of higher education) in the pursuit of school improvement. These studies employed only four independent data sources.

1. The Clark-Guba study of SCDEs, which was reanalyzed subsequently by Lotto-Clark concentrating on knowledge dissemination and utilization.

2. The Frankel-Sharp-Biderman study of research performers in education, including SCDEs.

3. The Havelock et al. case studies of three interorganizational arrangements (IOAs) linking colleges of education and school districts.

4. The TDR Associates case studies of three IOAs in Boston, involving universities and school sub-districts.

The power of cross-case analysis is limited here by the small number of data sources and the variability of those sources in the areas of methodology, organizational focus, and substantive concentration. Consequently, in Section I this report will place greater emphasis on summarizing the individual papers than might otherwise have been called for. The cross-case comparison in Section II will be organized around a central table picturing the extent to which the studies cover similar substantive areas and variables. Data from the studies will then be used to address six questions of special interest to policymakers concerned with school improvement programs and initiatives:

1. What is the scope of SCDE involvement in school improvement activities?

2. What organizational characteristics seem to influence the scope or effectiveness of that involvement?

3. What incentives or disincentives exist that influence the participation of SCDEs in school improvement?

4. What funding sources are used to support these efforts?

5. How can SCDE activity in school improvement best be described (e.g., in terms of clients, types of services, organizational arrangements to support the services)?

6. What is the perceived and/or actual level of effectiveness of these school improvement activities? ___

Finally, in Section III, implications will be drawn from this data base for further research in the field and for federal/state support of field-based school improvement programs that involve SCDEs.

The reader should not be misled by the foregoing reflections on the narrowness of the knowledge base into assuming that this base was treated casually. Each of the eight available documents was content-analyzed using the following framework:

Figure 1. Structure for analyzing literature on the role of SCDEs in school improvement.

● Context

| Organizational characteristics |
| Incentives |
| Funding sources |

● Operations

| Scope· |
| Clients ₂ |
| Type of service |
| Interorganizational arrangements |

● Effectiveness

| Actual |
| Perceived |

| SCDE poten-
tialities and
limitations
in school
improvement |

| Implications for
● Policy
● Research |

Every entry germane to these topical areas was identified, coded, and recorded. To the extent possible, the flavor of the studies has been retained in the summaries and analyses.

Section 1. Summaries of Five Studies on the Role of
Schools of Education in School Improvement

D. L. Clark and E. G. Guba. A Study of Teacher Education Institutions
as Innovators, Knowledge Producers, and Change Agencies (1977).

Background/Scope

This national study of schools, colleges, and departments of educa-
tion (SCDEs) included in its examination of institutional productivity
in research and knowledge utilization the total population of 1,367
SCDEs; a sample of 135 institutional respondents and 1,387 faculty re-
spondents who were queried about institutional missions, arrangements,
and programs in R&D and knowledge utilization; and 20 in-depth case
studies of schools of education chosen on the basis of typicality and
uniqueness after the normative survey phase of the inquiry was completed.

The purposes of the inquiry were to: (1) portray the status of
SCDEs as components of the nation's educational knowledge production and
utilization (KPU) system; (2) identify internal and external factors af-
fecting that status; and (3) posit most likely and alternative futures
of schools of education in KPU.

The focus of the entire study is pertinent to the current paper.
The limitations of the data from this study spring from the inability of
the researchers to identify school improvement (knowledge utilization)
activity as distinct from R&D. In the case of R&D, much of the activity
occurs on-campus or through very visible arrangements with local educa-
tional agencies. And, more importantly, the product--typically a
publication--is easily accessible for examination. School improvement
activities, however, are often not institutionally sponsored; they are
frequently of limited duration (e.g., two-. or three-day consultancies);
and their products are typically difficult to trace and assess. This
project was well geared to handle KP (knowledge production) activity;
but poorly designed to identify KU (knowledge utilization) projects or
outcomes.

Context

Organizational characteristics. This study identifies two catego-
ries of organizational characteristics that influence the involvement of
schools of education in school improvement: census-like demographic
features and contextual qualities that influence institutional behaviors.

Regarding the "census" features, the researchers note:

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- Personnel in SCDEs are highly trained and experienced--
  the model faculty member has the doctorate and five to
  10 years of public school experience.

- SCDEs are everywhere; there are 1,367 such units. Seventy-
  two percent of all four-year institutions of higher educa-
  tion (IHEs) maintain a teacher training program.

- However, regarding KPU activities, the institutions are
  easily divided into "haves" and "have-nots." KPU activity
  is concentrated in units with advanced degree programs,
  roughly one half of the institutional population.

These institutions do have a quality of organizational life that
influences the activities their members undertake:

- The organizational culture is primarily ideographic. The
  role of the professor as private entrepreneur (circa 20
  percent time) is legitimated in IHEs.

- The organizational mission of SCDEs is to train educational
  personnel. "Missions involving the SCDE in KPU activities
  must be considered complementary rather than integral to the
  SCDE in all but a few such sites (perhaps 50-60 of 1,367)"
  (p. VII-10).

- School improvement (KU) missions (and, to a lesser extent,
  activities) are concentrated in public rather than private
  SCDEs.

- SCDEs are low-status units in IHEs.

- Professors have limited KPU training, little supervision,
  and minimal retraining possibilities.

Incentives. The coin of the realm for promotion, tenure, and
salary rewards in graduate-level SCDEs is research productivity. School
improvement projects are typically rated as service contributions and
have lower priority than either research or teaching. "Promotion and
tenure criteria are applied differentially so that 'workmanlike' per-
formance in traditional, high-status areas [e.g., R&D] is sufficient,
but 'super' performance is required in emergent and low-status areas
[e.g., school improvement]" (p. VII-29). On the positive side of the
ledger, professorial personnel are provided with released time to en-
gage in KPU programs, and individual consultative relationships between
professors and local education agencies (LEAs) is permitted.

Funding sources. Released time for faculty and the support of
special bureaus or institutes for KPU are characteristic of graduate-
level SCDEs. Roughly $23 million to $25 million supporting 1,000 FTE
faculty was invested in these bureaus and institutes in the mid-seven-
ties. At the time, that constituted approximately three percent of the
faculty in SCDEs.

Operations

Most SCDEs are engaged in KU activities through the personal involvement of their faculties if not through institutional commitment. Seventy percent of faculty respondents reported that they worked with LEAs rendering ad hoc services. The inability of this study to distinguish between KP and KU activities reduced reports on "operations." Since the Lotto-Clark study attempts to tease out the data that applied specifically to KU, this section will be expanded in that summary.

Effectiveness

Clark and Guba focus on KPU products visible at a national level. SCDE contributions to knowledge utilization at this level were substantial:

- Fifty-nine percent of the articles published in practitioner journals come from IHEs; 90 percent of those from SCDEs.

- Universities dominated the production of books in education (82.5 percent) and textbooks (72.1 percent).

- Presentations at practitioner conferences were dominated by SCDEs (35.6 percent) and LEAs (34.8 percent).

No qualitative assessments of SCDE programs in KU or school improvement were reported in this study, other than those implied by the acceptance of KU products by journals, publishers, and convention monitors.

Policy/Research Recommendations

The authors review the capacity of SCDEs in KPU and conclude that the levels of organizational and individual capacities and institutional commitment were high enough to justify the following three recommendations:

1. To sustain the research and development productivity of SCDEs currently functioning as "KPU Center" institutions.

2. To expand modestly the number of SCDEs producing at the "KPU Center" level.

3. To expand the role of SCDEs in the federal government's dissemination in education program (KU). (p. IX-35)

With a focus on (3) above, they suggest:

a. KU capacity-building grants coordinated with the capacity-building grant program already begun with SEAs and/or the new teacher center program. These grants might well include a local matching feature which could be met by most doctoral

public SCDEs through their current budget allocations to KU
but which would force most masters public SCDEs to support
their KU mission with added local contributions.

b. Training grants for students and prtactitioners interested
in building up their expertise in KU activities, perhaps
tied into teacher center programs or at least using such
centers as field sites for internships.

c. Programmatic support of some operating KU centers, e.g.,
school study councils, networks or leagues of schools,
in which the present level of effective dissemination
activity justifies the investment. (p. IX-37)

L. S. Lotto and D. L. Clark. An Assessment of Current and Potential
Capacity of Schools of Education with Recommendations for Federal
Support Strategies (1978).

Background/Scope

The purpose of this study was to portray the current effort in KU
being made by schools of education and to project effective federal
policies to optimize that effort. The population studied was made up
of 671 SCDEs offering at least a masters degree in education. A sample
of 92 schools was chosen from this population. The data had been gath-
ered in the Clark and Guba study and included institutional and facul-
ty questionnaires from the 92 SCDEs, case study notes from 14, and
secondary source data on productivity from the entire population of 671.
Although no new data were gathered in this study, some of the data were
"new" in the sense that they had not been analyzed in the Clark and Guba
study (e.g., open-ended responses from the institutional and faculty
questionnaires and documents gathered during the case study visits).
Other data appear to be new because a conscious effort was made at every
step of the analysis to distinguish KU from KP involvements. However,
weaknesses in the original data-gathering design still caused many of
the school improvement efforts of SCDEs to be overlooked.

Context

Organizational characteristics. Demographic features and contex-
tual qualities that were noted in the Clark and Guba report will not be
repeated. The following observations focus on KU or school improvement.

● Twenty-eight percent (182) of the SCDEs stated a positive
organizational mission in dissemination and utilization
(D&U). Another 20 percent had mission statements that
would be complementary to D&U involvement.

- Knowledge utilization activity had a broader base of SCDE involvement than did R&D. "In contrast with their low involvement in R&D activity, the masters public school of education is a rich resource of talent and institutional support in educational D&U" (p. 33).

- The status of SCDEs within their universities was not enhanced by their engagement in school improvement activities.

- Participation of SCDE faculty in D&U programs is limited by (a) the professor as entrepreneur, (b) the professor as specialist, (c) the tenured security of the professor, and (d) the university's collegial governance pattern.

Incentives. Added observations about the effect of incentives on SCDE faculty participation in school improvement include:

- The emphasis on research in the IHE reward system is not adverse to involvement in school improvement. "In only 87 SCDEs did it appear that faculty involvement in D&U would be in conflict with the formal system" (pp. 13-14). In contrast, 194 noted that it was consistently of importance.

- Masters-level institutions have the least difficulty in incorporating D&U into their reward systems.

- "Freedom of individual choice on the part of professors in SCDEs increases flexibility in response but impedes institutional commitment to goal and activity areas" (p. 36).

- SCDEs have an advantage over competing educational agencies in responding to new program areas because of the SCDE tradition of faculty released time for non-teaching activities.

Funding sources. Little fiscal data were gathered in the Clark and Guba study; but bureaus, institutes, and centers were queried about their sources of support. Surprisingly, few of the 551 organizational entities that had been set up to attain KU goals appeared to be either outgrowths of or dependent on federal or foundation dollars.

Operations

Schools of education reported substantial operational commitment to school improvement. Three hundred seventy-two SCDEs (55 percent of the population) maintained at least one formal dissemination or utilization structure (e.g., school study council, bureau of field services). In all, the population was estimated to be operating 551 such centers. The authors classified the population of schools of education as

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including 90 D&U centers, 130 potential D&U centers, and 208 schools that were sometimes involved in D&U activities.

Schools of education have tended to be involved in interorganizational arrangements where they are the dominant or keystone agency. This reflects the traditional view held by many in SCDEs that they are imparting information to the practitioners. As demands for parity in school improvement programs increase, schools of education will be forced to modify this traditional view.

Effectiveness

Based on the productivity studies summarized in the Clark and Guba report, the authors conclude that "faculty in approximately 2,250 SCDEs are significant producers of D&U artifacts being distributed to practitioners and are conduits for the distribution of this material" (p. 24). On the other hand, many practitioners have negative perceptions of the role that SCDEs play in school improvement, typified by:

- suspicion that SCDEs are divorced from the world of practice;

- incredulity about R&D as a vehicle for educational improvement;

- doubts about whether SCDEs have sufficient interest or flexibility to assume newer linking agent roles in school improvement.

Policy/Research Recommendations

This was a policy study that assessed the likely impact of various federal policies in D&U on SCDE involvement in school improvement. The authors conclude by recommending federal programs of training, capacity building, and networking in which they think schools of education should be involved. More specifically, they recommend:

Training:

- The initial emphasis for SCDEs in D&U training should be placed on program development grants rather than operating grants. (p. 47)

- A major thrust in both program development grants and, subsequently, training grants should be placed upon training for linking agent roles. (p. 48)

- The design of a training support program for D&U in SCDEs should reflect a comprehensive view of both training needs and trainers. (p. 48)

Capacity Building:

● SCDEs should be included as agencies which are eligible
  to compete for capacity building grants in D&U. (p. 50)

● A capacity building grant program for SCDEs should include
  (a) grants to SCDEs in which D&U capacity is already well
  established and (b) grants to developing institutions
  (SCDEs) which might be encouraged to expand or improve
  their D&U capacity. (p. 51)

Networks:

● A first step should be the establishment of "network evalu-
  ation grants" to assess the effectiveness of intact networks
  including SCDEs, LEAs, and other educational agencies. (p. 52)

● Explicit attention should be given by such federal programs
  as NDN and RDU to creating a mutually satisfactory mode of
  involvement by SCDEs in such networks. (p. 52)

● A new program of grants should be initiated to provide for
  the support of networks operated by SCDEs. (p. 52)

● An exploratory design program...should be initiated in a
  few selected states to experiment with the use of SCDE
  faculty as linking or extension agents to LEAs. (p. 54)

J. Frankel, L. M. Sharp, and A. D. Biderman. Performers of Research
and Research-Related Activities in the Field of Education (1979).

L. M. Sharp and J. Frankel. "Organizations that Perform Educational
R&D: A First Look at the Universe" (1979).

Background/Scope

     The American Registry of Research and Research-Related Organiza-
tions in Education (ARROE) project was primarily descriptive--portrayed
by its authors as "designed to provide a map of the universe" (Sharp
and Frankel, p. 6). The final product was a registry of educational
research, development, dissemination, and evaluation (RDD&E) agencies.
From an initial population of 6,300 survey-eligible organizations,
2,434 organizations in 1,530 institutions were subsequently determined
to be involved in educational RDD&E.

     For the purpose of our present cross-case analysis, the ARROE re-
port has a pervasive disability. There is no way to disaggregate dis-
semination or school improvement activities from research, development,

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and evaluation. The authors address this issue on only the most general
level and their conclusions should be noted:

- Research is emphasized most heavily in the academic and
  private sectors while development and evaluation studies
  dominate in public education agencies. Dissemination
  emerged as the area of lowest emphasis, receiving the
  smallest allocation of funds by performers except for
  state agencies and large public school systems. (Frankel
  et al., p. ix)

- Organizations of all kinds spend only a small proportion
  of their funds for dissemination activities. (Frankel et
  al., p. ix)

The ARROE study did not have schools of education as its primary
target; SCDEs appear in these data because they are RDD&E producers.
When they do appear, they may be a school as a whole, a department, or
a bureau or center. Thus a single university may have multiple entries
as academic organizations performing RDD&E.

Context

Organizational characteristics. "In the academic world, most of
the work is carried out in organizations whose primary function is in-
struction..." (Sharp and Frankel, p. 8). ARROE classified roughly one
fourth of the identified academic organizations as RDD&E specialists.
Most of the involvement was within SCDEs. The part-time nature of the
enterprise is emphasized by the size of the investment in RDD&E on the
part of academic organizations; 37 percent spent less than $100,000 per
year, 55 percent spent spent less than $250,000 per year, and 76 percent
spent less than a million (Frankel et al., p. viii). Another view of
the same basic point: One quarter of the organizations had no full-time
professionals primarily engaged in RDD&E; 53 percent had five or fewer.

Incentives. The ARROE data do not directly reflect intra-SCDE or
-IHE incentives for engagement in RDD&E. The authors do note, however,
that RDD&E functions are complementary (not primary) missions in IHEs;
and that across all types of organizations, but especially in IHEs, dis-
semination is not a common staff specialty" (Frankel et al., p. x).

Funding sources. Modest as the investment may be, "in terms of
dollars spent, the academic sector outdistances the public education and
private sectors" (Sharp and Frankel, p. 10). In fact, the academic sec-
tor accounted for 47 percent of the RDD&E funds reported received from
various sources (Sharp and Frankel, p. 11). The ARROE researchers note,
"It is clear from our findings that, in the aggregate, state, interme-
diate, and local education agencies have made meager allocations for
research and research-related activities, and that relatively little
truly locally anchored work is being carried out" (Sharp and Frankel,
p. 10).

Operations

The ARROE provides no descriptive data on school improvement operations involving schools of education. The report is most useful in picturing the relative scope of RDD&E activities across agency types, e.g.:

* The academic sector accounted for approximately one half of the organizations, staff, and funds involved in educational RDD&E.

* The study identified 25 major performers in RDD&E--agencies with yearly expenditures of $5 million or more. Thirteen of these were university-based. Fifty-three percent of the organizations exceeding $1 million in RDD&E expenditures in 1977 were in the academic sector.

Policy/Research Recommendations

The ARROE recommendations are chiefly concerned with further studies, to wit:

* It seems clear that the nature of educational RDD&E in the United States is probably best understood by studying, in depth, a group of between 200 and 300 performers....[One hundred to 150 of these sites, based on the ARROE data, would most likely be in academe.] (Sharp and Frankel, p. 9).

* In the academic sector, we also suggest classifying each organization by type (e.g., college; school; division/department; institute/center/office; and program) and by whether the organization is specialized to the field of education. Use of these variables would allow further study of more homogeneous groups and a better sense of the extent to which interdisciplinary approaches and knowledge from fields other than education and psychology are brought to bear upon the study of topics related to education. (Frankel et al., p. 189)

R. G. Havelock, A. M. Huberman, N. S. Levinson, and P. L. Cox. Inter-
organizational Arrangements as an Approach to Educational Practice.
Improvement (1981).

A. M. Huberman, N. S. Levinson, and R. G. Havelock. Outcomes of
University-Linked School Networks (1981).

N. S. Levinson. School-University Collaboration Supporting School
Improvement: The Eastern State Case (1981).

Background/Scope

The Knowledge Transfer Institute (KTI) conducted an 18-month field
study of three interorganizational arrangements, each of which linked
a college of education with a set of school districts. The arrange-
ments were chosen as being relatively stable (with four or more years
in operation) and not dependent on federal funding for core operations.
KTI employed interorganizational and knowledge transfer theory as the
logical structure for the inquiry, and used techniques of investigative
social research in developing the case studies. Each arrangement was
considered "a case"; within each case, sub-units were studied inten-
sively. Cross-case analysis focused on identification of common varia-
bles in an effort to "isolate 'streams' of antecedent and intervening
variables leading to the principal outcomes" (Havelock et al., p. 2).
The three cases involved the pseudonomous Eastern State University (an
arrangement between the office of field experience and five county
districts plus three teacher centers); Eastern Private University (a
venerable school study council that had been recently revived); and
Midwestern State University (a federation of teacher centers spanning
a state).

Context

A number of contextual items in SCDEs will be described in the next
section on operations, since the researchers attempted to link operating
characteristics of the IOAs (including, of course, the schools of educa-
tion) with outcomes. In this sub-section, however, it is worth noting
that the university context does provoke conflict in incentives and re-
wards between R&D and service or school improvement. In fact, the
researchers were concerned that the two do not mix well. In the most
research-oriented of the three sites, Eastern Private University, de-
spite the success in revitalizing the school study council there, "the
university appears to be reducing its support and rechanneling funds
toward research functions which most faculty covet and value more highly
than outreach and service" (Havelock et al., p. 7). The stronger commit-
ment to service on the part of public institutions, noted in the survey
studies, was reflected in these cases.

Operations

In this case study, "operations" refers to the functions of the interorganizational arrangement itself rather than to those of the school of education. With a caveat about generalizing from three instances, the researchers note that positive outcomes for the IOA seemed to be associated with the following variables:

1. Antecedent variables

   ● a foundation of informal links between school and university personnel

   ● a positive history of collaboration

   ● goal congruence among member units

   ● agreement on turf

2. Staff and leadership variables

   ● "homophily" of the linking agent and staff at the school and university
   ● amount of influence the linking agents(s) wields(s) within the university

   ● a valuing of craft knowledge by university participants

3. Project/structural variables

   ● formalization of the IOA

   ● fewer but longer-term projects

   ● a multiplexity of ties across agencies; multiple points of linkage

   ● a multiplicity of roles played by the boundary spanner (resource finder, solution giver, process helper)

In terms of the type of service rendered, the inquirers' note that "the modal pattern--and the most successful--entailed college-based staff taking on directly a problem-solving role with local' schools and individual teachers. The knowledge base used here was less scientific or research-driven than craft-validated products" (Havelock et al., p. 9).

Effectiveness

The researchers tracked outcomes in five areas: changes in power or status, linkage, practice development, capacity changes, and

institutionalization. The sites were diverse and the evidence varied, but most sites exhibited positive status in most areas.

Power/status. All sites evidenced some change. At Eastern State University (ESU), practitioners felt the arrangement brought districts into the educational mainstream; both ESU and Midwestern State University (MSU) reported heightened professionalism for teachers. ESU showed evidence of enhanced university leverage in the field. Eastern Private University (EPU) reported the arrangement served an enrichment function for participating school districts.

Linkage. All sites offered some evidence of improved linkage, e.g., better awareness of needs and resources to meet those needs, or increased exchange of ideas and materials.

Practice improvement. Although a few examples of positive change were noted, evidence in this area was ambiguous. The study had insufficient outreach to document such changes if they occurred.

Capacity. All sites reported positive changes. For ESU, the arrangement clearly enhanced the university's field-based operations. The three cases offered evidence of increased actual or perceived problem-solving capacity in the LEAs.

Institutionalization. A mixed bag: EPU is an IOA in jeopardy; MSU is likely to continue at one field site, but not at another; ESU is likely to institutionalize at all sites.

Policy/Research Recommendations

Their requisites for effective IOAs reflect the policy recommendations this team would make to schools and colleges. At a broader policy level, they suggest that:

- University-school collaborative ventures can and should include more than one-way transfer of information from a knowledge-producing agency to a consumer.

- The university is an effective vehicle for practice improvement, and investments in this vehicle ought to be made in institutions with strong service orientation and a stable, active clientele.

TDR Associates, Inc. Case Studies of Inteorganizational Arrangements for the Exchange and/or Delivery of Knowledge Resources to Improve Elementary-Secondary Education (1981).

Background/Scope

TDR Associates conducted three case studies of interorganizational

arrangements involving institutions of higher education and school sub-districts (referred to as the Boston Pairings). These particular IOAs shared five characteristics considered significant by the inquirers: They were (1) imposed (mandatory for the schools); (2) externally funded; (3) tripartite (or larger) in membership; (4) decentralized and semi-autonomous; and (5) focused on educational excellence and equity.

The purpose of the project was to judge the "success" of each pairing according to the extent that movement occurred toward the following curricular goals: (1) extended programs, (2) improved programs, (3) new programs, (4) increased access to high-quality education for poor and minority populations, and (5) institutionalization of goals 1 through 4 and of the pairing itself.

Context

As was noted in the KTI summary, the researchers linked the operating characteristics of the IOA to outcomes, and a number of those contextual features will be discussed in the next section. However, there was a special effort made to test out the stages of development of an IOA, and these seem worth noting in this contextual depiction. In its project proposal, TDR had "hypothesized that the 'career' of each pairing could be recapitulated as a struggle for power among the partners" (p. 3). Although that struggle turned out to be less dramatic than the inquirers had imagined, they did document a six-stage process that was found in each pairing:

1. mutual wariness
2. cooperation by necessity in order to move ahead
3. development of understanding and respect
4. collaboration among trusting equals
5. fighting against the outside world as allies
6. devising mechanisms to preserve the IOA.

Operations

The researchers conclude that the following five characteristics all play essential roles in the successful evolution of IOAs like the Boston Pairings. The mandatory nature of the arrangement, the threat of intervention by the Bureau of Equal Educational Opportunity, and pressure from the local media all served as formal negative reinforcers of the pairings. The availability of external funds was a powerful positive formal reinforcer of a successful pairing. The tripartite membership strengthened feelings of ownerhsip of the pairing's activities, avoided two-party standoffs, and extended the IOA's resources. The decentralized nature of the arrangement made the IOA programs more responsive to local needs. And the substantive focus on educational excellence allowed the partners to avoid becoming helplessly entangled in issues of desegregation.

An interesting observation about knowledge transfer:

> The participants in the Boston Pairings...seem studiedly unin-
> terested in [formal R&D products]....The predominant form of
> knowledge transmitted was <u>situational</u> (based on specific en-
> counters in actual educational settings); followed by <u>craft</u>...
> <u>Research-based knowledge is extremely rare</u>. (pp. 6-7)

Effectiveness

The Boston Pairings all achieved at least partial progress on the
criteria of extended programs, improved programs, and new programs.
Each made progress toward institutionalization. The report noted that
it was difficult to judge progress toward increased access to quality
education by poor and minority clients, but "...it is likely that
movement toward this goal also occurred," since the majority of chil-
dren in the districts studied were from poor or minority homes (p. 1).

Policy/Research Recommendations

TDR makes one observation which, if correct, would clearly affect
change agents or organizations concerned with establishing IOAs:

> We believe that approximations of these characteristics of
> the Boston Pairings--mandated participation, funding from
> outside and additional to regular budgets, multipartite mem-
> bership, decentralization, and a noncontroversial general
> goal--are required attributes of IOAs constructed to change
> education through the exchange of educational knowledge. (p. 3)

The researchers also suggest further inquiry into the role of
research-based knowledge in school improvement:

> Perhaps this hypothesis ought to be expanded further, to
> state that the exchange of research-based knowledge re-
> quires the scene-setting exchange of situational and craft
> types before it [the scientific exchange] can take place.
> Lack of appropriate attention to the preliminaries of
> research knowledge utilization may be an important reason
> why the R&D dissemination process is usually so discour-
> aging; so many proven curricula and discoveries available,
> so little use of them....We can hypothesize that the need
> for knowledge utilization fits into a hierarchy of needs.
> It would seem the schools are not ready to utilize knowl-
> edge for improvement of schools until basic needs are met.
> ...The wider the participation of all individuals in the
> process of exchanging knowledge on how to bring about
> change, it may be hypothesized, the more effective will be
> the eventual use of research knowledge. (pp. 7-8)

Section 2. Cross-Case Comparisons of Studies on the Role of Schools of Education in School Improvement

As was noted in the introduction, there is little point in attempting to sum or aggregate variables across cases within this population of cases. However, Table 1 depicts the extent to which a variety of variables were studied in the five cases and notes the effect they seemed to have on the involvement of SCDEs in school improvement. Table 1 will be used to address six questions about the role of schools of education in school improvement.

TABLE 1

Cross-Case Comparison of Organizational, Operational, and Outcome Variables which Have Been Used to Study SCDE Involvement in School Improvement Activities

Inventory of Variables	Cases in which Variable Was Examined *					Likely Effect on SCDE Involvement in School Improvement		
	1	2	3	4	5	+	0	-
Personnel Characteristics								
-highly trained; % with doctorate	X	X	X	-	-	X		
-limited KU training	X	X	-	-	-			X
-limited retraining opportunities	X	X	-	-	-			X
-substantial (modal 5-10 years) LEA experience	X	-	-	-	-	X		
-inconstancy of administration	X	-	-	-	-			X
SCDE Unit Characteristics								
-large no. of institutional sites	X	X	X	-	-	X		
-widespread geographic placement	X	-	-	-	-	X		
-frequency of formally stated KU mission	X	X	-	-	-	X		
-primary mission in preservice teacher training	X	X	X	-	-			X
-involvement in KU on part-time basis	X	X	X	-	-			X
-commitment of public SCDEs to KU	X	X	-	X	-	X		
-lack of commitment in private SCDEs to KU	X	X	-	X	-			X

*Cases were (1) Clark and Guba, (2) Lotto and Clark, (3) Frankel, Sharp, and Biderman, (4) Havelock, et al., (5) TDR Associates, Inc. The reader should recall that cases (1) and (2) employed the same empirical data base.

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TABLE 1 (continued)

Inventory of Variables	Cases in which Variable Was Examined *					Likely Effect on SCDE Involvement in School Improvement		
	1	2	3	4	5	+	0	-
Contextual Features of SCDEs & IHEs								
-ideographic culture	X	X	-	-	-	X		X
-professor as entrepreneur	X	X	-	-	-	X		X
-professor as expert	X	X	-	-	-	X		X
-low status of service in IHEs	X	X	X	X	-			X
Incentives								
-dominance of R&D in the reward system	X	X	X	X	-			X
-released time for involvement in KPU	X	X	-	-	-	X		X
-legitimation of private consultative relationships with LEAs	X	X	-	-	-			X
-inclusion of KU in IHE reward system	X	X	-	X	-	X		
-large no. of masters-level SCDEs in which KU is "honored" by IHE	X	X	-	X	-	X		
Funding Sources								
-local support of KU bureaus and centers	X	X	-	-	-	X		
-general local support through released time	X	X	X	-	-	X		
-concentration of external support for KU	X	X	X	-	-	X		
Scope of Operations								
-over 500 operative KU centers in SCDEs	-	X	-	-	-	X		
-circa one half of all organizations involved in RDD&E	-	-	X	-	-	X		
Type of Service								
-individual ad hoc services to schools	X	X	-	-	-		X	
-university staff as problem-solvers	-	-	-	X	-	X		
-knowledge type								
-research-based	-	-	-	X	X			X
-craft validated	-	-	-	X	X			X
-situational	-	-	-	-	X		X	

*Cases were (1) Clark and Guba, (2) Lotto and Clark, (3) Frankel, Sharp, and Biderman, (4) Havelock, et al., (5) TDR Associates, Inc. The reader should recall that cases (1) and (2) employed the same empirical data base.

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TABLE 1 (continued)

Inventory of Variables	Cases in which Variable Was Examined*					Likely Effect on SCDE Involvement in School Improvement		
	1	2	3	4	5	+	0	-
Effectiveness								
-quantitative productivity								
-predominance of articles published in practitioner journals	X	-	-	-	-	X		
-production of books in education	X	-	-	-	-	X		
-production of textbooks	X	-	-	-	-	X		
-presentations at practitioner-oriented conferences	X	-	-	-	-	X		
Perceptions								
-divorcement from world of practice	-	X	-	-	-			X
-incredulity regarding educational R&D role in school improvement	-	X	-	X	X			X
-doubts about interest or flexibility of SCDE in KU	X	X	-	-	-			X
Achievements of Operating IOAs which Include SCDEs								
-power and status changes	-	-	-	X	-	X		
-linkage improvement	-	-	-	X	-	X		
-practice improvement	-	-	-	X	-	X	X	
-increases in capacity	-	-	-	X	-	X		
-institutionalization	-	-	-	X	X	X		X
-extended programs	-	-	-	-	X	X		
-new programs	-	-	-	-	X	X		
-educational access	-	-	-	-	X		X	

*Cases were (1) Clark and Guba, (2) Lotto and Clark, (3) Frankel, Sharp, and Biderman, (4) Havelock, et al., (5) TDR Associates, Inc. The reader should recall that cases (1) and (2) employed the same empirical data base.

Question 1--What is the scope of SCDE involvement in school improvement activities?

Schools of education are involved extensively in school improvement programs:

- Seven of 10 faculty members in graduate-level SCDEs report personal ad hoc service arrangements with schools.

- Three hundred seventy-two schools of education maintain one or more KU centers, bureaus, or institutes (551 in all).

- Lotto and Clark estimate that well over 400 SCDEs could be classed as at least "sometimes involved" in KU activities.

- The products of SCDE faculty work in KU are visible nationally in journal publications, texts, and convention presentations.

Even faced with a paucity of detailed information on the involvement of SCDEs in school improvement, it is clear that schools of education are old-line agencies in this field; knowledge utilization, dissemination, and school improvement are defined as institutional objectives by hundreds of graduate-level schools of education. Any picture of these agencies as somehow cut off from the field of practice is inaccurate. Despite the status attached to R&D productivity in colleges and universities, schools of education are quantitatively more heavily invested in knowledge utilization and service programs.

Question 2--What organizational characteristics seem to influence the scope or effectiveness of SCDE involvement in school improvement activities?

This answer begins where the last left off. At least within the confines of doctoral-level universities, and especially among those that maintain major R&D programs, involvement in school improvement projects is a low-status activity. It is not competitive with research in the formal reward system. It exacerbates the SCDE's already low status in the university. But relative status is surely not alone as a characteristic interfering with institutional productivity in KU. Schools of education are bound to instructional head-count budgeting. Also, professors tend to come to an SCDE with a doctorate but limited training in KU. For the most part, retraining or inservice education for faculty is an innovation that has yet to be institutionalized on university campuses. School improvement projects are high-risk ventures. The problems are tough, the solutions complex. It is obviously tempting for the professor to stay within the confines of the classroom.

On the other hand, there are definite pluses for school improvement programs in this environment. There are literally hundreds of graduate-level SCDEs (circa 250) in which R&D is not a primary mission and in which knowledge utilization programs fit very well. Even in

most of the research center SCDEs, KU is a part of the formal institutional mission statement. School of education budgets are built around the teaching function, but in contrast with SEAs, LEAs, or private R&D agencies, SCDEs have greater budgetary flexibility in spending local funds on school improvement. They do support KU bureaus, centers, and institutes, and faculty receive released time for individual and institutionally based work with LEAs.

Professors in SCDEs may not be formally trained as linking agents, but they do have strong roots of experience in local schools (modal five to 10 years of experience). The geographic spread of schools of education across the country creates opportunities for close personal contact with clients. The historic commitment of SCDEs to school improvement (encompassing such national movements as laboratory schools, school study councils, curriculum and materials centers, action research, and more recently, teacher centers) provides a stable institutional base for continued KU activity.

Schools of education fare differently in relation to this question depending on whether criterion-referenced or normative tests are used to evaluate them. In the former instance, the organizational characteristics that impede involvement in school improvement projects stand out. However, when contrasted with competitive agencies which contain even greater organizational impediments, SCDEs seem relatively hospitable sites for KU programs.

Question 3--What incentives or disincentives exist that influence the participation of SCDEs in school improvement?

This question needs to be addressed on both an institutional and an individual basis. Schools of education exist in an institutional environment that vacillates about service or KU involvement. This is frequently not considered a high-status area; but most IHEs need to demonstrate service contributions to their states and regions. Service activities often require the mobilization of institutional resources but IHEs operate as primarily idiographic organizations. Colleges and universities are funded to meet classes but the level of funding is frequently determined by the satisfaction of their inservice programs' clients.

There are two relatively clear and consistent patterns that emerge from the several studies about institutional commitment to school improvement. First, public SCDEs assert a more vigorous role in KU than their private counterparts. And secondly, lower-prestige doctoral institutions and masters-level SCDEs experience less conflict in asserting an unambiguous commitment to service.

Of course, SCDE professorial staff share in the ambiguity of the IHE posture toward KU activity. At the level of formal mission statements, professors see an institutional commitment to service. Their superordinate administrators often voice the commitment publicly. But it is obvious, at least in doctoral-level SCDEs, that no one can be

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promoted or granted tenure on the basis of his/her service contributions; such rewards are made, however, on the basis of excellence in R&D. From the IHE's point of view, most professors are provided with released time for (either or both) institutionally sponsored or individually negotiated KPU activity. And it should not be overlooked that KU achievements are a part of the formal IHE reward system--just last among equals. For many professors, incentives to work with schools come not from the university but from the schools in the form of consulting fees and positive interpersonal reinforcement.

The university is schizoid in its commitment to and reinforcement of knowledge utilization or school improvement activity. This condition is likely to endure because the conflict on which it is based is rooted deeply in the traditions of the university. This conflict is dramatically illustrated by the current budgetary and enrollment declines in IHEs. Universities have responded to these exigencies by searching for alternative areas of performance that might offset deficits. Tighter linkages with local and regional public agencies and with business and industry--more emphasis on service--have been natural areas of growth. Many universities have initiated or are planning such ventures. Simultaneously, almost all IHEs have increased the intensity of their promotion and tenure processes, and they have done this chiefly by increasing the emphasis on R&D as a criterion for promotion and tenure: an organizational dilemma that will not go away.

Question 4--What funding sources are used to support these SCDE school improvement efforts?

There are no precise data on how school improvement programs are paid for in SCDEs. Schools of education receive more federal and foundation support for educational KPU activity than any other educational agency. But most of that support is for R&D. Schools of education have been excluded from the major dissemination and school improvement programs of the Department of Education, e.g., the National Diffusion Network, the Research and Development Exchange--even substantially from Teachers' Centers. The only capacity-building programs in school improvement have involved LEAs or SEAs. Schools of education are heavily dependent on outside funding, but the bulk of that funding goes for research or graduate training or general student fellowship and loan support.

Several studies have noted that SCDEs do place some of their own monies into school improvement; bureaus and centers are evidence of this allocation. When such centers receive outside funding for school improvement projects, it is more likely to come from the client served than from the federal government or from foundations. The major budgetary allocation by SCDEs comes, of course, in the form of 20 to 25 percent released time for faculty to engage in KPU activity. Since this is a non-specific way to fund such activities, it is difficult to measure how much money is actually expended on school improvement. However, most observers guess that the figure is sizeable.

Question 5--How can SCDE activity in school improvement best be described (e.g., in terms of clients, types of services, organizational arrangements to support the services)?

Using the studies on SCDE involvement in school improvement conducted so far, the answer is: Such activity can hardly be described at all. More recent efforts, such as the KTI and TDR studies, begin to build up a base of descriptive data on particular IOAs for school improvement. Normative studies such as the Clark-Guba and ARROE efforts offer only broad descriptions of SCDE operations, e.g.:

● There appear to be a large number of professors working individually with LEAs on specific, ad hoc problems.

● Many SCDEs operate field service bureaus to contract primarily with LEAs on ad hoc problems.

● SCDE staff make frequent one-shot appearances at workshops, conferences, and seminars for practitioners. They are used as "outside experts."

● There are from 50 to 100 school study councils linking SCDEs with LEAs for purposes of dissemination and local problem solving.

● Much of the contact between SCDEs and LEAs is only tangentially related to school improvement--it involves student observation, teaching, and internship arrangements to support the SCDE's instructional function.

● More recent SCDE-LEA arrangements have been built around locally sponsored or jointly maintained teacher centers.

● Many SCDE faculty exercise their KU function in the conventional media of the university, e.g., writing for practitioner journals, publishing textbooks, and speaking at conferences and conventions.

Question 6--What is the perceived and/or actual level of effectiveness of SCDE school improvement activities?

Clark and Guba argue, sans perception data, that practitioners and policymakers hold negative views of SCDEs as effective school improvement agencies (i.e., they are divorced from practice, not skilled in practitioner interaction, more interested in R&D than in KU). Whether or not this is true of individual practitioners or agencies, it seems to have been true of federal-level policymakers in shaping dissemination programs, and of the organized teaching profession in proposing and supporting teacher centers.

There are, in fact, very few data on the effectiveness of SCDEs

in school improvement. The reason for this paucity of data is simple. Almost all evaluations of school improvement programs have been commissioned and paid for by the Department of Education and its predecessor agencies. The department was concerned with evaluating its own programs and SCDEs were not a part of those programs. We thus have been provided with substantial evaluative data on, for example, the National Diffusion Network, but nothing substantial on school study councils. The currently available evaluative data on school improvement efforts involving SCDEs would not survive close scrutiny and criticism.

The few data that are available seem positive. SCDEs are dominant in the publication of material read by practitioners (practitioner journal articles, textbooks). Both the KTI and TDR studies report positive gains in most of their criterion areas in the IOAs they studied. Many of the SCDE ventures in school improvement have required funding by clients (bureaus of field service, individual consultancies, school study councils). These services have continued to "sell" over long time periods.

Section 3. Implications for Research and Policy

The reader has already had the opportunity to review the implications and recommendations offered by the five cases summarized in this paper. Following are the implications that appear most important to this author.

Research

1. The dearth of descriptive data about school improvement programs in SCDEs--data that can only be gathered through case studies--makes it very difficult to use the existing data base for policy planning purposes. Such data should be gathered for various SCDE types and for varied school improvement programs.

2. SCDEs are too extensively involved in school improvement to allow their efforts to go on without evaluation. Evaluative data would surely support policymakers in deciding how, if at all, to continue this involvement.

3. Organizational studies, following up on the earlier contextual studies of Clark and Guba and the more recent IOA inquiries by KTI and TDR, would provide a better sense of factors inhibiting and facilitating the involvement of SCDEs in school improvement. Equally importantly, such studies would guide policymakers in determining the variables and institutional types that could be favorably affected by outside funds.

4. Experimental programs involving SCDEs in school improvement (e.g., a capacity-building program) should be initiated and evaluated to provide a basis for subsequent involvement of schools of education in school improvement ventures.

Policy

1. Most of the research conducted to date indicates that SCDEs (a) have a substantial capacity for KU activities, (b) will continue to institutionalize school improvement as an organizational goal, and (c) are effective partners with LEAs in school improvement. To the extent that current budgetary provisions and program limitations will allow, the federal government should focus on increasing the involvement of schools of education in its programs of support for dissemination in education.

2. Since many past contacts between the federal government and SCDEs have concentrated on a small number of research center doctoral institutions, the Department of Education should extend its scope of support in dissemination and school improvement efforts to masters-level program centers.

3. Administrators and policymakers at the IHE/SCDE level should view school improvement as a rich outlet for SCDEs over the next quarter-century. Major efforts should be mounted to reduce the tensions between KP and KU and to reinforce the involvement of professorial staff in school improvement.

4. Public school practitioners and the organized teaching profession should re-examine ways in which they can work with SCDEs in school improvement. Schools of education do have considerable human and fiscal resources to bring to such an interaction, and the profession is now strong enough to negotiate mutually advantageous alliances.

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INTERMEDIATE SERVICE AGENCIES AND SCHOOL IMPROVEMENT:
AN ANALYSIS OF RECENT RESEARCH

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and
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Introduction

. This paper summarizes three recent research efforts that studied the activities and services of educational service agencies (ESAs):* the collection of reports by Stephens Associates entitled Education Service Agencies: Status and Trends; Yin and Gwaltney's case studies of three regional education agencies, Organizations Collaborating to Improve Educational Practice; and relevant portions of Frankel et al.'s Performers of Research and Research-Related Activities in the Field of Education. A comparative analysis of these three studies is then presented, followed by four major policy conclusions for consideration by the staff at NIE/REP.

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*Some ESAs are called "intermediate service agencies" (ISAs); some others, "regional education agencies" (REAs).

Review of Selected Reports

Stephens Associates. Education Service Agencies: Status and Trends (1979).

This study reviews the development and status of educational service agencies; it also discusses trends and issues related to these agencies.

The bulk of the study contains data from a large-scale survey of ESAs. An initial chapter gives a historical perspective on the growth of ESAs. Some agencies date from the creation of county school super-intendencies in the nineteenth century; most developed in the 1960s and 1970s. Stephens identifies three classes or types of ESAs:

- Special district agencies that constitute an official level of school governance between the state and local schools. These districts provide services to local schools as well as state education agencies. In a majority of states having special district ESAs, the system is state-wide, encompassing all local schools.

- Regionalized systems that represent an intra-state decentral-ization of state education agencies; ESA units are considered arms or branches of the state education agency. In almost all cases they are state-wide, involving all schools.

- Voluntary cooperatives among school districts. These are loose consortia of schools, banded together for common pur-poses. Few of these state cooperatives involve all schools in the state.

Some states had networks of more than one type of ESA.

The study does not examine all such ESAs in the United States. It reports on 31 networks of such agencies in 26 states. These net-works do not represent all of the networks within each of the 26 states; some were judged "insignificant" and not suited. No rationale was provided for the selection of these particular 26 states--except that resources prevented a wider study. The data collection was done primarily by mail survey, which uncovered 969 ESAs operating in the 26 states during 1977-78. Five hundred and one of these were surveyed and 314 returned the questionnaires. The following paragraphs sum-marize data around specific topics (underscored) covered by the study.

Membership in ESAs was voluntary in some states, mandatory in others. In 15 of the 26 states, all of the LEAs in the state were served by an ESA. Only some of the LEAs in the other states were members of ESA networks.

Some states' ESAs served general populations (the term was not defined) as large as 1,039,000 (Massachusetts); the smallest served 22,000 within the state (Nebraska). The geographic area served by these state-wide systems ranged from 91,037 square miles (Illinois) to 1,672 square miles (New Jersey). (Note: These populations and areas were not served by a single ESA, but by a state system or network.) The variation within each of the three ESA types identified above was as great as those among categories. The mean number of school districts covered by each system ranged from 162 (New Jersey) to three (Ohio). The mean student population served by each state system ranged from 342,000 in New Jersey to 11,000 in Illinois. The number of students served fell most frequently within the 1,000 to 5,000 range. No distinction between rural/urban membership was notable--except that the largest districts did not tend to belong to an ESA and a surprising number of the smallest districts did not belong either. Perceptions of chief executives of ESAs suggested that they saw themselves as serving either urban areas or urban-suburban-rural areas, rather than rural areas exclusively.

Two special features of this demographic data should be noted. While many ESAs served metropolitan areas in several states (including New York), the largest metropolitan school districts were explicitly excluded from ESA membership. Furthermore, it is important to note that 56 percent of all of the full-time staff were found in just two states, New York and Pennsylvania; adding figures from Michigan to these other two states shows that 67 percent of all the full-time staff in all ESAs were in just three states.

No data were reported that indicated the percentage of schools, students, or general population that were served by the ESAs studied in comparison with the total number of schools, students, or population in the states studied--except, of course, that the inference can be made that 100 percent coverage was involved in the cases of the 15 states where participation by all schools was mandatory.

The patterns of how the units were established varied, ranging from mandatory legislation in some states, to permissive legislation, to state agency approval, to no higher-authority approval. In some cases the state systems replaced or reformed county school systems; in other cases there was no relationship between the county schools (when they still existed) and the ESAs. No generalizations from the data were provided about the reasons for establishment; however, from their personal knowledge, the authors (Stephens et al.) concluded that ESAs have come about because of (a) a growing recognition of the difficulty LEAs experience in responding to new priorities (e.g., special education), (b) the political unlikelihood of continued school consolidation, (c) the limitations of previous middle-echelon units such as county school systems, and (d) the trend toward expanding the SEA role from that of regulatory agency to service agency.

Most states reported that they expected few if any changes in the numbers or functions of ESAs in the foreseeable future--except Minnesota, which anticipated a consolidation of existing ESAs (58) to a

smaller number (15 to 25). Ohio and Minnesota anticipated some changes in functions.

Almost all of the ESAs (except three systems operated by state education agencies) were <u>governed by boards</u> of varying size and composition. Some members were appointed (e.g., by constituent local boards) while others were elected. The terms and qualifications of board members were extremely varied and no patterns were discernable. Most served with no compensation or with token compensation. Male members on the boards outnumbered female members 83 percent to 17 percent. Almost all members were Caucasian.

ESA governing boards had almost no <u>authority over the member LEAs</u> --except in Ohio, which gave almost complete authority for school operations to ESAs. In Iowa and Michigan the boards had limited authority over SEAs. Many boards were supplemented by advisory panels in specific areas like the education of the handicapped.

The <u>executive officers</u> presented as varied a picture as did the boards. Some were elected, most appointed. Their authority was usually limited to implementing board-approved policies--but not in every case. Their salaries were predominantly in the $25,000 to $29,000 range, but some were paid more than $45,000. Virtually all were male (95 percent) and Caucasian (98 percent). Almost all had previous LEA experience; SEA experience was rare. Sometimes, but not frequently, administrative certification was required. Age was not reported.

Only five state systems (of which four were special districts) had <u>direct taxing authority</u>. Only 18 of the state networks received state money; most of this was for categorical programs. Cooperative networks received the smallest amount of state money. Twenty-four of the 26 state networks received federal money; most of this flowed through the states. <u>Revenue size</u> from different sources ranged from millions of dollars to nothing. (More specific data is presented in Figure 1, page 64.) <u>Increases in revenue</u> over a three-year period ranged from a low of 20 percent to a high of 465 percent. One state (Illinois) reported a decrease.

<u>Expenditures</u> by all ESAs can be summarized as follows:

Category of Expenditure	Dollars (in millions)	%
Education of the handicapped	282	34
Vocational education	199	14
"Federal programs"--not defined	76	9
Administration	75	9
Data processing	50	6
Transportation	41	5
Media and library services	37	4
Evaluation	30	4

Types of services were broad. Eleven of the 26 program areas surveyed were offered by a majority of the 314 units. In descending order, they were: general administration, education of the handicapped, media and library services, staff development, curriculum services, information services, planning services, gifted and talented education, vocational and occupational education, pre-kindergarten, and purchasing services. In the special districts, four other areas of service were offered by a majority of ESAs: data processing, financial services, pupil personnel services, and federal program services. In regional-ized service units, the three additional areas offered by a majority were: general academic instruction, research and development, and financial services. Though services to nonpublic schools were offered by a few ESAs, most did not serve the private sector. A majority of ESAs maintained a data base on the local schools they served; this was especially true in the case of regionalized systems.

Seventeen of the 31 ESA networks were formally involved in <u>state regulatory functions</u>. Eight of the 11 special district ESA networks were so involved; most frequently this activity constituted participation in the development and communication of regulations. Four of the seven regionalized networks were involved in regulation--primarily in the communication and interpretation of state regulations. Five of the cooperative networks were involved, voluntarily, in state regulations.

In the 314 ESAs, 40,736 full-time equivalent (FTE) <u>staff</u> were employed. Ninety percent were in special districts, eight percent in cooperatives, and two percent in regional units. New York alone accounted for 32 percent of the total FTE; Pennsylvania, 24 percent. Program areas for the staff were: handicapped (19,500), vocational (3,000), general administration (1,800), pre-kindergarten (1,400), and media/library (800). Eight percent of the staff were administrators, 42 percent were teachers, 17 percent were teacher aides. Nineteen percent were classified staff. Twenty-nine percent of the positions were federally funded. No sex or race data were reported.

No clear picture of the <u>facilities</u> used by ESAs was presented--except for the information that two thirds of the special and cooperative districts could own space while most regionalized networks could not. How many actually owned space was not reported. About one third used free space, mostly supplied by county governments. Forty-four percent operated one or more satellite centers.

No clear pattern emerged regarding the <u>contact and reporting protocols</u> between ESAs and SEAs; some SEAs had a single contact point for ESAs, others had none. In most cases, working contacts existed between ESAs and a number of offices within the SEAs. State-wide meetings between an SEA and a state's ESAs were commonplace.

In slightly less than half of the cases, the legislative or charter provisions for the establishment of ESAs required formal, periodic <u>evaluation</u>. Twenty-three out of 30 of the ESA networks were required by mandate to be involved in some type of planning.

In summarizing the differences between the various types of ESAs, the study reports that SEAs had more involvement with regionalized systems than they did with the other two categories. They had the least involvement with cooperatives. Public involvement of LEAs was limited for all three types of ESAs, but was greatest in the case of cooperatives. Accountability to state government was greatest in the case of the regionalized systems. Accountability to LEAs was greatest for cooperatives. Few of the networks enjoyed a large degree of autonomy. Federal involvement was critical for all three network types. Little interaction with post-secondary institutions appeared to exist for any of the three network types.

The report concludes that the three network types had different potential for contributing to the improvement of state systems of education.

* The special districts assisted by improving state-local partnership, acting as a platform for resolution of state-substate-local interests, and facilitating necessary state regulatory processes. They also contributed to state-wide dissemination and communication capability and saved state agencies time and energy.

* The regionalized networks helped by providing the same type of platform for resolution of state-substate-local interests; by facilitating long-range planning; and by facilitating state-wide communication.

* The cooperatives, because of their limited involvement in state education affairs and because most were not state-wide systems, were judged to have limited potential for contributing to the improvement of state education systems.*

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*The Annual Report on Study of Regional Educational Service Agencies: Fiscal Year 1981 (Philadelphia, PA: Research for Better Schools, 1981), a recent study conducted in Pennsylvania and New Jersey by Research for Better Schools, suggests two functions for RESAs. Political linkage offers information to LEAs about the impact of mandates and helps negotiate acceptable interpretations. Technical linkage provides research- and practice-based knowledge about instruction and administration. Both kinds of linkage are enabled by the three RESA roles of trainer, liaison, and monitor.

Two distinct clusters of agencies emerged from the study, reflecting both state policy and the regional demand for services. One group, including all the county offices, did a great deal of monitoring and very little training. The converse was true of the second group, which did considerable training and little monitoring. This discrete differentiation of function underscores a state-level decision to separate monitoring for compliance from training for capacity building.

In terms of their potential for local public school improvement, the study concluded that:

- The special districts contributed by providing direct instruction to general and special students, and by providing instructional services and management services.

- The regionalized networks contributed by assisting in local planning and dissemination of information.

- The cooperatives contributed similarly to local planning, dissemination, and communication. They also provided direct instruction to students, and instructional and management support services.   /

In summary, the Stephens study found that special districts had many major strengths including a structured mode of operation, a relatively stable fiscal support base, and comprehensive programs and services; their major weakness was the large number of individual units in many of the systems. The regionalized systems had as their strengths a structured mode of operation and a relatively definite source of financial support; their weakness was their inability to contribute to improved educational practice at the LEA level. Cooperatives' strength rested in their involvement with LEAs; but their lack of organizational ability, the absence of definite funding sources, and the limitations of their programs and services were major weaknesses.

Figure 1:   Selected ESA statistics from Stephens

SPECIAL DISTRICTS	REGIONALIZED UNITS	COOPERATIVES
CA: Offices of County Supt. of Schools	MA: Reg. Ed. Center	AL: Reg. Resource Center
IL: Ed. Service Region	NJ: Ed. Impreve. Center & Co. Supt. of Sch.	CO: Bd. of Coop. Services
IA: Area Ed. Agency	OH: Special Ed. Reg.	CT: Reg. Ed. Serv. Center
MI: Intermed. School Dist.	Resource Center & Field Services Area	GA: Coop. Ed. Serv. Agency
NY: Bd. of Coop. Ed. Services	Coord.	IN: Ed. Serv. Center
OH: Co. Off. of Ed.	NC: Reg. Ed. Center	MD: Reg. Ed. Serv. Center
OR: Ed. Serv. Dist.	OK: Reg. Ed. Service Center	MA: Ed. Collaborative
PA: Intermed. Unit		MN: Educ. Coop. Serv. Unit
TX: Reg. Ed. Service Center		NE: Ed. Serv. Unit
WA: Ed. Service Dist.		OH: Reg. Ed. Serv. Agency
WI: Coop. Ed. Serv. Agency		RI: Reg. Voc. Tech. Facility
		SC: Ed. Serv. Center
		WV: Reg. Ed. Serv. Agency

	SPEC. DISTS.	REG. UNITS	COOPS.
Number of Units/ Percent of Total	426 (69%)	88 (14%)	105 (17%)
Percent of Funding Sources:			
Federal	18%	not	28%
State	41%	reported	28%
Local	38%		36%
Other	3%		8%
State-wide Expenditure Range: HI/LO	410,000,000 (CA) 5,986,000 (IL)	3,771,000 (OH) 825,000 (MA)	17,360,000 (CO) 350,000 (AL)
Mean $ Per Unit	4,924,000	769,000	2,551,000

R. K. Yin and M. K. Gwaltney.   Organizations Collaborating to Improve
  Educational Practice (1981).

    This is a summary of a detailed case study of three regional
education agencies (REAs).   The purpose of the study was to examine
interorganizational collaboration factors that contribute to knowledge
utilization--the transfer of information or knowledge about better ways
to educate from a source to a user.   The authors posited that the knowl-
edge utilization function would be different in interorganizational
settings than interpersonal settings. .(The focus of this summary is on
the REAs and their potential for school improvement rather than on
information about interorganizational collaboration per se.)

    Three REAs were chosen because Yin and Gwaltney believe that REAs
not only have significant potential for improving educational practice
through knowledge utilization but also represent broad examples of
interorganizational collaboration--between local schools, the REAs, and
state departments of education.   Some of the possible knowledge utiliza-
tion advantages of REAs cited by Yin and Gwaltney include: economies of
scale, service orientation, broad applicability (they report that 39
states had them), political and bureaucratic legitimacy, and support
from state or local funds. (The study contains a brief historical per-
spective on the development of ESAs, but since it does not differ
substantially from Stephens's it is not summarized here.)

    The three REAs studied were: the Wayne County Intermediate School
District, Wayne County, Michigan--serving 36 school districts; the
Northern Colorado Education Board of Cooperative Services (NCEBOCS),
Longmont, Colorado--serving six school districts; and the Educational
Improvement Center-South (EIC-South), New Jersey--serving 144 school
districts.   These were chosen to represent exemplary features of
different REA types.

    A relatively elaborate conceptual framework was developed for
analyzing the data emerging from the case studies.   This framework-
specified three types of outcomes of collaboration: direct goods and
services; utilization outcomes (initiation of a planning activity,
changes in practice, changes in attitudes, confirmation of effective-
ness of current practice); and dysfunctional outcomes (added time;
confusion of responsibilities).   The framework also hypothesized five
alternative explanations for successful utilization.   Successful collab-
oration might occur because it was accompanied by: (a) mutual exchanges
between the cooperating agencies, (b) access to external funds, (c)
mandates to collaborate from an external source, (d) formal agreements
between cooperating agencies, or (e) mediation of conflicts between the
agencies. Some personal contributions to success were also hypothesized:
(f) mutual exchanges between individuals within the participating
agencies, (g) contribution to personal or self-fulfillment goals among
individuals, and (h) career advancement for individuals as a result of
collaboration.

The study examines the extent to which each REA resulted in speci-
fied outcomes, accompanied by one or more of the above hypotheses for
explaining success. That is, each case was examined to see what kind of
outcomes resulted from collaboration; and each situation producing an
outcome was examined to determine which, if any, of the hypothesized
contributors to successful outcomes were present. This analysis was
performed separately for three different knowledge utilization services:
(1) staff development, (2) linker assistance, and (3) information re-
trieval or dissemination. Yin and Gwaltney label this methodology a
"direct replication design." The data were collected through two per-
sonal visits to each site and the review of a large number of documents.

Before reviewing the conclusions of the analysis, let us note some
representative outcomes from each of the sites; they provide specific
examples of some of the work of REAs.

- Selected goods and services outcomes were: semester-long
  workshops, training information and materials, on-site ad-
  vice, catalogs, answers to telephone questions, and NDN
  products.

- Selected utilization outcomes were: workshops, consulta-
  tions, and product adoptions. One REA estimated that 16,274
  persons participated in their workshops, consultations, and
  request services during one year; another reported 49 adop-
  tions of 20 products.

- Selected dysfunctional outcomes were: workshops that had
  to be planned one year in advance and hence were not respon-
  sive to new problems; facilities that were remote from users,
  thus reducing drop-in use; and part-time staff which reduced
  availability of services. The authors speculated that false
  starts were created by the need for advanced planning resulting
  from interorganizational collaboration; had only a single dis-
  trict been involved, such false starts might have been reduced.

Of the five interorganizational factors--(a) through (e) above--
that were initially hypothesized to contribute to successful outcomes,
three were found to contribute to the success of what Yin and Gwaltney
called "simple arrangements." Those explanations that were instrumental
in making simple arrangements work were:

- The arrangement facilitated access to external resources. Con-
  siderable importance is placed on this explanation by the au-
  thors. They note that

    interorganizational collaboration can be best fostered
    if, as a result of the collaboration, the participating
    organization can gain additional resources from an
    external source. This situation should be directly con-
    trasted with an arrangement whereby users' fees are used
    to support a service. Based on our three cases, the
    latter situation does not seem to work as effectively.

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- The authors found that when users' fees were involved (as opposed to situations in which funds were available from outside sources such as the state or federal government), desirable outcomes were less frequently observed. They conclude that "in simple interorganizational arrangements, fees for services will probably only work where one of the participating organizations offers a service that the other is incapable of providing for itself."

- The arrangement produced a mutual exchange of advantage to the parties involved. An example of such a mutual exchange: When LEA participants paid fees for a course, the university provided instructors and course credit in return for increased enrollments, and the REA directed the design of the course in return for administering and arranging the program. Although in some instances mutual exchange alone contributed to successful outcomes, the authors conclude that in the absence of access to external resources, knowledge utilization outcomes were not likely to occur.

- The arrangement was a response to a mandate to collaborate. Such mandates were arranged, for example, when the state reviewed the budget of a particular REA. The authors conclude that "all other things being equal, a strong mandate can strenghten a collaborative relationship. A weak mandate may undermine such a relationship."

Another unanticipated factor was found to contribute to successful outcomes of interorganizational arrangements. The authors found that continued interpersonal communication between REA and LEA staffs led to: increased awareness of the capabilities and needs of each; contacts between staff independent of occasions when specific problems needed to be solved; appreciation of constraints that existed between the organizations; knowledge of resources available from both agencies; and identification of future needs or capabilities. Interpersonal networks were found to be fostered by: the existence of a strong governing board that represented both organizations; communications by the REA staff in the professional organizations of the LEA; and the prior service of REA staff in a constituent LEA.

Another finding: Successful outcomes occurred in environments that were heavily "user-responsive." This orientation was defined as involving: assessment of user needs; user participation in the design of a knowledge utilization service; user sensitivity in the design of everyday service operations; development of a user-oriented knowledge base; user-oriented manners of providing implementation assistance; and follow-up procedures for assessing user satisfaction with services.

In complex organizations--those in which services go beyond knowledge utilization activities to include what the authors term "intergovernmental functions"--mutual exchanges appear to be significant. But the situation is further enhanced when the SEA imposes "congruent conditions" on both the REAs and LEAs (mandates to both REAs and LEAs

that support interorganization cooperation in matters related to knowledge utilization). Thus, in situations like the Colorado REA studied, where the SEA does not impose or mandate such conditions, success is less likely. The authors note, however, that this mandate must be installed for a sufficient period of time so that collaboration can occur; year-to-year changes in the mandate might be dysfunctional.

In summary, Yin and Gwaltney found that access to external resources is critical to interorganizational arrangements that facilitate knowledge utilization. It is also important to encourage interpersonal and interorganizational communications, including recruitment of new staff from client populations. And third-party organizations should recognize the potent effect of their actions on interorganizational arrangements.

J. Frankel, L.J. Sharp, and A.D. Biderman. Performers of Research and Research-Related Activities in the Field of Education (1979).

This is a report on a study of organizations performing research and development work in the field of education. One purpose of the study was to create an American Registry of Research and Research-Related Organizations in Education (ARROE). This summary concerns only that portion of the effort focused on information about intermediate service agencies (ISAs).

As part of the data collection for the ARROE directory, a number of ISAs were surveyed. Subsequently, the registry listed 193 such agencies conducting any of the following types of work: establishing new facts or principles (research), inventing new or improving existing solutions to educational problems (development), assessing the effects of existing programs or determining the feasibility of new ones (evaluation), or disseminating R&D results. (The acronym RDD&E was used for this set of functions.) The ISAs studied were part of a larger group of agencies within the public sector (as distinguished from the academic and the private sectors). Altogether, 1,530 organizations were listed in the register. Sixteen percent of the staff and 15 percent of the funds for R&D were found to be in the public sector. Within that segment, Frankel et al. report that $26 million was devoted to RDD&E by ISAs; this represented four percent of the total national RDD&E effort in dollars. ISAs had 1,600 full-time equivalent professionals primarily involved in RDD&E.

The study reports that 163 agencies spent in excess of $1 million each for education RDD&E; among this group were six ISAs. But a majority (51 percent) of the ISAs spent less than $50,000 and over 90 percent spent less than $500,000. One third spent less than $25,000. The median number of FTEs in an ISA responsible for RDD&E was two; within any particular institution, at a sub-organizational level, the median number was one FTE. Thirty percent reported that none of their full-time professional staff were involved in RDD&E. However, 17 agencies reported

employing 20 or more full-time education RDD&E professionals. Four of the 10 ISAs spending more than $500,000 were in Pennsylvania; two were in Michigan.

Research, as distinguished from the other RDD&E functions, was most heavily emphasized in the academic and private sectors, while development and evaluation studies dominated the contribution of the public agencies. Dissemination emerged as the area of lowest emphasis, receiving the smallest allocation of funds by performers except for state agencies and large public school systems. Public agencies were heavily involved in curriculum issues, the needs of special student groups, and enrollment and demographic analyses. Presumably, most of the ISA effort fell in the development and evaluation areas related to these issues.

The study indicates that 53 percent of the support for all of RDD&E came from federal sources; what the percentage was for ISAs was not reported. But the authors note that much of the work of state agencies and of the large school districts is federally funded and therefore vulnerable to cutbacks and discontinuities. We assume this to be true of ISAs.

In their conclusion, Frankel et al. argue that the smallest RDD&E effort was made in the public sector and that much more activity should occur there if RDD&E activities are to reach a higher level of acceptance by practitioners and local policymakers. The authors point out that when research is conducted by "outsiders," a perceived gap between the researcher and practitioner develops, making it more difficult for R&D results to be adopted.

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Comparative Analysis

The Stephens study contains a mass of demographic data about 316 educational service agencies. Its strength lies in its documentation of the existence of these agencies in terms of their numbers, their individual sizes, and the extent to which they are involved in most aspects of education. The study surely indicates that educational service agencies should not be overlooked when it comes to most operational aspects of the educational system. By Stephens's count, there are nearly 1,000 ESA units in the 26 states examined, and since there are other states with ESAs of some type (Yin estimates from a previous study by Stephens that 39 states have some form of ESAs), they are too numerous to ignore.

It should be noted in passing that both the Stephens and Yin estimates of the number of ESAs in the country disagree with the figures reported by Frankel et al. in the ARROE study. The latter researchers identified only 193 ESAs in their data base. Given that they define R&D activities broadly to include the invention of new or improved solutions to educational problems, the assessment of the effects of existing programs, and the dissemination of R&D results, it would seem that many, many more ESAs should have been discovered. One must conclude either that the ARROE study significantly underestimates the number of agencies involved; or that Stephens's and Yin's observations about the potential for ESAs in knowledge utilization and dissemination should be modified. We hope that someone will either compare the Stephens and ARROE data bases or, if that is not possible, gather new information.

One drawback to the Stephens study is that, even with the mass of data reported, we are left without a sense of perspective. What is the total number of these units nationwide? What percent of the nation's schools are served by ESAs? What percent of the students? What percent of the educational dollar is spent on ESAs? Although these comparative questions go beyond the explicit scope of the Stephens study, it seems unfortunate, what with the great energy that was spent in collecting such a mass of data, that they could not have been answered. In contrast, the Yin study by design presents almost no information regarding the scale and scope of ESA involvement in the totality of educational operations. But even in the absence of this comparative information it is possible to infer from all three studies that individual ESAs have varying impact on the local schools they serve. They should not be considered a monolithic group of agencies. A sense of the differences in functions among ESAs can be drawn from Stephens, Yin, and to a limited extent, the ARROE study. Stephens develops three categories of units; Yin focuses on an example of each.

1. The <u>special districts</u> (for instance the Wayne County Intermediate District studied by Yin) are large-scale

operations involved in almost all aspects of local educational practice; their sources of funds are equally broad, with a relatively small proportion coming from local contributions for services. These units are heavily involved in instruction--not only providing services to assist others in instruction, but carrying out the instruction themselves in particular fields like special and vocational education. (The Stephens study of the Texas educational service agencies is wholly consistent with the portrayal of the Wayne County Intermediate School·District).

2.. The regionalized educational service units (such as the New Jersey Education Improvement Center-South) are not involved in such direct instructional practice.· They concentrate on quality control from a managerial and regulatory perspective, in some cases assisting in the direct administration of state regulations. Their local school involvement takes the form of management, staff development, and information services. (In some respects, these represent the purest form of school improvement services as defined by Yin.)

3. The collaboratives (such as the Northern Colorado Educational Board of Cooperative Services) do not engage in widespread instruction (though some provide very specialized broad services to the handicapped), but they do get involved in the operational aspects of local schools primarily through administrative activities-payroll, for example. At the same time, they work extensively in the improvement domain, but for the most part without involvement in a state's regulatory activities. (It should be noted that Yin misleads the reader slightly by implying a formal, vertical relationship between schools, cooperatives, and state education agencies. In most cases the cooperatives are the creatures of state legislation, but have little or no formal relation with the state education agency.)

In the light of their differences in nature, we again assert that these units must not be treated as though they are all the same and can perform the same functions. Not only are they dramatically different in size and outreach, they simply do not serve the same purposes.

Given this diversity, what can we conclude about the potential role of these agencies in school improvement? To get at this question, we must examine several sub-questions:

• Are ESAs better suited to some problem areas than others?

• What functions carried out by these units hold potential for school improvement?

● Given these problem areas and functions, what is the level of resources available for work on school improvement? (We will address this question as a subsidiary of the previous two.)

● What are the primary constraints or limitations that must be taken into consideration?

These questions will be answered only in the context of the studies reviewed.

1. <u>Are there specific problem areas to which ESAs are particularly suited? And what is the level of resources available?</u>

One area that would not be a likely one for school improvement is that of educational equity--at least in the sense of the involvement of women and minorities in educational practice. Given the white/male composition of the boards and executive rosters reported by Stephens, one must have doubts that the ESAs represent a major potential force for equity of educational opportunity. Perhaps, instead, we should look on ESAs as fertile ground for building additional capacity in this area.

One area in which these agencies have considerable expertise stands out clearly: special education. As reported by Stephens, fully one half of the personnel in ESAs (20,000 FTE) are working in this area already. We do not know what percentage of the total special education workforce this figure represents, but we assume it is significant. In addition, 34 percent of the ESAs' budgets ($282 million) is devoted to special education.

Ten percent of the FTE workforce in ESAs, according to Stephens, is employed in vocational education. Again, we assume that this is not an insignificant part of the total vocational education workforce. Fourteen percent of the ESAs' budgets ($199 million) is spent on vocational education.

Six percent of the FTE workforce is devoted to adult education. Expenditures in this area were not reported.

Eleven other areas are represented by FTE figures of less than three percent each. Hence, we assume that if major nationwide improvements were to be undertaken in problem areas other than those identified above, considerable capacity building would be necessary.

2. <u>What functions for school improvement do ESAs perform that offer the greatest potential for school improvement? And what is the level of resources available?</u>

Knowledge utilization functions. The Yin study focuses on knowledge utilization functions; these clearly represent one major area in

which regional service agencies can contribute to school improvement. Yin defines "knowledge utilization" in a manner compatible with the idea of school improvement: external knowledge disseminated and used to bring about a variety of outcomes, including changes in practice. He identifies staff development, linker assistance, and information retrieval as major services directed toward knowledge utilization. On the other hand, the Stephens data indicate that these activities constitute a modest portion of all the services provided by ESAs. For example, Stephens reports that staff development is supported by the efforts of only 264 full-time equivalent people out of a 40,633 total FTE. Information services are supported by the efforts of only 143 persons. In addition, Stephens reports only 258 research and development FTE. All of these workers combined represent less than two percent of the total FTE in these agencies.

One confusing note on the extent of the workforce dedicated to knowledge utilization: Frankel et al. define RDD&E to include the same concepts as does Yin (though Frankel excludes workshops--a primary form of staff development). One presumably should be able to add Stephens's categories of research and development, information services, and evaluation (although Frankel rules out staff evaluations tions and student testing--types of work probably involved in Stephens' categories) and come up with a figure roughly in agreement with Frankel's tally of the knowledge utilization workforce. If one does the math, however, the result is 532 FTE--far short of the 1,600 FTE cited by Frankel. The figures are even more out-of-joint considering that Frankel counted personnel in only 193 agencies while Stephens worked with 314. Clearly, the data from these sources needs to be clarified. But even using the higher set of figures, one finds a relatively small number of professionals working in the area of knowledge utilization or research and development.

Judging the potential of this group for school improvement requires making assumptions about the person-power needed to implement a knowledge utilization strategy for a large number of schools. Frankel would argue that, to the extent that the R&D functions going on in ISAs are largely "disseminative" in nature (that is, knowledge utilization, not knowledge production), and to the extent that dissemination is the area of least emphasis in the national R&D picture, receiving the smallest amount of allocations by most performers--to that extent, knowledge utilization is more a potential for school improvement than it is an existing resource. On the other hand, at least in the cases cited by Yin, no matter how small dissemination allocations were as a percentage of the overall effort, they did result in significant outcomes. Other federal dissemination programs exhibit a similar leveraging; the National Diffusion Network comes readily to mind as an example. However the case is argued, it seems certain that of the resources currently available to schools for knowledge utilization, a significant portion now exist in regional service agencies--a fact that policymakers should not ignore.

Curriculum and instructional service functions. Curriculum and instructional services might be considered a subset of knowledge

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utilization or RDD&E functions. Yin, by subsuming staff development within his category of knowledge utilization, appears to opt for the inclusion. However, Frankel explicitly excludes staff development from RDD&E (although she would include development of new programs). No matter; curriculum and instructional services seem significantly distinguishable from other RDD&E functions to be examined separately. Activities in this area range from the consultation work of specialists in traditional areas such as reading, language arts, math, and science to special projects charged with developing new or better strategies for improving instruction in such areas as gifted and talented, migrant education, bilingual education, outdoor/environmental education, etc. It is difficult to get a fix on how many people provide these services or how much money is spent providing them. Stephens is our only source, and because he combines such functions as direct instruction and curriculum support services in his program areas, it is difficult to make an estimate of the magnitude of effort. We would guess that it is of about the same magnitude as (or only slightly greater than) the knowledge utilization effort--a fairly low level of effort.

One's assessment of the policy implications of using such limited curriculum and instructional resources for school improvement depends, to a considerable degree, on one's assumptions about the potential role of curriculum change in school improvement. For example, there is a sentiment in some policy circles that curriculum reform is not likely to result in major changes in student achievement. If one holds that view, then the presence of curriculum and instructional services functions in ESAs will not appear to hold much promise. On the other hand, to the extent that curriculum and instructional services are valued, these services will be considered to offer great potential for school improvement.

As budgets have been cut at the local and state levels, curriculum and instructional services have been among the first to go; it may be that cooperatives and regional service agencies are the logical locations for such services. But they may also disappear rapidly from regional agencies if they are financed primarily with federal dollars (as we surmise they are). The greatest changes for regional agencies may come in this area. If they are now funded largely by federal resources, most of those resources will go into the new block grants. Whether the state will continue to operate these agencies is a matter of considerable policy importance.

Supplanting functions. In addition to the obvious areas just identified, there are several others that hold school improvement opportunities for regional education. One of the most important, we think of as a "supplanting" function; that is, in some areas, instead of assisting schools in carrying out their work more efficiently, regional agencies directly carry out the work themselves. Most obvious among these supplanting functions is direct instruction. To a considerable degree, the ESA systems in this country are direct instruction units. This can easily be deduced from the fact that 59 percent of the full-time equivalent staff are either teachers or teacher aides. Available evidence indicates that the bulk of this instruction is teaching of the

handicapped (and to some extent adult and vocational education).

The issues of school improvement in this area are the issues of improvement of instruction in general. There is nothing unique about teachers who happen to work for a bureaucracy called an "educational service agency" instead of a local school. In other words, whatever policies might be effective in improving instruction in schools will also apply to ESAs.

Another supplanting function is the regional service unit practice of directly conducting pupil/personnel activities (guidance and counseling, testing, diagnosis, etc.). To the extent that these services are a part of ESA activities, they become a potential target for improvement just as they would in a local school.

Administrative operations. Regional service units perform important administrative operations for local schools; Stephens's data indicate that as much as six percent of the FTE is dedicated to these services. These operations range from joint purchasing of toilet paper, to the management of payrolls and employee records, to the operation of school buses. (The last item probably makes up a larger percentage of budgets than reflected by FTE data, since the cost of maintaining and operating a fleet of buses is quite high these days.) The role these administrative operations play in school improvement may be negligible except to the extent that greater efficiency in administrative operations frees up more money for the instructional program. The role of regional service agencies in bringing about greater efficiency of operation is always mentioned as one of their unique contributions to the educational system. Surprisingly, however, no real data has yet emerged to document this phenomenon.

Governance functions. This area includes not only the relatively small proportion of people involved in administration (and probably only a small percentage of those Stephens lists as involved in administration have much of a part in governance issues), but also those who serve on advisory boards and those tied to the governance of ESAs through linkage with state and local education agencies. These people represent the establishment in education--certainly, at least, in those states with a state-wide system. Here the potential for improvement is probably greater than is currently realized: Reaching the people involved in ESA governance amounts to reaching a significant portion of those who now operate our educational system. Viewing the ESA as a communication link with these people has the advantage of blurring some traditional lines of protocol. For example, the federal government has difficulty speaking directly to local school districts without filtering through the states; by using the ESAs as one channel for communication on topics related to school improvement, it would be possible to reach a much broader audience. Certainly this channel could not be used for official, regulatory communications without impunity; but it could be used as a vehicle for awareness, debate, feedback, and mediation between the schools and the state and federal governments. This is, in effect, what Stephens defines as one of the ESAs' major strengths. Yin recognizes it too when he speaks of the

mediating functions of REAs. In particular, Yin's exposition of the importance of mandates and the imposition of "congruent conditions" --mandates to both REAs and LEAs that support interorganizational, cooperation--raises important policy implications: To the extent that regional service agencies are part of a deliberate mandate from third parties (such as state education agencies) to bring about school improvement, they are more likely to succeed. Yin argues that to the degree that states separately ask local schools how they are using regional units to improve themselves, and simultaneously ask regional units how they are helping schools, it is more likely that collaboration leading to improvement will occur. And if this discussion is held in the context of the allocation of federal or state resources, it is even more likely to yield beneficial school improvement outcomes.

Finance systems. At no time do any of the studies reviewed speak of the potential role of regional units in the equalization of school finance resources. In fact, most regional units do not now play such a role. But there are exceptions. For example, in New Jersey's system a school district deficient in providing a "thorough and efficient" education to its students can acquire the additional state resources for improvement through one of the regional Educational Improvement Centers. It seems to us that more use could be made of the regional units by employing them as vehicles for distributing additional state resources where the need is the greatest. This might be a particularly appropriate tool for responding differentially to unequal rural and urban needs.

3. **What are the primary constraints or limitations that need to be taken into account in using regional service units to improve educational practice?**

The constraint most important, it seems to us, is that focused on by Yin in the context of external resources. He indicates that successful collaboration and hence successful knowledge utilization occurred when external resources were made available to the cooperating parties that would not have been available to any of them alone. Yin challenges the idea that school improvement services are likely to be bought from regional service units by local schools. He found that when this was a condition of collaboration, it was not successful. Only when both parties could cooperate to gain new resources and/or exchange benefits did successful knowledge utilization through interorganizational collaboration occur.

To a certain extent, Stephens's data support a similar conclusion. Federal dollars seem to be most involved in the functions we have described that have the most potential for improvement. Federal dollars are not involved, for example, in administrative operations. They are not heavily involved in many of the direct instruction functions. They are extensively involved in knowledge utilization activities and curriculum and instruction services. The conclusion seems to be that if regional units are to act as vehicles for school improvement, they must be given the opportunity to assist the constituent LEAs in obtaining

resources they would not otherwise have been able to get. Such re-
sources may not be large in relationship to the total scale of the
regional service units' operations, but there must be some money there
to act as a catalyst. It would be an error to think of this money as
"seed money"--money that once deployed starts a self-sustaining effort;
instead, it must be thought of as a continuing source of "starts" for
school improvement efforts. Given the current policy of removing the
federal government from this role, if state governments do not create
this source of incentive for interorganizational collaboration, most
school improvement functions of regional service agencies would appear
to be doomed.

One other constraint: It should be noted from the Stephens data
that a preponderance of ESA FTE energy is located in two states--
New York and Pennsylvania. Together, these two states contribute 56
percent of the total FTE of all ESAs studied. Adding Michigan's 11
percent reveals that 67 percent of the entire 26-state effort is in
these three states. This raises important questions about the gener-
alizability of ESAs as a nationwide resource. Another constraint in
using ESAs on a national basis: They do not, in general, service the
private sector.

Policy Conclusions

1. Educational service agencies are a significant element in the nation's educational configuration. Well over 1,000 are in existence, located in a majority of states. They do everything from teaching children (under contract arrangements with local schools) to cooperatively buying buses. They keep payrolls, conduct staff development, evaluate programs and students, and do long-range planning. They should not be ignored by any federal policy or program that proposes to affect public education K-12.

2. ESAs are as diverse in their functions, size, and governance structure as they are in their names: boards of cooperative services, educational improvement centers, educational service centers, intermediate-units--and many more. Some are formal regional service branches of state education agencies; others function by contract with quasi-official sanction; others are independent cooperatives that do not answer to state education agencies. Federal policy must be informed by this diversity. Policymakers must not assume that all ESAs can be reached through state education agencies, and must take into account ESAs' differing interests and capabilities. More information on these agencies should be disseminated broadly throughout government at the working level.

3. The ESAs' potential for school improvement is both substantial and limited:

   a. There are certain areas, such as special and vocational education, where almost all educational service agencies have expertise. Many individual agencies have expertise in other areas, as well.

   b. The bulk of the operations in many agencies supplant local instruction; the ESAs actually hire the teachers and select the students in such areas as special and vocational education. As a result, they are themselves candidate targets for school improvement efforts.

   c. ESAs already perform a large number of the nation's knowledge utilization functions; they operate staff development, linker assistance, dissemination, and information services such as those sponsored by the National Diffusion Network.

   d. ESAs also provide to schools a large array of curriculum services--e.g., curriculum development and experimental programming. In particular, they have been among the elements of the educational system most

responsive to mandates in career education, programs for the gifted and talented, environmental education, etc.

e. ESAs carry out research and evaluation functions, including program evaluation and statistical analysis of school characteristics.

f. ESAs perform a variety of administrative services for schools. Although this area probably has limited potential for school improvement, the cost savings of these operations (though undocumented) surely contribute to the improvement of a system so influenced by declining resources.

g. Because their governance structures involve all levels of the educational system (except the federal) in many states, ESAs have potential as informal communications channels for enhancing awareness of needs, issues, and improvements in education.

Although their supplanting and administrative functions constitute the largest element of these agencies' operations (as measured by FTE and by dollars expended), the other functions mentioned above are considerable enough to represent a significant capacity for educational improvement; this should be understood by the federal government.

Some limitations should be noted:

h. The ESAs' supplanting of local instruction is of such scale in three states (New York, Pennsylvania, and Michigan) that these states make up over two thirds of the total system, as measured by FTE and budgets. But this lopsidedness in supplanting functions does not seem to extend to the other school improvement functions identified.

i. The governance structure and executive positions of these agencies are dominated by males and Caucasians (about 98 percent). Whether this results in a bias in programming has not been determined--but it does suggest an area in which some improvement is possible.

The limitations of geographical and equity imbalance need not be an insurmountable obstacle to the improvement roles of these agencies.

4. Harnessing the resources of these agencies appears to hinge on the availability of money outside the local or regional agencies. Successful knowledge utilization functions apparently cannot be based on local contributions. State or federal monies are the key to ESAs' participation in the improvement process. Given the impending cutbacks in federal resources in this area and the transfer of the remaining funds to the states, the future of these regional educational agencies (and hence their roles in the school improvement process) is clearly in doubt.

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REGIONAL EDUCATIQNAL LABORATORIES AND UNIVERSITY CENTERS:
INSTITUTIONAL CAPABILITIES FOR SCHOOL IMPROVEMENT

Leslie Salmon-Cox

Overview

This paper is a review and synthesis of several existing documents. Its intent is to distill from these documents knowledge regarding regional educational laboratories (RELs) and university centers and their dissemination and school improvement efforts. The paper is presented in three sections. The first contains brief, analytical descriptions of the reports reviewed. The second section is a propositional overview of the lessons learned from comparing and contrasting these reports. The third constitutes a brief set of recommendations that grow out of the preceding two sections.

Data from the reports reviewed will be augmented by the author's background knowledge. The major argument that will emerge is, in fact, a relatively simple but highly compelling one: In the area of school improvement, organized capacity for problem solving is important; organized capacity does not guarantee that high-quality work will be done but makes it far more likely; hence, high-quality educational research and development is needed for school improvement.

The author urges that an important point be kept in mind during this discussion. The organizations here considered will be referred to generically as "labs and centers." Most federally funded labs and centers are part of the Council for Educational Development and Research (CEDaR), but not all are members of that organization. The several reports reviewed that discuss labs and centers focused only on CEDaR members. But the arguments developed here are applicable beyond the CEDaR membership (e.g., they might be brought to bear on the Institute for Research on Teaching at Michigan State University or the Center for the Study of Reading at the University of Illinois).

Section 1. Review of Selected Reports

R. Campbell et al. R&D Funding Policies of the National Institute of Education: Review and Recommendations (1975).

This report, popularly known as "the Campbell Report" (for its principal consultant, Roald Campbell), was published in September 1975 following three months of intensive work by the consultant group. NIE and NCER (the National Council on Educational Research) had charged this group with "evaluating the impact of [educational R&D funding] policies on the nation's educational R&D system, with special reference to the regional educational laboratories and research and development centers established by the government in the 1960s" (p. 1). Data for the report were acquired through:

- a meeting with lab and center representatives and the executive director of CEDaR;
- questionnaires sent to all labs and centers;
- meetings and interviews with NIE staff;
- visits to selected R&D institutions, CEDaR members, and others;
- extensive individual contacts with "knowledgeables" in the field;
- a review of available literature; and
- the collective expertise of the consultant group.

Despite its general title, the report focuses heavy emphasis on labs and centers. It is apparent that the consultant group felt compelled to scrutinize this particular set of organizations within the context of (1) dwindling funds for the NIE and (2) allocation of an increasing percentage of NIE funds to these organizations.

The consultant group noted the "inflated hopes of the 1960s and the pessimism of the mid-seventies" (p. 6), pointing to pivotal characteristics of inquiry in the fields related to education.

- As in other human-service fields, demands for pure service in education always exceed available resources, thus the inevitable need for continuing justification for allocating funds for other purposes, e.g., R&D.

- American public education is not centrally controlled, but is open, vulnerable and complex, and therefore knowledge, which is in its nature tentative, will not be universally applicable and may appear a weak tool among other contenders, when school improvement is the focus.

- Knowledge is not self-executing but requires implementation
  and the desire on the part of those implementing to achieve
  the results implied by the knowledge producers.

- Finally, there will be no single "breakthroughs" or sudden
  panaceas. (pp. 6-7)

On these grounds, the group counseled restrained expectations, but at
the same time urged continuation of the effort to improve education
through knowledge-based inquiry.

> Against this background it is well to ask whether invest-
> ments in this difficult field are worth the money. The
> only possible reply is that we must keep plugging away at
> the difficult problems of learning and teaching and that
> doing so by orderly scientific inquiry is almost certainly
> better than by hunch. (p. 64)

The report details the resources for educational R&D available in
1975. It has a chapter on the context for policy making at NIE as well,
and another on current policy directions.

The consultants assumed a highly critical stance toward NIE, find-
ing the Institute's shifts in policy and direction vis-a-vis organiza-
tions in the field destructive to organizational capacity. The con-
sultants also paid particular attention to the lack of a reasonable
concept of dissemination and ensuing activities within the Institute.

> We understand the political pressure for dissemination of
> the results of R&D, but we conclude that NIE has done little
> to attack the problem as a substantive matter or cluster of
> issues and competing conceptualizations. We do not think
> that work in the field can be halted until theory catches up,
> but we do believe an experimental attitude would be helpful
> even as action goes forward, and that diverse groups within
> NIE could be brought together more directly to consider
> paradigms for change and the various roles of dissemination
> within them. Research on knowledge utilization could be
> more extensively funded as an essential basis for policy in
> this area. (p. 68)

The report also considers the need for NIE to view state and local edu-
cation agencies as R&D performers, "not mere recipients or beneficiaries
of others' work" (p. 12); to significantly fund basic research, not simply
"smuggle" it in (p. 17); and to pay special attention to expanding train-
ing and apprenticeship opportunities for women and minorities (p. 75).

In several places, it is noted that individual staff members of
the Institute were thoughtful, hard-working, and innovative in their
approach to ideas, and that they were helpful to the consultant group as
it compiled its report. However, assessment of NIE as an organization

led the consultants to serious questions regarding coherence and
effectiveness, and in effect, the whole was found to be much less than
the sum of its parts.

The consultant group found the then-existing labs and centers to
be a highly mixed group of organizations varying widely in purpose and
quality of work. Noting the diminution in the number of organizations
established throughout the sixties, the report's authors concluded that
"there may have been more success in eliminating marginal institutions
or at least ending their substantial federal support than success in
improving the quality of work at those remaining" (p. 69). The group
noted that directors of labs and centers did not expect institutional
support unrelated to performance or the relevance of their work. Based
on these findings, the consultants suggested that some existing labs and
centers (perhaps six to eight, perhaps fewer) be designated as national
laboratories--a set of "high-quality institutions with which [NIE] will
work very closely to carry out its missions, managing them towards goals
the agency and the institutions can comfortably share" (p.69). The
study also concludes that no more than one third of NIE's program funds
should be allocated to these special institutions and that, overall, ex-
panded funding for educational R&D was at the time essential.

In sum, the Campbell report is largely (albeit constructively)
critical of NIE; expresses misgivings about the quality and performance
of some labs and centers; and is particularly concerned about the prob-
lem of dissemination. The report recommends that NIE establish a few
national laboratories and, in addition, work more closely and collabo-
ratively with state and local education agencies. Clearly, the writers
of the report felt labs and centers to be important tools in the pro-
cess of improving schooling. But they also felt that reorganization
was called for at the time.

Panel for the Review of Laboratory and Center Operations. Research and
    Development Centers and Regional Educational Laboratories: Strength-
    ening and Stabilizing a National Resource (1979).

Three and one half years after Campbell's, in January 1979, there
appeared this study commonly known as "the Panel Report." It was the
work of a panel created in August 1977 at the behest of Congress, which
mandated the review panel (membership to be appointed by the director
of NIE) as part of the Education Amendments of 1976. The panel's work
was conducted between September 1977 and January 1979 when it issued
its final report. Subsets of the panel visited each lab and center; the
report contains detailed accounts of these site visits. In addition,
chapters detail the history of labs and centers and their relations with
NIE, the financial support recommendations for individual organizations,
and management issues vis-a-vis labs and centers, with a separate chap-
ter on dissemination and equity issues.

The panel, apparently to its own surprise, "found a vigorous set of research and development institutions doing work of quality and significance for American education. We had not anticipated this conclusion; we approached our task with full knowledge of the considerable controversy we had been asked to address" (p. iv).

Echoing the Campbell Report, the panel, while finding weaknesses in the work of some labs and centers, also found "past federal policies for their support to be particularly accountable" (p. iv). However, the panel went on to commend the NIE for improved practices, especially in the area of direction and support of labs and centers. The panel strongly endorsed the concept of institutional support for organizations meriting it, along with the phasing-out of work in areas no longer deserving special priority (p. vi).

The Panel Report meticulously details the history of NIE funding policies for labs and centers through 1979 (calling it a "history of instability and conflict"). When these organizations were switched from USOE to NIE, funding was shifted from an institutional to a project basis, then later to a "program purchase" policy. This caused severe weakening of organizational capacity, a condition that went uncorrected until 1975, when NCER, in the aftermath of the Campbell Report, resolved that the director of NIE had the authority to establish "special institutional relationships." This gave a policy mandate to support labs and centers and was, in the view of the panel, a step toward proper management of existing institutions. The theme runs throughout the Panel Report that labs and centers are important means of effecting school improvement, and therefore their management and nurturance are of great importance.

The panel dealt specifically with the need for labs and centers, observing that the knowledge accumulated over the past two decades reaffirms the need for centers and "strengthens the rationale" for labs.

> Increased understanding of the political dimensions of educational change reinforces the argument for decentralized decision making. These considerations strengthen the rationale for the functions of regional educational laboratories that are governed by and responsive to regional interests in collaboration with the sponsoring federal agency. (p. 7)

The panel noted the increasing diversity of R&D performers, pointing to a then-uncompleted study (Frankel, Sharp, and Biderman, 1979). Furthermore, the panel felt that the particular functions served by labs and centers and the cumulative experience of each were not supplied by other forms of organizations.

In a special chapter of the report, the panel dealt specifically with the question of dissemination. They expressed an "awareness of the need for systematic efforts to ensure that the results of [lab and center] work be utilized" (p. 43). They were concerned, as well, that lab and center staff keep themselves apprised of the work of their colleagues, and that they coordinate their dissemination efforts with

the many others in existence. The panel noted, "We see too little attention to forms of dissemination that are firmly linked to the improvement of practice and too little integration among the efforts that exist" (p. 43).

The report details the 20-year intellectual history of the concept of dissemination, discovering several stages. Early work focused on the "sowing of seeds" through information dispersal, resulting in systems like ERIC. Next came two-way exchange notions, which led to "needs sensing" and "feed-forward" mechanisms. Then came state capacity-building efforts. This was followed by the recognition that many educators were suffering from "information overload," which called for development of selection criteria. The panel found the scene in 1979 to be characterized by an emphasis on human support systems providing technical assistance and staff development, and on "invisible college-building" to promote more extensive peer communication (pp. 43-45).

The panel saw the developing Research and Development Exchange (RDx) as a potentially strong force for comprehensive dissemination efforts. It also noted that because labs and centers are each unique organizations, no simple formula for dissemination activity can be developed. The panel recommended that as NIE continued to strengthen its state capacity-building activity, it should also encourage and support "[lab] efforts to assist each state in the region served to establish effective dissemination procedures." (p. 46). It recommended further that "NIE should develop a comprehensive policy on its role in dissemination, should conduct programs that are consistent with that policy, and should implement effective procedures for the dissemination of the results of the R&D it supports" (p. 47). Finally, in an addendum to its report, dated August 9, 1979, the panel added this recommendation:

The NCER, in consultation with NIE, should articulate an overall policy for the building of an R&D system and ensure that the Institute's strategies for support of research, development and dissemination activities reflect this policy. The elements of such a policy should include:

a. articulation of the links between lab and center missions and the other R&D activities supported by the Institute.

b. fostering of collaboration and communication between labs and centers and other R&D resources and networks, including the full development of the dissemination capacity of the 50 states.

c. continued development of constituent participation in defining what is needed from research and involvement in its production and dissemination.

d. consideration of new training and human development needs to facilitate dissemination.

e. integrating into the routine operations of NIE an ongoing
synthesis and assessment of the impact of R&D supported by
the Institute and others. (Addendum, p. 2)

In summary, the Panel Report generally lauds labs and centers for
the competence of their staffs and the quality of their work. The
panel found mismanagement from the federal level responsible for past
problems and weaknesses, but also discerned increasingly thoughtful
direction emerging from NIE over time. The panel expressed concern
about the inadequacy of the dissemination efforts of some labs and cen-
ters and the lack of a coherent policy regarding dissemination within
NIE, while pointing out that no uniform policy would be applicable.
The panel considered the labs' needs sensing and technical assistance
activities to be important dissemination efforts and found the potential
of the RDx exciting.

M. Radnor et al. Information Dissemination and Exchange for Educational
Innovations (1977).

The 10 chapters of these two volumes offer varying perspectives
on how an RDx system might best be described. The report chronicles
the premises and underlying strategies of those who were directly
involved in the early RDx planning group. Basic assumptions included
these:

● the effort will be collaborative throughout, involving
the entire educational community;

● activities engaged in will be complementary and supportive
of other agencies;

● the effort will be developmental and coordinated;

● it will explore alternative strategies and solutions,
and will deal with a variety of problem areas and clientele;

● it will use a "linkerage/brokerage" strategy, and will
depend on NIE for core support while also seeking contribu-
tory support;

● it will work to ensure equity. (pp. 11-12)

The entire RDx planning effort was based on the notions that
(1) a single dissemination policy--across the board for all institu-
tions--was undesirable and (2) extensive linkages and two-way commun-
ication flows between knowledge producers and users were essential.

Chapter 7, "The Balanced Producer-Client Linkage Exchange,"
begins with the important warning that many knowledge production and
utilization (KPU) projects reflect the assumptions of knowledge

producers, whose conceptual mappings may or may not overlap those of actual knowledge users or clients. In fact, it frequently appears that KPU activities are undertaken because they are seen as desirable in and of themselves, rather than because they address specific information needs.

> KPU efforts are seen as needed and are designed by information producers or intermediaries. The reasons are simply that producers and intermediaries are rewarded based on the extent to which their products are disseminated, recognized...and put to use. (p. 3)

The report suggests that needs sensing approaches commonly used to determine what a client thinks often suffer from two problems: They assume that the conceptual approaches of clients do not vary; and "they almost always begin with needs for information and not broader needs." The chapter details two polar approaches to needs sensing—the RDD&E and problem-solver methods—pointing out the weaknesses of each. Finally, the authors recommended that RDx strive for a true philosophical consensus among all stakeholders; establishment of the strongest possible links to all other linker/brokers; and cultivation and broadcasting of an image of client-centered resource linking (pp. 15-16).

The chapters of the Radnor work treated above seem most useful in anticipation of the RDx work; what now follows are accounts of actual practice. Taken together, the proceeding three reports detail the actual functioning of the Research and Development Exchange (RDx) and the Regional Services Program (RSP). While these are two separate programs, they have similarities. Both were designed to bring R&D-based knowledge to bear on efforts to improve schooling. The Regional Program Unit report deals solely with the RDx; the Lallmang report, solely with the RSP; and the Emrick and Peterson report, with both.

Regional Program Unit, Dissemination and Improvement of Practice Program, NIE. The Research and Development Exchange: In Support of School Improvement (1979).

The context within which the RDx operated in 1979 is portrayed in the opening pages of the Regional Program Unit report. By the late 1970s, federal policy and funding had "shifted from support for production of new starts to more effective delivery and use of existing outcomes." The previous two decades had made it clear that "R&D products and programs, when implemented with fidelity, do make a difference." The contextual segment concludes that "increased practitioner involvement is needed to ensure the responsiveness of future R&D sponsors and producers with respect to the production, synthesis and delivery of new knowledge" (pp. 1-2).

The goals of RDx include: coordination of dissemination/school improvement programs; promotion of use of R&D outcomes; provision of information, assistance, and training; and influence over future R&D outcomes through the identification of client needs. The RDx effort is a user-driven, developmental, coordinated, responsive network. RDx clients are primarily intermediary agencies (although the ultimate clients are, of course, students, teachers, and building administrators). The "pivotal" client group is composed of the state educational agencies (SEAs) and their dissemination and school improvement staffs (pp. 3-4). At the time of this report, RDx membership consisted of seven regional exchanges, four central support service agencies, an executive committee, and an advisory group. The seven regional exchanges were all housed in regional educational laboratories, as were three of the four support services, with the fourth being located at a university center.

R. A. Lallmang. A Description of the Regional Services Program (1980).

According to the Lallmang report, the main defining characteristic of the RSP is that services provided entail "the application of existing R&D processes and outcomes to the solution of short-term problems identified by the clients in the region served" (p. 1). The RSP, at the time of this report, was located in five laboratories where service was provided primarily, though not exclusively, to SEAs. Because services were field-responsive and because service delivery techniques varied, a uniform, detailed description of the RSP would be impossible. The services differed by laboratory, but in some way all were related to issues of "educational policy, planning, evaluation and curriculum" (p. 1). The report states that variations in service delivery were supported by NIE so that the Institute could study this variation.

RSP projects have these as defining characteristics: The service-provider is primarily accountable to the client, rather than to NIE; service tends to be intensive and of short duration; the target audience is composed primarily of SEAs; and this audience is defined as a function of the problem selected for attention by the individual RSP site.

Some RSP projects seek matching funds and some do not. At the Northwest Regional Educational Laboratory (NWREL), for example, NIE funds serve as "seed money" to generate performance contracts. From December 1, 1978 to June 1, 1980, NWREL signed 101 contracts for a total amount of $926,285, while NIE's contribution to the program was $243,637. (The Lallmang report details the activities of all participating RSP projects, but the only financial information reported is from NWREL.)

J. A. Emrick and S. M. Peterson. The NIE Regional Programs: Evolution of the R&D Exchange and Regional Service Components (1980).

The Emrick-and Peterson report is the most discursive of the three. It discusses both programs; it includes a historical overview and analysis, as well as reportage of the efforts underway.

In the review of federal efforts related to educational dissemination, the emergence of three important concepts is presented: the need for human extension agents with teaching backgrounds to disseminate knowledge; the need to incorporate a practitioner orientation in knowledge products; and the need to view the educational R&D enterprise not as a "system" but, in Clark and Guba's (1974) term, as a "configuration" (Emrick and Peterson, pp. 6-7). Early thinking about regional programs on the part of the Dissemination and Resources Group at NIE took these needs into account and used them, in effect, as specifications for work in the field.

All RDx projects are located at labs and centers in "an attempt to build direct linkages between a subset of R&D producers and other groups in the educational community" (p. 10). These organizations were assumed to have direct access "to a variety of products and expertise" (p. 11). Structurally, RDx is a combination of centralized and decentralized functions, with resource access in the latter category and system support in the former. Emrick and Peterson point out that housing support functions in four separate organizations increases "the importance (and the difficulty) of coordination...[but also] the opportunity of obtaining the best available know-how in specialized areas of dissemination" (p. 11).

Emrick and Peterson's specific review of the mechanics of RDx and RSP echoes the two reports discussed above and needs no repetition. However, their discussion of the interface between RDx and RSP deserves note. This interface is not yet well documented or comprehended; but overall, the authors suggest that RSP staff can be loosely understood as "application specialists," while RDx staff serve more as brokers, linkers, and disseminators of knowledge. The report suggests questions for further research, but concludes that by April 1980 the components were in place for a concerted effort in knowledge exchange and the transmission of specific technical assistance. "The likelihood of major and demonstrable educational improvements attributable to this program configuration is very high" (p. 25).

J. Frankel, L. M. Sharp, and A. D. Biderman. Performers of Research and Research-Related Activities in the Field of Education. (1979):

L. M. Sharp and J. Frankel. "Organizations that Perform Educational R&D: A First Look at the Universe" (1979).

This report and the subsequent article relate the process of compiling the American Registry of Research and Research-Related Organizations in Education (ARROE) and describe its actual contents. Care went into the selection of organizations for inclusion, each having to meet particular criteria.

For the purposes of this analysis, only a few key points from the ARROE are relevant. First, a quote from the summary section of the report puts its major findings succinctly. The universe of organizations in this field is:

- large--2,434 active organizations were identified;
- dominated--in terms of members--by small organizations, i.e., those with education RDD&E expenditures below $150,000 and fewer than two full-time professionals with primary responsibility for education RDD&E;
- dominated--in terms of expenditures--by the 172 largest performers, which although they constitute only seven percent of the universe, account for nearly 70 percent of all expenditures;
- diverse--with the primary mission of a majority of organizations lying outside the research field;
- dispersed throughout the nation--but with large concentrations in New York, California, Ohio, Illinois, Texas, Pennsylvania and Washington, D.C.; and
- young--with 40 percent of the organizations created during the last 10 years. (Frankel, Sharp, and Biderman, p. 94)

The authors found that few organizations possess capacity for effecting school improvement: Few organizations specialize in educational R&D. Few have a critical mass of expertise. Few have any prolonged experience or history of interaction with other educational actors.

In terms of activities conducted by research-related organizations, the authors found that

practically all organizations spend at least some of their funds for research, but research is emphasized most heavily in the academic and private sectors, while development and evaluation studies dominated in public education agencies. Dissemination emerged as the area of lowest emphasis, receiving the smallest allocation of funds by performers except for state agencies and large public school systems. (Sharp and Frankel, p. 9)

These papers suggest that more research activity should occur in the public education arena, since these agencies can be more quickly and cogently responsive to practitioner need.

In sum, the experience of compiling the ARROE pointed to few capable organizations; identified a need for more emphasis on dissemination; and revealed a need for greater involvement of staff from public educational agencies.

Section 2. Analysis of Reports

The works discussed in the first section of this paper included two major reviews focusing on labs and centers (the Campbell and Panel Reports); conceptual papers, two reportorial accounts, and one analytical report on RDx and RSP; and a major piece of research on the universe of R&D performers in education. Only one of the works is actual research. Only two--the first two--are truly comparable, in the sense that they both look at labs and centers and their relation to the NIE.

Our central question ("How do labs and centers operate with regard to dissemination and school improvement?") is not the major focus of any one of these individual documents. Yet the works in toto, and in conjunction with knowledge possessed by this author, can give us clues. It becomes our task to infer an answer. That answer might best be approached by analyzing these works in the light of certain key propositions that distill the experience of the organizations over time and assess their capacity for school improvement.

Proposition 1: Healthy organizations show signs of organizational learning, development, and refinement of understanding regarding their major tasks. Such learning has occurred in both the labs and centers and the sponsoring agency, NIE.

The first university centers were established in 1964. The initial laboratories were set up in 1966. When the centers were established, it was thought that such organizations would "do everything"--research, development, evaluation, dissemination, implementation (Salmon-Cox, 1978; Mason and Boyan, 1968). The creation of the regional educational laboratories (RELs) actually clarified the mission of the university-based centers, while beginning a long-standing confusion over the appropriate mission of the RELs themselves (Salmon-Cox, 1980a, 1980b). For, with the appearance of the RELs, centers began to concentrate heavily, though not exclusively, on research and development. RELs, on the other hand, suffered from unclear definition of purpose, as was noted in several of the reports.

However, it becomes clear, especially when we compare the judgments of the Campbell Report to those of the Panel Report, that RELs have begun to coalesce around certain key functions. This is true across the entire set of labs, despite marked differences in their structures and scopes of activity. Among the key functions for which each REL appears to have capability are: dissemination activity, technical assistance, and resource brokering and exchange. Additionally, each REL is in touch with and responsive to the needs of its region. While there remain regions of the country unserved by an REL, where these labs do exist service is indeed being rendered, and some educational needs are being met specifically by these organizations.

Centers have come to be problem-oriented, conducting research and development consonant with NIE's priorities. Those priorities result from congressional mandate, as well as from NCR direction and NIE leadership. Hence, centers are currently working on those problems deemed most important nationally.

NIE has demonstrated that it has learned from criticism. This is particularly true in two areas that are important for our consideration here: the direction and management of labs and centers, and the structuring and implementation of dissemination activity. Regarding the first area, the Campbell Report made it clear that the then-current "program purchase" policy of NIE had had deleterious effects on labs and centers and, furthermore, that the monitoring and management of these organizations had been uneven and confusing. By the time of the Panel Report, NIE had returned to institutional support and to long-term agreements with the labs and centers. Regarding the second area, the need for NIE to systematically plan and implement dissemination activity is a theme that runs throughout the reports reviewed (and one emphasized heavily in the thinking about implementation of the RDx). It is now apparent that NIE has taken this advice seriously, having funded planned variation studies--as was recommended--within the context of RDx and other dissemination activity.

To summarize, then: While the Campbell Report found fault both with labs and centers and with NIE, the Panel Report endorsed long-term funding for seven of the eight RELs and seven of the nine centers, finding them healthy and productive organizations. And NIE, by its own record of activity over the past several years, has demonstrated a capacity for learning.

Proposition 2: Institutional capacity is essential for complex problem-solving.

Both the Campbell and the Panel Reports reaffirm the need for institutionalized capacity for educational knowledge production. Educational research can and does receive significant contributions from the individual researcher or small group; but undertakings such as development activity, large-scale evaluation, programmatic interdisciplinary research, and resource sharing, allocation, and brokering are better suited to organizations than to individuals. The deliberate decision to house the RDx and RSP programs in RELs was based on the recognition that organizations were essential for these programs' tasks. In fact, the organizations in question already had structures (governing boards, networking facilities) and staff capabilities suited to those tasks.

Centers also over time have engaged in work requiring an institutional base. The emphasis of activity within centers has shifted from program and product development to programmatic basic and applied research. In both cases, the ability of a university center to attract a critical mass of scholars from multiple departments and disciplines has been crucial to the kind and quality of knowledge production

undertaken. Throughout the Panel Report (including the individual site visit reports), centers are given high marks for their work.

Another theme prominent during the past five years has been the need to incorporate the perspectives of women and minorities into educational research. NIE developed a program to accomplish this, and many labs and centers sponsored related training programs. In fact, the first round of funded proposals in this area went exclusively to labs and centers as the most appropriate places to begin such work.

For the tasks undertaken by both labs and centers, an institutional capacity is essential. Both kinds of organizations have core staffs of sufficient size and training, organizational support services, and the ability to plan and carry out long-range programs of work.

Proposition 3: Mission orientation is essential for efficient and high-quality goal realization.

It is clear from the historical record that both labs and centers have grown in their capacity to focus in on certain functions and problems. In the sixties, notions about organizational responsibility were diffuse; during the seventies, ideas about what each kind of organization might hope to accomplish grew more sophisticated. Again, as noted in the reports, there is wide diversity of activity among the labs and centers. But overall, centers tend to focus on programmatic R&D, while labs possess strong capacities especially for technical assistance, knowledge brokering, and networking. In the past several years, under direction from NIE, many labs have come to work closely with SEAs and LEAs. The relationships so established are crucial to school improvement efforts.

Proposition 4: In the area of dissemination activity, important facilitating mechanisms are now understood and are being put to use.

Dissemination is clearly an area of concern for many. Both the Campbell and Panel Reports pay special attention to it; the RDx and RSP programs were created in direct response to perceived needs in this area. As the entire domain of educational knowledge production took clearer shape over the past 20 years, numerous types of dissemination activities were tried and variously found wanting. In large measure, early efforts probably suffered from over-reliance on models for dissemination borrowed from other fields (agriculture, space technology, etc.). Slowly, the constraints and opportunities particular to the American educational scene became clearer. NIE and organizations in the field have learned from experience and advice. As a result, current dissemination efforts emphasize:

• the need for regional networking involving multiple stakeholders and utilizing human communication (as opposed to simply disseminating printed information);

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- the need for national coordination of resources so that problems of one region may be met by proven solutions developed elsewhere;

- the need for planned variation in dissemination strategies, recognizing the decentralized, locally based nature of American education;

- the need for continuous, long-term communication, as opposed to "single-shot" consultant visits;

- finally, the need to take the position, in many areas, that knowledge applicable to immediate problems does exist. "More research is needed" may be a truism in many important substantive areas, but a great deal has already been learned that can be applied now.

Proposition 5: Practitioner involvement, judiciously structured, is a key element in dissemination.

This point is important enough to be singled out; organizations in the field, and the NIE as well, have come to understand that the client must be involved in many aspects of knowledge production. In the area of dissemination, this involvement is crucial. And the structure of that involvement must be carefully thought through. It is unreasonable to expect teachers to accept ready-made "solutions" to problems they may or may not think they have; neither is it reasonable to expect researchers to allow their strategies to be defined totally by practitioners. The several reports reviewed display increasing sophistication in the field regarding appropriate levels for intervention (e.g., SEA, LEA, building level) depending on the problem to be solved, and styles of interaction, again depending upon problem and level.

Proposition 6: Labs and centers participate in school improvement activities to varying degrees.

RELs engage fully in school improvement activity--that is, in research, development, and dissemination. Centers, however, focus primarily only on research. However, all of the centers engaged in some form of product development in their earliest days; many continue to be involved directly in education through these products. Finally, several centers have evaluation research components; one center is devoted entirely to work in this area. In such research, direct involvement with school settings is inevitable. Of course, this involvement does not necessarily result in immediate direct improvement efforts, but it can. All of the above activities can be viewed as school improvement efforts.

Proposition 7: RELs and university centers specialize exclusively in knowledge production functions for education. There are at present no functional alternatives to these organizations.

All the reports reviewed recognized the importance of the role played by labs and centers. The Campbell Report, the one most critical of labs and centers, yet spoke of the need for such organizations and endorsed the idea of national laboratories. The Panel Report several years later found strength in most labs and centers and again heavily endorsed the concept, while pointing to areas in need of improvement. The RDx and RSP programs rest on a foundation of institutional support provided by labs and centers. Finally, the Frankel research makes eminently clear how few organizations there are with adequate resources whose missions are totally committed to the domain of education.

Important roles in educational dissemination and school improvement are played by SEAs, LEAs, profit-making research organizations, schools and colleges of education, and individual researchers. Yet none of these has the capabilities offered by labs and centers, either individually or in some form of consortium.

Section 3. Recommendations

The recommendations that follow grow directly from the first two sections of this paper. The rationales for each are contained in the preceding analysis.

1. Improvement in American education is contingent upon building and maintaining our scientific understanding of educational processes.

Education is a profession, like medicine or law. A profession needs knowledge bases out of which rational actions can be derived and improved practices developed. Neither by hunch nor by intuition can school improvement be efficiently conducted. Particularly in a time of declining resources, an ethic of efficiency combined with a desire for efficacy argues for sound investment. Developing the science of education is one such sound investment. Of course, this development is not limited to the activity of institutions, but it is well supported by their work.

In the sixties, when educational research first emerged as a field, it seemed possible to fund any and all school improvement ideas. Now in the eighties, as our possibilities diminish, it is imperative to fund those ideas most likely to make a difference.

2. Greater coordination of existing resources is desirable.

In order to maximize the potential of what is now known and available, NIE should exercise leadership in coordinating existing resources. Leadership and coordination do not imply uniform policy, as NIE seems to have apprehended already. The Institute, for example, should continue to encourage planned variation studies in the area of dissemination, as the best wisdom on the subject currently suggests.

Yet it is apparent that there has been insufficient funding for coordination (e.g., for RDx personnel to meet, share experiences, and learn from one another). Within the CEDaR organizations there is a nascent project on school improvement, attempting to bring together participating organizations' experiences. Recently, educational researchers within AERA have discussed the possibility of mounting school improvement efforts to demonstrate the efficacy of educational research. There undoubtedly cannot be too many such efforts; but clearly the locus of leadership should be at NIE, not in any one professional or other group.

Within the Institute, in the minds of project monitors, program personnel, and intramural research personnel, resides a large body of knowledge. That knowledge includes awareness of lab and center

programs, as well as of a host of other programs and needs nationwide; it should be more systematically organized and put to use.

3. University centers should be encouraged to be flexible in their scope of activity.

RELs are more specifically structured to meet technical assistance needs for school improvement than are the centers. Laboratory capacities in this area have been enhanced by the development of the RDx and RSP programs. Having suffered for years from unclear institutional definition, the RELs have now coalesced around these functions and are providing important service.

The situation for university centers is less clear. While university centers as a group have a variety of missions, the resulting diffusion of emphasis in centers' activities is an advantage for the field as a whole. The interplay between research and development cycles takes a certain inevitable course, causing centers' work to be more or less immediately tied to school need at any given point. Yet all centers' work is targeted to the creation of a knowledge base for educational practice. This flexibility must be encouraged, as must the diversity of missions encompassed.

4. Institutional support for labs and centers must be maintained.

Institutions offer the capability for sustained, effective work on educational problem solving. The most important and complex problems in education do not lend themselves to quick or simple solution. To go on building the knowledge base on which school improvement will continue to depend, or to expand the effort to apply what is now known, and ready for application, it is essential that educational research organizations, qua organizations, be maintained. This requires sustained policy vis-a-vis these organizaitons, long-term funding, high-quality review on a regular basis, and the planned phasing-out of areas of work no longer productive or relevant.

The author is mindful of the current political climate. Funding for NIE has been severely reduced; and the Institute's contractual obligations are large. It would be easy to say that current federal expenditures for educational research are totally inadequate, do not reflect the productivity of the field as a whole, and must be increased. Yet that kind of recommendation is beyond the scope of this analysis.

There is currently a cry for "open competition." What this translates into for institutions and individuals must be carefully planned. Any return to "program purchase" policies for programmatic R&D institutions such as labs and centers would vitiate the institutional capacities so carefully nurtured through past uncertain times.

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THE ROLE OF STATE EDUCATION AGENCIES IN DISSEMINATION

Henry M. Brickell

Preface

As preparation for this paper, I read the works listed in the bibliography. Some deal directly with the SEA role in dissemination, some tangentially.

It became evident that the papers barely scratch the surface of a field that has exploded into a vast landscape in the past 20 years. They cover so small a portion of the subject they address, and much of that so superficially, that they raise more questions than they resolve. It is only fair to note that the fault lies not so much with the papers themselves as with the unwieldiness of the territory of dissemination. In any case, the customary survey method--reviewing the research and offering a few suggestions for further work--would be inappropriate for these papers.

Instead, I have taken ideas from them--along with others that occurred to me while reading these papers--and have formed them into this essay. Sometimes the papers are cited and sometimes not; thus, they have played a larger role in this paper than specific citations would indicate.

The paper approaches its topic by examining the role of SEAs as units of state government and considering the likelihood that they will engage in dissemination as a state function in the absence of federal intervention. Then the paper examines dissemination as a field of study--the concepts currently employed in the field as well as the methods usually used to study SEAs as dissemination agents. The paper concludes with some thoughts about the implications of the first two sections for NIE's future research on the role of SEAs in dissemination.

H. M. Brickell. Survey of State Education Department Research, Development, Demonstration, Dissemination and Evaluation (RDDDE), 1969-70 (1970).

Scope of the Study

This study was conducted in the late 1960s to document the status of state education agency research, development, demonstration, dissemination, and evaluation (RDDD&E) activities. Survey methodology was used to collect data for the study, involving site visits to 12 states, questionnaires mailed to all SEAs, and meetings at nine regional USOE offices. Research questions probed the organization, financing, staffing, and activities of state education agencies.

Findings

A number of research categories were studied. Findings are reported here by theme or topic:

● No RDDD&E activities were reported in 25 percent of the states. The SEAs that did document such activity indicated that it was located mainly at administrative levels.

● State funding for research and/or evaluation activities was provided to 80 percent of the SEAs, and 32 percent received state funds for development. SEAs were more likely to receive federal than state funds for each of the five RDDD&E functions.

● Outside affiliations with other SEAs were reported by a majority of the states. A minority of SEAs had started intra-state educational research councils; and less than one third had become linked to another R&D organization within the state.

● The climate for RDDD&E within the SEAs was not especially robust and was seldom supported. These unsatisfactory conditions were perpetuated by the fact that evaluation and assessment were considered more important than research by the governors and legislatures involved.

- Technical assistance was frequently provided by one SEA unit to another. Occasional, unsystematic assistance was offered to LEAs, intermediate service agencies, professional associations, and state government agencies.

- Personnel in half of the states were supported by federal ESEA Title V funds. Joint appointments of SEA staff at colleges and universities were common.

- Project designs did not move the work through a series of stages resulting in the development of new programs. RDDD&E activities were not directed to state or federal policy questions, and there was no ready aggregation of results.

Policy Implications

The study concludes that no SEA entered the 1970s with satisfactory staffing, funding, or organization for RDDD&E. There had been no memorable SEA initiative in educational research and development. Although federal initiatives and funding had contributed greatly to strengthening the role of RDDD&E, SEAs were not yet providing much of the knowledge base in education.

The report suggests that state support for RDDD&E activities was lacking because the governors and legislatures did not expect SEAs to engage in reflective study. Furthermore, educational researchers traditionally could not use scientific inquiry to inform policy questions. Nothing less than a new concept of research and development in SEAs would turn the tide. The report notes that because SEAs constrain research functions, RDDD&E programs should be designed to go with the grain of the institution. Aligned with the mission of the SEA, educational R&D at the state level could serve and survive.

Twelve propositions conclude the study. They are provided here:

1. The target of SEA research is not theory but improved practice.

2. The consequence of SEA research is not understanding but action.

3. The most suitable outcome is not a finding but a new law, regulation, or advisory bulletin.

4. The correct mood is not reflection but a desire to reach the deadline before the pending decisions reach it.

5. Natural clients are not members of the profession at large, but other SEA administrative units.

6. The correct location is not the laboratory but either the library or operating schools.

7. The natural companion of an SEA researcher is an SEA planner.

8. The best research designs are not experimental but evaluative.

9. Proper evidence is subjective as often as it is objective.

10. An appropriate criterion for judging the success of a program is not effectiveness but benefit in relation to costs.

11. The proper audience for a research report is composed of those who make decisions about the operation of the schools.

12. The appropriate reporting media are not professional journals but public press, radio, and television. (pp. 48-56)

D. Madey et al. <u>Building Capacity for Improvement of Educational Practice: An Evaluation of NIE's State Dissemination Grants Program</u> (1980).

Scope of the Study

In this research undertaking, state education agencies were studied in an effort to describe their implementation of the State Capacity Building Program. This program was sponsored by the National Institute of Education to facilitate the development of a national capacity to disseminate R&D knowledge in order to assist educational improvement efforts. NIE's intent was to help SEAs implement, strengthen, and institutionalize such programs. Interactions between NIE and SEAs, SEAs and LEAs were detailed, providing insights into the process of top-down change. Two questions guided the research:

- Is dissemination capacity being built as a result of this program, and if so, how?

- Is the program having an effect, and if so, what is it?

Site visits were made to 29 state education agencies, where three respondent groups were interviewed: State Capacity Building Program directors, SEA administrators, and information resource base administrators. In addition, NIE staff were interviewed. Data were organized according to these categories: SEA characteristics, NIE program characteristics, State Capacity Building Program characteristics, and facets of an SEA dissemination system.

Findings

A summary of the overall findings provides some general statements

about the development of the State Capacity Building Program, given the
diversity of the 29 SEAs studied. It was found that within each SEA,
existing structures were used for the implementation of the project.
The type of resources used by SEAs varied widely, but almost all projects
had reasonably comprehensive collections of information resources. Client
requirements and demands were major determinants of comprehensiveness,
types of services, and linkage mechanisms used. Most projects emphasized
personnel linkers, who can respond most effectively to individual client
needs.

Research findings were organized around various categories, summarized
below:

1. On the influence of SEA characteristics on State Capacity Build-
ing Program characteristics:

   ● State size is related to project emphases.

   ● Existing structures are used to provide linkage services.

   ● Bureaucratic rigidity prohibits change.

   ● Content-specific emphases within the SEA discourage coor-
   dination.

2. On NIE management:

   ● NIE's nonprescriptive approach has permitted diversity.

   ● The extent of the SEA project director's interaction with
   NIE is positively related to program development.

3. On the influence of contextual variables:

   ● The level of resources and activities increases with the
   length of the program's existence.

   ● The SEA project director's tenure is strongly associated
   with the comprehensiveness of the program.

   ● The placement of the State Capacity Building Program in a
   service-oriented unit in the SEA increases activity and
   impact.

   ● Targeting services to special groups enhances comprehen-
   siveness.

4. On the types of linkages between SEAs and LEAs:

   ● SEA staff can serve as process helpers, solution givers,
   or resource finders.

5. On the approaches states may follow to achieve dissemination
    capacity:

    ● The three main approaches focus on specific clientele,
      specific topics, or generalized capacity building.

Policy Implications

Six conclusions may be of interest to policymakers who are con-
sidering similar federally or state-supported dissemination capacity-
building efforts:

1. There were discrepancies between intention and implementation.
    Individual SEA project histories were somewhat inconsistent
    with federal program policies.

2. The State Capacity Building Program stimulated the development
    and institutionalization of SEA dissemination programs.

3. Capacity building had identifiable patterns of development.

4. SEA dissemination resources and linkages were fragmented because
    of lack of cooperation among federally funded programs.

5. Project placement and leadership within the SEA greatly influ-
    enced effectiveness.

6. Limitations on the role of NIE's project monitors restricted
    their effectiveness.

P. Martin. General and State-Specific Results of the Dissemination Survey
    (1981).

Scope of the Study

The Council of Chief State School Officers sponsored an informal survey
to determine the current level of dissemination and school improvement ac-
tivity in all SEAs. Forty-nine states responded to the survey, offering
a current and comprehensive overview of funding, general dissemination serv-
ices, and interactions with other agencies.

Findings

Highlights of the survey results are summarized here:

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- **Dissemination services** offered by the SEAs were: spread (in 31.5 percent of the SEAs), exchange (27 percent), choice (22.1 percent), and implementation (19.4 percent). The primary service was the provision of information and assistance in its use. Secondarily, SEAs helped coordinate and implement educational programs. SEA staff provided direct services or worked through field-based linkers.

- **Dissemination** had not yet become an institutionalized function of SEAs, although the NIE-sponsored State Capacity Building Program had contributed significantly to the development of dissemination activities.

- **Legislation** mandating school improvement existed in 11 states.

- **Policies and procedures** were influenced by federal program requirements, state funding, and SEA staff commitment.

- **Coordination** of dissemination activities with other agencies was evidenced. Twenty-two SEAs interacted closely with labs and centers, 17 with the state library; and 15 with intermediate units in their states. Sometimes, in fact, there seemed to be more coordination with external agencies than there was internally.

- **Funding** was provided by both federal and state sources. Thirty-seven SEAs received some sort of state funding; federally supported programs such as Title III-C, special education, Title I, and NDN contributed to overall dissemination efforts. Twenty-two states experienced decreases in dissemination funding, and eight obtained increases.

- **The greatest influence** on SEA dissemination activities was the State Capacity Building Program. The Regional Exchange project was also highly influential.

Policy Implications

There was no discussion of policy implications in the report. Data from the study, however, have contributed to the policy discussions contained in this paper.

L. McDonnel and M. McLaughlin. Program Consolidation and the State Role in ESEA Title IV (1980).

Scope of the Study

Title IV represents the first consolidation of federal education programs, funding a wide range of items from school library acquisitions to innovative curricular programs. The main objectives of this study were threefold:

1. To describe how the Title IV program operated in state and local school districts;

2. To assess Title IV as an example of a consolidated program strategy and

3. To use Title IV as a basis for understanding the role of the states in implementing federal education-policy.

Data sources included:

1. A survey of Title IV program officials and state advisory council members in 50 states;

2. Surveys of public and nonpublic school officials in about 600 local districts;

3. Field work in eight state education agencies and 24 local education agencies; and

4. Review of documents and other data sources.

Findings

States differed widely in their Title IV-C funding strategies. Examples of such strategies are: competitive grants, exemplary projects, or proportionate funding for every LEA in the state. Most states allocated a large amount of money for special grants to foster new approaches to educational problems. State priorities also figured prominently in allocation decisions. Thirty percent of the SEAs set aside over half of their Title IV funding to support projects reflecting priority programs and activities. Overall, states were either passive, serving simply as conduits for federal funds, or active, using the funds to enhance state priorities.

More specific observations about state education agency activities can also be drawn. Because Titles IV-B and IV-C were previously independent federal programs (Titles II and III of the Elementary and Secondary Education Act), they continued to be managed separately by most SEAs. There were few incentives to consolidate these programs; consequently, states tended to continue administering the two programs independently. Rather than encouraging the redefinition of the state's role, Title IV-C strengthening funds supported routine activities. In the face of such maintenance of the status quo, state advisory councils, surprisingly, were active and influential.

The following general conclusions about the Title IV program were drawn from the study:

● Title IV was popular and well managed.

● It was praised for its flexibility and ease of administration.

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- Title IV did not result in the consolidated management of former categorical programs.

- There was considerable variation among state and local education agencies in terms of the substance, management, and quality of their Title IV-B and IV-C activities.

- Small Title IV-B and IV-C grants can result in signficant local practice improvement.

- The participation of eligible nonpublic schools in Title IV programs was uneven.

Policy Implications

A number of recommendations emerged from this comprehensive study. The authors suggest that a successful consolidation policy:

- Must be built on substantive rather than political logic;

- Must be accompanied by federal program reorganization;

- Must represent more than a superficial shuffling together of what were previously categorical aid programs;

- Must integrate the notion that the effects of a consolidation strategy vary with the context into which it is introduced; and

- Must be so organized as to allow the federal role to change to respond to needs and interests that are modified as the policy and program mature.

J. Murphy. The State Role in Education: Past Research and Future Directions (1980).

Scope of the Study

This paper reviews the literature on the role of the executive branch in state education policy making and implementation.* It then recommends additional areas of research, focusing specifically on executive agencies other than SEAs and on SEAs themselves.

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*Four research categories were reviewed: input/output studies, policy-making studies, policy implementation studies, and studies of the cumulative impact of state policy.

Findings

Since the mid-sixties, state education agencies' have grown in size and assumed responsibility for administering complex programs, primarily because of increased federal aid and categorical programs. Although SEA roles have changed considerably, research knowledge about what states do has not kept pace.

Findings from the literature reviews in each of the four categories are summarized here:

1. <u>Input/Output Studies</u>. Most studies find low correlations between input measures such as economic indicators and outputs such as state expenditures on schools. This line of research offers little potentially useful information on the role of SEAs in creating and implementing educational policy.

2. <u>Policy-Making Studies</u>. Considerable work has been done in this area, particularly research on the role of state political cal actors in educational policy making. "Further research along some of these lines is important, but I suspect there may be better ways...to research and improve the state role in education" (p. 5).

3. <u>Policy Implementation Studies</u>. This research analyzes what occurs after a policy has been established. Such studies, would document the influence of the SEA on local educational programs. "The most important place to collect data on the state role is not the state capital, but the schools" (p. 11).

4. <u>Studies of the Cumulative Impact of State Policy</u>. This body of research considers the influence of central government policy on the local delivery of services. The increased activity of the states, the federal government, and the courts has led to studies about the effect of government intervention on local educational programs. Although the direct effects of central intervention seem inconsequential, the indirect effects on factors such as local agendas, school climate, and perception of problems should be more thoroughly documented.

Policy Implications

A number of suggestions were included in the paper, namely:

- NIE might sponsor research on the middle-management level and below in SEAs. Although these staff are frequently in contact with schools, little is known about them.

- Studies could be conducted on executive agencies other than SEAs that play a key role in eduational policy making.

- States not frequently studied, including those sometimes called "worst cases," could be the subject of NIE-sponsored research.

- Comparative studies of a policy issue that emphasize "people and process" would be useful.

- The relationship between internal SEA structures and functions and their institutional capacity could be studied.

- To clarify the language and improve the accuracy of images used, research that creates better metaphors for the implementation process might be sponsored.

- The impact and implementation of state policies could be studied, emphasizing: what is happening at the local level; the reasons for variation; the determinants of successful implementation; and SEA management strategies that effectively influence local implementation. "A locally based policy implementation focus that looks vertically through the system at a particular policy initiative...offers a better hope of illuminating the impact of the state role in education" (p. 16).

- The effects of state policies and their cumulative impact on schools should be studied. Here the basic unit of analysis should be the LEA, the school building, or specific roles - such as school principal or teacher.

- "NIE might postulate an ideal set of state-local relationships,...identify some models,...collect data that examines the costs and benefits of these model arrangements, and explore the conditions that make these patterns possible" p. 22).

Introduction

Government agencies focus on the minimum. Their primary role is to assure the minimum behavior of individuals and organizations needed to keep society running. They do this partly by regulating minimum behavior (passing and enforcing laws regarding traffic, vagrancy, agriculture, education) and partly by enabling minimum behavior (providing highways, welfare payments, farm subsidies, public schools). Beyond this minimum, individuals and organizations are free to do as they wish. We can drive better than the traffic laws require, and we can build private roads; we can get more schooling than the education laws require, and we can build private schools.

The principle that public agencies should limit their activities in order to maximize private freedom is rooted in our earliest history as a nation and has shaped our political development. In our founding fathers' words: "That government governs best which governs least." This principle cuts across local, state, and federal levels; it cuts across all major functions; it cuts across all major political party philosophies and platforms.

Every agency justifies its programs as the minimum needed to maintain the social fabric. Even the Johnson administration's War on Poverty, a high watermark in federal intervention and a program intended to improve life for millions, was justified as needed to provide a basic standard of living for the poor; that is, the poor were living at an unacceptably low level and had to be brought up to a minimum to keep society running. Otherwise, as James B. Conant explained at the time, social dynamite would build up in the ghettos.

Any government agency that tries to operate "beyond the minimum" is subject to the charge of unwarranted interference and unnecessary taxation. Fear of that charge is shrinking local government programs today. This public antipathy was behind California's Proposition 13 and Massachusetts's Proposition 2-1/2; it was what elected President Reagan. It is precisely what is to be expected in the wake of the War on Poverty.

State Government Explained

Let us concentrate discussion on state government, focusing our attention on state legislatures. The legislatures are the _de facto_ governing boards for all state agencies because only the legislatures can raise taxes to finance the operation of those agencies.

This is as true in education as in other state functions, despite the existence of state boards of education. State boards of education do not levy taxes to support the SEAs, and thus are far less powerful in their own right than most local boards of education, which do levy taxes to finance the LEAs. The state governor is less important than the legislature because the governor does not administer education (in most states). The state judiciary is less important than the legislature because the state board and the chief state school officer perform many judicial functions for the schools (in most states). Thus, we must treat the state legislature as the maker of state education policy, subject, of course to multiple political pressures from local, state, and federal sources attempting to influence state education policy.

Legislatures Pay for Minimum Behavior

State legislatures justify their laws as being those needed to assure the minimum behavior of individuals and organizations needed to keep the state running. To legislate beyond the minimum would be to invite the charge of excessive government. This is as true in education as in any other state function. The legislature must be able to say: We must do this and we cannot do less.

State financial aid to schools is virtually always justified (and actually calculated) as the lowest-amount that will guarantee students in the poorest school district a basic minimum education. If the New York legislature provides $2,000 per pupil and the Mississippi legislature $500 per pupil, each will regard its appropriation as the minimum needed. LEAs are usually allowed to exceed the minimum, but each state explains its contribution as the least it can do. The most obvious proof of this lies in the fact that LEAs chronically complain that the state does not even give them enough money to pay for state-mandated programs. Ask any LEA.

When state legislatures appropriate money to operate state administrative agencies, they appropriate the minimum needed for those agencies to carry out the laws that the legislature has enacted and the governor has signed. The most obvious proof of this lies in the fact that state agencies chronically complain that they have too little staff and money to carry out the laws. Ask any SEA.

It is worth noting further that the legislature extends the principle of minimum government to the third branch, the state courts. The courts

run forever behind--too many cases and too few judges. The legislature will enlarge the judiciary only when some minimum standard of justice is not being supplied to citizens--if then.

Legislatures Rarely Pay for Improvement Beyond the Minimum

State legislatures rarely appropriate money for local government agencies to improve specific behaviors of or conditions for individuals and organizations beyond some acceptable minimum, even in a state-operated and state-controlled organization like the public schools. For example, state legislatures rarely appropriate money to improve education even in specific areas like a single grade level (say, kindergarten), a single subject (say, social studies), or a single population of students (say, the handicapped). State legislatures are far less likely to appropriate money to improve schools in all grades and in all subjects for all populations of students.

Morever, state legislatures virtually never appropriate money for administrative agencies to conduct general-purpose, broad-band, unfocused efforts to improve the general behaviors of individuals or organizations beyond some acceptable minimum. This is as true in education as in any other state function.

Imagine the governor coming to the legislature with a request for $10 million to improve the operations of state administrative agencies or the behavior of state employees. The governor, who simply wants to make things better than they are, cannot say whether this sum is for prisons, highways, libraries, social agencies, hospitals, or colleges, and furthermore cannot point to any unsatisfactory conditions. The governor will not get the $10 million. "Slush fund," some legislators will say; "Campaign chest," some others will say; "Political payoff," still others will say, while voting no.

Imagine the state highway commissioner coming to the legislature with a request for 50 new positions dedicated to improving the roads. The commissioner, who simply believes that all roads can and should be improved, cannot say whether the improvement will involve primary roads or secondary roads and furthermore cannot point to any specific hazards on the existing roads. The commissioner will not get the 50 positions.

Now imagine the state superintendent of education coming to the legislature with a request for $500,000 to improve the schools. The superintendent cannot say whether this is for elementary or secondary schools, public or private schools, teachers or administrators, music or mathematics classes, and furthermore cannot single out any specific shortcomings in need of correction. The superintendent simply wants to set up "a two-way process for communicating knowledge relevant to educational needs and problems so that educational decisionmakers and practitioners can rationally consider alternatives to current practice and the results of research and development in improving educational programs" (NIE Program Announcement: State Dissemination Grants Program, FY 75).

Noting that the legislative subcommittee finds that description too general, the superintendent explains that the system must be both comprehensive and generalized and must "involve the leadership and service capability to provide information and technical assistance in the solution of problems identified by the dissemination agency or its clientele" (ibid.). The superintendent says that the system "should provide access to all information sources for all educators regardless of subject field or role" (ibid., FY 78).

Asked by the subcommittee how the system would function and how it would be structured, the superintendent replies that "the functions of such a system can be described in simple terms. The SEA dissemination system should be able to (1) collect and organize the information upon request, (2) get the information to the client, and (3) assist the client in using the information. Such a system, conceptually, could be comprised of three generic components: (1) an information resource base which contains the knowledge-based products clients need; (2) linkages to connect the resources with the people who could benefit from them; and (3) a component to coordinate the various activities needed so local educators can use the system for school improvement" (Madey, Vol. I, 1981).

The superintendent will not get the $500,000. Not because of that inexcusable jargon, which is enough to lose votes on the subcommittee. Not because of the casual interchanging of "providing information" and "providing technical assistance," which even the subcommittee knows are entirely different activities carrying different price tags. The bugaboo lies in phrases like "all information resources for all educators" and "the solution of problems identified by the dissemination agency or its clientele"--the request for money to conduct general-purpose, broadband, unfocused efforts to improve behavior beyond some acceptable minimum. The subcommittee chairperson is likely to dismiss the request with the directive, "If it's not broken, don't fix it--not at the taxpayers' expense, anyway."

Even if our hypothetical governor or highway commissioner or superintendent of education could convince the legislature that some people are not eating or some bridges are out or some students are not learning, the legislature still would not vote general-purpose improvement funds. What it would do instead--if anything at all--would be to mandate and/or enable processes to bring nutrition, bridges, or students up to the acceptable minimum. Show a state legislature a serious social problem, and it will adopt a specific social solution--the cheapest one it can find.

Legislatures See SEAs as Bureaucracies that Exist for the Enforcement or Enablement of Minimums

An examination of the education laws in any state will reveal that the legislature attends to the basic operation--not the improvement--of schools: accrediting teacher training institutions, constructing school buildings, transporting students to schools, scheduling the school day and requiring that certain subjects be taught, distributing state financial aid, requiring local statistical reports. It follows that

legislatures expect SEAs to serve as bureaucracies for the enforcement or enablement of minimum standards for school operations. Inasmuch as the minimum is the topic of the laws, the minimum is the job of SEA personnel.

Appointing highly educated professionals--especially able and ambitious professionals--to SEA positions almost always creates tensions between the professional impulse to improve things and the job requirement to simply maintain things.

Today's SEA professionals are embarrassed to work at the minimum, to deal always with the hindmost, to be forever bringing up the rear The professional ethic calls for leadership, for acts of improvement; the bureaucratic ethic calls for inspection, for acts of enforcement.

A century ago, when many classroom teachers did not have the benefit of a college education and many administrators were hardly better off, SEA personnel acted chiefly as inspectors of local schools. But today's college-educated teachers and administrators require college-educated professionals in SEAs. The SEAs admittedly have difficulty attracting and retaining highly qualified professionals, but those they do manage to attract tend to be more interested in leadership for improvement than in enforcement of the minimum.

State legislators continue to expect SEAs to monitor LEAs so that minimum standards are met. Considerably higher aspirations for SEAs, articulated by professional leaders for half a century, have not caught the imaginations (let alone changed the minds or loosened the purse strings) of the legislatures in most states.

Here is an example of the evolution of SEA staff in one of our southern states. In the early years, SEA specialists in various subjects inspected LEA behavior--especially teacher behavior. Gradually, the specialists moved away from the inspection desired by the state legislature and toward consultation with LEAs about interesting and innovative--if unvalidated--ideas. Now the state legislature has adopted an accountability law, and the consultants are back at their inspection functions, which are gauged to assure the legislature that all LEAs are performing at the minimum.

Federal Agents Invade SEA Territory

Large state administrative agencies are an embarrassment to state legislators, who prefer small, lean, efficient agencies just large enough to enforce laws and distribute state funds. SEAs are already twice as large as state legislators would make them.

About 50 percent of SEA personnel are paid by federal funds to administer federal programs. These are not state agents conducting state business, but federal agents conducting federal business. Although they are appointed by state officials and are responsible to the state superintendent, these federal agents respond as much (or more) to federal guidelines and federal officials as they do to state priorities and state officials.

This pattern of housing federal agents in state agencies is not limited to the SEAs, of course; it is common in social welfare departments, highway departments, law enforcement departments, and many others. It began in earnest in education with the enactment of the Smith-Hughes Act in 1917, and to this day federal agents in vocational education are more numerous than they are in any other educational field. But they have since been joined by administrators of programs for the handicapped, the disadvantaged, the bilingual, the recently desegregated, women, and others.

Why have Congress and the federal Department of Education assigned these federal agents to state agencies? Is Congress working at the minimum like other legislative bodies, or is it violating the principle of least government? Most federal laws follow this principle, assuring the minimum behavior of individuals and organizations needed to keep the nation working. Concepts of that minimum change over the years as the society evolves, as the major political parties offer slight variations in philosophy and programs to the electorate, and as advocacy groups lobby more or less successfully for what they want. But the Congress usually justifies what it does as being the least it can do. Whether it is dealing with dams, dredging, highways, the post office, social security, welfare, health, commerce, parks, agriculture, or the military, it usually claims to be meeting essential public needs at the lowest possible cost. Certainly, it is usually confronted by a majority of voices clamoring that it is doing less than is necessary, less than it should.

What about Congress and education? Has Congress observed the principle of least government--an appropriate policy particularly inasmuch as education is a state function? Or have the major federal programs of the past 20 years shattered that principle?

The Federal Government Enforces and Enables Minimums for Minorities

In education, the federal government serves as a court of last resort. People go to the feds when they can't get what they want from the localities or the states. The people who do so are the minorities. That figures. If they were the majority, they could get what they wanted by taking local action, or more likely--given the fact that local school districts are relatively closed to public pressures--by taking state action. The landmark events in federal legislation have taken place when localities and states did not give a vocal minority what it wanted.

It is hard to understand why the federal government has a more sympathetic ear for minorities than do the localities and the states, but it may be the crowning achievement of our federated system of government that this is the case--that minorities have their maximum influence at the highest levels of government. Is it because of the Constitution? Is it because the president and the Congress and the Supreme Court finally escape their majority constituencies and learn to administer and legislate and judge for all the people including minorities?

Whatever the cause, landmark federal laws are landmark minority
triumphs. Take these examples:

- Smith-Hughes in 1917--when the vocational educators and the
  employers who supported them finally persuaded Congress
  to take vocational training out of the shops and factories
  and put it into the schoolhouse, after failing to convince
  the "general educators" who made up the majority in the
  localities and the states.

- Brown vs. Topeka in 1954--when the blacks finally persuaded
  the federal courts that they should go to school with the
  whites, a point they had failed to make with the majority
  in many states and most localities.

- The Civil Rights Act in 1964--when the minorities finally
  convinced the president that it would take more than Brown
  vs. Topeka to get the majority in many states and localities
  to follow the Constitution.

- The Elementary and Secondary Education Act in 1965--when the
  disadvantaged finally made it clear that compliance laws were
  not going to be enough to bring their children up to an ac-
  ceptable minimum; that it would take a billion dollars (four
  billion dollars today) which the majority in the states and
  localities would not supply.

- The Education for All Handicapped Act in 1977--when the par-
  ents of the handicapped finally persuaded Congress that the
  individual differences among their children were so great
  that each one required a tailored educational plan, something
  the state and local majorities had not supplied.

It seems that all the Congress has done, in keeping with the equal
protection clause of the Constitution, is to require minimum behavior by
the majority and enable minimum behavior by minorities simply to keep
the nation working.

The whole history of federal activity in education, can be understood
as continuous monitoring of the system (which the National Center for
Educational Statistics does today) punctuated by irregular interventions
to rescue some group that has fallen through the state and local educa-
tional "safety net." Occasionally, it is not a particular group but some
particular behavior on the part of students as a whole that falls below
an acceptable minimum. Professional educators welcomed the 1958 National
Defense Education Act, while wondering at its odd title--Congress's way
of indicating that the nation had to keep up with the Russians, who had
just launched Sputnik I the year before, by strengthening instruction in
mathematics, science, and foreign languages and by improving guidance
counseling. Clearly, Congress could do no less than defend the nation--
a clear federal obligation--by getting learning up to a minimum inter-
national standard.

The late 1950s, the 1960s, and the early 1970s saw a high watermark of federal initiatives in education. Almost all of this activity was directed toward assuring minimum behavior for minorities (as exemplified by ESEA Title I, by far the largest program). Congress put more money into those new activities throughout the 1970s in a continuing effort to get minorities up to a minimum.

The Federal Government Reaches Beyond Minimums to Improvement--Sometimes

During those same years, Congress also launched a few small general-purpose, broad-band, unfocused activities to improve school performance above an acceptable minimum. Those of greatest present interest were enacted in 1965 in ESEA Title III, Title IV, and Title V. None of these was attached to a major funding program (such as vocational education or the education of the handicapped or the disadvantaged). Significantly, none of them has grown as much as the major funding programs have grown; even during the two remarkable decades just ended, Congress has been more generous when working at the minimum, as should be expected, than working above the minimum.

In any case, the federal government placed a number of federal agents in SEAs to administer these new programs, inasmuch as it is impractical as well as impolitic for the federal government to deal with LEAs without going through SEAs. We are talking here about new programs directed toward improving schools, including schools already performing above the minimum. Indeed, in the competitive grants program, the more capable LEAs wrote the best proposals and won a disproportionate share of the grants in the early years. Some states moved to correct this pattern, shifting money to LEAs performing closer to the minimum, an almost instinctive state behavior. That kind of state action--using federal improvement money to get localities up to an acceptable minimum--illustrates the inevitable tension arising when minimum-oriented state agencies administer improvement-oriented federal funds.

States Do Not Replace Withdrawn Federal Agents

The key point is that the federal government has to place federal agents in state agencies to achieve federal purposes. What can we predict the state legislatures will do when the federal agents are withdrawn? Replace them with state agents to carry out the federal purposes? Or echo what LEAs uniformly say when asked to carry out state purposes at local expense: "If they want it done, let them pay for it." States have had since 1917 to replace federal vocational agents with state vocational agents, administering the programs at no cost to the federal government and passing the federal administrative savings on to LEAs. Not one state has done so. Not in 64 years. And vocational education is a federal funding program, not a federal service program. It provides money to LEAs--not information, technical assistance, and training--and thus is likely to arouse strong LEA support. Yet no state has supplied the needed five percent to cover the administrative costs of operating vocational education.

What a stretch of the imagination it takes to picture a state legislature replacing federal vocational agents with state vocational agents! Of course, the federal government has not demanded it. What if it did? What if the federal government gave states no money to administer federal vocational funds, but made states pay the five percent administrative costs as a condition of receiving vocational funds, every dollar of which had to be passed on to LEAs? In that case, legislatures would pay grudgingly because of irresistible political pressures from LEAs and local taxpayers seeking the federal funds--but grudgingly, saying, "If they want it done, why don't they pay for it?"

Now consider a federal funding program far smaller than vocational education: ESEA Title II (now part of Title IV-B, a formula program providing money to every LEA for media and materials). The money helps some LEAs maintain a minimum stock of essential instructional aids. Would state legislatures supplant federal agents with state agents if that were a condition of receiving the federal money? Probably so, although pressure from LEAs would diminish in proportion to the amount of money at stake, exponentially less than in vocational education. (There is at least one identifiable local constituency of school librarians that might lobby for meeting the federal conditions.)

Now consider another federal funding program far smaller than vocational education: ESEA Title III (now part of Title IV-C, a competitive grants program for LEAs). Would state legislatures supplant federal agents with state agents if that were a condition of receiving the federal money? Perhaps, although pressure from LEAs would be less than that for Title IV-B, and would come from fewer LEAs, since not all win the grants competition. And there is no identifiable local constituency to lobby for meeting the federal conditions.

These should be relatively easy responsibilities for state legislators to meet, we might think, since the federal government would be asking them to pick up only about five percent of total program costs--the amount needed for administration. But we must wonder whether the states would spend even five percent to provide state agents to achieve federal purposes.

Now imagine an enormously harder test for state legislatures--a test 20 times more difficult. Ask the legislatures to pay 100 percent of the federal cost, to take over vocational education, Title IV-B, or Title IV-C completely at state expense. The legislatures would not do it. No one today expects state legislatures to replace shrinking federal funds, especially for programs like Title IV-C, a general-purpose, broad-band, unfocused program to improve schools beyond an acceptable minimum.

Capacity-Building Grants Are No Exception

Take the state dissemination capacity-building grants as one example.

Here is a program well designed and well administered by NIE. It is not a funding program for LEAs, so it does not have a deeply interested local constituency. It is not addressed to the minimum, but is instead a general-purpose, broad-band, unfocused attempt to improve any and all schools by providing information and assistance regarding research results, innovative products, and validated practices. It was suggested earlier in this paper that a state superintendent could not convince a legislature to fund such an activity. But could the superintendent convince a legislature to continue the activity once the federal government had demonstrated its value with a three-year grant to the state? Probably not, all things considered--including the economic problems states will face in the first half of the 1980s. The justification behind this prediction is all of the foregoing reasoning. If improving schools beyond an acceptable minimum is not the role of state government--and indeed is only a marginal and currently diminishing role of the federal government--state legislatures will not replace federal improvement agents with state improvement agents.

The best analogs for the capacity-building grants are the ESEA Title III grants to LEAs and the ESEA Title V grants to SEAs (both now consolidated into Title IV-C). Few of these were continued by localities and states, a long-standing and perhaps intractable problem: "States are trying to improve what has been a rather poor record for project continuation once federal funding ends" (McDonnel and McLaughlin, 1980).

Capacity Cannot Be "Built"

Why were those programs not continued? The time-worn analogy of pump-priming is useful here, since most people hoped those grants would prime state and local "pumps." A pump won't pump, even if there is a pool of water beneath, until someone pours in a bucket of water at the top--say, federal "water." But the pump also will not work unless there is that pool of water down below--say, state or local "water." There has to be a latent capacity for the pump to keep working once the federal water has dried up.

The term "capacity building" should be seen in this context. Capacity cannot be built. It must be an inherent characteristic of states and localities. The sensible federal strategy would be to find unused state and local capacity that could be activated with temporary federal money. A simple definition of capacity to continue a federal program is: motivation and money. Those states and localities that discontinued Title IV-C activities lacked one or both. Our prediction that states will discontinue the services they have operated with their dissemination capacity-building grants is based on the partly substantiated assumption that they lack the motivation and/or the money to continue a program not addressed to the minimum.

Here is what the background papers have to say about state-level dissemination pump-priming by the federal government:

- Most states in the [State Capacity Building Program] evidence movement toward institutionalizing their dissemination capacity,

although it is still too soon in that process to determine if the dissemination system will indeed become an accepted part of SEA program services offerings. (Madey, Vol. V, 1981)

- The survey gives a clear indication that dissemination services are not considered to be institutionalized functions of SEAs. Only seven studies have approved state board of education policies in this area; 18 have written administrative procedures, and 20 show a "dissemination unit" on the SEA organizational chart. Those with policies and procedures stated that the NIE capacity-building program was significant in their development. (Martin, 1981)

- Funds for school improvements come from several sources, but more often from federal programs. State funds, however, are used by 37 states. Forty-three states use Title IV-C. Thirty use special education money, and 29 use Title I. Funds specifically for dissemination programs are signficant contributors, also; 37 states apply NIE funds to their programs, and 30 states use National Diffusion Network funds. (Martin, 1981)

- Easily the most important project or service available to SEAs as they have developed their school improvement programs has been the NIE capacity-building program....Another important source of assistance has been the NIE-funded Regional Exchange project. (Martin, 1981)

- Although states allocate a portion of IV-C strengthening funds to all the express purposes of the strengthening component, various aspects of administrative support (including fiscal accountability and data systems) remain the highest priorities for the use of strengthening funds. Such state-level developmental activities as training and dissemination receive a much smaller share. (McDonnel and McLaughlin, 1980)

One theme running throughout the papers is that of state-financed dissemination activity. But that phenomenon is so poorly described and so rarely illustrated that the issue may be an artifact of imprecise methodology rather than an actual finding. (This possibility is discussed later.) In any case, it seems clear that thus far federal funds dominate the dissemination scene.

SEAs and LEAs Convert Improvement Money into Operating Money

Like the bureaucracies that they are, both SEAs and LEAs tend to absorb money intended to improve their operations into budgets for conducting their operations. This transformation brings the organization back into equilibrium out of which the improvement money moved it; regularizes operations; finances the improved procedures; and reduces outside pressures for further improvements. This customary behavior becomes stronger when money runs short, as it is doing today.

Here is what the background papers say about this transformation:

● Three fourths of the districts in our sample allocate their
  funds on a per capita basis. In these cases, there is little
  that can be called a IV-B program and school site personnel
  use their IV-B allotment to supplement ongoing activities. .
  (McDonnel and McLaughlin, 1980)

● Under Title III few states attempted to prescribe objectives
  for local projects. Now [in Title IV-C], about 30 percent of
  all SEAs set aside slightly more than one half of their funds
  to support projects reflecting state priorities. (McDonnel
  and McLaughlin, 1980)

● It is possible to argue that [ESEA Title IV-C] strength-
  ening funds [formerly ESEA Title V] are supplementing what
  have come to be seen as routine SEA activities. Still, as
  states face tighter budgets, it is likely that without
  strengthening funds these central services would be sub-
  stantially reduced, if not eliminated. (McDonnel and
  McLaughlin, 1980)

● The Murphy study provides an extensive description of
  USOE/SEA relationships within the context of ESEA Title V.
  It describes how a program, originally intended to fund
  "quality" projects that would strengthen SEAs, became
  essentially "free money to SEAs with little federal
  accountability." (McKibbin, 1981)

     Some states have had to depend increasingly on federal revenues and
federal agents to achieve state purposes. For example, some states have
moved to engage federal agents in general-purpose improvement activities
going beyond the earmarked federal programs they are employed to administer.
And some states have used the flexibility of certain federal funding pro-
grams to bend those programs to fit state purposes, rather than giving
LEAs the federal latitude along with the federal money. Given this trend,
it would be reasonable to predict that if NIE continues to fund dissemina-
tion capacity building in SEAs, but under looser guidelines, the SEAs will
use the money to secure local compliance with minimum standards in impor-
tant state programs rather than continuing to use it for general-purpose,
broad-band, unfocused school improvement activities.

Dissemination Explained

The field of dissemination suffers from intellectual sprawl. The goals, concepts, vocabulary, activities, and criteria for success in the field are a mile wide and an inch deep. The situation is somewhat comparable to that in evaluation, where 20 years of federal activity and research (not state activity and research, please note) have so stretched the field that it spills all the way from pre-planning, goal setting, and program selection to post-program audits, secondary analyses, and evaluations of evaluations. However, the situation in dissemination is much worse, partly because, as Murphy (1980) points out, "So far, education research on the states has not attracted an oversupply of those proverbial 'first-rate' minds." As a member of that field, I agree.

About 20 years ago, "dissemination" meant informing people about the results of research development, a straightforward concept lending itself to straightforward study. Before long, the discovery was made that informing people does not improve schools. Of course not. But dissemination specialists and scholars were overwhelmed, it seems, by that discovery. Moving forward on the ambitious assumption that dissemination is _supposed_ to improve schools, they studied what it does take to improve schools and stretched the word to cover everything they found.

The result of two decades of thinking and writing about dissemination is a group of murky concepts and value-driven generalizations that do not describe the actual phenomena. I have encountered many problems in examining the literature (including but not limited to the background papers). Here are some of them.

1. Recipients Are Not Active Seekers of New Knowledge

The first was a value problem: No self-respecting professional wanted to be regarded as a mere recipient. This required the construction of a model depicting recipients as active seekers of new knowledge, in no way subordinate to disseminators. This politically palatable, egalitarian notion does not describe the behavior of the two million professionals in education and most certainly does not describe the behavior of the bureaucracies that employ them. But it is an admirable professional image—drawn, be it noted, from the idealized behavior of the finest research scholars.

2. LEAs Are Not "Clients" of SEAs

Another problem was one of nomenclature. Rejecting the analogy of buyer and seller (presumably because it smacked of the commercial), researchers adopted the analogy of

professional and client, denoting the qualifications of disseminators and connoting a more egalitarian relationship. LEAs became clients of disseminators, including disseminators housed in SEAs. Now, an LEA is no more a client of an SEA than a school is a client of a school district central office. The term "client," no doubt attractive to professionals in LEAs and SEAs, denies all the authority-laden legal relationships binding SEAs and LEAs and is an inadequate conceptual tool for studying either SEA dissemination activities or SEA school improvement activities.

3. The "R" in ERIC Is Not Research

Yet another problem was the 1960s decision to broaden ERIC from a research file to a research and practice file and to change the second word of its name from "research" to "resources." Since at that time dissemination was thought of as equivalent to the distribution of ERIC-type information, the definition of dissemination automatically expanded to fit whatever was added to ERIC, which soon became just about everything in print that was not copyrighted.

4. Dissemination Is Not a "Tandem" Act

Another problem was sloppy logic. Scholars posited a series of tandem behaviors linking disseminators and recipients, each responding equally to the behavior of the other:

Disseminator:	Behavior 1a	Behavior 2a	Behavior 3a
	↕	↕	↕
Recipient:	Behavior 1b	Behavior 2b	Behavior 3b

This image of dissemination assumes that every transaction involves two-way communication between the disseminator and the recipient. Some experts, on the other hand, suggest that such communication is not necessarily equal or two-way. The Dissemination Analysis Group (DAG) characterizes dissemination as a four-part process of spread, exchange, choice, and implementation. "Spread" is the responsibility of the disseminator; a "choice" is made by the recipient; and "exchange" involves both. The DAG definition suggests an attractively interwoven series of behaviors with egalitarian overtones. But it is a wholly inadequate description of the dissemination process, and thus a useless thinking tool.

5. Dissemination Is Not Just Any Distribution of Just Any Information

Another difficulty was that the definition of dissemination was derived from the vagaries of administrative practice instead of from dissemination theory. One question from the survey done by Martin (1981) exemplifies this deficiency:

Question D5. Which of the following activities/
programs are administratively a part
of the dissemination unit?

39 information services (ERIC, etc.)
23 public information
30 National Diffusion Network
27 validation of state programs
14 computer/statistical services
27 support services (radio-TV-film,
   publications, graphics, printing,
   media)
12 other

What kind of thinking is this? Dissemination is allowed
to include public relations information, the computer, tele-
vision, and the print shop. Any distribution of any informa-
tion to anyone by any means might thus be construed as "dis-
semination."

6. Dissemination Does Not Equal School Improvement

The worst single problem in the field is the use of the
term "dissemination" to mean simultaneously informing people
and improving school practice. This is slight-of-mind, and
the magician loses hold of the concepts along with the audi-
ence. Here are some citations from Martin's survey illus-
trating the confusion of terms:

Question B5. Is there any state legislation mandat-
ing the dissemination functions?
11 yes 41 no

Martin's narrative: Only 11 states have legislation
mandating school improvement
activities....

Question F2. In your opinion, which of the projects
and/or activities listed above has been
most significant in increasing your SEA's
ability to develop a dissemination/school
improvement program?

Madey, among others, joins Martin in equating the two terms:
"Because SEAs vary in their organization and approach to school
improvement, and because relationships among SEAs and LEAs are
complex; no one model or approach to developing an SEA dissemina-
tion unit or system will fit all SEAs" (Madey, Vol. V, 1981).

7. Dissemination Is Not Defined Consistently

Martin and Madey are no more wrong than other writers who
traffic in mutually destructive definitions of dissemination.

First, consider the (comparatively benign) definition used
by NIE's Program on Dissemination and Improvement of Practice
in its Program Announcement: State Dissemination Grants Pro-
gram (FY 75):

> A two-way process for communicating knowledge rele-
> vant to educational needs and problems so that
> educational decisionmakers and practitioners can
> rationally consider alternatives to current practice
> and the results of research and development in
> improving educational programs.

"Rational consideration of alternatives" stops far short of
actual implementation of new programs. Now compare the Dis-
semination Analysis Group's four-part definition of dissemina-
tion as: "spread, exchange, choice, and implementation, the
last defined as the facilitation of adoption installation
and the ongoing utilization of improvements."

The American Registry of Research and Research-Related
Organizations in Education (ARROE) project included dissemina-
tion in its definition of research and related activities:

> An activity had to be systematic and designed to es-
> tablish new facts or principles (research); to invent
> new or improve existing solutions to educational prob-
> lems (development); to assess the effects of existing
> programs or determine the feasibility of new ones
> (evaluation); or to disseminate R&D results. (Sharp
> and Frankel, 1979)

While it is not clear whether ARROE included either the results
of evaluation studies or evaluated products in its definition
of dissemination, it is clear that ARROE did not include prod-
ucts that did not involve systematic procedures.

Brickell (1970) permitted the term to include only in-
formation firmly rooted in research: "Dissemination is defined
as the sending of information either about the results of re-
search or the products of [research-based] development or the
[research-based] methods and materials being demonstrated."

The ARROE and Brickell studies use similar definitions, but
were separated by 10 years during which far broader defini-
tions were formulated and gained widespread use. Such oscil-
lation--or random variation--in definitions does not suggest
progress in bringing the field under theoretical or even
conceptual control.

8. Dissemination Study Methodology Is Faulty

Quite apart from definitions, the study methodology in
the field has been too simple to handle the complexity of

the phenomena. For example, Brickell, Sharp and Frankel, and Martin all depended on survey questionnaires to collect data about SEA activities and did little or nothing to verify accuracy of responses. Given the strong professional leadership leanings of SEA personnel, the divergent definitions of dissemination abounding in the field, and the uncertainty of SEA personnel about the research base underlying the information and practices they are disseminating, the answers to survey questionnaires probably were not reliable even when the questionnaires used clear definitions of dissemination.

Probably the most reliable studies are those focusing on specific federally funded programs that are easily distinguishable to state personnel, such as Madey's on the State Capacity Building Program. Survey methodology is probably not sufficiently sensitive to distinguish between the activities of federal and state dissemination agents; state- and federally funded activities; dissemination and other school improvement activities; dissemination of information about research-related products, validated practices, and state regulations; working at the minimum or working at the maximum. Only face-to-face interviews in a case study framework are sensitive enough to disentangle all those activities.

But better methodology will not help if conceptual clarity is lacking. For example, given the vast territory claimed under the flag of dissemination, most SEA personnel engaged in instructional activities could describe themselves as being engaged in dissemination for much of their day. This may be why Brickell, Sharp and Frankel, and Martin picked up so much state-funded dissemination activity and so many state-paid dissemination personnel with their questionnaires.

It seems odd that studies of the state role in dissemination and school improvement cannot accurately locate, examine, and describe state-sponsored activity in detail. It seems curious that reports on SEA behavior refer in a general way to state activity--but when the zoom lens closes in, we seem to be looking always at the activities of federal agents. Without better definitions and better methodology, we cannot know whether there is any state-sponsored activity to study--either state-initiated without federal stimulation or state-continued after federal pump-priming.

Implications for NIE Research on

the Role of SEAs in Dissemination

Here are several suggestions for how NIE should study dissemination in the future:

1. Clarify concepts in the field. This cannot be done by making every concept mean more and more, but by making every concept mean less and less. It requires that the behaviors of disseminators and recipients be clearly distinguished, clearly described, and clearly labeled.

2. Abandon the idea that dissemination alone is supposed to improve schools. This is the overreaching idea that has bloated the term beyond recognition, has saddled disseminators with an unfair and impossible task, and has given dissemination scholars too much to study. Redefinition requires a better analysis of school improvement activities and of dissemination as merely one such activity among many others. It requires that dissemination be understood as a single tactic in a school improvement strategy, a tactic intended to produce a specific effect on the recipient--a necessary but insufficient effect to improve schools.

3. Examine each SEA in a vertical context extending from the state legislature through the SEA and the intermediate units to the LEAs.

4. Study the natural behavior of SEAs regarding dissemination in the absence of federal funds or federal agents. Make retrospective studies or monitor future behavior of SEAs in operating programs untouched by federal intervention.

5. Take a longitudinal look at the behavior of SEAs before, during, and after the federal funding of dissemination. Make retrospective studies or monitor future behavior of SEAs in operating programs where federal money comes and then goes.

6. Use case study methodology in dealing with SEAs, including face-to-face interviews to collect data and rich descriptive narrative to report it.

7. Test these hypotheses:

   a. State legislatures think that it is their responsiblity to assure minimum performance of schools and students, and that they must justify their statutes and their staffing of SEAs accordingly.

b. State legislatures do not think it is their responsibility to finance general-purpose, broad-band, unfocused school improvement activities and they will not staff SEAs for such activities.

c. SEA personnel do not wish to limit their attention to minimum performance of schools and students, but instead wish to engage in improving performance across the entire spectrum of school quality.

d. LEA personnel want SEAs to provide money rather than leadership, particularly leadership for general-purpose, broad-band, unfocused school improvement. (Small LEAs in rural areas should be an exception.)

e. Intermediate unit personnel do not wish to limit their attention to minimum performance of schools and students, but wish to engage in improving performance across the entire spectrum of school quality.

f. LEAs want intermediate units to provide assistance (vocational courses, shared teachers, data processing, media rentals) rather than leadership, particularly leadership for general-purpose, broad-band, unfocused school improvement.

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