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ABSTRACT

This document is a compilation of separate papers concerning the planned 1990 recompetition for the nine Regional Educational Laboratories, sponsored by the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education, as follows: (1) "Report of the Laboratory Review Panel on the 1987 Review of Laboratories" (October 6, 1987) (19p.); (2) "Report of the Laboratory Review Panel on the Pending Laboratory Recompetition" (April 28, 1989) (24p.); (3) "Classroom and School Research: Investments in Enhancing Schools" (Thomas Good) (94p.); (4) "Regional Educational Laboratories: History and Prospect" (James Guthrie) (25p.); (5) "Policy Paper on the Program of Regional Educational Laboratories: The Perspectives of a Chief State School Officer" (David Hornbeck) (35p.); (6) "The Future Direction of Regional Educational Laboratories in Contributing to Urban School Improvement" (Floretta McKenzie) (12p.); (7) "School and Classroom Improvement in Two European Countries" (Neville Postlethwaite) (18p.); (8) "A Comparison of Service Modes in ED's (Department of Education's) Technical Assistance Programs" (Brenda Turnbull) (24p.); (9) "Regional Educational Laboratories: The Strategy of Usable Ignorance" (William Dunn) (36p.); (10) "Regional Educational Laboratory Approaches to Educational Improvement: A Descriptive Synthesis" (Ward Mason) (223p.). Appended, but not available separately, are the following: (11) "Federal Register" notice about the recompetition (June 23, 1989) (2p.); (12) Fact Sheet about individual laboratories with chart of laboratory regions (37p.); (13) Summary report and transcripts of invitational planning meetings (23p.); and (14) Transcripts of public meetings held on June 26, June 27, July 19, and July 21, 1989 (319p.). (JD)

ED308188

REGIONAL EDUCATIONAL LABORATORY RECOMPETITION: REVIEW PANEL PAPERS, COMMISSIONED POLICY PAPERS, AND FACTUAL INFORMATION ABOUT THE PROGRAM

1989

SPONSORED AND COMPILED BY THE
OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)
U.S. DEPARTMENT OF EDUCATION

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Office of Educational Research and Improvement
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SP 031 546

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UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

INTRODUCTION TO
REGIONAL EDUCATIONAL LABORATORIES COMPETITION MATERIALS

Dear Colleague:

The Office of Educational Research and Improvement (OERI), of the U.S. Department of Education, is planning a new competition for awards to operate ten regional educational laboratories. The laboratories have been supported by the Federal government since 1966. The solicitation for proposals will be issued in January 1990; the awards will be announced in October 1990, and the new contracts will begin on December 1, 1990.

The purpose of these documents is to provide in-depth information about the laboratory system to potential applicants and others interested in this competition.

Two invitational meetings and three open meetings were held in June and July, 1989 to give interested parties an opportunity to make suggestions to the Department concerning various aspects of the functions, activities and future directions of the laboratories. In addition, OERI commissioned seven policy papers on various aspects of the laboratory program and laboratory functions.

Following is a list of documents concerning these and other OERI activities related to the competition. The number of pages for each document is shown in parentheses:

Descriptions of the current regional educational laboratories and a map of laboratory regions. (36)

Federal Register Notice, dated June 23, 1989, announcing invitational meetings and open meetings. (2)

Transcripts of invitational meetings, June 26 and 27, 1989, Washington, D.C. (83, 96)

Summary Report of invitational meetings by Anne H. App.

Transcripts of the open meetings:

July 19, 1989, Kansas City, Missouri (30)
July 19, 1989, Washington, D.C. (60)
July 21, 1969, San Francisco, California (30)

"Report of the Laboratory Review Panel on the 1987 Review of Laboratories", October 6, 1987. (19)

"Report of the Laboratory Review Panel on the Pending Laboratory Recompetition", April 28, 1989. (21)

Commissioned Policy Papers (1989)

"Regional Educational Laboratories: The Strategy of Usable Ignorance"; William Dunn (35)

"Classroom and School Research: Investments in Enhancing Schools"; Thomas Good (94)

"Regional Educational Laboratories: History and Prospect" James Guthrie (25)

"Policy Paper on the Program of Regional Educational Laboratories: The Perspectives of a Chief State School Officer"; David Hornbeck (35)

"The Future of Regional Educational Laboratories in Contributing to Urban School Improvement"; Floretta Dukes McKenzie (12)

"School and Classroom Improvement in Two European Countries"; Neville Postlethwaite (18)

"A Comparison of Service Modes in the Department of Education's Technical Assistance Programs"; Brenda Turnbull (24)

Commissioned Research Paper:

"Regional Educational Laboratory Approaches to Educational Improvement: A Descriptive Synthesis"; Ward Mason, December 1988. (212)

We hope these materials will be of value and assistance to educators in general and to those who are interested in the competition for regional educational laboratories.

Sincerely,

David P. Mack, Director
Educational Networks Division
Office of Educational
Research and Improvement

REPORT OF THE LABORATORY REVIEW PANEL ON THE 1987 REVIEW OF LABORATORIES

October 6, 1987

Contents

Membership of the Panel

Mr. Christopher T. Cross (Chairman), President, University Research Corporation, Chevy Chase, Maryland

Dr. Joy Frechtling, Director, Division of Instructional Evaluation and Testing, Montgomery County, Maryland, Public Schools

Dr. Ernest House, Professor, Laboratory for Policy Studies, University of Colorado

Dr. Alexander Law, Director, Program Evaluation and Research Division, California State Department of Education

Dr. Garry McDaniels, President, Softwriters Development Corporation, Baltimore, Maryland

Dr. Carl Sewell, President, Educative Systems Development Corporation, Plainfield, New Jersey

URC

UNIVERSITY
RESEARCH
CORPORATION

October 5, 1987

Dr. Chester E. Finn, Jr.
Assistant Secretary and
Counselor to the Secretary
U.S. Department of Education
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Dear Checker:

The report of the Laboratory Review Panel on the review of Regional Educational Labs is forwarded to you.

The Panel is pleased to have had the opportunity to comment on the review. As noted in the report, we believe the review was conducted very competently, and that the results will be beneficial to the labs and to OERI.

We have focused, for the most part, on program-wide issues in our report. We have utilized the opportunity to draw upon all of the reports on individual labs to help identify issues for your consideration.

You will see, however, that we have some specific recommendations and observations regarding three individual labs. In our judgement, these matters warrant special attention. We hope you will consider these recommendations, as well as the others, and advise us at an appropriate time of any actions taken with respect to these matters.

I would be pleased to speak with you to discuss this report, as would Joy Frechtling and Garry McDaniels, other Panel members who are in this area.

The Panel plans to meet three times per year hereafter on a regular basis. Our agenda from here forward will concentrate on monitoring the results of the review, discussion of forthcoming evaluation activities, and providing input to policy regarding the future of the program.

If you have suggestions about how the Panel may be of further assistance to you, please let me know.

Sincerely,

Christopher T. Cross
Chairman
Laboratory Review Panel

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REPORT OF THE LABORATORY REVIEW PANEL
ON THE 1987 EXTERNAL REVIEW OF LABORATORIES

I. Observations About the Review Process -

In the summer of 1987, OERI conducted an external peer review of the nine regional educational labs. The purpose of the review was to evaluate lab performance during the first 18-20 months of their contracts and also to evaluate their plans for the remaining three years of the contracts.

A team of external reviewers, accompanied by the cognizant OERI institutional liaison (IL), visited each lab for two and one-half days. The teams had been trained in Washington for two days prior to the on-site visits. The teams read the labs' 3-5 year plans and other documents necessary for their work. Standardized evaluation criteria had been developed for review of both lab performance and plans.

While on-site, the teams met with lab board members, management and staff. The teams also contacted selected lab clients and constituents by telephone to determine their perceptions of the labs' performance. The review was conducted within relatively short timelines and with relatively limited resources.

The panel has compiled information about the review from several sources: (a) reports from review teams and OERI institutional liaisons (IL's); (b) meetings with the review team leaders, IL's and lab executive directors; (c) written comments from the executive directors concerning their reviews; (d) visits to a lab by most panel members while a site visit was in progress; and (e) review of lab 3-5 year plans and needs assessments. In addition, the panel chair briefly observed the review teams' training and spoke to the reviewers.

Before proceeding with detailed comments on the review, the panel has some preliminary observations to make about its overall nature and findings. The OERI design generated much factual information about specific aspects of lab performance and plans. Reviewers absorbed a great deal of written and oral information about the labs and their reports are very factual.

The review generated relatively little information about external considerations in the labs' environments. For example, while information is available about constituents' and clients' perceptions of the labs, there is not documented evidence about labs' effects in the regions. Nor did the review address such a question as: "Is this the optimal arrangement of service improvement organizations in the regions?" OERI staff did not see the review as capable of addressing such broader issues. It plans to address such issues in other parts of its lab evaluation plan. The panel concurs with the OERI position in this regard.

Detailed comments on the review process follow.

The review was exceptionally well organized and implemented. In particular:

- The reviewers were broadly representative of lab constituent groups. They were selected as a result of a wide search process which included requests for nominations from a larger number of professional organizations and other sources. The reviewers therefore brought a fresh view to the evaluation of labs. The panel regards this outreach positively.

- OERI spent considerable time and effort in preparing and training the reviewers. These preparations apparently provided teams with a common understanding of the purposes and criteria for the review. Room for appropriate discretion was nonetheless left for review teams regarding the details of individual reviews. Reviewers were motivated and industrious while on-site.

- The reviewers were sensitive to the issues faced in the labs. Their backgrounds provided them with relevant perspectives with which to do their job.

- Communication from OERI to the labs about the review was good. Information about procedures, criteria and schedules was communicated to the labs in advance. This apparently facilitated understanding and acceptance of the review by the labs.

- The labs were very open to the review process. They responded to questions and provided information freely and, in general, treated the review as a learning opportunity.

- The OERI institutional liaisons (IL's) played a key role in the review. They provided historical and Departmental perspectives about the labs which would otherwise not have been available to the panel. They also provided an additional source of information on numerous key issues. This information helped the panel "triangulate" data sources and perspectives in its work.

With hindsight, some things might be done differently. We recommend the following changes in any future reviews:

- Reviewers be given examplars of critical characteristics of "good labs" against which to make comparisons.

- Each team should review more than one lab. The teams in this review did not have such cross-cutting assignments or membership. This prevented reviewers from having more than one basis for making judgments about lab performance and plans. In general, the panel believes there is a tendency for reviews of this type to produce positive results. Institutions being reviewed find it helpful to have a person to talk with, explain one's programs, etc. This does not mean the results from this review are to be disbelieved, but the tendency for positive findings to result from such a process should be kept in mind.

- The panel received relatively little information about the quality or impact of lab products. The panel recommends further information about this topic be developed in the future. If not done through such a review, it should be done through other means.

- Consideration should be given to paying reviewers. In this case, the teams did a tremendous amount of work, even going beyond the number of days they nominally agreed to serve. However, some of them had reservations about non-payment and it is unlikely that many of them would volunteer to perform the same service on an unpaid basis again. This would impair OERI's ability to obtain consistency in review teams over time. (Further, non-payment would have been a severe barrier in this case to any attempt by OERI to have teams review more than one lab.)

Taking into account all the observations and caveats above, the panel considers this review exemplary and credible in light of the time and resources available.

II. Observations About the 3-5 Year Plans

The panel wishes to frame its observations about lab plans drawn from this review on a program-wide basis. It believes that such a perspective can best complement the laboratory-specific orientation of the external review teams.

The panel does not believe it has sufficient information to qualify review team's findings about individual laboratories' performance. It believes more information about lab impact from the field is desirable. The panel will say, however, that it has no evidence of gross discrepancies between labs' stated commitments and performance to date.

This section will therefore comment on program-wide issues and considerations which have been raised through the panel's discussions of and participation in the review. The panel believes these are generally unresolved matters and warrant the Assistant Secretary's attention.

The panel thinks regards the present level of effort being expended by OERI and the developing nature of its relationships with the labs postively. The panel is not under any illusions that the relationships are trouble-free. But it believes (particularly its members who are knowledgeable about prior administrative arrangements within NIE/OERI) that the assignment of individual OERI staff for major parts of their time as institutional liaisons, together with focused OERI management attention to the program, is praiseworthy.

Incorporation in the program of the indirect services strategy (working with and through intermediaries) is a significant development in the labs' history. The strategy has affected the kind of work the labs conduct. It also has implications for the appropriate way to evaluate labs' work. The panel does not believe the full implications of this

strategy are understood as yet. More detailed comments on this topic are found below.

Unresolved Issues and Considerations

The 3-5 year plans developed by the labs leave questions for the panel about the overall clarity and vision of the labs' missions- On average, the lab 3-5 year plans and accompanying needs assessments were about 400 pages per institution. This often made it difficult for the panel to get a clear picture of what a lab is doing. Stylistically, executive summaries of the plans might help. Alternatively, the entire plans could simply be written more succinctly.

In particular, the panel frequently found it hard to get a clear idea of what overall sense of mission drove the lab plans. For example, whether a lab sought to better enable its constituencies to handle change on their own, to "gap fill" with needed services, or to act as a disseminator of information within its region (or some combination of these) was not always clear. Ironically, the extensive amount of verbiage in the plans did not help with this problem.

The panel believes one by-product of such lack of clarity is that it is difficult to set reasonable expectations for lab performance. As a corollary observation, the panel believes the labs' self assessments may be relatively stronger in assessing specific activity-level performance and weaker in assessing program-wide or institutional performance, especially impact.

There is an additional observation by the review teams which the panel believes may be related to its perception of lack of clarity and vision in the labs' missions and their role in the school improvement process. That observation was sometimes ambiguous internal guidelines in use by labs for determining when to offer or refuse services to constituents when requested, and when to stop services once started. Lack of a larger vision of a laboratory's mission may in part lead to uncertainty in this area of programmatic decision-making.

The way in which labs set priorities is not always clear- The panel notes that extensive needs assessments have been done to help guide the lab 3-5 year plans. The level of effort expended and amounts of data obtained in this area are high. But the panel frequently did not see the relationships between needs assessment data and the choice of programs or strategies made by the labs.

In part, the difficulty in establishing such relationships lay with the complexity of the labs documentation, discussed above. In part, the difficulty lay with the complicated nature of the needs assessment data themselves. The data would in many cases support numerous strategies and programs, more in fact, than the lab could ever hope to respond to. In such cases, the reasons underlying the actual choices made about whom to serve were not always clear.

Stated differently, the panel believes there may be patterns of service allocation to different populations and areas of their regions made by the labs which can not be predicted by the needs assessment data and which may not reflect any other stated premises. The panel recommends more succinct information be presented in the future regarding reasons for adoption of lab strategies and allocation of services.

In a similar vein, some plans contain commendable statements of regional context considerations, in part, we understand, in response to OERI requests. But it is not always clear that the actual choice of programs undertaken by a lab has any direct relationship to the context considerations described. One lab, for example, noted the severe economic considerations in its region, but its programs did not deal directly with finance issues, or how schools in its region might deal with budgetary crises. Greater synergy between contextual considerations outlined in the plans and the plans themselves is desirable.

The implications of the indirect service ("with and through") strategies need further examination- The panel vigorously sought information about how indirect service strategies are working in the labs. These strategies are clearly a major aspect of the labs' programming. The panel believes the labs have established networks where they did not exist before as a result of the strategies. It also believes the labs serve clients through existing networks as well. But the impact of indirect service strategies is felt not only with respect to work performed specifically under Task Two of the contracts (where the provision is contained), but also with regard to how a lab perceives of itself as a institution. In the latter regard, some labs have experienced a profound shift of identity and purpose from being a developer and provider of R&D to that of a linking agency, working primarily with and through other educational service agencies.

The following specific aspects of the indirect service strategies are highlighted for consideration.

- There needs to be a better understanding of the range of partners with whom labs might work and which choices are most efficacious.

- Indirect service strategies have different implications in different type regions (e.g., for the Far West Lab's, where there are many intermediaries and the Appalachia Lab's, where there are relatively few).

- The lab RFP states acceptable conditions under which labs may work directly at the local level. In general, these guidelines appear to have been followed. In most cases, for example, labs do not appear to define building level personnel as a primary type of client. There are individual cases, however, where a lab is working directly at the local level in which it is not clear that it has a mandate to do so. Some clarification of these guidelines as they relate to the 3-5 year plans may be desirable.

- The strategies may subject labs to uncontrollable influences. For example, the Governor of California recently cancelled a program of

technical assistance centers with which the Far West Laboratory was working as part of its indirect services. This development has required reprogramming by the lab.

- The 1985 recompetition resulted in a transition of labs from institutions which conducted some significant R&D on their own, to ones providing assistance services, primarily in partnerships with others. While the change has clear benefits, one cost is the loss of practitioner-oriented R&D that labs used to conduct. In part, this transition makes the choice of the R&D that labs incorporate in their services more critical. Based on knowledge presently available to it, the panel is not sure that there is a sufficient locus of practitioner-oriented research emanating from other sources which the labs may draw upon.

- As indicated earlier, the panel believes more information about lab impact is desirable. But while the ultimate goal of labs is school and classroom improvement, it isn't clear that looking for such outcomes is the appropriate criterion for a lab using indirect service strategies, except in given situations where there is a discernible linkage between services delivered by the lab and the ultimate school beneficiaries. Such situations are probably the exception rather than the rule. Further attention to this issue is warranted.

Are the labs to be pro-active or reactive within their regions? The panel perceives an issue which appears to be unresolved regarding the labs' role in their regions: the degree to which they are to be pro-active in identifying areas for involvement and taking leadership in those areas, and the degree to which they should be "constituent-driven".

This issue reflects facets of the other issues which have preceded it in this section of the report, i.e., whether the labs have an overall vision of their mission, whether their needs assessments are adequate and their programs related to them, and the implications of the indirect service strategies for the institutions. But new considerations are raised as well.

On the one hand, when a lab has a clear sense of constituent needs and follows them, it will presumably play a useful role in its region. But its programs may be changing and unrecognizable from one year to the next. On the other hand, if a lab stakes out leadership in an area, it risks both political backlash and changing priorities which may render its capabilities and agenda obsolete.

In this regard, the panel notes that some labs have identified areas in which they are particularly strong. That is good; however, a team in one case has reported that the lab had a tendency to diagnose or interpret client problems in terms of a school improvement area in which it had particular expertise and then frame its services in that area.

As indicated, the pro-active/reactive issue is but one aspect of others raised here, perhaps most strongly, that of what is the larger vision labs have of their mission. The panel believes the labs must strike a

balance between being pro-active and reactive. It is not sure such a balance is understood or has been achieved among the labs.

To what degree should regional labs also have some national identity? The panel has inquired about the extent to which labs perceive themselves as being oriented entirely to their regions, or whether they have, or should have, some national identity or outlook as well.

The panel's perception is that the labs are very strongly oriented to their regions. This is a strength. On the other hand, there are some legitimate roles outside the region which labs might become involved with.

Appropriate national visibility and orientation can be achieved through national recruitment and staffing of labs' key positions. Participation in appropriate national professional activities is also appropriate. Laboratories do these things. One important national role might be to exert leadership in one or more areas of school improvement. This might be done through original collaborative arrangements with parties outside, as well as within, the labs' regions. Collaboration will be discussed below.

One aspect of the labs' role which the panel finds troubling is an apparent lack of concerted effort by either OERI or the institutions to develop a general plan for fostering collaboration with other R&D resources funded by the Department of Education. The panel has identified numerous assistance activities funded by the Department, with whom the labs might collaborate. These are shown on Table 1 (following page).

The panel believes more collaboration can be achieved between labs and other Departmentally-funded resources and strongly urges that appropriate action be taken to bring about such collaboration.

Collaboration among labs - The panel questions whether the intended degree and benefits of collaboration among the labs are being achieved. The 1985 RFP stipulated that labs should "work in collaboration with centers and with other labs on regional and national educational problems". Laboratories are to allocate ten percent of their budgets to collaboration under Task Five to participate in activities that "address more than one region or are nationwide in scope". Specific Task Five activities may include:

a) exchange of information on R&D needs and practices through meetings, newsletter or electronic networks;

b) development of resources for improvement, e.g., syntheses, training modules, workshop designs;

c) engagement in collaborative improvement efforts across regions;

d) assisting OERI in understanding needs of educational practitioners in regions and nationwide;

Table 1

OTHER ASSISTANCE RESOURCES FUNDED
BY THE U.S. DEPARTMENT OF EDUCATION
WITH WHOM REGIONAL LABORATORIES MIGHT COLLABORATE

Office/Activity	Funding ($ in millions)
Educational Research and Improvement (OERI)	
Educational Research Centers (18)	17.8
ERIC Clearinghouses (16)	4.8
National Diffusion Network (NDN) State Facilitators (53)	4.8
Leadership in Educational Administration Development (LEAD) Program Centers (51)	7.1
Elementary and Secondary Education (OESE)	
Chapter I Technical Assistance Centers (4)	3.6
Indian Education- Regional Resource Centers (5)	2.2
Drug Free Schools Centers (5)	8.8
Special Education and Rehabilitative Services (OSERS)	
Regional Resource Centers (5)	2.2
Bilingual Education and Minority Language Affairs (OBEMLA)	
Multi-Functional Resource Centers (16)	10.0
Evaluation Assistance Centers (2)	0.7
Bilingual Education Clearinghouse	1.0

Table 1 (continued)

OTHER ASSISTANCE RESOURCES FUNDED
BY THE U.S. DEPARTMENT OF EDUCATION
WITH WHOM REGIONAL LABORATORIES MIGHT COLLABORATE

Civil Rights (OCR)	
Desegregation Assistance Centers (10)	8.2
Vocational and Adult Education (OVAE)	
National Center for Research on Vocational Education (NCRVE)	6.0
Community Coordination Centers (6)	0.8
Total Funding	78.0

The regional offices of the Department (Secretary's Regional Representatives) are also resources with whom the labs might work.

e) cooperating in work in national research, development, dissemination and improvement problems jointly identified by the lab and OERI.

A central coordinating group was described in the RFP that would be convened by OERI in consultation with the labs. It would determine guidelines, procedures and priorities and would involve assignments to cross-laboratory task forces for planning and implementation. An annual meeting of lab governing board chairs, executive directors and OERI was also envisioned.

Nine "theme areas" emerged from lab plans in FY '86. Three of these were administrative in nature, including electronic networking and evaluation. The electronic networking has occurred as envisioned and some effective collaboration on substantive themes, e.g., higher order thinking skills, the urban education network, state policy and rural education. Collaboration in other areas, however, has lagged and except for two of the above areas, content-based products have not been developed as yet.

OERI staff have reported several difficulties with Task Five implementation to date. One concerns laboratory leadership for specific themes. There is a lack of balance and consistency among labs in taking leadership for themes. Some labs have taken the lead in more than one area and at least one has not taken the lead in any. Lead labs cannot force other labs to cooperate and lead lab leadership is very fragile; it sometimes does not emerge and is usually highly person-dependent.

It has been difficult to identify the overall dimensions of Task Five because the work in the labs often overlaps that in other tasks.

OERI staff have made the following recommendations regarding the implementation of Task Five:

1) The notion of the "lead lab" should be re-evaluated in cooperation with the labs. The number of "lead" areas per lab may need to be limited.

2) A more equitable distribution of work among labs be determined in collaboration with them.

3) OERI should take a more active and collaborative role in implementing Task Five activities, ideally by having each member of the OERI Laboratory team serve as a liason/facilitator for a theme area.

4) The institutional liaisons would have responsibility for generating collaborative efforts across OERI and the Department.

5) Products developed under Task Five should be disseminated nationally through a variety of educational agencies.

6) Meetings among OERI staff and lab staff should continue as necessary to reach these objectives.

The panel endorses the general intent of these recommendations. It suggests that, in addition, further thought be given to the incentives, or lack thereof, for labs to participate in Task Five as presently implemented. The panel also believes that the responsibility for success of Task Five is shared by OERI and the labs. While the labs need to live up to the spirit of the contract requirements, OERI will need to take strong central leadership if the potential in this area is to be realized.

Public and private education- With one exception, the team reports did not highlight the degree of services being provided to private education. The panel does not have enough information in this area of the program to comment knowledgeably.

The panel believes that service to private schools is of greater significance in some regions than others and that the interests of individual labs in it should be guided by their regional characteristics and governing boards. (Private school officials are among various types of educators the 1985 RFP recommended for consideration in board membership.) The panel also believes the labs should be sensitive to the needs of intermediary organizations (i.e., through indirect service strategies) serving private education. Among these these organizations are those serving specific populations, such as the Association of Tribal-Controlled Schools.

Regulation of the Labs- The panel is interested in the efficiency and productivity of the organizational and contractual relationships between the labs and OERI. Among the topics in which it is specifically interested are the following:

- The degree of specificity in the lab contracts. The panel believes that the specificity of contracts emphasizes process at the expense of (1) a concept of overall lab role (2) substantive emphasis (3) vision of successful service and (4) indicators of success.

- The panel believes the degree of reporting required by OERI may be excessive. But given that, it is still possible, as suggested in the discussion of clarity and vision of the labs' mission, the labs write too much in response to the OERI requirements. A greater balance in reporting requirements between the need for detailed accountability and programmatic clarity needs to be sought.

- The panel believes there is an inherent conflict between the greater degree of control and specificity appropriately demanded in contracts and the autonomy lodged in the concept of regional labs. The panel is aware of the previous discussions about this subject. It believes that the potential for use of cooperative agreements in the future in the program is worthy of investigation. But for the moment, the panel would have to conclude that the ideal procurement mechanism for use in the program does not exist.

Relationship Between OERI and non-OERI activities- The panel is aware that labs differ greatly in the extent to which they have non-OERI funding. The implications of this deserve attention. These include:

- Laboratories differ greatly in their entrepreneurial behavior as regards non-OERI funding. Some of the more mature ones have sizable proportions and amounts of such funding. On the one hand, this reflects organizational health and vitality. The panel is concerned, however, that such labs may be shifting valued staff and other resources as necessary to compete for and conduct such services at the expense of the OERI-funded work.

- The panel is concerned that OERI may, unintentionally, be subsidizing labs to compete with other organizations for other OERI and non-OERI work. Labs may be afforded an advantage in competitions because of their relatively better-developed institutional capacity and accumulated abililty to tap other resources. The panel recognizes that the OERI contracts do not have that purpose and it is not OERI's intent to afford labs unfair advantage when competing for funds. Some means to ensure that this is not the case, however, or other resolution of this matter, may nonetheless be appropriate.

- The panel is aware that newer labs without other sources of funding or cash reserves face unique needs regarding their cash flow. The panel believes that OERI should be responsive to such needs.

Organizational maturity- An issue somewhat related to that of OERI and non-OERI activities is that of organizational maturity. The labs vary widely on this dimension. The older ones have been in existence for some twenty years, the newer ones for two to three years. The following considerations, therefore, are worthy of attention regarding the labs' varying organizational maturity.

- The panel believes the older labs might productively assist the younger ones on a selective basis in either governance, organization and managment, or programmatic areas. OERI staff have cited examples of how such intra-lab assistance has occurred. This is praiseworthy. The panel believes, however, that such assistance might be extended. Older labs might particularly take the lead in collaboration under Task Five.

- With all labs, but perhaps the older ones in particular, there is a need to obtain staff to deal with new and unfolding educational areas (e.g., higher order thinking skills), or retrain existing staff to deal with them. The panel recognizes the need for stability in personnel administration of a lab and for some continuity in staffing. On the other hand, stability and continuity will not always meet challenges in new areas. The panel has heard a concern that labs may be entering into fields where they do not have adequate staff expertise, nor plans to acquire that expertise. The panel recommends that the labs' capacity to adapt staffing to meet changes required in their mission and clients' needs be examined. Specific factors to be examined include policies for providing new staff, as required, and providing staff development for existing staff. Staff development can and should be a vital part of each laboratory's overall personnel program.

Lab-specific matters- The panel will depart here from its focus on program-wide matters to comment on a few matters related to individual labs. The labs referred to are the newer ones. These comments are made in part because they relate to the specific labs and in part because they exemplify the sorts of issues which may face new institutions generally. They are thus relevant to the 1990 recompetition.

The reports on the North Central Regional Educational Laboratory reflect many strengths in the institution. They also reflect struggles the lab has gone through to achieve stability. These include marginally adequate faciltities (which are now being substantially renovated), turnover in management and cash flow problems related to Departmental payment procedures. (The lab did, however, have financial reserves available to it from a predecessor organization which prevented dire consequences from occurring due to the cash flow problems).

The present executive director of the lab asserts that the turnover in management has not adversely affected it. Whatever the case in that regard, the panel believes that for a newer institution with such a history, OERI should continue to monitor the situation carefully. Two rather different monitoring postures are appropriate. One is to encourage and support appropropriate growth of the lab. The other, however, is to counsel moderation in aspirations, if necessary, so that the lab's programmatic reach does not exceed its organizational and managerial grasp.

The Southeast Educational Improvement Laboratory has had cash flow problems. These were largely due to its new status as a lab without any existing cash reserves to fall back upon. Difficulties in attaining a satisfactory payment mechanism experienced with the Department's contracts and finance offices have exacerbated the laboratory's cash flow problems during its initial period. The panel is pleased to note that these problems appear near resolution. The panel encourages close attention by OERI management to any similar situations in the future.

The Regional Laboratory for the Northeast and Islands grew out of a pre-existing organization and is implementing a novel structure for providing service. State assistance centers have been established through existing organizations on a decentralized basis as a means to provide a substantial portion of the laboratory's services. The panel has heard arguments for and against the efficacy of this strategy. It has two observations to make in this regard.

The first observation is that the lab is implementing a strategy which was clearly included in its winning proposal in 1985. Any uncertainty, or even unease, with the novel characteristics of this strategy ought not, therefore to be turned into premature judgments about its success. The second observation is that, notwithstanding its contractual validity, enough experience has been gained with the strategy to warrant a special activity to explore its progress and prospects. The panel therefore recommends that the lab be requested to jointly convene such an activity with OERI during the first six months of the new program year. The activity would examine the operation of the strategy to date,

reactions to it from the field and possible future directions for it. Representatives of various lab constituents and clients, plus others with the potential to contribute to the discussion, would be invited to participate. The panel would follow the course of this activity closely.

III. Recommendations Regarding the Future of the Program

The panel has a responsibility to make recommendations covering the longer term of the lab program, as well as immediate considerations arising from the external review. A focal point for these longer term considerations is policies relevant to the recompetition of the labs scheduled for 1990 and administration of the program thereafter.

The panel makes the following recommendations at this time. They are stimulated by discussion of this review. They are not, however, necessarily derived from the review in every aspect. The panel members bring broad and diverse perspectives to the task of school improvement and labs. The recommendations below in part reflect those perspectives.

Make the programmatic realities and the contractual requirements compatible-

The panel recognizes the need for OERI, or any funding agency, to be accountable for administration of its contracts. On the other hand, labs are engaged in work which, by definition, is client-driven to a considerable degree and thus changing in nature. The present contract requirements appear to impose an unrealistic degree of precision upon labs in stating in advance what they plan to do, at least for "outyears", or those beyond the current and next ones.

The panel has addressed this issue earlier in this report. It recommends here that further study of desirable procurement procedures for new awards to labs be explored as an integral aspect of planning for the recompetition itself.

Strengthen Departmental program administration-

The panel has not sought to examine the operations of the Department's Grants and Contracts Service (GCS) in support of the labs. It has no reason to believe that Departmental procurement regulations are not being followed in the lab contracts. Nonetheless, it has heard reports of slowness in resolving cash flow problems and slow approval of other lab requests.

Just as the panel has counseled attention by labs to basic matters of management and organization, the panel counsels OERI to take whatever action is possible to strengthen the contract administration of this program. In addition to seeking additional staffing in the relevant GCS unit, OERI might take one additional step. It is to have institutional liaisons (IL's) gain maximum advantage of the powers which are lodged in their designation as the "Contracting Officer's Technical Representative" (COTR). The panel is aware that some Government agencies delegate considerably more discretion to their program officers

having that designation than does GCS. The panel strongly believes that appropriate training of IL's in their COTR role is desirable.

The panel also notes that IL's are overburdened with administrative details. Such details are inappropriate for their role as senior staff and also hinder their addressing larger programmatic issues. Designation of junior staff to apprentice two or three IL's is desirable. Apprentices could both assist IL's with their administrative work and prepare to assume IL responsibilties when staff vacancies occur. Such staffing would also ensure that there would be adequate back-up knowledge about a lab and its region in the absence of the IL.

Further examine the fiscal requirements of establishing and operating a lab-

The panel has been struck by the vastly different degree of overall financial resources available to individual labs, particularly some comparisons between older ones and newer ones. Attention should be given to ways that labs' cash flow needs may be met. On the one hand, labs should not be required to endure financial hardship. On the other hand, they should not over-aggresively seek other sources of funds, possibly at the expense of OERI-funded activities or the labs' own sense of self-identity. The panel strongly recommends that consideration be given to including fees in any future contracts. Such fees are a reasonable way to develop reserves to meet unexpected needs and are in fact consistent with the contractual relationship between the department and the labs.

Examine the "entrepreneurial" behavior of the labs-

The panel believes the behavior of labs with large amounts of non-OERI funding is in fact a significant determinant of their overall institutional behavior. The panel recognizes that OERI is only accountable for conduct of work it funds, but it is not possible in every instance to understand performance of OERI-funded work without understanding the broader environment.

The panel recommends that this "entrepreneurial" aspect of labs, specifically how it affects OERI-funded work, be studied prior to the recompetition. Such a study would address patterns of seeking non-OERI-funded work by labs, the amounts and types conducted and the distribution of available resources within a lab between OERI-funded and non-OERI-funded work.

Clarify the paperwork in the program-

The combined requirements for paperwork imposed on the labs by the Department's contracts office and OERI are very large. Still, some labs seem to have gone beyond the bounds of what even OERI required in their submission of documents for this review.

For the recompetition, documentation must be submitted in sufficient detail to allow a valid and reliable review process to be conducted. For program administration, adequate documentation also needs to be

submitted. But as indicated earlier, the panel believes the amount of documentation submitted in connection with this review may have actually obscured some larger vision of what the labs are doing. Clearer, more succinct documentation is possible in this program and should be encouraged.

Study the implications of the indirect services ("with and through") strategy-

The panel is impressed with the degree to which the labs have sought to implement this strategy. It has had major effects on the character and programs of many of the institutions.

Still, there are many unanswered questions about the best way to implement this strategy and its implications. Among these questions are the most appropriate groups with whom to work "with and through", the effects of not serving some groups, the degree, if any, to which this strategy should be imbued in all the labs' work and appropriate ways to evaluate labs' performance working in this mode.

A forthcoming field study appears to offer one opportunity to examine at least some of these issues. The strategy and its implications should be studied thoroughly prior to commencing the recompetition.

Re-examine the assumptions underlying needs assessments

The panel is not convinced the extensive needs assessments are adequately serving their intended purpose of guiding programmatic planning within the regions. On the one hand, there is too much data. On the other hand, the data do not always adequately track planning decisions and the allocation of services actually made. The panel recommends that the possibility of shorter needs assessments be explored, also that greater visibility be given to labs' unpublished bases for making decisions.

More coordination is needed-

The panel commends OERI and the labs for the efforts taken to coordinate activities among labs. But much more can and should be done. Within OERI, better coordination of the IL's activities can be accomplished. Better coordination of the lab program with other OERI-funded activities is particularly desirable.

The labs can improve coordination among themselves and with other parties. As indicated earlier in this report, the panel does not believe that the labs are benefiting from such coordination of their activities to the extent they and their clients might.

Further study of this issue is desirable. It should include analysis of the successes and failures of the present coordination provision in the contracts (Task Five), but not be bound by the present contractual provisions. OERI should specifically study the potential for labs to further coordinate their work with the other Federally-funded assistance institutions listed in Table 1.

Study the future of services to the Pacific Basin Region-

The panel is aware that the Northwest Regional Educational Laboratory is providing services to the Pacific Basin Region. This region covers a vast area, ranging from Hawaii in the east to Pacific territories in the west. The area is strategically important, both educationally and otherwise.

The area was designated a separate region in the 1985 recompetition of the laboratories. The Northwest lab was assigned to help the region develop full-service capacity to operate its own lab by the close of this contract period, as well as to provide services to it.

The panel is not in a position to comment on the level or adequacy of services provided to the region by the Northwest lab, or the degree of progress made in preparing the region to have its own lab. Nonetheless, it strongly recommends that OERI study the future direction of lab services to this region prior to commencing the 1990 recompetition.

More examination of the programs in the field is needed-

The panel recommends that in the future, evaluations of whatever sort (monitors' visits, external reviews, studies, etc.), should seek to get more information from the people in the field with whom the labs work and serve. The panel recognizes the fiscal constraints on obtaining such information, i.e. funds for staff travel, reviews and contracted studies. It nonetheless encourages OERI to get as much "grass-roots" evidence as possible to ensure that a clear and concise picture of how well the labs are working is obtained.

REPORT OF THE LABORATORY REVIEW PANEL ON THE PENDING LABORATORY RECOMPETITION

April 28, 1989

Contents

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April 28, 1989

Dr. Bruno Manno
Acting Assistant Secretary for
Educational Research and Improvement
U.S. Department of Education
555 New Jersey Avenue, N.W., Suite 600
Washington, D.C. 20208-5500

Dear Bruno:

On behalf of the Laboratory Review Panel, I am pleased to submit to you our report on the pending recompetition of the regional laboratories.

Over the course of the past two years, the Panel has reviewed many aspects of the laboratory program. In this document we have attempted to bring together our reactions, observations and recommendations regarding the forthcoming recompetition.

On behalf of the Panel, I would like to express thanks to the OERI staff, who assisted us so ably in our efforts. Although our views were represented in the final report, we were provided with every level of support and inspiration by a most dedicated staff, including David Mack, Barbara Lieb-Brilhart, Joyce Stern and the institutional monitors.

We express special thanks to Milt Goldberg for his support in creating the panel and his continuing interest in our work. We especially thank Charles Stalford for his dedication and energy in seeing that we kept on track, got it right and did what we were tasked to do. Without question, Charles was indispensable.

We hope that this report will assist you, Nelson Smith, and the OERI staff on your plan for the 1990 recompetition. We would be pleased to meet with you, to discuss our report, at your convenience.

Sincerely,

Christopher T. Cross
Vice Chairman

Macro Systems, Inc.

cc: Nelson Smith
David Mack

INFORMATION ABOUT THE PANEL

The Laboratory Review Panel (LRP) is an external advisory group established in 1987 by the Assistant Secretary for the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education.

The panel's first task was to comment on an external review of individual laboratories, sponsored by OERI, in the summer of 1987. The panel submitted a report to the Assistant Secretary about the review on October 6, 1987 ("Report of the Laboratory Review Panel on the 1987 Review of Laboratories"). This report discussed several program-wide issues raised by the individual laboratories' external reviews.

The panel has continued to meet since then, and has been asked to provide advice to OERI regarding policies that should be incorporated in the laboratory program through the recompetition of existing contracts, which expire in November 1990. Policies incorporated in and through the recompetition will guide the program through the period 1990-95.

The members of the panel are as follows:

Mr. Christopher Cross (Chair), Vice Chairman and Director, Macro Systems, Inc., Silver Spring, Maryland

Dr. Joy Frechling, Acting Director, Department of Educational Accountability, Montgomery County Public Schools, Rockville, Maryland

Dr. Ernest House, Professor, Laboratory for Policy Studies, University of Colorado, Boulder

Dr. Alexander Law, Elk Grove, California (retired from position as Director, Program Evaluation and Research Division, California State Department of Education)

Dr. Garry McDaniels, President, Softwriters Development Corporation, Linthicum, Maryland

Dr. Carl Sewell, President, Educative Systems Development Corporation, Plainfield, New Jersey

The panel is solely responsible for the content of this report. No official endorsement by OERI or the Department of Education should be inferred. Also, views expressed herein are those of the individual panel members and do not necessarily reflect those of the organizations with which they are affiliated.

1. INTRODUCTION

The panel believes that periodic recompetition in the lab program is valuable. In accordance with "free market" philosophy, the panel is convinced that competition provides an opportunity for others to propose new and better ways to operate laboratories. The prospect of recompetition also serves to stimulate delivery of higher quality services and products by existing holders of lab awards.

The panel has been asked to make recommendations to the Assistant Secretary of OERI regarding policy for the pending laboratory recompetition. With this end in mind, this report addresses what the panel believes to be the most critical issues OERI must address in the recompetition. For each set of issues, it offers recommendations regarding desirable OERI policy. The panel's recommendations are stated at the beginning of each section of the report and for the reader's convenience, are also restated separately in Appendix A.

The panel met on February 23-24, 1989 to formulate its recommendations. In formulating these recommendations, the panel has drawn upon a wide variety of inputs. These were policy papers commissioned by OERI to help guide recompetition planning (listed in Appendix B), staff papers, the panel's prior experience with the program, and a session with laboratory representatives on February 24.

In its February 24 session with representatives of lab governing boards and executive directors, which was open to the public, the panel engaged in a productive discussion about the current status and operations of the program. Because policy in a pending OERI procurement was involved, Department of Education officials had ruled that the panel could not discuss the recompetition, or the future of the program with the representatives in this session.

In the remainder of its February 23-24 meeting, the panel met with OERI staff and formulated its recommendations for this report. These discussions were closed to the public.

2. ISSUES AND PANEL RECOMMENDATIONS

A. Laboratory Linkages within the R&D System

The panel recommends that OERI commission a high-level and wide-ranging review of the characteristics and productivity of the present R&D system in education.

At a more immediate level, the panel recommends that OERI critically reexamine the relationships within its own network of programs. The panel specifically recommends that:

(a) OERI immediately reexamine the relationships among current research, development, and dissemination activities of its institutional R&D programs (labs, centers, Educational Resources Information Centers (ERIC) and the National Diffusion Network (NDN) before finalizing specifications for the pending recompetition of labs and centers;

(b) OERI require labs to have center representatives on their governing boards and centers to have lab representatives on their advisory boards;

(c) OERI appoint a high level advisory committee of representatives of labs, centers, ERIC and the NDN to help it gain better coordination of and more productivity from the various parts of its R&D network;

(d) Department of Education staff representing non-OERI assistance programs be invited to participate in the work of this advisory committee;

(e) OERI conduct an annual forum for representatives of its major programs to share information about new developments, successes and failures, and any other information that would enhance the productivity of its R&D network.

High Level Review of the Educational R&D System - Most of the panel's recommendations deal with the lab program itself. And most of them are framed to recognize the reality of the context for the lab recompetition. For example, the panel recognizes present budget constraints upon labs and other educational programs.

However, the panel believes that commissioning a thorough reexamination of the educational R&D system itself is the most important thing OERI can do, not only because of the competition, but also because of its investment in other institutional R&D programs.

The present R&D system of labs, centers, and other institutional programs has evolved in numerous and not always logically consistent ways since those programs were established in 1965-66. At that time, with the passage of the Elementary and Secondary Education Act (ESEA), the Federal Government vastly increased its support for education, including the creation of the lab and center network.

Among major changes since 1965-66 that should affect current thinking about the educational R&D system are the following:

- o Federal support for large scale curriculum development (in which some labs were significantly involved) has ended.

- o There has been an increase in the number and variety of R&D-based assistance organizations funded outside the Department of Education or its predecessor (HEW). These include educational service agencies and other State programs; private sector firms; and agencies not necessarily perceived as "educational," but which nonetheless provide significant educational services (such as the National Endowments for the Arts and Humanities).

- o There are now other programs for dissemination and technical assistance funded by the Department of Education. These include ERIC and NDN funded by OERI and targeted assistance programs, such as Technical Assistance Centers for Chapter I programs (compensatory education) and Regional Resource Centers for P.L. 94-142 programs (special education).

- o States have recently assumed a much stronger leadership role in educational reform.

- o Sweeping demographic changes in the nation's student population are affecting the agenda for educational R&D.

Further, some of the assumptions on which the labs were built have proven to be false. For example, one assumption was that labs would function as large national organizations, on the model of the Brookhaven Laboratory. But no similar approach to massive funding of national labs (or a reasonable counterpart in the context of educational R&D) ever materialized in the lab program. And, of course, the educational laboratories evolved into regional organizations rather than national ones.

The panel's own sense that a review is needed was reinforced by Dr. James Guthrie. He recommends a high-level review of the R&D system in his policy paper. As Guthrie states, lacking such a review, alternative recommendations for lab policy in 1990-95 are essentially "interim" ones, even if productive.

Such a review would look at the number, complexity and interrelationships of the various parts of the current system. It would ask whether the parts could be made to fit together more productively. The panel believes the review might also ask whether there are an appropriate number and variety of institutional groups in existence now to conduct, or be supported in conducting, educational R&D.

The National Academy of Sciences - OERI should consider contracting with an organization such as the National Research Council of the National Academy of Sciences (NAS) for such a review. This organization has usefully conducted similar high-level reviews for OERI in the past, most recently one focused on the OERI's National Center for Educational Statistics (NCES).

There are several advantages to having an outside group conduct the review. One is that the impartiality and credibility of the review would be enhanced. Also, many of the finest thinkers about educational R&D in the country would likely be willing to participate. The panel recommends that participants in the review include representatives of labs, centers and the other programs directly involved, plus their constituents, as well as researchers, policy analysts, and representatives of State and local education interests.

Such a review would take some time to commission and conduct. It would not, therefore, interfere with conduct of the present recompetition. But it could shape fundamental program policies in the years ahead. A valuable by-product of the review would be the obtaining of more information from the field about the value of various R&D organizations to their constituents than is presently available.

Labs and Centers: Immediate Considerations - The fundamental assumption that appears to underlie OERI's thinking about centers and labs is that the former conduct research and the latter disseminate research and provide assistance with its use. This notion presupposes a linear R&D process (i.e., that research precedes development and dissemination, etc.) that does not necessarily exist in the field. The linear notion also presupposes a fairly complete separation of research from development and dissemination that does not necessarily exist. Indeed, centers conduct a good deal of dissemination, and labs conduct some applied research. Further, some labs have indicated their desire to place more emphasis on longer term applied research and development, as they have in the past.

OERI assumes that labs and centers will collaborate in complementary (i.e.synergistic) fashion in the performance of their respective functions. In fact, a good deal of un-heralded collaboration is occurring, not only labs and centers, but with ERIC and NDN as well. Nonetheless, the panel has sufficient evidence from its various inquiries since 1987 to believe that more can and should be done to improve the relationships between labs and other programs funded by OERI and hence the productivity of OERI's own network in the R&D system. (The panel recommended that OERI put more effort into fostering collaboration between labs and other departmental programs in its 1987 report.)

The panel's recommendations in this section are intended to strike a balance between actions that can have immediate impact (the review of OERI's own network, etc.) and those which will have a longer-term impact (the high-level review).

B. Future Laboratory Mission

The panel recommends that, consistent with legislative direction, OERI reformulate the mission for the lab program to provide greater clarity and focus in the coming recompetition.

The present mission of the laboratory program is not sufficiently clear.

Part of the difficulty is due to lack of clarity about presumed relationships among labs, centers and other components of the R&D system, as discussed in the previous section.

Part of the problem may be the way in which goals of the program are stated in the present OERI guidelines. The 1985 OERI Request for Proposals stated that labs should "focus on school and classroom improvement." When interpreted broadly, school and classroom improvement can encompass almost all types of educational R&D. Those guidelines do not provide adequate operational direction about what labs should and should not do.

Program Delivery Strategy and the Mission - An additional factor affecting the lack of clarity of the program's mission is that a substantial portion of the labs' resources are directed by OERI guidelines to be delivered via an indirect service strategy.

A prominent part of this strategy is that the labs are to work "with and through" existing organizations to improve schools and classrooms"through R&D-based strategies. Pursuant to the indirect service strategy, labs participate in strengthening others' organizational support systems (e.g., through capacity-building or training of trainers) and work with various intermediaries in a large number of ways, rather than working directly with schools and classrooms.

On the one hand, the degree of client-responsiveness generated by labs' cooperative efforts under the indirect service strategy is good. On the other hand, this strategy leads to a situation where the distinctive mission of the program tends to get blurred. (The strategy is discussed in more detail in Section C below.)

Contextual Factors Affecting the Lab Mission - Any refinement of the labs' mission must obviously take into account statutory requirements for the program. The OERI authorizing legislation requires that regional agendas set by lab governing boards be consistent with OERI's "priority research and development needs." (The first two of these are increasing student achievement and providing equal educational opportunity.)

In addition, the legislation specifies that applicants for labs and centers will conduct a specified range of activities, including research and development, dissemination and technical assistance and that the activities will be consistent with OERI's research and development program. However, none of these statutory requirements appears to the panel to constrain possible refinement of the lab program mission.

One contemporary contextual issue is the extent to which the lab mission should be driven by the needs of chief state school officers or other State officials in the current environment of State-led educational reform.

In a policy paper written for OERI, David Hornbeck, the former chief State school officer in Maryland, suggests labs should be much more responsive to the needs of the chiefs. Conversely, in its discussion of the present status of the program with lab representatives, the panel was told that the present emphasis upon the needs of chief state school officers was about right and that, if anything, labs should be more able to meet to the needs of other constituencies in their regions. While the role of the chiefs is a significant issue, the panel does not believe a mission statement for the entire program needs to force an "either-or position on that issue to be viable.

Characteristics of a Better Mission Statement - No one mission statement will resolve all ambiguities about what the labs should do, but the panel does believe some refinement of the program's mission statement should be undertaken.

In principle, a mission statement should be broad and focus on outcomes rather than processes. In this case, the panel recommends a two-part structure for the lab program mission. The first part would be a brief and general statement of what the labs should do at the program level. The second part would be the presentation of clear and measurable objectives by individual labs for their regions. For example, a lab should be expected to state (a) what educational problems it expects to focus on, (b) what bodies of R&D-based knowledge it expects to use in its work, and (c) the specific benefits it expects to be realized within the 5 year period of its award.

For illustrative purposes, the panel offers two alternative mission statements at the first (general) level in Appendix C.

(The panel realizes that some contextual factors will inevitably change during the course of a 5 year lab award. However, OERI can require applicants in the recompetition to propose objectives that are sufficiently specific to be critically reviewed on a comparative basis, while at the same time acknowledging the need for flexibility in planning that may arise during the course of the 5 year awards.)

C. Strategy for Delivery of Services

The panel recommends that OERI revise its approach to the indirect service strategy in the recompetition. Labs should be allowed more flexibility in their choice of strategies to serve their regions.

In the recompetition, applicants' choice of service delivery strategies should be judged by the promise they have for helping to attain stated regional objectives.

The present OERI policy for delivery of lab services, particularly the indirect service strategy discussed briefly above, is perhaps one of two or three topics that have most occupied the panel since its creation in 1987. (Another is the lab mission, just discussed.)

Labs are primarily oriented to dissemination and assistance strategies under present OERI guidelines. As indicated in the previous section, labs are to work "with and through" existing groups, such as education service agencies and State-level decisionmakers, to improve schools and classrooms under these guidelines.

(Some lab work is not subject to this strategy. In addition, OERI staff believe the labs sometimes misunderstand the indirect service strategy, particularly the extent to which labs may actually work with local school districts and schools. Labs can work directly with individual school districts, schools and classrooms under a number of circumstances. These include cases where there are few assisting organizations with whom a lab can work and where schools and classrooms wish to serve as pilot sites for products or services the labs have developed. In general, however, OERI's guidelines for work towards school and classroom improvement emphasize working with and through others.)

OERI's rationale for implementing the indirect service strategy in 1985 was straightforward. With some 16,000 school districts in the country, the nine labs lacked the resources to work directly with a significant number of them.

As a related matter, the 1985 OERI guidelines re-oriented the labs' work in producing R&D-based products (guidelines for instruction, staff development, summaries of research, etc.) After 1985, labs' product development was focused on short-term projects that assisted their dissemination and assistance strategies, rather than longer-term and more ambitious projects (e.g., development of an entire basic skills program) that some of the labs had engaged in before.

Lab Viewpoints - In the open session at the last panel meeting, lab representatives spoke about both advantages and problems of the indirect service strategy. One representative said that the strategy did not represent much of a change from what his lab had been doing previously. Another's view was that the strategy was helpful in encouraging the labs to expand their involvement with other agencies in the region.

Among the problems cited by lab representatives were that they had to take long periods of time to establish working relationships with organizations that did not lead to any discernible result, and that much of the work under the strategy either diluted the lab's impact or showed unimpressive or fragmented results.

Reflecting on its accumulated perceptions of this topic, the panel believes OERI has gone too far in its present requirements for the indirect service strategy. Even with exceptions, the present guidelines tend to place the strategy in a "first among equals" status with other possible strategies for service delivery.

On the other hand, the strategy does have a place in the array of ways in which labs might

work with regional constituencies. The panel believes the issue is one of balance, rather than either-or. The thrust of the panel's recommendations in this area is therefore to provide the labs with more flexibility.

D. Program Evaluation

The panel recommends that the emphasis in lab self assessment in the next award period be on evaluation to improve program operations (formative evaluation). Such evaluation should address the questions "Was the program implemented as agreed-upon?" and "How well was it implemented?"

If lab self-assessment focuses on evaluation for self-improvement in the future, there will be an unacceptable gap in OERI's capacity to develop summative information about the impact of the program for purposes of accountability and policymaking. The panel therefore recommends that OERI request the Congress to provide sufficient funds in the future to allow OERI to conduct the necessary summative evaluation.

Three basic types of program evaluation questions can be asked: (1) Was the program implemented as agreed-upon? (2) How well was the program implemented? (3) What happened as a result of the program being implemented?

Lab self-assessments have generated a good deal of information in response to the first two questions, but relatively little in response to the third (impact). One lab director directly told the panel that his lab was capable of doing the type of study that would provide information about impact, but preferred to put the money into regional services.

The panel's work has been hampered by OERI's own lack of funds to conduct impact evaluations. OERI has developed a comprehensive plan for evaluation of labs during this contract period, but has had available only a fraction of the funds necessary to carry it out.

Evaluative information which has been made available to the panel, notably through the OERI's 1987 external review of individual labs, has focused largely on process (questions 1 and 2 above). In fact, on that dimension, the labs appear to rate quite highly. But the panel has no conclusive information about the impact, or benefits to the country, from the lab program.

The panel does not believe it is realistic to expect the labs to provide conclusive evidence about impact. Their concerns tend towards information to improve operations. Further, there is an inherent issue of credibility of findings about impact from a lab (or any other organization) derived from its self evaluation. The panel's recommendations therefore suggest an appropriate division of labor between the labs and OERI for evaluation. Unfortunately, the present budgetary climate is not encouraging insofar as OERI's ability to do impact studies in the foreseeable future is concerned. The panel's second recommendation is intended to address this situation.

E. Equitable Distribution of Funds

The panel recommends that OERI take feasible steps to reduce the glaring inequities in the existing per-pupil funding capacity of labs.

- **OERI should request the Congress to incorporate present year-to-year appropriations for the lab rural initiative into continuing funding of the program's institutional base. OERI should then make those funds available for all program activities and re-allocate them among the labs in a way to reduce the regional funding inequities.**

- **OERI should consider the possibility that any re-allocation of funds brought about by the competition for a lab in the Pacific Basin Region in 1990 may provide a further, although smaller, way to reduce regional funding inequities.**

The panel has reviewed alternative OERI approaches to the allocation of funds to lab regions in the 1985 recompetition. (OERI examined this matter systematically in the 1985 recompetition. For the first time, non-overlapping boundaries were established for lab regions in which all areas of the country, including Hawaii and the Pacific territories, were served.)

Establishing an equitable basis for regional distribution of lab funds is a complex process. Among the many factors to consider are the number of States, the size of the elementary and secondary student population, and the geography and population density of the region. In addition, six of the present nine labs have been in existence for more than two decades. As a result, there are political factors present, based on historical precedents and expectations regarding the level of funding for these labs. These expectations are held by legislators and constituents, as well as the labs themselves.

OERI's approach to equitable funding in 1985 involved three specific factors: (a) a more less fixed amount OERI judged necessary for any lab to support its institutional functions of organization, management and governance; (b) the number of States in the region; and (c) the population of elementary and secondary school students in public and private schools in the region.

Per-Student Spending Capacity - OERI sought a workable accommodation to these factors in 1985. The panel does not criticize the 1985 funding allocations. But one aspect of the resulting allocations needs attention in the pending recompetition.

The 1985 funding allocations derived from the three factors above leave considerable variance in the capacity for per-student expenditures that the labs are capable of making within their regions. In fact, the ratio of the highest per-student expenditure that a lab can make to the lowest is roughly 10:1. The panel recognizes that the factors affecting costs

are so complex that full equity is probably not possible. However, there is no justification for continuing a disparity of the present magnitude.

The per-student expenditure calculation is an analytical tool. It does not mean that each lab actually spends that amount per-student. Nor is it the only way to view lab allocations. However, the per-student figure is a good indicator of the vastly different challenges that individual labs face when serving their regions. A lab with a high per-student allocation can plan and deliver a more aggressive strategy for penetrating its region with services and products than one with a low per-student allocation. The latter type lab will, taking into account the relatively small percent its funds represent of total regional expenditures for education, be forced into a less central role in its region.

"Less central" does not necessarily mean a lab will be inconsequential. (The median funding per lab at present, including rural programs, is approximately $2 million). Nor does it mean that the lab cannot be useful. It does mean that in most such cases the lab will be a smaller fish in a bigger pond. It will likely be obliged to "tag on" on to other initiatives, or leverage its services through intermediaries to a greater extent. (This factor clearly has implications for how a lab would conceive of its service delivery strategy, as discussed earlier in this report.)

Possible Steps - "Levelling up" funding of all labs to the per-student level of the "richest" one would not be easy to do, and may not be the most equitable formulation. Again, that is because student population was only one of three factors in OERI's regional allocations in 1985. If weighting of the other two factors (a fixed amount for lab institutional functions and the number of States in the region) was held constant, manipulation of funding based on the pupil population factor would not produce a direct 1:1 change in the overall disparity in per-student capacity that is now observable.

In any event, "levelling up" funding of labs to equalize their per-student funding capacity would be prohibitively expensive. Conversely, "levelling-down" the funding of some labs to equalize the per-student allocations would be practically and politically unfeasible.

The panel does believe that circumstantial factors in the pending recompetition do provide a possible way to reduce the levels of inequity in present per-student funding capacity of labs.

The first factor is the current year-to-year appropriations for the lab rural initiative, now in its third year. If these funds ($5.138 million in FY 89) could be incorporated into the lab program's regular base and made available for all activities, the additional money could be re-allocated in a way to reduce the per-student inequities.

The second factor is the competition which will occur in the Pacific Basin Region for the first time in 1990. (This region includes Hawaii and several trust territories.) In accordance with a decision made as part of the 1985 recompetition, the Northwest Lab has been serving this region while preparations were being made for a separate lab to serve the region in 1990 and thereafter.

It may be necessary to reallocate funds among the labs to provide funds for the new Pacific Basin Region. If so, an opportunity may exist on a smaller scale to further reduce existing inequities in funding among the regions.

F. Outside Funding of Laboratories

The panel recognizes that labs have a legal right to seek outside funds; nevertheless, it recommends that OERI review such activities as necessary to ensure that the labs' ability to conduct work pursuant to their core regional mission is not jeopardized.

The panel further recommends that OERI ensure that its funds are not used by labs to subsidize costs of writing proposals for outside funding or otherwise positioning themselves to receive outside funding.

In its 1987 report to the Assistant Secretary, the panel recommended that the "entrepreneurial" behavior of labs in seeking funds outside those from OERI be studied further prior to the recompetition. (At present, OERI believes that labs' outside funding as a percent of their total funding on an individual basis ranges from less than 5 percent to approximately 50 percent. The median probably approximates 15 percent.)

The panel is concerned about acquisition of outside funds for a number of reasons. First, these entrepreneurial efforts may divert the labs from their OERI-funded mission. Second, the commitment of key personnel to the OERI contract may be lost or reduced through diversion to other projects and priorities. Third, as a result of OERI's funding for their institutional functions, OERI may unintentionally be subsidizing labs to compete with others for outside work in the field.

Of special concern is assuring that activities in support of preparing proposals for outside funding are not being included in the pool of costs used to establish the labs' indirect cost rate. (The evidence on this general set of concerns is inconclusive, but numerous outsiders have raised the question of whether labs are enabled to compete unfairly with others because of their institutional support from OERI.)

In their meeting with the panel, lab representatives generally defended their work outside the OERI lab contracts. Among the arguments they cited were that the outside work contributed to the labs' overall capabilities, served to strengthen the R&D "infra-structure," and did not pose a threat to OERI-funded work.

The lab representatives acknowledged some differences among themselves over the issue of outside funding in the past. They told the panel, however, that uncertainty of funding in recent years has tended to bring them together on the subject.

Labs' acquisition of outside funds does has advantages. One is that it makes labs less dependent upon OERI funding for survival. Another is that outside funding potentially makes labs more sensitive to market forces and needs in their regions.

The panel understands that OERI's monitoring practices in this area during the current contract period have led to three rules of thumb when weighing the desirability of a lab's seeking outside funds in specific instances. These rules are that (a) the activities to be funded from outside would not be inconsistent with the lab's regional mission; (b) the outside funding would not dilute performance on OERI-funded work; and (c) the outside funding would not take the lab's resources outside its region. The panel believes that OERI should continue to follow this approach in monitoring labs' outside activities in the future.

G. Procurement Mechanism for New Awards

The panel recommends that the Department of Education ask the Congress to consider establishing a new form of procurement instrument that would be better suited to the lab program (and possibly other programs as well) than the existing ones. Such an instrument should both protect the legal rights of the labs and the Government and still allow the labs a reasonable degree of flexibility in planning and implementing their programs over the 5 year period of the new awards.

Should such a new instrument not be available, the panel would recommend the use of contracts, among the existing alternatives.

The panel also considered a mix of grants and contracts in the recompetition. For example, contracts could be used to procure labs' institutional functions and grants could be used to assist their regional services. However, the panel recognizes that the logistical problems that would be presented by running concurrent competitions may be insurmountable.

In any event, the panel is concerned that the Department of Education is not taking maximum advantage of the existing discretionary powers to facilitate contract administration that are vested in its lab staff as Contracting Officers' Technical Representatives (COTR's). The panel therefore recommends that OERI explore with the Department's contracts office ways in which administration of lab contracts could be made more efficient and less burdensome through greater exercise of the COTR's powers.

Contracts as presently used are not well-suited to administration of the lab program.

In its 1987 report, the panel expressed its interest in the efficiency and productivity of the organizational and contractual relationships between the labs and OERI. It also expressed concern about the specificity of contracts:

> The panel believes that the specificity of contracts emphasizes process at the expense of (1) a concept of overall lab role (2) substantive emphasis (3) vision of successful service and (4) indicators of success.

In 1987, the panel further stated a concern that contracts appear to impose an unrealistic degree of precision upon labs to state in advance what they plan to do in future years, at least beyond the current and succeeding year.

Contracts are ordinarily used when the Government wishes to purchase something, for its own or others' use. Grants, by comparison, are used when the Government wishes to lend assistance to others. In the abstract, grants would thus appear well suited to the lab program.

Nonetheless, from the lab viewpoint, there are several significant disadvantages to grants. They are as follows:

- the labs believe the specificity and legally-binding nature of a contract (it is signed by both parties, while a grant is only signed by the issuer) help prevent arbitrary actions by the funding agency
- a contractor has the right to appeal the terms of an involuntary termination to a contract appeals board
- under a contract, labs can receive a management fee.

The fee issue has been a troublesome one since 1985. The Federal Acquisition Regulations (FAR) allow the use of no-fee contracts for R&D. OERI issued cost-reimbursable, no-fee contracts as a result of the 1985 recompetition. Labs would like to have fees. Such fees would allow them to finance receivables pending reimbursement of expenses from the Government; build up reserves for adverse contingencies, such as disallowance of costs through later audits; and be used for institution-building purposes. As indicated in its 1987 report, the panel is sympathetic to the labs' position regarding the fee issue.

Aside from the labs' preference for contracts, OERI staff told the panel they have other concerns about the use of grants. One is that OERI would have quite limited powers to specify the work to be done and the "deliverables" (products) resulting from it. OERI's ability to determine such things would be largely limited to rather general specifications in the Department of Education General Administrative Regulations (EDGAR), and OERI program regulations, which cover centers as well as labs.

The panel briefly explored the possibility of using cooperative agreements in the program. These agreements are a special form of a grant. Under them, however, the Government participates more closely in the work with the "grantee" and correspondingly assumes a greater degree of responsibility for its success or failure.

Three difficulties with cooperative agreements in the lab program are that (1) assumption by OERI of greater responsibility for the programs under the agreements is not consonant with the statutory responsibility of regional boards for governance of the labs; (2) it is not clear that OERI could bear the fiscal and staffing burden (e.g., of travel) to work closely with the labs in the manner envisioned by a cooperative agreement; and (3) as a form of grant, cooperative agreements would bear no fee.

In general, the panel is not satisfied with any of the existing procurement options for the program in the 1990-95 period; hence, its recommendation that OERI seek a new procurement instrument from the Congress.

H. Means to Facilitate Competition

The panel recommends that OERI take every feasible step to stimulate actual competition in the forthcoming recompetition.

- **OERI should make publicly available the various papers and studies it has commissioned to help its recompetition planning. These include policy papers, findings from contracted studies, records of advice from any other sources it has solicited, minutes of the panel's meeting with lab representatives in February 1989, the panel's 1987 report on the external review of individual labs and this report.**

- **Notice of the availability of these materials should be made as promptly as possible.**

- **OERI should allow at least 3 months for response to the solicitation in order to facilitate preparation of high quality proposals from many sources.**

- **OERI should structure the solicitation, particularly the proposal evaluation criteria, to accommodate the legitimate needs of nonincumbents; for example, by giving due credit for excellence of plans and staffing and not over-weighting existing organizational capacity.**

- **OERI should not require non-incumbent applicants to gain commitments to serve on lab governing boards from chief State school officers and similar regional officials as a condition of their applications. Reasonable plans for obtaining such commitments after the award if a nonincumbent is funded should be acceptable.**

As stated at the beginning, the panel believes competition is valuable for the lab program.

Conducting a competitive procurement, however, does not guarantee the presence of competitors, i.e., more than one applicant for each award per lab region. The panel recognizes that formulating a lab proposal is a formidable task. Under present guidelines, nonincumbent applicants will have to form a brand new organization, gain numerous commitments to participate in a regional governing board, and plan a complex program of work.

A particularly daunting task for nonincumbents applicants is to gain commitments from chief state school officers and other significant officials to serve on their governing boards. Many if not most of these officials, particularly the chiefs, probably serve on the existing labs' governing boards. Nonincumbents are therefore not in a good position to request their commitment to another lab, if funded.

But the 1985 lab recompetition demonstrated that numerous people and organizations not currently holding lab contracts could be motivated to compete. The panel believes that stimulation of competition by nonincumbents is good for the program as a whole, existing labs included, just as vigorous competition in elections is good for the American democratic system of government.

The absence of funds for planning grants, as were used in 1985, will make the task for nonincumbents harder. Still, the panel believes that OERI can take vital steps to facilitate the preparation of high quality proposals by all applicants and to enable nonincumbents to prepare actually competitive proposals. These steps, as described in the panel's recommendations include (1) provision of full information to all prospective competitors, (2) providing ample time for preparation of proposals and (3) structuring the solicitation to accommodate the legitimate needs of non-incumbents.

APPENDIX A

RESTATEMENT OF PANEL RECOMMENDATIONS

The panel's recommendations are restated below in their entirety for the reader's convenience.

A. Laboratory Linkages within the R&D System

The panel recommends that OERI commission a high-level and wide-ranging review of the characteristics and productivity of the present R&D system in education.

At a more immediate level, the panel recommends that OERI critically reexamine the relationships within its own network of programs. The panel specifically recommends that:

(a) OERI immediately reexamine the relationships among current research, development, and dissemination activities of its institutional R&D programs (labs, centers, Educational Resources Information Centers (ERIC) and the National Diffusion Network (NDN) before finalizing specifications for the pending recompetition of labs and centers;

(b) OERI require labs to have center representatives on their governing boards and centers to have lab representatives on their advisory boards;

(c) OERI appoint a high level advisory committee of representatives of labs, centers, ERIC and the NDN to help it gain better coordination of and more productivity from the various parts of its R&D network;

(d) Department of Education staff representing non-OERI assistance programs be invited to participate in the work of this advisory committee;

(e) OERI conduct an annual forum for representatives of its major programs to share information about new developments, successes and failures, and any other information that would enhance the productivity of its R&D network.

B. Future Laboratory Mission

The panel recommends that, consistent with legislative direction, OERI reformulate the mission for the lab program to provide greater clarity and focus in the coming recompetition.

C. Strategy for Delivery of Services

The panel recommends that OERI revise its approach to the indirect service strategy in the recompetition. Labs should be allowed more flexibility in their choice of strategies to serve their regions.

In the recompetition, applicants' choice of service delivery strategies should be judged by the promise they have for helping to attain stated regional objectives.

D. Program Evaluation

The panel recommends that the emphasis in lab self assessment in the next award period be on evaluation to improve program operations (formative evaluation). Such evaluation should address the questions "Was the program implemented as agreed-upon?" and "How well was it implemented?"

If lab self-assessment focuses on evaluation for self-improvement in the future, there will be an unacceptable gap in OERI's capacity to develop summative information about the impact of the program for purposes of accountability and policymaking. The panel therefore recommends that OERI request the Congress to provide sufficient funds in the future to allow OERI to conduct the necessary summative evaluation.

E. Equitable Distribution of Funds

The panel recommends that OERI take feasible steps to reduce the glaring inequities in the existing per-pupil funding capacity of labs.

- OERI should request the Congress to incorporate present year-to-year appropriations for the lab rural initiative into continuing funding of the program's institutional base. OERI should then make those funds available for all program activities and re-allocate them among the labs in a way to reduce the regional funding inequities.

- OERI should consider the possibility that any re-allocation of funds brought about by the competition for a lab in the Pacific Basin Region in 1990 may provide a further, although smaller, way to reduce regional funding inequities.

F. Outside Funding of Laboratories

The panel recognizes that labs have a legal right to seek outside funds; nevertheless, it recommends that OERI review such activities as necessary to ensure that the labs' ability to conduct work pursuant to their core regional mission is not jeopardized.

The panel further recommends that OERI ensure that its funds are not used by labs to subsidize costs of writing proposals for outside funding or otherwise positioning themselves to receive outside funding.

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The panel recommends that the Department of Education ask the Congress to consider establishing a new form of procurement instrument that would be better suited to the lab program (and possibly other programs as well) than the existing ones. Such an instrument should both protect the legal rights of the labs and the Government and still allow the labs a reasonable degree of flexibility in planning and implementing their programs over the 5 year period of the new awards.

Should such a new instrument not be available, the panel would recommend the use of contracts, among the existing alternatives.

The panel also considered a mix of grants and contracts in the recompetition. For example, contracts could be used to procure labs' institutional functions and grants could be used to assist their regional services. However, the panel recognizes that the logistical problems that would be presented by running concurrent competitions may be insurmountable.

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- o OERI should structure the solicitation, particularly the proposal evaluation criteria, to accommodate the legitimate needs of nonincumbents; for example, by giving due credit for excellence of plans and staffing and not over-weighting existing organizational capacity.

- o OERI should not require non-incumbent applicants to gain commitments to serve on lab governing boards from chief State school officers and similar regional officials as a condition of their applications. Reasonable plans for obtaining such commitments after the award if a nonincumbent is funded should be acceptable.

APPENDIX B

LIST OF POLICY PAPERS COMMISSIONED BY OERI FOR RECOMPETITION PLANNING

OERI has commissioned several policy papers designed to provide different perspectives on the lab program and laboratory functions in general to help planning for the recompetition.

A listing of the authors of the papers and their topics follow. All but the papers by Thomas Good and William Dunn were made available to the panel for its February 23-24 meeting. The other two papers are being made available to the panel subsequently.

- Brenda Turnbull, Policy Studies Associates, Inc., "A Comparison of Service Modes in ED's (the Department of Education's) Technical Assistance Programs

- David Hornbeck, Johns Hopkins University and formerly chief State school officer in Maryland, "The Perspectives of a Former Chief State School Officer"

- Thomas Good, University of Missouri, Columbia, "Classroom and School Research: Investments in Enhancing Schools"

- Floretta McKenzie, The McKenzie Group, Washington, D.C. and formerly Superintendent of Schools in the District of Columbia, "The Future of Regional Educational Laboratories in Contributing to Urban School Improvement"

- James Guthrie, University of California, Berkeley, "Regional Educational Laboratories: History and Prospect"

- Neville Postlethwaite, University of Hamburg, (The Federal Republic of Germany), "School and Classroom Improvement in Two European Countries"

- William Dunn, University of Pittsburgh, "Perspectives on Regional Laboratories from Knowledge Transfer in Non-Educational Fields"

APPENDIX C

ILLUSTRATIVE STATEMENTS OF LAB PROGRAM MISSION

The panel has recommended that the mission statement for labs be structured into two parts. The first part would be a general statement of what labs should do at the program level. The second part would be of statements of clear and measurable objectives by labs for their individual regions.

Illustrative statements of the first, general mission statement at the program level follow.

> The mission of laboratories is to help education practitioners and policymakers apply research-based knowledge for purposes of school improvement.
>
> -or-
>
> The mission of educational laboratories is to gain applications of research-based knowledge for improvement of educational practice and policy.

LABORATORY POLICY PAPER

CLASSROOM AND SCHOOL RESEARCH: INVESTMENTS IN ENHANCING SCHOOLS

Thomas Good

Professor, Department of Curriculum and Instruction and
Research Associate, Center for Research in Social Behavior
University of Missouri
Columbia, Missouri

April 1989

This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

Classroom and School Research: Investments in Enhancing Schools

Thomas L. Good [1] [2]

University of Missouri - Columbia

[1] I acknowledge the support provided by the Center for Research in Social Behavior at the University of Missouri-Columbia and especially thank Teresa Hellming and LeeAnn Debo for typing the manuscript and Gail Hinkel for editing it. Also, I want to thank Bruce Biddle, Jere Brophy, Mary Rohrkemper, Susan Rosenholtz, and Sam Stringfield for their valuable suggestions about the manuscript.

[2] This paper has been prepared at the request of OERI; however, the views expressed here are those of the author, and no endorsement by OERI should be inferred.

Introduction

I was asked to discuss two topics in this paper: (1) the adequacy of research for informing practice, and (2) areas of research that will extend our knowledge base about schooling. The first topic also includes the extent to which existing knowledge has been disseminated. The second topic involves the identification of research topics that OERI and other interested agencies could fund so that knowledge that can inform school improvement programs will be enhanced by the year 2000. Since I -- and everyone I have consulted within the field -- concur that the extant knowledge base for understanding schools and classrooms is inadequate, I will focus on areas that merit subsequent research and development.

Concerning the adequacy of research for informing practice, I argue that there is comparatively little research knowledge because historically (a) innovation has preceded research, (b) the social value attributed to educational research has been low, and (c) little programmatic research has been conducted. Despite these problems, recent research has yielded important knowledge that is of value to educators. However, this research has only begun to address the basic questions that must be answered if we are to understand student learning in school settings. In discussing the ability of research to inform practice, I summarize both classroom and school research, although I emphasize the need to integrate these two areas.

In addressing the issue of topics that merit new funding, I intend to create a research "vision" without being overly specific about research questions and research designs. It is clear to me that the field currently needs a broad and rich infusion of basic research that is

reasonably comprehensive. Needed is knowledge about a set of core issues if we are to make progress in understanding school learning. It is most important to support research that promises sustained programmatic inquiry about salient classroom issues. The research that I advocate calls for integrative work on curriculum as well as on teacher and student variables. I emphasize that researchers cannot study teacher behavior independently of knowledge of teaching thinking, student behavior and thinking, or curriculum variables. Before discussing the adequacy of the knowledge base I briefly introduce the new areas of research. Then I discuss the present knowledge base and issues (attitudinal and funding) that need to be improved if new research is to be productive. Following a review of the extant knowledge base, I present the research agenda that I believe should be supported. Finally, I briefly discuss the role of regional laboratories in view of extant and pending research.

Research Base

Although knowledge about educational practice is relatively meager and much of it is misused, I do want to emphasize that past educational funding has resulted in a knowledge base that has both theoretical and practical significance. The minor investments in educational research have already provided potentially powerful dividends (depending on how knowledge is used), and I am confident that continued funding will lead to richer conceptualizations of schooling. This knowledge can be of use to state and local educators who spend the time necessary to understand both the knowledge and its limitations and who apply it to local contexts. By analogy, the developers of the most powerful miracle drugs currently available agree that those medicines will (a) be refined by new research,

and (b) offer simple cures neither for the common cold nor cancer. Considering the comparatively low funding of educational research (in contrast to medical research), it should come as no surprise that knowledge about schooling is fragmentary and uneven; however, in contrast to their attitudes towards research in medicine (and in other disciplines), many politicians want to continue to limit (or eliminate) funding for educational research because it does not yield definitive answers.

Before discussing the research areas that will yield important knowledge, I want to briefly place the call for more research in a larger policy framework that examines both the structure and level of research funding. I argue that research funding in this country is both inadequate and deteriorating. Further, although I am "bullish" on research, we need to delineate carefully what research can and cannot do. One of the past difficulties in obtaining support for research has been educators' creation of inordinately high public expectations and the failure to fulfill those expectations.

Simply to remain even with funds that were spent in 1973 on basic research and development in education, the federal government would need to increase its investment in educational research by 600%. Such an increase (and much more) could be spent wisely to expand our knowledge of classrooms and schools in ways that would enhance students' mastery of basic curriculum concepts, capacity for critical thinking, and ability to use knowledge to address societal problems. I have emphasized areas of research and development that seem to be a logical extension of past investments of NIE and now OERI. I do not argue that these are the only

or the best investments to make, but rather that they expand programs of research supported by the federal government in the past. These areas are summarized in the next section and discussed in more detail later in the paper.

Areas of Research That Merit Funding

New research needs to focus on the curriculum so that we can better conceptualize important subject-matter variables and develop tasks that require students to integrate knowledge. New conceptualization and research are needed if we are to move the curriculum from a "coverage" perspective to one that stresses understanding. In particular, it is necessary to include in the curriculum more activities that encourage students to think and reflect so that there is a balance between higher-order and lower-order thinking.

New work must address how students react to instruction and curriculum assignments. Considerable evidence suggests that many students have learned to be passive in classrooms, and this must change if students are to take some responsibility for their own learning.

Another research area that must be continued -- but with a new focus -- involves teachers' thinking and its relation to their classroom behavior. Researchers need to build conceptual bridges between teachers' views of curriculum and students, and teachers' classroom decisions and performance. There are numerous studies of teachers' thinking and behavior; research that examines both student and teacher behavior and thought simultaneously is needed.

New research should study schools as institutions and how resources in schools can be allocated in ways that encourage students, teachers, and

administrators to engage in intelligent, productive behavior. There is growing evidence that productive behavior may vary according to the school or classroom context. For example, the structure and climate in some schools encourage critical thinking and the sharing of useful ideas among teachers. Unfortunately, other school environments promote less adaptive behavior. More information is needed about how both desirable and undesirable norms and institutional practices develop and are sustained. Finally, if students are to be more active learners, schools should encourage teachers to be more active (e.g., model appropriate learning processes) but at the same time assist students to assume increasingly more control of their own learning.

Although research on these topics will extend knowledge of schooling, it will not yield a comprehensive understanding of schooling because so many other topics need to be studied. Although I do not discuss these topics in detail later in the pages, I summarize several of them below.

Teacher recruitment and retention are key issues for the 1990s. The number of talented individuals who enter teaching is not as large as it once was. Because the conditions of teaching are not as attractive as they once were, the most talented teachers leave the field earlier than others. The recruitment and retention of minority teachers are of special concern. The United States faces an immense problem of establishing more educational and professional opportunities for minorities. This problem begs for fresh conceptualization, creative problem solving, and progress. Eubanks (1988) notes that data clearly show an impending shortage of minority teachers in 47 of 50 states. He notes that the higher the education level, the fewer the number of minorities enrolled. One could

reasonably argue that without better adult role models, there is less incentive for minority students to fulfill their potential in public schools. However, this issue must be broadly addressed and conceptualized.

We need to learn why talented teachers leave teaching and then we must develop models for improving the conditions under which teachers work. Stringfield (personal communication) argues that in exploring these questions researchers should use longitudinal studies of why people go into teaching and why they stay, because cross-sectional data do not provide particularly compelling or useful information. Why do only one-half of the persons who receive bachelor's degrees in education teach even one year? What are the other half doing? Who is surviving the first year? Why do they survive? After five years of teaching are teachers satisfied with the basic role of teaching and have they continued to grow as professionals or have they developed routine ways of responding to classroom issues?

Educators must also learn how to use computers to improve classroom learning. Despite the computer's potential, we still have little knowledge about how it is used and whether it improves students' capacity for thinking and problem solving. Some disturbing data suggest that minority and low-income students' access to computers is more limited than students of higher socioeconomic status. This is a problem that must be explored. If inequities exist, they must be corrected.

Lepper and Jurtener (1989) note that several advantages of using computers in schools have been challenged. Advocates believe that the computer can make learning more intrinsically motivating, lead to a

school curriculum that emphasizes more cooperation and collaboration, or increase equality of educational opportunity (i.e., it is fair and does not judge learning today narrowly in terms of what a learner did yesterday). However, others argue that because computers are more readily available in some schools than others, they extend or at least sustain inequalities in educational opportunity.

According to Lepper and Jurtener, the outcomes of computer usage are also related to the number of computers available in a school. In some classrooms, all students have access to a computer; in other classrooms there may be only three computers for 30 students. Some schools may have only three computers. In addition, how students use computers is also important. Unfortunately, as Lepper and Jurtener point out, good empirical research is sorely lacking. They call for more theoretically-based research that focuses on the underlying processes in which students are engaged, in particular the direction and intensity of the students' attention as they use computers. Becker (1986) offers useful advice about research that document the effects of computer utilization on student learning.

There is increasing evidence that the language and the ways students approach educational tasks are influenced by interaction in students' homes (see Rohrkemper, in press). Some of the "unalterable" variation associated with schooling may therefore be alterable by making changes in the home or with joint home and school action.. Obviously, both parents and schools have limitations in this area, but by combining home and school resources it may be possible to increase students' expectations and performance significantly. Unfortunately, research indicates that these

relationships are most problematic between schools and low-income families (Brantlinger, 1985, 1987). We must alter the situation in which the economically deprived either perceive or receive less from the schools than do other families.

Educators have much to learn from comparative education, the study of educational systems in other countries, which offers many opportunities for reconsidering, and perhaps changing, some educational practices that we take for granted. For example, Japan provides teachers 20 in-service days per year. Are some of the coherence and attention to understanding that characterize the Japanese curriculum related to teachers' use of this time to consider educational practice? As various educators have indicated (e.g., Romberg, 1988) the U.S. is the only first-world country in which teaching is a 9-month job. Perhaps by extending the school year by a few weeks and paying teachers adequately for the additional time, their productivity and job satisfaction might be enhanced. In some countries the literacy rates exceed our own (e.g., The Netherlands), and in other countries (e.g., Japan) students' mathematical performance greatly surpasses that of U.S. students. By studying how these countries develop curricula we might better understand both the strengths and the weaknesses of our own educational approaches. For too long funding agencies have viewed investments in comparative research as nonessential. However, if educators want understand some of the best exemplars of educational practice, researchers need to study practices in other countries. Because complex and subtle societal factors as well as schooling practices may differentiate countries (e.g., Holloway, 1988),

successful comparative research will involve competent bilingual observers and interviews. Such research is not inexpensive.

Finally, knowledge about how research is used is limited and is an area that deserves research. Bruce Biddle (1989) contends that the extent to which policymakers use social research is an enigma. Some believe that social research produces knowledge that improves public policy. Many other scholars, however, hold that this research has little effect on policy decisions and that it produces knowledge that is not disseminated, is ignored, or is blatantly misused by policymakers. If research is utilized, it is important to learn the role that it plays. Do research findings and concepts help to define "problems," or do policymakers view educational research only as part of the "solution"? Are administrators familiar with research conducted in the last 20 years? Are they willing to read original reports or to have staffers read them, or are they content to read second- and third-hand accounts of research?

Adequacy of Research for Informing Practice

Having summarized topics that require additional research, I now consider the role of research in forming school policy. I discuss past constraints on the development of a knowledge for base for understanding classrooms because the failure to recognize structural weaknesses may cause new research to be relatively ineffective. Historically, educational innovation has preceded research, in part because educators are expected to produce immediate solutions to problems. Further, funding for educational research has always been too limited, making it difficult for groups of investigators to systematically explore critical issues.

Reform and Simplistic Conceptions of Teaching

As Good (1983) and Good and Biddle (1988) argue, most educational reform movements in the United States have concerned single variables or clusters of variables focused on only one problem of schooling and have not been based on research. The general assumption appears to be that there is a common problem; therefore, there ought to be a simple solution. At various times, educators in this century have advocated as answers large-group instruction, small-group teaching, and individualized teaching (Good & Biddle, 1988)! Similarly, both direct instruction and discovery learning have been cited at different times as means for improving education. Unfortunately, this logic defies experience as well as results of research. The problems of U.S. schooling vary from school to school (Good & Brophy, 1986; Good & Weinstein, 1986), and research has shown that even teachers at the same grade level in the same school may have different problems. Thus, if some classrooms have too much structure and other classrooms have too little structure, then a simple call for more time-on-task will produce uneven effects.

Simple characteristics of instruction have never predicted student achievement, although many reform efforts have focused on such characteristics (Good, 1983). The important issue is not whether individualized instruction, small-group instruction, or discovery learning is emphasized but rather the quality and the fit of planning and instruction to each child's and community's needs. Moreover, defining instructional quality requires observation of classroom teaching.

In the past few educational researchers observed teaching (Dunkin & Biddle, 1974), although it seems advantageous to conduct observational

research before curriculum reform is undertaken so that data can be integrated into the design and the testing of alternative solutions to educational problems. Observational research should also be conducted after reforms are implemented to establish the effects of reforms (Good & Biddle, 1988). Unfortunately, until recently, when educational research began to include observational measures, research usually followed rather than preceded educational innovations. Too often reform has also proceeded without meaningful involvement of teachers, that is, the impetus for change came from external sources.

Inadequate Funding for Research

A major reason that there was so little observational research was the inadequate funding for educational research. Conducting observational research is labor-intensive and hence expensive. Complex coding systems need to be developed, coders must be recruited and trained, and analyzing classroom data requires professional expertise. Unfortunately, the low priority assigned to educational research has resulted in the allocation of too few funds to allow systematic, sophisticated research and development. The federal government has been -- and continues to be -- unwilling to pay for educational research (Finn, 1988; Shavelson & Berliner, 1988).

Compared to funds for research in business and defense, the money assigned to educational budgets reflects little political support for educational research. From my perspective, this means that educational research is seriously underfunded. The development and implementation of high-quality, innovative educational ideas are severely limited. According to Futrell (1986), the federal government includes $61 billion

for research and development in its fiscal 1987 budget. Of these funds, .2% is allocated for educational research. In comparison, 61.2% will go for military research, 9.3% for health studies, 8.1% for energy research, and 6.6% to NASA. As Bruce Biddle and I note elsewhere (Good & Biddle, 1988), the Office of Research in the U.S. Department of Education, which is responsible for federal research, presently has a research budget of roughly $47 million. Of these funds, only $500,000 are now said to be available to support new lines of inquiry. The paucity of funding is seen perhaps more clearly when one considers that the present "fly-away" cost of a single B-1 bomber is $212.5 million (Good & Biddle, 1988). Furthermore, a new B-2 bomber costs about $515 million.

Other scholars also lament the inadequate funding for educational research. According to Shavelson and Berliner (1988), "As the nation began to worry about an AIDS epidemic, $252 million was allocated for research. In fact, we see 6.2 billion federal dollars spent each year for medical research in general. When a national need was sensed recently, the government quickly responded by investing $8 million for superconductivity research. Yet when this administration discovered a national crisis in education based on dozens of reports that documented serious problems with the nation's schools, the funding for educational research decreased! While 15% of the federal dollars that go to defense are used to support research, only 0.1% of the federal dollars spent on educational programs are used to support research (p. 11)." Many believe that developing a body of technical knowledge about education and teaching is not important. Although society views investments in medical knowledge as necessary, there is virtually no interest in educational research.

Despite the unwillingness of American educators to spend money for research and development, an examination of the annual reports of most American businesses reflects a pride in investing in research. For example, in the 1988 annual report of the Eli Lilly and Company (Excellence in the Life Sciences) the company announces plans for a new $110 million research center and that it had otherwise increased its research and development budget by 16% -- over the previous year --to $541 million. Similarly, Pfizer's 1988 annual report (Building Shareholder Value Through Innovation) indicated that the company had increased its research and development expenses in 1988 by 18% -- to $473 million. Further, the company announced an increase in its research investment in 1989 by a similar amount (i.e., 18%).

This lack of willingness to invest in educational research has important consequences. For example, Slavin (1987, 1989) contends that it is extremely unfortunate that after 21 years of Title I/Chapter I (more than 45 billion dollars), there has been little careful research on the effective uses of Chapter I funds. Thus, we know little about what takes place in those programs and whether or not they are effective. As a result, we do not know how to address the needs of students at risk of school failure.

The public continues to be willing to spend money on education, and, according to Colvin (1989), educational spending has increased substantially since 1983 -- nearly 25% in real terms. However, distressing evidence continues to mount that the federal government is unwilling to fund systematic research that might provide a basis for the wise spending of new funds to improve schooling.

This unwillingness to invest in educational research is evidenced in several ways. For example, consider the decline of the budget of the federal office charged with promoting and coordinating educational research. In 1973, the newly-created National Institute of Education had a budget of 135.8 million dollars. The congressional funds that were authorized amounted to 103.1 million, and an additional 32.7 million dollars were transferred to NIE from other federal educational budgets. Of that 135.8 million, the following allocations were made in 1973: research and development centers, 19.1; regional laboratories, 22.5; ERIC, 3.9; other, 79.2; and field-initiated research, 11.0. In contrast, the OERI research budget for 1989 shows a dramatic decrease. In the present budget year, 47.1 million dollars are allocated for the research function of OERI. Of these dollars, 17.8 million are allocated to research and development centers, 22.1 million to labs, 5.7 million to ERIC, 500,000 for field-initiated research, and the rest were spent on "other." When we control for inflation, it is clear that the budget of OERI would have to be increased by roughly 600% to match the available funds for research and development activities that were offered to it in 1973 (see Statistical Abstract of the United States for relevant information about rate of inflation). The need for systematic research on educational issues has not declined. Policymakers appear to have been willing to spend 45.1 billion dollars on identifiable programs without a clear commitment to research and development that could indicate whether the programs are useful. Others have also concluded that reduced funding has lowered the quality of information about education (see recent report from the United

States General Accounting Office entitled Education Information, November, 1987).

Beliefs about the low value of research knowledge in education restrict teachers' professional activities. Knowledge production, at least in public schools, is not expected. Further, faculty in colleges of education are rarely rewarded primarily for research and scholarship.

Society is ambivalent towards educators. The public consistently professes that schools are keys to society's economic and social security. However, they seldom support educational funding designed to study carefully long-term strategies for improving schooling. The public's demand for accountability, coupled with inadequate long-term funding for research and development, pressure many educators to promise that they will do more in the short run than they can conceivably accomplish. They tend to be overly optimistic about research and new educational products (e.g., new curricula). Educators and researchers are reluctant to acknowledge that no educational program is ideal for all students because schooling is a multifaceted process that is affected by many variables (as is the case in many research areas ... see Thomas, 1980, for an eloquent discussion of what is unknown in medicine). Perhaps because of this pressure educators are prone to move from fad to fad in search of new solutions (see Good & Biddle, 1988). However, exaggerated optimism about short-term accomplishments inevitably leads to a mismatch between what is expected and what is actually accomplished and to a further erosion of public confidence in the ability of educational research to play a useful role. Attractive but overly ambitious plans may be a good tactic for securing short-term funds for program improvements, but this strategy

eventually leads to anxiety about the original investment, disenchantment with results, and a growing unwillingness to provide long-term funding for educational research and development. It is time to recognize that complicated problems that took years to create may require a decade (or decades) or educational research and development. For example, it seems unreasonable to expect educators to transform learning environments in inner cities -- even when they have new resources with which to respond to the problem -- when there is an inadequate knowledge base about learning conditions in those settings. If we are to improve public schools, we must recognize the need to conduct long-term basic research. This responsibility falls to individual researchers as well as to institutions that conduct research and development.

In addition; policymakers need to better recognize the conditions under which educational research will be successful. In this sense, those who advocate research can prepare policy documents that encourage researchers to submit proposals for long-term funding of research that builds on basic knowledge in the field rather than studies that promise unrealistic responses to complex problems quickly and inexpensively.

Increased Interest in Observational Research

Although funding for educational research remains low, during the past 15-20 years there has been a growing recognition of the importance of research that examines classroom processes. Researchers from a variety of disciplines, using different methodologies (i.e., both quantitative and qualitative) have made observational research a valued activity. Even though this type of research is expensive, its growing importance has led researchers to move from surveys to actual examination of classroom

practice. However, even today, classroom observation continues to be the exception rather than the rule (it is simply less of an exception than it used to be!).

Among the numerous factors that led to increased observational research in the 1970s, two are of major importance. First, research syntheses published in the mid-1970s (e.g., Dunkin & Biddle, 1974) signified the need for observational data collected in particular contexts as a prerequisite for describing and understanding instructional effects. Another major factor was the increased involvement and interest of federal agencies, particularly the Office of Education's funding of evaluation studies such as Project Follow-Through and the National Institute of Education's funding of several large-scale field studies that involved classroom observation (for more discussion on the development of the field, see Brophy & Good, 1986).

The opportunity to collect observational data led to an explosion of interest in variation among classrooms in U.S. schools. Many had criticized schools in the 1960s and contended that the variation in instruction between and within schools was minor. Preliminary results, however, indicated that there might be more variation than previously anticipated; hence, many researchers began to observe classrooms.

Although the movement of research into classrooms may seem but a small step, technical knowledge is necessary to describe teaching and classrooms. Unfortunately, as late as 1975 there was little systematic knowledge about classrooms as social organizations and learning environments.

Knowledge from Recent Research

The field has made good progress in the past two decades (for reviews see Brophy & Good, 1986; Good & Brophy, 1987; Shulman, 1986). As Brophy (1988) notes, two decades ago when teachers raised questions about classroom management, they were offered vague and often conflicting advice from research. That advice typically was not based on systematic research in classrooms. There were only scattered results that did not form interpretable patterns. However, research on classroom organization and management in the past 20 years has produced consistent and useful knowledge that offers general principles and knowledge that teachers can use in developing classroom environments in which students are appropriately involved. Today, the field possesses replicated correlational findings and process relationships that have been validated in field experiments (see Gage & Needles, 1989). The development of a technical culture and associated specialized knowledge is evident not only in the area of classroom management but in many other areas as well (e.g., students' knowledge and conceptual change, teachers' planning).

Quantity of instruction. It is beyond the purpose of this paper to review this literature in any detail (interested readers can see Brophy & Good, 1986). However, it seems appropriate to summarize some of the major results of this research. The most consistently reported findings concern the quantity of academic instruction that teachers provide. Many studies have demonstrated that amount learned is determined in part by opportunity to learn (exposure to relevant content), which is determined by four broad teacher behaviors. First, the extent to which teachers are businesslike and task-oriented, emphasize instruction as basic to their role, expect

students to master the curriculum, and allocate most classroom time to those activities that have relevant academic objectives is important. Second, teachers whose students make reasonable academic progress frequently use classroom organization and management strategies that maximize the time students spend engaged in academic activities. Third, effective teachers allow students to move through the curriculum briskly but also relatively successfully. Fourth, these teachers were found to spend most of their time actively instructing their students in group lessons or supervising their work on assignments rather than allowing students to spend inordinate time on individual seatwork practice without supervision or feedback.

Quality of instruction. There are also findings about the quality of instruction. In particular, student achievement is enhanced when teachers' presentations and/or demonstrations include sufficient enthusiasm, clarity, logical sequencing of content, and structuring of the content in ways that help students to recognize it as an integrated whole. Thus, through using advance organizers, outlining, and calling attention to main ideas, teachers help students to see and appreciate the relationships among parts of a lesson and/or how concepts might be interrelated (for greater elaboration see Good & Brophy, 1987; Slavin, 1989). Much contemporary work is focused on the quality of teachers' subject-matter knowledge and pedagogical content knowledge (e.g., Shulman, 1987).

The technical culture now extends well beyond the process measures associated with students' performance and the traditional content measures. Contemporary work is enhancing knowledge of how students make

progress in problem solving and develop higher-order thinking skills (Porter & Brophy, 1988). Subject-matter knowledge -- and how to structure classrooms to enhance advanced subject-matter learning -- is getting increased attention (Richardson-Koehler, 1987).

A comparison of the knowledge of schooling 2 decades ago with contemporary knowledge shows that extraordinary progress has been made in understanding classroom instruction and learning. For example, 2 decades ago there was no literature on the communication of expectations in classrooms. In the ensuing 20 years considerable progress has been made in conceptualizing and understanding how teachers might communicate differential performance expectations to students under the complex constraints of classroom teaching (e.g., Good & Brophy, 1987). Twenty years ago there was no systematic information available about classroom management. In the literature of the late 1960s there was no emphasis on proactive management, a concept that Kounin introduced in 1970. Comparing the literature on classroom management in 1968 with Doyle's (1986) integrative review, one can readily ascertain the important progress that has occurred in terms of the level of concepts and findings that are presently available in this area. Two decades ago there was only fledgling work in cognitive science, with an emphasis on classroom application. Enormous strides have been made in this area (e.g., Resnick, 1983). Numerous other examples could be cited to vividly illustrate how much more is known about classroom teaching presently than was the case 2 decades ago (see for example Brophy, in press; Pearson, 1984; Richardson-Koehler, 1987; Slavin, 1989; Wittrock, 1986). Modern research focuses not only on interaction in the classroom (which dominated the work of the

1970s and early 1980s) but also examines the presentation of subject matter, the core issue around which much classroom interaction occurs. It is evident that new advances are occurring in basic curriculum areas such as mathematics, reading, writing, and science, and that students are now characterized as active learners in a complex social setting (see for example Anderson & Smith, 1987; Confrey, 1987; Corno & Rohrkemper, 1985; Florio-Ruane & Dunn, 1987; Mergendoller & Marchman, 1987; Raphael, 1987; Wittrock, 1986).

Recent Advances in Research on Teaching

Various sources document recent improvements in research on teaching (Brophy, 1989; Brophy & Good, 1986; Clark & Peterson, 1986; Slavin, 1989). As previously noted, research in the 1970s provided a foundation linking classroom processes to student achievement. This research made it undeniably clear that teachers make a difference in students' learning and yielded several instructional models (e.g., active teaching, communication of expectations, etc.) that identified some of the ways in which teacher behavior influences student achievement (Good & Brophy, 1987).

However, several characteristics of this research limit its application. Perhaps the major problem wa that these studies initially intended to establish that teachers affected student learning, not to explain theoretically how teachers had an effect. This research yielded information about effective teaching, but only concerning certain, fairly general, teacher behaviors. The data base is therefore probably sufficient for making gross distinctions among teachers -- for identifying teachers who do not have the necessary minimum skills for organizing and

implementing instruction, but it cannot distinguish average teaching from truly outstanding teaching.

More comprehensive. Several changes have occurred in the field in the attempt to study qualitative aspects of teaching more thoroughly. Brophy (1989) notes that in the 1980s classroom researchers focused more on particular curriculum units, sometimes even on individual lessons (or concepts), and on teachers' instructional objectives (their beliefs and intentions) in addition to their instructional behavior. Indeed, the shift in focus in some cases was so drastic that researchers substituted one set of design problems for another. That is, researchers explored more comprehensively the mental lives of teachers but ignored how teachers implemented lessons. In addition, there was a growing insistence among researchers that students' learning be considered in terms of problem solving and higher-order thinking as well as the mastery of basic facts. Rather than measuring student performance only on criterion-referenced or standardized achievement tests, researchers interviewed students to assess their ability to explain key constructs in their own language and to apply that information. Studies also examined students' views, or attitudes, about learning.

Active student learners. Recent research also examines active student learning as well as active teaching (e.g., Swing & Peterson, 1988). Studies conducted in the 1970s established that active teaching, for example, clear expectations and modelling of problem solving, facilitated student learning. Research in the 1980s shows that students need opportunities to ask questions about relevant content, think critically, and apply information. Thus, much recent research attempts to

explain how the social settings of classrooms affect students' understanding of subject matter.

As Brophy notes, many current researchers support a theory of learning that has been influenced by the information-processing approach to human cognition. This approach emphasizes the important student learning goals that teachers must accomplish as well as teachers' ability to communicate knowledge actively and clearly. Moreover, information processing holds that teachers must be concerned with students' current knowledge and with the information processing and conceptual change required to enable students to reach learning goals. Teachers should allow students progressively more opportunity for integrating and controlling their own learning.

Unfortunately, little classroom research has focused on how assignments should be designed and implemented to encourage independent learning. More research needs to examine students' motivation to learn and their willingness to notice and to attempt to clarify differences between their current knowledge and new information. Indeed, there is some evidence that many students are not actively engaged in acquiring new information; they passively attempt to understand what the teacher wants and then memorize facts (see for example Good et al., 1987; Goodlad, 1984).

Teachers' subject-matter and pedagogical content knowledge. Perhaps the most dominant focus in current research is the distinction between teachers' subject-matter knowledge and pedagogical content knowledge. Subject-matter knowledge involves teachers' understanding of a particular subject (e.g., biology), whereas pedagogical content knowledge concerns

teachers' ability to identify from the knowledge they possess about a subject those ideas that are important to teach to students at a particular grade level. This includes communicating or structuring learning activities so that students can understand and interrelate key ideas. Much important research is examining what subject-matter knowledge and pedagogical content knowledge teachers need to enhance student learning (see for example Brophy, in press; Carpenter et al., 1988; Peterson, Fennema, Carpenter, & Loef, 1989).

Teachers' subject-matter and pedagogical content knowledge are likely to have important consequences for student learning. Some teachers are relatively ineffective because their subject-matter knowledge is low. Moreover, teachers may be relatively high in some subject-matter knowledge but relatively low in other knowledge (language arts vs. mathematics). However, what distinguishes new research is its focus on the extent to which teachers use knowledge (i.e., transform subject-matter knowledge into pedagogical content knowledge). According to Brophy (1989, p.5): "Where their knowledge is more explicit, better connected, and more integrated, they will tend to teach the subject more dynamically, represent it in more varied ways, and encourage and respond fully to student comments and questions. Where their knowledge is limited, they would tend to depend on the text for content, deemphasize interactive discourse in favor of seatwork assignments, and in general portray the subject as a collection of static factual knowledge." Some studies suggest that teachers are more flexible when teaching a subject that they are highly knowledgeable about than when presenting content about which

they are less knowledgeable (e.g., Duffy & Roehler, 1989). However, much more empirical work needs to be done in this area.

To summarize, some exciting concepts and theories about teaching that facilitates students' conceptual understanding are beginning to emerge. For example, many classroom researchers argue that teaching for understanding involves not only asking students to supply relevant facts (a traditional focus) but also structuring learning activities so that students must offer explanations and defend their thinking. There is a growing belief that students must engage topics more meaningfully, use their own language to describe concepts, and apply subject-matter knowledge to problem-solving situations. However, some teachers who can achieve these student goals may still be hampered because they do not have a well-developed understanding of domain-specific knowledge about many of the topics they teach. They may recognize that they need to explain certain topics or integrate certain concepts, but they may need additional subject-matter knowledge before they can do so. Other teachers may have excellent subject-matter knowledge but lack the disposition or the pedagogical content knowledge necessary to teach it meaningfully.

Teachers' belief systems. It is ironic that contemporary and comprehensive studies of pedagogical content knowledge, which involve careful examination of various teacher beliefs about instruction, indicate that many other teacher beliefs control how teachers use their subject-matter knowledge. Teachers' beliefs about equal opportunities for students to respond, their expectations for students' general performance, and their views of how students learn may be as important -- and in some cases more important -- than their simple pedagogical content knowledge.

Researchers must integrate pedagogical content knowledge with other forms of pedagogical knowledge, including teachers' beliefs about teaching as a profession, how students learn, and the goals that are perceived to be important in a particular school, in order to understand how teachers influence students' learning.

Use and Misuse of Classroom Research

Unfortunately, many practitioners and especially policymakers believe that recent classroom research suggests that competent teachers only need good communication skills. Unfortunately, policymakers use limited knowledge from the technical culture in a controlling, rule-governing, bureaucratic fashion. I believe that technical knowledge needs to be adjusted to particular settings use controlled by teachers' professional discretion and decision making. As Catherine Mulryan and I argue (Good & Mulryan, in press), successful teaching involves more than effective communication (appropriate pace, clarity, good use of examples). It also entails the application of principles of cognitive development (e.g., preoperational students need numerous concrete examples, formal operational students can work with abstractions), understanding of human motivation, knowledge of subject matter, as well as pedagogical skills necessary to help students to understand the curriculum. Although recent research is valuable, it yields only limited information about the full range of knowledge, dispositions, and skills that teachers need if they are to be successful in the classroom across several student outcomes (Brophy, 1988).

School Research

There is now considerable research showing that the school students attend can make a substantial difference in their education (Brookover et al., 1979; Edmonds, 1983; Good & Brophy, 1986; Good & Weinstein, 1986; Purkey & Smith, 1983; Rosenholtz, 1985; Rutter, 1983; Wimpleberg, Teddlie, & Stringfield, 1989). It is beyond the purpose of this paper to review this literature in detail; however, it is appropriate to consider briefly some of the broad findings from this research.

General findings. Edmonds (1983) contends that the characteristics of effective schools are (a) a pervasive and broadly understood instructional focus; (b) an orderly, safe climate conducive both to teaching and learning; (c) leadership of the principal reflected by continuing attention to the quality of instruction; (d) teacher behaviors that convey an expectation that all students are to achieve at least minimum mastery; (e) the use of measures of pupil achievement as the basis for program evaluation. In general, most of the early research on school effectiveness centered on general characteristics believed to distinguish more productive from less productive schools, with school outcomes being measured in relatively narrow ways. However, some of the school effectiveness research suggested that the "parts" somehow "came together" in effective schools. For example, Rutter (1983) reports that the correlation between the combined measure of overall school process and each of the outcome measures (attendance, achievement, student conduct) was much stronger than was the correlation between any single process variable and outcome measure. This empirical finding implies that various

social factors may combine to create a school ethos, or a set of values and behaviors that characterizes a school.

New data. Unfortunately, because of the paucity of research funding, there has been relatively little new, basic research on effective schooling in the past few years. However, some new and, I believe, useful research provides data and subtle caveats about the important role of context in defining effective schools, even when definitions of "desirable outcomes" are held constant (e.g., Hallinger & Murphy, 1986; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Teddlie & Stringfield, 1985). It is beyond the purpose of this paper to review this evidence; however, recent work provides clear evidence that what constitutes an effective school depends on school context (see also Teddlie, Stringfield, Wimpleberg, & Kirby, 1989). In addition to new context data, there is also information about qualitative aspects of classroom organization and teaching that appear important if effective learning is to occur.

Evidence on school effectiveness continues to grow. Mortimore et al. (1988) studied 2,000 pupils as they moved through 4 years of classroom life (from ages 7 to 11). They collected data in 50 jurior schools randomly selected from the 636 inner-London schools. Numerous factors were found to differentiate effective schools from schools that had fewer effects on student achievement. Here I will comment on only three of those factors -- structured lessons, intellectually challenging teaching, and maximum communication between teachers and students.

Results indicated that the best classroom teachers exhibited a reasonable degree of structure but provided some freedom for pupils within a well-defined framework. Effective teachers had some organizational

flexibility in beginning and ending lessons were able to vary lesson activity, to some extent, in order to maintain student motivation. This finding suggests that teachers must learn to use different instructional models rather than depending too much on a single model. Obviously, teachers who continue with one format too long will find it difficult to maintain the maximum motivation for all students.

In effective classrooms teachers more often used higher-order questions and statements and they encouraged students to engage in problem solving. Teachers were willing to challenge students' preconceptions and required them to think about content. Furthermore, teachers in effective schools created an interesting context for learning by expressing their own interest and enthusiasm and explaining the purpose and the value of subject matter.

The data indicate that pupils gained from having many opportunities to communicate with teachers. Some teachers spent most of their time speaking to individual students; in these classes each student could only have limited contact with the teacher. In contrast, other teachers communicated with entire classes. The researchers do not argue that teaching should be whole-class; rather, they support a flexible approach. They note some teachers had individualized classes to such an extent that there were little important communication among teacher and students. In such classes teachers seldom modeled a process (or had students model) or structured issues before assigning students to work individually or in groups. Effective teachers had at their disposal a repertoire of instructional approaches that allowed them to communicate effectively with the whole-class, with small groups of students, and with individual

students. They could present higher-order information to students in a stimulating way.

Again, these data suggest how easy it is to confuse the form of instruction and its quality. Many reform advocates inappropriately conclude that because much instruction that is boring and focuses on low-level skills occurs in a whole-class format, a change to another organizational format will solve the problem. Mortimore et al.'s data suggest, however, that how a format is used is the critical issue.

School context. Like many other "effective schools" researchers, Hallinger and Murphy (1986) note some striking similarities between effective high-and-low-SES schools: for example, a clear mission, instructional leadership, a safe and orderly environment, high expectations, and a well-coordinated curriculum. However, they found important differences in effectiveness as a function of school setting. For example, the alignment of the curriculum with instruction in low-SES schools was moderate but in high-SES schools it was very close. In contrast, principals' control of instruction in low-SES schools was high but in high-SES schools it was low to moderate.

Hallinger and Murphy argue that effective schools take the learning abilities and needs of their students into account when they develop curriculum. They note the high-SES schools had greater pressure to instruct in all areas in which students were tested, and thus there was close alignment between instruction and testing. Interestingly, in one low-SES school, teachers pointed out that during the previous year students had scored poorly on one mathematics topic but the teachers decided not to direct instruction to that area so that they could maintain

high achievement in other areas. Thus, some implications from school-effectiveness research (e.g., teach all areas covered on a test equally) may not be applicable in some contexts, for example, where students need time to understand rather than to cover more content.

In terms of control of instruction, principals in effective low-SES schools maintained relatively tight control, directly selecting and implementing curriculum and instructional programs. Although principals in effective high-SES schools frequently visited classrooms and coordinated school-wide curricula, these principals controlled classroom instruction less and generally allowed teachers to make decisions about how to achieve agreed-upon student goals.

Teddlie, Stringfield, Wimpleberg, and Kirby (1987) also report various differences between effective low-SES and effective middle-SES schools. For example, teachers in effective middle-SES schools contacted parents more frequently and believed that parents were highly concerned about the quality of their children's education. However, teachers and principals in effective low-SES schools did not perceive parents to be involved with the education of their children and initiated relatively little contact with parents.

It is beyond the purpose of this paper to discuss context comprehensively. However, there is growing evidence that variables that seem important in one setting are not critical in other settings. Brophy & Evertson (1976) illustrated some time ago that appropriate instruction varies in classrooms serving different types of students. Recent research has extended this qualification to variation in school context.

Wimpleberg, Teddlie, and Stringfield (1989) argue that context can include socio-political variables such as "...the socioeconomic background of the students, governance structures that determine fiscal and operational decision making, grade levels (age of students and curriculum program of the school, and more" p. 82). In the 1990s I believe that context will be defined in more dynamic ways. For example, two schools might be populated by students from a low-socioeconomic background, but one school may be located in a district that contains a core of college-educated individuals who have moved back into an urban area and in the other district no such resources may be available. In another school area there may be a grass roots movement of citizens who, although not college educated, have high expectations for what schools can accomplish and can provide considerable resources for schools. In some schools responsive staffs are ready to work with concerns of committed parents; in other schools the teaching faculty may be part of the problem. Perhaps one of the core issues for researchers in the 1990s will be to integrate the need to produce generalizable concepts and useful analytical frameworks with the fact that each classroom is unique (Rohrkemper, personal communication).

It is easy to trivialize context and to interpret it too narrowly in terms of grade, student SES, or other classificatory variables. It is clear that beliefs and perceptions that teachers and learners bring to the classroom, the assignments students receive, and the language they use at home (and on the playground) are all important aspects of context that must be considered in estimating the generalizability of empirical findings. Although recent classroom and school research have further

sensitized educators to this context, one pressing issue is the need to conceptualize more powerful ways for describing learning contexts. The ultimate goal is to achieve the match between the individual learner and the curriculum that will lead to the most productive and mindful learning. Although we have made some important progress in studying context, our ability to describe the needs of individual learners in particular settings is very limited. The caveat here is that even if one matches the context of the research report (e.g., low-SES classrooms) with the appropriate practical setting (e.g., low-SES classrooms) it is important to acknowledge and to accept the limitation that research that focuses on "average students" may make egregious errors when trying to specify the learning needs of individual students.

As Doyle (in press) argues, understanding how meaning is created in a classroom context requires a sophisticated and well-developed language for describing teachers' and students' interpretations of classroom events as well as events per se. In the 1980s researchers have made considerable progress in describing classroom events (behavior, tasks); in the 1990s we must further analyze participants' perceptions of schooling. Descriptions of both dimensions are necessary if we are to understand classroom contexts; clearly, classrooms can and do differ on both dimensions. For example, study of how teachers communicate expectations is important; however, the extent to which students perceive expectations is equally important.

Theory. One of the emerging emphases in the effective schools literature is a focus on theory. For example, work by Rosenholtz (1989) provides clear evidence that the normative culture varies in more and less

effective schools. In a real sense, Rosenholtz's work brings into the "context" discussion the beliefs and dispositions of teachers. She found that teachers in effective schools had shared goals about what was important and had the chance to collaborate with other teachers and to continue their own learning. In effective schools, teachers saw that working with others reduced their uncertainty about school practices and increased their classroom success. Rosenholtz noted that teachers' certainty about a technical culture and their own instructional practice was an important construct. As teachers developed greater certainty about instruction and further developed their technical knowledge, they seemed willing to search for reasons and ways to help students rather than looking for excuses for failure. She notes that teaching was always difficult and that there were many uncertainties and problematic aspects associated with it.

Rosenholtz found that some schools tended to conceptualize teaching as routine and other schools viewed it as nonroutine. In schools that looked at teaching as routine, teachers tended to work alone, with only their own observations and habits on which to base reflection and growth. In schools that saw teaching as more nonroutine, there were more attempts to gain and share technical knowledge about instruction.

According to Rosenholtz, "...ambiguous goals, unclear, infrequent evaluation, and a lack of common purpose lead to greater instructional uncertainty and, at the same time, grant teachers wide latitude to define and independently pursue their own goals. In other words, goal multiformity encourages norms of self-reliance and, as a consequence, professional isolation from colleagues. The absence of professional

interaction, of substantive dialogue about their work, carries profound implications: individuals may come to perceive that comparatively few colleagues suffer similar uncertainties about teaching, that they endure fewer instructional problems; and that if others experience few problems, there is embarrassment in admitting one's own. Thus, to protect their self-esteem in isolated settings, colleagues neither ask for nor expect any help, and cannot be imposed upon by others. In collaborative settings, on the contrary, teaching is defined as an inherently difficult undertaking; one that challenges the best of teachers. And if even the most capable teachers need help in similar situations, there is little reason to question one's own sense of professional worth. Stated differently, the less ego-endangering teachers' workplace circumstances, the more they will request and offer advice and assistance to accomplish agreed upon goals" (p. 6).

Psychic rewards played an important role in teachers' certainty about instruction. If principals, colleagues, students, and parents gave teachers positive feedback about their work, their uncertainty diminished.

Rosenholtz argues that teacher commitment was present in many schools to the extent that they had shared goals, learning opportunities for teachers as well as students, task autonomy, and psychic rewards from their work. Teachers in less effective schools were more interested in freedom <u>from</u>; they thought little of freedom <u>to</u>. In my opinion, the most important result of Rosenholtz's study is a coherent, integrative analysis of how the social organization of schools influences perceptions and behavior of school staff in ways that either enhance or reduce the quality of classroom teaching.

Abuses of research. Rosenholtz (1989) notes that although research on successful school practices offers clear evidence that schools affect student achievement, the potential of any strategy to enhance student performance is heavily influenced by the context in which schooling occurs. Thus, there is no easy formula for school improvement -- only guidelines and concepts that educators can use in planning improvement programs. Despite careful critiques pointing out the limitations of school research (see, for example, Good & Brophy, 1986; Good & Weinstein, 1986), many districts are attempting to apply the results of school-effectiveness research in order to improve student performance. Unfortunately, many of the prescriptions and formulae for effective schools are exceedingly narrow and undermine rather than enhance teacher creativity. Many school reform plans appear to be uninformed by evidence that the social context of a school is a key factor in planning school reform (e.g., Hallinger & Murphy, 1986).

Common Weaknesses in Classroom and School Research

Now that researchers have clarified that schools and teachers make a difference, it is important to explain more completely how processes at both levels operate and how they can be combined. Researchers should not only examine school practices (e.g., school rules) or classroom assignments (e.g., the extent to which instruction emphasizes rote learning or meaningful learning) but should also study how the effects of one teacher can be combined with the effects of other teachers in ways that do not threaten teacher autonomy yet make schooling more coordinated and effective for all concerned.

Another common weakness of research at both the school and classroom levels is that the relations examined involve student achievement as measured by standardized achievement tests. However, as Rhona Weinstein and I argue (Good & Weinstein, 1986), in addition to measuring interpretive knowledge, schools need to broaden and diversify what they teach students in the various content areas. For example, many process studies show that mathematics is taught as a means of producing exact answers. Too little time is spent on mathematical problem solving or on using mathematics for estimation and for dealing with uncertainties, despite the fact that much of our society's application of mathematics involves such activities. Other scholars also point to the need for schools to broaden their outcomes (e.g., Goodlad, 1984; Rosenholtz, 1989).

There is growing recognition that researchers need to attend to both school and classroom processes. Part of the research agenda for the future is to examine processes that facilitate instruction both in the classroom and in the school at large. Some decisions concerning the allocation of resources may improve both, but others may lead to an overemphasis at one level that erodes teacher autonomy or does not yield coordination between school and classroom resources. Weinstein and I believe that differences in teaching styles are not only inevitable but often have positive effects on students. Thus, attempting to balance school and classroom concerns is not an argument for teachers in the same school to use similar styles and practices. Rosenholtz (1989) provides data that demonstrates that individual teacher autonomy and a shared direction for the school can co-occur. Indeed, her data suggest that both

dimensions must be present if teachers are to feel intellectually challenged and supported in their school settings.

The idea of teachers exchanging ideas and improving instruction is not based on the notion that teachers will imitate a particular teacher or a program goal. Rather, if schools are to affect student outcomes significantly, teachers must be cognizant of how other teachers in the same school teach, including teachers at other grade levels, and know how to use other teachers as resources (Good & Weinstein, 1986).

Teaching as Professional Activity

It is beyond the scope of this paper to review the literature on teaching as professional activity. However, as I have noted elsewhere (Good, 1989), there is increasing evidence that many teachers are dissatisfied with the conditions in which they work. For example, in a study conducted in 1988 by the National Education Association, many teachers reported dissatisfaction with their involvement in decision-making. Ninety-four percent of the teachers indicated that they should have some say about other teachers who are hired, 88% indicated the need for an active voice in standardized testing policies and procedures, and 82% wanted more opportunity to discuss budget issues. Given these teacher beliefs, there is growing recognition of the need to allow teachers more opportunity for significant involvement in school management. If teaching is to be a profession, teachers need some opportunity to influence the conditions of teaching.

Freidson (1984) contends that it is not necessary to speak of deprofessionalization as long as the formulation and direction of professional work remain in the hands of members of the profession.

However, in certain professions in which workers make the putative claim to be professionals, this issue of control is extremely problematic. Increasingly, the control of education is in the hands of members of state boards of education or state departments of education, although their formal connection to university faculty members, public school teachers, and educational researchers is often remote at best. The argument that members of the education profession are controlling the direction of the profession is therefore extremely problematic and in many cases erroneous.

Decisions about standards of curriculum and pupil performance are increasingly made by individuals who have little understanding of student cognition and development, formal knowledge of subject matter, and insight into instructional process linking students and subject matter in integrative ways (i.e., sophisticated decisions about what subjects and instructional methods are appropriate for particular students). Even though our technical knowledge of teaching is expanding and it is the case that we understand better the degree of integration of knowledge that must occur if teachers are to enact curriculum meaningfully (e.g., Doyle, in press). Teachers' and schools' capacity for decision making is being diminished by external influences.

Ironically, schools' inability to function professionally and productively is at least partly to blame for external constituencies' demands (and legislation) for reform. It was not an arbitrary public that demanded that school principals be trained in financial and bureaucratic ways, which left them largely uninformed of major advances in curriculum and instruction. That is, principals' low level of concern

with critical issues of instruction and curriculum is due in part to decisions by many local school boards, who value orderly and smooth-functioning schools. Teachers, as a professional group, have been remiss in asserting the joint ownership of the curriculum with lay boards. All too often, teachers' expertise and knowledge of instruction has been ignored in favor of the opinions of lay boards and administrators who are far removed from advances in the field.

Thus, there seems to be a lack of normative beliefs about the value of a technical culture and unwillingness to spend resources to advance the technical culture (and challenge extant practice) in most school districts. It is altogether fitting to assert that federal funds for educational research have been inadequate. However, it is also important to recognize that school districts largely refuse to invest in research and development activities that have enormous potential to enhance teachers' technical knowledge. The call here is for school districts to invest more in small-scale research and development ... large-scale research I would see as a federal responsibility.

Two other factors have also limited educators' ability to be treated professionally. First is the fact that there was essentially no knowledge base until recently, and even now there is a very limited one. It is also the case that many teachers and principals are ill-informed about even the small knowledge base that exits. Until both groups have the opportunity and begin to act more as professionals, they are unlikely to be treated as professionals. Professionals or teachers who are too busy to read are not professionals.

Changing school structure. One of the obvious reasons for jointly considering school and classroom variables in research as well as policy is that many changes that are necessary in classrooms -- especially those designed to professionalize teaching -- can only occur if structural changes are made in schools. For example, Romberg (1988), contends that for teaching to become a profession, it will be necessary to make it a full-time job. He notes that the United States is the only first world country that hires teachers for 9 to 10 months. He further notes that class loads must be reduced if teachers are to have time to reflect, to plan, to work with individual students, and to collaborate with peers. According to Romberg, 3 hours a day of instruction are more than sufficient for any professional teacher. Furthermore, master teachers need not meet every class every day for every student activity. If the schedule were so organized and if staffing were appropriately done, master teachers could offer direct instruction only 2 or 3 days a week and other adults could supervise other activities. In elementary schools, meeting classes only on certain days of the week might be disruptive of continuity for both teachers and students. Hence, at the elementary school level it might be more viable to talk about meeting classes for fewer hours during the day. Further, in some school environments it might make sense for more face-to-face instruction than is presently the case. The point is not necessarily that "less" is better (e.g., in Japan teachers engage in more face-to-face instruction) but that we should begin to match instructional time and staffing decisions in terms of the problems and opportunities that are presented in particular school contexts.

Romberg argues that the profession needs a career ladder so that teachers can see a professional future. It makes little sense to give teachers who have taught competently for 10 years the same responsibilities and resources that beginning teachers have. Although one might not agree with all of Romberg's beliefs (e.g., the need for a full-year calendar), he makes a compelling argument that many of the important changes in classrooms require intervention in the schools as well. The structure and the social organization of schools must be altered if classroom teaching is to be improved and, similarly, classroom teaching must be enhanced if schools are to be more productive and stimulating academic environments.

Teacher collaboration. Structurally, schools discourage collaboration and encourage, at least implicitly, isolation. Rosenholtz (1986) argues that several factors can contribute to organizational inertia that characterizes most schools: the absence of performance feedback, a lack of collegial assistance, and limited teacher participation in the development of instructional programs. Rosenholtz (1989) has shown that changes in the social organization of schools can be associated with different norms for peer assistance (e.g., whether it is permissible to seek help or information when one has a problem).

Bird and Warren-Little (1986) note that few public schools sustain strong norms of collegiality and instructional experimentation and that these characteristics are sufficiently clear in these few schools to make their absence in other schools highly salient. According to these researchers, schools organized for continuous improvement will cost more than the schools we have now. However, we will pay more later for failing

to encourage these norms now, and these researchers urge investments that will improve the conditions of teaching. From their perspective, the most important prerequisite for improvement is time with colleagues: time for teachers to study, analyze, and improve instruction. They note that 1 hour a day might be used to support coaching and teamwork to improve lessons, materials, and tests. In terms of providing more time with colleagues, 3 hours could be added to the week, and 2 weeks to the year. It seems evident that collegiality is a characteristic of professional behavior. However, given that the workplace discourages collegial interaction, it seems clear that more opportunity must be provided for teacher-teacher interaction if teaching is to become more professional in nature. However, if teachers are to benefit from this exchange, they must possess an expanded technical knowledge base.

Sykes (1986) notes that school reform is beginning to include an interest in increasing teaching's attractiveness, in enhancing its image as worthwhile, satisfying work. He argues that professional standards rest ultimately on attitudes, beliefs, and actions of teachers. Teachers' commitment cannot be controlled and monitored from without; it must be created from within through work processes in schools, and it rises out of interactions among teachers. Similarly, Darling-Hammond (1986) believes that peer review and control are the central tenets of professionalism. Yet another characteristic of professionalism would be the capacity for self-regulation informed by a professional knowledge base (see Freidson, 1984). Unfortunately then, teaching is seen to be lacking another aspect of professionalism.

Research and shared decision making. Others, too, have lamented the limited role of educational research in educational decision making. For example, Glaser (1984) argues that education is one of the least research-supported professions. Perhaps this is one of the reasons why so little widespread public support exists for paying teachers professional salaries. Further, although good teaching involves considerable art -- and always will -- (e.g., timing, an example that appeals to affective and aesthetic needs as well as cognitive ones), it also represents an opportunity for teachers to provide a basis for shared decision making, an understanding of key issues, and awareness of empirical propositions that have been examined in actual classroom practice (i.e., there is also a scientific basis). As Billups and Rauth (1987) persuasively argue, with only "art" and no "scientific" basis, public acceptance of teaching as a profession is unlikely to occur.

Others have argued for enhancing teachers' professional role by providing research opportunities (e.g., Rosenholtz, 1989; Strickland, 1988). Conducting research should also allow teachers the time and resources to collect and organize data and discuss their implications. Teachers can work in small or large groups as appropriate and can occasionally collaborate with university researchers. What is important is that teachers share ideas, reflect on teaching, and extend their knowledge of alternative practices. However, it is clear that teachers need time if they are to engage in the type of reflective scholarship reflected in the work of practitioner-scholars -- time to make tapes, keep copious journals about certain aspects of teaching, and to share these ideas with colleagues (see for example Lampert, 1985; 1986a; 1986b).

Synthesizing Teacher-Level, School-Level, and Professional Development Research

Research at both the classroom and school levels paints an increasingly complex picture suggesting that successful teaching is associated with numerous variables that can take many forms. Research has moved from a focus on teacher behavior (20 years ago single teacher behaviors were sometimes the subject of investigations) to studying beliefs, intentions, and reciprocal (teacher-student) causation.

It is now understood that the context in which teaching and learning occur is of utmost importance. However, context itself is a complex, multidimensional variable. Context is more than the definition of the student population (e.g., a high-SES setting); it also includes teachers' skills and dispositions about learning and change (e.g., Can some or most teachers in a school appropriately use small-group instructional models when they choose to do so?). In analyzing teaching-learning contexts, the subject-matter knowledge of teachers in a school is important, as are the various beliefs that teachers hold about instruction (e.g., How do they conceptualize mathematics? Does it imply speed and right answers, or the search for patterns and understanding?). School practices and individual students' learning experiences also are part of context (Do students have experience in working in small groups, and what is the nature of this experience?).

Given the complexity of and variation among instruction-learning settings, research findings -- no matter how clear the relevant theory or how robust the findings -- must be interpreted in relation to individual teachers and individual schools. This is not to suggest that concepts

like alerting or wait time have no general meaning; they have significant implications. However, the effective implementation of a concept (e.g., from research on teaching) can take many forms, and a teaching behavior may be appropriate in some contexts but not in others. Even behaviors that have wide applicability are not useful in some schools or classrooms. Teachers must analyze and discuss findings and concepts from research on teaching in terms of their teaching situations.

The argument that teachers must "act upon" research has important consequences for the design of in-service and school-improvement programs. It suggests that school districts should terminate the practice of moving from program to program and looking for "answers" from research. Rather, schools should carefully reflect on their own opportunities, define their own problems, and then identify relevant research and explore actions that the research suggests. Research would stimulate discussion and suggest alternative practices.

The notion of teacher as interpreter and selective user of research provides an intriguing area for subsequent research. Specifically, if more schools used this approach to organizational change, researchers could study how different models work in various types of schools. As I argued earlier in this paper, the quality of a method of organization or a process is much more important than its form. For example, small-group instruction can be used in ways that encourage students to be more passive or more active. The use of this method does not predict students' involvement or the extent to which they examine skills or concepts. Similarly, institutions that allow teachers to reflect on research findings or research educational issues of interest to them would

implement the ideas and opportunities in various ways. Indeed, the use of reflective study teams might control thinking about curriculum reform in overly-rigid ways, resulting in unnecessarily similar instructional approaches. Various structural opportunities (e.g., time for face-to-face dialogue with peer teachers) and resources provided to facilitate teacher decision-making and planning for curriculum reform are significant topics for future research.

There are alternative ways for organizing information for teachers. For example, researchers might summarize what is known about differences in more and less "effective" environments within a particular context so that teachers can consider the value of that information, particularly in relation to their own classes or schools (Good, Grouws, & Ebmeier, 1983). Similarly, teachers can benefit from results of research on student learning in a specific subjects. For example, Carpenter, Fennema, Peterson, Chiang, and Loef (1988) found that knowledge about how students learn basic addition and subtraction was useful to teachers. However, whether the information provided to teachers involves teaching behavior or covert student variables, teachers must be encouraged to "act on" (e.g., evaluate) the information.

Areas of Research that Merit Investments

As I mentioned previously, many potential research topics are not discussed in this paper (teacher recruitment generally or minority recruitment specifically, home-school communication, computer usage, comparative studies, and knowledge utilization studies to name but a few). Further, I want to stress that my intent here is not to order research priorities or to suggest the design for specific studies. Rather, I want

to illustrate some of the many types of research that could -- and I believe that should -- be funded in order to enhance the knowledge base of classroom and school learning. I believe that increasing this knowledge can assist in the design of schools that encourage more reflective and productive performance.

Teacher Research and Scholarship

If educators and policymakers are interested in stimulating school improvement efforts that enrich both classrooms and schools, they need to give teachers opportunities to explore curriculum and instruction and to share their thinking with one another. For example, fourth-grade teachers might want to improve students' thinking (processes and products) during small-group instruction. A pair of teachers who work in a high- and a low-SES school might tape record a representative group of four or five students during small-group assignments, on repeated occasions. After studying the tapes and defining the problem, the teachers could read relevant literature, consult with other teachers in the district and researchers who have conducted studies in the area, and develop a plan for altering curriculum or instruction. The two teachers could observe one another's classes (watching students interact) and assess the effects of changes on students. The tape recordings would be available for reanalysis by other interested teachers and researchers who might define success in various ways. Thus, like all scholarly activity, the research would be conducted by people who are experts (certainly no one would know the classroom context and the needs of students any better than the teachers conducting the study and other teachers in the district who teach similar students) and would include peer and professional review.

There are many potential advantages of teacher research and scholarship. For example, they help teachers to think more deeply about problems and issues -- especially problems that teachers can help to solve. As noted earlier in the paper, much unsuccessful curriculum reform has been generated by persons who have little information about classroom and school factors that may hinder reform. Further, teachers seldom have the chance to discuss ideas with other teachers. Thus, by promoting the sharing of resources and ideas among teachers who teach in similar contexts (e.g., same grade, same topic) and different ones (e.g., students of varied achievement) research can illustrate to teachers how an instructional behavior, for example, might have different effects in various settings.

With any research, the critical factors are the skill of the researchers and the usefulness of the questions raised by the research. I suggest that teachers be allowed to explore any question that they deem relevant. However, some secondary guidelines for evaluating research proposals might be useful. Although it should be possible to fund significant projects submitted by individual teachers, teachers should be encouraged to submit proposals jointly, since teachers otherwise work primarily in isolation. Thus, perhaps a small preference should be given to joint proposals.

A second guideline would require some clear support of projects from the district (e.g., perhaps matching one-half the cost of the grant). If schools do not allow time for teachers to reflect on schooling and discuss it with peers, then the district should provide teachers with sufficient release time to do so.

Third, proposals involving research that affects both classrooms and schools should be favored. For example, there is considerable evidence of needless redundancy of content (see McKnight et al., 1987) so that a research project that would lead to comprehensive curriculum knowledge and to greater coordination of curriculum and instruction among grades in a school would be very useful. Another means of assuring participation of teachers at various grades in research would be to require teachers who are funded to report on their study to the entire school. All teachers in the school could debate the usefulness of knowledge from the research at various grades.

Teachers' Performance Expectations

Although much is known about how teachers form and communicate expectations for individual students, little is known about how teachers develop expectations for entire classes of students. It seems instructive to inquire into this process for all teachers, but especially for beginning teachers. Many teachers have not had much experience teaching or observing at a grade level until they have a formal contract and begin teaching. For example, a beginning teacher may observe in a first-grade classroom as a requirement of a university class, student teach in a third-grade class, and then begin teaching in a sixth-grade class. Thus, a teacher may be especially likely to adopt the norms held by other teachers at the same grade level in the school in which the teacher first teaches. Obviously, mentor teachers or more experienced teachers may also have limited knowledge of appropriate performance expectations for students at particular grade levels.

One wonders how teachers learn what constitutes appropriate subject-matter teaching (e.g., level of cognitive sophistication) at a particular grade. How can teachers determine what constitutes appropriate and accurate subject-matter teaching to a particular class of students? Could teachers of equal talent who start to teach in similar contexts (e.g., same grade level, same type of pupils) develop radically different conceptions of what is important and appropriate? If so, how do these conceptions influence classroom assignments and interactions with students? Do teachers' performance expectations for students influence students' beliefs about various subjects? How can beginning teachers gather and analyze useful data about appropriate performance standards for classes and for individual students? Do teachers discuss issues associated with content selection and pace, and how do they decide on appropriate standards?

Within this general theme, one could empirically study many questions. For example, do teachers who student teach at the same grade (or an adjoining one) at which they begin teaching develop more appropriate conceptualizations of teaching than other teachers? Do these teachers simply continue to do what was modeled for them in student teaching, with comparatively little reflection?

Obviously, countless questions could be raised about beginning teachers and how they learn to teach. However, considering the growing interest in the normative influence of colleagues on teachers and in subject-matter teaching, it is important to examine how teachers develop performance expectations for students in various subjects. Virtually

nothing is known about this topic, and research and development might increase teachers' expectations.

Creating New Student Outcome Measures

Teacher- and school-level research have resulted in a growing interest in addressing higher-order outcomes. In many districts teacher accountability measures determine the curriculum. This is unfortunate, because most accountability devices yield a narrow definition of curriculum. Some situations are particularly tragic. For example, despite massive funding of Title I and Chapter I programs, many low-achieving students continue to have difficulty in mastering basic skills. The focus on basic skills often initiates a chain of events that almost guarantees that many students will make little progress. Because assessment of remedial programs stresses mastery of basic skills, teachers who believe that low-achieving students need more practice and drill if they are to master basic concepts may overemphasize drill and practice. Students are exposed to the same concepts year after year and continue to memorize formulae and processes that are neither meaningfully presented nor studied in a motivating context. The curriculum is often so narrowly focused that many low achievers do not understand the general principles and concepts that are associated with the skills. Moreover, since most learning in some contexts involves rote memorization, any learning that occurs is quickly forgotten. When achievement tests indicate that students' performance on basic skills has not improved substantially, pressure for drill and practice increases.

There is good reason to believe that a balanced instructional program that focuses simultaneously on skills, concepts, and problem solving could

help students to become more active and successful problem solvers. Greeno (1989) suggests that a key question related to emphasizing critical thinking is whether individuals can think reflectively rather than simply carry out procedures or statements without any real understanding.

Since the brain codes and processes information, virtually any stimulus from the environment will produce some thought. Newmann (in press) notes that all cognitive processes, for example, watching a baseball game, reading a map, or listening to a teacher, are "complex" in a neurological sense. How, then, can one distinguish higher-order thinking from other forms of thinking? Newmann (pp. 4-5) makes the distinction in the following way: "Lower-order thinking demands only routine, mechanistic application of previously acquired knowledge; for example, repetitive exercises such as listing information previously memorized, inserting numbers into previously learned formulae, or applying the rules for footnote format in a research paper. In contrast, higher-order thinking challenges the student to interpret, analyze, or manipulate information, because a question to be answered or a problem to be solved cannot be resolved through the routine application of previously learned knowledge."

Obviously, this distinction is relative, because what constitutes a challenge, puzzle, or higher-order thinking for one student might only be a repetitive exercise for another student. Thus, research in the 1990s will need to explore how particular teacher examples or assignments encourage students to analyze and integrate the new information and assignments. In this sense, the study of teacher behavior becomes a fundamental challenge when researchers ask questions about how teaching

influences student thinking. For example, when they ask what makes a good lesson presentation, the answer may vary depending on what one wants students to do (e.g., to know how others have defined the problem, how others have attempted to solve the problem, or to attempt new and novel responses).

Newmann (in press) is developing observational scales in an attempt to identify social studies classrooms that are "mindful" (encourage higher-order thought) versus those with a routine, mechanistic focus. As the history of research on teaching indicates, effective teacher behaviors are varied, and what works in one classroom context may not necessarily work in another. The empirical investigation of "mindful" social interaction and thought is intriguing and, I believe, important. However, I want to stress that this work will not yield a list of the key characteristics of classrooms that encourage higher-order thought but rather will offer concepts and terms that allow meaningful distinctions among teachers and classrooms. What 30 or 40 characteristics describe a "mindful" social studies classroom and how might that classroom differ from a "mindful" science classroom? Do Chapter I classrooms have unique constraints on mindfulness? What are some of the important ways in which context variables (age of students and type of school setting) interact? By anticipating both general findings and context effects, researchers are more likely to discover relevant characteristics than if they assume that the outcomes will be general (or highly situational). If progress is to be made in this area, several studies that examine different contexts should be funded.

Because teachers are vulnerable to external pressures, including an emphasis on test scores, they are unlikely to include higher-level objectives in classes populated by low-achieving students unless accountability devices are changed substantially; particularly in the early grades, where the greatest percentage of test items now cover "drillable" content. Moreover, defining the curriculum in terms of a test imposes problems for all students. For example, many talented students study content that they have mastered in earlier grades.

Attention to students' ability to use information, to collect data, to pose interesting questions, to use subject matter to answer their own questions is needed in addition to the study of basic skills. It is now time for educators to emphasize these outcomes of schooling that have been neglected. Although important advances have occurred in educators' thinking about successful instruction, most achievement tests do not measure students' progress on the basis of this modern, comprehensive view of learning. Thus, we cannot assess whether instruction that combines adequate subject-matter knowledge, pedagogical content knowledge, and the ability to construct classroom environments that call for both active student learning and active teaching improves students' higher-order thinking skills. Unless we develop better outcome measures, we will be forced to accept claims about the influence of curriculum approaches on students' higher-order thinking skills with no compelling evidence, or we will simply have to ignore the issue. It seems to me that neither of the latter positions is acceptable.

I do not advocate state-mandated (or federal) testing programs, and I believe that money spent on these programs wastes valuable resources that

could be spent on other activities. For example, some states test all students at a particular grade level, when other designs would yield equally valuable information and save a vast amount of money that could be reallocated to activities that would be of more use in improving teaching-learning. My comments here in terms of the need to develop new assessment devices are not an argument for improving state-mandated testing programs. New instruments that are carefully conceptualized and validated would help many schools to more successfully reflect on and plan for improving their curricula. Further, to address sophisticated questions about the effects of multiple variables on student learning, researchers will also need better instruments. However, if states rather than individual schools and local communities insist on using state-mandated testing programs, then it seems imperative for those states to develop assessment procedures that examine student performance in more sophisticated and diverse ways.

Curriculum

With the increasing interest in subject-matter variables in classrooms, it is important to encourage research that identifies key concepts in various subjects and to begin programs of development. Much has been written about the need for mathematics teachers to focus more on problem solving, but relatively little conceptualization has been given to the nature of the problems students are to explore. In what ways do good problems at the third- and sixth-grade level differ? What concepts should be taught in fourth-, fifth-, and sixth-grade science and mathematics? As teacher-researchers and researchers identify those concepts, the study of many related issues could be structured. What strategies are best for teaching particular concepts? How can research identify, extend, and

validate extant pedagogical content knowledge? How can researchers identify the knowledge teachers possess and how can they use information coming from cognitive science and other research in order to enhance teachers' knowledge of subject-matter teaching?

What beliefs do teachers hold about teaching generally, and math and science specifically, at grades four, five, and six and how do these beliefs influence teaching of particular subject-matter concepts? Is it possible to document relationships between clusters of teacher behaviors (including teachers' subject-matter knowledge, pedagogical content knowledge, knowledge of how students learn particular content, and general knowledge of teaching), and how teachers help students learn certain concepts, as well as the effects of such strategies on students' learning and performance?

Some important work has been started in this area, and it is clear that satisfactory performance does not necessarily guarantee that students' understanding of concepts is adequate. Ball and McDiarmid (in press) note that in various subjects there is growing evidence that students can produce satisfactory work without understanding the subject matter. Similarly, Schoenfeld (1985) describes the inability of his undergraduate mathematics students (most of whom had done well in an earlier college calculus course) to explain some fairly simple geometric problems. Although the students, working as a group, could solve the problems, they struggled to explain why a particular solution had worked.

A recent examination of the problem of mathematics instruction in the United States is summarized in the 114-page report, Everybody Counts: A Report to the Nation on the Future of Mathematics Education. This

document contends that, "today's schools labor under the legacy of a structure designed for the industrial age misapplied to educate children for the information age." If this strong message is correct, then the basic mathematics curriculum needs drastic changes. However, we have little evidence on or conceptualization of what the curriculum for the information age should look like and how that curriculum might vary across contexts (e.g., an inner-city elementary school; a suburban high school; a rural middle school). It is time to begin this important work. Although there are many ways to approach the curriculum issue, one interesting framework is the notion of students' misconceptions that prevent students from understanding new information or new instructional activities (potentially valuable new data or instruction is misperceived because of inadequate or faulty cognitive structures). Thus, educators must determine what common misconceptions students hold. How can we identify, extend, and validate knowledge of instructional strategies that help students to develop more accurate and useful conceptions? Does successful teaching in grade four (i.e., appropriate use of pedagogical content knowledge and subject-matter knowledge) allow grade five teachers to spend less time correcting misconceptions and more time presenting new concepts or exploring new applications of concepts that students have previously learned? If the knowledge of teaching subject matter in particular settings (e.g., science and mathematics concepts in fourth, fifth, and sixth grades) becomes more advanced, how might the considerable time previously used in grade six to reteach, review, and correct students' misconceptions be reallocated so that sixth-grade students could explore science and mathematics in novel ways?

Student Mediation

It is important to explore the conditions under which students are encouraged to think. Recent research and conceptualization (e.g., Wittrock, 1986) have focused on how students process information from teachers, textbooks, or classroom activities. However, there is virtually no information about which assignments and teacher behaviors are more likely to engage student thinking. What constitutes a good seatwork activity or good end-of-the-chapter questions? Does the quality of good seatwork tasks vary with student ability and their perceptions of the task or are there some general characteristics that can be articulated?

It is popular to assume that when students "do" they are more likely to think, although there is little evidence on this topic. Activity in classrooms is in many respects similar to activities elsewhere. For example, one would not argue that U.S. automobile factory workers on an assembly line engage in much job-related systematic thinking. Similarly, activities that involve students in applied work may not stimulate their thinking, particularly if students engage in them frequently. For example, many students will "tune out" if they frequently work in groups. When teachers lecture for long periods, many students' attention may begin to wander, although certain types of teacher talk may stimulate active thinking. Research needs to describe various types of classroom presentations and activities and whether these stimulate student thinking and covert reaction.

Covert thinking. Several theories could serve as a basis for this research. For example, Rohrkemper (in press) argues that inner speech guides thought and action as students attempt to deal with learning

situations. She notes that two distinct types of inner speech have been identified and represent the potential integration of the affective and the intellectual. Self-involved inner speech reflects control over the self through enhancing motivational and affective statements, whereas task-involved inner speech involves control over a task through problem solving and attempts to modify the task to make it more understandable or more "doable." Thus, in combination, self-involved and task-involved inner speech may allow students to function in adaptive ways either by enabling them to change a task or to modify their self-perceptions and/or effort.

Students bring complex histories to school learning tasks. They differ not only in the ways in which they have achieved mastery over particular concepts or the cognitive skills they possess but also in whether they can use self-involved inner speech in relevant and adaptive ways. Some students have learned to use their resources to deal with difficulty. Others have learned to give up or to turn to others for help when they have trouble learning. How students at various levels benefit from interaction with the teacher or with peers is far from clear and is an important topic for research. What happens when particular students are grouped? If one student in a group cannot use self-involved and task-involved inner speech with facility, is this an advantage or a disadvantage? Although it is currently popular to argue that grouping promotes active learning, we do not know how tasks and group membership affect the information processing of individual learners. Such research should be funded so that student thinking in classrooms can be examined.

Problem-solving style. Recent cognitive science research has produced some fascinating findings about individual learners in laboratory settings and research on student learning continues to yield interesting findings. However, as exciting as these findings are, their application to classroom learning is problematic. In one such study Duemler and Mayer (1988) examined students' reflection in non-classroom problem-solving situations. They explored the prediction of rationality theory (e.g., Baron, 1985) that more reflective individuals perform better on problem-solving tasks than more impulsive individuals. In assessing students' scientific reasoning, they noted that some students were likely to verbalize their hypotheses much more rapidly than other students, who waited for more evidence. These investigators wanted to explore the influence of this behavior -- willingness to express hypotheses -- on problem-solving success.

In two experiments using college students and employing different dependent measures, Duemler and Mayer obtained consistent results -- a U-shaped relationship between the subjects' tendencies to state incorrect hypotheses on conventional rule-induction problems and subsequent success in solving an unconventional problem. That is, students who never stated incorrect hypotheses on conventional problems performed relatively poorly on solving an unconventional problem. The researchers reasoned that these students' poor performance might have occurred because their search for problem solutions focused on conventional hypotheses. In contrast, subjects who sometimes stated incorrect hypotheses for conventional problems tended to perform well on an unconventional problem. According to Duemler and Mayer, this is probably because these students' hypothesis-

generation styles allowed them to develop unconventional hypotheses and to systematically evaluate these hypotheses.

Do these results apply to a teacher who works with the class as a whole? Do they suggest that the teacher should develop students' capacity to verbalize reasonable hypotheses, or that students should have more domain-specific information that might reduce memory load and hence make it easier for them to generate relevant hypotheses? What implications does Duemler and Mayer's work have for teachers who assign students to four- or five-person teams? Does it suggest that there should be a mix of impulsive and reflexive learners? Does the appropriate match or mismatch of students on the basis of reflexive style vary as a function of tasks, age of students, subject matter, or friendship patterns? I want to emphasize that I find the Duemler and Mayer study valuable; however, such studies must be conducted in classrooms, where numerous variables affect student performance.

It is clear that students think and that their thinking mediates teacher behavior and class assignments (the same assignment will mean different things to different students). However, research needs to explore what teacher statements and classroom activities stimulate higher-order thinking, especially on the part of students who have been passive learners for several years. It seems especially important to integrate theories of learning and development -- for example, the role of social language in facilitating learning (Rohrkemper, in press) with theories of classroom contexts. We need comprehensive naturalistic and experimental studies of how student developmental variables interact with student learning styles (e.g., learned passivity) in various learning situations

(e.g., rural classrooms). These studies can examine both instructional and curriculum variables.

Classroom organization. Another factor that affects student thinking is classroom organization. I believe that small-group instruction can enhance students' higher-order cognitive skills. When I point out the limitations of small-group instruction, I do so only because I want to see the format used appropriately. There is a tendency to equate small groups with increased student activity and thinking. However, some sophisticated research illustrates that small-group instruction, like whole-class instruction, has various effects and that the quality of instruction is most important.

Peterson and Janicki (1979) studied fourth-, fifth-, and sixth-grade students' academic and affective responses to small-group and whole-class learning situations. Their data showed that low-ability students achieved better in whole-class settings. Janicki and Peterson (1981) found that both high- and low-ability students had more positive attitudes toward mathematics in the whole-class context than in the small-group context. Students who initially had more positive attitudes toward math and who had a high internal locus of control did worse in learning situations in which direct instruction was utilized.

Cooperative curriculum tasks. In addition to classroom organization, the curriculum tasks that students are assigned also affect students' thought processes. Good, Reys, Grouws, and Mulryan (1988) report that students who have been asked to work cooperatively in small, heterogeneous work groups often work independently in part because they have done so in previous years. Thus, tasks must be carefully designed to encourage

cooperative behaviors. Even when efforts are made to insure that a task is significant and calls for cooperation, some high-ability students still prefer to work alone.

Other students may become relatively passive in groups. Indeed, there is clear evidence that many students have learned to withdraw from classroom learning situations and seldom initiate contact with teachers about academic issues (e.g., Good et al., 1987). How, then, do teachers deal with students who have learned not to verbalize their tentative thoughts and that sharing information often leads to the perception that they are inferior to other students? Research that examines how students interact in small cooperative groups, that compares student thinking and student success across various dimensions and types of tasks, would help us better understand when and how grouping can stimulate productive student thinking.

Generality of cognitive task. Another important variable in student mediation research is the level at which students' cognition is addressed. Although some cognitive science theorists argue that adaptive thinking is very situation-specific (e.g., Greeno, 1989), other theorists are more optimistic about the potential of schools to enhance students' cognitive ability. For example, Perkins and Salomon (1989) note that a belief in the generality of cognitive skills is to some extent on the rebound. At one time, psychologists argued strongly for the generality of cognitive skills. Then the field went through a period in which it was popular to argue that cognitive skills are highly context-specific. According to Perkins and Salomon, early advocates of the importance of general cognitive skills paid too little attention to the need for a rich

knowledge base and spent little time theoretically articulating how skill transfer was to occur. Because of these mistakes, many critics expressed considerable skepticism about the value of general cognitive skills. However, these overreactions have caused problems as well -- most notably the failure to recognize how general heuristics help when experts face atypical problems in a domain, how general heuristics can help an individual to use domain-specific knowledge, and how lack of conditions needed for transfer (rather than domain specificity) may be to blame for many cases of failure of transfer.

Perkins and Salomon make the interesting and useful distinction between educating memories and educating minds. They argue, "to be sure, general heuristics that fail to make contact with the rich domain-specific knowledge base are weak. But when a domain-specific knowledge base operates without general heuristics, it is brittle -- it serves mostly in handling formulaic problems. Although we don't want the weak results of the kind of attention to general heuristics that neglects knowledge base, we also don't want the brittle competency forged by extensive attention to particularized knowledge! We would hope for more from education. And according to the synthesis theory, we can get more" (page 23).

These authors point out that most efforts to develop general cognitive skills have not focused on bringing together context-specific knowledge and general strategic knowledge. They argue that education now needs this integration, that it needs to go beyond educating memories to educating minds, which is the central issue of education.

According to Perkins and Salomon (1987, 1988), there are now guidelines available for classroom practices that can foster the transfer

of knowledge and skills. Studies suggest that certain general skills that seem to have a reasonable degree of generality can be taught directly (e g., Palincsar & Brown, 1984). It would seem that research studying how studen' mediation variables operate in specific curriculum areas would be of considerable importance. What are general cognitive skills we would want students to have for dealing with "data" (or whatever) in fifth-grade science and math classes and how do explicit forms of student thinking influence the level of generality at which the concepts of "data" can be learned in a classroom setting.

Again, I want to call attention to how fragile the knowledge base in student mediation is. Although a few studies have examined student behavior during small-group instruction, few have examined both student behavior and student thinking. Fewer studies yet have looked at how task demands influence students' conceptualization (Is cooperation among students required? Is detailed domain-specific information required?). At this point, needed are comprehensive strategies that explore how organization (large group, small group) tasks and student mediation operate simultaneously.

Arguments about the importance of student mediation during instruction is becoming increasingly complex and several models have been developed for helping to explain why students sometimes have difficulty in understanding key concepts ... concepts that often teachers spend a lot of time on in instructing students (e.g., Perkins & Simmons, 1989). The richness of cognitive science basic research, however, needs to be brought into the classroom and we need to begin to explore how students react to specific lessons under known instructional conditions.

We need to make major investments exploring various students in various contexts (e.g., first graders learning to read, college students exploring introductory physics concepts). We need to recognize that much basic research needs to be funded exploring student mediation and thinking in actual classroom situations. Laboratory research has been important and should be continued; however, we need to recognize that students learn in complex social environments and we need to explore cognition in those settings. Further, the attempt must not be to teach students simply skills but rather to assist students to reflect and think in complex environments.

The argument here is not necessarily for applied work simply because the focus is on classroom learning. Rather, I believe that OERI should invest heavily in basic research studies that attempt to determine how students think during various classroom events. Do students attend more to teacher presentations than peer presentations and is this true across different types of tasks? How long do students attend to any informational source (whether reading silently or talking to a lab partner)? We need a generation of research on cognition in classroom settings. Thomas (1980, 1984) argues convincingly that the miracle drugs of the 20th century were the direct antecedents of 100 years of prior pure and often seemingly irrelevant science. Thus, again, I argue that research is needed that explores basic cognitive processing of students during classroom instruction with no necessary intent upon improving instruction in the short run. We need to understand how students process and perceive information under various classroom conditions. However, as argued earlier, we do need to more critically conceptualize the issue of

student thinking within specified boundaries -- in response to specific curriculum issues and teacher variables.

School Structure

Considering the concern with making teaching more professional by altering the workplace conditions of schooling, funding agencies and school districts should invest in experiments at the school level in which the structural conditions of teaching are altered. Schools selected for participation in such research must demonstrate that their teachers and administrators have already developed norms for professional collaboration among teachers (e.g., exchange information, gather relevant data and other information, put new insight into practice). By studying such schools, researchers could determine what teachers who work as professionals can accomplish. For example, it might be useful to examine what would happen if teachers reallocated 20% of the time they spend instructing students to other activities. In such restructuring experiments, it would be important to determine how teachers reallocate time (read more, phone more parents, talk with peers, conduct action research, observe other teachers, build curriculum units) and how changes in time utilization affect students' performance and motivation. Could schools be redesigned so that students spent more of their time in constructive group work and individual activities? Students in such schools might have the opportunity for more labwork and independent study. Curriculum units in these schools might be better integrated, emphasizing concepts rather than isolated facts. Reciprocally, one could argue that new structures and related opportunities might not be used to motivate and to extend student thinking but rather to supervise and to control students

since the learning activities would be less teacher-directed, at least for some portions of the day. To reiterate, because the process of restructuring is of critical importance, it is important to verify that teachers in schools participating in the funded experiments have already exhibited the capacity for professional behavior. The issue to be examined would not be what happens when schools are given more funds but rather what happens when schools that allow teachers to function in professional ways are given adequate resources to expand teachers' role as professionals.

Power (1989), drawing upon a recently complete study by the RAND Corporation notes that the RAND Corporation had been successful in identifying a list of contract statements that helped to distinguish reform-minded faculties that were supporting teacher professionalism. In the study, roughly 20 differently contract provisions promoting teacher professionalism were identified. Included among the list were some of the following: 1) duration of school day is specified, 2) teachers are guaranteed preparation periods, 3) maximum class sizes are specified, 4) teachers paperwork load is limited, 5) number of classroom interruptions are limited, 6) salaries are paid during sabbatical leave, 7) teachers evaluated as unsatisfactory get help, 8) the number of subjects, grades, or ability groups a teacher must teach is limited. Needed are clear theory and good empirical data to illustrate how contracts and other structural variations influence school learning.

Hallinger (1989) points out that some -- perhaps many -- high school principals would not be able to serve as instructional leaders. He argues that it may be possible for high school principals to become effective

instructional leaders by developing teachers' leadership capacity. However, in my opinion, to be an instructional leader a principal must also have a good general knowledge of research on effective teachers and schools. Although a principal cannot achieve specialized knowledge in all areas, he/she should understand some of the issues involved in designing and evaluating teaching-learning in complex subjects. Still, the issue of school leadership teams and local decision making opens up exciting possibilities for different types of structural change and the opportunity to examine how variations in structure affect teacher and student conceptions of subject matter and students' ability to use subject-matter knowledge in responding to problems that involve critical thinking.

As Colvin (1989) notes, schools are beginning to experiment with new lines of authority and in some cases allowing principals and teachers to make choices about allocating resources. To do this, however, schools must be able to estimate how much a given teacher's time is worth and how that time should be allocated. What schools need are conceptual and empirical analyses that examine alternative ways to use school personnel. Do we hire master teachers or more teachers?

There is a paucity of information to describe how large school districts function and especially missing is information about effective functioning. Hill, Wise, and Shapiro (1989) argue that an urban school district can improve only if the entire community is working toward the improvement of the school district. In their study of six school districts (Atlanta, Cincinnati, Memphis, Miami, Pittsburgh, and San Diego) report that four general conditions were necessary for improving schools. They noted that these school districts improved in part because they were

able to encourage the larger community to become involved in educational issues and also because they made information about school needs and resources ... and student performance broadly available. Further, they created community-wide agreement about the need to achieve certain educational goals and further, they were able to successfully subordinate the traditional role of school boards, teachers, and administrators to the broad mandate of a system-wide improvement effort.

Needed also are better understandings of why some school districts are better able to respond to the needs of initiatives of individual schools than are other school districts. Along these lines, it would be instructive to see how central office staffs make decisions about staff development across the district and how these programs actually relate to the interests that teachers in individual schools have. We spend large amounts of dollars a year on staff development; however, the evidence for either global or differential effectiveness is uncertain (Stringfield, personal communication). It seems important to begin to examine how the various funds that are utilized by districts on workshops, new equipment, curriculum supplements, and so forth actually influence students' opportunities in the classroom. Are there more effective ways that school resources could be spent?

Research Funding and the Roles of Regional Laboratories

The major task that I was asked to undertake in writing this paper was to comment upon important ways to expand the extant knowledge base about teaching and schooling. However, I was also asked to share a few thoughts about the present and continuing funding of educational research and the roles of regional laboratories.

Research and development centers can be a substantial force for helping educators to become more knowledgeable about productive learning in school settings. Regional laboratories can play a significant role by helping school districts to understand research and to use it appropriately. Laboratories can also assist school districts in conducting action research. However, I believe that we also need to stimulate diverse lines of inquiry by making more funds available to individuals to conduct research.

Funding

I believe in a balanced approach to research and development that stresses research and development centers, regional laboratories, and individually-initiated field research. In my judgment, all three of these areas are woefully underfunded by OERI. Individually-initiated field research is particularly underfunded, probably because individual researchers and single institutions simply do not have the political constituency and political power needed to argue successfully for money when funds are scarce.

Considering the complexity of successful teaching/learning in complex social situations, it is vital to broaden the base of research scholars to the fullest extent possible. Investments in 100 different investigators might eventually lead to the development of 10 substantial lines of inquiry that could then be systematically pursued in organized research and development centers. Ultimately, the products of this knowledge could be effectively disseminated by regional laboratory personnel. The existence of a large number of investigators challenges the status quo in appropriate ways and generates more comprehensive studies than is possible

than when funding is limited to a small number of institutions with a fixed agenda.

Because the extant knowledge base about schooling is so limited, I encourage the expenditure of new funds in order to maximize the potential for gaining new knowledge. As I have indicated, I think the budget of OERI should be increased by at least 600%. I would argue that 50% of new funds ought to be designated for field-initiated research in order to build an infrastructure for research and development. The larger the number of researchers, and the broader their backgrounds, the healthier the field will be in the long run. I want to stress that my suggestions do not challenge the funds currently allocated to labs and centers; I am talking about new funds that come into the budget. Of the remaining 50% of the new funds, 35% or so should go into research and development centers, and roughly 15% of new funds above current levels into regional laboratories. After a decade of successful funding for research activity, one might want to reverse these figures so that proportionally more money is spent on dissemination. It currently seems most important to stimulate new research activities. If regional laboratories are to be restricted to a dissemination role (I'm not sure that this restrictive role is most appropriate; however, it is the role that is presently assigned), proportionally fewer of the new dollars should be spent on dissemination. The logic of this position is simple: we need to produce more knowledge that can be disseminated.

Laboratories' Roles

Disseminating results. It seems to me that regional laboratories can continue to play several important roles. First, they can disseminate

findings and concepts. Although research appears to have levelled off to some extent, many useful concepts have been generated in the last 20 years. Since some of this research knowledge is relatively old, (e.g. Kounin's groundbreaking work on classroom management in 1970), it is easy to assume that it has been disseminated. However, as I work with teachers in various communities, I find that many teachers still do not have a working vocabulary for discussing important variables such as management, expectations, or instructional systems. Efforts to help teachers understand key concepts for analyzing their teaching and that of peers are critical. Regional laboratories ought to establish whether most teachers are cognizant of findings and concepts from effective school and classroom research (e.g., wait time, with-it-ness, alerting, passivity model, active teaching, etc).

I think it important that knowledge not be disseminated passively. That is, I am not calling for laboratory personnel to produce documents that describe the knowledge base. Many excellent sources of this knowledge are available -- for example, the book that Jere Brophy and I have written, Looking in Classrooms, provides a useful summary of research concepts and knowledge in various areas, including student mediation, direct teaching, mastery learning, and cooperative learning. Regional laboratories could combine books such as ours (or other published sources) with new formats and learning materials that help teachers to become more effective consumers of research.

There are currently too many overlapping, redundant articles and reports. We now need seminars that combine more active illustrations of knowledge, such as videotapes of classroom teaching (or videotapes of

students learning cooperatively in learning groups, etc.), and written materials that teachers could study in advance. This would enable teachers to use concepts as they analyze teaching and make suggestions about improving their own teaching and that of peers. The emphasis would be on helping teachers develop a working knowledge of existing technical concepts that they could use to analyze teaching. At the same time, teachers would learn that research does not yield prescriptions -- it only provides analytical concepts and findings that teachers can use to think about teaching in a particular context. Teachers would be encouraged to consider the quality of teaching and intended outcomes. Unfortunately, too many evaluation systems focus narrowly on the format of teaching and ignore quality (i.e., the reasonableness of the examples that are chosen and the appropriateness of the subject matter). This occurs, I believe, because basic research findings have been inadequately disseminated. Regional laboratory projects that involve teachers in the critical analysis of teaching merit funding.

Publicizing new findings. Regional laboratories also should expose teachers to some of the new findings from subject matter research and student mediation research. This research is still in its infancy, and there is little detailed information about how teachers' conceptualizations of subject matter influence students' views of subject matter or the ways in which they will ultimately use it. Still, teachers should be introduced to this literature (e.g., Carpenter et al., 1988; Shulman, 1986; Smith & Neale, 1989) and discuss issues such as teachers' knowledge of content, teachers' pedagogical content knowledge, and appropriate strategies for teaching content and/or identifying key

subject-matter concepts and student misconceptions. Such discussions could sensitize teachers to a broader range of constructs that they could use as they think about and plan instruction.

Helping principals become instructional leaders. Regional laboratories could also prepare principals to play instructional leadership roles. It appears that many principals inappropriately use knowledge about teaching (e.g., Brophy, 1988; Good & Mulryan, in press) and that much could be done to help principals to become more effective instructional leaders. In too many cases principals still remain relatively uninformed of recent advances in motivation, instructional delivery, student mediation, and classroom management (e.g., see Good & Brophy, 1987). Principals could use this information to help teachers become aware of alternative instructional practices and plan classroom activities that allow more active and successful student learning. Some principals have interpreted research on teaching too literally and have used it to make rules for how teachers ought to behave in the classroom. Here the misplaced emphasis is upon the form rather than the quality of instruction.

Developing educators' research skills. Because research must be interpreted and applied in a given context, principals and teachers should learn to conduct their own research. Teachers and principals need to gain knowledge about research skills that would be of most use in their particular settings. Unfortunately, few teachers possess the detailed knowledge and technical skills necessary for conducting research. They would likely benefit from seminars and programs that help them develop skills for collecting observational data, understanding single-subject

research designs, and help them become more systematic in their efforts to understand their students' performance.

Too often training programs emphasize quantity -- the number of teachers who are exposed to ideas in a given period of time. However, any program attempting to develop teachers' research skills should focus on the development of skills in a few select teachers over a long period of time. That is, a highly successful program might involve 25 to 30 teachers who are released for a period of 10 days per year over a 3-year period. Teachers would develop important research skills, use those skills to conduct research, and then disseminate their research results to other practitioners. This procedure would establish a group of teachers who could help other teachers develop research dispositions and opportunities. Few teachers may become active researchers; however, it seems important to enhance research skills of interested teachers. Teachers have rich classroom expertise that is often ignored in the research. Efforts to make teachers more knowledgeable and skillful in conducting research would pay off in the long run by combining research expertise and clinical experience.

Breaking down teacher isolation. Regional laboratories could allow teachers to share ideas and resources around an organized agenda through the formation of teacher study groups, curriculum groups, or observational groups. Since few teachers have the opportunity to interact on a professional basis with other teachers, state-wide or local study groups that take on significant educational problems could be an extremely meaningful activity. The format and nature of these groups could take many forms; however, they should consist of teachers who have similar

interests and allow teachers access to relevant literature and resources, and time to read, to think, and to integrate the extant knowledge base with their experience. Teachers could develop specific strategies and more integrative curricula.

Analyzing curriculum. There is growing recognition that the school curriculum involves too much memorization of facts and learning of discrete topics. There is growing interest in helping students to develop more formalized and integrated knowledge of key concepts rather than covering numerous concepts superficially. The opportunity for teachers, administrators, citizens, professors of education, and professors of arts and science to participate on task forces is an important potential investment. In my opinion, the attempt to study curriculum on a broad scale often results in a frustrating inability to change anything simply because too much is attempted at once. However, if strategic areas were selected (e.g., science in first-, second-, and third-grade classrooms) and if creative individuals studied a curriculum area for an extended time, better analyses of the curriculum problem and better solutions could emerge. Although curriculum decisions necessarily should be made by local districts, investments by regional laboratories -- in organizing debates and analytical summaries -- throughout a region or state so that districts have more information and conceptualization to draw upon, could be a creative and important part of innovation in American education. Obviously, summaries and syntheses that are developed would have to be subjected to research and development activities; however, since these proposals are derived from local districts, at least some of the field-initiated research might be able to respond to these emerging

opportunities. That is, as new curriculum reforms and new structures in schools emerge, they should be validated through careful research.

Examining use of research in schools. Although I believe that laboratories can and should build model dissemination efforts and develop research skills of school district personnel, the sheer number of school districts almost guarantees that much laboratory work will necessarily involve leadership development for state government officials and central-office district personnel. Still, dissemination must be a primary activity for laboratories. The development of viable dissemination strategies requires firsthand knowledge of how principals and teachers interpret and utilize information from research. Further, if much of the activity focuses on helping district officials to develop leadership skills, then it will also be necessary to evaluate the extent to which research helps teachers to provide more thoughtful and creative instruction. Too much dissemination has been done without considering the effects of information on classroom behavior, for example, on students' thinking and problem solving. Dissemination cannot consist of relatively passive distribution of information but must help teachers creatively conceptualize and extent the curriculum and instruction that they consider.

Increasing communication between labs and centers. Although I am sure that there is informal contact between various laboratories and research and development centers, I know of no formal mechanism by which they discuss common problems (e.g., special dissemination issues associated with a particular research topic -- or, reciprocally, pressing concerns about which practitioners need information?). Considering that

centers and laboratories share overlapping concerns -- producing and sharing research knowledge with educators -- more public informal communication between these institutions might have productive effects on schooling. We need more systematic information about dissemination and conceptualizations of dissemination strategies that present knowledge in ways that enhance rather than constrain individual teachers' performance. Shared work by centers and laboratories might move this important agenda forward.

Intelligent Use of Research: A Final Note

Finally, it must be kept in mind that the role of research is not to provide simple solutions for educators, although one important task of research is to evaluate the effectiveness of various models for improving student thinking and motivation. Clearly, some instructional models will work for particular learners under certain conditions and others will not. The more teachers know about models and the limits of particular models, the more flexibility they will have for meeting the needs of individual learners. The task of research is to broaden -- not to narrow -- teachers' conceptions of practice. Hence, the value of research cannot depend on its ability to control practice but rather is related to the ability of research to help teachers comprehend classroom instructional problems and to respond to problems they confront. In this sense, research yields theory for "framing" problems and planning possible action, for broadening the range of student outcomes possible, for building technical skills and vocabulary necessary for discussing schooling with other teachers and educators, as well as providing practical information about the effects of particular instructional

learning strategies under well-specified conditions. The "needed research" described in this document is advanced in the spirit of broadening possibilities of practice in order to make teaching more reflective. Even research conducted by participants in a given school district will apply unevenly to other participants in a school district. It must be understood that research yields information and concepts that have applied in view of particular values and specific classroom contexts.

Our conceptions of what research is -- and could be -- have been too narrow and driven by immediate considerations. To improve the usefulness of research, a substantial increase in state and local funding is needed. Further, researchers must turn to long-term agendas, focus on both basic and applied knowledge, and broaden their understandings of what research can yield for practitioners who work in demanding and complex social settings. As researchers attempt to more carefully study classrooms, they must solicit the assistance of teachers and principals in conceptualizing educational problems and developing models to respond to those problems.

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LABORATORY POLICY PAPER

POLICY PAPER ON THE PROGRAM OF REGIONAL EDUCATIONAL LABORATORIES: THE PERSPECTIVES OF A CHIEF STATE SCHOOL OFFICER

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

Policy Paper on the Program of
Regional Educational Laboratories

the perspective of a former chief state school officer

David W. Hornbeck

To place what follows in context, the reader should know that I served for twelve years as the chief state school officer in Maryland, an additional five years as the deputy chief state school officer in Pennsylvania, a board member on the Council of Chief State School Officers for seven years, and its President for one. Thus, I come to this task of rendering a chief state school officer's perspective on Regional Educational Laboratories with the virtue of substantial breadth and depth of experience. (I recognize some will conclude this virtue is in fact vice in the form of bias.)

The perspective I provide is my own. Still, in shaping that perspective for this paper, I consulted with ten incumbent chief state school officers plus two other former colleagues. I included at least one chief state school officer from each of the nine laboratory regions. In at least three instances the person consulted serves, or has served, as the chairman of the lab board.

As a backdrop to the recommendations I will offer,there are three contextual facts that should be highlighted.

The first is the increasingly prominent role and responsibility of the state in the definition and delivery of elementary/secondary education in the United States. While that fundamental responsibility for public schools has always rested with the states and is evident in the constitutions of the states, it was declared to be a state responsibility in an unusually forceful way by the U. S. Supreme Court in the Rodriguez case arising from Texas. While not solely derivative of the Rodriguez decision, the state role in public school policy making continued to grow during the 70's. It was expanded most significantly in the 1980s. Governors, chief state school officers, state boards of education and state legislatures seized the initiative, setting the education agenda for the nation, increasing the funding level very substantially in many states and enacting unprecedented laws and regulations in an effort to improve education quality.

At the same time, this strong state role was encouraged at the national level by an Executive branch of government which clearly wanted the states to assume both the policy and financial responsibility for public education. This was evident in the

philosophical position articulated forcefully by the President and the Department of Education. It was also clear in the repeated attempts early in the decade to reduce federal funding significantly. The same theme has been played in a different way in the Congress where very significant responsibility has been lodged with the states in many legislative initiatives, including most prominently P.L. 94-142 and, most recently, in the significant program improvement provisions of the Chapter I reauthorization.

The fact is that law, practice, and fiscal policy, make the state the leadership level of government in public education. Or, as it has been put, Public Education is to State Government what National Security is to the Federal Government, its central responsibility.

The second contextual fact I wish to highlight is that historically, public education has been governed, planned for, administered, and funded based on in-put criteria. We are in the midst of a major change across the nation toward output criteria becoming increasingly important.

The evidence for this shift is reflected in the emphasis on testing that has emerged since the mid-70s. This emphasis was made clear initially by a commitment in more than thirty states to competency-based testing,

frequently associated in some manner with the promotion and/or graduation of students. A few years later, in an effort to improve the quality of teachers, nearly all states turned to teacher testing as an objective, outcome-based way of measuring product. Five years ago, the Council of Chief State School Officers, in an unprecedented move, (and by an initial margin of one vote) endorsed the idea of state by state comparisons based on test data. They then launched a major assessment initiative to try to assure that such comparisons are done with integrity using instruments and focusing on subject areas within a time frame that makes sense. That idea was enhanced by the Alexander/James Commission recommendations that state by state comparisons be supported by the federal government because sound educational data revealing inter-state as well as national school performance is necessary to the nation's health and well being.

The frequent calls for vouchers or choice plans also have a strong outcome-based flavor to them. That flavor was made explicit last year in a model statute developed by the Council of Chief State School Officers which provided that at-risk students have an enforceable right to attend a "successful" school. Successful was defined in outcome terms. The model statute provided that where a school remained

unsuccessful, at-risk students were provided the right to move to another (and successful) school at the school system's expense. (I should emphasize that the Chiefs' model statute was not a choice for choice's sake plan. A form of choice within the Chiefs' model statute became an option only when the child's school did not produce a decent education.) The point, however, is not the statute. The point is the emphasis on outcomes.

The final evidence of this increasing emphasis on outcomes which I wish to offer is the current rhetorical focus on empowering teachers, principals, and others at the local school building level to make more of the important educational decisions. While some remain committed to empowerment as an end in itself, it is clear that implicit in the concept is increased accountability, and that accountability must be defined in outcome terms.

The third contextual fact I wish to highlight is the changing workforce requirements of the economy. This fact has three components. First, the nation has a declining number of young people. Second, an increasing proportion of those youth are minority, poor, and/or do not speak English as a first language. Schools fail to educate well a disproportionate number of those students. Third, the nature of our economy

requires that a much broader array of new workers have higher order skills than has been necessary before. Of the 27 million net job growth between 1972 and 1986, only three million have required only a traditional basic skill level education. Moreover, it is estimated that youth entering the job market today will change jobs six times and occupations three times. Such job and occupational mobility will clearly require a much higher set of learning skills. The capacity to think, to learn to learn, will for the first time be an economic necessity for a broad base of our citizenry, not a special reality for a small group of those we deem gifted.

These three contextual facts represent the backdrop against which I make the following recommendations concerning the regional educational labs:

First, I recommend that the federal government declare a bold clear objective toward which federal human resources research and development funds in general and education research and development initiatives in particular are directed. In the history of education or human resources research and development, we have never had a driving, powerful objective that is analogous to putting a man on the moon or eradicating smallpox or developing the atomic

bomb. The economic circumstances of the nation alluded to earlier make it imperative that we establish such an objective.

In November, 1987, the Council of Chief State School Officers unanimously approved a policy statement entitled, "Assuring School Success for Students at Risk." That statement provided the challenge when it states, "An imperative for America's 21st century is high school graduation for virtually all students."

Such a mission should become the organizing principle for the work of the labs. Indeed, I would argue that the mission should be the organizing principle for a systematic federal human resources research and development initiative. The labs, centers, technical assistance centers, and clearinghouses should clearly be a part of such a bold undertaking. However, it should extend further. The research and development work as well as data collection, for example, associated with the Labor Department's Jobs Training Partnership Act activities should be a part of this effort. A higher level of common definitions and common standards to define drop-outs, reading levels, math skills, and other data elements should be adopted. Affirmative initiatives should be undertaken to transfer research knowledge from the National Aeronautics and Space Agency and the

Department of Defense to the practical use of those seeking to increase the human resources reservoir of the nation. If there were an organized, systematic process for the transfer of technology knowledge, it could enhance the public school learning environment in many ways. Finally, I recommend as a part of this overall strategy that policies and incentives be developed to encourage the transfer of knowledge related to human resource development in the private sector research and development world to the public sector. On the one hand, I should think that some measure of technology transfer would be possible without offending the proprietary interests of the private sector. At the same time, it is estimated that more than $50 billion is spent each year in the so-called "corporate classroom." The strategies of that "classroom" may be directly applicable in the public classroom. The transfer of that knowledge, those strategies, could be very helpful. In doing so, of course, the private sector would receive a considerable return. Increasing the productivity of the public classroom will reduce the cost of the corporate classroom.

If such a bold mission were declared, it would give focus to all the questions of research. We would systematically examine various reasons for differences

in graduation rates at different high schools or in different school systems. To what degree are resources the critical variable? Teacher qualities and qualification? School governance? Classroom organization? The availability of technology? The nature of the curriculum or pedagogy? We could methodically examine the impact of parent involvement. At home. In school. In various roles. Differentconfigurations of time could be scrutinized. To what degree must we lengthen the school day? The school year? For all youngsters? Only for some? Most importantly, such inquiries would be focused and connected. Each would have the ultimate objective of virtual 100% high school graduation as the organizing principle. This fact, in turn, would make it feasible to connect otherwise disparate strands of research more powerfully. In many instances the impact would be much greater than the arithmetic sum of the parts. It would benefit in a geometric sense from the synergistic impact of such focused efforts.

If we were to embark on such a bold mission for human resources related research and development, what role for the regional educational labs? I envision their playing a role not unlike the vision of their present one. They would represent the primary connective point between the research being done in the

broader range of institutions suggested above and the elementary/secondary school delivery system. They would help define the research questions. They would serve as a conduit for the collection and dissemination of data. They would continue applied research activities.

The following are illustrations of the connective roles I envision for the labs. A lab could identify the six or eight corporate entities in a region that have the most sophisticated employee training programs and form a committee of the corporate training directors who could perform at least two roles. First, they could identify what strategies their training programs use which could be introduced into elementary, secondary, or adult education programs run by the public school systems. The corporate model may use technology more efficiently, for example, for secondary or adult basic skill development. Their methods may accomplish specific objectives (outcome oriented), in fewer days but done more intensely (change in the structure of time), using different physical settings (change in where learning takes place), monitored in part by a technician (change in who delivers instruction), employing new hardware and software (change in how instruction is delivered).

A second type of role for the lab-connected corporate training directors committee would be to identify what training programs are being run in corporate settings to develop skills which schools could or should have addressed as part of their basic mission. This connection could lead then to a deeper understanding by schools of how they must equip all young people for the jobs that will exist.

A second basic illustration of the connective role could involve a representative of each lab working with one or more representatives of the Council of Chief State School Officers in collaboration with high level personnel in the Department of Defense. Defense, of course, has a huge engagement in education. They bring to bear a technological capacity to the problems of learning unparalleled in the public school world. A Defense/Regional Lab/Chief State School Officer collaboration with appropriate support could send the product of such an effort back through the communication tracks of the labs into state education agencies for use in the schools.

A third illustration in which the lab's connective role can be demonstrated would be to have more formal communication between centers and labs. This has been a goal for labs and centers, but largely unrealized. I suggest two formal connections. Representatives of all

labs and all centers should meet for a structured exchange once a year. That could, perhaps, occur in conjunction with or as a sub-part of the annual American Education Research Association meeting. A second formal connection that should be considered is to have each lab director serve on the advisory board of a center and to have each center director serve on the board of a lab.

The lab is obviously the constant in all of these illustrations. The lab is the funnel with which much is poured from diverse research sources. The lab is then the primary connective point to the schools. The lab will interpret the schools' needs to the source of research and will translate the products of research to the schools.

Those involved in schools must play a major, if not decisive, role in these matters. They know the barriers they face. They know the learning obstacles of children. After research based answers are identified, they will not be implemented without school and school system commitment. The movement of questions, answers, information, and data into school and out of schools must be organized and systematic. That movement should be orchestrated by the labs under the direction of the chief state school officers from each region.

The second broad recommendation I offer could be a sub-part to the first, since it also involves focusing research and development activities. Our overall mission is graduation for all. However, specific attention is necessary to the content of what that means. Recommendation one points to the need to evaluate different answers to four questions: how (instructional strategies) do we teach all successfully? At what time during the day or year (when) must we teach for all students to be successful? Where are the best settings for successful teaching and learning? Who is best suited to teach under various circumstances in various places at different times if we are to be successful? But a different order of inquiry is reflected in the question of what we should teach and how all of those other questions are connected to the answer. I offer this recommendation independently of the first in order to give it emphasis.

For a number of years, the skill level reflected in "grade level performance" on nationally normed tests has tended to become our goal. It has become almost an annual ritual for superintendents across the country to wait with some degree of anxiety for the release of the results of that year's administration of the California Achievement Test or the Iowa Test of Basic Skills or

other tests judged by the public to contain the standard by which their schools are to be measured. The same phenomenon is played out up and down the school hierarchy. Frequently, in many school systems, the implicit, if not explicit, goal is to have the school system's average performance meet the national norm. The inadequacy of that goal is the point I wish to make. In the first place, the idea of either a norm or average means that a substantial number of individual students do not meet it. Thus, by definition, for a school to pursue the norm is to have a goal other than success for all.

However, the second weakness of the goal of a school achieving on average the national norm at a given grade level is the norm itself. Even if one were to translate the norm point into a criterion referenced point, to achieve it will be to achieve too little. I refer back to the contextual fact dealing with the economy. A nation in pursuit of a level of intellectual development reflected in the present norms on the various nationally normed tests is a nation in pursuit of long term mediocrity. First, as has been stated, if that's the goal and all achieve it, we will have achieved too little. Second, however, we will face the spectre of middle to upper class groups of young people achieving the higher order skills

necessary to a vibrant American economy in the 21st century. At the same time, after a frenzy of activity on behalf of "at-risk" youth, they will achieve the norm level expectations, only to discover that the gap between them and their more well-to-do peers has widened. That will be devastating for them and for the rest of us who rely on an economy requiring higher order skills by a much larger proportion of the student population than those circumstances will produce.

The point is made by examining the National Assessment of Educational Progress data. In the 1986 Writing Report Card, NAEP reports, for example, that fewer than one-third of the students assessed could, on any persuasive task, write a response judged adequate or better. Even in the 11th grade, only 28% wrote adequate or elaborated responses to the least difficult persuasive tasks. In science, in the 1988 Report Card, NAEP found that at age 17, while there had been improvement, student science achievement was still below that of 1969. And on a recent mathematics report card, while average performance has improved, the gains, NAEP finds, are largely confined to lower order skills. The nation and its schools face a very large challenge.

If we are to establish a bold mission of graduating virtually 100% of our youth from high

school, it is important that the content of achieving that goal is substantive. Thus, in addition to examining the how, when, where, and who questions, a centerpiece mission of the research and development associated with increasing our productive human resources must also be the what of education. I do not argue that the labs themselves should be the source of curriculum definition and development. However, I do recommend that such work be systematically pursued. The public school curricula must be built on the best thinking available in the sciences, math, the humanities. Appropriate content related to citizenship, principles of democracy, values and religion requires careful consideration. Health education and appropriate content for promoting physical and mental fitness needsre-examination.

Higher expectations should be reflected in the curriculum itself. The content should be developmentally appropriate and developmentally interesting to students. Today, our practice tends toward breadth rather than depth of coverage. In a w rld faced with information overload on the one hand and the necessity of thinking and the exercise of good judgment on the other, we need to seriously reconsider our orientation toward breadth of coverage. Thoughtfulness is a greater attribute. Understanding,

not coverage, should be the goal. Related to that consideration is the importance of integrating core elements of the curriculum. Discrete bits of information and unconnected subject matter is often relatively meaningless. We should consider the potentially greater power toward the development of higher order skills by presenting curriculum in the framework of broader themes.

There is an additional factor which is strongly related to the contextual facts set forth; the call for the bold objective for the human resources research and development community of universal graduation; and the requirements of quality curricular content. That factor is the need for increasingly rich assessment instruments, techniques, and procedures. Accountability to a demanding public is both appropriate and required. Any strong accountability initiative will shape what occurs in schools. More specifically, it will lead to an effort to "teach to the test." That is good, not bad. It simply means that we must make every possible effort to ensure that what the assessment measures is worth learning and that how the assessment is conducted at least does not interfere with what is learned (better yet if the assessment techniques actually enhance the learning).

To provide the nation's schools with a curricular base covering the content areas necessary to an informed citizenry and productive workforce in an integrated, developmentally appropriate manner with intrinsically high expectations and to be able to measure the product of learning will require a very significant research foundation that does not presently exist. That foundation will include the research related to the curriculum content itself. But it must then be connected to how it is taught, where the best learning occurs, the timeframe in which different students can best learn it, and who is most effective in deliverying it. Again, the labs provide a critical connection to the world of practice. We can neither ask the right questions, formulate responsive answers, or seek to validate them without a systematic, comprehensive, realistic connection of the research community to the school community. As suggested earlier the labs can provide that connection if they are coherently designed and governed to do so.

I wish to make one specific implementation recommendation related to broad recommendations one and two. Across the United States on a daily basis two million teachers are at work in hundreds of thousands of schools in sixteen thousand school systems. Many are successfully teaching and their students are

successfully learning. To date, we have not discovered an effective mechanism for identifying successful instructional practices measured by defensible standards, which can then be disseminated in a non-cumbersome and useful manner. The result is that we either lose valuable insight into effective practice and know-how or we subject it to such convoluted validation processes that others are unable to learn about them. Yet, the notion of "effective schooling" or "what works" has achieved at least rhetorical prominence across the nation. We even find it in legislation. For example, Chapter I requires school systems applying for funds to guarantee their SEA that their programs are "of sufficient size, scope, and quality to give reasonable promise of substantial progress toward meeting the educational needs of the children being served." Labs could support such requirements not only by identifying programs that would meet high quality standards, but also by designing evaluation techniques and studies which school systems, schools, and teachers could use to demonstrate that home grown programs work. It is fashionable to call for the empowerment of teachers and principals. That call should be supported. One way to do so would be to give teachers the tools to evaluate their efforts and to share successful efforts with

others through means sufficiently simple so as to be realistic.

I do not suggest that the labs can connect directly in a significant way with individual school systems, much less with individual schools or classrooms. However, through the state education agency, outreach into and out of local education agencies is possible and desirable.

The third broad recommendation I offer is that adecisive role in the governance of the labs be exercised by the chief state school officers in each region. If labs are to exist, and I believe they should, someone, not everybody, must make the basic policy decisions. I reach that conclusion for the following reasons.

First, if we are going to have any chance of achieving our objective of 100% graduation, there must be a focal point of leadership. Major bold objectives of the kind called for are never achieved when one operates on a lowest common denominator decision by committee basis. Thus, a governance structure composed of representatives from the ranks of school administrators, teachers, university faculty, business, and the state department of education will not function effectively unless there is a decisive source of "buck stopping" policy decision making. Someone, or some one

group must bear that responsibility albeit in consultation with others.

Second, it is important for chief state school officers to develop a vested interest in lab results. If the chief state school officer is not in a position of meaningful leadership in laboratory decision making, or worse, if the chief feels "shut out" (a situation that exists in more than one region, involving more than one state) it is not likely the chief will take the work of the lab very seriously, however brilliant that work may be.

Third, those who are accountable must also have the authority to act. It is clear that state laws, including the constitutions of the states, practice, and public perception view the state as the guarantor of public education. As noted earlier, state leadership has seized the elementary/secondary initiative in policy and fiscal terms during the past two decades. State level education leadership has demonstrated its willingness to be held accountable, even to have the product of state educational efforts compared from state to state. At the same time, that leadership needs the tools of achievement at its disposal.

One of the tools that will prove most helpful is research-based insight into policy options which must

be considered. No state, either in its state department of education nor in its universities, has the research capacity to do the job, to answer either the strategy questions of how, where, when, and who or the content question--what--with a solid research basis.

Fourth, the chief state school officers of each region should be the arbiters of lab policy in each region in contrast to other state leaders. Some may argue that the Governors of the several states in a region should decide who will be the state standard bearer. That would be a mistake. The labs are to be the connective tissue between the research generated by several sources and the schools. The Governor is not in a position to have substantive knowledge about these issues. Nor is the Governor in a direct relationship to school systems and schools, and thus, cannot effectively oversee movement into and out of schools as research is conducted and results are disseminated. The connective tissue role is not basically a political one in the electoral sense. It is a complex educational one involving a major, even a dominant, state role but a state role that must be played out against a practice in most states of local control. The office of the chief state school officer in each state is the office that most often relates to the

state political apparatus and, at the same time the local school board; teachers and administrators, as well as the organizations that represent them; parents through the PTA; the business community; and the university community.

My recommendations arise in part from conversations with twelve other incumbent or former chief state school officers consulted in the preparation of this paper. The underlying question asked of each was, "What contribution has your regional educational lab made to educational and/or school reform in your state?" The answer from each depended upon the degree to which the chief state school officer perceived that the state education agency could rely on lab support for SEA-defined priorities. In each instance in which there was generally positive feedback (five of eight, with one other in a wait and see posture due to changes in the lab recently) the lab priorities were regional as well as rooted in individual state priorities. Each sitting or former chief state school officer underlined the fact that he or she was not looking for support just for his or her own state. Each noted that to serve regional priorities is to serve each individual state if the chiefs have had a palpable role in selecting the priorities.

In contrast, it does not work from the perspective of a chief state school officer if the lab director and staff operates in the mode of a university department with lab staff as a whole or even individual lab staff effectively choosing priorities which may suit their research interests but not necessarily the needs of the people and institutions the labs are designed to serve. Neither does it function well if each constituency sitting on the board of a lab is the co-equal object of lab service. If chiefs get their share and teachers theirs, and administrators theirs, and so on, all may have been kept arguably happy, but the cumulative, focused impact of the research will have been significantly dissipated. Dissipation of effort is one characteristic the labs can ill-afford since their resources are so meager in the context of the size of their task. That fact underlines the importance of maximizing the focus of the work of the labs in the manner suggested--by declaring a mission-like objective, defining the content or major directions important to that mission, and putting the chief state school officer in charge from a policy perspective.

The structure and method of operation presently employed by Research for Better Schools (RBS) is a good example of how governance and implementation of the labs can work reasonably well.

Research for Better Schools, located in Philadelphia, Pennsylvania, presently serves five jurisdictions; Pennsylvania, New Jersey, Delaware, the District of Columbia, and Maryland. Maryland has been a formal part of the RBS system since 1985 when the new contracts were let. However, two years prior to that Maryland was invited to send observers to Board meetings and was the recipient of a small amount of service.

The Board of Directors is an active Board, meeting quarterly. Between meetings the Executive Committee meets monthly. The Board consists of twenty members. The five chief state school officers or their designees are members. Each chief chooses three other members from his or her jurisdiction. Those selected are to represent diverse communities including boards of education, teachers, administrators, and the broader community. But it is the chief state school officer who effectively makes the decision as to who serves as a board member from his or her state.

RBS serves regional priorities, supports state initiatives, and to a limited extent, after consultation with the state leadership, renders service directly to local school systems.

An important contribution, for example, at the regional level is a staff development design for middle

management. The five jurisdictions all recognized that their middle managers' effectiveness was crucial to their success. They also recognized that frequently individuals rising to the level of middle management had little or no relevant management experience. These issues became even more important in the context of increasing expectations of state performance, a reflection of a higher measure of accountability.

The focus of the middle management staff development initiative is at the SEA level. RBS staff meets with staff in each state in a pre-retreat conversation of preparation. A two-day retreat is then held; and, subsequently, there are follow-up activities with staff in each state. Over a period of time, this process is repeated for each of several areas of focus, including: a) planning, b) managing people, and c) facilitating versus imposing change. Given SEA staff turnover, the states and RBS expect to repeat the cycle every two to three years.

Other regional activities include projects to determine: a) how testing impacts on schools and students in the context of several variables, b) relative success with early childhood education initiatives, and c) gains in student achievement in a number of different program areas.

At the present time, the bulk of RBS activity is directed toward priorities within each state, identified by each state. Each state is assigned a coordinator by RBS. That person plus his/her superior meet each year on behalf of RBS with the SEA's representatives to negotiate the areas and activities of emphasis for the subsequent year. In the case of Maryland, the two third-ranking persons in the Department, the Assistant Deputy State Superintendents, represent the Department. Prior to meeting with the RBS staff for this purpose each year, the two Assistant Deputies consult with the Maryland State Department of Education (MSDE) Cabinet and those more directly responsible for vocational, general, special, and compensatory education. They would also, of course, consult with the State Superintendent. These conversations were always conducted within the context of formal priority setting and resource allocation at the Department. Not surprisingly, RBS activity is in direct support of the primary reform efforts underway in Maryland.

For several years, including those when Maryland participated only informally in the life of RBS, a focus was Project Basic, Maryland's very broad-based competency education program. Project Basic impacts on every Maryland student, culminating at the high school

level in a requirement that each student pass four tests (reading, writing, mathematics, and citizenship) as a pre-requisite for graduation. RBS assisted in the implementation design--how do you actually get the program to impact at the school/classroom level? The MSDE assigned one staff person full-time to each school system to assist in the implementation of Project Basic. RBS evaluated the effectiveness of such a facilitation model. Central to Project Basic's success has been the requirement that a school system provide "appropriate assistance" to any student not passing the required tests the first they are given in the ninth grade. RBS and MSDE program staff designed various models of appropriate assistance. Project Basic, after twelve years of development and implementation, is now an on-going part of Maryland's education program.

A second major commitment in Maryland several years ago was to bring to local school systems the very best research-based instructional strategies. We have done that through a program called School Improvement Through Instructional Processes (SITIP). To oversimplify, approximately two dozen candidates for selection as one of the four best instructional strategies were identified. A variety of means were then used to reduce the number to the final four. School systems were invited to send a team to hear

about the four with the understanding that each system would agree to faithfully try at least one. Within two years, all systems had chosen at least one. Hundreds of classrooms are involved. There are extensive staff development activities associated with the effort using primarily atrainer of trainers model. Over the years, additional SITIP options have been made available. Research for Better Schools has been a significant resource to this process, including, most recently, conducting a process evaluation of the model.

Maryland, as has happened in nearly every other state, has examined extensively the role and character of secondary education in the state. This examination began with a blue ribbon high school commission from which emanated dozens of recommendations ultimately receiving the imprimatur of the State Board of Education. Early in the process five high schools reflecting widely divergent student populations were selected to serve as contexts to test various policy options and in which we intended to focus subsequent evaluation activities. RBS helped Maryland design the process through which Maryland is determining the impact of the Commission's recommendations. RBS is also involved in carrying through the evaluation.

More than a decade ago, the education community concluded the principal was one of, if not the, most

important job in the education hierarchy. With a good principal, one was quite likely to have a good school; similarly, a poor principal was likely to yield an equally self-fulfilling prophecy in the school. Maryland was one of the first states to provide an extensive Principal's Academy (the Maryland Professional Development Academy). RBS is now engaged in helping the MSDE determine the impact of the Academy programs. Do schools demonstrably change? Does student achievement improve? Are results evident after one year? Two? What changes in the Academy program are called for to improve its impact on school (and student) performance?

A substantial percentage of new teachers leave teaching within five years. At a time when good teachers are at a premium, schools cannot tolerate that turn-over. One of the underlying causes many believe is the insensitive way in which we permit new teachers to come to the classroom. New teachers are given full teaching loads with little or no staff development support. Help and encouragement from other human beings, including experienced teachers, is the product of the other teacher's initiative or the new teacher's good fortune more frequently than planfulness. Maryland has embarked on a major effort to implement a beginning teacher induction process that will avoid

these mistakes. RBS is a full partner in evaluating that effort.

Eighteen months ago, Maryland's Governor launched two significant education initiatives. One was the Governor's Commission on School Performance. Its mission is to recommend to the State Board and the Governor what indicators can most sensitively tell us a school is successfully performing its mission with all its students and what assessment strategies can yield data best for those indicators. The second initiative was the Rural Schools Enhancement Project. The superintendents in Maryland's six poorest systems agreed to set several performance objectives, including: a) lowering the drop-out rate to 10%; b) increasing daily attendance to 95%; c) having 90% of their ninth graders pass the competency tests in reading, writing, math, and citizenship the first time they are given. A variety of activities are part of the project. RBS is providing important support to both of the Governor's initiatives.

Finally, the Maryland State Department of Education's most important priority is to identify governance, curriculum, instructional and staffing strategies that will work more effectively for children and youth at risk of school failure. For the past two years, most of the MSDE's activities have been crafted

in terms of how they related to that priority. RBS has again played a major role. They have conducted and maintained a survey of the literature to help ensure that Maryland does not miss what others have learned; they have worked with both LEAs and the SEA to summarize present activities, since one of the major challenges is to use present resources most effectively; they drafted a major plan of action for the Maryland State Board of Education related to serving Maryland's at-risk student population.

A centerpiece of Maryland's at-risk initiative is Maryland's Task Force on At-Risk Children and Youth. Maryland was one of eleven states to receive a grant from the Council of Chief State School Officers (funded by the Department of Labor) to design a piece of legislation which would guarantee children and youth at risk of school failure the education and related services reasonably calculated to lead to high school graduation. Research for Better Schools is providing important support to that effort.

I have described Maryland's experience with Research for Better Schools at some length because I think the way in which RBS/Maryland operates represents a model through which the generic recommendations I have made could be implemented successfully. The RBS/MSDE major elements are: a) student achievement as

a clear focus; b) priorities with improved instruction as central; c) chief staff school officers in charge.

However, replicating the RBS/Maryland experience alone will not do the job. In setting our course we did not have any sense of national mission. The RFP for the last round of contracts identified certain school and classroom improvement goals. But no sense of priority or urgency was attached to them.

That sense of urgency is necessary in a national context. The requirements of the next RFP must provide that direction. It can do so by a) requiring plans to relate to the recommended mission of a virtual 100% graduation rate by the turn of the century; b) requiring plans that support the idea that graduation have a connotation of a rigorous course of study; c) requiring plans that demonstrate the importance of assessment of performance with rich procedures consistent with sound instruction; d) requiring plans that demonstrate an intention to help states measure education success or failure based on outcomes.

The next RFP should require that the chief state school officers be in a decisive position. Boards should consist of a variety of constituencies, but the chief state school officer should select those from among whom board members are chosen or otherwise control the selection process.

The next RFP should require that the "connective tissue" role is understood. Applicants should be asked to illustrate how they expect to serve in that role. Some premium should be attached to how well and how imaginatively an applicant anticipates meeting this need.

American elementary/secondary education is at a crossroads. It has performed exceedingly well historically in meeting the economic/civic requirements of the nation. From the perspective of those requirements, we have had the luxury of disposable children. We did not need all to succeed. The equation has changed. We need all and we need achievement at an unprecedented high level. The Regional Educational Labs cannot do that job alone. But the role I have recommended in this paper is a necessary one which, if performed in the suggested manner, will make a significant contribution.

LABORATORY POLICY PAPER

REGIONAL EDUCATIONAL LABORATORIES: HISTORY AND PROSPECT

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

REGIONAL EDUCATIONAL LABORATORIES:

HISTORY AND PROSPECT[1]

by
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This paper describes the hopes held for regional educational laboratories at the time of their founding, analyzes the conditions that subsequently have come to impede their effectiveness, and proposes alternative operational strategies for shaping their future.

INTRODUCTION

In the time since 1966, the federal government has allocated $422 million to establish and support a network of Regional Educational Laboratories. Despite this substantial investment of time and resources, the productivity of these organizations has consistently been curtailed by unrealistic operating assumptions, uncertain financing, and unstable performance expectations.

Even with such handicaps, or perhaps motivated by them, the nine remaining regional laboratories have curried crucial congressional support, and they are unlikely to disappear. Thus, the challenge is to enhance their effectiveness, construct a compelling mission for them, and secure sufficient operating stability to provide an opportunity for them to become an integral component of the nation's future education system.

This paper analyzes the historic development and contemporary operation of Regional Educational Laboratories in an effort to understand their strengths and weaknesses. The purpose of such an undertaking is to propose new strategies that do not simply sidestep

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[1] A paper commissioned by the United States Department of Education, January 1989. The author wishes to express his appreciation to Norman Boyan, Christopher Cross, Emerson Elliott, John Evans, Francis Ianni, Francis Keppel, Michael Kirst, Hendrik Gideonse, Charles Stalford, and Emily Wurtz for the information they contributed and for their constructive criticisms. All interpretations and recommendations are the complete responsibility of the author.

past problems, but, more forcefully, enable these organizations to chart a productive future course.

The paper contain three maior sections. The first describes the evolution of the Regional Educational Laboratories, paying critical attention to the governmental planning and political forces accompanying their formation. This analysis proceeds by describing the major changes in policy and operation that subsequently have shaped the laboratory system.

The second section describes the assumptions underlying formation of the laboratories and analyzes the performance expectations and structural conditions that have consistently curtailed laboratory effectiveness.

The final section of this paper summarizes fundamental present day laboratory problems and poses alternative strategies for overcoming them in the future.

A Caveat

At least one caveat is in order before proceeding with the above-described sections. This essay examines only a component of the nation's educational Research and Development (R & D) strategy. Readers should understand, however, that many of the impediments to effective operation of the Educational Laboratories are generic, inherent in the federal government's overall R & D strategy, and cannot be overcome in a piecemeal manner. The federal government's educational research and development strategy was constructed twenty-five years ago. It has not been systematically revisited since. Many of the assumptions underlying that strategy have changed significantly. Changes are called for and certainly can be made that would render Education Laboratories more effective. However, it is clearly time to assess existing arrangements and undertake necessary alterations to the *entire* R & D system, not simply the Regional Educational Laboratories.

Part One:
Inventing Educational Laboratories[2]

[2] This history is interestingly told by Stephen K. Bailey and Edith M. Mosher in The ESEA: The Office of Education Administers an Act (Syracuse: Syracuse University Press, 1966).

Education was a strategic component of the Johnson administration "War on Poverty" and Educational Laboratories were an important element in that strategy. In July of 1964, in order to prepare for his anticipated first full term in office, LBJ formed a presidential task force chaired by John W. Gardner. The charge to this blue ribbon panel was to develop a package of education reform ideas to be submitted to Congress shortly after Johnson's inauguration. The Gardner Task Force, among its many recommendations, proposed that Educational Laboratories be established as a vital link in the chain of knowledge generation and diffusion. The idea was eventually incorporated into Title IV of what was to become the 1965 Elementary and Secondary Eduction Act (ESEA).[3]

Educational Laboratories were a logical component of an artfully conceived ESEA legislative package. The ESEA came to be known as education's first "billion dollar baby"[4] and Johnson's political tacticians[5] wanted to ensure that it passed Congress intact and quickly. Thus, the bill's five major components were intended to serve the nation's educational needs and simultaneously attract support from a diverse array of political factions whose historic inability to reach accord had previously prevented passage of any major education bill.

Title I was the glittering ESEA policy star with a carefully crafted entitlement formula that distributed federal funds to states in a manner which was educationally ingratiating and politically ingenious. The congressionally approved ESEA formula aided wealthy northern, as well as poor southern, states, but it did so by directing federal funds to children from low-income households. The association between household income and education level was strongly made in congressional testimony and, thus, the ESEA was designed as a major federal instrument for interrupting the cycle of individual and household poverty. The funds were funneled to local school districts through states, but such was seen as a mere technical formality. It was a federally conceived, federally administered, and federally funded program, and no one had any doubts about it.

ESEA Title II authorized federal funds for the purchase of textbooks and other instructional materials. Title III provided funds directly to local school districts to enhance their effectiveness through development of exemplary and innovative projects. Title IV will be

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[3] Most of the remaining components of which were combined in 1981 into the Education Consolidation Improvement Act.

[4] See the article by this name in the June 1966 Atlantic by Elizabeth Benner Drew.

[5] Namely, Francis Keppel, Wilbur Cohen, Douglas Cater, and Samuel Halperin.

discussed further below. Title V provided federal funds to strengthen state education departments. This latter was justified on grounds that ESEA programs would impose major additional administrative burdens upon states, and they would have to be buttressed if they were effectively to assume their new duties.

Title IV amended the previously enacted (1954) Cooperative Education Research Act. This program had funded education research on a project-by-project basis. Generally, these research topics were proposed by professors. There was little opportunity for federal officials to shape the nation's education research agenda. Moreover, it was difficult to impossible to gain a critical mass of research on a nationally significant topic or sustain research in a field once initiated.

The new Cooperative Education Research Act, ESEA Title IV, authorized formation of Research and Development Centers and Educational Laboratories. These were envisioned as a network or chain of new institutions that would be capable of revitalizing American education by generating useful research results and infusing them into the nation's elementary, secondary, and college classrooms. These various federally funded centers and laboratories would compensate for the previously described weaknesses of agenda fragmentation and lack of research momentum. They would be federally established and federally funded. However, they were expected eventually to become self-governing and be tightly tied to the needs of their clients, primarily school districts and schools.

Title IV was a scientific and technical component of the Elementary and Secondary Education Act. Titles I and II were directly operational and would immediately assist local school districts; Title III was an incentive or stimulant to local school districts to become more effective. Title V was administrative, intended to buttress the managerial capacity of states. Title IV was included to generate and diffuse new knowledge regarding learning and instruction. The initial recipients of Title IV funds were the nation's researchers. Eventually, however, it was thought that research results would benefit students in schools.

The "R & D" strategy constructed by Johnson administration education planners envisioned universities and newly invented Research and Development Centers as residing close to the "basic" or "pure" science end of the research continuum. These institutions were to engage in systematic inquiry about fundamental components of learning and instruction. Research and Development Centers were to specialize on fundamental dimensions of the education

process—reading, mathematics, writing, testing, evaluation, and so forth. The outcomes of the research and development efforts then were to be carefully shaped and conveyed to school districts and schools through "Educational Laboratories." These new institutions were intended to be unusually sensitive to the practical needs of administrators and teachers and would be able to interpret research results from R & D centers and tailor them for local implementation.

New education-related knowledge was conceived as existing on a continuum wherein it was generated in R & D institutions and subsequently implemented by end users such as schools. The shaping of R & D results to make them attractive and useful to practitioners was to be undertaken by Educational Laboratories. These new agencies were conceived to be analogous to Agricultural Extension Field Agents widely thought to be effective in disseminating new growing techniques and products to America's farmers. Another model were the national laboratories relied upon by the Atomic Energy Commission to translate basic research findings of physicists into the practical applications of atomic energy intended to benefit the entire nation.[6]

In order successfully to follow the national physics laboratory or extension agent models, Educational Laboratories would have to recruit unusually able professionals who not only could identify R & D ideas worthy of diffusion, but who also could gain and hold the respect of school practitioners to whom they would attempt to distribute ideas and products.

Educational Laboratories were believed to be crucial for such a knowledge dissemination and implementation function because there were few other similar organizations then in existence. State Education Departments, prior to the implementation of ESEA Title V, were notably weak. Independent policy analysis centers, such as have now evolved in twenty-two states, did not exist. National organizations capable of distributing information, such as the Education Commission of the States and the National Governors Association, either did not exist or had little interest in education. Private sector and not-for-profit consulting firms were few in number. In short, there was little by way of a service infrastructure upon which American education could depend for the generation, distribution, and implementation of new knowledge. Educational Laboratories were intended to fill the void.

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[6] The Atomic Energy Commission National Laboratory idea was intended to convey the notion of fiscal magnitude. These physical science laboratories have huge budgets.

Trouble: From the Beginning, And More

However thoughtfully conceived, Regional Educational Laboratories were launched on a troubled sea. Many of the crucial assumptions underpinning their formation were unrealistic or were soon to be undermined, and that made it difficult for these infant organizations to meet the performance expectations held for them.

Second, an originally unintended element of "distributive politics" quickly emerged. Pork barrel dynamics became a concomitant element when "Regional" was added to Educational Laboratories. In the booming, buzzing, chronologically compressed confusion of congressional budget deliberations, what was to be twelve became twenty.[7] However, the appropriations level remained almost constant and nowhere near the huge dollar amounts annually allocated to the archetypes of R & D, the Atomic Energy laboratories. This made it difficult to shape and polish a prototype of the newly conceived institutions by concentrating a critical mass of resources and attention upon a relatively small number of developing organizations.

Third, because of fiscal decisions, the number of Educational Laboratories was subsequently reduced to seventeen, and then to nine. No doubt sensing a similarly bleak financial future, some of the remaining laboratories began to develop entrepreneurial strategies for stabilizing their budgets. However successful for a particular laboratory, these individual fund raising efforts were not always consistent with the initially conceived mission as knowledge brokers serving local school districts.

Fourth, the basic knowledge brokering strategy was eventually altered in a manner which diluted sensitivity to school district interests, injected a larger element of organizational uncertainty into laboratory operation, and impeded the ability to appraise laboratory performance. In 1972, the management of Educational Laboratories was transferred to the newly established National Institute of Education (NIE).[8] In order to exercise greater program discretion, NIE negotiated a series of five-year agreements in which laboratory projects were specified contractually. At this point, a virtually self-regulating

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[7] Confusion still exists regarding the number of Laboratories initially envisioned by Johnson administration officials. There were advocates for a relatively small number of Laboratories that, even if regionally located, would serve a national constituency, not a set of states. At the opposite end of the continuum were Office of Education advocates for as many as 50 Laboratories, one in each state.

[8] Subsequently to be reincarnated in its current form as the Office of Education Research and Improvement (OERI).

professionally propelled network of client-sensitive knowledge-brokering institutions was shattered.

Finally, the last components of the mid 1960s-conceived R & D plan were diluted with the 1985 rebidding of the laboratories. This was the first time in the almost twenty years since the laboratories' formation that a complete national competition would be held. There were three important outcomes.

Laboratories could no longer assume that they would last indefinitely as individually operating organizations. They could be made to compete for their continued existence and their agenda could be strongly shaped by federal officials. Second, the number of laboratories was reduced to the smallest level yet, nine, with many of the remaining laboratories now having to cover a larger geographic spread of constituents. Third, laboratories were now directed to devote a significant portion of their budget to projects operating "with and through" other agencies, such as state education departments, in order to assist local school districts. This latter idea was a realistic recognition that given existing resource levels, laboratories could not reasonably be expected to assist all local school districts in their regions. However, "with and through" was vastly different than the direct and client-sensitive school district relationship that was originally envisioned for L laboratories.

Thus, almost a quarter century following their formation, Educational Laboratories had been transformed by economic and political dynamics from a vision of a focused national network of federally supported, professionally guided, elite status, knowledge diffusion institutions, charged with developing close client relationships with school districts, into nine, often entrepreneurially oriented, "job shops," sometimes only remotely related to local school districts, their agendas substantially influenced by federal officials and whatever clients they could gain from marketing activities, and subsisting financially from competitively contested contract to contract.

What had happened?

PART TWO
Invalid Assumptions

Regional Educational Laboratories were conceived, and subsequently brought into operation, based on at least seven crucial assumptions that have subsequently been difficult

7 Regional Educational Laboratories, Guthrie, June, 1989

to support. Several of the assumptions were contained in authorizing and reauthorizing statutes, others in the U.S. Office of Education and Department of Education regulations and guidelines which were used to shape the laboratories initially and reshape them ever since. Each of these assumptions is described and analyzed below.

Fulfilling a Federal Agenda

Regional Educational Laboratories were conceived in an era when the education reform agenda was primarily federally initiated. The "Great Society" of the Johnson administration assuredly extended beyond education initiatives, e.g., the Civil Rights Act, the Economic Opportunity Act, and Model Cities. However, education reform was a central feature of the LBJ domestic program. Perhaps more important, the ESEA represented a momentous symbolic breakthrough. To that point in time, federal education efforts had been severely restrained.

The 1958 Sputnik-inspired National Defense Education Act was precedent-shattering, but not precedent-setting. Its narrowly conceived academic intensification programs for math, science, and foreign language were not long-lasting. Spectacular American space successes in the 1960s and 1970s eroded its justification, and it had only a minimal long-term effect on school policy or practice. Vocational education was the only education dimension on which there had been a substantial federal presence over time. However, little of significance had spread from vocational education to the day-to-day operation of schools.

Thus, the significance of the ESEA. It not only authorized unprecedented levels of federal financing, but also, its substantive provisions encompassed a wide spectrum of schooling purposes and reached multiple levels within America's schooling system. Because of its political popularity and scope of purpose, proponents of a powerful federal role envisioned the ESEA as only an opening salvo in a wider war against educational inequality and ineffectiveness. The 1965 ESEA had overcome historic political opposition and contributed to the formation of an influential coalition of educationally predisposed interests. Surely more federally inspired education improvement was to come. The enactment in 1966 of expanded federal roles for higher and vocational education only fueled these expectations.

Savoring the experience of the ESEA's enactment, the National Education Association (NEA) subsequently went on record advocating that the federal government support at least a third of the total national costs of schooling. New schools needed to be built, teachers deserved higher salaries, racial segregation needed to be abolished, rural education needed buttressing, handicapped and non-English-speaking students needed added assistance, all students needed to know more about other nations, and so on for a long list of national education needs. The nation needed to be rebuilt and improved schools were a crucial part of the foundation.

Educational Laboratories were to be an important component of the educational change effort that was to be led by federal officials. New instructional practices, new teaching techniques and materials would be gathered nationally, or invented in the federally funded Research and Development Centers, and then translated for school practitioners by the laboratories. These new institutions would be a vital link in packaging useful knowledge and transferring it from national sources to local schools. The national change agenda for the laboratories to follow was envisioned as being established by federal interests. In that few if any similar institutions then existed, it was necessary for them to be federally initiated and federally funded.

This notion of a logical chain of educational change was undermined initially by the Vietnam War which fostered cynicism about the Johnson administration and its social programs, stifled national idealism, and cast a budgetary pall over domestic spending.[9] The Nixon administration did not share the vision of nationally inspired educational change, and the Carter administration was too overwhelmed by world events and OPEC-initiated inflation to do anything more for education than make symbolic gestures.[10] Mid 1960s flaming enthusiasm for federally led education reform had been reduced to a few smoldering embers of hope by 1980.

Historians can debate the degree to which the 1980s were revolutionary. However, regarding one dimension there can be little disagreement. President Reagan did not envision the federal government as a major operational force in education. His Education Department officials became extraordinarily adroit in using the national visibility of their

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[9] Gerald Ford approved Public Law 94—142, the Education for All Handicapped Children Act. However, this was not a highly visible piece of his administration's program. It was primarily a congressional and interest-group response to court decisions that threatened to impose an unbearable fiscal burden upon states and local school districts.

[10] Such as upgrading the United States Office of Education to cabinet level status.

office to make pronouncements regarding the need for educational change. However, the notion that the federal government would itself develop the specifics of an agenda, provide operational details, and pay a large part of the bill was dealt a punishing blow.

Regional Laboratories, regardless of their performance to that time, were not viewed by Reagan officials as an integral instrument for promoting federally inspired educational change. Other actors, primarily governors and state legislators, business leaders, chief state school officers, and teacher union officials, were now rising to assume leadership, and Educational Laboratories had their mission altered to serve them. Serving a federal agenda, one of the crucial original purposes for the Educational Laboratories, had disappeared. In this transition, a crucial question was seldom forcefully posed.

Could specialized institutions, initially established to further a focused federal agenda, be productively transformed into a set of regional agencies intended to provide a spectrum of services to a wide variety of state and local clients?

There is Knowledge Worth Brokering

Regional Laboratories were originally conceived as brokers. They were to serve as middlemen in a chain linking knowledge *producers* and knowledge *users*. Researchers would invent new educational techniques and Educational Laboratories would translate and sell them to teachers and educational administrators.

Embedded in this linking concept were at least three crucial assumptions: (1) knowledge existed or would be produced that could materially enhance instruction in local schools, (2) Educational Laboratories would have personnel capable of identifying the needs of school districts and subsequently locating useful solutions to their problems, and (3) Educational Laboratories would possess or develop a quality control capacity, both about ideas and personnel, that would guide self renewal and enable them to adapt to changing conditions. All of these assumptions are arguable.

Useful Knowledge Existed. Instructing effectively is among the most challenging of human undertakings. To date, little that is genuinely scientific is known about teaching and learning. For virtually every school of thought that develops about education, a countervailing view or advocate emerges, and a successful synthesis seldom occurs.

Teaching continues to be far more of an art or a craft than a science. The consequences of this condition have diluted the ability of Educational Laboratories to fulfill their purposes.

The United States annually spends $300 billion on education and it is a matter of great national importance. Consequently there are enormous public and professional pressures to identify more effective educational strategies and techniques. Educators are generally accepting of means and materials to improve their performance. However, in the absence of scientifically grounded principles to guide the search and adoption of new procedures, schools are vulnerable to short-lived fads that wash over them with discouraging regularity and leave little of a productive residue behind.

In the time since the Educational Laboratories' inception, the education community has flirted with widely touted reforms such as Program Performance Budgeting Systems (PPBS), Leaner Verified Materials, Individually Prescribed Instruction (IPI), Computer Assisted Instruction (CAI), Program Evaluation and Review Techniques (PERT), Competency Based Teacher Education (CBTE), Management by Objectives (MBO), merit pay, career ladders, educational "bankruptcy," and "Effective Schools." All of these have so far proved to be illusory as widespread strategies for educational enhancement. On the horizon is seemingly always another promising strategy that, finally, will dramatically revolutionize education. It never has.

Some day there may be a set of sufficiently proven instructional inventions to justify their widespread adoption in schools. To this point, however, the research and development effort for American education is so severely limited that it is difficult to imagine that a scientific breakthrough will occur soon. Regardless, at the time the Educational Laboratories were conceived, it is not clear that the then-existing research and development base justified their formation as knowledge brokers. It is no more clear that such a role is justified today.

Assessing Needs and Picking solutions. Determining the knowledge needs of school practitioners is relatively easy. One can visit schools, talk to teachers, examine test results, utilize surveys, and employ a variety of other avenues to compile a list of needed techniques and materials. Identifying effective solutions is far more difficult. Little thought appears to have been given to the manner in which solutions would be selected or to the training of individuals who would be the brokers.

Assuming that the nation's research and development effort was expansive and effective, it would still be no easy task to select reform ideas that were best suited for individual school settings. It would necessitate a cadre of skilled research brokers in laboratories. Such knowledgeable research-practice brokers did not exist when laboratories were founded, and little has been done subsequently to develop a pool of them.

The most able individuals in laboratories often have been socialized to academic research norms, not local school districts' practices. When an opportunity presents itself to return to the environment in which they were trained, e.g., accept a professorship, they frequently take it. When performed well, knowledge brokering is an exacting role. To date, there is little by way of a career niche for laboratory personnel, and, the ability to identify prospective solutions to practitioner problems likely suffers as a consequence.

Quality Control. Professional norms and peer review prevail in many scientifically or technically based settings. Private-sector brokers are controlled to a degree by market forces. However, Educational Laboratories have little by way of a peer culture or professional norms upon which to rely. Immediate feedback from clients is also difficult to obtain. In that laboratories in large measure are now funded by a higher level of government to serve intermediaries who are assumed eventually to serve schools districts, there is only a diluted a market mechanism to provide direct feedback regarding performance. Initially this problem was envisioned as being solved by the remarkably high calibre professionals who were assumed to be employed by laboratories. However, uncertain funding and eroded status began to take its toll on the ability of laboratories to develop and retain a large cadre of unusually professional translators of knowledge.

In the absence of conventional quality control mechanisms, or an intensely developed professional culture, laboratories conduct an endless round of self-evaluating and outside assessment efforts. Many of these are accurate and insightful. However, from their beginning and continuing to this day, the Regional Educational Laboratories are missing a sustained means for assessing whether or not they are performing a genuinely useful role. They have a contrived and frequently ineffective feedback loop, and this is a difficulty which has existed from their conception.

<u>An Initial Development Phase.</u>

Johnson administration education officials knew that the invention of a new educational institution could not easily occur overnight and that experimentation would be necessary. It was not expected that Educational Laboratories would be an immediate success. A period of trial and error development was envisioned. However, political and budgetary pressures coincided to render such assumptions impractical.

Early Office of Education planning emphasized gradual expansion of laboratories, perfecting the model, polishing the functions they would perform, and thoughtfully recruiting and training personnel to work in them. The laboratories were to be fashioned carefully. However, two events rendered these plans inoperative. First, Johnson administration education officials disagreed among themselves on the number and nature of the laboratories and several of them acquiesced to arguments for political success and agreed that the laboratories could be regionally located to serve every geographic segment of the United States. Once the notion had been aired, there was little recourse but to launch the new organizations as Regional Educational Laboratories.[11]

Since there was now to be a laboratory in every region of the United States, there was little justification for opening only a few and then slowly expanding the number. If a development phase was in order, then the "development" would be necessary everywhere. Otherwise, the lessons learned in one region might not be the right thing to learn in another. Every geographic sector had to have a laboratory and they had to have it from the beginning. An unfortunate "pork barrel" image was initiated.

Organizational and Resource Stability

A related problem was and has continued to be financial and regulatory stability. It was initially assumed that federal funding would provide the overwhelming proportion of operating funds for Educational Laboratories. Whatever additional money they needed would result from the sale of products and services, related to knowledge brokering. (It was school districts that were envisioned as the primary markets for the sale of these "products.") There were few discussions initially regarding repeated or cyclical competitive bidding for laboratories. In effect, these new institutions were to be arms of

[11] The Atomic Energy Commission national laboratories, major models for the Educational Laboratories, were located in various regions of the United States. However, it was widely understood that each AEC laboratory, whatever its geographic location, served national purposes. This distinction appears not to have been put forth with sufficient force in the instance of the Education Laboratories.

the federal government's education interests, and, thus, would be sustained the same way the Agricultural Extension agents or Atomic Energy Commission National Laboratories were funded.[12]

Also, laboratories were to be protected from rapidly revolving regulatory changes so that over time they could develop vision, purpose, and productivity. This kind of stability would enable laboratories to carve out for themselves a productive niche among the network of America's educational institutions.

These assumptions were invalid virtually from the point of Laboratory formation. Money was a root problem. By the time the Great Society was scheduled to shift into high gear, the Vietnam War was becoming exceedingly expensive. Domestic spending levels initially envisioned for the "War on Poverty" were never realized. Even in the Nixon administration, the projected "Fiscal Dividend" for domestic programs which was to result from a Vietnam withdrawal did not occur. Nixon's budgetary officials were unusually creative in pursuing money-saving techniques such as budgetary "Impounding," whereby the president simply refused to approve expenditures even though Congress appropriated the funds.[13] Congress eventually devised means for overriding residential spending reluctance, but by then it was too late. Inflation and mounting federal deficits began to place both the executive and the legislative branch in a more frugal frame of mind when it came to social programs.

Education under Carter had to struggle mightily to stay abreast of double-digit inflation. Little else emerged during the 1970s. Reagan administration budget proposals did not even seek such annual increases. Thus, during their quarter century history, Regional Educational Laboratories have never benefitted from stable funding, let alone the substantial resource levels initially envisioned to support their early development. The period of planning, pilot testing, experimentation, and polishing was never to be. Regional

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[12] Competition is held periodically to determine the management of the national laboratories, now funded by the Department of Energy or the Defense Department. However, these rebidding efforts seldom involve a wrenching alteration of mission or revision of purpose.

[13] It was during this period that education interests groups swallowed organizational differences of opinion and formed the **Emergency Committee for Full Funding.** Their strategy was to lobby Congress to override executive branch spending curtailment. It became evident that education funding would always be a problem, not simply a short-term emergency, and former Washington Senator Warren Magnuson convinced educators that "full" funding was a practical impossibility. Thus, today the organization is known as the Committee for Education Funding.

Educational Laboratories, once established, were thrown into the arena of competitive budgetary politics and immediately expected to produce tangible results.

By the late 1970s laboratories and R & D Centers occupied such a large proportion of the NIE budget that federal education officials saw themselves as having virtually no resource discretion to meet emerging national research needs. They could not respond, except by attempting to focus R & D Center and laboratory attention on a problem. This contributed to an evolving regulatory environment which placed ever tighter constraints around laboratory purposes.

Because of the inability to predict resource levels, Regional Educational Laboratories seldom have sufficient stability to pursue a sustained course of action. Many laboratories, and particularly some of those that are judged as successful, have had to become entrepreneurial. They bid competitively on service, evaluation, and consulting contracts in their regions and elsewhere. They seek grant funding from foundations. With the necessity for finding outside funding, money to augment federal appropriations, they have to fragment their professional educational efforts to accomplish activities which may not be squarely aligned with a knowledge-brokering agenda.

Being entrepreneurial is not all bad. Financial instability can sensitize laboratories to markets in a manner that full federal funding might not do. What, then is the problem? Enterprise has its virtues, but the market place may not adequately reflect the greatest need for laboratory services. Educational organizations with the financial resources to seek outside consulting and evaluation services may not be the agencies most in need of Regional Educational Laboratory assistance. For example, it is seldom school districts, particularly small ones, that have the resources to pay for outside help.

Federal funding uncertainty and changing views of the federal role also contributed to alterations in the regulatory environment of Regional Educational Laboratories. Through monitoring procedures and periodic rebidding, laboratory purposes began to slide from the original Johnson administration academic/technical knowledge brokering model to a more opportunistic consultative model. The latter was made particularly explicit with the most recent insertion of the Reagan administration "With and Through" strategy whereby laboratories were also expected to assist school districts by cooperating with and operating through other agencies. The initial assumption of laboratories as a direct link between

knowledge producers and knowledge users, classrooms, schools, and school districts, had now been substantially altered.

Resource instability also stimulated Educational Laboratories to engage in bold political activities to sustain federal funding. By forming an organization, the Regional Laboratories and R & D centers could act in concert to represent their views before Congress. The employment of an unusually able executive director permitted this umbrella organization to make its case to Congress, frequently with more force than the executive branch Department of Education officials who supposedly were overseeing R & D Centers and Regional Educational Laboratories. These overt political efforts were successful in providing what little budgetary stability laboratories enjoyed. However, politicization did little to reassure the broader research community that the laboratories were worthwhile based on the quality of their professional research, development, and dissemination results. Indeed, politicization and competition for scarce federal funds drove an unproductive wedge between the larger educational research community and the Regional Laboratories, the very groups that were supposed to be joined together by the original enabling legislation.

Task Specialization.

Initially it was assumed that Regional Laboratories would specialize. Prior to the invention, or political imposition, of regionalization, each developed laboratory would carefully select a curriculum area or instructional strategy in which to become expert. Recruitment of personnel and the honing of procedures would render a particular laboratory the place for school districts to come when plagued by the special problem on which the laboratory concentrated. Over time, laboratories would be able to build a reputation as brokering knowledge in specific practical fields, e.g., reading, writing, mathematics, special education, gifted and talented youngsters, bilingual education, and vocational education.

Task specialization was made difficult by two developments—regionalization and the need to engage in entrepreneurial activity. If a laboratory was to serve a region, then it had to develop a full portfolio of those dimensions of interests to "clients" in its geographic area. Laboratory employees would now have to cover several bases, not simply become expert in one.

Additionally, enterprise demanded that laboratories respond to the markets available to them, regardless of their specific initial agenda. Enterprise by itself might still permit specialization. However, the mixture of enterprise and regionalization meant that laboratories had to develop a portfolio consistent with the market place and foundation interests in their region. They could not easily risk specialization and playing in a national market on only one dimension. Task specialization was no longer a valid assumption virtually from the day regional laboratory funding competitions were announced.

Being Part of a Synergistic System

Regional Educational Laboratories were originally conceived of as only one of several specialized constellations in a galaxy of research and development strategies. In addition to research efforts in universities and federally funded Research and Development Centers, Educational Laboratories would be complemented by a substantial program of field-initiated studies wherein individual researchers and research teams would also be federally funded to conduct inquiry about a wide range of fundamental and applied education problems.

Over time, primarily because of the above-described funding difficulties, individual components of this research and development spectrum became badly eroded. Funding for universities has been diminished substantially, R & D centers have been reduced in number and funding, and field-initiated studies remain only in a symbolic sense. To be sure, new agencies have evolved since the inception of Educational Laboratories, e.g., many more private and not-for-profit consulting firms, university-based policy analysis units, and the Education Commission of the States. However, these were not originally envisioned and they certainly are not now woven into a federally coordinated infrastructure in the manner that Educational Laboratories and the other R & D components were originally supposed to be.

In effect, the entire education Research and Development strategy conceived by Johnson administration planners has dissembled. No new overarching strategy has been designed to replace it. Only fragmented components of the original plan remain, and they are unable to meet the challenge. Regional Educational Laboratories continue, and so do R & D centers. However, these institutions now are expected to carry virtually the nation's entire education research and development burden and they are ill suited to the task, both in concept and resources.

Direct Links to School Districts

The original conception of Educational Laboratories envisioned their serving as direct links between knowledge-producing agencies and school districts. This never occurred in the manner initially planned because of many intervening conditions, not the least of which was uncertain funding. However, the Reagan administration's adoption of the so-called "With and Through" strategy made it clear that direct linkage between laboratories and local school districts was eroded. "With and Through" may have been a realistic recognition of what was possible. After all, there were only a limited number of laboratories and fifteen thousand school districts. Multiplying laboratory efforts by cooperating with other change agent institutions was certainly logical. However, this alteration had another consequence. It also diluted a major feedback loop regarding laboratory performance.

Now that laboratories were to operate "with and through" other agencies, their effectiveness could not be as easily and directly appraised. An indirect operating strategy substantially reduced the prospect of a local school district administrator or teacher accurately being able to identify a Regional Educational Laboratory as a source of useful ideas, techniques, or materials. Regional Educational Laboratories were like stealth bombers. State education departments, county offices of education, state school board or administrator associations, or teacher unions might be the agencies in most direct contact with local school districts, and Educational Laboratories would be sufficiently far in the background as to be invisible on school district "radar screens." Evaluation became the more difficult as a consequence.

Part Three
Alternative Strategies for the Future

Proposing an entire new education Research and Development strategy, however badly needed, is beyond the scope of this essay. The following planning and operational alternatives are restricted to Regional Educational Laboratories. These proposals are intended to overcome three fundamental laboratory problems: (1) an ambiguous "mission" resulting from almost a quarter century of policy neglect and regulatory accretion, (2) insufficient resources to accomplish whatever purposes emerge, and (3) the absence of a forceful evaluation mechanism or performance feedback loop.

The proposed strategies involve altering one or a combination of policy-related dimensions, e.g., federal funding levels, specified clientele, subject-matter specialities, and performance incentives. Like the plans laid almost twenty-five years ago, these proposed strategies are also predicated upon crucial assumptions. These are made explicit below in order to enable readers better to assess the utility of individual alternatives.

Assumptions

Not only are Regional Educational Laboratories likely to continue, they also are likely to continue in their current configuration. That is, the laboratories will be "regional." However many of them there is to be, their responsibilities will provide complete territorial coverage for the United States. Looked at another way, each laboratory will continue to have a geographically designated constituency.

Federal funding, at least in the next four to eight years, will be insufficient to permit laboratory expansion, and may prove insufficient even to sustain current levels of effort. In most geographic regions, additional financial resources will be necessary.

Economic and political conditions are unlikely ever to extend to Regional Educational Laboratories the long-term funding stability of research universities or many other public educational institutions. Therefore, some of the organizational consequences of uncertainty, such as turnover among high-level laboratory personnel and periodic redirection of purpose, should systematically be anticipated.

State governments will continue for the foreseeable future to be the primary agenda-setting agencies for American education.

Alternative Strategies for the Future

Given that many of the original hopes for Regional Educational Laboratories have proven impossible to realize, and the educational policy landscape has been altered substantially since their inception, what realistically can be undertaken presently to render these institutions more effective? Seven alternatives are proposed below:

Status Quo. Of course, muddling through with the current set of arrangements is always one possibility. In the event agreement cannot be reached for changing

laboratories, not all is lost. Several of the existing institutions are judged to be effective for their region, and over time, thoughtful monitoring and careful managerial attention might strengthen the weaker laboratories. However time consuming this strategy might be, it would have the virtue of attempting to salvage the large investments already made. If this strategy is distasteful to laboratory proponents, it should be assessed relative to the alternative of eliminating Regional Educational Laboratories altogether.

Elimination. Would it be better to eliminate Regional Laboratories altogether? They have been unable generally to meet the expectations initially held for them. Evaluations reveal an uneven set of current performances. They absorb a remarkable proportion of the slender amount of education research and development funding available in the United States. Perhaps the appropriate answer is simply to perform institutional triage and redirect their financial support to other endeavors and agencies, such as the Research and Development Centers or field initiated research.

Of course, not all laboratories would have to be eliminated under this strategy. Selection could be made of the three or four least effective laboratories; they could be closed or phased out and their resources reallocated to the others. Geographic boundaries would have to be redrawn to maintain complete national coverage. One's position on this proposal might be influenced by knowing the probability that Regional Laboratory funding could in fact be redirected or, would simply be utilized to satisfy demand. ... reducing the overall federal budget deficit.

Entrepreneurial Intensity. Several Regional Educational Laboratories already engage in substantial entrepreneurial effort in order to enhance their budgets. This is a mixed blessing. It has the potential disadvantage of seducing laboratories into less-than-crucial activities, or at least activities that are less than crucial for promoting greater effectiveness in school districts. This is particularly the case because local school districts seldom have the financial resources to contract for services of the nature that laboratories can offer. On the other hand, when laboratories subject themselves to market competition they gain a measure of the degree to which their services are desired by potential consumers. Entrepreneurial activity does provide a feedback loop that frequently is otherwise missing. Also, entrepreneurs are forced to become sensitive to the needs and views of clients. Inappropriate bureaucratic procedures and organizational indifference are frequently reduced.

One strategic alternative is to sustain "With and Through" tactics and utilize entrepreneurial incentives to enhance the prospect that laboratories are performing useful functions for regional clients. All laboratories would be encouraged to supplement their funds by competitively bidding for grants and contracts within their geographic service areas. Annual federal funding levels could be reduced, over time, and more laboratories could be formed with the savings.

Explicitly acknowledging, indeed, deliberately intensifying, entrepreneurial activity by laboratories would have several advantages. It could spread federal resources more widely than now is the case, even offering the prospect of initiating additional laboratories. It would provide a more forceful evaluative dimension than presently is possible. It would enhance the probability that laboratories were indeed sensitive to the needs and outlooks of the clients they attempt to serve. Last, it would substantially supplement the range of consulting services available in some regions of the United States where large national private and not-for-profit agencies currently maintain only a minimal presence.

An intensified entrepreneurial strategy would have obvious disadvantages. It might do little to bring laboratory services directly to local school districts. "With and through" disadvantages would unlikely be corrected. Additionally, laboratories would, in effect, become "Job Shops." In time there might be little to distinguish them from profit and not-for-profit consulting firms, with all the advantages and disadvantages that such agencies exhibit. In major metropolitan areas of the United States, there is already a sufficient number of such agencies, though there probably is no harm in adding a few more to the marketplace. However, in less well-developed regions, having a full-service consulting agency would probably be an advantage over what currently is available.

Entrepreneurial activity could be mandated through regulation. Additionally, it could be encouraged by using federal funding on a matching basis. For example, for every $4 that a laboratory raised entrepreneurially, it would receive $1 in federal matching funds, up to a specified ceiling amount.

Service Credit Accounts." This strategy offers a means for intensifying "With and Through" tactics, enhancing laboratory sensitivity to client needs, ensuring relevance to contemporary educational developments, and, when linked to a resource matching strategy, expanding funding available to laboratories. The following scenario offers one illustration

of the manner in which a "Service Credit Account" strategy might operate. Other scenarios are also possible.

This procedure would encumber Laboratory resources for use by designated clients. Within each geographic region, laboratories would have "Designated Clients." These might include, or be limited exclusively to, one or a combination of individuals and organizations such as chief state school officers, governors, legislative leaders, state school board associations, or major professional educator interest groups. A laboratory's designated client or clients would be allocated a "Service Line of Credit" which could be drawn upon for consulting, policy analyses, research, or staff development during the course of the budget year.

These service allocation arrangements could be intensified, and constructed to provide a performance feedback loop, by requiring that designated clients match federal funds in their individual Service Credit Accounts. Matching need not be on a dollar-for-dollar basis. Almost any reasonable matching ratio suffices to gauge the extent to which designated clients believe the service is of value to them.

Designated clients would specify the general nature of services they would expect during the forthcoming contractual period. These discussions would facilitate laboratory planning and personnel recruitment. Prior agreement would also be reached regarding the "rate" at which laboratory services would be billed against a client's line of credit.

"Service Credit Accounts" and the accompanying concept of "Designated Clients" would also have advantages and disadvantages. Laboratory sensitivity to clients' needs would be intense. Performance feedback would be facilitated, particularly if financial matching requirements were instigated. Laboratory stability might be further enhanced by the added degree of political support that could result from such arrangements. Excessive indirect overhead costs could be minimized by specifying the proportion of federally funded resources that had to result as direct services to designated clients. Advanced planning with clients would enable laboratories to know with greater assuredness what their personnel needs would be, at least for a year, and, depending upon the planning horizons involved, perhaps as long as a multiyear federal contract cycle.

An additional advantage of the "Service Line of Credit" is the renewed possibility of attracting added actors into laboratory rebidding competitions. Restricting the prospective

clientele of laboratories, would probably reduce the range of their substantive responsibilities. Under a "Line of Credit" arrangement and fewer clients, laboratories would not have to spread themselves as thinly as has been the case in several past instances. Greater specialization might facilitate higher quality performance. Also, a narrower band of expectations might reasonably encourage a wider range of other agencies to compete for laboratory funding when rebidding was scheduled.

The disadvantages are those accompanying an even a more intense version of the "With and Through" strategy. For example, designated clients might monopolize such a large proportion of laboratory resources, unless otherwise protected by federal regulatory agreement, that small clients would be neglected. Also, the "Service Credit" strategy runs the risk of unproductively entangling laboratories in state and regional politics. Lastly, clients now benefitting from laboratory services might view the "Service Line of Credit" as a contrived encumbrance which simply makes their lives more complicated without providing additional advantages.

Specialized Think Tanks. Yet another strategy is deliberately to encourage Regional Educational Laboratories to become specialized "Think Tanks." The above-described "Service Credit Account" would likely reduce the spectrum of clients for laboratories. A "Specialized Think Tank" strategy would likely reduce the substantive spectrum for which any particular Laboratory is responsible. A laboratory would specialize in one or a restricted range of topics consistent with federal directives, regional needs, or a combination of the two.

For example, state officials appear to desire greater policy analytic services. Regional Education Laboratories could specialize in the provision of this service to states in their geographic area. Similarly, a laboratory might specialize in future planning for a region, cyclically undertaking a variety of demographic, economic, personnel and financial projections. Yet another example is a laboratory that specialized in program evaluation and became known for providing high calibre assessment services to regional clients. Lastly, a laboratory might specialize in activities such as strategic planning, business systems, testing, or instructional improvement for states and large-scale education organizations within its service area.

Enough has been said to this point regarding advantages and disadvantages of previously described strategies that additional detail is perhaps superfluous. Suffice it to say that

restricting laboratory substance offers an opportunity to gain high performance through specialization. Accountability might also be enhanced because the range of expectations for a particular laboratory would be reduced. Substantive specialization could also be accompanied by federal matching requirements so as to encourage entrepreneurial activity, expanded fund raising, and client accountability. The disadvantages would include diminished contact with operating school districts and a narrower spectrum of knowledge translation.

Combination Strategies. The above-listed strategic alternatives are not necessarily mutually exclusive. It is possible to combine many of them. For example, entrepreneurial activity and matching requirements can be utilized in most every instance. Similarly, restricting functions and designating a smaller spectrum of clients can also be accomplished simultaneously.

Part Four:
Conclusion

What is the "right thing" to do about Regional Educational Laboratories? The answer to this question will depend heavily upon the perspective of the respondent. However, it is difficult to respond objectively in the absence of an overarching federal government education research and development strategy. Such a strategy was constructed a quarter century ago. It has not been systematically revisited since. The conditions of American education have been altered sufficiently that a previously developed strategy, even if there were a current-day desire to pursue it, is no longer appropriate. What is needed is a high-level review, undertaken cooperatively by the education community and appropriate government officials. In the absence of such a set of full deliberations, this essay offers alternative strategies, probably interim ones, for productive future deployment of Regional Educational Laboratory resources.

LABORATORY POLICY PAPER

THE FUTURE OF REGIONAL EDUCATIONAL LABORATORIES IN CONTRIBUTING TO URBAN SCHOOL IMPROVEMENT

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

The Future Direction of Regional Education Laboratories in Contributing to Urban School Improvement

The assessment of any institution serving urban schools must reflect the condition and changing needs of urban education. This paper examines the current and future roles of supporting organizations such as education laboratories given the progress and problems of the school systems they are designed to serve. In doing so, the paper is intended to offer observations and suggestions to improve the service of these support organizations in the future.

Regional education laboratories have been a part of the education landscape for a considerable period of time. In this time they have made significant contributions to the improvement of education. Their major contribution has been the introduction of research and development practices and information which have enhanced state and local problem-solving capacities. Labs have been able to publish research and development reports on all aspects of educational improvement and have disseminated these documents quite widely both within their regions and nationally. Labs also have conducted significant research that has contributed to the overall knowledge base about teaching and learning.

A principal strength of education laboratories is in the education research and development network of which they are a part. The extent to which labs utilize this network to strengthen their capacity to serve schools must be primary to their assessment. The basic design of the education labs and centers was based on the belief that state-of-the-art research knowledge was essential to improvement of education practice. The division of labor between labs and centers was that university-based centers would specialize in "knowledge production" and the labs would focus on "knowledge application." What has transpired over the years, however, is that labs have become more autonomous and interaction between education labs and centers has not increased as was once hoped.

Several factors have contributed to this lack of interaction. OERI, itself has contributed by setting-up an environment of competition between the labs and centers that has worked against fostering interaction. At times the agency has shown a definite preference for the work of research centers over that of labs. Attempts, for

example have been made to modify the allocation of resources between labs and centers that would have significantly impacted lab funding. The labs responded to the threat of reduced funding through political action. The result while successful for labs resulted in an environment of mistrust not only for the agency but also for the centers themselves that were now seen as competitors rather then colleagues. The current make-up or the lab and center advocate organization, CEDaR is a testament to this fracture in relationship. Most of the centers are no longer active members in this organization.

The absence of effective interaction within the lab and center network has resulted in considerable unevenness in the services labs provide as well as in the labs' overall capacity to represent the best and most current research knowledge available for problem resolution. This isn't to say that labs, as we have seen, have not made contributions both in the development of knowledge and the application of that knowledge to solving problems. The concern raised here is that labs have been less efficient and have been diminished in their capacity to contribute to local problem-solving because of their increased isolation from research centers and the research community in general; except in areas that are compatible with their own research interests. For years labs hired their own researchers almost in competition with research centers. The argument put forward was that labs required their own research capacity to be responsive to the needs of their regions. Current concerns for greater effectiveness in the support services from education laboratories to urban school districts is now more important then ever stems from the growing need, particularly of urban school systems, to effectively deal with some of the complex, lingering issues which to date, have only been marginally addressed.

As will be seen from the following, the needs or urban schools are so pervasive and pressing that a coordinated approach to solving these problems, at a level that makes a difference, and that is the classroom, must become an operational reality.

Present and Future Needs of Urban Schools

Urban Schools as Schools for the Poor

Our urban schools are increasingly becoming schools for the poor. In addition to doing a better job of educating students from poor families, we also need to reestablish public education as the universal educational institution for all of our young people. At

the same time we have been integrating schools racially, they have become more segregated economically. This segregation erodes the local economic base for urban schools as well as the role of public schools as the primary educational institution for all students, with or without financial means. All institutions concerned with improvement of urban education must work toward increasing community support for these public schools and help find ways to attract and retain the participation of middle and upper class families.

Student Achievement Beyond the Basics

Student achievement remains the primary concern of urban schools. Though we have made some progress in improving basic skills, the ability of students to organize this information and use it effectively to solve problems is severely limited. Though this is a general problem in all school systems and at all levels of education, it is most severe in urban schools. This is the primary reason for the dramatic decline in standardized test scores at the secondary level and why urban school students do so poorly on SAT's. The problems students are having in academic performance are directly attributable to the quality of instruction they are receiving. Specifically, urban schools need curricular and instructional approaches that will enable students to develop higher order problem-solving and critical thinking skills.

This particular need provides a good example of how a critical concern of urban schools has not been adequately addressed, partially due to the lack of an effective research into practice network. School systems need help from cognitive research in understanding: the learning problems their students are having; what instructional strategies work; and how these strategies can be tailored to particular learning styles. We not only need to know what strategies work, but also need help in figuring out how to effectively transfer this knowledge through staff development to curriculum developers, instructional supervisors and teachers. Though these concerns may appear obvious, the answers remain perplexing and, as yet, urban schools have received only limited help from external support agencies in resolving them.

Related to the above is the need for urban schools to expand the capacity of urban educators to use technology as an aid in teaching higher order problem-solving skills as well as enabling students themselves to use technology directly in their information organizing and problem-solving pursuits. The research and development to

develop more effective and integrated computer assisted instruction would be particularly valuable to urban settings. Here is a perfect example of missed opportunity. Both the Harvard Center on Technology and the Northwest Lab have done extensive work, one on education technology development and the other on technology evaluation and application. We all should be benefiting extensively from this work. Urban schools instead are still fumbling along, generally behind the state of the art in both research and practice in the use of technology to improve instruction.

Students At Risk

Although "students at risk" is a currently popular and overworked phrase, we still know very little about these students and how to be most helpful to them. We need from the research and development community better and earlier identification procedures for students who are at risk of school failure and dropping out. We also need better monitoring systems for these students to determine the effectiveness of efforts on their behalf. Instead of blaming some external forces for the problems students have in school, what is needed is a better understanding of how the conditions these students face affect their ability to engage in the educational process and of the ways in which that educational process contributes to students' engagement problems.

Further, we need research and development studies of students with high levels of risk factors who are able to be successful despite an array of adverse conditions. From such research, we may be able to learn how to help students survive a hostile environment. In line with this type of approach, we need to look at the qualities and characteristics of programs that are successful with various kinds of high risk students to determine the factors that work to engage these students and keep them in school. We already know from the literature and direct experience that school failure and truancy are two prominent risk factors for urban students. We need to discover more effective ways to get students to attend school regularly and to provide them with the support systems they require to stay in school.

School systems need to reexamine where the student fits into the priorities of the instructional programs. A significant risk factor for many students may be the indifference or negative reactions of teachers and administrators to students who do not meet their expectations. Many students who drop out of school feel as if everyone was a bit happier when they left.

Teacher Training, Retraining and In-Service

One of the most critical issues for urban school districts is the need for well-trained teachers who know how to teach in urban classrooms and who are committed to all of the students they serve. The current pool of teaching graduates are not prepared to teach in urban schools because they are not grounded in the needs and conditions of urban schools, nor are they sufficiently acculturated to the urban school environment which would be helpful in the adjustment process of new teachers. New teachers are also not provided the tools they need to work effectively in the urban school environment giving rise to considerable frustration and feelings of incompetence. Understandably, the attrition rates among new teacher are quite high and combined with the low numbers of recent graduates willing to teach in the central cities, a real threat to urban education emerges. An important step in meeting the need for teachers well prepared to teach in urban schools is to forge a closer collaboration between pre-service teacher training institutions, educational support organizations such as regional labs, and urban school districts.

Staff development is a critical need for urban districts. We need to develop, in conjunction with teacher education professionals, intensive sustained retraining programs for existing staff. Many of our experienced teachers receive little, if any, assistance in adapting to their changing student populations and therefore, have difficulty in meeting their students' learning needs. Urban students represent increasingly diverse cultures, language and personal orientations. The growing numbers of Limited English Proficient (LEP) children in our nation's schools pose additional challenges for urban teachers. The current pre- and in-service teacher training programs are not adequately preparing our teachers to meet the instructional and support needs of language minority students, many of whom drop out of school or fail to fully develop their capacities.

Additionally, principals in urban districts need significant retraining. They must become effective instructional leaders who can guide and support their faculties in meeting the array of instructional challenges confronting today's schools. Research has shown the pivotal role the principal plays in developing effective schools. Further development is needed in translating this research into specific training and re-training programs on instructional leadership relevant to principals in the urban environment.

Linking and Integrating Social Services to Meet the Needs of Urban Youngsters

Because of the growing numbers of poor urban school youngsters, the school is increasingly required to be an advocate to ensure students are receiving a range of needed community and social services. Often these services are essential to students' well being and in turn, their ability to apply themselves to their school work.

Although many cities have significantly improved municipal health and social services, most cities lack an integrated, comprehensive approach for delivering such services to vulnerable or needy students and their families. Greater coordination of services and providing these services in the school should be considered whenever possible. More creative and effective models for the coordination and delivery of social, psychological and health services need to be developed.

Future Roles of Regional Labs

Many of the priority concerns expressed above are not new. They are lingering concerns which still lack clarity, understanding and solutions. Unfortunately, the longer such problems persist, the more intransigent they become. In the following section, suggestions are offered regarding the role education laboratories could play in attacking these persistent problems.

Gaining Power Through Closer Ties with the Research and Development Network

The problems described above are quite complex and multidimensional. Solutions will require the acquisition of knowledge through research; the understanding of how these problems affect and are addressed by school systems; the development of mechanisms to improve the structure and functioning of education institutions. In other words, there is plenty of work for all aspects of the research and development network. We have tried the redundant regional lab model, that is, a regional entrepreneurial lab for "all seasons and reasons." The fact is that while regional differences do exist and labs should address these different needs, the problems we face in educating our students have great similarities from one region to the next. By recognizing these commonalities and engaging them in a coordinated manner, the research centers and education laboratories in combination with other institutions with similar interests can provide a formidable capacity no single set or subset of research and development agencies could duplicate. An integrated R&D agenda for labs and centers that focuses on a set of major problems should be developed. The specialized centers should be

providing much of the knowledge base required by labs to, in turn, meet the improvement needs of school districts within their region. Frequent meetings and reviews of progress in meeting a set of R&D objectives should be held between all labs and center programs to reassess their contributions and make changes where required.

In no way should this increased collaborative capacity be interpreted as infringing on the ability of labs to work effectively in their regions. It should be clear from the forgoing, that the capacity of both labs and centers are limited in their ability to effectively address the education needs of urban eduction centers and that planful collaboration is essential in not only building the overall capacity of the research and development network but also the individual capacity of each member of that network.

Emphasize Technical Assistance Problem-Solving Role

Regional labs should offer more hands-on sustained technical assistance to all urban school districts within their region. At present, much of the direct help to schools is provided on a fee-for-service basis, unless the requested assistance is a part of a lab's pre-set research and development program. It would even be conceivable for each lab to station some staff members in local school systems who would offer direct assistance as well as mobilize overall lab involvement when appropriate.

The primary function of this direct help to urban districts would be to translate state-of-the-art research into actions and plans for program improvement. This approach would allow labs and their personnel to provide a sustained problem-solving effort over time. From such efforts, the labs would gain a first-hand understanding of the usefulness and effectiveness of research as a vehicle for improvement of practice. This approach would have the further advantage of providing labs more specific knowledge about school districts' capacities and the particular ways in which labs can be most helpful to schools in their program improvement endeavors.

It is recognized that this approach runs somewhat counter to the current policies and practices for labs. It must be emphasized however, that while providing assistance through state agencies may be more efficient, the resultant effect is likely to continue to be inadequate given the extent of problems in urban schools. Given limited resources labs should initially work with urban systems needing the greatest help. State agencies should continue to provide whatever assistance they can along with the coordinated lab

effort. State agencies can also be helpful in applying the knowledge gained in what proves to work in one urban setting to others needing similar assistance. In other words state agencies must continue to be an important part of the overall collaborative effort to improve the capacity of urban schools.

Building School System Capacity

Another important role for the labs is to provide more ongoing technical assistance to enable urban school districts to conduct their own applied research. Urban school systems also need technical assistance from labs in conducting meaningful planning, using forecasting and strategic planning approaches. Labs can aid such planning efforts by providing research and analysis used in dealing with similar situations in other school districts.

Program decision makers need training on how to systematically use planning and research efforts as an aid in reviewing programs and making allocations. A further capacity that needs to be developed to aid the planning and decision-making process is the development of program evaluation capacities at the local level. A critical need among urban school districts is to develop an in-house ability to conduct formative evaluation of programs and services.

Capacity building through technical assistance also is needed in developing the next generation of comprehensive K-12 curricula and instructional systems. This would require a heavy emphasis on working in school districts to expand their capabilities to carry on continuous curriculum improvement efforts on their own. The next generation of curriculum and instructional systems will have to be more responsive to the diverse learning styles of the mix of urban students and will have to address the critical need to increase students' higher order skill development particularly in the areas of problem solving and critical thinking.

Developing More Effective Pre-Service and In-Service Training for Teachers

Another crucial role for the labs is to translate the research on effective teaching in urban settings into actual training modules for teachers in training as well as for teachers needing retraining.

Labs need to become a part of efforts designed to forge linkages between teacher training institutions and urban school districts. Labs should provide technical assistance to universities in planning joint projects with urban school districts designed to improve the instructional skills of new as well as existing teachers. Labs should provide the leadership in their regions to convene teacher training experts and leaders of urban districts to help assess needs and to examine existing programs that show promise and on the basis of the foregoing analysis, develop improved programs.

Work on Developing Effective Central Office and School Management and Organization Structures

Currently, there is significant interest in large urban districts in restructuring and developing a more effective central office. Labs can play an important role in providing the research and experience base to school systems that would help them design and bring about these organizational changes in ways that would meet their needs and be more effective in solving their organizational problems.

The need for more responsive and more efficient management structures provides the opportunity for education laboratories to provide direct technical hands-on assistance to school districts in developing their restructuring plans as well as providing formative evaluation guidance in assessing the effectiveness of these plans over time. Feedback of this kind will be extremely important in facilitating these important organizational changes.

Another area in which lab assistance could be helpful is in the examination of court involvement in the management of desegregation programs. A systematic inquiry into this area could help to inform courts and school districts of the potential effects of court-mandated actions and allocations of school district resources based on experience and accumulated wisdom. These inquiries should also assess more effectively the educational gains students make as a result of the implementation of different plans.

Linking Urban School Districts With Other Community Agencies Supplying Support Services to Students and Families

Education labs should also take the initiative in convening school district and political leaders of cities and regions to explore effective ways of reconfiguring support service delivery to high risk students, dropouts, teenage mothers and youngsters living

in extreme poverty or under extremely adverse conditions. The coordinated delivery of support services to students is not only critical to their welfare but to their ability for school success. Labs could work with education research centers to commission action research to study the intermediate and long-term effects of various strategies for integrating the delivery of social and educational services.

Conclusions

The challenge for urban public schools from this point to the twenty-first century will be to demonstrate their ability to provide the best education for all children. If schools fall very short of this goal, the nation will come to depend less on public education and increasingly will be receptive to alternatives which may not share the commitment to providing quality educational opportunities for each child regardless of economic circumstance. We have worked too hard and invested too much in the concept of high quality universal public education to allow the demise of this noble experiment in democracy. This failure would have grave consequences for the principles of equality and equity which we have honored as a nation for so long.

Education labs, as described here, have an important role to play in the improvement of urban schools. To do this, however, the network of education research and development institutions must work closely together to forge a more purposeful and strategic force to help bring about needed changes. Through the concerted development of new knowledge and the strategic application of that knowledge for program improvement, the contributions of this research and development network could be very significant.

With bold new initiatives that combine to strengthen the delivery of effective instructional services, urban students will acquire the skills necessary to meet the competitive challenges that await them. Provided with opportunities to employ their skills, urban youngsters will be able to take the forward steps that this nation has grown to expect from each succeeding generation.

Although the challenges are great, all concerned must assist in the renewal of our urban public schools. We must develop a positive, creative force in our schools, approaches to address problems realistically and improvement strategies based on research and experience that will produce not minimally but maximally effective schools.

Excellent public schools are a realistic goal for every community. Meeting that goal, however, will require the determination and assistance of many parties. The regional labs and centers can play a major role in realizing this most worthy objective.

LABORATORY POLICY PAPER

CLASSROOM AND SCHOOL IMPROVEMENT IN TWO EUROPEAN COUNTRIES

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

School and Classroom Improvement in two European Countries

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Research activities in education take place in universities, teacher training colleges, in special research institutes, and in governmental units either at the central Ministry or regional level. The themes or issues being researched are sometimes given by the government and sometimes are initiated by individual institutes or researchers. Such research typically includes the evaluation of the system for participation rates and achievement levels, investigation of the sequence of concepts and the complexity of language used in different grade groups, selection techniques, methods of instruction and the like.

Development activities in education are usually undertaken in the same institutional settings as research. However, development activities often occur at the school or district level. Development is primarily in the area of curriculum materials but also in the realms of special issues such as developing the "best" way of organizing small or isolated schools, developing training courses for principals, developing teaching-learning strategies, developing appropriate technology and so on.

R and D activities are undertaken for information required for decision making at different levels of the system: national, state, district or school (Ross and Postlethwaite, 1988). In some research, it is possible to generate results that are of use at all levels. However in general, it is useful to be aware of the different levels for which results are being produced, irrespective of the level at which the activities are initiated, before planning a project.

A final step is the dissemination of knowledge and techniques to the different levels of the system for which such knowledge is appropriate. Of particular interest in this paper is dissemination to the school level which results in school and classroom improvement. This last step is dependent on the appropriateness of the research and development that has taken place. Has it been well conceptualised in the first place? Is it responding to a known need? If not, it might well be perceived as only an academic game and unrelated to the needs of the schools. Do the schools have a mechanism to help determine the type of work which R and D centers should undertake?

Much has been written about the links between educational research, educational policy-making, and the implementation of research results (Weiss, 1979, Husén and Kogan, 1984) and of the enormous complexity of these relationships. Much has also been written on the institutional inertia or the resistance to change that is built into institutions. Many persons have a vested interest in the status quo. In order to bring about change, it is necessary to convince those affected that the change is in their

interest. Communication is a necessary but not sufficient condition to bring about change (cf. Husén, 1968). I assume that readers know of these discussions and will not enter such debates. Rather, I will describe the steps taken in two European countries (in alphabetical order Hungary and Sweden) to improve schools and classrooms.

Context.

Education as well as educational R and D and implementation take place within a social-political-economic context. It is, therefore, desirable to mention a few basic facts about each system. All three countries have small populations. Hungary has about 11 million people, the Netherlands about 14 million, and Sweden about 8 million.

Some basic facts

Hungary has compulsory education from 6 to 16 years of age. All students are in a unified school system split into 4 grades of basic, 4 grades of general lower secondary schools, and then, from the age of 14, either an upper secondary school (academic), vocational secondary school or tradc school. Forty percent of an age group is enrolled in Grade 12.

Sweden has compulsory schooling from the age of 7 years to 16 years. Ninety percent of an age group is enrolled in school at Grade 11 but this declines to 30 percent at Grade 12. There is a unitary comprehensive school system up to age 16 and thereafter 2, 3 or 4 year tracks in arts and social subjects, economics and commercial subjects, scientific and technical subjects, academic general, and vocational.

In Sweden, teachers are paid well above the GNP per capita whereas in Hungary the teachers are only paid about 80 percent of the GNP per capita. There are currently teacher demonstrations and strikes in Hungary for more pay. Recently a new, independent trade union for teachers was established.

Both countries have relatively high achievement in Science (IEA, 1988, p. 42) and this was one reason for selecting these school systems. The differences between schools in achievement as a proportion of the differences (variance) among students varies considerably. At Grade 8/9 level it is 29 percent for Hungary and 8 percent for Sweden. Thus, from one point of view equality of opportunity has been achieved most in Sweden and only to a limited extent in Hungary.

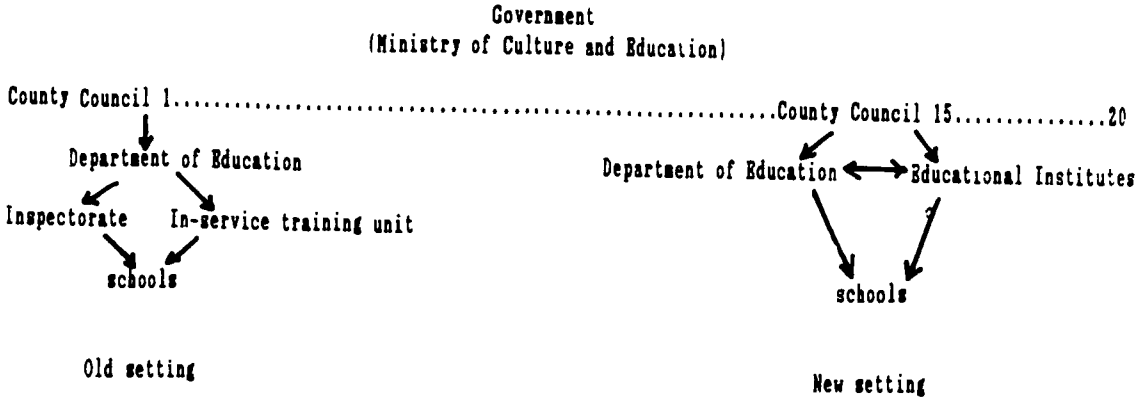
Centralisation/Decentralisation

Hungary: In 1948, a Stalinist form of socialism was established. Given the form of traditional Prussian administration which had existed before this time, the result was extreme centralisation. For education, this meant the central administration of all schools and a central curriculum ("curriculum is the law" was one slogan of the times).

At the end of the 1960s and in the 1970s there were increasing moves to establish a 'new deal' (meaning decentralisation) throughout all aspects of the society. The reform in education tended to follow other reforms. In 1985 new legislation in education came from the top down. The main aims of the legislation were to decentralise administration and policy and create more participation and innovation at the school level. More and more liberty is given to the schools in matters such as curriculum, educational programs, school organisation, teaching methods and the like.

Hungary is divided into 20 counties of which one is the capital. Each county has a department of education. Traditionally, the county councils are strongholds of bureaucracy and orthodox political views. In order to counterbalance these county councils new county educational institutes were set up and staffed by former inspectors of education and persons from in-service training institutes. Figure 1 presents the old and new settings.

Figure 1: Old and new settings in Hungary



The educational institutes are becoming the "extended arm" of the government's reform policy. These educational institutes are a major key to school improvement.

There are three central institutes of educational research and development: the National Institute for Education (curriculum development, evaluation research, school experiments), the Educational Research Institute (macro level research on educational needs of the society, planning of education (system-level, economics), tertiary education etc.) and the National Institute for Educational Technology. It is rare for universities and colleges to conduct empirical research in education. There is an automatic dissemination (publications, seminars, special meetings) of the results of the R and D work at the central level to the County Educational Institutes. These, in turn, deal with each of the schools in their areas both through inspectors' visits and compulsory in-service training.

The Hungarian system has a core curriculum and relatively good pre-service training. As we shall see later it also has a good communication system from top to bottom and bottom to top of the administrative system.

Sweden: Sweden has a constitutional monarchy with parliamentary representative democracy written into its constitution. Education has a high profile within the country. Each of the last three prime ministers in Social Democratic governments have also been education ministers before becoming prime minister. There is political stability. Between 1932 and 1976 the Social Democrats were in power, practically without interruption. Unemployment is low and material prosperity high.

Figure 2 represents the levels in the administration at which various categories of R and D work are carried out.

Figure 2: Administrative levels in Sweden at which R and D work is conducted.

Activities	Initiation Planning	Conducting	Follow up
Research	NBE (CEC)	Universities	NBE
Central development work	NBE (CEC)	NBE (CEC)	NBE
Regional development work	CEC	CEC, LEA	CEC
Local development work	LEA	LEA	LEA, CEC, NBE
R&D information	NBE	NBE, universities, CEC LEA, publishers	NBE

Above the diagram is the Parliament and Ministry of Education. It is Parliament which defines the overall goals and guidelines for education. It issues regulations and Ordinances and gives instructions to the National Board of Education (NBE), the 24 County Education Committees (CECs), the Municipal Education committees and local education authorities (LEA). The NBE is the national authority for primary and secondary schooling (and also adult education). The NBE must ensure that the goals and guidelines of the Parliament and Ministry are put into effect and, if necessary, revised. The CECs supervise schools in the county, distribute state grants, and support and encourage school development work. The NBE and CECs together have the task of ensuring the improvement of schools.

Municipal Education Committees and Local Education Authorities have the overall responsibility for the actual school work. Schools and adult education are predominantly a municipal responsibility and one of the largest items on the municipal budget. The Municipal Education Committee decides school policy. This school policy is then put into effect by the Local Education Authority and its officials. However, the country has a national curriculum for schools at all levels, national testing programs and, more recently, a national assessment program.

Each school is directed by a principal, but planning involves consultations with staff and pupils and - in the case of compulsory schools - with the parents as well. Teacher unions are strong.

The Swedish school system rests on the principle of guaranteeing all children equivalent basic education, irrespective of residential locality or parental income. This is why goals and guidelines and the curriculum are decided by the Riksdag and why there is a national school administration.

The costs for compulsory and upper secondary education is shared roughly equally between the State and the Municipalities.

In 1988 the NBE had approximately 6 million US dollars for R and D work (for research, central development work including curriculum development and revision of materials, and the dissemination of information about R and D). The CECs had about 3 million dollars altogether to disseminate local development work. The LEAs had about 60 million US dollars for in-service teacher training, local development work in general and some specifically ear-marked development activities in schools.

Figure 2 shows the bodies that initiate, undertake and follow up the work. There are several points which should be mentioned. The NBE has a mechanism for canvassing ideas for research from schools via LEAs and CECs as well as from universities and from unions including teacher unions and parent associations. The NBE sets the final priority for its funding. However, the CECs and LEAs can also initiate development work for school improvement on their own.

There are no research institutes for education outside the universities and schools of education, nor are there any separate institutes for evaluation and test construction. According to the Swedish research policy, research should be carried out within the universities and rely on the scientific competence there. This means that the universities are the body for basic training, research training, basic research, commissioned research as well as pre-service and in-service teacher training.

Researchers from many disciplines are engaged in educational research and development work: pedagogy, sociology, psychology, political science, natural sciences, humanities, linguistics, and foreign language departments. Departments of education in particular are engaged in evaluation activities such as the construction of the standardized tests used in compulsory and upper secondary education and in the Swedish national assessment programme. The final decisions concerning standarized tests and the instruments used in the national assessment programme are taken by NBE, however.

There is a core curriculum laid down centrally and much effort is given to INSET (In-service training of teachers). However, INSET is built on national priorities to which LEAs adhere and this is a powerful instrument for dissemination. INSET

consisting of five mandatory study days per year is compulsory and it is the responsibility of the school leaders (principals). From 1989 all teachers in the compulsory school (grundskolan) are expected to participate in a 2-3 week course aimed at deepening the understanding of educational goals. Class-teachers are further expected to participate in INSET about mother-tongue (2-3 weeks), and mathematics and/or Science (5 weeks). This program is planned to be completed for all teachers within 10 years. Thereafter, any teacher can take a one term (5 months) INSET course in a subject or subject area of his or her own choice.

Questions to be answered

1. How is R and D for school improvement produced or obtained?

R and D is determined nationally but conducted at central, regional, and school levels in Hungary. The total amount of money available is approximately 0.5 percent of the primary and secondary school national budget.

One central committee decides on the distribution of funds for R and D. The committee has 15 members. The chairperson is a political appointee and he/she then chooses 14 other persons, typically professionals. This committee solicits ideas for R and D from researchers (at universities and at the three national institutes concerned with education: the National Institute of Education, the National Educational Research Institute, and the National Institute for Educational Technology), from the County Departments of Education and Educational Institutes, and from schools. Most submissions come from the researchers but about one third of submissions come from schools. Only rarely do submissions come from the county level.

The criteria used for determining priorities are:
1. Social relevance (in this case projects likely to help the new educational reform);
2. Quality of proposed research methodology;
3. Prestige of researcher or research group.

Experts - and in some cases even members of the committee - write an expert appraisal (Gutachten) of each submission and this is then reviewed by the committee. It is of interest that the local schools receive slightly more than one third of the money available (because there are relatively many experimental schools, run by alternative programmes).

Two examples of school development projects are given. In one school three teachers applied for money to develop and evaluate (using empirical methods) in several schools an integrated social studies curriculum. They undertook the development work. The curriculum materials, after several try-outs and revision were approved by the National Institute of Education (which must approve any curricular materials). More and more schools are using this curriculum and materials. There was a successful similar project in mathematics. A second example is that one teacher proposed a project for a special music school (à la Wiener Sängerknaben). The project is now under development.

It is to be noted that the school level R and D is mostly development/innovation but does use some empirical research methods in the small scale try-out phase. It is the central institutes that tend to conduct the more research oriented studies.

As can be seen from Figure 2 presented earlier, in Sweden the NBE determines all, or nearly all, research projects and sub-contracts the conduct of these projects to the universities. This research, however, is not the only educational research conducted in Sweden. A cautious guess would be about 60 percent. The rest is financed from other sources.

However, much development work - apart from the central curriculum development work which is undertaken by a combination of the National Board of Education and the County Education Committees (CEC) - is undertaken at the CEC and LEA levels.

2. How is R and D for school improvement disseminated?

In **Hungary**, this is done through the teacher newspaper, the ordinary press, teacher journals, and leaflets which are produced by the central authorities and distributed via the county education departments to the county institutes and to the schools. There is considerable doubt about the effectiveness of the written form of communication. Oral communication through INSET and the county inspectors is found to be more effective.

In **Sweden** the most important channels through which R and D results can be disseminated are:

- commentary material linked to the curriculum
- other service material for the schools
- information for school leaders
- books from research projects, published either commercially or - which is more common - through NBE at low or no cost for the schools and teachers
- information sheets from research projects written directly for teachers
- reports from research projects, regional and local development projects and from central (national) evaluation studies and from curriculum development work
- articles in teacher journals.

Within NBE there exists a data base in which basically all the material mentioned above is available on line for schools. The reports etc. can be borrowed, bought or obtained free of charge from either the NBE, CEC or libraries.

The potentially most powerful channel for dissemination of R and D results is the commentary materials linked to the national curriculum. The Riksdag has stated that NBE is responsible for a continuous development of the curriculum and that it should support schools with commentary material that should be based on research and development work. It is however not mandatory for the schools to buy these materials, nor are they mandatory for the teachers to study.

Dissemination of R and D results in writing without any defined connection with other activity has proved to be a weak instrument for school development and improvement. Recently, a study was undertaken of teachers in the compulsory school (focussing on their values and beliefs about the teaching profession as well as about the gaps between what they want and what they get to help them in their work). The written material mentioned above (and is was linked to the curriculum) was mentioned only by very few as an important channel for getting knowledge about the curriculum and about teaching methods. Teachers seem to rely solely or almost solely on oral communication with colleagues and on the study days and other in-service activities for their own professional development.

3. **Assuming that simply making knowledge about R and D findings available through written dissemination is not sufficient to gain their use, what further steps are taken?**

In both countries it would appear that written communication is insufficient.

In Hungary the County Institutes of Education organize teacher meetings. R and D persons are invited to give talks and persons from the County Institutes also give talks. The National Institute of Education organizes central meetings of inspectors to inform them of R and D and to arrange for them to pass them on to school principals and teachers as they visit each school.

The County Institutes of Education organize different expert teams in order to facilitate the dissemination of information. In a typical setting curriculum experts, advisers, teaching aid designers, evaluators, curriculum experts and teachers are involved. Where teachers join in development work activities they may receive more pay. These teams are organized on a temporary basis. It is too early to judge the effectiveness of this means of dissemination partly because of their newness and also because of financial constraints. The main avenue for dissemination is INSET (In-Service Teacher Training) as organized by the County Educational Institutes.

One of the main problems is to change teachers' negative attitudes towards reform. After years and decades of "conforming" it is difficult for teachers to have new and bold ideas and to express them. It is, however, the personal contact with teachers and the oral dissemination of ideas and R and D results which is expected to have more influence than other forms of dissemination.

One major avenue which should serve dissemination purposes is pre-service teacher training. In Hungary, the pre-service teacher training institutions are conservative and tend to act as a brake rather than an accelerator. They view their main task as that of producing good subject matter knowledge in the future teachers and pay little attention to the 'pedagogical knowledge'. They do not reject the idea of reform but neither do they support it. Thus, much remains to be done in the area of dissemination for the successful application of R and D for school improvement.

In Sweden in-service education is also the major vehicle for school improvement. In-service teacher training is the joint responsibility of the National Board of Education and the National Board of Universities and Colleges. A substantial part of the in-service teacher training is given within universities and schools of education although an increasing amount of it is provided for by the municipal education authorities. State grants for local development work in schools are given, stating that at least 60 percent but not more than 80 percent should be used for in-service teacher training. To this should be added that five "study days" per year are compulsory for all teachers.

Priorities as to the main areas in which state grants are given to in-service teacher training, are stated by NBE. During the eighties, a shift in policy for INSET has meant that more emphasis has been put on the general goals for schooling, above all on what is called "The school is for everybody" and as a consequence of that, emphasis on means and methods for pupils that need extra support. This has been done at the expense of subject-matter INSET except, above all, computers in education and in later years (as a result of the IEA-mathematics study from 1980) on mathematics.

These national INSET priorities have been very powerful as instruments for the content of INSET. It can be shown that these INSET courses, both locally arranged ones and those given through universities have had an impact on teacher attitudes and on the acceptance from more and more teachers of the very idea of "A school for everybody". This is especially true for upper secondary school, where, it must be admitted, there still remains most to be done in this respect.

In a study of the written materials used in these (academic) INSET courses it could also be shown that most of the mandatory literature consisted of research reports, many of which were summaries of results from NBE-financed research projects. An interesting pattern could be seen in that the materials were, to a very large extent, "local". Each university defined what was presented at INSET courses according to the research carried out within that particular university. In practice this means that although the problem areas are national (the titles of the INSET courses are identical) the actual content of the courses given and the policy and philosophy transmitted could vary substantially. This is, however, more true for the subject-oriented INSET than for INSET dealing with the general goals for schooling.

Thus INSET built on national priorities to which local educational authorities adhere, can be powerful instruments for the dissemination of research and development results.

There are five mandatory study days for schools and teachers per year. It has been shown that compulsory school teachers regard them as very important information channels especially for curriculum matters and for teaching methods. Their importance has not been recognised until recently.

The study day programme is usually the responsibility of the school leaders. The school leaders' importance as change agents in school is widely recognized. Without a strong pedagogical leadership and change-oriented school leaders, 'bureaucratic cementing' would tend to take place in Swedish schools. Thus, the form and content of the study days will be studied intensely during the year to come. If more of research and development results could form the content of the study days, a new and potentially powerful channel could be opened up.

According to the yearly reports given from research projects, researchers are often engaged in study day programmes. Researchers are also very often engaged in the INSET courses given by the universities, as can be seen from the above.

It should be mentioned that the INSET programmes at the universities are run by a special body, linked to the university but formally belonging to NBE. The NBE hands in the budget requests to Government and the Riksdag for INSET (and gives the INSET priorities as well).

As has already been mentioned, from 1989 INSET will be compulsory for all teachers in the comprehensive school. The educational authorities want to make sure that those teachers who received their basic training before 1988 (as class-teachers for grades 1-3 or 4-6 or as subject teachers for grades 7-9) should acquire the competence to be teachers in grades 1-7 or in grades 4-9.

An important role in having R and D implemented is played by school leaders (school principals and deputy principals). As has been mentioned, principals - or with a broader term - school leaders and school leadership are vital for the development and improvement of schools and instruction. Sweden has an extensive programme consisting of four main parts so as to ensure a strong school leadership. The four parts are:

1. Recruitment programmes. These are administered by the local education authorities and are aiming at finding interested and competent applicants for school leader jobs. These programmes have been particularly important in recruiting women;

2. Introductory programmes. These are also administered by the local education authorities and are given to newly appointed school leader;

3. Extensive basic training programmes. These are administered by the NBE and are state financed;

4. Continous in-service training programmes. These are administered both by local and regional authorities and are financed jointly.

Research and development work and results form an important part particularly in the extensive basic pre-service training. However, it is recognised that school leaders are one of the most critical channels through which R and D could be disseminated and used. It is felt that their role as pedagogical leaders must be strengthened. Too many of them are more engaged in administration than in actual leadership. One other reason for their difficulty to act as a leader is the fact that they all are recruited from the teacher corps. Thus, a school leader is regarded more as a colleague than as a head. This unclear role seems to reduce their possibilities - and perhaps willingness - to take on a strong responsibility for school improvement activities.

They should, however, be regarded to some extent as a specialist group. They should be given the necessary support from the municipal education committees, the county education committees and from the NBE. In this way they can become a key link between both policy and research and development work.

4. **Is the use of R and D for school improvement a specialized field with its own staff and institutions (like Regional Laboratories in the U.S.)?**

In Hungary and Sweden the answer is No. In Hungary, it is the staffs of existing institutions which conduct the work with primary emphasis on INSET and the inspectorate. It is the County Institutes of Education which are responsible for INSET and the inspectorate. In Sweden, it is also existing institutions (see Figure 2) which are responsible for school implementation. It is the National Board of Education which is alone responsible for research follow up and for the dissemination of central R and D information. Together with the existing LEAs and CECs, the NBE is responsible for the implementation of local development work.

5. **How effective are the various systems studied in using R and D for school improvement?**

In the Hungarian system, some improvements work in some schools and not in others. Three examples may be of interest.

In one development project for small schools, audio-tapes were produced as materials for teachers and pupils. These were very practical and fulfilled a need. They proved to be very popular with both. The same is true for a project on item banking where teachers could select already tried-out items for use in their regular assessments. Again, this was an R and D product which was of immediate practical use to teachers. Both products were disseminated via in-service training and inspectors.

A third project concerned first grade reading. One central program had existed for many years and there was evidence that reading comprehension left much to be desired. The National Institute of Education developed five alternative reading programs with evidence that, in the long run but not in the short run, they produced higher achievement. The alternative programs were not, in general, accepted by the schools because there was no visible immediate progress as there had been under the original one central program. The parents, too, complained about the alternative programs, thus reinforcing the teachers' opinions.

Two examples come from Sweden. The first was in mathematics. As a result of a national monitoring exercise (Marklund, 1987) it was felt by all levels of the educational hierarchy that the 13 year olds in Sweden were performing poorly in mathematics when compared with other countries. There was much work undertaken in INSET and local school development activities. These activities had a good effect in nearly all schools.

The second example started at a very local level and was inspired by the Bielefeld Reading Project. In Sweden it is called "A quarter a day". In a school in southern Sweden some teachers in grades 1-3 learned about the Bielefeld method, became inspired and started to work with parents in their own school. The Parents Association became interested and they started to develop material including a video that was shown on Swedish TV. In this case, local development work spread like rings on water and is still operating. Here, there were teachers who were willing to test something new; parents, after some hesitation, accepted to take part and really give their children that "quarter of an hour each day"; strong support came from the Parents Association, and later there was attention from media, above all Education TV (an independant part of Swedish Radio and Television). The work received its official sanction as one of the authors of the study material is a civil servant at a County Education Committee.

Even in countries with small populations (i.e. Hungary and Sweden), it is at the county or local education level that the contact is made with each school and it is felt that oral communication at this grass-roots level is most effective. In all cases, the central level takes care to train, and disseminate information to, the persons responsible for this communication at the grass-roots level. Nothing akin to the regional laboratories in the U.S. exists.

Before proceeding to overall conclusions it is important to quote what Inger Marklund handed in as a summary of some major findings of a 1980 governmental committee on an evaluation of R and D in local school development and improvement:

- research results are more often used at the central educational level, in policy making and in curriculum development work
- thus research reaches teachers and schools more often indirectly than directly

- without a change-oriented teacher corps, research results are very unlikely to reach teachers at all
- expectations of research are often unrealistic; teachers want the answer to the question
- a local school development needs supporting agencies, which in Sweden are mainly the County Education Committees
- any supporting agency must have a broad and deep competence in both development and evaluation
- research that deals with a reasonably well-defined area, where teachers are asking for information and knowledge and where research provides new knowledge is more likely to have an impact on educational practice. This has been particularly true for research on physically and mentally handicapped children in school.

Conclusions

Some principles

There would appear to be several principles which should be observed if school improvement is to take place.

1. Mechanisms for "up and down" communication

There is most hope for school improvement if a problem, or set of problems, is recognized to exist at all levels of the administrative hierarchy from the school level to the ministry level. This provides a known common ground on which to build the efforts of all concerned.

This common awareness involves two forms of communication. The first is a two way communication: up and down the hierarchy. Teachers and school principals must see that their problems (both current and foreseen) are recognized at the higher levels in the administrative hierarchy. A mechanism must exist and be seen to exist for these problems to be made known. This must be undertaken systematically and in such a way that teachers can formulate their ideas.

In both countries reviewed in this paper, such a mechanism clearly exists. Problems for research and suggestions for innovation and experimentation are deliberately solicited from schools. There is also feedback from the higher levels to the schools on what action is being undertaken. The schools have the feeling that the higher levels care.

The second form of communication is that new ideas and new research findings are made known to all levels of the school system. Deliberate steps can be undertaken to disseminate information not only through the newspapers, radio and television but also through the inspectorate, through in-service training (and through on-service training where it exists), through special newsletters/bulletins from the ministry to all schools and teachers, and through special journals for all schools.

It is also clear that more information is needed on the effectiveness of the written word going out to all teachers. How many read written communications of this nature is not well known. Similarly, it would be desirable to have more information on the effectiveness of other forms of communication e.g. written communication plus teacher meetings and so on.

2. Direct contact with teachers

The important link in the chain for school improvement is that with the school principal and the classroom teachers. Although dissemination through the written word is popular, it would appear that the most effective dissemination is through oral communication. INSET and the inspectorate are the key element in dissemination. Thus, the links between the inspectorate (or its equivalent) and the school and between the in-service teacher trainers and the teachers (on a regular and compulsory (?) basis) at the local level are crucial. Presumably, the local level in the U.S. sense would mean at the district level.

3. Compulsory in-service training

When in-service training is optional, it is the 'better' teachers who tend to go to such courses. Hungary and Sweden arrange it that pupils have a number of days holiday out of the school year which the teachers do not have. They attend in-service courses where in-service training involves practical work such as the production of curriculum materials and/or assessment materials. Much innovation and experimentation is needed to improve in-service education.

On-service teacher training is being suggested in some countries. This may be compulsory or voluntary. Teachers from neighbouring schools meet on a regular basis (once a week to once a month) in their free time to discuss the content and methods of their teaching. They learn from each other. When they have a common problem for which they have no good solution, they ask the local inspectorate for help. In some cases, these teachers meet in 'Teachers' Centers' and, in other cases, in one of the schools in the local area.

4. Practical relevance of R and D products

The R and D products must be seen to be of practical relevance to the daily work of the school and teacher (and to the parents). The long term and short term effects must be clear. Successful implementation is most often connected with materials and aids of direct and immediate use to the teachers. Of most importance is that the school principals and teachers must see the products to serve their own interest. R and D which is perceived as an "academic game" for university staff to win points for their own promotion or which is written in 'academese' or 'technical jargon' is viewed with great suspicion.

5. A reasonable teacher load and teacher interest

Teachers must not be overloaded. Improvements must not demand herculean efforts by the teacher (is it true that the self-perception of a teacher is that he/she is overworked, underpaid, and under-appreciated?); nor should improvements require a charismatic prime-mover. Too many innovations have failed once the prime-mover has gone. If more is demanded of the teacher than the teacher thinks is worth while, then the teacher will, in general, not do it.

Where innovation and development has been suggested by the school and the school is involved in the development, it is useful to have reward/encouragement mechanisms for the teacher (e.g. released time, pay bonus). The same is true for the headmaster. In other words, interest must be encouraged and not stultified.

6. A central core curriculum

At mass education levels (i.e. where 100 percent of an age group is still in school) in systems which perform well there is a certain national core curriculum. This can range from 50 to 90 percent of the total curriculum. The two countries used in this paper both have this. It is also to be noted that even England - a bastion of decentralisation in education - has now introduced a national curriculum to try and ensure good minimum standards of education. The notion of "let a thousand flowers bloom" may result in 100 blooming very well but what about the weakest 250?! Connected with the notion of a core curriculum is the fact that teachers and school principals appreciate information on how their classes or schools achieve compared with similar schools. As systematic monitoring occurs, it helps to have this feedback mechanism which, in turn, interests teachers in R and D activities.

7. Good pre-service teacher training

Where there is a core curriculum and where pre-service education ensures that the teachers know the content of the subject matter they have to teach and there is some basic pedagogical training, then science and math achievement as measured by valid international tests is higher. Both countries agree that their core curriculum and strict pre-service training does help to ensure good minimum standards.

Dotting the i's and crossing the t's

Principles are one thing. Procedures to ensure that the principles are realized are another. The procedures must fit to the social and school culture of each system. At the risk of being presumptuous it would perhaps be useful if the U.S.A. authorities (district, state, federal) were to answer the following questions:

1. How are the themes for R and D and for Regional Laboratories decided? Are schools canvassed about their problems now and problems they think may arise in the future? Are districts

canvassed? Are state chief-school-officers canvassed? Are universities and teachers' colleges canvassed? How regularly? If so, what criteria are used for deciding on priorities? Who decides?

2. When the R and D and Laboratory budgets are divided up, how much goes to schools for co-ordinated innovation which they have suggested and how much to the other levels in the administrative hierarchy and how are they involved in the research, development and implementation process?

3. How are ideas and information made available to the school principals and teachers? How well is this done? Is great emphasis placed on the important link of district level personnel and the schools? How good are the local inspectors (or their equivalent)? Do they take good ideas and problems from schools and pass these up the hierarchy? Is this undertaken in a systematic way? Do up and down communication mechanisms exist and how effective are they?

4. Are a variety of forms of dissemination used? - The media, teacher journals, teacher newspapers, SET materials as used in Australia and New Zealand, inspectors, in-service/on-service training! Which, in general, is the most effective combination?

5. Are the R and D products practical or, at least, perceived to be of practical use to teachers? Should regional labs (one per theme) be abolished and smaller mechanisms created all over the country for direct contact with schools? Should the R and D labs be producing practical suggestions or products as a result of their work and then these can be used at each of the many local centers (mechanisms)?

6. How are national minimum standards of teacher knowledge ensured as a result of pre-service training? Specifically, for example, has every 8th grade biology, chemistry, or physics teacher a specified and required mastery of the subject-matter knowledge?

7. Is in-service training compulsory and does it involve the teachers in practical activities?

8. What is being done to initiate a core curriculum?

There are no simple answers to school improvement. Both of the systems examined in this paper are not fully happy with their mechanisms for school improvement and they do seem to be trying new ways all the time. The awareness of problems and the will to solve them at all levels of an educational system are paramount in importance. This awareness entails interconnection at all levels of the hierarchy. The final link in the hierarchy with the schools is crucial. If the teachers are not listened to, communicated with, and encouraged in a systematic and regular way, little can be expected. Above all, teachers must perceive suggested changes to be in their own self-interest.

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LABORATORY POLICY PAPER

A COMPARISON OF SERVICE MODES IN ED'S (THE DEPARTMENT OF EDUCATION'S) TECHNICAL ASSISTANCE PROGRAMS

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

This paper discusses several programs of technical assistance funded by the U.S. Department of Education (ED). Its original purpose was to draw lessons from these programs that might illuminate issues in the provision of "indirect service," which is a strategy devised for regional laboratories. The last request for proposals (RFP) for laboratories defined this strategy of promoting educational improvement by working "with and through" other agencies and organizations engaged in work related to improvement. The laboratories are expected to forge relationships with these potential partners and make a contribution to their work. The original rationale for this strategy was that the limited resources available for laboratories could hardly support a very broad--but desirable--mission of improving education in the many states, school districts, and schools within a region. Rather than make difficult and inevitably unfair choices among the many clients that could potentially benefit from their direct help, the laboratories are supposed to achieve efficiencies by providing much of their help indirectly.

As the reader will see, lessons about indirect service are few and far between in these other assistance programs. Instead, my analysis shows that the basic purposes, clientele, and philosophy of ED's other large assistance programs are quite different from those of laboratories. Identifying the differences helps to underscore the difficulty of the charge to laboratories. The idea of providing indirect service is itself a challenge to the laboratories--one without a counterpart in the other large programs reviewed here.

ED-Funded Assistance Programs

The five ED programs described in this paper provide services that are like those of laboratories in some ways and unlike them in others. As a basis for analyzing these similarities and differences, particularly with respect to indirect service, this section describes the basic features of each assistance program. Included are the program's funding level, purpose, activities, clientele, and requirements for coordination with other service providers and for evaluation. The principal source of information on the design of each program is its most recent RFP or program regulations, in which the federal sponsor outlines the expectations for contractors. In some cases, the current program design reflects changes over time. These are also described, along with any evidence from prior program evaluations concerning the program's past performance. (Such evidence is very sparse for these programs, however.)

Multifunctional Resource Centers

A total of $10 million supports the 16 Multifunctional Resource Centers (MRCs), which provide assistance to their regions in the education of children with limited English proficiency (LEP). They give priority to assisting projects funded under the federal Title VII program, which supports both bilingual programs and alternate instructional approaches for LEP students. In addition, MRCs may help projects that do not have federal funding but that are specifically designed for LEP students.

The word "multifunctional" identifies the responsibilities of these centers as more wide-ranging than those of their predecessors, reflecting a reorganization of technical assistance in bilingual education that took

place in 1983. Before that time, ED funded three types of assistance providers: Bilingual Education Service Centers; Evaluation, Dissemination, and Assessment Centers; and Materials Development Projects. In congressional testimony and in the first RFP for multifunctional centers, the Office of Bilingual Education and Minority Languages Affairs expressed the view that this array of service providers had several disadvantages: school districts and states had too many different organizations to turn to; duplication of services occasionally took place; and local needs were not always clear to the assistance providers (Kutner & Pelavin, 1987). The new centers, then, were expected to provide a more coherent focus on local needs.

The RFP identifies the multifunctional centers' primary clients as individuals "participating or preparing to participate in" classroom instructional projects in bilingual education. Accordingly, the centers emphasize training. The RFP requires each center to expend at least 50 percent of its total effort "in providing technical assistance and training to projects and LEAs to implement program improvement activities and/or to upgrade teacher performance in specific content or subject areas." The instructions in the RFP focus the MRCs on directly serving school districts and the individuals within them--answering questions, providing aid and guidance, and presenting workshops relevant to teacher performance. They also direct the centers' mission toward program improvement and the upgrading of local performance.

While the MRCs are expected to assist and train teachers at the local level, they have formal relationships with contact people at the state level. For each state in which an MRC works, it negotiates a written letter

of agreement with a state contact person, spelling out specific collaborative activities between the MRC and the SEA and specifying the procedures the MRC will follow in contacting school districts. Negotiations with the SEA are intended to ensure that the MRC's services do not duplicate or supplant services that the state provides. Early in each contract year, a Regional Coordinating Meeting brings together the state Title VII coordinators, state contact people, MRC project directors, and the federal project officer for a discussion of area concerns and plans.

The RFP also gives the MRCs instructions about coordinating their work with other assistance providers--primarily the other organizations that Title VII also funds to provide assistance. The MRCs' written plan for service delivery must contain plans for coordination with their fellow MRCs, the Evaluation Assistance Centers (EACs), and the National Clearinghouse for Bilingual Education (NCBE). They refer clients to the EACs or NCBE when those organizations can meet local needs. Their relationship with the EACs is addressed in some detail in the RFP, which tells them they may follow up EAC assistance, refer state and local clients to the EACs and obtain referrals from the EACs, collaborate on dissemination, and cosponsor inservice training. It prohibits them from providing the assistance with evaluation that the EACs are authorized to provide, unless they first coordinate with the EAC and obtain federal government approval.

Evaluation is decentralized in this program. In an annual performance report, each MRC is to summarize its activities and accomplishments, with attention to users' responses and other major outcomes. It must also develop ways to integrate evaluation results into its future operations.

Drug-Free Schools and Communities Act: Regional Centers

The five regional drug education and prevention centers receive annual funding of $8.8 million under the Drug-Free Schools and Communities Act. Most funds under this act go to states for local projects to be conducted by school districts and other organizations, but 4.5 percent of the total funds are earmarked for the regional centers.

Regional centers for the prevention of drug abuse have existed since 1972, but the most recent competition for funding broadened their mission beyond their traditional one of training "school teams." In the past, the great bulk of center activities consisted of residential workshops in which a team from each participating school learned to work together to develop its own approach to the prevention of drug and alcohol abuse. The new RFP continues to include the training of school teams as a focus but adds other activities designed to assist SEAs, school districts, and institutions of higher education, as well as evaluation and dissemination of information.

For SEAs, the centers must provide training and assistance related to assessing problems with substance abuse, developing and enforcing school policies, helping districts and schools with their own programs, and improving coordination among substance abuse programs.

At the local level, the centers are to develop relationships between school districts and institutions of higher education, focusing on the training of education personnel. They are also to assist in locally based preservice and inservice training programs in the prevention of drug and alcohol abuse.

Centers are also instructed to develop methods for evaluating the effectiveness of prevention programs. They are to evaluate their own

activities for their effectiveness in eliminating substance abuse, and to identify and disseminate model programs and strategies developed elsewhere. They are also told to assist their state and local clients with evaluation and the use of evaluation findings.

The RFP specifies some procedures for the centers to use in coordinating services. One is to create an advisory structure that represents SEAs, school districts, institutions of higher education, law enforcement, and governors, and to consult with these advisors not only about needs and service strategies but also about "ways to ensure equity in selection of clients and in delivery of the center's services." In addition, the centers' activities are to be coordinated with other efforts to combat substance abuse at the local, state, national, and regional levels.

After an external review of the centers' activities conducted in 1987 sharply criticized the way they evaluated their work, the new RFP specified the centers' obligations in evaluation. Previously, the centers used a variety of noncomparable instruments to assess the effectiveness of their training, and long-term followup with the school teams was rare (Kutner, Pelavin, Pelavin, and Celebuski, 1987). As a result, little was known about the effects of their work. The new RFP requires each center to evaluate its own activities with "precision and objectivity" and to furnish information for an overall ED evaluation of the centers. This overall evaluation is expected to determine (1) whether the centers are carrying out their activities appropriately and effectively, (2) the extent to which they are reaching the intended clients, (3) the quality of their products and

services, and (4) the effects on efforts to eliminate and prevent substance abuse.

Desegregation Assistance Centers

With $8.2 million in annual funding, the 10 regional Desegregation Assistance Centers (DACs) assist local school boards with the preparation, adoption, and implementation of desegregation plans and the development of solutions to desegregation-related problems in education. The DACs exist by authority of the Civil Rights Act of 1964. In the past, ED funded specific centers to deal with desegregation issues related to race, national origin, and sex. The current DACs combine all these areas of focus, with the result that the 10 DACs carry out work that 40 more specialized DACs did before 1987.

Upon request from a school board, a DAC may provide information, advice, assistance, and training for school staff, students, parents, and community members. The DACs are prohibited from providing assistance without a request from a school board or other responsible government agency.

The Civil Rights Act also authorizes SEAs to provide help with desegregation-related problems, and many SEAs are funded to carry out activities like those of DACs. The DACs are to coordinate their assistance with that of the SEAs. In cases where a government agency asks both the DAC and the SEA for help, the DAC must develop plans to prevent duplication of assistance. The program regulations also suggest that collaboration with other agencies may be a useful part of this program, since applicants receive points for "past successes in ... collaborating with other individuals and organizations."

DACs are expected to have evaluation plans that "to the extent possible, are objective and produce data that are quantifiable." Findings from these evaluations have not been compiled across centers in many years, and the program has had no external evaluation since 1976. (A contractor produced a "descriptive overview" in 1985 but drew no conclusions about the effects of DAC activities.)

Regional Resource Centers

Six Regional Resource Centers (RRCs) receive a total of $6.7 million to assist states in carrying out the Education of the Handicapped Act. Since 1977, the RRCs' chief purpose has been to assist in program development and implementation; before that time, the centers had the very different purpose of testing and serving individual handicapped children. As national needs and priorities in special education have changed, the Office of Special Education Programs (OSEP) has given the RRCs specific instructions for their program focus, often in response to new legislative provisions.

In their current work with SEAs, the RRCs must be able to address two widespread problems identified by OSEP: SEA monitoring, and implementation of the requirement to serve handicapped children in the least restrictive environment (LRE). In addition, OSEP has told the RRCs to help their clients with issues in three areas: (1) the transition from school to work and adult life, (2) parent involvement in educational decisionmaking, and (3) infant, toddler, and early childhood services.

The activities of RRCs include consulting with SEAs in defining problems and solving them, conducting workshops and conferences that link SEAs with other professionals and parents, and synthesizing and disseminating information. They also help in developing, identifying, and

replicating successful local programs and practices. If an SEA asks an RRC for help with the procedures and format for a grant proposal, the RRC may provide such help.

The RRCs work predominantly with SEAs. They meet with the SEAs in their region to develop a joint planning report, which provides a detailed summary and ranking of each SEA's technical assistance needs, and an assistance agreement for each SEA consistent with its priority needs. The processes of needs assessment and planning are not entirely directed by the states, however. OSEP representatives participate in the joint planning meetings, and they assist in determining state needs and priorities.

A seventh contractor called the Federal Regional Resource Center (FRRC) has recently been established to assist the RRCs. Its purposes are to ensure consistency in the content and strategies of technical assistance across regions and to ensure coordination of services among the RRCs and with other federally funded projects.

OSEP prescribes procedures for evaluation and reporting that are designed to track not only activities but also client-level outcomes. The RRCs submit quarterly reports on the assistance they have given to states. They must also design and carry out a system of impact assessment, under which they are to identify changes in educational services or administration that result from each of their technical assistance activities.

Technical Assistance Centers

Under Chapter 1, the federal compensatory-education program, six Technical Assistance Centers (TACs) receive $3.6 million to assist SEAs and school districts with Chapter 1 evaluation and program improvement. The TACs were originally set up under the Education Amendments of 1974, which

prescribed a new, elaborate evaluation and reporting system for compensatory education and which offered TAC assistance to ease the work of carrying out these evaluation requirements. Over the years, their emphasis has shifted away from the technical aspects of evaluation (although that remains one part of their assistance repertoire) and toward program improvement--on which the government now requires them to spend half of their effort.

The TACs provide most of their assistance in the form of workshops, responses to telephone inquiries, and some onsite assistance. In evaluation, they help SEAs and school districts on such topics as testing procedures, development of microcomputer databases, and coordination of Chapter 1 testing with the testing that the districts or states administer to all students. Their workshops and other assistance on program improvement emphasize the use of local evaluation results and effective-schools principles to inform improvement efforts; for example, closer coordination between Chapter 1 services and the regular school program is often a topic of assistance.

The TACs work with SEAs in planning and delivering their assistance. They negotiate a letter of agreement with each SEA in the region, which specifies what the TAC will do at the state and local levels and how it will contact school districts. (Some SEAs take the lead in contacts between the TAC and the districts, while others simply ask to be kept informed about what the TAC is doing with districts.) TAC staff members often make presentations to groups of local educators at workshops that the SEAs organize. The TAC's primary contact person at the SEA is typically someone in the state Chapter 1 office, although in some states TACs also work closely with state evaluation personnel.

The RFP for TACs requires coordination of efforts across TACs and with other assistance providers in the region. However, because the TACs' mission is so focused on Chapter 1 issues, the work of other assistance providers is seldom closely related to it.

The TACs are required to report on their activities but not to evaluate them. They keep a record of topics on which they provide assistance and of "client hours" of contact (a figured derived by multiplying the number of clients attending an event, such as a workshop or onsite assistance session, by the length of the event). They submit narrative reports on a quarterly and annual basis.

Indirect Service in These Programs

By and large, the programs described here are geared to the provision of direct service. They offer workshops, consultation, training, and answers to questions--mostly delivered directly to administrators and teachers in instructional programs. None of them has a charge resembling the laboratories' charge to work "with and through" other organizations in the indirect pursuit of improvement.

Nevertheless, it is possible to identify a few respects in which these other assistance providers might be said to provide indirect service.

Presence of "Gatekeepers"

With the exception of the centers funded under the Drug-Free Schools and Communities Act, these assistance providers are told by their federal sponsors to negotiate their assistance plans with contact people in specific agencies. The DACs are told that they must await requests from school boards or other responsible government entities. For the bilingual MRCs, the RRCs for the handicapped, and the Chapter 1 TACs, the designated contact

people are in SEAs--almost always in a federally funded program office. In all these cases, any services provided to local educators must be cleared in some way with the gatekeepers that the federal government has identified. The idea is to maintain identifiable points of control over the services offered and thus to ensure a degree of responsiveness to a set of primary clients.

The three assistance programs for which the SEA is a gatekeeper vary in the extent to which their services could be called indirect. The RRCs for special education are the farthest from the indirect model. They exist primarily to provide direct support to the SEAs themselves, responding to ED's priorities as well as those of the SEA, and only to a limited extent do they work through SEAs to offer assistance at the local level. For both the bilingual MRCs and the Chapter 1 TACs, the negotiation of state-level plans is partly a matter of protocol--a way of allowing the SEA to suggest priorities for local service and to specify the procedures for making contact with local school districts. The states vary in the amount of direction they give to these assistance providers. In addition, both of these assistance programs do one thing with SEAs that could correspond to a notion of indirect service: they present workshops at SEA-sponsored conferences.

Because they are told to work with contact people in SEAs, and because these contact people typically receive federal funding to administer a particular federal program, these three assistance programs are integral parts of a vertical network running from ED through the SEAs to school districts. The Chapter 1 TACs illustrate this vertical arrangement. They work closely with the SEA Chapter 1 directors, and their local contact

people are typically Chapter 1 directors as well. While their workshops may address the coordination of Chapter 1 and regular services, non-Chapter 1 personnel like principals and classroom teachers are not really their clients. Adherence to the program's legal and regulatory requirements is a theme running through TAC assistance. Indeed, although the TACs are sponsored by ED's Office of Planning, Budget and Evaluation, one of the services they perform for SEAs and districts is to convey and interpret messages from ED's Office of Compensatory Education. Similarly, both the bilingual MRCs and the handicapped RRCs do their planning in meetings that bring together officials from SEAs and from ED's program office.

In short, then, the assistance providers' relationship with state-level gatekeepers tends to reinforce their focus on issues that are central to a particular federal program (as implemented in each state). As I will discuss below, one result is a convergence of mission within each program that contrasts with the divergence that the laboratories experience in their service requests from clients.

Coordination with Other Assistance

ED requires all these assistance providers to coordinate their work with that of others. This requirement does not generally involve working "with and through" others, however. Instead, the dominant idea is to prevent duplication of effort. A typical federal mandate is the one given to the desegregation assistance centers, which are told to make sure they do not duplicate services that the SEA provides to any particular school district.

Probably the closest resemblance to indirect service is found in the instructions to the bilingual MRCs. Unlike the other assistance programs,

which have quite global requirements for service coordination, the MRCs are told explicitly that they should refer clients to the Evaluation Assistance Centers and the National Clearinghouse for Bilingual Education when either of those contractors could fill a client's needs. (This may reflect the fact that the MRCs' sponsors have given considerable thought over the years to the interrelationships among the various assistance providers they support.)

One activity for the regional centers for the prevention of substance abuse does involve promoting ties between local school districts and other service providers. These centers are told to work with districts and with institutions of higher education to strengthen the ties between them and thus promote continuing preservice and inservice training for local educators.

For the most part, though, the federal RFPs address the matter of coordination by telling contractors how to ensure that their assistance does not duplicate anything else that is offered--especially anything else that is federally funded. These requirements appear to stem from concerns about waste and about possible turf disputes. For example, both the bilingual MRCs and the desegregation DACs are told to make sure that their services do not duplicate those of SEAs. The MRCs are also prohibited from doing what the EACs are authorized to do, unless the project officer gives them prior approval.

Not surprisingly, coordination is not an active focus for the work of these assistance providers. Studies of the predecessors of the current MRCs and TACs have shown few or no activities that could be characterized as coordination (Kutner & Pelavin, 1987; Reisner et al., 1988). The data on

the TACs, which I helped to analyze, showed that most TACs viewed other assistance providers in their regions as their likely competitors for future contracts, and that therefore they avoided sharing much information with these organizations. Moreover, the federal concern about duplication of effort appeared overblown, at least for the TAC program. Compared to the magnitude of needs in school districts, federal and state resources available for technical assistance are much too small to create a danger of redundancy.

Training of Trainers

In general, these assistance providers offer training for local educators. (The exception is the RRCs, which basically provide training and support to SEAs.) To some extent, the organizations that serve local staff may choose to increase their own efficiency by training people who are in a position to train others. This is not a federally mandated strategy, however. There is no evidence on the extent to which it takes place.

Identification and Dissemination of Model Practices

The development, identification, or dissemination of model practices is not indirect service. In a sense, it represents an alternative to indirect service, since it is another strategy by which an assistance system with limited resources can achieve efficiency. Its popularity in the assistance systems discussed here appears to be growing.

For example, the regional centers for the prevention of substance abuse previously took the approach of working intensively with teams from participating schools. The emphasis was on effective ways of identifying problems with drug and alcohol abuse in a school, bringing community resources to bear, and designing and carrying out solutions tailored to the

problems. Data from clients indicated great satisfaction with this approach but also an interest in knowing more about proven models for the prevention of substance abuse (Kutner et al., 1987). At the same time, a more general analysis of federal efforts to prevent drug abuse indicated a lack of knowledge about what strategies work (GAO, 1987). The result has been a new emphasis in the latest RFP on the identification and dissemination of effective models. The centers are also supposed to assist their clients in evaluation, thus adding some rigor to the determination of the models' effectiveness.

In the early 1980s, the TACs often worked with districts that were seeking recognition under a special federal initiative that identified effective Chapter 1 programs. Although this effort has become more routinized and now demands less attention from the TACs, the model practices identified through this initiative remain part of the TACs' repertoire. They often serve to illustrate the principles that the TAC staff emphasize in their workshops and consultation on the subject of program improvement. Data from clients show that state and local Chapter 1 directors are very interested in knowing more about effective models (Reisner et al., 1988).

The identification and dissemination of model practices is also part of the mandate for bilingual MRCs and handicapped RRCs. Methods of identifying models and criteria for determining their effectiveness are not specified.

Conclusions

This review indicates that indirect service as practiced by the laboratories appears to be a unique phenomenon in ED's technical assistance activities. The other assistance programs typically touch base with some other assistance-oriented agency, most often an SEA; they are told to

coordinate their work with that of others (chiefly to avoid duplication of services); and they may achieve efficiencies by training trainers or identifying and disseminating models. In all these respects, the intended outcome is to make the most of limited resources by avoiding confusion or wasted effort. However, in none of these programs is there a central focus on cultivating relationships with an array of organizations as an alternative to working directly with educators. I turn now to an analysis of this and other contrasts between the laboratories and ED's other assistance programs.

Peculiarities of the Laboratory Program

I come away from this research on technical assistance systems with a new appreciation for the unusual challenges that laboratories face in carrying out their ambitious assignment. The contrasts between laboratories and ED's programmatic systems of technical assistance provide a way of illustrating these challenges.

The Laboratories' Mission Is Diffuse

While it is obvious to say that school improvement is a broad and amorphous mission, the contrast between that mission and those of ED's other technical assistance providers is dramatic. Three of the five large programs reviewed here--the bilingual MRCs, the handicapped RRCs, and the Chapter 1 TACs--derive their focus from federal categorical programs. They are supposed to promote improvement in the services underwritten by a specific funding source. (The MRCs may also assist LEP programs that do not receive federal funding, but their purposes must be consistent with those of Title VII.)

The two remaining programs have missions focused around particular societal problems. Substance abuse and school segregation are officially recognized evils for which the federal government provides remedies, and technical assistance is one remedy. When school districts and schools have difficulty in preventing substance abuse or solving the problems that arise in desegregation, they may call on these assistance programs for technical expertise.

The TACs' history provides a further illustration of the specificity inherent in most technical assistance systems' missions. Originally established to help SEAs and districts carry out a particular system of evaluation and reporting, the TACs have only gradually carved out a mission that extends as far as the quality of the Chapter 1 program. As a result, the use of evaluation findings as a starting point for program improvement is an anchoring theme for much of the TACs' work. Thus, these contractors' mission is limited not just to Chapter 1 improvement but, by history and custom, to a particular philosophy of improvement. The tangibility of mission that this offers to assistance providers and clients alike is important.

With a broad mission, deciding what to do and what not to do is a continuing dilemma. The assistance providers whose missions are more circumscribed than that of the laboratories do face choices, but the priorities of the federal program office or of clearly identified clients help them in making these choices. In particular, clarity about who their clients are is helpful, and that is the next point of contrast with laboratories.

The Laboratories' Clients and Partners Are Diverse

For a programmatic system of technical assistance, the primary clients and primary working partners are clearly identified. An MRC director needs good working relationships with state Title VII directors; an RRC director with state directors of special education; and a TAC director with state Chapter 1 directors. The state contact person may be a difficult partner, and the assistance provider may have to negotiate around tensions between the SEA and the federal program office, but at least the cast of characters is well specified. For all these systems, too, relationships with local districts are coordinated through the state contact person. Services may have to be rationed, but the SEA participates in making the difficult choices about providing or denying service.

The federal sponsors of the problem-focused assistance programs (those concerned with substance abuse and desegregation) have recognized that these programs may face issues of rationing services. The centers for substance abuse prevention are told to organize advisory boards, representing specific parties within the region, to help them select clients. Because the DACs are prohibited from soliciting clients, selection is less likely to be a problem for them. However, they are still told to coordinate services with the SEAs in order to avoid duplication.

In the rare cases where another assistance system might be said to work "with and through" a partner, its natural partners are generally easy to identify. Having a contact person in the SEA program office means, for example, that the SEA is the primary organizer of conferences at which the MRC or RRC or TAC puts on workshops. For the MRCs, which exist alongside other federally funded organizations providing help in the education of LEP

students, ways of cooperating with each of these organizations are spelled out in the RFP.

The Laboratories Are Asked to Demonstrate Effectiveness

Evaluation has not been completely absent from these other technical assistance programs, and for some of them it is becoming an increasing focus of effort. In general, though, their histories have been characterized by a somewhat casual approach to evaluation in contrast to that which has surrounded the laboratories.

Examples of serious evaluation requirements are now found in the handicapped RRCs and the centers for prevention of substance abuse. The RRCs must not only report on their work and accomplishments but must also show links between their technical assistance activities and changes in educational services or administration. The substance abuse centers must evaluate their own work with "precision and objectivity" and also be prepared for an external evaluation of their effectiveness.

For the most part, although the technical assistance programs are required to tell their sponsors what they are doing and what they have accomplished, their accountability for the ultimate effects of their work is somewhat limited. With the exception of the RRCs, they are not asked to track the effects of their work to the level of educational service delivery.

Across the board, the assistance programs seem to lack evaluation techniques that would yield good evidence on their effectiveness. The laboratories, with their base in research and development, might be in a good position to contribute to the state of the art in evaluating technical assistance. A first step would be for the federal sponsors of technical

assistance to acknowledge that better evaluation methods need to be developed.

Concluding Observations

While every technical assistance system funded by ED has a characteristic personality, that of the laboratories stands out dramatically from the others. To sum up the advantage that the other systems have over laboratories, there is something to be said for knowing what you are supposed to do--and with whom. For the laboratories, forging relationships with a broad array of government and professional entities, many of which experience their own shifts in personnel and priorities, requires a level of hard work that the other assistance providers do not have to expend. Achieving a clear identity in spite of a diffuse mission and diverse clientele poses difficulties that can only be compounded by an expectation for rigorous evaluation.

From another point of view, the sweep of ambition for the laboratories is commendable and even exciting. The breadth of their mission permits the use of comprehensive approaches that clients of the other programs do not experience. The other programs' forced partnerships with specific SEA personnel undoubtedly weaken their credibility and effectiveness in many situations (even while strengthening them in others). And ED's growing efforts to hold programs of all kinds accountable for their results will find the laboratories in a better position than those assistance programs that have carried out relatively pro forma evaluations.

With respect to indirect service, few lessons emerge from this comparative analysis of the laboratories and other programs. Since the other programs do not really offer indirect service, they suggest no

principles for laboratories to follow in this area. I can suggest only the common-sense notions that laboratories will probably be most successful with indirect service when they can find partners with (1) a relatively stable commitment to a well-defined program of educational improvement, (2) a lack of in-house capacity to do things that laboratories can do, and (3) no particular ambition to become laboratories in the next funding competition. The lessons that laboratories learn about indirect service will not be of much help to other ED assistance systems as currently constituted, since those systems do not have to provide indirect service and probably would not choose to incorporate it into their work.

In general, indirect service may be most usefully viewed as one of several strategies for increasing the efficiency of technical assistance. Along with training trainers and disseminating model programs, working "with and through" other organizations may be an approach in which an initial investment does yield cost savings over time. After an investment of the time and patience necessary to develop interorganizational relationships, the payoff comes as multiple organizations together build their capacity as assistance providers and develop workable divisions of labor. However, there seems to be no compelling reason to adopt indirect service as the only means of achieving efficiencies.

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LABORATORY POLICY PAPER

REGIONAL EDUCATIONAL LABORATORIES: THE STRATEGY OF USABLE IGNORANCE

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This is one of several papers about the regional laboratory program, or functions which laboratories perform, which the Office of Educational Improvement (OERI) in the U.S. Department of Education has commissioned. The purpose of the papers is to assist planning for the 1990 recompetition of awards to operate regional laboratories. This paper has been written under contract to the U.S. Department of Education. No endorsement by OERI or the Department of Education should be inferred.

REGIONAL EDUCATIONAL LABORATORIES: THE STRATEGY OF USABLE IGNORANCE

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INTRODUCTION

The Regional Educational Laboratory Program is considerably more complex today than it was some twenty-five years ago when the first laboratories were established under Title IV of the Elementary and Secondary Education Act (ESEA) of 1966. In those early years the Educational Laboratories, along with Research and Development Centers, were faced with the apparently simple task of revitalizing schools by generating and diffusing new knowledge regarding learning and instruction (see Guthrie, 1989, pp. 3-4). In the intervening years laboratories, working in an increasingly complex environment comprised of diverse local educational priorities and political interests, were reorganized along regional lines. To be sure, the process of regionalization fostered greater responsiveness to states in that fiscally troubled era known as "creative federalism." Nevertheless, the process of regionalization has created a complex tapestry of conflicting agendas which tend to complicate the further development of a common educational mission.

The process of regionalization has been attended by a stunning decline of funds available to the nine laboratories and its sponsors, the National Institute of Education and (after 1985) the Office of Educational Research and Improvement.

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The laboratory program, like other federal R&D initiatives designed to promote social goals, has experienced deep fiscal cuts in a period when the share of total federal R&D devoted to the military function grew from 51 percent in 1975 to 72 percent in 1986 (National Science Board, 1985, p. 226). The Reagan-era military build-up, an integral part of what many see as a nascent "military-post-industrial complex", evidently has been purchased at the expense of education and other social programs.

Given this unhappy conjunction of circumstances, it is perhaps readily apparent why the mission of the Regional Educational Laboratory Program has changed over the years. Commencing as a reasonably funded R&D enterprise, the program soon became an undercapitalized knowledge transfer operation, what some see as an "information utility" responsible for improving schools but constrained in this effort by inadequate fun and restrictive policies which confine laboratories to working "with and through" state and local educational agencies. Unclear, however, is how the laboratory program functions as a vehicle for the transfer of educational knowledge. How do individual laboratories and the program as a whole link or mediate producers, users, and intended beneficiaries of new educational knowledge? How does the laboratory program compare with similar or analogous initiatives in areas such as agriculture, industry, defense, and health? What new strategies might be developed to enhance the performance of regional educational laboratories in improving schools? How can regional educational laboratories improve their performance in transferring knowledge which helps revitalize American schools?

In responding to these and reloted questions this paper draws on OERI program documents and recent syntheses of research on knowledge transfer, including Beal, Dissanayake, and Konoshima (1986), Dunn and Holzner (1988), Dunn,

Holzner, and Zaltman (1985), Glaser, Abelson, and Garrison (1983), and Huberman (1987, 1989). The central argument of the paper is that regional educational laboratories are vital elements of a complex social system of educational knowledge. The organized complexity of this system renders firm programmatic commitments to improving schools through knowledge transfer activities hazardous; it also raises doubts about the appropriateness of school improvement as a standard of accountability, since the resources presently available to laboratories do not permit them to impact directly upon schools. Assuming that a dramatic increase in laboratory funding is unlikely, it may be prudent to focus resources on the design and conduct of quasi-experimental field studies involving alternative strategies for transferring educational R&D to those in need. In contrast to the current practice of "random mediation," these quasi-experimental interventions would represent a form of "systematic mediation" designed to contribute in important ways to the expansion of institutional and system-wide learning about the efficacy of alternative knowledge transfer strategies. But the immediate aim of systematic mediation is not to transfer what Lindblom and Cohen (1979) term usable knowledge, but rather to identify what Ravetz (1987) calls usable ignorance. The strategy of usable ignorance, which involves the coding, classification, and specification of gaps in our knowledge about effective approaches to synthesizing, developing, and disseminating educational R&D, can help set the research agendas of the educational research community and shape the policy-making and practice agendas of state and local policy makers, teachers, and other stakeholders in school improvement.

LABORATORIES IN THE KNOWLEDGE SYSTEM OF EDUCATION

The current and historical performance of the Regional Educational Laboratory program can be investigated in several ways, for example, by examining changes in the political mandate, legal charter, and mission of laboratories (OERI, 1988), or by exploring the organizational and political conditions which have enabled and constrained their effectiveness (Guthrie, 1989). Although these approaches are no doubt valuable and important, the laboratory program also can be investigated as a system of norms, values, roles, and resources forming the social arrangements within which knowledge-related activities are carried out. Here, the central orgonizing construct is that of the social system of knowledge, or knowledge system for short, which refers to the social distribution of knowledge-related functions (Holzner and Marx, 1979, p. 175).

Knowledge Functions

The regional educational loborotory program, like all knowledge systems, performs several interrelated knowledge functions: mandating, production, structuring, storage, distribution, and utilization (see Holzner, 1983; Holzner, Dunn, and Shahidullah, 1987).

- Knowledge Mandating. The laboratory program involves decisions obout what kinds of research should be mandated and, indeed, whether research of any kind is the proper function of laboratories. The priorities of the program since 1985 reflect the decision that laboratories should function primarily as regional "information utilities." As such, the research conducted by laboratories should be limited, short-term and applied in nature (NIE, 1985, p. 25).

- Knowledge Production. Although laboratories are not responsible for conducting basic research, they are formally charged with the conduct of applied research and development which yields systematic assessments of effective approaches to dissemination and school improvement (NIE, 1985, p. 13). In practice, the bulk of such new knowledge appears to be based on "random mediation," that is, the initiation of dissemination activities which are evaluated by meons of casual empiricism and ad hoc analysis.

- o Knowledge Structuring. Laboratories structure existing knowledge by synthesizing, evaluating, and transforming into potentially actionable products basic and applied research produced by R&D Centers, universities, and other institutions within the knowledge system. Newsletters, policy papers, research syntheses, and other laboratory products represent efforts to structure (and restructure) knowledge which is believed relevant to school improvement.

- o Knowledge Storage. Laboratories use conventional filing systems as well as computerized records to store knowledge which has been produced locally and by others. The creation of computer files comprised of annotations of existing written reports, or of available computer software, involves the storage of knowledge.

- o Knowledge Distribution. Laboratories distribute to various stakeholders, including state and local educational agencies, knowledge which has been produced, structured, and stored. The distribution, dissemination, or communication of such knowledge by laboratories is intended to improve schools.

- o Knowledge Utilization. Although laboratories themselves utilize the knowledge they produce, structure, store, and distribute to others, the principal direct users of this knowledge are the state and local agencies with and through whom laboratories are mandated to work. Unless knowledge is utilized in some way to improve schools, its dissemination by laboratories is practically meaningless, although utilization alone by no means guarantees a specific impact (positive or negative) on schools.

Knowledge Structures

Regional Educational Laboratories perform these functions in markedly different ways. In the area of improving state-level educational policies, for example, only five of nine laboratories report that they specialize in functions of knowledge structuring, storage, and distribution, as represented by the categories "data base development" and "data base reports" presented by Mason (1988, Table 7). Although laboratories produce new knowledge, few appear to conduct systematic research on their own role and effectiveness in developing and disseminating products of educational research and fostering their utilization. Evidently, laboratories could learn a good deal more about their own performance as knowledge-mediating structures (Holzner, Dunn, and Shahidullah, 1987) or

intermediaries in the so-called market for educational knowledge (Sundquist, 1978).

Laboratories thus appear to have a limited capacity for monitoring and evaluating their own knowledge system interventions, interventions which are designed to link basic and applied educational researchers, on one hand, and educational policy makers and practitioners on the other. One possible explanation for this limited capacity has to do with the unique professional culture of laboratories, which is significantly different from that of R&D Centers and research universities, both of which are formally committed to the norms, values, and interests of scientific communities. In contrast to scientific communities in which new knowledge has intrinsic intellectual value (see Machlup, 1980), laboratories represent a special form of social and cultural organization which MacRae (1987) calls a "technical community." A technical community is

> a group of experts who deal with laymen's practical problems, conduct related research, and subject both these activities to independent mutual quality control. Such a group resembles a scientific community except that it is guided by practical rather than purely theoretical criteria of excellence; and concerned not only with internal standards but also with performing functions for, and thus interacting with, laymen (MacRae, 1987, p. 5).

As technical communities laboratories are the principal intermediaries in a complex knowledge system in which distinct knowledge functions are distributed among different institutional structures. These functions and structures are sometimes viewed as forming a linear or quasi-linear arrangement, where one structure performs a specialized knowledge function which is followed, in turn, by the next structure performing its function, and so on. This view is eloquently stated by Rothman (1980, p. 16), who employs the metaphor of a missing lumber mill to represent obstacles to the effective transfer and utilization of knowledge in education and other human service areas:

> The social science researchers have gone into the forest of knowledge, felled a good and sturdy tree, and displayed the fruits of their good work to one another. A few enterprising, application-minded lumberjacks have dragged some logs to the river and shoved them off downstream ("diffusion" they call it). Somewhere down river the practitioners are manning the construction companies....on the whole they are sorely lacking in lumber in the various sizes and forms they need to do their work properly. The problem is that someone has forgotten to build the mill to turn the logs into lumber in all its usable forms. The logs continue to pile up at one end of the system while the construction companies continue to make do at the other end....

The strength of this metaphor is that it emphasizes the important role of mediating structures in linking producers and users of knowledge. The limitation of the metaphor is that it assumes a process which is essentially linear, unidirectional, and irreversible.

The metaphor of the missing lumbermill does not accommodate knowledge systems in which different institutional structures perform one or many knowledge functions which are arranged in the complex spatial and temporal patterns described by Reisman (1987) and applied to the area of knowledge systems accounting by Dunn, Holzner, Shahidullah, and Hegedus (1987):

- Serial. A mediating structure performs specialized functions which have one predecessor and one successor in a series, for example, when the distribution of new educational knowledge is preceded by prior basic or applied research and succeeded by knowledge utilization by practitioners. A predecessor or successor function may have its own predecessor and successor, creating an extended series of functions which form a chain-like arrangement which is linear, unidirectional, and irreversible.

- Parallel. A mediating structure performs a number of parallel knowledge functions which have no clear predecessor or successor, or, by extension, several structures perform two or more parallel series of functions. For example, two parallel series involving the production, distribution, and utilization of educational research may be performed by different programs within the same laboratory, or by two or more laboratories. The resultant arrangement, while unidirectional and irreversible, is co-linear.

- Assembly. A mediating structure performs a specialized function which involves the assembly of results from any number of predecessors, for example, when new educational knowledge is assembled from multiple sources which are "scientific," "professional," and "experiential."

When laboratories assemble knowledge in this fashion the resultant pattern, while irreversible, is multi-linear and multi-directional.

- Arborescent. A mediating structure performs a specialized function with any number of successors which form the branches of a tree, for example, when the conclusions of an educational research project are developed in the form of multiple products. Laboratories often develop products in this arborescent fashion, forming a tree-like arrangement which is multi-linear and multi-directional, although it remains irreversible.

- Cyclic. A mediating structure performs specialized functions with a number of predecessors and successors which are cyclically related, with feedback loops among functions. In most mediating structures, functions are cyclically related, not linear, although it is frequently difficult to establish their temporal order. For example, the approach employed by laboratories to develop and disseminate research products affects their utilization by practitioners, who in turn may affect subsequent development and dissemination efforts by providing evaluative feedback. The resultant arrangement, which is expressly non-linear, can be found as well in parallel, assembly, and arborescent structures which have feedback loops.

Organized Complexity

Knowledge systems may be characterized in terms of organized complexity, a state or condition in which the interpenetration of serial, parallel, assembly, arborescent, clic patterns forms a complex but organized arrangement. While sometimes erroneously equated with random or chaotic processes, organized complexity is usefully represented as a complex river delta which systems analyst Stafford Beer (1981, p. 30) calls anastomotic reticulum. In this complex river delta many streams flow to the sea or to the flood plain, with the streams branching repeatedly, flowing into each other. Until we comprehend the organized complexity of the delta it is not possible to forecast the likely route of a pailful of water dumped upstream in the river; nor is it possible to trace the route by which a pailful of water drawn from the sea arrived there. While the water moves in a central direction towards the sea, the system continuously changes as a consequence of dissipative and self-organizing structures. Old

streams disappear and new ones form; order emerges out of chaos (compare Prigogine and Stengers, 1984).

The imagery of the river delta punctuates some of the profound difficulties which arise when observers try to trace practical problem solving to prior knowledge functions, but without first attempting to comprehend the organized complexity of the mediating structures and functions which form the knowledge system. Observers such as Lindblom and Cohen (1979), Weiss and Bucuvalas (1980), and Glaser, Abelson, and Garrison (1983), for example, report essentially weak or equivocal relationships between the production and utilization of knowledge in education and many other areas of social practice. But weak or equivocal relationships also have been reported in science and technology intensive areas such as agriculture, industry, health, and defense which are widely but mistakenly believed to be unambiguous beneficiaries of federal investments in research and development. A recent international project devoted to the design of science and technology impact indicators (Dunn and Holzner, 1987), while yielding several prototype indicator systems, produced few stable and empirically grounded conclusions about specific social and economic impacts of the natural and social sciences in areas of government information policy (Bearman, 1988), industry (Feller, 1987), health (Kochen, 1988), and education (Rutherford, 1987).

Organized complexity thus appears to generate weak or equivocal functional relationships in many of the most important knowledge systems. While two decades of research (see Havelock, 1969) suggests that the strength of linkages among elements of such systems is a critical aspect of knowledge transfer, such functional linkages often have been found to be weak or equivocal. When functional linkages are weak or equivocal, it is difficult to predict the social and economic impact of scientific knowledge. Illustrations of this difficulty

may be found in areas of agriculture, defense, industry, and health:

- Agriculture. One of the most well-funded and ambitious knowledge systems is that of the Cooperative Extension Service (CES) of the U.S. Department of Agriculture. Although the "agricultural model" has many unique characteristics that cannot be generalized to other knowledge systems--for example, the relative simplicity of seeds, fertilizers, and other material innovations--the CES appears to have performed reasonably well (Havelock, 1969, p. 3-35). At the same time, recent studies of the economic impact of the CES (e.g., Weaver, 1985) suggest that the prediction of agricultural improvements on the basis of investments in R&D is problematic. Although there is a positive relationship between indicators of agricultural output (e.g., sales) and indicators of R&D (e.g., expenditures), the absence of specific measures of the process of diffusion makes these indicators at best "stochastic measures of the unobservable input characteristics and output flows involved in the R&D process" (Weaver, 1985, p. 14).

- Defense. Large investments in the knowledge system of military R&D are often justified on the basis of subsequent economic impacts on the civilian economy. The C5-A transport, for example, significantly affected the development of the Boeing 707 and other improvements in civil aviation. Yet as Rosenberg cautions, the opportunity costs of military R&D to the American economy appear to have been substantial. "The economic growth experience of the United States in the past few decades, by comparison with Japan, Germany, and other advanced industrial countries, does not obviously support the presumption that large expenditures on military R&D have improved its relative economic performance" (Rosenberg, 1985, p. 42).

- Health. Advances in biomedical R&D have enlarged capacities to prevent and treat infectious diseases. Although the decline in mortality from infectious diseases is seen by many as the most significant medical achievement of modern times, a careful investigation of historical evidence "seems to show unambiguously that medical science has made only a marginal contribution to this practical achievement" (Mulkay, 1979, p. 73). Observing that the long-term decline in deaths from cholera, tuberculosis, typhus and other infectious diseases occurred many years before the introduction of science-intensive technologies into medical practice, Mulkay (1979) and Knorr-Cetina (1981) argue that basic and applied science typically exert weak effects on health improvements.

- Industry. Scientific R&D may be viewed as the engine which drives industrial improvements of many kinds. At the same time, detailed studies such as Wealth From Knowledge: A Study of Innovation in Industry (Langrish et al., 1972) document that dozens of award-winning industrial innovations in the United Kingdom have been weakly related (if at all) to prior advances in basic or applied science. In the United States, this conclusion would seem to be supported by Griliches (1984, p. 18), who observes that relations between scientific R&D and productivity "can be affected only indirectly and imperfectly by

supporting science in general and basic research in particular and by pursuing wise macroeconomic policies." This general claim may be related, in turn, to the specific conclusion that "policies intended to affect the technologicol infrastructure through the use of various transaction devices (grants, contracts, procurements, mandating of technology, etc.) are based largely on legal and accounting criteria, and have little demonstrated relationship to innovation outcomes" (Tornatzky et al., 1983, p. 221).

As these examples suggest, the organized complexity of knowledge systems in agriculture, defense, health, and industry frequently involves weak or ambiguous functional relationships. Knorr-Cetina (1981) and Mulkay (1979), in using the relationship between biomedical research and infectious diseases as a critical case, go beyond ad hoc accounts of knowledge systems and develop a plausible general explanation of the sources of such organized complexity (also see Prigogine and Stengers, 1984). Observing that most of the 1850-1970 decline in deaths from infectious diseases occurred prior to the adoption of science-intensive technologies by practitioners, they argue that social practice is underdetermined by basic and applied science. Scientific and technological knowledge tends to dissipate in complex social systems where functional linkages are weak and where sociol practice is temporal, contextual, and self-organizing (Knorr-Cetina, 1981). In medicine as well as education, basic research is used as a foundation for technological innovation only after extensive reformulation. "In order to make basic science 'work,' it has to be radically reinterpreted in accordance with the requirements of the social context of practical application .... judgments of cognitive adequacy vary with social context" (Mulkay, 1979, p. 71). These processes of radical reinterpretation make it difficult to disentangle the effects of science and other forms of speciolized knowledge from the effects of experiential or craft knowledge originating in contexts of practice, thus complicating efforts to justify research in terms of its practical utility.

Rosenberg (1986) provides a summary statement which establishes a general baseline for assessing the impact of science-intensive technologies on industry, agriculture, health, defense, and education:

> Perhaps the reason we do so poorly at predicting the impact of technological change is that we are dealing with an extraordinarily complex and interdependent set of relationships. We should, however, be able to do a somewhat better job of it in the future, if only by developing a better appreciation of some of the reasons why we have done so badly in the past (Rosenberg, 1986, p. 17).

THE DISSIPATION OF EDUCATIONAL KNOWLEDGE

By recognizing the organized complexity of knowledge systems it is possible to comprehend why research-based educational knowledge, whether basic or applied, loses force and direction as it makes its way from producers through intermediaries to users. The more complex the knowledge system, the greater the tendency of knowledge to dissipate as a consequence of self-organizing structures and functions. The more pronounced the tendency toward dissipation, the stronger the intervention required to transfer knowledge with the aim of producing a desired effect.

Economics of Weak Interventions

The finoncial resources available to OERI and the laboratory program govern the extent to which promising knowledge transfer interventions can be successfully mandated. The strong interventions required to forestall or to minimize the dissipation of educational knowledge are possible only with adequate levels of funding. Yet the funds available to OERI and the laboratory program permit only weak interventions which, lacking in potency, are unlikely to succeed in the transfer and utilization of knowledge for school improvement. As Rutherford (1987) observes, the mediating structures established by NIE/OERI in the form of

the regional educational laboratories and centers have made little progress in the last quarter century toward placing the conduct of elementary and secondary education on a scientific basis. Among several plausible explanations for this lack of progress it appears that laboratories, in contrast to the massive resources provided to land-grant universities under the Morrill Act, are based on mechanisms which "are too feeble to have much impact on such a huge enterprise as education" (Rutherford, 1987, p. 308).

The feeble character of these mechanisms is evident in the continuous decline of the budget of the regional educational laboratory program since 1973 (Table 1). In constant (1972) dollars the budget of the laboratory program fell from $22 million in fiscal 1973 to $6.5 million in fiscal 1988, a decline of more than 70 percent. During the same period the budget of the National Institute of Education/Office of Educational Research and Improvement fell by more than 79 percent, from $98.8 million in 1973 to $20.6 million in 1988. While the budgets of NIE/OERI and the laboratory program declined, federal government expenditures on military R&D increased by approximately 90 percent, from $8.6 billion in 1973 to $16.2 billion in 1988. Nearly all of this increase in military R&D and roughly one-half of the decrease in funding for OERI and the laboratories occurred during the Reagan presidency. To place these changes in perspective, to restore laboratory funding to its 1973 level would require a tripling of the fiscal 1988 budget.

Random Mediation

Although laboratories are designed to mediate the worlds of producers and users, it is presently unclear how they perform functions of knowledge mandating, production, structuring, storage, distribution, and utilization. The descriptive synthesis of laboratory approaches and activities prepared by Mason (1983),

together with program summaries provided by each of the nine laboratories (OERI, 1989), suggest that few laboratories are identical or even similar in the functions they perform. Observed differences between laboratories have been viewed as a natural and appropriate response to regional diversity, as a means to adapt creatively to a complex environment. Conversely, these differences also may be seen as a failure to adhere to common standards of performance.

Regrettably, neither of these views is correct, since creative adaptations to complex environments can and should be linked to common standards of assessment. Consider, for example, the 1985 Request for Proposals (RFP) requiring that laboratories "contribute to knowledge about effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working" (NIE, 1985). Provided that laboratories conduct such carefully designed studies, variations between laboratories can only strengthen efforts to cross-validate and evaluate the performance of competing dissemination and improvement strategies.

Inter-strategy variation is therefore essential to the success of the laboratory program. For example, the deliberate maximization of differences between alternative dissemination strategies can help alleviate a severe problem identified by Lieb-Brilhart (1989, p. 1) on the basis of a 1988 report to the House Committee on Education and Labor of the U.S. Congress:

> ...there has yet to emerge a national dissemination policy of exploiting, in a coordinated fashion, the strengths of existing dissemination systems ... as well as identifying what other dissemination strategies are needed to meet the needs of today's schools (Subcommittee on Select Education, 1988, p. 12).

Most laboratories have not commissioned or conducted carefully designed dissemination studies which maximize inter-strategy variation. When well-designed studies have been carried out, for example, the tracer studies commis-

sioned by the Appalachian Educational Laboratory, the use of a special methodology precludes comparisons across strategies employed in other regional laboratories. In fact, the majority of regional laboratories appear to engage in a form of random mediation, as distinguished from the kind of systematic mediation proposed in the 1985 RFP as a promising line of applied research involving "systematic assessment of dissemination and school improvement activities to identify approaches that are most effective" (National Institute of Education, 1985, p. 13).

Systematic mediation can and should employ the logic of quasi-experimental reasoning, whether in the form of the field experiment (see, e.g., Cook and Campbell, 1979) or as case study analysis (Yin, 1985). Both forms of quasi-experimental reasoning, apart from surface differences in technique, are intended to address the equivocality of knowledge claims in complex settings of practice. Quasi-experimentation is a potent approach to systematic mediation because the equivocality of causal inferences involving presumed impacts of dissemination and improvement strategies necessitates methods for systematically ruling out the rival hypotheses which pervade real-life policy settings (see Campbell, 1988, pp. 315-333).

For every hypothesis that educational R&D is (or is not) responsible for a practice improvement we typically must rule out numerous rival hypotheses involving knowledge-mediating functions and structures (see Dunn, 1986). Policymakers and practitioners do not immediately or automatically utilize educational R&D to make practice improvements; nor is there any obvious positive or negative relationship between the improvement of schools, on one hand, and the production, structuring, storage, distribution, and utilization of educational R&D on the other. To be sure, there is a certain surface plausibility about

claims that educational knowledge presented in the form of such documents as What Works: Research About Teaching and Learning (U.S. Department of Education, 1986) facilitates school improvement. On closer examination, however, such claims reflect what has been called a knowledge-driven model of research utilization (Weiss, 1977; Yin and Moore, 1988), a model which assumes that educational R&D is the primary or sole source of practice improvements. The knowledge-driven model unwittingly ignores the organized complexity of knowledge systems, along with the tangled interpenetration of specific knowledge functions and structures, thereby assuming a direct or unmediated relationship between the production of knowledge and its impact on intended users.

An important variant of the knowledge-driven model is the simple expected utility model frequently employed to estimate the probable impact of producing research-based knowledge or information (see MacRae, 1985, p. 11). For example, the production of R&D has a total cost, c, which includes expenses incurred for collecting, analyzing, and interpreting data and reporting the conclusions or recommendations in some appropriate form. The probability that the conclusions or recommendations will make a difference is p, while the magnitude of this difference, d, represents its positive impact over and above the benefit, b, which would have been obtained without producing educational R&D. The magnitude of the difference, d, may be added to the original benefit, b, to give an estimate p(b+d) of the net impact or value added by producing R&D.

The simple expected utility model, while expressed formally in terms of symbolic notation (c,p,d,b), supplies a reasonable approximation of informal processes of reasoning employed by policymakers facing questions about the costs and practical benefits of educational R&D. But the simple expected utility model, whether applied formally or as part of the tacit logic-in-use of policy

makers, ignores the positive and negative impacts of mediating functions and structures. These mediating functions and structures can be investigated systematically by expanding the simple expected utility model to include positive, negative, and null effects of utilizing educational R&D. Here we estimate the probability that utilizing as well as producing educational R&D will result in positive impacts, no change, and negative impacts (Figure 1). In some cases involving questionable or erroneous research, the non-utilization of R&D can have positive effects.

[Figure 1 about here]

The expanded expected utility model, while it incorporates the probable effects of utilizing and not utilizing educational R&D, does not include the other knowledge-mediating functions of mandating, structuring, storage, and distribution. Even if these additional functions were included, we have yet to develop an empirically well-grounded theory of knowledge applications (Dunn, 1986, p. 198). In the absence of such a theory the knowledge required to calculate such expected utilities can be acquired on the basis of anecdotal evidence and trial-and-error learning in practice settings, that is, on the basis of what we have called "random mediation." Alternatively, this requisite knowledge can be acquired on the basis of quasi-experimental studies involving "systematic mediation." As matters now stand, however, neither the simple nor the expanded expected utility model enables plausible causal inferences about the impact of mediating functions and structures on school improvement.

To assess the impact of these mediating functions and structures we require, in addition to quasi-experimental field research, a framework which identifies the many rival hypotheses which have been offered to challenge claims about the impact of educational R&D on school improvement (see, e.g., Dunn, Holzner, and

Zaltman, 1985; Dunn, Halzner, Shahidullah, and Hegedus, 1987; Glaser, Abelsan, and Garrisan, 1983; Huberman, 1987; Rutherfard, 1987). These rival hypatheses represent threats ta the plausibility of claims that observed impacts an schaols are due ta variatians in aspects of one ar mare af the following functians: mandating, productian, structuring, starage, distributian, utilizatian. Table 2 presents a sample of these rival hypotheses, which represent potential sources and forms of error in assessing the impact of educatianal R&D an schaol imprave-ment.

[Table 2 abaut here]

THE STRATEGY OF USABLE IGNORANCE

A majar advantage of systematic mediatian is its capacity to specify and investigate plausible rival hypatheses, thus cantributing to what Lindblom and Cahen (1979) call usable knawledge. Yet systematic mediatian, at least in the shart run, is mare li..ely ta praduce what Ravetz (1987) calls usable ignorance. Given the arganized camplexity af the knowledge system of regional labarataries, it would be surprising if systematic mediatian did nat yield canclusians af the farm: We presently do not knaw which appraaches to knowledge transfer and schaol improvement are most effective. For such ignorance to be usable, however, what is nat knawn must be placed in a categary which Mertan (1987) appropriately calls specifiable ignorance. As impartant as it is to know what is knawn abaut the praductian, transfer, and utilizatian af educational R&D, it is equally impartant to

> ...classify, cadify, and thereby specify what needs to be discavered, callected, faund, developed and/ar solved....Dmitri I. Mendelyeev (1889) led the way in this regard. By reflecting an the work af others he classified, cadified, and thereby unified a major portion of chemistry af his day. But he did mare; the voids in his Periadic Table specified what was yet ta be faund. Some of these voids exist to this day. Though they defy discavery, they are real vaids in knawledge nevertheless (Reisman, 1989, p. 67).

Usable ignorance, defined in this way, is distinguishable from inadvertent ignorance (i.e., error) as well as deliberate ignorance (i.e., fraud) in the natural sciences and medicine (see, e.g., Kohn, 1986) and in the applied social sciences (see, e.g., Campbell, 1987; also see Ravetz, 1971). In contrast to inadvertent and deliberate ignorance, usable ignorance is likely to be adaptive (see Reser and Smithson, 1989), at least to the extent that laboratories and other institutions within the educational knowledge system are freed from unrealistic and guilt-inducing obligations. For example, the obligation to produce "usable," "practical," or "applicable" knowledge is frequently unattainable in real-life settings of great complexity, where the creation of usable ignorance is often a first step to devising appropriate solutions. The strategy of usable ignorance can facilitate systematic mediation by classifying, codifying, and specifying what needs to be discovered to make progress in producing, transferring, and utilizing educational R&D for the improvement of schools. In designing a strategy of usable ignorance laboratories and their sponsors might consider innovations in three areas: agenda setting, organization design, and methodology development.

Agenda Setting

Many of the most important problems facing regional laboratories are problems which have been characterized as "messy" (Ackoff, 1974), "squishy" (Strauch, 1976), "divergent" (Muson, 1988), or "ill structured" (Simon, 1973; Mitroff, 1974). The problem of knowledge transfer for school improvement is an ill structured problem because it is embedded in the organized complexity of the knowledge system of education. This system, as we have seen, is usefully viewed as a complex river delta with tangled and interpenetrating branches. Like other ill structured problems (see Dunn, 1988), the problem of knowledge transfer for

school improvement has several important characteristics: ambiguous or unknown goals; indeterminate or unknown phases through which goals may be achieved; ambiguous or unknown strategies for achieving goals through phases; and an unbounded and hence unmanageably huge domain of potentially relevant goals, phases, and strategies.

Under these conditions it is essential that laboratories create usable ignorance by codifying, classifying, and thereby specifying what needs to be discovered in order to achieve success in transferring knowledge for school improvement. Lieb-Brilhart (1989), for example, has challenged the assumption that "redundant" information from multiple sources has overloaded educational policymakers and practitioners. In contrast to this blanket opposition to redundancy, Lieb-Brilhart (p. 11) specifies what is not yet known by hypothesizing that redundancy is unlikely to be successful in areas of information acquisition and storage; but redundancy may be appropriate and useful in areas of knowledge utilization, synthesis, communication, and implementation.

As these examples suggest, it is not precise single solutions to well structured problems that should dominate the agendas of regional laboratories; rather it is multiple approximate solutions to ill structured problems which arise from the organized complexity of the educational knowledge system. Indeed, when precise single solutions are advanced as answers to ill structured problems, we are likely to find so-called Type III errors: Formulating precise solutions for the wrong problems (see Raiffa, 1968; Mitroff, 1974; Dunn, 1988). In a context of concern with the agenda-setting process of regional laboratories the following recommendations see appropriate:

- Laboratories should be rewarded for creating usable ignorance through the discovery of actionable research problems in areas of knowledge synthesis, storage, development, dissemination, and utilization. The incentive systems of laboratories should encourage the discovery of

practically important problems, along with strategies which might clarify or alleviate these problems, not the ritualistic counting of products developed and disseminated to various groups or the listing of superficial "needs" or "preferences." An appropriate system of incentives will maximize the likelihood that laboratories strive to discover such problems and place them on their own agendas and those of the wider educational research and policy-making communities.

- Laboratories should be rewarded for developing appropriate research proposals for investigating problems placed on research agendas, even if no funds are available to carry out the proposed studies. The best of these proposals should be made available to all regional laboratories for their consideration and future use.

- Laboratories should compete for awards which would be made available to those who have discovered actionable research problems and/or developed appropriate research proposals for the clarification or alleviation of these problems. Results of quarterly or annual competitions, along with the winning problems and proposals, should be published in the official newsletter of the Regional Educational Laboratory Program.

By providing institutional incentives for the discovery of actionable research problems, and the development of research proposals which address these problems, the laboratory program would expand capacities to classify, codify, and thereby specify what needs to be discovered, found, or solved. Usable ignorance would be available at a time when usable knowledge is generally unavailable because of the organized complexity of the knowledge system in which laboratories function.

Managing Pragmatic Validity

The professional culture of laboratories is that of the technical community (MacRae, 1986), which is responsible for what may be called pragmatic (as distinguished from merely scientific) validity. In contrast to scientific communities, technical communities are guided not only by the theoretical and methodological criteria of excellence associated with scientific validity, but also by pragmatic validity as it is manifested in adherence to criteria of excellence in clarifying, alleviating, and solving practical problems. In

scientific communities with relatively well-codified rules there are many reported deviations from criteria of theoretical and methodological excellence (see, e.g., Kuhn, 1986). But numerous deviations from criteria of practical excellence have been reported in technical communities which, working in the applied physical and social sciences, have few codified rules (see, e.g., Snyder, Stevens, and Tornatzky, 1983). In discussing deviations from scientific validity in the applied physical sciences Ravetz argues that:

> ...the application of scientific inquiry to new practical problems should be even more hazardous than the management of deeply novel results within science itself. To the extent that the investigation of problems loses its protective framework of accepted and successful methods, it becomes exposed to pitfalls of every sort....an immature field, in chaos internally, experiences the additional strains of hypertrophy, and its leaders and practitioners are exposed to the temptations of being accepted as consultants and experts for the rapid solution of urgent practical problems. The field can soon become identical in outward appearance to an established physical technology, but in reality be a gigantic confidence-game, combining the worst features of entrepreneurial and shoddy science. The dangers of such corruption are at present more acute for some of the social sciences and technologies (especially those using mathematical and computational tools) than for the natural sciences, since they are related to the most urgent practical problems and they lack a base in fully matured disciplines (Ravetz, 1971, pp. 399-401).

The work of the regional laboratories is prone to deviate from criteria of scientific and pragmatic validity. The reasons for such deviation are rooted in part in the social and political arrangements which affect the structuring, storage, distribution, and utilization of scientific research. In the physical sciences the achievement of scientifically valid results is

> a product of the mutually reinforcing (rewarding and disciplining) scientific community. The validity of scientific truth claims does not come from the innate or indoctrinated honesty and competence of a single scientist. It comes, rather, from competitive replication and criticism, from fear of humiliation due to failed replication efforts, from competition for discovery and eminence so organized as to disclose (rather than cover up) error, incompetence and fraud (Campbell, 1987, p. 3).

In education and other applied social sciences the achievement of results which have scientific and pragmatic validity is likewise a product of the social system of applied science. The success of the regional laboratories is likely to depend on the degree to which the educational knowledge system fosters mutual criticism and self-criticism, encourages a joint commitment to work on shared problems, and generates competition for rewards set aside for those who generate usable ignorance by codifying, classifying, and specifying what needs to be discovered, developed, and/or solved to effectively transfer knowledge for school improvement. In this context, several recommendations are worthy of consideration:

- Laboratories should be rewarded for conducting research and practice syntheses, as well as standard meta-analyses, which expose significant sources of error and bias in the conclusions and recommendations of educational researchers and practitioners. These syntheses and meta-analyses promote mutual criticism and self-criticism within a framework of commonly accepted standards, fostering the discovery of usable ignorance.

- Laboratories should be rewarded for replicating, cross-validating, and evaluating promising synthesis, development, and dissemination strategies attempted elsewhere. Replication, cross-validation, and evaluation facilitate the search for usable ignorance.

- The unit of evaluation and object of incentives (rewards and discipline) should be the synthesis, development, and dissemination strategy, not the laboratory, the laboratory program, or the laboratory staff. The evaluation of strategies, by focusing on specific mechanisms for enabling practice improvements, depersonalizes rewards and discipline, minimizes deviance from accepted professional standards for reasons of self-preservation, and enhances awareness that failures are not personal but stem from the organized complexity of the knowledge system.

By developing an incentive system which encourages the effective management of pragmatic validity, laboratories should have greater capacity to realize standards of excellence appropriate for a technical community.

Methodology Development

Regional laboratories need methods appropriate for investigating and shaping the organized complexity of the educational knowledge system. By now it is clear that most methods available to laboratories, and to the social science research community as a whole, are incompatible with problems which have exceeded a given level of complexity (Brewer and de Leon 1983, p. 125; also see Dunn, 1988). This principle of incompatibility is particularly relevant to problems of assessing the impact of laboratories which function in a knowledge system characterized by organized complexity. In this context several recommendations appear worthy of consideration:

- Laboratories should develop common evaluation methodologies which are systemic in nature. In contrast to bean-counting procedures motivated by an understandable desire for self-preservation, systemic methodologies would focus on the interrelationships and interdependencies among the range of knowledge functions performed by laboratories. For example, the mediating functions performed by laboratories may be represented as a matrix or network which displays spatial and temporal linkages between key knowledge functions: mandating, production, structuring, storage, distribution, utilization.

- Laboratories should abandon what may be called "terminal" impact indicators, instead developing "enabling" impact indicators. Enabling impact indicators would measure and assess the extent to which a given function--for example, the structuring of knowledge by means of research and practice syntheses--enables the successful performance of another function such as the development of multiple products (product differentiation) targeted at different groups of policymakers and practitioners.

- Laboratories should build on post NIE-sponsored research on the conceptualization and measurement of knowledge utilization by developing new profiles, inventories, rating scales, and indexes which capture the complexity of the process of utilizing knowledge. It is widely accepted that knowledge is rarely used instrumentally, for example, to make a policy decision. Instead, knowledge is most often used conceptually, for example, in cases where new research on teaching and learning is used by principals and teachers to develop new "working vocabularies" which alter the way they think about problems of school improvement and their potential solutions.

The methodological recommendations presented above are responsive to the constraints and opportunities facing regional laboratories as key institutions within the knowledge system of education. These recommendations are closely related to knowledge systems accounting (Dunn and Holzner, 1987), an approach and methodology which draws on prior efforts, first in the 1930s and then in the 1960s, to developing national economic accounting and social systems accounting. Social systems accounting, established in an era of large-scale public intervention to alleviate pressing social problems (The Great Society), yielded indicators suitable for evaluating social policies and programs. Knowledge systems accounting, evolving in an era of large-scale public investments in science and technology (The Post-Industrial or Knowledge Society), is a systemic methodology which is appropriate for monitoring and evaluating impacts of the interpenetrating and tangled functions which, performed by laboratories and other mediating institutions, create the organized complexity of the knowledge system of education.

CONCLUSION

The organized complexity of the educational knowledge system, formed by the interpenetration of tangled knowledge functions which appear as a river delta, raises doubts about the appropriateness of school improvement as a standard of accountability. The stunning decline of federal funds available to laboratories reinforces such doubt, since weak interventions in the knowledge system of education are unlikely to have large or even discernible impacts upon the improvement of schools. The paucity of resources available to laboratories has been partly responsible for an indirect service strategy where laboratories operate as "information utilities," performing mediating functions in a manner characterized as "random mediation." Random mediation may be gradually replaced

with "systematic mediation" by conducting quasi-experimental field studies directed toward the classification, codification, and specification of what needs to be discovered to effectively transfer knowledge to those in need. This strategy of usable ignorance, supplemented by recommendations in areas of agenda setting, managing pragmatic validity, and methodology development, is a way to deal with the organized complexity of the knowledge system of education.

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Table 1
FEDERAL R&D EXPENDITURES BY FUNCTION, 1973-1988
(constant 1972 dollars)[1]

Function	73	75	80	85	86	87	88	Change 73-88	Change 80-88
MILITARY R&D ($billions)	$8.6	$8.1	$8.4	$12.5	$13.4	$14.3	$16.2	88.5%	92.8%
CIVILIAN R&D ($billions)	7.7	7.3	8.4	6.8	6.7	6.7	6.4	-16.8	-23.8
NIE/OERI ($millions)	98.8	47.6	41.9	21.8	20.5	21.6	20.6	-79.1	-50.8
LABORATORIES[2] ($millions)	22.0	13.6	9.9	6.1	7.0	6.7	6.5	-70.5	-34.3

SOURCES: National Science Board, Science and Engineering Indicators--1987 (Washington, D.C.: National Science Foundation, 1987); National Science Board, Science Indicators: The 1985 Report (Washington, D.C.: National Science Foundation, 1985); and "Brief History of Regional Educational Laboratories and Research and Development Conters" (Washington, D.C.: U.S. Department of Education, Office of Educctional Research and Improvement, March 1988).

[1] Constant 1972 dollars calculated from GNP price deflators supplied by the U.S. Department of Commerce.

[2] Figures for FY1987 and FY1988 exclude funds for the Rural Initiative.

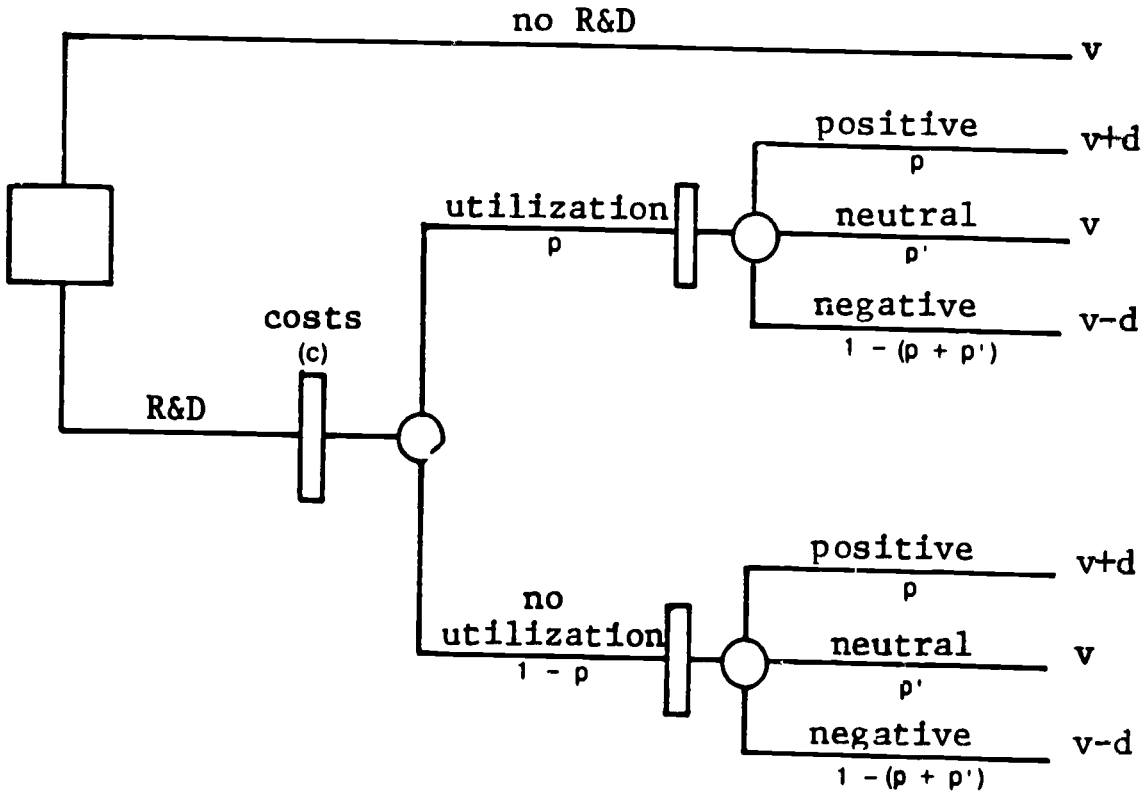

Figure 1

EXPECTED IMPACT OF EDUCATIONAL R&D

Table 2

SOURCES AND FORMS OF ERROR IN ASSESSING THE IMPACT OF REGIONAL LABORATORIES ON SCHOOL IMPROVEMENT

Source	Rival Hypothesis
AMBIGUOUS ASSESSMENT CRITERIA	Dimensionality Bias. A single dimension of R&D utilization (e.g., decisional use) is confounded with another dimension (e.g., conceptual use), making assessments of the laboratory's impact equivocal.
	Source Bias. A particular source of knowledge (e.g., casual empiricism) is confounded with another (e.g., science), making assessments of the source of a laboratory's impact equivocal.
STRATEGIC INFIDELITY	Strategy in Use. The strategy actually used by a laboratory (e.g., political bargaining) is confounded with its publicly espoused strategy (e.g., networking or environmental scanning), making assessments of the reasons for a laboratory's impact equivocal.
	Multiple Strategy Interference. Multiple strategies of development or dissemination are carried out simultaneously (e.g., mass mailing and targeted mailings of products), making assessments of the reasons for a laboratory's impact equivocal.
	Strategy Non-Replicability. A laboratory strategy is so vague or general (e.g., "social interaction") that it cannot be repeated twice, or in more than one context, making assessments of the reasons for the laboratory's impact equivocal.
MATERIALS BIAS	Sequence. The sequence of presenting ideas or conclusions in a laboratory document (e.g., using the "pyramid" principle in news releases) is confounded with the content of the document and the strategy of dissemination, making assessments of the reasons for a laboratory's impact equivocal.
	Format. The format for presenting ideas or conclusions (e.g., case-wise rather than variable-wise displays) is confounded with the content of the document and the strategy of dissemination, making assessments of the reasons for a laboratory's impact equivocal.
	Translation. The process of translating conclusions from technical into non-technical language, or from descriptions into prescriptions, creates departures from original research-based findings and a loss of information, making assessments of the reasons for a laboratory's impact equivocal.

Table 2
(continued)

PRODUCER-USER INCONGRUENCE	Multiple Interpretation Interference. The subjective interpretations of R&D by laboratory personnel and intended users are sufficiently different that the impact of R&D cannot be separated from the impact of its interpretation, making assessments of the reasons for a laboratory's impact equivocal.
	Latent Function. The latent functions of research, development, dissemination, and utilization--for example, political control, program subversion, symbolic legitimation, ritualistic compliance--are confounded with manifest functions such as school improvement, making assessments of the reasons for a laboratory's impact equivocal.
CONTEXTUAL VARIATIONS	Structure. The spatial and temporal pattern of knowledge functions performed by a laboratory--for example, serial, parallel, assembly, arborescent, cyclic--is confounded with a development or dissemination strategy, making assessments of the reasons for a laboratory's impact equivocal.
	Maturation. Processes of learning occurring within users of laboratory products are confounded with the effects of dissemination strategies, making assessments of the reasons for a laboratory's impact equivocal.
	History. Events other than a development or dissemination strategy (e.g., an election or teacher strike) produce effects which are confounded with the effects of the strategy, making assessments of the reasons for a laboratory's impact equivocal.
	Solution-Regression. Pressures for solutions tend to occur when problems are most severe ("The problem must get worse before it gets better."), creating a regression towards normality which is independent of the effects of a strategy, thus making assessments of the reasons for a laboratory's impact equivocal.

SOURCE: Adapted from Dunn (1986), Table 1, pp. 205-206.

REGIONAL EDUCATIONAL LABORATORY APPROACHES TO EDUCATIONAL IMPROVEMENT: A DESCRIPTIVE SYNTHESIS

by

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December, 1988
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Submitted as the Final Report of the Laboratory Synthesis Project, RFQ 108331, Office of Educational Research and Improvement, U.S. Department of Education, Washington, D.C. 20208. The views expressed are those of the author and do not necessarily represent those of the Office of Educational Research and Improvement.

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CHAPTER I

INTRODUCTION

Background

In 1984-85, the U. S. Department of Education funded nine regional educational laboratories to provide R&D services to every area of the United States, including Puerto Rico, the U. S. Virgin Islands, and U. S. Pacific Territories. This decision represented a new beginning for a program that had been through 19 turbulent and controversial years. During that period the program had seen major shifts in purposes, government support, and relationship of the laboratories to other educational organizations. Of 20 laboratories funded in 1965-66, only seven remained. Frequent changes in regional boundaries had been made, but large areas of the country had no laboratory to serve them.

In 1983 the National Institute of Education (NIE), then the Federal unit responsible for the program , decided to continue but redesign the program and recompete the contracts. To address the problems previously identified (Chase, 1968; Campbell, et al, 1975; Panel, 1979); and put the program on a firmer footing, NIE undertook a massive participatory planning effort. Redrawn boundaries identified 10 regions. (Two regions, the Northwest and the Pacific Territories, were combined for the first five-year period.) To ensure meaningful competition in each region, up to three groups in each region were awarded planning grants prior to the laboratory competition.

The request for proposal (RFP) that emerged from the planning process represented a carefully thought-out Federal strategy for supporting educational improvement. Nine labs funded as a result of that competition have now been in operation for two years. The present report represents one component of a broader program evaluation plan intended to help policymakers and program stake-holders understand how the new program is faring (OERI 1987). This study provides a descriptive synthesis of documents and reports produced by the laboratories themselves. It will be complemented by field studies and policy analyses to be undertaken during 1987-89. These program evaluation activities have been supplemented by self-assessment efforts required of the labs and a performance evaluation by external peer review teams at the end of the first two years.

Purposes, Methods, and Limitations.

This study looks across the nine laboratories and attempts to get a clearer picture of how laboratories view their mission and strategy, activities undertaken, and relationships established. What are their similarities and differences? The intent is descriptive rather than evaluative, even though this project is part of an evaluation plan. Perhaps it will also make a modest contribution to the emergent research field of knowledge applications, for which a journal, Knowledge in Society, has just been established (Dunn and Holzner 1988).

The RFP for the lab competition laid out a broad framework for

lab operations but did not attempt a detailed specification of activities. Indeed, it required that each lab program should result from a careful process of interaction with a wide variety of organizations and stakeholders in the region to establish needs, resources, and opportunities peculiar to each region.

This study has two major foci of interest: (1) results of the process whereby the labs negotiated their role in the region, identified regional needs, and established their program; and (2) strategies chosen to implement that role.

The database for the analysis is limited to documents prepared by the labs themselves, notably planning, needs sensing, self-assessment, and annual reports. This places some limitations on the interpretation. There is, of course, a human tendency to "place one's best foot forward" when a contractor prepares reports for its funding agency, especially considering the history of conflict between the continuing labs and prior funding agencies (NIE and the Office of Education). Furthermore, there is "many a slip twixt" plan and implementation.

However, there is also an upside to this situation. According to alternative views of the planning process, planning is a "sense-making" activity that more often provides an understanding of what has been already done than what is to come (Clark 1980). Perhaps the same can be said of progress reports. They may be rationalizations in the bad sense, but they also may be in the good sense-making meaning. Further, because we are dealing with professionals for whom the norms of science have some meaning, an

overly cynical view does not seem warranted. If we understand what kinds of documents we are dealing with, these documents should contain useful information.

More specifically, core documents analyzed for each lab were:

- o Five-year plan for 1986-90*
- o Governance and organizational status report
- o Plan for FY 1988-90
- o Annual reports for 1986 and 1987
- o Needs sensing report for 1986
- o Self-assessment reports for 1986 and 1987

The time reference of the present report will vary somewhat from section to section. Clearly the above reports have varying time references. The major focus will be on the status of the program at the end of the second contract year, i.e. November 30, 1987. What is the status of the program at that point in time? However, these are dynamic organizations, and we also are interested in how they got where they are. Some reference to changes made prior to this point in time will be introduced where appropriate information is available. Although the plans for years three through five were originally excluded from the scope of this study, they represent the culmination of the complex needs sensing, self-assessment, and planning process of years one and two and were found to be a rich source of information on lab status and thinking as the end of their first two years approached.

Studying nine labs is a form of multisite qualitative policy research (Herriott and Firestone, 1983). Our principal

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*All years in this report refer to contract years.

method is to develop typologies both inductively and deductively to explore the similarities and differences among these nine cases. The principal points of reference are the framework provided by the lab RFP and the research questions posed in the RFP for this project. We are particularly interested in discovering patterns that suggest a fit between certain strategies and tactics on the one hand and regional needs and opportunities on the other.

A leitmotif in the analysis will be a concern with how the labs cope with divergent problems. In contrast to convergent problems, such as arithmetic problems, divergent problems have no specific solution; one can only develop a modus operandi for coping (Schumacher, 1973). Some of the principal divergent problems faced by the labs include:

- o Accountability vs. flexibility
- o Independence vs. dependence
- o Prime mover vs. catalyst
- o Need to show impact at the school level and restriction to indirect strategy.
- o Proactive vs. reactive posture

In may respects this an insider's report. It was commissioned by OERI as part of a more comprehensive evaluation plan (OERI 1987). Its primary audiences are OERI personnel, the Laboratory Review Panel, lab personnel, and those more generally interested in institutional arrangements for educational improvement. Acronyms have been used liberally to avoid cumbersome language and should be familiar to most members of these audiences. For those who may need to refresh their memories, a glossary of acronyms and abbreviations has been provided as Appendix C.

The Laboratory Mission

Laboratories can be viewed as an instrument in a Federal macro-strategy for knowledge-based educational improvement. At the time they were conceived in the 1960's the Federal Government had been supporting a small program of research grants, primarily to universities, for about ten years. The university-based R&D Centers and the Educational Resource Information Center (ERIC) had been started just the year before and were the only other Federal initiatives designed to use new organizational entities for bridging the gap between research and practice. Since that time, the number of Federal programs that support "assistance institutions" has grown (Laboratory Review Panel 1987). In addition, state-supported entities like intermediate service agencies have waxed and waned. In designing the new laboratory competition, it was necessary to take these changes in the infrastructure into account.

The Federal perspective on the mission of the laboratories is discussed in some detail in the RFP and summarized in six "statements" and the five-task structure (Appendix A). Analysis suggests that these can be grouped and summarized as three major strategies and two sub-strategies:

THE LINKAGE STRATEGY

A. Regional sub-strategy
- o Laboratories serve designated regions (Statement 4)
- o Laboratories have independent governing boards (Statement 5) and develop effective governance, management, planning, and evaluation systems (Task 1).
- o Laboratories work with and through existing organizations to improve schools and classrooms (Task 2).

- o Laboratories work with state-level decisionmakers on school improvement issues (Task 3).

B. National sub-strategy

- o Laboratories are part of a nationwide system (Statement 6).
- o Laboratories work in collaboration with centers and with other laboratories on regional and national educational problems (Task 5).

THE IMPROVEMENT STRATEGY

- o Laboratories focus on school and classroom improvement (Statement 1).
- o Laboratories work to create research and development-based resources for school improvement (Task 4); laboratories engage in applied research and development that support improvement (Statement 3).
- o Laboratories feature dissemination and assistance strategies (Statement 2).

THE SUBSTANTIVE NEED OR ISSUE STRATEGY (EDUCATIONAL FOCUS)

- o Laboratories assess regional needs, capabilities and opportunities and establish priorities for laboratory activity (Subtask 1:2).

Each of these tasks and statements is discussed in some detail in the RFP and in staff papers that were prepared before drafting the RFP.

The nine laboratory plans represent nine implementations of this set of macro-strategies. This study can be viewed largely as a description of similarities and differences in ways the nine labs have implemented the Federal concept in nine regional contexts.

The laboratory concept can be summarized graphically as a three-sided cube (see Figure 1). Each of these strategies can, in turn, be broken into a number of levels or tactics. Every lab program has these three facets; variation occurs in the approaches used to implement each. A number of typologies and classifications (summarized in Chapter VI) are introduced in order to gain an understanding of the similarities and differences among labs in

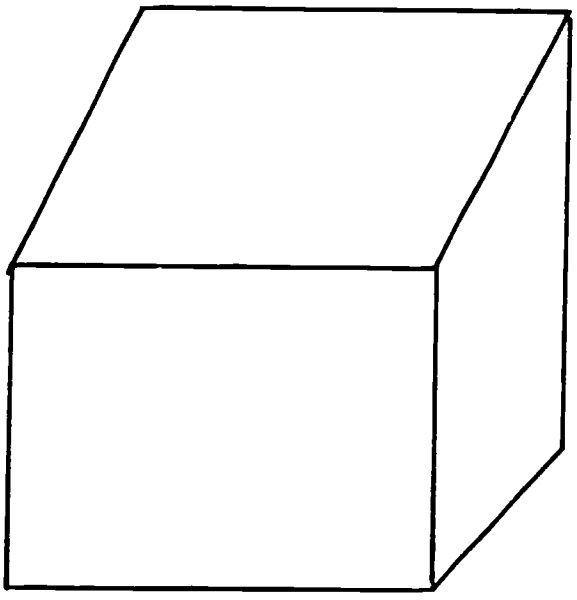

Figure 1. Three Dimensions of the Laboratory Mission

their approaches to these three strategies. This basic schema will be used throughout the report to describe lab activities.

Organization of the Report

The report is organized more or less in terms of the task structure set forth in the RFP. A chapter on governance and organization of laboratories deals with approaches used to establish each lab and to negotiate its niche in the region's organizational infrastructure. A chapter on planning covers the extensive system of needs sensing, capability assessment, self-assessment, and priority setting required under Task 1 and represents the labs' approach to selecting and designing program activities. We then examine the actual projects and programs

undertaken for Task 3, examining in more detail the needs addressed, the organizational linkages established, and improvement strategies used. Tasks 2 and 4 are then examined together because the programs designed under both tasks were found to have both linkage and improvement dimensions. Task 5, which was largely in a planning mode during the period under review, will be dealt with only where Task 5 themes intersect with work under Tasks 2-4. Finally, some conclusions regarding the status of the program at the end of two years and some personal observations will complete the report.

CHAPTER II

GOVERNANCE AND ORGANIZATION OF LABORATORIES

Organizational Context

Description of the Educational Infrastructure

In considering the role of labs it is necessary to ask where they fit in the overall structure of education. Herriott (1980) has provided a useful distinction among three kinds of organizations:

- o **Service Delivery Organizations** (SDOs) concerned primarily with the direct instruction of pupils or with effective management of that instruction.
- o **Knowledge Producing Organizations** (KPOs) concerned primarily with the conduct of basic or applied research on topics of potential relevance to the subfield of service delivery
- o **Service Improvement Organizations** (SIOs) concerned primarily with linking the other two subfields.

The service delivery field is a complex hierarchical system operating at five levels: classroom, school, local education agency (LEA), intermediate service agency (ISA) - in some instances - and state education agency (SEA). The 107,200 public and private elementary and secondary schools in 1980 give some sense of the large numbers involved (NCES, 1982).

Several attempts have been made to describe the organizational arrangements for knowledge-based educational improvement (Office of Education 1969; NIE 1976; Frankel, Sharp, and Biderman 1979). The 1979 study, which covers both KPOs and SIOs, identified the following numbers of organizations with some kind of RDD&E capability:

37 State Education Agencies
193 Intermediate Service Agencies
401 Local Education Agencies
423 Colleges and Universities
476 Miscellaneous Organizations

Allowing for multiple R&D units within organizations (e.g., multiple centers within a university), 2,420 R&D entities existed within these 1,530 organizations.

The dominant image is one of large size and extreme complexity. Most of the 2,434 performers did not specialize in this field. There was a high degree of concentration, with the 172 largest performers (7 percent) accounting for 68 percent of all expenditures. Furthermore, 47 percent of the organizations were found in seven states. These national data are somewhat out of date and do not reflect the considerable attrition that has taken place during the '80. Individual laboratories are charged with maintaining current data of this type for their regions (to be discussed below), but no attempt has been made to standardize data collection or compile national aggregates.

Knowledge production takes place in many varied organizational settings. In universities it occurs at three levels: the individual project, small institutes of several projects and professors, and major research centers, such as those funded by OERI, with multiple programs. Other settings include profit and not-for-profit independent firms and research and evaluation units of LEAs and SEAs.

Organizations attempting to assist SDOs with knowledge-based improvement strategies include many of the same organizations as

well as school development councils, the National Diffusion Network (NDN) and ISAs, teacher centers, and, more recently, a proliferation of ad hoc Federally sponsored units such as desegregation technical assistance centers.

System or Configuration?

Taken together, these organizational sectors are often referred to as the "educational R&D System" or" knowledge production and utilization (KPU) system". The legislation that created NIE declared as the policy of the United States to "build an effective educational research and development system" (Public Law 92-318, section 405, June 23, 1972). Yet, according to some observers, this set of organizations, SDOs, KPOs, and SIOs, does not meet even the minimum requirements of a system (Sieber 1975; Spivak and Radnor 1979). For example, there is little functional specialization among performers and little balance among functions, performers, settings, and supply and demand.

Coming to the same conclusion, Clark and his colleagues decided that continued dependence on the terminology of systems was dysfunctional and new frameworks and metaphors were necessary to understand knowledge-based school improvement (Guba and Clark 1974; Clark and Carroll 1980a and 1980b; Clark 1980; Clark 1984). They note that KPU is:

> ...highly decentralized, consisting of a number of more or less independent and co-equal members, who may from time to time find it helpful to form temporary alliances but who, in the main, retain their independence, shun authority and activity relationships, and engage in as many different kinds of KPU activities as seem to be needed and feasible for them to maintain their self-sufficiency. (Guba and Clark 1974, 45)

This view of reality is termed the "configurational perspective" and is analogous to the concept of a community (Guba and Clark, 1974). Such order and regularity as are found are the result of negotiation and persuasion.

While this description may be somewhat overstated, it appears closer to reality than the systems view. Except for the planning and evaluation functions, it also appears to be the perspective of those who planned the laboratory recompetition.

The Regional Focus of Laboratories

Overview of Regionalism in Education

When the laboratories were first conceived, two conflicting schools of thought emerged on how they should be organized and governed. One was that there should be a small number of elite institutions in intellectual centers, the other there should be a relatively large number of such institutions, organized regionally, and blanketing the country. For reasons that have never been entirely clear (but probably are related to the inherent political appeal of a program serving every congressional district), the regional approach was adopted, and the laboratories have been regional ever since.

Regional organizations, however, have no direct constitutional basis. Regional educational laboratories may have a contractual relationship to the Federal government, but they stand completely outside of the state/local structure of education. In this sense, labs are marginal entities.

In a review of regionalism in education, Hofler (1979) concludes that there are several bases for regionalism :

- o Regions can be viewed as aggregate composites of "local elements." This implies that the regional entity will be largely controlled by the perspectives, interests, values, goals, etc. of the constituent elements.
- o Heterogeneity may be as important as homogeneity, for it provides the possibility of complementarity among diverse resources.
- o Regions may be based on cultures of collaboration: attitudes and values that imply an openness to the possibility of working together.

The form, focus, or scope of regionalism also tends to be highly time-dependent, being either short- or long-term, and varying over time.

Hofler concluded that, as "in-between organizations," regional organizations have a particular opportunity to provide both local-national mediation and opportunities for cross-state/local linkages. Further, they are less vulnerable to pendulum swings between centralization and decentralization.

Hofler presents four arguments in favor of and four against organizing on a regional basis.

The case FOR regional organization:

- o Regional approaches can serve a variety of (although not all) educational KPU purposes.
- o Regionalism is inherently suited for local/national mediation and for cross-state/local linkages.
- o Regionalism seems to be a political requirement for continued congressional support.

- o "There is reasonably strong evidence to suggest that contextual forces do at times converge to provide a basis for successful uses of regionalism" (p. 14).

The case AGAINST regional organization:

- o Regionalism seems to have no preemptive strengths. Valid national and/or local alternatives are generally also available.
- o Successful regionalism is highly context-specific and tends not to be generalizable in a planned, orderly manner".
- o While regionalism is relevant to coordination, it is not a panacea for coordination problems. Other non-regional alternatives are available for coordination, and regionalism in fact adds to the amount of coordination required.
- o Both governmental and educational contexts present formidable constraints against regionalism.

Observations of the regional educational laboratories suggest several pragmatic considerations. The prime responsibility for education rests with over 50 state-level education agencies and 15,600 local districts. For the most part education agencies tend to be inwardly focused. When they look outward toward the nation as a whole, they are swamped by the numbers involved. Working together within regions makes the numbers manageable and still makes it possible for each agency to compare itself with others having similar problems. In addition, travel and other efficiencies are involved.

At another turning point in lab history, the NWREL re-examined the concept of regionalism and concluded that its own regional definition was justified with reference to:

- o Geography (including topography, population patterns, climate, trade and commerce, and communication patterns);
- o "Kindred spirits" (feelings of natural kinship and professional ties);
- o Existing regional alliances; and
- o Existing R&D performers (McClure 1977).

Federal Specifications for Organization and Governance

It is with the role of the labs in the regional organizational matrix that the RFP goes into greatest detail, spelling out the requirements in three tasks and two statements on the mission, functions, and governance structure as follows (NIE, 1984):

- o Task 1: Develop effective governance, management, planning, and evaluation systems
- o Task 2: Work with and through existing organizations to improve schools and classrooms
- o Task 3: Work with state-level decisionmakers on school improvement issues
- o Statement 4: Laboratories serve designated regions.
- o Statement 5. Laboratories have independent governing boards.

A central notion was that labs must be both independent of and neutral toward other regional organizations. There was recognition that education has diverse stakeholders and that the labs would have to be able to work with all of them without taking sides in any conflicts that might exist between other groups.

In most major respects these specifications reflect the configurational perspective. There was no vision of the labs playing specialized functional roles in a linear flow of knowledge

from producer to user. Rather, the labs were expected to work "with and through" other school improvement organizations, forming temporary systems to work on regionally identified educational problems, and providing a variety of gap-filling R&D services.

Laboratory Regions

In the original program there were 19 laboratories served the contiguous forty-eight states, and one, the Center for Urban Education, focused on educational problems in major cities. Regions tended to be defined in ways that split many states between two or more laboratories, and, on average, there were only about two and one-half states per laboratory. states and SEAs were not viewed as key clients; preference was given to working directly with schools and school districts.

Under the new program, only nine laboratories serve 50 states, Puerto Rico, the Virgin Islands, and the Pacific Island Territories. Regions are defined as groupings of whole states, and vary in size from four to nine jurisdictions. States and SEAs are viewed as key clients, along with other improvement support agencies, while working directly with schools and school districts is expected to be the exception rather than the rule.

An overview of the characteristics of the nine regions is found in Table 1. These are not necessarily the most important or relevant regional indicators, but are among those examined by program designers (adapted from data supplied by David Mack).

It is apparent that there is considerable difference among the laboratory regions on these characteristics. For example,

enrollment varies from 2,055,000 in the NWREL region to 20,035,00 in the NCREL region. Population per square mile varies from 10 to 383. It is noteworthy that NWREL stands either first or last on

Table 1. Characteristics of Nine Laboratory Regions.

Lab/ Region	No. States	General Pop (000's)	Pub/Pvt Enroll (000's)	Land Area (sq miles)	Pop Per Sq Mile	No. Public Schools	No. Ed R&D Orgs	Poverty 5-17 Y (000's)
AEL	4	15,548	3,150	144,828	107.4	6,087	125	607
FWL	4	28,647	5,698	461,763	62.0	8,877	303	778
McREL	7	13,553	2,694	573,462	23.6	8,572	176	343
NCREL	7	48,660	10,233	379,331	128.3	20,035	552	1,272
NE/I*	9	29,906	6,818	110,782	270.0	9,441	408	948
NWREL**	7	9,859	2,055	967,043	10.2	5,049	114	226
RBS	5	24,680	4,899	64,421	383.1	7,828	291	678
SEDL	5	25,043	5,347	549,203	45.6	10,746	180	1,072
SEIL	6	30,609	6,094	289,190	105.8	9,624	271	1,275
TOT/AVG	54	226,505	46,988	3,540,023	64.0	86,259	2,420	7,199

*Includes Puerto Rico and the Virgin Islands.
**Includes Hawaii, Marianas, Carolina and Marshall Islands, and American Samoa.
Source: OERI

almost every characteristic. It has the largest area and smallest population and consequently the lowest density. Its poverty level is near the bottom of the range. On the other hand, RBS has the smallest area and highest population density, but is closer to the averages in other characteristics. The need for the "with and through" strategy is evident from the number of schools in each region, ranging from 5,049 to 20,035. For any laboratory to provide direct services to even the smallest number would be difficult to comprehend.

Of course these inter-region variabilities mask considerable

intra-region heterogeneity. A range more extreme than that from New York City to the Virgin Islands (NE/I), or from Los Angeles to a remote county in Nevada (FWL), is hard to imagine. So it is not homogeneity but logistics that justifies a regional approach to knowledge-based school improvement. Major metropolitan areas of all regions have more in common with each other than with rural areas of their own region, and vice versa. It is for this reason that both rural and urban themes assume importance for cross-laboratory coordination under Task 5.

Special Considerations

In comparing the nine laboratories, several special considerations should be kept in mind.

New vs. Old Labs. Six of the nine laboratories had been in existence for 19 years when the current contracts began. Although they had to make adjustments by adding or subtracting states in their region or changing governance structure and revising programs, they were able to "hit the ground running." SEIL was a wholly new organization, although it was able to build on the experience of the pre-existing Southeastern Council for Educational Improvement.

NE/I had to be organized as a new governing entity. While operations were sub-contracted to an experienced school improvement organization, The Network, its decentralized structure had to be created and a new program put in place. In addition, its contract year operates three months ahead of other labs. Including Puerto Rico and the Virgin Islands in the region added considerably to the

heterogeneity of the region.

NWREL was an experienced lab, but the decision to combine the Northwest and Pacific regions made the task more complex.

Finally, NCREL was a totally new organization, but had been funded one year earlier than the others and so was actually in its second and third years of operation in the two years being examined in this study. In addition, NCREL was originally funded through a grant rather than a contract and was not subject to the same reporting requirements.

In sum, we would expect that NE/I and SEIL would be just emerging from their developmental stage at the end of FY 1987, while NCREL would be further advanced into program operations.

Changes in Region. Among the experienced labs there were numerous changes, adding or subtracting states. We have taken the view that all labs are continually having to negotiate their role in relation to other regional organizations. This is magnified when one or more additional states are brought into their orbit. So we might expect that within lab regions there would be variation among the several states in the speed with which a lab could become fully operational.

Governing Boards

In designing the new laboratory program the government was not content to fund laboratory-like activities in a variety of organizational contexts; it required the establishment of unique regional organizations. They had to be independent and not simply

a subsidiary of some larger organization, such as a university, and still have strong ties to other regional educational improvement organizations.

The board of directors was viewed not just as the legal mechanism to control the organization but also to provide links between the lab and its major constituencies. This has both structural and functional aspects. (The analysis in this section is based largely on the Governance and Organizational Status reports of 1986 and related sections of the proposals for 1986-90 and 1988-90.)

Structure

There is a major continuing problem with the regional basis of laboratories. In our system of government, regional institutions have an inherently ad hoc character. No "laying on of hands" by OERI can give labs their legitimacy, although support and funding by the Federal government are important. Legitimacy for their mission must be bestowed by other regional institutions. For this reason the governance structure of each institution is crucial. The key role of chief state school officers (CSSOs) in legitimating labs was recognized by requiring that all chiefs be offered the opportunity to sit or be represented on the board of directors. It was further required that the board reflect "a balanced representation of the states in the region, as well as the interests and concerns of regional constituencies" (RFP Post-Award Requirements).

All the chiefs have accepted invitations to sit on the boards

or send their representatives. McREL has the added stipulation that only the chiefs can vote; their representatives can participate in discussions but not vote. In most cases the chief is listed as the board member, but in at least one case (SEDL) the designees are listed as formal members. These persons usually serve also as the primary SEA liaison.

All labs met the requirement of having equal representation from the states in their region (except that FWL treats California as two Sates, Northern and Southern California).

Two of the labs also serve island territories of the United States. NE/I serves Puerto Rico and the American Virgin Islands. Their chief education officers are "permanent" members of the board, and lab bylaws require that the islands, like the states, must have at least two members on the 41-person board.

NIE originally identified a tenth region consisting of Hawaii, American Samoa, Guam, Northern Marianas Islands, and the Trust Territory of the Pacific Islands. However, for the first contract period, this region was combined with the Northwest. The NWREL Board serves as the board of both regions, but the needs of the Pacific Region are accommodated by the establishment of the Pacific Region Policy Board, composed of CSSOs and other educational leaders. In addition, an Indian Policy Board represents the interests of Indian populations in the region. The relationship of these boards to the NWREL Board is not explained, and their activities are not described beyond such generalities as that they meet quarterly and "review progress, provide planning input, and

establish priority activities" (Plans for Years 3-5, p. 6).

Apart from the CSSOs, the boards must have about equal representation of educators and public participants. There is considerable variation in how they are selected. In most cases both educator and non-educator slots are filled through a process and nomination and election by the board itself. However, some labs have a process whereby state advisory committees nominate (SEIL), and in some cases elect (NCREL), board members. On the public side, SEIL allots three positions on a rotating basis to the chief executive officers of the state systems of higher education.

AEL is unusual in allotting positions to the "designated representatives of state education associations (NEA affiliates), school administrator associations (AASA affiliates), and state associations of colleges for teacher education (AACTE affiliates)". [AEL Technical Proposal 1985, iv].

SEIL allots three positions on a rotating basis to the chief executive officers of state systems of higher education.

FWL was established by eight public education agencies who signed a "Joint Powers Agreement" (amended in 1986 to add a ninth, the Arizona state Board of Education). Twenty-two members of the board are appointed by the nine signatory agencies, while seven are appointed by the Board itself. In addition, there are three ex officio members: the Director of FWL, the Director of Regional Programs, and the Director of the Southern Service Center.

Public members of lab boards are drawn from "local school board members, parents, representatives of business and industry, state

legislators, state board of education members, and the community at large" (NIE 1985, 15). Thus, the "public" portion of the membership tends to include many individuals with formal ties to education. For example, SEIL provides that the 12 public members will be drawn from the following "Client Service Groups" on a systematic rotation (SEIL Bylaws, Article III, Section 3).

- o Business/industry representative
- o Intermediate service organization representative
- o Local school board member
- o Local superintendent
- o Parent
- o Private school official
- o Principal
- o State board of education member
- o State legislator
- o Teacher

It was not possible to make a cross-lab tabulation of board membership because labs use different categories in reporting and because individual members often can be classified in more than one category. Boards of directors tend to be large, ranging in size from 20 to 41. The logistics of preparing briefing materials and bringing members together up to four times a year can be formidable. (One lab, SEIL, reduces some of these costs by having only annual meetings of its 24-person board and making the six-person executive committee the primary governing body.)

Laboratories are required to have independent governing boards. The meaning of this requirement seems to vary among the labs. In some cases (NCREL, SEIL), the lab and the funded organization are coterminous. However, laboratories are allowed to seek funding from other sources so long as additional work is consistent with

the lab mission. Some labs, like FWL, NWREL, and RBS, are considerably larger than the lab contract, and the OERI funded work is a sub-set of the organization's work. Thus, technically, the lab in the Western Region is the Western Regional Laboratory (WREL), also identified as Regional Programs. Immediate oversight for OERI supported work is provided by the Regional Programs Policy Steering Committee of the Board. Similarly, RBS operates the Mid Atlantic Laboratory as a subunit. In the Northeast the winning bidder was a new consortium (as with NCREL), but the lab was to be operated by one of the members, The Network, an existing service improvement organization that had other sources of support. In this case The Network was not allowed to run the lab as a sub-unit; rather, a new Board of Overseers was formed for the lab, which then contracted with The Network to perform lab functions. Note that OERI practice is being followed in referring to the labs. The principle seems to be to use the name associated with the cognizant board of directors. Thus, for example, the Far West Board is recognized as the laboratory board, but The Network board is not; there is a separate "Board of Overseers" for NE/I. The corallary is that it is all right for the work done under the OERI contract to be part of a larger organization if that larger organization identifies itself as the regional educational laboratory and all work done by the larger organization is reasonably consistent with the lab mission.

Functions

Laboratory boards have the usual functional responsibilities of

corporate boards, including establishing policy and monitoring the performance of management. All operate under bylaws and have established impressive arrays of policy manuals that cover topics such as personnel, contract administration, travel, and property administration; but they are of little interest for present purposes.

Two other sets of functions, however, deserve mention. While planning and evaluation are regular functions of corporate boards, they are particularly crucial functions for laboratories, and boards are expected to play multiple roles at different stages of the complex planning process. This will be discussed in more detail in the section on planning.

In addition, lab board members are expected to play a role in taking lab messages back to their constituencies and giving the lab visibility. As an example, here is how NE/I phrases these responsibilities (Governance and Organizational Status Report, Vol. 1, no page number):

> CONSTITUENCY BUILDING AND COMMUNICATION
>
> - o Approve eligible schools, school districts, agencies, and organizations for affiliation with the Laboratory*
> - o Build and strengthen relationships with Laboratory constituents, clients, and the general public
> - o Serve as a channel of communication from the field to the Laboratory
> - o Create Laboratory visibility

*This provision was later deleted. The lab still has affiliates, but there is no formal approval process (letter from Glen Harvey, 12/6/88).

While not all labs are this explicit about these functions, it seems pretty clear that these expectations generally obtain for members of all lab boards. Here again, we see that the laboratory board is expected to assist the laboratory in negotiating a niche in the regional educational infrastructure.

Organization and Staffing

The problem of how to organize a regional educational laboratory is complex. It includes several issues: program structure, organizational structure, the part/whole problem, organizational models, partnerships and networks, and methods of augmenting staff.

Program Structure

The structure of programs, projects, and activities derives from three major factors: (a) the task structure mandated by the government, (b) the priority areas chosen as a result of the needs and capabilities assessment process, and (c) educational improvement and linkage strategies appropriate to the problems and contexts.

The task structure required for government accountability obviously has to be accommodated, but it presents its own problems. Only AEL and RBS use a simple classification of programs by task; All others use some form of a matrix design for at least some tasks and program structures.

Task 1, relating to governance, organization, planning, and evaluation, is relatively straightforward. Virtually all labs

assign responsibility to the Office of the Director. If they have a special staff unit for planning and evaluation, that unit has a major responsibility for parts of the task dealing with needs sensing, capability assessment, self-assessment, and planning. In a few cases specific assignments are made to line units.

Similarly, Task 3, work with state-level decisionmakers on school improvement issues, tends to be a self-contained program or project, although NE/I parcels out six Task 3 activities among four programs and SEDL distributes 10 activities among four programmatic themes.

Initially, Task 5, collaborative activities, was a placeholder in that the specific projects had to be planned after the award. For most themes it took two years to develop plans. Plans for years three through five describe 11 collaborative projects, but not all labs participate in all projects. Where there is a correspondence or fit between the collaborative theme and another program or project, such as evaluation or state policy collaboration, most labs assign the theme to that program.

The major problem comes in dealing with Tasks 2 and 4, which represent the core of the program and were expected to absorb between 60 and 80 percent of program effort. Task 2, "with and through," is a mode of operation, not a task in the traditional sense, although it tends to be interpreted as the dissemination/utilization function. On the other hand, Task 4, "work to create research and development based resources for school improvement" (emphasis added), is ambiguous and turns out to be an

umbrella that covers everything from applied research to collection of promising practices. The RFP does allow the conduct of applied research or action research.

McREL initially adopted a very narrow interpretation of this task. No separate projects were identified for Task 4; rather, the materials development activities of projects under Tasks 2 and 3 were classified as Task 4. (In the plan for 1988-90 a new demonstration program in local sites has been formulated - a different interpretation of Task 4, and of the "with and through" mandate.)

Two of the labs (AEL and RBS) appear to have self-contained program units organized by task (although RBS may have a modest amount of matrixing). But most labs use some matrixing across Tasks 2 & 4 in which programs and projects are distributed across these two (and sometimes other) tasks. Generically, such programs look like this:

	Task 2	Task 4
Program A Project 1	Activity 1.1 Activity 1.2	Activity 1.3
Project 2	Activity 2.1	Activity 2.2 Activity 2.3
Program B Project 3	Activity 3.1	Activity 3.2
Project 4		Activity 4.1

Figure 2: Generic Matrixing of Tasks and Programs.

Organizational Structure

Whether such a program structure represents the way the lab

operates or simply an accounting device depends on the organizational structure chosen. If the organizational units coincide with programs and most work on the program and projects is done within that unit, then a program matrix such as that in Figure 1 is just a way of being able to report to OERI in terms of the task structure. If the lab is organized by tasks or functions, program work is likely to be distributed across units. Virtually all labs have some functionally specialized units for information dissemination that provide support to program units.

While seven of the nine labs use some degree of matrix management, SEDL is strongest in its avowal of this approach. Generically, its structure for organizational units, tasks, and themes looks like Figure 2. In this organizational design,

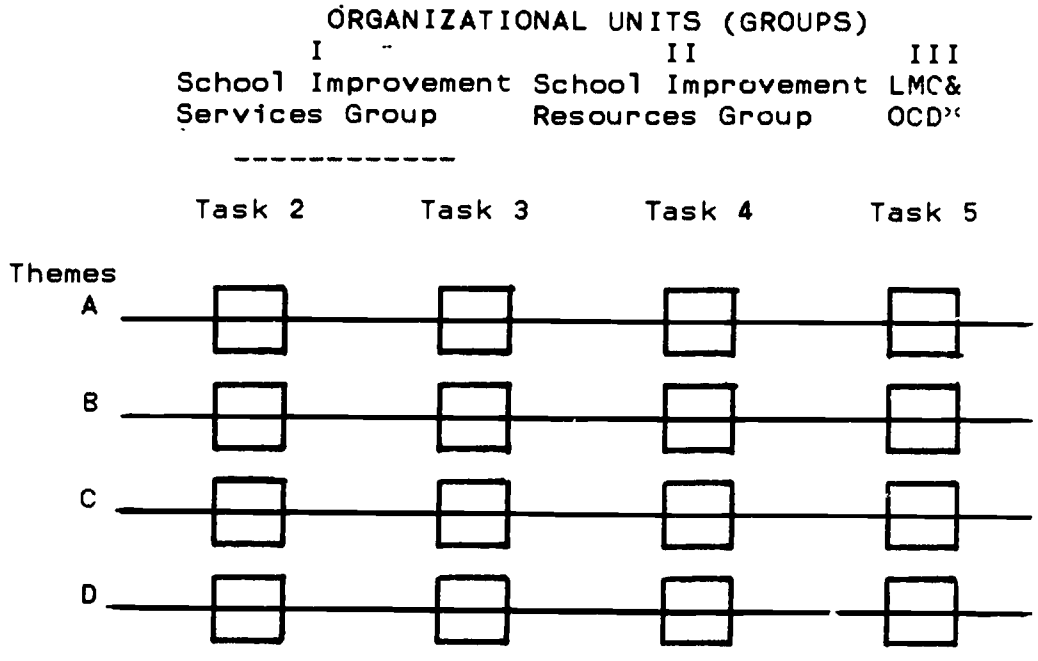

Figure 3: Matrix Organization of SEDL
(Adapted from Proposal, p. 56).
*Lab Management Council and Office of Communication and Development.

programmatic themes are further divided into subthemes and activities. Tasks 2 and 3 are assigned to the School Improvement Services Group, which implements knowledge utilization efforts, while Task 4 is assigned to the School Improvement Resources Group, the knowledge production unit. Task 5 is assigned to the Laboratory Management Council and the Office of Communications and Development. Thus, the organizational units correspond to the tasks, but programs are matrixed across functionally specialized units. The main axes of coordination seem to be for programmatic themes, in charge of program coordinators.

It may be helpful to provide a short description of each lab, combining aspects of program and organizational structure. The list is roughly in order of complexity, starting with the most simple arrangement.

NCREL. A small laboratory with a small staff. Functionally integrated and thematically designed program units operate projects. Task activities are identified only for OERI accounting.

AEL. Intermediate size. Six programs are grouped into three tasks and appear to have self-contained staffs. An attempt to obtain the contributed services of retired professors was abandoned.

SEIL. A small laboratory with a small staff. Ten thematically defined projects operate under four programs, but neither programs nor tasks seem to be significant management categories. Projects are staffed by teams of individuals with multiple assignments and roles. There is reliance on positions contributed by SEAs and state systems of higher education. Also several projects are contracted out with the use of RFPs.

RBS. A large laboratory with three non-lab programs. Six OERI programs in six functionally defined units correspond to five tasks (two programs in Task 4).

McREL. Small organization. Like SEIL, projects are staffed by individuals with multiple assignments and

roles. Lab is nominally organized by task, and there are task coordinators. Work is matrixed across "strategies" or functions. Task 4 is subsumed under Tasks 2, 3, and 5.

NWREL. A large organization with a significant amount of non OERI work. Heads of functionally defined programs supervise projects centers, or services. Six programs (partly functional, partly thematic) are matrixed across organizational units and tasks. Tasks appear to be mainly OERI accounting categories.

NE/I. Intermediate size with decentralized structure. Six thematic programs operated under Field Services for Tasks 2, 3, and 4, with team staffs drawn from both headquarters and assistance center units. Executive Director, Associate Director, and Director of Planning and Communications have pieces of Tasks 1 and 3. (This is descriptive of the lab for the period covered by this report. Subsequently, in January, 1988, the lab dropped the term "assistance center", consolidated program functions in the central office, and focused field staff efforts on field activities.)

SEDL. Intermediate size. Two functionally defined groups, School Improvement Services (Tasks 2 and 3) and School Improvement Resources (Task 4) plus the Office of the Director (Tasks 1 and 5) matrix work across four programmatic themes, subdivided into subthemes and activities. Accountability to OERI is by task, but organizational goals are stated in terms of themes.

FWL/WREL. Large organization in which the Western Regional Educational Laboratory (WREL) is a unit of FWL. The Field Services Director is responsible for Tasks 2 and 4, which are matrixed across three thematic programs plus functionally specific units as necessary. Tasks 1 and 3 parcelled out among staff units associated with the WREL management group. Has task coordinators in addition to line supervisors. Partial decentralization through establishment of the Southern Service Center at CSU Northridge and placement of field agents in state capitals to serve the Task 3 Policy Support Services Program.

Looking across the labs, it is interesting that degree of complexity is not closely associated with size. No doubt some of the complexity could be reduced if OERI defined tasks in a manner

more compatible with program organization.

The Part/Whole Problem

Laboratories are allowed to take on work in addition to that funded by the lab contract, and in some cases the total organization is considerably larger than the lab. This raises the question of how the lab is distinguished from the larger organization in the organizational plan.

In some cases the lab is a sub-unit of the organization. Thus, the Western REL is coterminous with the Regional Program of FWL and is headed by its own director, who reports to the Director of FWL. On the other hand, RBS uses a much more informal mechanism: of their nine programs, six make up the lab and the other three are outside of it. All program heads report directly to the RBS Executive Director.

McREL is somewhere in between. The executive director of the lab wears a second hat as principal investigator under the lab contract. He then delegates responsibility for lab tasks 2-5 to the Coordinator of Lab Programs while retaining responsibility for Task 1. (It is not clear how non-lab work is administered.)

The relationship between NE/I and The Network is complex. The lab proposal was submitted by a consortium of regional organizations, for which The Network was the fiscal agent. As a result of negotiations with OERI, NE/I was established as a separate legal entity with its own board, and the conduct of work is subcontracted to The Network. For its part, NE/I operates the laboratory as a separate organizational unit, but there is some

sharing of personnel with other units that are funded separately.

Other labs do not say specifically how they handle the problem; presumably non-lab programs and projects are identified as separate work units below the office of the director.

Both here and in the discussion of the independence of governin boards above we observe one of those continuing issues that defies resolution. So long as lab can seek additional sources of funding (which may be necessary for their viability) the work done under the OERI contract is part of some larger whole and cannot be totally independent.

Organizational Models

Several labs based their organizational design on a thoughtful examination of recent organization theory and research, notably McREL, FWL and NE/I.

Citing the theory of William Ouchi, McREL opted for the "M" model rather than the U-Form or H-Form. The "M" model is a variation of matrix management that creates independent units responsible for task specific activities and products but uses common service units. The maintenance of a business office and field staff in Kansas City seems to be for logistic and historical reasons.

FWL had a history of being more like a research center than a regional laboratory. Not only were they more heavily weighted toward knowledge production than knowledge utilization, they also operated with a high degree of principal investigator autonomy and a minimum of programmatic control. In planning for operation under

the new laboratory program they recognized the need to rethink these matters. They have strived for an "organic" form of organization highly adaptable yet integrated in its functions and activities. The organizational design incorporates a limited amount of decentralization. A formal relationship was established with the California State University (CSU), in part to create a presence in Southern California where it had not previously operated. The FWL Southern Service Center was established on the campus of CSU Northridge. In addition, Task 3 places field agents in the state capitols of Arizona, Nevada, and Utah.

NE/I was unique in its initial degree of decentralization. In the 1960s, when the infrastructure of educational improvement was far more primitive, a number of labs had tried decentralized structures. These regional offices were soon discontinued because it was too difficult to keep field agents involved in and up to date with lab activity (Salmon-Cox, 1980). NE/I felt that, in a new era when the role of the lab in working with other SIOs was paramount, a new attempt at decentralization was required. Their 10 assistance centers were not freestanding, however; they were housed in school improvement organizations that were part of the consortium sponsoring the lab proposal. Some difficulties were encountered with this approach. It had to be fine-tuned during the first eighteen months, and was abandoned in the second quarter of the third year. More specifically, some field staff were retained for field functions, and the term "assistance center" is no longer used for field units. What was terminated was the attempt to

involve field staff in program teams with central office staff.

Partnerships and Networks

Perhaps there was a day when it was clear where one organiztion stopped and the next began, but no longer. In this day of partnerships and networks, ties between organizations seem to have infinite gradations. We have already seen, in the section on governance, how other organizations or organizational sectors are formally represented on the lab boards of directors. In chapters below we will see how adjunct structures such as state advisory committees are created for needs assessment, evaluation, or dissemination, and will examine how the "with and through" task is implemented with partnerships, networks and other arrangements.

One example will be presented here to demonstrate how deeply a lab can be embedded in its organizational context. AEL has very close ties to four other organizational sets: the CSSOs, state teachers associations, state administrators associations, and state teacher education associations. These ties operate on at least four levels. Each organizational set:

- Has a state representative on the board of directors
- Has one or more lab programs dedicated to working on its problems
- Provides advisory oversight for the dedicated program(s) through an advisory committee of the board made up of the set representatives on the board.
- Provides staff for the dedicated program in the form of shared staff, contributed staff, or volunteers.

To sum up, lab organizations are not stamped from the same mold They exhibit considerable variation both in internal structure and

ways of relating to other organizations. The common threads are the need for flexibility in staff assignments and the desire to establish structures that assist them in being responsive to environmental press.

Staffing

A number of questions concerning staffing might be of interest. Unfortunately, it is not feasible to address those concerning staff characteristics, such as whether they are drawn from the research or practice communities, from the behavioral science disciplines or education, expertise in R&D functions and/or education problem areas, etc. But organizationally the labs had several choices to make. All have a corps of full-time staff, although in many if not most cases there is some splitting of time between lab and non-lab work. Variation comes in the degree to which that core staff are supplemented by part-time or contributed staff, consultants, or sub-contractors. Here is a run-down of some patterns:

- AEL: Has a core staff in a central location with no field offices. The program on Professional Preparation and Resources is run by four 20% faculty members in area universities. Self-assessment is conducted partly through a subcontract for a third-party evaluation. An attempt was made to engage retired personnel on a voluntary basis, but was abandoned. A program of Extern Grants provides low level support for doctoral dissertations and faculty research.

- FWL: Has a core full-time staff in San Francisco and a "Southern Service Center" on the campus of the CSU at Northridge. In addition, state assistance field agents (.2 FTE each) are located in Nevada, Utah, and Arizona. In connection with Task 3, a university faculty member in each of these three states serves as a State Policy Field Agent. Consultants are to supplement staff where specialized expertise is required for limited tasks.

- o **McREL**: Has very small core staff in Colorado plus field office in Kansas City mostly for management support functions. Commissions some papers and does some subcontracting

- o **NCREL**: Has vary small core staff in Elmhurst, IL. Uses contributed staff, consultants, and subcontractors.

- o **NE/I**: Prior to its 1988 reorganization, had core staff in Andover, MA, with some staff shared with other Network projects; other staff in 10 assistance centers (three in Andover and seven in field sites in host agencies).

- o **NWREL**: core staff operating out of headquarters in Portland; field office for Pacific Region in Honolulu.

- o **RBS**: large core staff plus considerable cost-sharing from partners in form of contributed staff

- o **SEDL**: central staff operates out of Austin TX.

- o **SEIL**: very small core staff; considerable use of subcontracts and consultants.

Thus the labs exhibit considerable variation in staff size, reliance on consultants, contributed staff, and contractors, and placement of staff in one or multiple locations.

Comments on Governance and Organization

The concept of regionalism in education was examined. It appears that there is as much variation within regions as between them and that the primary need for a regional approach to the lab mission lies in logistical considerations.

The nine regions served by the laboratories vary considerably in educational and demographic characteristics. While we continue to view the organizational infrastructure of the several regions as loose and fluid, it seems clear that the labs have managed to establish important mechanisms that link them to other

organizations at the governance level, chiefly through policies concerning membership on the board of directors and establishment of various advisory groups and other adjunct structures. The organization of the labs at the regional level, outside the formal structure of the educational system, has its weaknesses. However, it is the very looseness of the educational configuration that seems to require an organization like the labs to play a catalytic role in bringing the disparate parts together in greater harmony.

All labs group projects into programs. For a few the programs correspond to RFP tasks, but for most the programs are spread across the tasks. Most labs are quite self-contained regarding staff, although all use consultants and sub-contracts from time to time. For a few, the use of outside resources is more than incidental.

The task structure formulated in the RFP may be valuable for clarifying the mission of laboratories, but it does not seem to provide a useful way for labs to organize their programs or report to OERI. Whether some form of matrix management is needed to provide flexibility or merely provides a cross-walk for reporting to OERI by task is not clear.

CHAPTER III

PLANNING*

Introduction

Federal Specifications

An orientation toward rational systems is most evident in the required planning component. The RFP lays out three subtasks under Task 1 (NIE 1984):

1.2 Assess regional needs, capabilities, and opportunities and establish priorities for laboratory activity.

1.3 Prepare revised plans for future services.

1.4 Conduct self-evaluation of laboratory projects and services.

The text under these subtasks reveals a complex and sophisticated model of planning and management. Needs are to be assessed with such mechanisms as advisory committees, surveys, content analysis of media, and documentation of lab activities. Self-assessment is expected to serve a formative evaluation function and feedback into the planning cycle. The board of directors should play multiple roles as both a source and a consumer of needs and self-assessment information.

In addition, each lab must conduct a census and analysis of R&D and service improvement organizations in the region to assess the capacity of the improvement infrastructure in relation to the

*Planning done under earlier planning grants is not part of this review except as it is reflected in the plans for 1986-90.

the needs identified as well as to its own capacity. Analysis of these data leads to setting priorities and planning specific programs and services. This process is viewed as continuous, and useful for both fine-tuning day-to-day operations and making major program planning decisions, such as developing the three-year plan for 1988-90.

Each lab was asked to provide a graphic display of the total process. To illustrate, Figure 5 shows the process described by FWL/WREL, which is typical. Shown as a systems chart, it indicates the highly rational and complex set of tasks required.

Planning Models

The process described above seems to represent the convergence of thinking from several conceptual starting points. "Evaluation," "needs assessment," and "planning" have all been used as the master concept subsuming all stages of the process. For example, under the evaluation rubric, Stufflebeam et al (1971) developed the CIPP model that encompassed these processes under the headings of:

Context evaluation
Input evaluation
Process evaluation
Product evaluation

Beginning with a system approach to planning, Kaufman (1979) elaborated six types of needs assessment, each associated with one of the six steps of a general systems problem-solving model:

Alpha: Identify problem based upon need

Beta: Determine solution requirements and identify solution alternatives

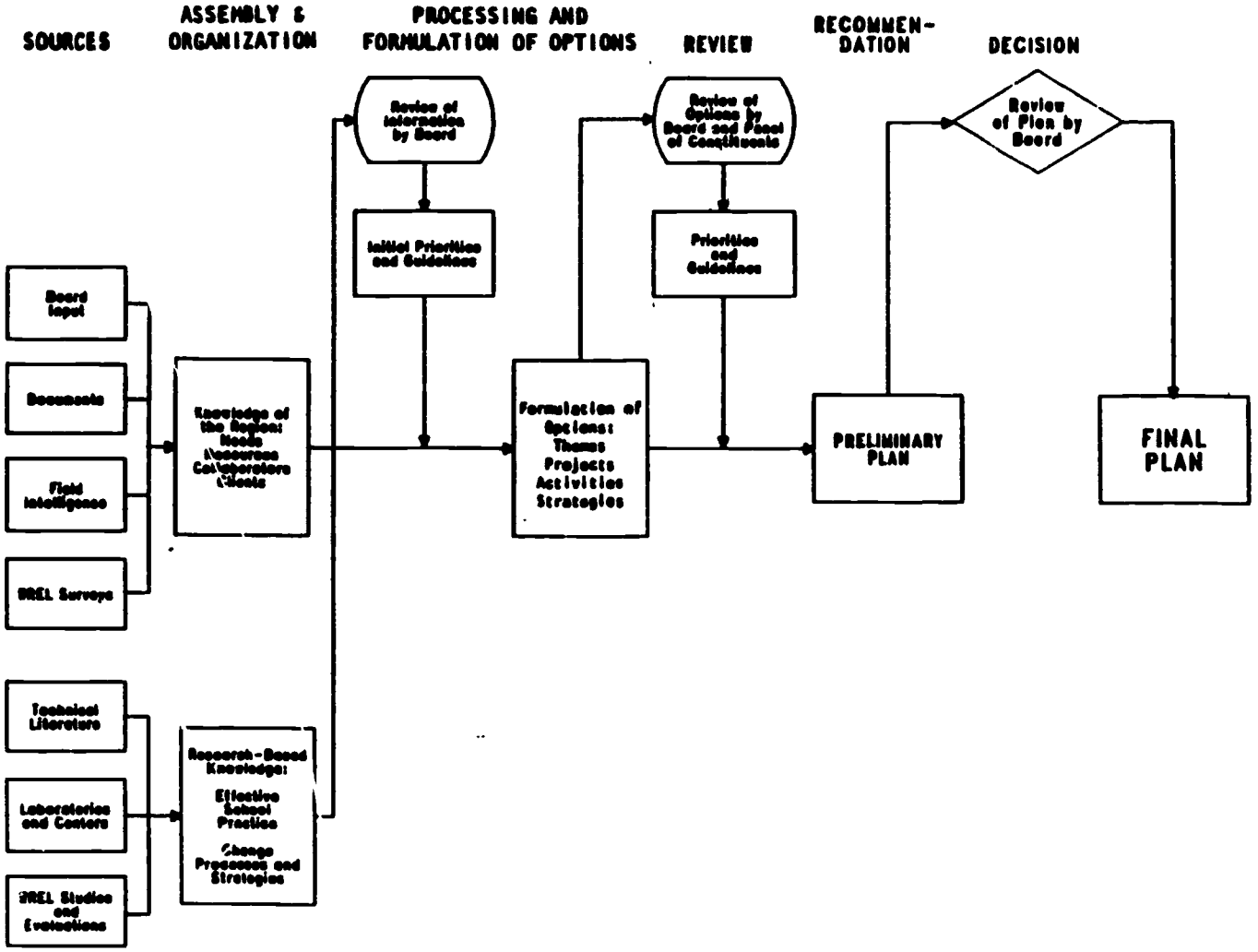

Figure 4. The Far West Laboratory Planning Process

Gamma: Select solution strategies from among alternatives

Delta: Implement

Epsilon: Determine performance effectiveness

Zeta: Revise as required

Similarly, working from a chain model of educational needs, Waks (1979) identifies:

Context inquiries

Attainment needs

Process needs assessment

Maintenance needs assessments

Resource needs assessments
- o Personnel assessments
- o Organizational assessments
- o Facilities assessments
- o Financial assessments

Finally, a field of strategic planning has been elaborated that encompasses external environmental scanning, internal capacity analysis, participation and involvement, mission and strategic goals, implementation/linkage plans, and monitoring and assessment (Steiner 1979; McCune, no date). Several labs have explicitly used variations of strategic planning (McREL, SEIL).

All these models cover more or less the same set of processes but use a different master concept, depending on the starting point. For our purposes it is only necessary to note that the writers of the lab RFP specified a set of requirements for Task 1 that was consistent with these different traditions.

From an examination of these models and the subtasks required

of the labs, the following general planning model can be inferred:

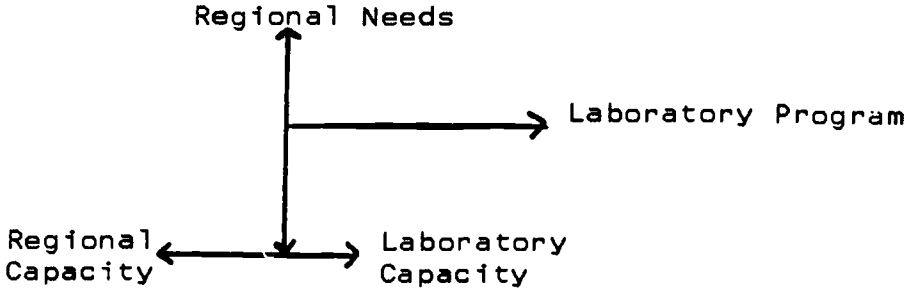

Figure 5. Strategic Planning Model.

According to this model, the lab first assesses the region's needs and the capacity of its infrastructure to meet them. It then derives its program from this analysis and an assessment of its own capacities.

Issues

This highly rational planning process appears to be in tension with the previously noted recognition that labs must operate in a fluid configuration of educational agencies. Lindblom and Cohen have argued that social problem-solving is basically an interactive process and does not evolve in any simple way from professional social inquiry (1979). Clark maintains that plans more often represent an understanding of what has already been done rather than a useful prescription for future action (1980). Whether the imposition of rational planning methods on the labs represents a conflict and inconsistency or whether the planning process constitutes a useful adaptive mechanism for operating in a non-rational environment is something I hope will emerge from the analysis. Other issues concern the extent to which the general model has been implemented, and the degree to which plans and

activities flow logically from the planning process.

Organization of Chapter.

The sections that follow discuss each of the major components, needs sensing, capacity assessment, and self-assessment in turn, and examine how the planning and management process all fits together.

Needs Assessment

Theoretical Basis.

Needs sensing or assessment seems to correspond to context evaluation in CIPP model, contextual inquiry in Waks' model, and environmental scanning in strategic planning. While the idea of measuring educational needs appears intuitively simple and straightforward, Waks (1979) points out are at least four meanings of "need":

- o The norm-based sense of need: something required by a prescriptive rule or law, e.g. "one needs a license to go fishing here"
- o The goal-based sense of need: a necessary means to attainment of an explicit goal
- o The motive senses of need: a want or desire
- o The injury sense of need: when lack causes harm

These senses are not mutually exclusive. The labs primarily seem to use a goal-based sense of need with some overtones of injury or gap. In the planning context, needs assessments are practical ways for measuring needs and therefore goals.

> Goals are an important focus in most needs assessment studies. By determining needs, goals are being verified or validated, selected from alternatives, refined, or converted into more specific objectives. Needs

assessments are tools for determining the goals of a service agency (Waks 1979, p. 63).

The sine qua non of a laboratory is its orientation toward meeting regional educational needs. The needs assessment function is thus the keystone activity, and inquiring about the sources and methods used in determining those needs is essential.

Sources and Methods*

As has been noted above, all labs rely on their boards of directors to some extent for needs sensing input. Staff contacts and information gleaned in meetings of all kinds are also important. In terms of more formal methods of data collection and analysis, tremendous variation exists among the labs. Some rely on an analysis of one or two types of data, while others (FWL, NWREL) use the 1987 report to summarize a long history of detailed studies using a wide variety of data sources.

Adjunct Structures. The first method of needs assessment involves the formation of adjunct structures, such as advisory committees and formal partnerships. In general, there are two kinds of advisory committees: those organized by state and those organized on a program or project basis. The new labs in particular opted for elaborate advisory structures. Note the following memberships:

- o NCREL: 140 members in 7 State Advisory Councils
- o NE/I: 219 members in 9 Advisory Committees (later dissolved)

*This section is based largely on the needs and capabilities report required as a contract deliverable as part of the continuation proposal for the third through fifth years. Other needs data are to be found in the original five-year proposal.

o SEIL: 109 members in 6 State Advisory Committees

Among the old labs, NWREL and SEDL convened ad hoc state advisory groups for the recompetition, but have not continued to involve them as such. (SEDL has involved some of the same individuals in other adjunct groups.) State advisory committees are partly needs-sensing mechanisms, partly dissemination/liaison vehicles, and in some cases have a role in the governance of the lab through nominating or electing board members. Committee discussions make it possible for representatives of different constituencies to share and compare their views and give the laboratory a more in-depth and qualitative view.

It is interesting to speculate on why the new labs are far more likely to rely on adjunct structures. Perhaps the old labs are sufficiently tied in to the educational infrastructure of their regions through their governance and program activities, while the new labs, having new governance and program structures need the additional mechanisms on at least a temporary basis. Note also that state advisory groups are cross-constituency groups; they attempt to represent a cross-section of educational stakeholders in the state. By contrast, the older labs appear to favor more formal ties to specific constituencies. We have already noted how four groups are represented directly on the Board of AEL, and how nine signatory agencies appoint 22 members of the FWL Board.

For program purposes, RBS has established formal partnerships with five groups (some new, some pre-existing):

o Rural Exchange Network
o Maryland Council of Assistant Superintendents

- o Intermediate Units of Pennsylvania
- o Mid-Atlantic Metropolitan Council
- o Urban School Superintendents of New Jersey

While these groups serve primarily as vehicles for program operations, they are also sources of needs input.

Program and project advisory groups (to be discussed more fully in connection with Tasks 2-4) serve primarily as input for fine-tuning existing activities rather than planning new initiatives.

Quantitative Data. Labs employ a wide variety of methods for gathering quantitative data, including surveys, content analysis of media, secondary analysis of published economic, demographic, social, and educational indicators; and logs of program activity such as telephone contacts and services requests. The profile of methods used by each lab is shown in Table 2.

Table 2. Methods Used to Collect Needs Assessment Data.

Lab	Meetings	Surveys	Content Analysis	Indicators	Documentation
AEL		+	o		
FWL	+	+	+	+	+
McREL		+	+	+	+
NCREL*	+	+	+	+	+
NE/I	+	+	+	+	+
NWREL	+	+	-	-	+
RBS	-	+	+	+	+
SEDL	+	+	+		
SEIL	+		+	o	-

*NCREL is on a different schedule and no separate needs assessment report was required in 1987. Proposal for 88-89 was used.

KEY: + = method used and analysis provided
o = data collected but no analysis presented
- = no data collected

All labs used multiple methods, and some used all. This kind of profiling, however, is not very adequate because it masks the fact that a "+" in the table for one lab might mean a cursory discussion in a few paragraphs and for another it might mean a detailed analysis in a separately bound report.

Surveys. All labs except SEIL conducted at least one needs sensing survey, and some labs conducted two or three. Virtually all samples were purposive rather than random. In some cases a single group, e.g., superintendents, was studied, while in others many different groups were surveyed. Response rates varied from poor to mediocre. Data in survey format were also collected from members of advisory committees and participants in conferences, workshops, and other meetings.

Generally, the procedure was to ask respondents to rank or rate items from a list of possible educational problems. In at least three cases (AEL, NE/I, and SEDL), a common methodology developed by Grunig was employed. This involves asking for each item whether the respondent (1) ever thinks about the issue, (2) could make a difference, and (3) is connected to the issue. Although a great deal is made of the fact that this approach is based on communications theory, that theory is not explained or used to provide any special interpretation of the data. Indeed, although it seems possible that the three items might form a scale, no attempt is made to examine the interrelations of the three responses.

Beyond that, many objections have been raised to using attitude

surveys for measuring needs (Waks 1979). Which sense of "need" is being employed? Are they attainment needs, process needs or resource needs? How does one distinguish between needs and wants? How does one weight the responses of different stakeholders?

Implicit in the needs assessment approach is the idea that needs can be prioritized and that need patterns will vary from region to region and state to state. Yet many of the issue statements are at the level of "improve the quality of teaching." But surely at this level, which is the level of the major components of the educational enterprise, every lab needs to have the capability of providing some KP or KU service. The need to set priorities comes only at lower levels of specificity where choices must be made among lower level objectives--e.g., which aspect of teaching quality is most in need of attention? Further, at some point the choices to be made become a technical issue that must be based on the best evidence from research and/or experience and not on attitudes or values. To summarize, if there is a place for a survey approach to needs assessment, it needs to find a place between the broad components of education on the one hand and the level of technical design on the other.

Indicators. All labs examine a variety of statistical indicators to demonstrate their understanding of their regional context, including economic, demographic, social, geographic, and educational data from many sources.

Strategic planning is the model often used either explicitly (McREL) or implicitly, as evidenced by the frequent reference to

"environmental scanning" as the type of analysis employed. The analyses presented vary from superficial to sophisticated. McREL makes a plausible case on the basis of analysis of major economic shifts in its region for making the restructuring of education its broadest goal.

Attainment needs in Waks' sense are identified through analysis of NAEP and state testing data. R8S emphasized this type of analysis and published an analysis of regional test results for 1978-86. This type of analysis led to the identification of At Risk Youth as a program in several labs and as a cross-lab coordination theme.

Content Analysis of Trends. This category covers several different methodologies. Several labs, including AEL, McREL, and NE/I, employed the methodology popularized by John Naisbitt in Megatrends (1982) in which newspapers, magazines, professional journals, and newsletters are systematically collected, coded, and placed in a database. This category also encompasses the more traditional scholarly analysis of publications such as needs assessment reports of other regional or national organizations. A review of major national, educational reform reports is one type (SEIL) and documentation and analysis of state legislative reform activity is another .

Documentation of Operations. Many labs have devised systems of logs and reports for gathering data in the course of their normal operations that provide grist for the needs assessment mill These include logs of telephone contacts, records of requests for

assistance, telephone and mail followups of participants in conferences and workshops, etc. NE/I devised elaborate systems of this kind, perhaps prompted by its decentralized structure; its initial system proved to be too cumbersome and had to be modified.

Comments on Needs Assessment. The above section has described the range of methods used by labs for needs assessment, but it has not conveyed the considerable range in the depth and quality of the analysis.

Regional Capabilities

Federal Specifications.

The RFP requirements for studying regional capabilities were lumped with some others in Subtask 1.2:

> Assess regional needs, capabilities and opportunities and establish priorities for laboratory activity (p. 19).

In addition, it was noted that

> ...the assessment process should include a census and analysis of research and development organizations and the service improvement organizations in the region in terms of their school improvement activity (p 19).

It was explained that "Data on their activities are crucial to identifying gaps in services and possible partners for collaboration with the laboratory" (p. 19).

A further explication of the rationale behind this requirement is provided by Clark and Carroll (1980):

> Understanding the region means much more than identifying regional "needs" however they are defined. It means having an inventory of KP, KU, and school

> improvement activities already underway - their strengths and weaknesses; an understanding of the incentives and disincentives which influence agencies and actors in the KPU community; a feel for new or modified activities which are feasible and acceptable; a sense of the intrinsically interesting needs or problems in which individual agencies are willing to invest their resources (p. 4-1).

Nature of Data Available

In strategic planning a comparison of environmental press (demand) with institutional capacities (supply) is an essential element of the planning process (Steiner, 1979). OERI sought to focus on this type of analysis by requiring a separately bound "needs and capability assessment report" as part of the continuation proposal for the third through fifth years. It also required a statement of the lab's own organizational capability as part of the technical proposal.

The assessment of regional capabilities was the most poorly implemented component of the planning model. Why this should be so is not clear given the fact that a useful model for maintaining a database on institutions performing RDD&E or policy studies had been provided a few years earlier. NIE had sponsored a universe survey by the Bureau of Social Science Research of these organizations. Its conceptual framework and methodology had been detailed in the final report, ARROE--American Registry of Research and Related Organizations in Education, by Joanne Frankel, Laure Sharp and Albert Biderman (Frankel, Sharp and Biderman, 1979), available in ERIC. A derivative directory of organizations was published by FWL (Lehming, 1982).

There appears to be one source of confusion concerning the purpose of a regional capabilities assessment. A distinction can be made between KPU capacity for internal purposes (e.g. the evaluation unit of a city school system) and as a service for others (e.g. evaluation contractors in the private sector). Yet the RFP asked only for a census of service providers, and apparently most labs limited themselves to this perspective. Thus, for example, in publishing a directory of educational resource organizations, RBS eliminated SEAs and LEAs because they did not offer services to others. (But surely SEAs provide services to LEAs even if they aren't "for hire" for that purpose). No doubt RBS's services to the Philadelphia school district is limited by the fact that they have a considerable capability of their own. However, in negotiating its niche in the regional infrastructure, a lab must know whether it is dealing with SEAs and LEAs with KPU abilities. Perhaps the lab distinguishes between the information needed for its own purposes and that which would be useful to others in a published directory, but the analyses in the planning documents appear to be limited to service providers and ignore organizations with internal capacity only.

Another purpose of the resource inventory concerns the lab commitment to a "with and through" strategy. Labs need to identify other organizations they can work with and the type of relationship that might be established. In this context, it is well to recognize that some of these organizations may be in competition with the lab. Perhaps this is the reason that RBS did not include

for profit agencies in its directory.

Only RBS has published a current directory, although at this writing NE/I has one in press. FWL has been maintaining such a database for some years, but its most recent directory was published in 1985. However, FWL has clearly gone the farthest over the years in carefully examining regional capabilities. Indeed. their report shows a two-page bibliography of laboratory studies, other regional studies, and national projects that provide analyses of the educational KPU capabilities of all kinds of institutional performers and of interorganizational networks. FWL would be in a position to provide leadership to new labs in making this a more realistic aspect of their planning.

Several other labs (McREL, NWREL, SEDL) achieved minimum compliance with this RFP requirement by providing lists of organizations by type, state, and contact person. But without information on areas such as field of expertise, type of KPU service, primary clients, and personnel, such lists are of limited planning value. Possibly each has more data in its files than it includes in its listing, and no doubt staff have personal knowledge of many other regional organizations.

No lab provides an analysis model for relating capability and needs information. SEDL provides an "environmental analysis" based on the market research model of Philip Kotler that contains a discussion of market environments and competitive environments and that includes a discussion of intermediaries ("with and through" organizations) and agencies offering competing services, but it is

not clear what data they are working from.

Other labs sought to finesse this requirement by including one or more items in surveys of clients or constituents that asked about sources of help for different kinds of problems, or about opinions of the most appropriate roles for the regional laboratory. But this methodology may overlook some potential resources, and there are obvious difficulties in relying on second-hand information.

Comparison of Lab Regions

So far we have been discussing the collection and use of new information on regional KPU capacity. At the time the current lab programs were being planned, data on educational KPU organizational capacity were available by state and region (Frankel et al 1979). A crude comparison of the nine regions is shown in Table 3, which displays the percentage distribution of four kinds of KPU organization across regions, along with the distribution of population and OERI funds.

Clearly the distribution of KPU organizations of all kinds closely follows the distribution of enrollment. There is more variability in the profiles of specific kinds of organizations.

The interpretation of these data is complicated by another consideration. Some service needs are enrollment dependent and some are not. For example, if all the teachers of a certain type need a kind of retraining, then the size of the task depends on the number of teachers. But the amount of effort required to conduct a state policy analysis may not differ greatly in a small state and a

Table 3. Percentage Distribution of Educational KPU Organizational Resources, Public/Private Enrollment, and OERI Funds, by Lab/Region.

Lab	Ed KPU Organizations#					FY 1987 OERI Funds	Pub/Pvt Enrollment
	Small Public	Large Public	Pvt	Academic	Total		
AEL	5	4	4	6	5	9	7
FWL	19	7	13	10	12	14	12
McREL	5	9	8	8	7	8	6
NCREL	24	18	14	26	23	8	22
NE/I	14	9	26	16	17	11	15
NWREL*	6	7	3	5	5	17	4
RBS	9	13	22	9	12	14	10
SEDL	9	13	4	7	7	9	11
SEIL	9	21	6	13	11	9	3
Total	100%	101%	100%	100%	99%	99%	100%
Number	537	149	478	1,268	2,432	$16,975K	46,988K

*Does not include Pacific Territories
Educational KPU organizations typology:
Small public: ISAs and LEAs with enrollments of 10,000-49,999
Large public: SEAs and LEAs with enrollments of 50,000 or more
Academic: institutions of higher education
Private: residual category
Source of organization data: Frankel, Sharp, and Biderman, 1979, Appendix F. Detail may not add to total because of rounding.

large one.

The table also shows the distribution of 1987 OERI funds. We can begin to see here why defining an equitable distribution of these funds is so difficult. One might argue that funds should follow the distribution of population or enrollment. However, some allowance seems to be necessary for factors such as different numbers of states in a region and the logistics problems found in regions with large land areas and dispersed populations. On the other hand, if the existence of other KPU organizational resources is taken into account, some kind of compensatory formula seems appropriate, i.e., more funds should go to regions with smaller

regional capacity. Another consideration that came into play was the fact some labs are in a developmental stage while others are operational. No precise formula was ever worked out. The actual distribution apparently reflects some intuitive balancing of the above factors, plus one other: a hold harmless provision that enabled previously existing labs to receive no less than their previous allocation (conversation with David Mack).

Self-Assessment

Federal Specifications.

It is useful to approach the self-assessment function by reviewing some chronology. The RFP identified self-assessement (SA) as a sub-task of Task 1, placing it within the strategic planning cycle where five objectives were listed:

- o Assuring that work performed meets appropriate standards for quality and efficiency
- o Assuring that the laboratory carries out the mission,functions and purposes for laboratories
- o Using evaluation information as a basis for planning adjustments, follow-on activities, and new initiatives
- o Making staff evaluations
- o Contributing to knowledge about effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working.

This is quite a diverse set of purposes! The first three purposes clearly belong in the planning cycle. However, the use of data to make staff evaluations concerns a different management

function. And the last is not a management function at all, but rather is a research objective. If one goal ties all these purposes together it is that of using information to renew and improve the functioning of the organization.

An annual SA report was required. Apparently some confusion existed about what was to be included in the report, and toward the end of the first year the contracting officer issued guidelines covering both the format and content of the report (Wormwood, 1986). Broadly, the report was to include an abstract, the design of the self-assessment, results, and use.

The reports submitted for the first contract year varied in content, quality, and detail. NCREL, which had been funded on a different cycle and operated under different requirements, did not submit a report. Some labs simply listed all their activities and sub-activities and reported on whether each had been completed. Some were short sub-sections of the annual report. In other cases, they were longer, consisting mostly of a rehash of SA design, either as described in the proposal or subsequently modified. Some submitted the raw data from client surveys, exit interviews from workshops, and the like, in mind-numbing detail. A few supplied reports that were reasonably thoughtful in coverage of at least some of the suggested evaluation questions, but appear more judgmental than empirical. Under these circumstances, an analysis of the first year reports probably would not be very fruitful.

It also became clear that, in addition to playing an internal role in each lab's planning and management system, SA was viewed as

part of the OERI effort to evaluate the Laboratory Program. A consultant, Jerry P. Walker, was engaged to visit every lab to examine its evaluation-related activities and to elicit the views of lab personnel concerning OERI evaluation plans. It was during the second year that plans for the 1988-90 fiscal years had to be prepared, at which point the 1986 SAs were available, but those for 1987 were not. Each lab was visited by a site review team as part of that process.

No new guidelines were prepared for the 1987 SA report, but in December 1987 Charles Stalford, who was in charge of the OERI evaluation effort, confirmed that the Wormwood guidelines were still in effect and suggested some additional questions that might be addressed (Stalford, 1987). These emphasized the use made of SA by the governing board, an analysis of the strengths and limitations of the lab's capacity for SA, and identification of the activities and products that the lab considered the most productive and why. Particular interest was expressed in knowledge coming out of SA activities that might begin to yield generalizations about the strategies that worked best.

OERI also prepared an Evaluation Plan for 1987-90, which stated that the three components of the evaluation plan for regional educational laboratories were self-assessment, performance evaluation, and program evaluation. Labs were urged to report their shortcomings and strengths candidly, trusting that "While OERI has access to such reports as 'deliverables,' the Agency understands their 'in-process' nature and will therefore treat

information in them carefully" (OERI, 1987, p. 5). Further, the idea of collecting uniform types of SA data across labs was disavowed. Although no additional specific guidelines were provided for SA, the following six questions were listed as guiding the overall evaluation, and were cited in some of the 1987 SA reports:

- What is the evidence that the laboratory has had a positive effect on educational practice within its region?
- Are laboratory products and activities well received by educators and state-level decisionmakers?
- Does the laboratory have productive working partnerships with organizations in its region whose cooperation is required to accomplish mutual objectives?
- Are the laboratory costs consistent with those of other labs for similar types of activities?
- Are constituent individuals and organizations in the region aware of the laboratory, its program and its products?
- Are the laboratory's products and activities of high quality?

While there is considerable overlap with other statements of evaluation objectives, there are a couple of new ones. The focus on lab visibility is new (but probably a very weak indicator). The focus on cost efficiency has been adapted to an intra-lab context by some labs. The most interesting addition is the focus on establishing "productive working partnerships," which seems to be an important indicator of success with the "with and through" strategy. The present descriptive synthesis report is one of three components of program evaluation in the OERI plan.

The analysis in this section is based largely on the 1987 self-assessment reports. (Again, NCREL, which was funded out of cycle, was not required to submit this report. It did provide some self-assessment information in its plan for 1988-89.) Designs that were described in the proposals often proved to be too ambitious to accomplish, and as a consequence 1987 self-assessment efforts often contain revised designs, diminished results, or both. Some contract compliance data come from annual reports. There is a tendency to duplicate information in the annual reports, needs assessment reports, and self-assessment reports, and OERI would do well to sort out what kinds of information should go into each.

Problems of Analysis

We have seen that the objectives for SA are diverse. In its broadest sense, SA encompasses the entire management system of the lab, including the collection of all information required for decision making, the allocation of responsibilities among positions and units for collection and review of information, the substance of the information collected, and the resultant actions taken. The technology required just for information collected is so extensive and complex it is almost impossible to summarize. For example, AEL lists 18 sources of evaluation information and 29 forms of documentation for 12 "generic" activities or products. Although not all kinds of information are collected for every activity or product, there are 191 information/product combinations. RBS identified 15 kinds of products and 13 kinds of activities to be evaluated. While other labs have not provided as complete a

documentation of what is involved, this kind of detail is probably not atypical.

The use of much of this information is embedded in day to day lab operations. It is the stuff of weekly staff meetings at project, program, and institutional levels. Some of this gets aggregated to quarterly reports, annual reports, and SA reports (sometimes in too much detail), but much does not. Summarizing it all would serve no useful purpose. The challenge becomes one of sorting out the wheat from the chaff. Some labs seem hard pressed to find a middle ground between presenting raw, uninterpreted data, on the one hand, or presenting judgments and assessments, often of some interest, but without underlying evidence on the other.

For present purposes we have the problem of differences between designs and reports. Some of the SA designs, usually found in the original proposals but sometimes revised in later documents, appear comprehensive and sophisticated; but they are not always feasible, and both new and old labs have had to rethink and revise. And always there is the nagging question whether overemphasis on SA may not amount to stopping the train to blow the whistle. One way of coping with this problem has been to take the position that not all aspects of a comprehensive design need be implemented every year; rather, each year's SA report should focus on a few appropriate components. Using this rationale, most labs have chosen to delay focusing on the difficult task of measuring impact until the last year or two of the current five-year contract.

Another problem is that of distinguishing between ad hoc

information and general knowledge. Both are needed, but it is important to distinguish between them. For example, data on whether lab constituents are aware of and value the lab is ad hoc information, but it is useful for formative evaluation purposes and in determining whether the lab is meeting certain accountability objectives. Data on whether a particular lab strategy is likely to lead to lab visibility and acceptance may be the beginning of building a knowledge base on which strategies are more effective under given conditions. Every lab is expected to spend some portion of its SA energy in contributing to general knowledge of this kind (see RFP).

Self-Assessment Designs and Mechanisms

The analysis of SA is composed of lab profiles on the evaluation questions addressed, the assessment models or images invoked, and the mechanisms used to implement the design. The data are found in Tables 4 and 5. While ideally a tabulation would have been made linking types of data collection and other mechanisms with evaluation questions, the necessary data were not always available. However, examples and impressionistic statements about these connections appear below.

A review of potential evaluation questions in the various sources mentioned in the "Federal Specifications" section above and from the lab designs yields a considerable list. The several sources are not consistent, and there is no implication that all are applicable.

It is useful to distinguish two kinds of evaluation questions.

Table 4. Design Features of FY 1987 Self-Assessments.

Design Feature	AEL	FWL	# McREL	NCREL	NE/I	## NWREL	RBS	SEDL	SEIL
I. EVALUATION QUESTIONS									
Criterion questions									
A. NEED STRATEGY									
1. Relevance		R	R	R	R	R	R	R	R
B. IMPROVEMENT STRATEGY									
2. Quality	Q	Q	Q	Q		Q	Q		Q
3. Utility		U	U			U	U	U	U
4. Impact/effect	I	I		I	I	I	I	I	I
5. Client satisfa	S	S	S		S	S	S	S	
C. INTERORGANIZATIONAL STRATEGY									
6. I/O arrangements		IO			IO	IO	IO		
7. Reach audience	A		A		A	A			A
8. Lab visibility	V				V	V			
D. ORG/MGMT STRATEGY						**			
9. Efficiency				E			E		
10. Capac for SA	C	C				C		C	
Purpose questions									
11. Improve program			P	P	P	P	P	P	
12. Improve org/mgmt					OM	OM		OM	OM
13. Improve SA	SA	SA	SA	SA		SA		SA	SA
14. Staff develop				SD	SD				
15. Compliance	C		C					C	C
16. Knowledge		K	K		K			K	
II. MODEL/IMAGE									
1. Systems/CIPP*	SY			CIPP*					
2. Quality contro	QC	QC					QC	QC	QC
3. Strategic plan		SP	SP						
4. Goal-free eval		GF		GF					
5. Instit renewal		IR			IR	IR		IR	

*Context, Input, Process, and Product mode

**NWREL addresses several org/mgmt issues dealing with its full range of contracts, but this is beyond the range of this OERI self assessment.

McREL data from 1986 SA report. Final 1987 SA report not available.

##The NWREL SA report deals with their 193 contracts of which the OERI contract provides 49%

Those in the first group focus on a criterion of success, such as relevance or efficiency, 10 of which have been identified. Those in the second group of six deal with the purpose or use to be made of the SA and are concerned mostly with various kinds of desired improvements: improvements to the lab program, to lab organization and management, to SA, etc. Within limits, given criterion measures might be used for different purposes.

Further examination of the criterion questions reveals that most of them can be related to the three dimensions of our strategy cube (see Chapter I), plus two dealing with organization and management at a more general level. In Table 4 the evaluation questions have been classified as criterion or purpose questions, with the criterion questions further subdivided into the strategy or management dimensions to which they are related.

Evaluation Questions for Educational Need. The first strategic dimension deals with educational need or policy interest. Relevance is a criterion that addresses this strategic dimension and ties the SA back to needs assessment. It asks in the SA context whether the lab is continuing to support programs that are directed toward the needs of the region. Although not all labs are shown as highlighting this criterion in their 1987 SA reports, probably all do so either in their needs assessment reports or in their three to five-year plans. Those shown in the table have a formal method of classifying areas of program focus and matching these against needs profiles.

Evaluation Questions for the Improvement Strategy. A number of

the other criterion evaluation questions, such as quality and efficiency, might be applied to either the improvement strategy or the interorganizational strategy. They are classified the way they are in Table 4 because this is the way they seem to have been interpreted by most of the labs. (NWREL addresses both the focus and quality of each of its five institutional functions, which are at the level of our strategies). It might be useful for the labs to go back and ask if some evaluation questions might be applied to both strategies (e.g., the quality, effectiveness, and impact of both improvement and interorganizational activities).

The improvement strategy is represented by several evaluation questions. Seven of the labs have instituted quality assurance systems (internal, external, or both). (No doubt the other two have at least an internal editing review, but the SA reports do not mention a quality control function.) They range from routine editorial review to internal and/or external technical peer review of papers and products. Some labs engage their boards and/or their advisory committees in the process. Data are collected in a wide variety of ways, including surveys of users, feedback forms collected after forums and workshops, and evaluation research conducted either by lab staff or subcontractors. Quality is assessed through judgments based on implicit or explicit technical or professional standards and is conceptually distinct from impact.

Utility is a more complex concept than it may appear at first. It is most commonly measured by asking clients whether they find a product or service to be useful. But is this an opinion or a

Judgment based on use? Examination of SA reports reveals that the data cited often represent judgments of potential usefulness, but as an opinion it overlaps with client satisfaction, which we have shown as a separate criterion. No labs seem to have identified utilization as a criterion in their design, although at least two actually study patterns of utilization by primary and secondary clients through tracer studies (AEL and SEIL). Being useful also implies something about impact or effectiveness, another criterion. It seems to me that the most analytically distinct concepts are use, client satisfaction, and impact, and that utility is some murky combination of the three.

Impact, sometimes termed "effectiveness," would seem to be the ultimate criterion for lab assessment. but this is one of the most controversial issues in the laboratory program, with respect to both self-assessment and OERI evaluation. One problem is the difficulty in distinguishing lab impact from other influences. This problem is compounded by the fact that OERI, in attempting to leverage its scarce resources, has mandated the "with and through" or indirect strategy, yet seems to demand evidence of impact at the classroom level. At the same time, education is acknowledged to be a loosely coupled system or configuration (see Chapter I above) in which ideas and products do not flow smoothly from one organization or position to another.

It may be helpful to give some examples of impact data collected by labs in FY 1987. As mentioned earlier, there is a general feeling that it will be more appropriate to measure impact

toward the end of the five-year contract period. Nevertheless, some impact data relating to the improvement strategy are presented, which in many cases tend to be simple counts coming out of documentation systems, such as the number of documents distributed, the number of conference participants, etc. Such indicators tend to fall considerably short of measuring educational improvement; they are closer to being a measure of effort or activity.

Other assessments come closer to the mark. RBS, for example, has staff identify the type of impact that can be expected from each project or activity and then asks clients to rate the product or activity on those impact criteria. The potential impact areas are (RBS Self-Assessment Report, FY 87, p. 81):

- o Increase awareness in particular area
- o Provide input for decisionmaking
- o Increase networking or collaboration
- o Provide products and materials
- o Improve organizational climate
- o Improve planning, administration and management
- o Improve classroom teaching
- o Increase staff capability in other areas
- o Improve instructional resources
- o Increase student learning
- o Increase parental involvement in schools

It should be noted that these are client ratings and not direct measures of impact. Note also that all of these except one ("increase networking or collaboration") are indicators of the impact of the improvement strategy, not the linkage strategy. They seem to be a mixture of proximate and more ultimate impact indicators. (The "provide" items may not be measures of impact at all.)

More direct measures can be found in tracer studies and special studies, which gener lly means an evaluation research project directed at a specific project or product. Both AEL and SEIL had their self-assessment subcontractor use a tracer methodology to study the spread and use of lab products.

NWREL is testing a conceptual framework that posits a six-stage continuum of impact as follows:

- o User satisfaction
- o Acquisition of knowledge and skills
- o Use in planning
- o Use in implementation
- o Indirect outcomes
- o Direct outcomes

Note that this framework defines user satisfaction, which we had listed as a separate criterion, as stage one of impact. This schema was tested in a case study of evaluation by NWREL'S Center for Performance Assessment and appears to hold promise.

While all labs express their desire to measure impact and provide some data that are at least proxies, they approach the issue with understandable caution. Given the problems of multiple causation in social phenomena. the methodological and theoretical tasks of screening out other influences to measure lab impact, especially more distal impacts, are considerable if not insurmountable.

We have listed client satisfaction as another evaluation question because it has been identified separately in some of the suggested guidelines, but, as noted in the NWREL scale, it can also be considered as one of the types of impact. Questionnaire surveys

and telephone interviews are used by a number of labs to elicit expressions of satisfaction.

Evaluation Questions for the Linkage Strategy. Although the development of appropriate linkage strategies, particularly for working "with and through" other regional organizations, has been identified as one of the cornerstones of lab operation, the specification of related evaluation questions has been relatively weak. The one most on target appears not in the RFP discussion of SA but as one of six questions posed by the OERI evaluation:

> Does the laboratory have productive working partnerships with organizations in its region whose cooperation is required to accomplish mutual objectives?

Even this question is somewhat limited in that partnerships is only one mode of relationship, althougn it might be interpreted in a more generic sense. Several labs do list the organizations they work with and the networks they have helped to form, but the quality of those relationships is often difficult to judge. In Table 4 we have used the more generic term "interorganizational arrangements" to include all evaluation questions that focus on the establishment of effective partnerships, collaborations, networks or other working relationships. Only four labs seem to have such a focus (FWL, NE/I, NWREL, and RBS).

NE/I shows an explicit concern with assessment of the linkage strategy. This emerges as a second tier of evaluation questions appearing under the heading of laboratory effectiveness and impact:

> within the framework of [the five overarching goals that frame and structure the work of the lab], impact within

> the region can be thought of as successfully developing linkages; serving as a clearinghouse of improvement resources and knowledge; infusing knowledge from the research and development community into regional activity; implementing dissemination and assistance activities; and supporting school improvement efforts. (NE/I Year 2 Self-Assessment Report, p. 16).

These questions are then addressed under the following headings of the report (ibid, pp. 16-20):

- o Convening, facilitating, and empowering
- o Increasing capacity
- o Broadening perspectives
- o Disseminating and promoting research

NWREL identifies an "institutional function" that corresponds to the linkage strategy: "To what extent does NWREL promote communications and linkages among constituents and policy makers?" The focus question is, "Does NWREL encourage an exchange among regional networks of constituents?" This question is addressed in relation to five "categories of networks":

- o NWREL's Board of Directors Program Committee
- o Program policy boards
- o Advisory committees for NWREL's areas of emphasis
- o Special target populations
- o School improvement organizations throughout the region

The quality question is, "Has NWREL enhanced the leadership capabilities and linkages of its constituents?" The lab suggests the possibility of applying the impact continuum mentioned above to this question.

Two other evaluation questions relating to the linkage strategy appear in several forms and deal with client contact and awareness:

- o Are lab products and services reaching intended audiences?

- Are constituent individuals and organizations in the region aware of the laboratory, its program, and its products?

The second of these is a bit of a sore point because of the "with and through" strategy. It is difficult to maintain lab visibility for products and services that are usually provided by an intermediary. This may be one reason that most labs try to retain some element of direct service. Only a few labs address these questions.

Evaluation Questions for Organization/Management. The fourth type of criterion question concerns measures of management performance that are more general in nature and not tied to lab mission. Two have been identified.

Efficiency, a common managerial standard, is difficult to measure in the lab context. Even though it is identified as a criterion in the RFP, no lab has actually attempted to measure it. RBS includes it in its design but has postponed measuring it until 1988. They define efficiency in terms of "whether [the] laboratory's programs, services, and products are performed in [a] cost-conscious manner with [a] minimum of waste and duplication of effort" (FY 1987 Self Assessment Report, p. A-2). This determination is made by the Executive Director and the Institutional Review Team by reviewing the laboratory's management systems, project plans, and project data base. To develop some measures of efficiency that could be used for cross-lab comparisons might require that OCRI sponsor a special R&D project.

The second managerial criterion concerns the lab's capacity for

conducting self-assessment. This criterion is mentioned only in the OERI evaluation plan as a possible optional SA issue. Four labs provide a discussion of their SA capacity, and, as we shall see below, a number have a goal of using the SA process to improve their SA system. To obtain a third-party perspective on their SA efforts AEL and SEIL employ external evaluation contractors and FWL and NWREL engage external advisory panels. Both McREL and SEDL used reports of OERI site review teams to modify their SA systems. Perhaps some kind of measure of capacity could be derived from a consideration of the mechanisms employed.

Purpose Questions

The other major type of evaluation question we have termed "purpose questions " Each identifies a purpose to be served without specifying the criteria to be employed. The other side of the purpose "coin" is the use to be made of the SA data. In some cases the data from criterion questions can be used, but in others additional measures would need to be identified. The data in Table 5 represent a mixture of stating the purpose in the evaluation design and citing examples of the use made of SA data.

Improve Lab Programs. The improvement of lab functioning is probably the central purpose of SA. This purpose is served at project, program, and institutional levels and includes both the fine-tuning of current work and the planning of future work. For the most part the use of documentation and evaluation data concerning specific projects and activities for the formative evaluation/improvement of products and services is too detailed to

be reported. Most of this occurs at and is the responsibility of lower echelons and is part of day-to-day operations. Some labs report this kind of detail, while others prefer summaries and interpretations based on it. At the program and institutional levels labs use SA findings to continue, discontinue, restructure, and plan programs, reorganize the structure, and change strategies. Some examples:

> SEDL found that its Task 3 activities, which were essentially the dissemination of its programmatic theme outcomes to state decisionmakers, were too proactive and not in a position to respond to the emerging needs expressed by clients. As a result they decided to begin a wholly new program (ED-AIDE) in 1988-90 that represented a 180 degree change, i.e. to a program featuring limited short-term/rapid-response activities for regional partners and appropriate resource development activities.
>
> RBS had operated its Task 3 program on a state-by-state basis. However, feedback from state liaisons indicated increasing awareness of common or overlapping concerns. Recommendations have been made to disseminate information on project activities in one jurisdiction to the other four, and to promote project activities that encourage and involve multi-state participation.

Improve Lab Organization/Management. Several labs had external peer review teams or contractors that examined issues of lab governance and administration, including staff development and the improvement of self-assessment itself. Examples of recommendations and changes emerging from these processes are:

> NE/I expanded the Executive Committee of its board from 10 to 12 and from two chiefs to three in order to address concerns about the level of board and especially chief involvement.
>
> The FWL Evaluation Advisory Panel recommended that "You should stop trying to produce good evaluation data, beyond the required minimums, across all

projects. Rather, you should work intensely with two or three projects that seem to have a high level of interest or capability to work on formative evaluation or documentation case studies. Second, you should develop a minimal set of institutional-level accountability indicators." (FWL 1987 Self Assessment Report, p. 48.)

Staff development is listed as a purpose of SA only by NCREL, but no examples are provided. Some recommendations for strengthening staff development emerge from other activities in other laboratories (FWL and NE/I).

Comply with Contract Requirements. Contract compliance is a purpose more appropriately served by the annual reports, but it appears to be a central feature of the SA reports from AEL, McREL, SEDL, and SEIL . Some minimal pragmatic learnings can be gleaned from examples of "we were unable to do X because of barrier Y." But endless spelling out of program, project, and activity workscopes and outcomes can be deadly. OERI might consider shifting to a management-by-exception mode to avoid this difficulty (as well as designating the annual report as the place to report compliance information).

Increase General Knowledge. The RFP gives some salience to the goal of building the knowledge base concerning "effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working" (p. 21). Only four labs state this as a purpose of their SA efforts, although more than four actually report on "learnings" from SA activities. Some even commissioned special evaluation studies with external contractors.

An interesting gap exists between the empirical findings of SA

activities on the one hand and statements concerning the knowledge gained on the other. Most of the reported data-based learnings are pragmatic and ad hoc bits of craft knowledge. It would take a major effort to sift through them to find patterns and consistencies. However, several labs, notably FWL and NE/I, have provided thoughtful discussions of major strategic issues that are informed by experience but not clearly derived from SA studies. Such discussions are valuable and should not be discouraged. But there is a desperate need for some theoretical and methodological frameworks that would enable the design of SA studies that might lead to more general principles. Dunn's work on the ADD model and a theory of applications is an example of what is needed (Dunn 1986 and 1987).

Model/Image.

While some labs approach SA and its related evaluation questions in a somewhat ad hoc manner, others refer to a more unifying model or image. Some of these appear more in the design than in the execution, but they give a further clue as to SA aspirations. Although we have indicated at least one model or image for every lab, some had to be inferred. In some cases an explicit framework is laid out and followed, while in others the image may be part of a background discussion. Although in most cases there is only one such model or image, FWL has referred to five.

Systems/CIPP. It is fair to say that all labs use systems concepts at least implicitly, and that systems concepts are

implicit in the RFP. They all employ systems diagrams that show the flow of information between units, with feedback loops, etc. AEL uses an explicit input/output model that shows lab output as an input to service delivery organizations. NCREL incorporates the CIPP model (standing for context, input, process, and product evaluation) in its design. (Note that context evaluation corresponds to needs assessment.)

Management Quality Control. Virtually all labs view SA as a tool of management for maintaining control of operations and assuring accountability. In some labs this perspective is the figure and in others the ground. Whether there is an explicit three-level organizational design, project information is reviewed by program heads, and program information is reviewed by top management and the board.

Strategic Planning. We have said that the overall planning model under which the labs operate and of which SA is a component is strategic planning. In the SA context it comes into play primarily in addressing the relevance evaluation question.

Goal-Free Evaluation. The models or images discussed so far all represent forms of goal-based evaluation. The need for accountability under government contracts dictates at lease some use of such models. Some labs (FWL and NCREL) also aspire to use goal-free evaluation or its variants, but how this view is implemented is unclear.

Institutional Renewal. Finally, "institutional renewal" is the term we have given to an image in four labs. This image seems to

be related to the fact that SA is part of the planning cycle and through successive iterations of that cycle the institution is continuously renewing itself.

Mechanisms for Implementation of Self-Assessment

The mechanisms for implementation of SA are the ways of collecting SA data and the organizational arrangements for review and decisionmaking. It is helpful to examine these mechanisms at three different organizational levels: the institutional, program, and project. (Some labs incorporate this three-level schema in their SA designs; for others we have inferred it.) Lab profiles are shown in Table 5. Some labs say that they have three-level SA systems but have limited the SA report to institutional level assessment. However, some program and project level information is contained in these reports.

Institutional Level. SA is employed by top management and the lab board to review the overall program in relation to the lab mission. Both external and internal mechanisms are employed.

Since 1980, RBS has used a three-person external peer review team, the Institutional Review Team, to provide an outside perspective on lab functioning. The team meets twice a year and focuses on different aspects of the lab as the need arises. It had a constant membership for several years, but will begin rotating the membership in 1988. One of the outcomes of the SEDL SA process was the decision to add an external peer review team to its SA system in 1988-90. To emphasize a more reflective look at institutional improvement, the team was given the interesting name

Table 5. Mechanisms for Implementation of FY 1987-88 Self-Assessment Designs

Mechanism	AEL	FWL	McREL #	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
A. INSTITUTIONAL LEVEL									
1. EXTERNAL									
a. Peer review			*				X	**	
b. Subcontractor									
1. Meta eval SA	X						X		X
2. Gov/Mgmt									X
3. Program	X								X
c. Eval advis com		X				X			
d. State adv com's				X	X***				X
2. INTERNAL									
a. Mgmt council	X	X					X	X	
b. Mgmt retreat			X				X	X	
c. Portfolio review		X							
d. Eval position	X	X			X	X	X	X	X
e. Bd review	X	X						X	
f. Task 5 theme	X	X	X	X	X	X	X	LL	X
g. Compliance rev	X	X	X						X
B. PROGRAM LEVEL									
1. Advisory Com	X					X	X		
2. SA report focus	X		X	X			X	X	
3. Match needs asses		X	X			X	X		
C. PROJECT LEVEL									
1. DOCUMENTATION		(NO PROFILES AVAILABLE)							
a. Phone logs									
b. Request logs									
c. Field contacts									
d. Meeting minutes									
e. No. copies									
f. etc.									
2. EVALUATION									
a. Int qual asses	X			X	X		X	X	X
b. Ext qual asses		X			X		X	X	X
c. Feedback mech					X	X		X	X
d. Tracer studies	X							X	X
e. Special studies	X	X		X	X	X	X		

McREL data from 1986 SA report. Final 1987 SA report not yet available.
* McREL preliminary 1987 report used OERI site review panel report as focus.
** SEDL will add an external peer review panel in 1988-90.
***Dissolved in 1988

IR^3 Team, standing for institutional review, reflection, and renewal. A different kind of external peer review is provided by the OERI site review teams. A number of labs report the comments of these teams and their responses to them. A preliminary draft of the McREL 1987 SA report took the form of responses to the comments of its OERI site review team, but this report is not the one cited in our tabulations.

In other cases, subcontracts are let to external organizations to perform specific evaluations. Both AEL and SEIL use this device and employ this method for obtaining a meta evaluation of the lab's own SA efforts as well as evaluations of lab management and programs. The SEIL subcontract also examines lab governance. In both cases, subcontractors conducted tracer studies of specific lab programs.

Another external device is use of an external advisory committee specifically to advise the lab on its self-assessment design and operation. FWL employs such a group. In operation this group seems to go beyond this charter at times to function more like a peer review team for the total lab operation. NWREL employs a "consultant review panel" but provides little information on its operation.

State advisory committees, which provide needs assessment input, often function as an SA mechanism as well. Some labs use thes committees to review lab documents and products as part of the quality assurance system.

Other mechanisms are internal to the lab. Four labs mention

some form of top management council consisting of the executive director and program heads that advised the executive director. The mechanisms used by boards vary and are not always easy to identify. Where the lab is part of a much larger organization there is usually a subcommittee with special lab oversight responsibilities. FWL has devised a specific technique modeled after financial investment models called portfolio review:

> To accomplish the review of the entire portfolio, a four-part form is used. In part one, the portfolio is scanned and...seven questions are answered pertaining to: risks; probability of payoff in terms of affecting school or classroom improvement; benefit-to-cost ratios; helping the Laboratory to develop or improve its capabilities to work with and through other agencies; improvements in the capacity to serve as a regional laboratory; successful cost-sharing; and maintaining a good reputation with key constituencies.
>
> ...the primary purpose of these questions is to promote discussion among staff that engender better common understanding of the strengths and weaknesses of the total program...
>
> Part two of the review is a scan of developmental areas. This scan responds to six questions: identify potential activities that would help FWL respond more effectively to emerging needs; which client groups are served least well; assistance strategies that are most strongly represented in the current program; promising technical assistance strategies that are most lacking; the most productive or promising things the Laboratory is doing in developing an effective and efficient R&D support capability; and the most critical or important capabilities that are needed to be more effective in meeting regional and national expectations for a regional laboratory.
>
> Part three is an evaluation of the total portfolio. Again, a seven-point agreement rating scale is employed...ranging from low to high agreement. The instructions are, "Considering the present set of activities contained in the Regional Programs portfolio, how would you rate the portfolio on the following characteristics?" [fifteen characteristics]

> Part four of the portfolio review is a contingency planning exercise, which calls for responses to...three questions [hypothetical ten percent increase in funding, ten percent cut, and] what do you see as being the most promising things we could do to increase the return on investment of our present set of resources?
> (FWL Second Annual Self Evaluation Report, pp. 11-13, italics in original).

This illustrates how a technology can be developed to implement aspects of SA.

Seven labs have designated a specific internal evaluator position in the office of the executive director as the locus of responsibility for lab SA. In others, this is a responsibility of some other official. Specific sub-tasks may be delegated to line units.

There is a Task 5 theme for SA, for which SEDL is the lead lab and in which all labs participate. Meetings of staff responsible for SA have been held and labs have shared their SA reports with each other. A report on FY 1987 activities lists four objectives of this of the collaboration (Hoover 1988):

- To strengthen each individual institution's evaluation efforts by sharing expertise and ideas concerning laboratory evaluation purposes, designs, implementations, and results
- To assist the planning and implementation efforts of OERI as it carries out its responsibilities in Laboratory evaluation by providing input on effective and efficient ways to collect and use laboratory evaluation information
- To provide a broadened perspective on laboratory operations by synthesizing evaluation information on the effectiveness of selected major laboratory strategies
- To enhance planning for subsequent laboratory efforts by monitoring current trends in laboratory evaluation

work and reporting on accomplishments of the collaborative

Program Level. For the most part the designs say relatively little about special mechanisms at the program level. Basically SA at that level appears to consist of review by the program head and his or her project directors of project level data. A number of the SA reports are organized by program. This is probably the primary level for the conduct of compliance reviews. Program advisory committees are a specific mechanism used by three labs. But it is hard to find mechanisms for determining whether the programs are more than the sum of their project parts.

Project/Activity Level. Most SA data are collected at the project/activity level. Labs attempt documentation of many aspects of their operation. For example, they maintain logs of phone calls, document requests, field contacts, etc. As mentioned earlier, AEL listed 28 forms of documentation; but not all labs provide such lists, and no attempt will be made here to profile all documentation activities.

We will attempt a more specific profiling of evaluation mechanisms. Most labs have some form of internal quality assurance that reviews reports and products for editorial and technical quality. Five have external quality assurance systems as well. For the most part this consists of using rating forms, which are also used as feedback mechanisms to determine the reactions of participants in workshops and in other meetings. Such mechanisms may provide important formative data to lab writers and developers

but are rarely of general interest.

Special mention needs to be made of tracer studies and other special studies that use more sophisticated designs to evaluate specific projects. Both AEL and SEIL employed outside subcontractors to conduct tracer studies to determine whether impacts could be traced from primary clients to secondary clients (both with disappointing results). SEDL attempted to build tracer data into its documentation system, but had little success.

Comments on Planning

Conceptual Issues

This chapter has covered a lot of territory. The implicit strategic planning model has included needs assessment, regional capacity, and self-assessment. The position taken here is that planning is the best term for this complex set of operations focused on the use of information for decisionmaking. One problem encountered is that each of the components of planning has tended to be "imperialistic," i.e., each component concept tends to expand to include territory claimed by the others. For example, needs assessment, as conceptualized by Kaufman, has been expanded to include the entire territory we have termed "planning." Similarly, evaluation has been used for the same purpose in the CIPP model . In the present analysis self-assessment starts as a discrete component of the strategic planning process, but when one examines the self-assessment reports they seem to include far more than self-assessment "properly so-called."

Under these circumstances, it is not surprising to see certain kinds of information appearing in multiple reports (i.e., plans, needs assessments, self-assessments, and annual reports). The labs and OERI need to work together to sort out the several purposes and reports so that each kind of information has its proper place. The need is to narrow the scope of each component concept to avoid overlap and exclude extraneous matters. In the sections below I will comment on each of the concepts and suggest some steps that might be taken to achieve this.

Needs Assessment

On the whole, labs seem to do a reasonably good job of assessing the needs of their regions. A variety of methods have been tried and many produce useful information. No doubt lab staff members have an even better "feel" for their regions than emerges from their formal methods.

Nevertheless, there are improvements that might be made. One need is some conceptual clarification as to the various possible types of need (see above). Another is to recognize that needs exist at different levels of generality. It is useful to distinguish three levels of generality, i.e.:

- o Level of educational functions: e.g. improve teaching
- o Level of choice: e.g., improve beginning teacher induction
- o Level of design decisions: e.g., best ways to design a mentor teacher program.

The level of educational functions is largely inappropriate for needs assessment. Every lab should have the capacity to provide

services for each of the major functional areas of education. (I say "largely" because there is the secondary consideration of the balance of effort among these areas.) At the other extreme, the level of design decisions, choices should be based on the best available research and craft knowledge; i.e., the decisions are technical decisions. Needs assessment should be focused on the middle level of generality, i.e. the level at which values and interpretations of the regional context operate.

Regional Capability Assessment

As indicated above, this was the most poorly implemented component of the planning model. No doubt the labs have better information on this topic than appears in their reports, if only the personal knowledge of the staff. However, we cannot understand whether this component is contributing to the planning function unless this knowledge and its application are made explicit. While an important start on the methodology of this assessment was made by the ARROE Study (Frankel et al 1979), elaborations are needed to make the measurement of organizational capacity commensurate with other elements of the planning model, i.e., needs or policy domains, improvement capacities, and linkage capacities.

Self-Assessment

The sorting out of multiple purposes needs to take place primarily in the self-assessment component. A number of the labs used a three-level model that identified SA questions and mechanisms at institutional program, and project levels.

Not all these levels are appropriate. The 1986 SA reports

included a much formative evaluation data from the project level. The older labs have a strong background in development, and they collect a significant amount of data aimed at making design decisions for fine-tuning product development. However, even here there are problems. For the most part these studies have yielded a large amount of craft knowledge that has yet to be codified and has only limited potential for building a knowledge base of more general application. Most evaluation is "black box" evaluation; e.g. clients are asked to evaluate some product whose characteristics have not be specified and for which the strategy for bridging organizational space has not been described. Where are the studies that compare the effectiveness of two workshop formats for the same type of audience or of one format with two types of clients? Where are the studies that compare two ways of organizing networks?

It was recognized that most of the formative evaluation data supplied in the 1986 SA reports was not very useful for SA purposes, and most labs complied with a request to reduce the amount of this detail in their 1987 reports. The next step would be to recognize that formative evaluation data are part of the development process and should be excluded from self-assessment. The relevant SA question would be: "Do we have adequate methods of formative evaluation in place in each program?"

Similarly, a great deal of the documentation data (phone logs etc.) may provide a useful descriptive context, but they are either grist for the formative evaluation mill or mere counts that require

interpretation if they are to be understood in a self-assessment context.

Also, detailed contract compliance data are not the stuff of thoughtful consideration of lab mission and strategy. They belong in quarterly and annual reports, not self-assessment reports, and there only on a management-by-exception basis.

It is recommended that self-assessment (reportable to OERI) be limited to the institutional and program levels and focused more sharply on two aspects of lab operation: issues of organization and governance (e.g., is the lab organized in accordance with and operating within its mission?), and issues of strategy, (i.e., is the lab responding to the needs of the region, is it using the best improvement and linkage strategies, and is it contributing to the knowledge base concerning these strategies?). It appears that, with few exceptions, lab SA is not focused on the strategic questions of lab operation. (The notable exceptions are the AEL study of the study group methodology and the AEL and SEIL tracer studies.)

Another problem is the unavoidable overlap between SA and OERI's desire to evaluate the laboratory program as a whole. Given the history of prickly relationships between the labs and the government and the labs' strong sense of vulnerability, is a surprising amount of candor appears in their reports. While it is understandable to want to put a good face on everything, the labs acknowledge numerous problems and weaknesses.

More candor might be forthcoming if more of a separation

between self-assessment and OERI evaluation could be achieved. One suggestion would be to try a different set of labels. "Evaluation" and "assessment" are terms that automatically trigger defensive mechanisms and stifle the intended learning and renewal purposes. Problems might be avoided by legitimizing a laboratory research program to study laboratory operations and functions, thus helping to move the labs away from their excessively empirical approach toward a more theoretically relevant agenda. The research fields involved include interorganizational theory, knowledge utilization, dissemination, and social change. Labs should be contributors as well as consumers of research in these fields.

A limited amount of work of this kind has been done, e.g., AEL's examination of the effectiveness of study groups as an R&D methodology and the SEIL tracer studies.

Reprise on Rational Planning

While planning is inevitably a proactive approach to problems, labs are also expected to be reactive. More than that, as sociologically marginal institutions they are constantly in the position of having to renegotiate their role in the regional infrastructure. The reports contain many examples of how, for example, a whole new relationship to an SEA had to be worked out when there was a change in chiefs. Such events create havoc with carefuly laid plans. The entire planning process needs to be examined to determine which parts have heuristic value and which ones play only ritualistic roles.

CHAPTER IV

WORK WITH STATE LEVEL DECISIONMAKERS ON SCHOOL IMPROVEMENT ISSUES

Introduction

Ever since the beginning of the educational reform movement triggered by the report of the National Commission on Excellence, A Nation At Risk, education policy issues have been much more salient at the state level. Many governors and state legislatures have placed educational improvement high on their agendas, and the National Governors' Association has issued its own report (National Governors' Association, 1986). Probably the key to the new focus on educational issues has been the realization of the importance of a strong educational system in the inter-state competition for economic development. A number of states have adopted comprehensive school improvement programs and virtually all states have undertaken specific reform initiatives that go beyond the usual financing issues. State level professional associations, and groups representing business, labor, and parents have been active in the accompanying policy debates.

However, the states vary greatly in their capacity to deal with these issues. Larger states such as New York and California have sophisticated staff in their SEAs and policy aides in the governor's office and legislative committees, but many others are ill-equipped to deal with the problems of policy formulation, implementation, and assessment. Further, states also vary greatly in the availability of non-governmental resources from such

entities as universities and research firms.

It is in this context that we examine Task 3, which requires that labs "work with state-level decisionmakers on school improvement issues." Three illustrative tactics are listed in the RFP: technical assistance, providing issue-specific analyses and syntheses, and facilitating communication among state-level decisionmakers.

Federal Specifications

Unlike Tasks 2 and 4, which involve the "with and through" strategy, Task 3 states that the lab will work with state-level decisionmakers. This may or may not be a distinction without a difference. State-level groups are intermediaries with regard to school improvement at the local level. However, if the focus is on reform at the state policy level, state-level decisionmakers can be considered direct clients and the labs will be judged on the basis of their delivery of direct services for Task 3.

But what does it mean to "work with" state-level decisionmakers on school improvement issues? It is important to note that policy making is a social process while policy analysis is an intellectual activity (Dunn, 1986). Some observers have questioned the value of professional social inquiry in affecting the policy process (Lindblom and Cohen, 1979). Perhaps this is due to the primitive state of policy analysis and the lack of a sound theory of applications (Dunn, 1986). In any case, the mission of the labs under Task 3 is to assist state-level policy-makers to make better use of knowledge at various stages of the policymaking process.

State Education Policy Consortium

In 1983 NIE funded a two-year project with the State Policy Consortium, a group made up of the Council of Chief State School Officers, the Education Commission of the States, the National Association of State Boards of Education, the National Conference of State Legislatures, and the National Governors' Association. These national organizations count as their members many of the principal state-level decisionmakers who are the targets of the lab Task 3 efforts. Among other things, the project was designed to "...[improve] our understanding of the sources of information policymakers rely on, and of effective strategies for disseminating research to policymakers" (Cohen, 1985a, p. ii. See also Cohen, 1985b; Fuhrman and McDonnell, 1985a & 1985b). In addition the study made recommendations on the roles of the Consortium associations, the regional labs, the Center for Policy Research in Education, and OERI.

The project was completed in 1985 at the time that the new labs were being organized, and a meeting was held involving Consortium, lab, and OERI staff. As a result, the labs had the results of this project available at the time their new contracts began (although not necessarily at the time the plans were written).

A major finding of the research was the strong interest expressed among all states and stakeholders in having available information on the specific policy issues being addressed by other states. The project had collected a list of state policy "data bases," many of which were collected by the Consortium

organizations, but many of these consisted of one-time studies. The report made recommendations concerning coordination and improvement in the collection of useful data by the member organizations. Three roles for the labs were suggested (Cohen, 1985b):

- o Cooperation in developing in-depth descriptions of state policy provisions, on a 50-state basis, in selected policy issue areas (initially rejected by labs at meeting with Consortium staff in 1985)
- o Conduct of studies of the implementation and impact of state policy initiatives
- o Creation of an information base of studies of state policy implementation and impact conducted by other agencies and serving policy formulation needs

Elsewhere labs were urged to adopt dissemination strategies that "allow for easy access to information, low consumption costs for the user, a direct application of information to specific state or policy contexts, and timely receipt of information. Especially valuable is the use of structured meetings that encourage an informal interaction between information users and information providers" (Cohen, 1985b, p. 67). Further, in recognition of the importance of instate sources of information, the labs should establish or strengthen instate issue networks. This would involve identifying sources of expertise and bringing them together with state policymakers. Strengthening the capacity of the State Education Policy Seminars (SEPS), jointly sponsored by ECS and IEL, was recommended. Finally, labs can play a strong role in connecting state policymakers with national and state R&D networks and in studying local district and school responses to state

improvement initiatives.

Methodological Issues

This is the first place that we encounter a methodological issue common to Tasks 2-5, namely the choice of a unit of analysis. The most detailed analysis could be done if we could identify and classify each project or activity conducted over the two-year period. However, this is difficult, if not impossible, for several reasons. First, while some activities are discrete units of work having finite time lines and determinable characteristics, others are ongoing services of a more open-ended nature (e.g., data base maintenance). Second, the amount of information available and the conceptual frameworks used vary greatly from project to project and from lab to lab. Third, there is no uniform way of structuring work into programs, projects, activities, and sub-activities. As a result, cruder methods are used here that apply to the entire task area for each lab, indicating either presence or absence of a particular tactic, or sometimes a degree of emphasis (high, medium, low). Based on these data, the attempt will be to find patterns indicative of broader strategies.

Organization of Chapter

The following sections describe lab activities under Task 3 for the three strategic dimensions of linkage strategy, improvement strategy, and educational need; identify the policy stage most frequently addressed; examine the national coordination of state policy activities; and then present a holistic picture of each lab's Task 3 program. Comments summarizing the analysis appear at

the end of the chapter.

Findings

This task has the three strategic dimensions of the cube presented in Chapter I.

First, each lab needs to design a linkage strategy by deciding who its primary clients are and how it will relate to them. (Note that such "designs" allow for the possibility of opportunistic strategies.) A lab is expected not only to mediate relationships among organizations within the region but to provide access to national resources. Lab regional services should complement national resources with more context-specific assistance.

Second, each lab needs to design an improvement strategy in terms of some mix of KPU functions as they apply to selected stages of the policy process.

Third, each lab needs to determine whether it will attempt to work across a more or less comprehensive set of policy issues or domains or focus on a limited number of such issues, and, if the latter, which ones.

Cross-cutting these dimensions is a distinction concerning the goal of the activity: is the activity intended to <u>build capacity</u> for policy analysis (either the lab's or that of some other entity) or to <u>do</u> policy analysis?

Although the focus of this chapter is on Task 3, one of the themes developed under Task 5 (cross lab coordination) deals with state policy also and is addressed here.

State Policy Linkage Strategy

Profiles of the linkage strategies employed by labs in their second contract year are shown in Table 6. This table should not be taken as definitive because a service not shown in the table might be found under another task. In addition, data are derived both from plans and from progress reports, and sometimes discrepancies appear. Nevertheless, the table is indicative of broad patterns.

Table 6. Profiles of Lab Task 3 Linkage Strategies for Working with State-Level Decisionmakers on School Improvement Issues.

Linkage Strategy Component	Laboratory								
	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
1. Collaborators									
a. Regional	HE	SPA	SEPS	SEAs	SEA,HE		ISA		HE
b. National	CVE			CPRE	ECS	ECS		CPRE	CPRE
2. Clients									
a. Primary	CH	CS	S	CS	CS	CS	S	SG	CH
b. Range	N	B	M	B	M	B	N	M	M
c. Type	N		O	AH		O	O	O	N
3. Communication									
a. Approach	S,R	R	S,R	S	S	R	S	S	R
b. Type	M,R,B	R	C,M	M,R	M,R	R,M,P	P	B	R

LEGEND:
1.a. Regional Collaboratorrs: Higher Ed Instituions; State Prof Assoc; Intermediate Service Agency
1.b. National Collaborators: CPRE, CVE (Center for Voc Ed); ECS (Ed. Commission of the States)
2.a. Primary Clients: Chiefs, SEAs, State Gov't, Cross Section
2.b. Range of Clients: Narrow, Medium, Broad
2.c. Type of Clients: Ad Hoc, Network, Organization
3.a. Communication Approach: State, Region
3.b. Communication Type: Meetings, Reports, Briefings, Consultations, Products

The three major dimensions of the linkage strategy are "three C's": collaborators, clients, and communication modes.

Collaborators. Collaborators are not nearly as significant for Task 3 as for Tasks 2 and 4 because the "with and through" strategy is not involved. At the national level, the Center for Policy Research in Education at Rutgers University cosponsored regional policy symposia with NCREL, SEDL, and SEIL, and the Center for Vocational Education collaborated with AEL. ECS worked on projects with NE/I and NWREL. Regional collaborators include SEAs, Intermediate Service Agencies, Institutions of Higher Education, and SEPS units (which, of course, are instrumentalities of two national organizations, ECS and IEL).

Clients. The number of possible groups to serve is considerabl A list of the major potential clients would include:

- o Chief state school officers
- o Other SEA personnel
- o State board of education
- o State higher education CEO and board
- o Governor
- o Governor's aides
- o Legislators
- o Legislative aides
- o State professional associations
- o State business associations
- o State labor associations
- o Other state advocacy groups
- o Intermediate agencies
- o LEAs

The latter two categories are included because they are sometimes involved in lab-sponsored meetings even though Task 3 is directed at state-level decisionmakers.

While there may be a desire to work with all these groups,

limited resources, the number of states or other units to be served, and other considerations require some choices. The issues that arise regarding client selection are:

- o Which groups are given primacy?
- o Is the range of clients broad or narrow?
- o What form does the client group take?

Although, in a sense, SEA's are the primary clients of all labs, the variations on this theme are considerable. For AEL it is hard to overestimate the centrality of the chiefs as significant others. They all serve on the Board of Directors and collectively constitute the Council on Policy and Planning, which serves three functions: (1) it has special responsibility for reviewing lab projects regularly and recommending to the Board any changes in overall lab direction; (2) it serves as the Advisory Board for the Policy and Planning Center (i.e., the Task 3 program); and (3) individually, the Council members are the primary clients of the Policy and Planning Center.

For most labs the SEA as a whole is the primary client. RBS goes further than any other lab in defining itself as an adjunct to SEAs. (For details see the RBS configuration below.) Most labs also try to relate to other elements of the state government, i.e., the governor's office and legislative committees. SEDL seems to have the most balance in its attention to the several components of the state government.

Four labs deal with a cross section of state-level decisionmakers that goes beyond state government to include state professional associations and various advocacy groups (FWL, NCREL,

NE/I, and NWREL). (Not that other labs exclude such groups; it is a matter of emphasis and balance.)

This discussion leads into a characterization of the range of clients as narrow, medium, or broad. The coding on this factor in Table 3 is admittedly impressionistic but takes us a step beyond identifying the primary client. AEL and RBS seem to have the narrowest focus on state-level decisionmakers, and FWL, NCREL, and NWREL the broadest.

Finally, the **type of client** may be a formal organization, networks of individuals, or ad hoc collections of individuals. Coding of this item is particularly difficult because the individuals served invariably have roles in client organizations. But it makes a big difference whether the individual is involved for personal reasons (e.g, professional development) or organizational reasons (e.g., implementation of a training program). As we shall see below, at least one lab made the mistake of selecting for a trainer of trainers program individuals who had no organizational responsibility for inservice training.

For Task 3 most labs seem to emphasize the formal organization as the client. For example, NWREL has a broad clientele and often makes presentations at meetings of professional associations and other groups. In a number of cases networks have been established among legislative aides in different states or among legislative aides, governors aides, and SEA policy representatives. We also classified the chiefs involved with the AEL Policy and Planning Center as a network, although it might be considered a formal

organization. Unfortunately, it is often difficult to tell from the documentation whether those involved in an activity constitute a network or an ad hoc group.

State and regional policy forums and symposia usually have an ad hoc participation depending on the topic, but may involve continuing networks.

Communication Mode. The third facet of the linkage strategy is the mode of communication. A major difference in communication approach occurs between activities that are organized on a state-by-state basis and those that are organized regionally. Determining which is more appropriate will depend on a number of considerations. To the extent that states within a region have common problems and interests, a regional approach is feasible; where there are considerable differences among the states, dealing with them individually may be required. There is a continuing tension between the need to be responsive to varying needs and contexts and the need to bring broader perspectives to bear on problems that are rarely unique. Many labs have opted to work with the State Education Policy Seminars (SEPS) jointly sponsored by ECS and IEL, and this format requires a state approach. In other cases labs have cooperated with the Center for Policy Research in Education (CPRE) in organizing regional policy symposia. Aside from meetings, most direct services such as those provided to chiefs and SEAs are organized on a state basis. SEDL has made a special effort to provide more or less identical services to each state in its region, but to organize them by state, not by region.

(Interview with institutional liaison).

Many types of communication are employed, including meetings, reports, briefings, consultations, and products. Meetings in their various forms (symposia, forums, conferences, etc.) generally involve the widest array of participants. Meetings and reports in various "Dunn types" (i.e., policy issue papers, policy briefs, policy news releases) are common to almost all labs. SEDL is noteworthy for its frequent use of briefings for state personnel and its attempt to use an electronic bulletin board (later abandoned). Both FWL and NE/I have consulted directly with legislative committees on specific pieces of legislation.

Policy Improvement Strategy

The services offered as part of the policy improvement strategy are shown in Table 7. (The caveats enumerated for Table 3 also apply here.) They cover the entire spectrum of KPU activities. (In this table an "X" is used to indicate presence of the strategy component in one or more activities or projects.)

Information Services. Clearly labs see themselves as sources of knowledge in the broadest sense. In the first instance, this takes the form of a number of specific information services. These are separated in the analysis from other improvement activities because they are primarily capacity-building functions; they provide an information resource that facilitates the actual performance of policy inquiry. Information services include:

- Development of several types of databases
- Preparation and dissemination of reports based on

these databases

o Provision of search and retrieval services.

Labs may either use their own resources or help clients find other resources in or outside of the region.

Table 7. Profiles of Lab Task 3 Policy Improvement Strategies, and Policy Stage Emphasized.

Profile Component	Laboratory AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL
A. POLICY IMPROVEMENT									
1. Information									
a. DB Develop		X	X			X		X	X
b. DB Reports	X		X			X		X	X
c. Search/Retr	X		X				X	X	
2. Policy KPU									
a. Research									
b. Evaluation		X					X		X
c. Anal/Briefs	X	X	X	X	X	X	X	X	X
d. Development						X	X		X
e. Tech Assist		X	X		X	X	X		
f. Staff Devel			X				X		
g. Demonstration							X		
B. POLICY STAGE	A,F	A,F,E	F	F	F	A,F	I,E	F	F

LEGEND:
A. Policy Improvement: X = present
B. Policy Stage Emphasized: Agenda, Formulation, Implementation, Evaluation

The specific nature of the databases is not described in detail in the documentation reviewed. In many cases databases consist of materials in a file drawer or library collection. In some cases a formal content analysis of the document has been prepared. Retrieval and analysis are often manual but in a few cases files have been entered in a computer and can be retrieved and analyzed

electronically. Overlap with Task 1 is suggested by the inclusion here of databases on indicators (education, social, demographic, economic, etc.) and educational issues.

The study of information needs of state policymakers by the State Policy Consortium found a great interest in the policies and reform initiatives of other states (Cohen 1985a). Four labs indicate that they are tracking this information for states within their region (FWL, NE/I, NWREL, and SEIL). The national associations involved in the State Policy Consortium (see above) have collected this kind of data from time to time. However, for reasons that are not clear, the state policy coordinators, meeting to plan cooperative activities under Task 5, rejected the idea of all nine labs cooperating to produce this database. (The "policy issues matrix" adopted is used to keep track of policy issues on which the labs themselves are working. See Policy Domains section below. Only SEIL uses it to track state reform efforts.) Given the strong interest in this kind of information, its relevance to the Task 3 responsibilities of all labs, and the continuing interest of national organizations, it seems unfortunate that it has not been possible to organize a national system that would track state policies, programs, and reforms on a comprehensive and continuing basis.

In several instances there are databases on special topics related to lab programs. Thus, NWREL has a regional database of information relevant to the education of at-risk youth in the Northwest. Other specialized files include those on service

organizations and consultants.

These databases are used to provide both reports of general interest to decisionmakers throughout the region and to prepare targeted reports for given states or even to local districts. Thus, McREL reported in 1987 that during the past year it had produced a national, a regional, and two state environmental scans.

Labs typically offer search and retrieval (and sometimes synthesis) services to chiefs and other state officials. For example, AEL offers to conduct searches and prepare two syntheses for each chief in its region each year. However, a dilemma is inherent in these activities. On the one hand, demand for such services may be slow to develop (as AEL found); on the other, too much demand will strain lab resources, and labs don't want to compete with general information centers.

Policy KPU. Beyond the capacity-building activities of information services are activities or services that are ways of doing (or assisting in doing) policy inquiry. Of course this is not an entirely clear distinction in that doing something undoubtedly tends to add to the capacity for doing it. But the obverse is not necessarily true; it is possible to build capacity without actually doing. (e.g., one can learn to do arithmetic without using arithmetic to solve problems.)

Many of the labs have used conceptual frameworks developed by William Dunn to distinguish between policy research and policy analysis (Dunn 1986). In brief, policy research responds to problems identified by researchers, collects and analyzes new data,

operates in a long time frame, and uses complex methods. Policy analysis responds to problems identified by policymakers, and uses available information and simple methods in a short time frame.

In these terms only FWL conducts policy research, although two others conduct policy evaluation, which can be considered a form of policy research. In 1987, FWL conducted a research study of the link between teacher recruitment and retention and a teacher information system in California. It also evaluated the Utah Career Ladder System. RBS assisted the District of Columbia Public Schools in evaluating a career-focused dropout prevention strategy. For FWL and NWREL policy evaluation is a source of contract work that operates outside of the OERI scope of work.

Dunn has elaborated what he calls the ADD model of policy analysis, i.e., types of Analysis, Development, and Dissemination (Dunn, 1986). This schema would be useful for a more micro analysis if the necessary detailed data were available and we were able to use specific reports or projects as units of analysis. Since this is not feasible, we are using a more traditional Knowledge Production and Utilization (KPU) framework (Mason, 1982), but introduce the Dunn concept of policy analysis as a special type of research.

All of the labs perform policy analysis and/or prepare policy briefs. The issues examined will be dealt with below in the section of policy domains. Sometimes the papers are prepared for presentation at a policy forum or symposium. In other cases they are printed and distributed to selected lists of state

policymakers. SEIL has chosen to go the sub-contract route for doing policy analysis. Agreements have been reached with the Educational Policy Center of the University of South Carolina and the Center for Policy Studies at Florida State University to provide on-demand policy analyses and alternative policy configurations for state-level decisionmakers within the region. In the Dunn framework, policy briefs are shorter versions of policy issue papers; labs often distribute policy briefs as newsletter inserts.

A limited amount of development is undertaken. RBS, for example, does some instrument and handbook development as part of its assistance to the implementation of state school improvement programs.

Another form of service is technical assistance, which may take the form of reports designed to assist a specific client, or in-person consultation. McREL, NE/I, NWREL, and RBS are most involved in this type of work. For example, the New Hampshire Assistance Center of NE/I helped the Alliance for Effective Schools (a broadly based group promoting school improvement) to develop plans for a school improvement project based on a model developed for special education. Technical assistance is a source of additional contract work for some labs.

Finally, labs provide a limited amount of staff development, and in some cases develop training materials. McREL, for example, is conducting a job analysis of the knowledge, skills, and competencies needed by state agency staff to prepare for a

systematic training program in strategic planning.

Policy Stage.

As indicated earlier, the policy process is a social activity. Mitchell and Dunn, among others, have pointed out that the policy process goes through several stages and continues to recycle (Mitchell, 1979; Dunn, 1986). Their fairly elaborate models suggest that different kinds of policy relevant information are most appropriate for each stage of the policy process.

Table 7 characterizes the Task 3 efforts of the labs in terms of the policy stage emphasized. Labs show a marked preference for the early stages of the policy process. Policy formulation is the modal stage, and several are also active at the agenda setting. All are involved in the latter to the extent that they share the results of their needs identification work under Task 1 with state-level decisionmakers.

The clear exception to the overall preference to the early stages is RBS, which appears to operate almost entirely at the policy implementation and evaluation stages. In the years before the current OERI contact Pennsylvania, New Jersey, and Delaware had all adopted ambitious state school improvement programs. In a sense many of the major policy decisions were already made and embodied in these programs. Consequently RBS chose to focus its assistance on the implementation and evaluation of these programs.

Policy Issues and Domains

The third side of the "strategy cube" is the identification of the substantive areas of program work, whether labeled "educational

need" or "policy issue." The strategic planning design for laboratories requires that they select their programs and projects through a process of studying the needs and resources of the region (see above).

Fortunately, as part of work under the state policy theme of Task 5 (see below), a common classification of policy issues has been devised. Using this classification, a "policy issues matrix" has been established as an on-line database on the Source. This database consists of a list of 50 policy issues for which each lab indicates the nature of its involvement with the issue, using the following code:

0 Not an organizational theme or policy issue area

1 An emerging policy issue area or staff interest area

2 An organizational theme, but not specifically identified as a policy issue area

3 A short-term or one-time state policy issue

4 An ongoing Task 3 state policy issue

This database enables labs and others with access to the Source to identify labs that are working in specific policy arenas. It also enables us to analyze patterns of lab activity across policy issues. (Note that it is not limited to Task 3 activities. See next page.)

Less fortunately, the classification was not derived theoretically and thus consists of a "laundry list." As such, it may be useful for searching, but has little analytic value. To cope with this problem, a more general and theory-based

classification has been adapted that seems to have categories that are mutually exclusive and comprehensive. It was developed by Mitchell and is found in the FWL proposal (pp. II-109-110). (This classification is similar to but not identical to that proposed in Mitchell and Encarnation, 1983). The 50 policy matrix categories are mapped into the seven Mitchell classes along with one of our own. Our adaptation adds a category of policy issues defined in terms of the class of student involved (e.g., dropouts, urban) rather than an educational issue per se.

The codes used to record lab activity present another problem. In the present context we are interested in identifying the policy domains of lab Task 3 activity. Tabulating the incidence of code 4 would seem to do this, but only if we use a narrow definition of Task 3 activity, namely that it is an "ongoing" Task 3 state policy issue interest. In a number of instances labs have undertaken the study of a policy issue on a one-time basis. Inclusion of code 3, "a short-term or one-time state policy issue," would seem to provide the answer. It is not clear, however, whether this is restricted to Task 3 activities or includes work under other tasks.

Table 8 uses the broad definition of involvement, indicating the number of "policy matrix issues" each lab is involved with at either the 3 or 4 level, classified into the more general policy domain categories. (Note that the table entries are numbers of issues addressed, not the involvement levels.)

Several patterns stand out. Two-thirds of the policy issue involvements are found in three domains: curriculum and

Table 8. Number of Policy Matrix Issues Addressed at Involvement Level 3 or 4*, by Laboratory and Policy Domain.

Policy Domain	Laboratory									ALL LABS
	AEL	FWL	McREL	NCREL	NE/I	NWREL	RBS	SEDL	SEIL	
Bldg & Facilities	0	0	0	0	0	0	0	0	0	0
Curr & Instructio	1	7	7	3	1	2	0	2	1	24
Org & Governance	0	3	1	2	1	0	2	2	1	12
Prog Definition	0	1	2	2	0	0	1	0	0	6
School Finance	0	0	1	0	0	0	0	0	1	2
School Personnel	2	3	5	5	3	1	4	4	2	29
Student Type	1	6	4	3	4	2	1	0	0	21
Student Testing	0	0	0	1	0	0	1	0	0	2
Total Issues	4	20	20	16	9	5	9	8	5	96
Involvement Rank	9	1.5	1.5	3	4.5	7.5	4.5	6	7.5	NA

Source: Based on Regional Lab Policy Issues Agenda, 2/1/88
*Level 3 = A short-term or one-time state policy issue
Level 4 = An on-going Task 3 state policy issue

instruction, school personnel, and student types. No attention is given to "buildings and facilities," and practically none to "school finance" and "student testing." Both of the latter are perennial state issues, but evidently labs are not perceived as resources for their analysis.

The labs vary markedly in number of issues addressed. Both FWL and McREL address twenty different issues, FWL in five domains and McREL in six. At the other end of the spectrum, AEL is involved in only four issues in three domains, and NWREL and SEIL in five each. Only a small association exists between the number of issues addressed and budget level (see also Table 3).

National Coordination.

General. Because all labs have Task 3 scopes, state policy is a natural area in which to expect cross-lab coordination. In

addition, important national resources can be accessed by labs. A state policy theme was indeed identified under Task 5. Some national coordination takes place in connection with this theme, and some outside of it.

Labs are also expected to coordinate their work with research centers supported by OERI. In this case there is a Center for Policy Research in Education (CPRE) located at Rutgers. While several labs have worked with CPRE to organize regional policy forums, it is not clear that they have made use of research, conceptualization, or other substantive results coming from the Center.

In organizing state policy forums a number of the labs have worked with SEPS (State Education Policy Seminars) established jointly in 30 states by the Education Commission of the States (ECS) and the Institute for Education Leadership (IEL).

Labs also participate in the national scene by reporting their work at the meetings of national professional associations. Several labs provided input of state policy data at the request of the National Governors' Association.

Task 5 State Policy Theme. Each lab was required to set aside funds under Task 5 for collaborative work among the labs and with centers, national organizations with state policy interests, and OERI. A theme for collaborative work in state policy was mandated in the RFP by establishing a network of Task 3 project directors. This group has met several times in the first two years and the theme will be continued in years three through five . SEIL is the

lead lab for this theme, and all labs are participating to some degree. Several national organizations have been represented at meetings of the network.

Two objectives were established for this theme:

- To provide a means for exchanging policy resources and products
- To enhance existing policy support systems with an emphasis on increasing the capacity of labs as well as state and national agencies and support groups, by focusing on six study questions:
  - * What are the appropriate ways to do policy analysis?
  - * How do we assess and enhance capacity for policy analysis with states?
  - * What is the nature of data systems to assess and support policy development?
  - * Can we develop a taxonomy of underlying policy mechanisms?
  - * How can support groups relate to policymakers?
  - * How do we develop new strategies of policy implementation?

From the documentation available it is not possible to quantify the amount of collaborative work done under this theme. Scattered references are made to one lab providing a speaker at another lab's policy forum or making policy analysis papers available. It is not clear whether any policy analyses were done collaboratively.

The distinction between doing and capacity-building has already been introduced. The principal activities accomplished, and the main thrust of the objectives and "study questions" that guide this task theme, are intended to increase the capacity of the labs themselves and of their collaborators and clients to undertake a

more systematic and inquiry-based policy analysis function. William Dunn's aforementioned paper (1986) provides a conceptual framework for policy inquiry. A second document by Dunn in collaboration with Richard E. Basom, Jr. and Carl D. Frantz and sponsored by NE/I is the Educational Policy Development Training Handbook. As of the end of the second contract year only an outline and one prototype section had been completed.

One other noteworthy accomplishment has been the establishment of a "policy issues matrix" to describe the involvement of each lab (all programs) in selected policy issues. This database was used above for the analysis of policy domains.

Policy Assistance Configurations

The fact that it was not feasible to use the project or activity as the unit of analysis and our method of highlighting the "primary" clients, etc. has obscured the full range of each lab's activity. It will be useful here to provide a thumbnail description of each lab Task 3 program to get a better feel for total programs.

Level of Effort. Before looking at the individual program configurations, let us introduce Table 9, which shows each lab's budget for Task 3 in 1986 and 1987. The RFP specified that each lab should devote 10 to 20 percent of it's program effort (i.e., Tasks 2-5) to this work. Task 3 effort expected to be secondary to the effort for Tasks 2 and 4.

For the most part, the effort programmed for Task 3 was within the guidelines and on the high side of the range. RBS appears to

have committed resources well above the guideline level, but the figure may include some funds for Task 2.

Table 9. Laboratory Level of Effort for Task 3, FY 1986-87, and Regional R&D Organizational Resources.

Lab	No. States	Fiscal Year 1986 Amount	Amount Per State	Task 3 %*	Fiscal Year 1987 Amount	Amount Per State	Task 3 %*	R&D Orgs No. **	Rank
AEL	4	132,597	33,149	11	142,662	35,666	13	125	8
FWL	4	353,400	88,350	18	352,745	88,186	20	303	3
McREL	7	235,838	33,691	21	269,071	38,439	21	176	7
NCREL	7	179,678	25,668	16	89,700	12,814	10	552	1
NE/I	9	236,457	26,273	19	269,575	29,953	18	408	2
NWREL	7	349,662	49,952	13	275,080	39,297	10	114	9
RBS	5	583,375	116,675	28	583,375	116,675	28	291	4
SEDL	5	194,468	38,894	14	272,975	54,595	20	180	6
SEIL	6	120,913	20,152	19	123,024	20,504	15	271	5
TOTAL	54	2,386,388	44,192	19	2,378,207	44,041	17	2,420	NA

*Percent of program funds, Tasks 2-5
**Source: Frankel et al 1979

Just what can be accomplished under this task is a function of both the absolute amount of money available and the number of states to be accommodated. In 1987 the absolute amounts ranged from $120,000 (SEIL) to $583,375 (RBS). The number of states or other jurisdictions served varied from four (AEL and FWL)) to nine (NE/I). On a per-state basis, the range is from $20,504 (SEIL) to $116,675 (RBS). The range for percentage of program budget is much smaller, from 11.4% (AEL) to 27.8% (RBS). Of course there is no requirement that the same amount be spent on each state, and some activities are region-wide and not state-specific.

Between 1986 and 1987 SEDL made a significant increase in its Task 3 allocation as its thematic work reached its final

made by NCREL and NWREL. Rationales for these changes are not available.

Regional R&D Resources. One would expect that lab plans for state policy assistance would be tempered by the availability of resources for policy analysis within state government and in non-governmental organizations. Table 9 contains a rough indication of the distribution of R&D resource organizations by region as they existed in 1981. (While the numbers may have been different in 1986-87, the rank order by region was probably about the same.)

NCREL is a new lab still in a developmental stage with a small budget and required to serve seven states. NCREL spent only $25,668 per state in 1986, and even this was reduced to $12,814 in 1987. On the other hand, the North Central region ranks first in the number of R&D organizations in the region. These circumstances may account for the focus of the NCREL Task 3 program on state forums that include outside experts.

By contrast, NWREL ranks lowest in regional R&D resources and has the largest total budget, but in allocation of funds to Task 3 it ranks third on both total and per-state bases.

Further comments about level of effort and R&D resources will be made in the description of each lab's Task 3 "configuration" that follows.

AEL. AEL is in the lower end of the range for both total dollars available for Task 3 ($132,597 and $143,662) and in percentage of total budget allocated to this task (slightly over

nine percent). However, because only four states are in the region, the amount per state is close to the average (about $35,000 in each year).

The Task 3 program, the Policy and Planning Center, is a reflection of AEL's organizational design that establishes structural interconnections between the lab and major state level constituencies. Focusing on Task 3 is potentially misleading, for Tasks 2, 3, and 4 are all intended to assist different groups of state-level decisionmakers.

AEL begins by noting that the educational R&D community is marginal to the world of educational practice. The lab is viewed as a linkage organization designed to assist in bridging the "theory-practice gap." They are aware, however, of the research literature failure of decisionmakers to use research-based knowledge and the inadequacies of strategies that rely solely on information. Their intent is to "maximize long-term involvement by state officials in activities that should help them develop a more inquiry-based approach to decisionmaking and, at the same time, support their efforts at inquiry with easily accessible and relevant information" (AEL Proposal 1985, p. 125).

The program is organized into five activities. The first is designed to create a forum of the region's CSSOs. The chiefs, all members of the AEL Board, are also constituted as the Council on Policy and Planning. As such, they have a dual role, first as a committee of the board with special responsibilities for reviewing and making recommendations on the lab program, and second as a

forum for the discussion of regional policy issues. This committee meets before the board's quarterly meetings. The first role has tended to overshadow the second, and in the second contract year only two Task 3 forums were held. A formula has evolved for rotating the meetings among the four states and inviting the host chief to select the policy topic. He/she also has the option of inviting a variety of state-level policymakers to the forum. The lab assists by preparing special information packets and policy briefs and commissioning papers by outside experts.

The second activity is an annual symposium of state government decisionmakers. The topic for year two was "The Competitive Edge: Preparing Youth for Jobs of the Future." The 70 people attending included legislators, state board members, governors' staff, state voc ed advisory council members, and business and industry representatives. In the future the annual symposium will double as one of the chief's forums.

The third activity is intended to monitor and report on selected educational trends in the region, but it is not clear that any work was actually accomplished under this activity. During the second year a design for accomplishing this task in FY 1988-90 was produced under sub-contract by the Virginia Policy Analysis Center at the University of Virginia.

The fourth activity is to provide a policy information search, retrieval, and synthesis service, including linkages with national and regional organizations, for the chiefs and other government officials. Eight issues papers have been published. For 1988-90

activities three and four have been modified to de-emphasize search and retrieval services and to put greater effort into issuance of trend and policy issues papers.

The fifth activity is to prepare "Policy Briefs" as inserts for AEL's newsletter, The Link. Four such inserts were prepared in the second contract year.

In sum, the AEL program is designed to increase the inquiry orientation of the chiefs primarily, and other state leaders secondarily, by involving them in meetings for the discussion of policy issues of their own choosing and providing information and analysis resources to support these activities.

FWL. Although the Far West proposal describes a system of matrix management that has a Task 3 coordinator providing oversight for activities found in each of four programs, the Task 3 work reported for the second year seems to reflect only that labeled "State-Level Policy Support" under the Policy Support Services Program.

FWL spends more than $350,000 per year for Task 3. With only four states in its region, this amounts to roughly $88,000 per state. However, it is a heterogeneous region. California is a very large, resource-rich state, while the other three states have small populations and much smaller resources. The program is even larger that these figures suggest because the laboratory has undertaken several significant non-federal contracts consistent with Task 3 objectives.

The FWL program is notable for its employment of field agents

in each state. These agents have a variety of responsibilities: they collect needs-sensing and trend information, update lists of key actors, help organize SEP seminars, prepare state-oriented inserts to policy briefs, and prepare white papers (personal communication from Paul Hood).

Probably the dominant activity for FWL is preparing policy briefs and issue papers, four of which were prepared in 1987. But, it also engaged in direct consultation with state-level policymakers in a relatively rare instance of involvement in the legislative process: it worked with the California Senate Appropriations Committee to develop an omnibus school reform measure. The lab also worked with the state directors of planning and program evaluation to explore the establishment of a regional database, an idea that had to be dropped for lack of funds. In the area of policy research and evaluation, the lab studied the Utah Career Ladder System and analyzed the link between teacher recruitment and retention and a California teacher information system.

McREL. McREL allocates a significant portion of its budget to Task 3 (20-21%), but this amounts to only $33-38,000 per state, on the average. The program is noteworthy for its focus on the theory and methodology of strategic planning. Their assessment of state education systems in the region had identified a number of deficiencies (Proposal pp. III-Task 3, p 1-2):

- o Lack of a comprehensive database to develop and assess school improvement and restructuring proposals
- o Lack of a coordinated planning and evaluation mechanism

- o Lack of policy analysis
- o Lack of opportunities for state leaders to network and to get to know the perspectives of other leaders
- o Lack of opportunities for training and development
- o Lack of informational models for restructuring education systems

Further, their examination of the context of the region's educational systems had revealed a major shift from an industrial to an information-based economy and focused on the restructuring of education to adapt to that shift.

Given this analysis, McREL adopted a strategy for Task 3 that emphasized a capacity-building approach to help the state education systems use strategic planning to adapt to environmental press. Five sub-tasks in the 1985 proposal had been consolidated into three by the second year.

First, in response to the lack of needed information organized on a state and regional basis, the lab has organized and developed a variety of databases, including state files, educational news publications, education influence publications, and statistical publications. These databases can be searched through the use of key words. The lab publishes and distributes reports based on the databases and commissions related policy issue papers and a periodical, Policy Notes.

Second, the lab organizes an annual policy conference. One, held in 1987, invited 30 state leaders to hear national experts on issues that appeared to be strategic rather than educational issues more narrowly defined, i.e., human resource development, state

economic development, school finance, and school/business partnerships.

Third, technical assistance is provided to state (and local) education policymakers. The lab has assisted North Dakota, Kansas, and Nebraska to develop state strategic plans and provided planning assistance to numerous LEAs.

NCREL. In its 1985 proposal (the lab's first year, but a year before the time frame under review) the lab had proposed an information and networking strategy designed to provide useful information to legislatures, SEAs, and local school districts. They planned three types of meetings in each state each year: legislative forums, SEA seminars, and policy implementation institutes, which would have required 21 meetings a year in its seven-state region.

However, only $179,678 was allocated to Task 3 in 1986, or $25,668 per state. In 1987 this amount was cut in half ($89,700 total, or $12,814 per state). By 1987 the ambitious schedule of meetings originally planned had been reduced to one state policy seminar in each state plus a regional policy workshop sponsored jointly with the Center for Policy Research in Education. The meetings featured both papers prepared by experts and interaction among various stakeholders. Activities involving database development and services, technical assistance, or training do not seem to have been used for this task.

NE/I. Originally the lab defined its Task 3 program as the theme for Public Policy for School Improvement, plus

policy-relevant activities under three other themes, and distinguished between regional and state-specific projects. In the annual and assessment reports it is difficult to pull this entire set together, and it is not clear whether the budget allocation refers to the entire set or only the Public Policy Theme. NE/I makes an average commitment to Task 3 in terms of budget percentage (17.9% and 18.2%), but given nine jurisdictions, the amount per unit is near the bottom of the range. Consistent with its decentralized structure, the lab emphasizes a linkage strategy using state-level forums, although some regional meetings are sponsored.

NWREL. The Northwest Lab has a relatively large budget, but must divide its attention among seven states and territories. It made a significant reduction in commitment to Task 3 between 1986 and 1987 (see Table 9). No rationale for the reduction seems to be available.

All of the states in the Northwest region are engaged in the implementation of long range plans designed to achieve higher levels of excellence. NWREL's Task 3 activities are matrixed across the Lab's organizational units. The dominant theme of these activities seems to be the improvement of database management and use through development of specific packages and products, and related technical assistance. The accomplishments reported for 1987 include development of a special regional database on at-risk youth; presentations on specific policy issues at meetings of regional groups; development of methodologies for developing,

managing, and using databases and profile information at different decision levels; development of an expanded form of the School Improvement Program's School Profiling System and a related workshop package; and provision of consultation and technical assistance to state agencies, school districts, and other NWREL staff. It is not clear from the documentation whether the Task 3 effort is targeted at the state level or whether it is aimed at assisting local districts use database management for implementing state plans. If the latter, it would not seem to be consistent with the objectives of Task 3.

RBS. RBS stands out in its heavy commitment to Task 3: over $583,000 in each year, 28% of its budget, and over $116,000 per state. (In some documents it appears that the State Leadership Assistance Project is coterminous with Task 3, while in others it seems to include some activities from other tasks.)

The RBS approach to Task 3 is unique in that it establishes a specific contractual relationship between the lab and each state. For each state the lab assigns a senior staff member to serve as state coordinator. In turn each CSSO selects a senior state-level decisionmaker to serve as the RBS state liaison person. These two develop and modify, as necessary, a written agreement describing how RBS will work with state-level decisionmakers and how they will participate in cross-state activities.

Also unique is the lab's emphasis on the policy implementation and evaluation stages. Although the lab often provides planning assistance, it is generally the planning of implementation or

evaluation activities vis a vis the state educational improvement plan. However, some assistance is provided each state in identifying new policy issues and analyzing policy options. Although the emphasis is clearly on working with each jurisdiction separately, it sponsors at least one regional conference.

A broad range of types of services is provided including, in the RBS terminology, planning, planning assistance, resource book revision, training, technical assistance, evaluation, information, research, instrument and procedure development, workshop development, and conference management. The overall image is one of gap-filling within state school improvement programs.

SEDL. Between 1986 and 1987 SEDL made a significant increase in its commitment to Task 3 as its themes reached the dissemination state (see Table 9). The lab's posture in Task 3 is noteworthy for its strong desire to avoid taking sides in political battles involving conflicting interests. It specifically eschews the role of regional problem solver and opts for a more purely informational role. Further, Task 3 is not an independent program; rather, in the matrixed SEDL system, Task 3 activities represent the targeted dissemination activities of the several themes around which SEDL's programs are organized. The three primary tactics are preparation of briefing papers, forums for state-level decisionmakers, and one-on-one briefings. (An electronic bulletin board was tested but later abandoned.) SEDL emphasizes a state-by-state orientation, although some regional meetings are held.

SEDL's self-assessment found this program to be unnecessarily

rigid and non-responsive to many emerging needs and issues. Consequently, in the plan for 1988-90 this profile is substantially changed. A new theme called ED-AIDE is identified that takes full responsibility for Task 3. It is designed to identify and monitor emerging issues and to anticipate and meet information needs of decision- and policymakers, and to respond with available information to requests that require quick turnaround. It does continue to assist the theme programs in working with state decisionmakers. This reorientation is an example of the constructive use of self-assessment to make program changes.

SEIL. SEIL has a relatively small budget and makes a relatively weak commitment to Task 3. Consequently it stands at or near the bottom of the range for level of effort. Its $21,377 per state (8.5% of budget) in 1986 moved up to only $24,369 per state (8.8% of budget) in 1987.

Educational reform is the dominant theme of the SEIL Task 3 program. In its first two years the lab established and maintained a file of state reform initiatives and a system for monitoring them. It also operated a system of issue identification through environmental scanning of publications and surveys of educational personnel. It held a regional policy forum and commissioned some policy analyses. SEIL is also the lead lab for the Task 5 theme on state policy under which an electronic database of policy issues addressed by each lab is maintained. This program reflects the SEIL style of sub-contracting some program elements.

Comments on Task 3

A wide variety of linkage strategies were used in assisting state-level decisionmakers. While there was some collaboration with national organizations, most work was intra-region. Some labs were highly focused on the chiefs and SEAs, while others worked with a broader cross-section of state-level persons and organizations.

A wide range if improvement strategies was used, with all labs providing policy analyses and/or briefs. With the exception of RBS, all concentrated on the earlier stages of the policy process.

Of eight broad policy domains, the ones in which most lab work was done were curriculum and instruction, organization and governance, school personnel, and assisting special types of students.

At the risk of over-simplification, the dominant role of each lab in its Task 3 program can be characterized as follows:

- AEL: resource for policy information and analysis for CSSOs and SEAs plus organizer of regional symposia.
- FWL: resource for policy research, evaluation, and analysis
- McREL: builder of SEA and LEA capacity for using strategic planning and other methods for the restructuring of education
- NCREL: conference organizer for state policy forums
- NE/I: convener and facilitator of state policy forums
- NWREL: resource for development of database management systems for use by local systems in implementing state school improvement programs

- o RBS: gap-filler in SEA efforts to implement school improvement programs
- o SEDL: dissemination arm of lab thematic programs targeted at state government personnel
- o SEIL: monitor of educational reform issues and resource for policy analysis

These represent substantially different approaches to bringing an inquiry orientation to bear on the state policy process. Whether they have resulted from careful considerations of strategic options, the style preferences of lab personnel, or highly adaptive responses to variations in regional needs and resources is difficult to say.

Review of these programs in the future might consider the following factors:

- o The balance between information and policy analysis strategies
- o The balance between capacity building and doing strategies
- o The balance between meeting the needs of SEAs and those of other state-level decisionmakers
- o The balance between state-by-state activities and regional approaches
- o The balance between proactive and reactive efforts
- o The balance among different policy stages
- o Whether the program serves state-level decisionmakers local districts

CHAPTER V

PROVIDING R&D BASED SERVICES FOR THE IMPROVEMENT OF EDUCATION WITH AND THROUGH EXISTING ORGANIZATIONS: TASKS 2 AND 4

Federal Specifications

According to the RFP, the core of lab work was in Tasks 2 and 4. The two are treated together here because most labs found it difficult to organize their work according to this task structure. They preferred instead to define their programs in terms of some priority need and then identify both Task 2 and Task 4 activities in relation to that need. Some, however, labs did identify separate activities for these two tasks.

Given the importance of Tasks 2 and 4, a review of their characteristics as defined by the RFP is in order.

Task 2 simply stated that labs should "work with and through existing organizations to improve schools and classrooms" (p. 21). While some provision was made for working directly with schools and school districts in exceptional cases, it was clear that an indirect strategy for school improvement was mandated as the dominant linkage strategy. This became known as the "with and through" task.

The rationale for requiring an indirect strategy was quite straightforward: lab resources would be very limited and all regions had at least some important school improvement organizations already in existence. Therefore some leverage in achieving school improvement could be achieved by collaborating in various ways with other organizations in the regional

infrastructure.

Unfortunately, there were also some countervailing considerations, the most important being the loosely coupled nature of the KPU configuration which makes impact at school and classroom levels problematic. In addition, the willingness of other organizations to work with labs has to be constantly tested and negotiated. Finally, even where improvement is achieved, the lab contribution might be invisible or difficult to separate from others' contributions.

This dilemma permeates everything that labs do and, indeed, it might be said that the central challenge faced by all labs is that of developing a linkage strategy to deal adequately with these problems.

Three examples of appropriate activities were cited (RFP pp. 21-22):

- Building and strengthening organizational support systems for improvement.
- Engaging in cooperative local improvement initiatives with other service improvement organizations.
- Broadly disseminating the results of research...to the spectrum of audiences interested in improving schools and classrooms.

Task 4 required the labs to "work to create research and development based resources for school improvement" (p. 25). Despite ambiguity introduced by the term "based," the text made clear that it was legitimate for labs to do research and development as well as to compile R&D based resources. However, the labs were encouraged to undertake only short term research and

to leverage their resources by taking part in collaborative projects. An issue to be raised (but, alas, not resolved) is whether the popular tactic of collecting "promising practices" and disseminating them is in any sense an R&D-based tactic rather than a craft activi y. A related problem is that craft knowledge, which has its origin in experience rather than disciplined inquiry, seems to be accorded the same status by the labs as R&D-based knowledge although it is not mentioned specifically in the RFP.

Note that Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy. According to the formulation presented here, all lab program activities require both a linkage strategy and an improvement strategy. So it is not surprising that labs found it difficult to divide their projects into Task 2 and Task 4 categories.

Level of Effort

The centrality of these two tasks was underscored by the guideline that Task 2 was to constitute from 40 to 55 percent of the program budget, and Task 4 from 20 to 35 percent, or from 60 to 80 percent for the combined tasks. (One cannot add the two upper limits to 90 percent because Tasks 3 and 5 were expected to take 20 percent.) The actual allocation of effort for the two tasks in FY 1987 is shown in Table 10.

Generally the labs allocated between two-thirds and three-quarters of their program budgets to the combined tasks. On average, 44 percent went to Task 2 and 27 percent to Task 4,

Table 10. Amount and Percent Budgeted for Tasks 2 and 4, FY 1987

Lab	----Amount Budgeted---- Task 2	Task 4	Total	Percent of Prog Budget* Task 2	Task 4	Total
AEL	503,667	374,182	877,849	44.7	33.2	78.0
FWL	809,220	421,940	1,231,160	44.9	23.4	68.3
McREL	544,095	308,416	852,511	41.9	23.8	65.7
NCREL	307,759	372,243	680,002	35.1	42.4	77.5
NE/I	724,618	321,033	1,045,651	48.3	21.4	69.7
NWREL	1,401,549	837,028	2,238,577	50.0	29.8	79.8
RBS	770,058	513,370	1,283,428	36.7	24.4	61.1
SEDL	630,697	320,472	951,169	46.2	23.5	69.7
SEIL	377,544	231,817	609,361	46.8	28.7	75.5
ALL	6,069,207	3,700,501	9,769,708	44 4	27.0	71.4

*Tasks 2-5 make up the program budget.

indicating an emphasis on the linkage strategy. NCREL is an exception to this pattern, having allocated 42.4 percent to Task 4 and only 35.1 percent to Task 2. This emphasis on creating R&D-based resources may seem surprising considering that its region has more R&D and service improvement organizations than any other region (see Table 9, Chapter IV); but the lab tends to create these resources by subcontract and other arrangements with outside agencies.

Analytic Approach

As stated above, every lab program has three dimensions: a linkage strategy, an improvement strategy, and a substantive focus. Task 2 essentially defines a linkage strategy (work with and through other organizations), but lab programs listed under Task 2 have the other two dimensions as well. Similarly, Task 4 defines an improvement strategy (knowledge-based resources), but lab Task 4 programs also have the other two dimensions. Many labs structured

their programs in terms of substantive themes (our third dimension), then matrixed the activities between the other two dimensions.

While determining which of the three dimensions is used as the primary identification of a program may be somewhat arbitrary, it is probably based on which of the three is chosen as the point of departure in the planning process. If, for example, working with a particular set of partners is the starting point, this linkage strategy becomes the program's primary identification. Planning then is generally done jointly to select a substantive focus and an improvement strategy and to further refine the mode of linkage. If, on the other hand, the lab starts with the need to create certain R&D based resources in a substantive area, it must devise a linkage strategy for bringing these resources to bear on the problem.

Our task would have been greatly simplified if it had been possible to use the project as the unit of analysis and to describe all lab work in terms of these projects. However, as noted above, there are a number of difficulties in doing this. Some lab activities are continuing open-ended services that do not lend themselves to a project structure. Some define their programs in terms of abstract functions rather than programs and projects (e.g., McREL Subtask 2.3: "Network and Broker People and Resources"; NCREL Task 4, "Extend Pool of Available R&D Information"). Some labs start with a hierarchical structure of programs, projects, and activities, but make only partial use of

that structure in their annual reports (e.g., FWL).

The inability to create an exhaustive database of lab projects means that we cannot perform quantitative and comprehensive analyses of lab work by task. For example, if we attempted to analyze work done with intermediate service agencies under Task 2, some of labs would undoubtedly rush forward to say, "Your analysis is incomplete because it doesn't show our work with intermediate agencies under Task 4." (In Chapter IV we chose to ignore this problem, knowing that not all work with state policymakers was found under Task 3.)

As a result we are eschewing any sophisticated quantitative analyses in favor of searching for an understanding of lab strategies more qualitatively. The method will vary somewhat from section to section. The first analysis is of programs designed around a particular need or policy issue (i.e., the educational focus in our three-part schema). The example chosen is programs for improving administrative leadership. First, a set of programs addressing this problem will be identified and described briefly. Then issues such as the following will be addressed:

- Are there variations in how the problem of improving administrative leadership is defined?
- What knowledge base is used?
- What linkage strategies are employed?
- What improvement strategies are selected?

The following sections will explore new typologies of interorganizational collectivities, research approaches, and

development/demonstration designs for programs for improving administrative leadership.

Improving Administrative Leadership

We begin with a set of programs that use a substantive focus, improving administrative leadership, as the point of entry. At this broad level seven of the nine labs identify a need and define one or more programs, projects, or activities.* A listing of the relevant work units is found in Appendix B.

There are a number of differences in the structure of these work units. Some are single-level and others multi-level. In some cases the highest level is a major lab program, in others it is a single project.

Profiles of work designs for administrative leadership for the seven labs working in this area are shown in Table 11. Following is an examination of each design feature by looking across the table horizontally. Those who want to focus on the overall strategy for any lab program/project should look down the columns.

Problem Definition

The substantive focus of the work represents one of our three strategic dimensions. The seven labs represented in Table 11 have undertaken work in the general area we have called "administrative leadership." In each case the work has been justified as emerging

*McREL planned but later dropped its Administrator Leadership Program. It did provide assistance to applicants for Leadership in Educational Administration Development (LEAD) Center grants. While NCREL's Professional Development Program was focused on teachers, it also has implications for administrators.

Table 11 Profile of Lab Programs Focused on Improving Administrative Leadership[a]

Design Feature	AEL	TWL	McREL	ME/I	NWREL	RBS	SEDL	SEIL
PROGRAM/PROJECT NAME	SCHOOL ADMINISTRATION AND GOVERNANCE	SUPPORT FOR SCHOOL LEVEL LEADERSHIP	DEVELOP ADMINISTRATOR LEADERSHIP PROGRAM	LEADERSHIP FOR SCHOOL IMPROVEMENT	RURAL NETWORKING FOR LEADERSHIP	COOPERATIVE SCHOOL IMPR/ ORG EFFECT/ MGMT DEVEL	IMPROVEMENT OF TEACHER & ADM PERFORMANCE	IMPROVING LEADERSHIP SKILLS OF SCH PRINCIPALS
A. PROBLEM DEFINITION	A PROBLEM DEFINITION How to build capac'ty for inquiry in schools	A PROBLEM DEFINITION Eff schs research raises stds for principals Isolation of principal Failure of certification programs to keep pace	A PROBLEM DEFINITION 50% or sch edrs will retire in 8 yrs Need something more than effective schools lit	A. PROBLEM DEFINITION How to make research available for use	A PROBLEM DEFINITION Rural isolation Leadership is a function of multiple roles	A PROBLEM DEFINITION How create sch culture of high effort levels How to implem tech and org improvements	A PROBLEM DEFINITION How to implement state mandated performance assessment systems (How do principals implement teacher systems?	A PROBLEM DEFINITION How to build on and network existing resources
B IMPROVEMENT STRATEGY 1 Knowledge Base a Research	B IMPROVEMENT STRATEGY 1 Knowledge Base a Effective schools Use of computer for management School home communi-cations	B IMPROVEMENT STRATEGY 1 Knowledge Base a Effective schools Pr as instr leader	B IMPROVEMENT STRATEGY 1 Knowledge Base 1. Sergiovanni's 8 forces nical, human, educational, symbolic, & cultura	B IMPROVEMENT STRATEGY 1. Knowledge Base a School improvement Effective schools	B. IMPROVEMENT STRATEGY 1. Knowledge Base a Ed leadership Networking Collaboration Effective leadership Effective management Effective org dev	B IMPROVEMENT STRATEGY 1 Knowledge Base a. Effective schools Seven enabling org factors in Clark et al 84 b Strategic Planning Org diagnosis Motivation of staff Design of staff dev Prep intern impr teams Curriculum management c Exemplary training	B IMPROVEMENT STRATEGY 1 Knowledge Base a.	B. IMPROVEMENT STRATEGY 1 Knowledge Base a Review literature on mgmt & leadership skill of school principals Problem analysis lit
b Products	b. Guidelines for assessing secondary remedial software	b. Peer Assisted Leadership (PAL)	b.	b. Identify resources for sch impr leadership	b		b.	b TBD training modules based on lit review
c Practices	c. Practices developed in RS, RDx, and RDIS	c. Career ladder options	c	c.	c.	c Exemplary training	c. Existing perf assess	c Commercial training
2. Info Services a Database development b Reports c Lab newsletter d Newsletter inserts e Search & retrieval	2. Info Services Topical reports, lab newsletter, inserts in prof assoc newsletters, search and retrieval	2. Info Services	2 Info Services	2. Info Services	2. Info Services	2. Info Services	2. Info Services Develop database and prepare reports etc from it	2 Info Services
3 Knowledge Production a Research b Evaluation c Policy studies d Development	3 Knowledge Production Study group topical reports	3 Knowledge Production Examine special topics in school leadership Dev summer leadersh institutes	3 Knowledge Production Review of models & theories, conceptual outline, modules	3 Knowledge Production Study cont off leadersh Research on teachers as school impr leaders Dev trng materials for sch. network personnel	3 Knowledge Production Design training materials for regional agency and network personnel	3 Knowledge Production Identify & rev exemplary programs & materials Plan & design training materials	3. Knowledge Production	3 Knowledge Production Identify research needs Synthesize research Compile guide to trng materials

(This table is continued on the next page.)

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Table 11. Profile of Lab Programs Focused on Improving Administrative Leadership* (continued)

Design Feature	AEL	FWL	McREL	NE/I	NWREL	SWS	SEDL	SEII
PROGRAM/PROJECT NAME	SCHOOL ADMINISTRATION AND GOVERNANCE	SUPPORT FOR SCHOOL LEVEL LEADERSHIP	DEVELOP ADMINISTRATOR LEADERSHIP PROGRAM	LEADERSHIP FOR SCHOOL IMPROVEMENT	RURAL NETWORKING FOR LEADERSHIP	COOPERATIVE SCHOOL IMPR/ ORG EFFECT/ MGMT DEVEL	IMPROVEMENT OF TEACHER & ADM PERFORMANCE	IMPROVING LEADERSHIP SKILLS OF SCH PRINCIPALS
C. LINKAGE STRATEGY 1. Knowledge Base a. Research:	C. LINKAGE STRATEGY 1 Knowledge Base a. GOPA study Rogers' adoption stages	C LINKAGE STRATEGY 1 Knowledge Base a Configurational persp Linking agents, agencies Organizational change Models of field-based inquiry	C LINKAGE STRATEGY 1. Knowledge Base a	C LINKAGE STRATEGY 1. Knowledge Base a GOPA study DESSI study	C LINKAGE STRATEGY 1. Knowledge Base a.	C LINKAGE STRATEGY 1 Knowledge Base a	C LINKAGE STRATEGY 1 Knowledge Base a.	C LINKAGE STRATEGY 1. Knowledge Base a Open systems theory Contingency theory
b. Ordinary knowledge	b. Knowledge of region	b	b	b.	b	b	b	b
c. Products: 1. Extent 2. To be developed	c.	c Ext: refine Peer Assis Leadership (PAL) TBD: Trainer of trainers capability TBD: Summer leadersh institutes		c. Ext: Pub directory of R&D resources for school improvement leadership TBD: Design network & collaborative models TBD. training processes d TBD: Action guide for school improvement	c TBD Processes to prepare reg agencies: . for training school network personnel	c TBD Academy on planned change TBD Leadership seminars	d Regional practices: Performance assessment systems	c PAL (see FWL) Concerns based Adoption Lab training modules*
d. Practices: 1. Extent 2. To be developed	d. Extent: RDx, RS, RDIS	e. Career ladder options			d.	e		d .
2. Interorganizational Arrangements a. Collaborators 1. National 11. Regional a SEA b. ISA c. LEA d. IHE e Other	2 Interorganizational Arrangements a. Collaborators 1. Labs/centers 11. State prof assoc's for admin. sch bds	2. Interorganizational Arrangements a Collaborators 1 Labs/centers 11. U Ariz. Ariz SAA Principals academies Ad hoc focused study groups	2. Interorganizational Arrangements a Collaborators	2 Interorganizational Arrangements a Collaborators 1. Labs/centers ;11. SIOs: SEAs, IHEs. admin in SDOs	2 Interorganizational Arrangements a Collaborators 1 11 Three SIOs to be selected	2 Interorganizational Arrangements a Collaborators 1. 11	2 Interorganizational Arrangements a. Collaborators 1. Labs/centers 11. SEAs, IHEs, ISAs, dist level principal training programs Use regional consultant & NW Sci & Tech Resear Center	2 Interorganizational Arrangements a. Collaborators 1. Labs/centers 11. SEAs, IHEs, ISAs, dist level principal training programs Use regional consultant & NW Sci & Tech Resear Center
b. Clients 1. Primary 11. Range 111. Type	b. Clients 1. Administrators 11. Broad 111. Individuals	b Clients 1 Principals 11. Narrow 111. Individuals	b Clients	b. Clients 1. SIOs 11. Medium 111. Princip academies by IHEs and others	b. Clients 1. SIOs 11. Broad 111. SEAs and IHEs	b Clients 1 SDOs - SEAs & central offices of large LEAs	b. Clients 1. State-level decisionmakers	b Clients Network of directors o principalship academie plus LEAD centers
c. Interpretation of "with and through" 1. SIO is client 11 SDO is client a. SIO is collaborato b SIO is sponsor c No SIO involved	c. Interpretation of "with and through" Admin etc. are clients. prof assocs provide access	c Interpretation of "with and through" Mixed: develop and test products with SDOs, then help SIOs implement	c Interpretation of "with and through"	c Interpretation of "with and through" Primarily SIOs	c. Interpretation of "with and through" SIOs are clients Products tested & training supervised in schools	c Interpretation of "with and through" LEA teams & networks of them; SIG SDOs as SIOs	c Interpretation of "with and through" Same as Task 3 dies to State-level ONs & those resp for training	c Interpretation of "with and through" SIOs are clients
3. Communication a. Approach b. Services 1. Info services 11. Tech assist. 111 Staff dev a Train trainers b. Train staff iv Demonstration v Network creation	3. Communication a. State (1 reg conf) b. 1,2,4: Info services Technical assist workshops etc School Excellence Sites (SES)	3. Communication a State approach b 2,3: Train trainers 1A on career ladder options Implement summer institutes in Ariz	3 Communication	3 Communication a State approach b. 1,5 Info fr DB of materials materials, people, programs & practice The School Improvement Leadership Network	3. Communication a State approach b 3,4,5: Demo.Superv plan & impln trng of sch nat personn Train support agency personnel Build capac of support agencies to serve rural districts	3. Communication a. State approach b 3,5 Academy of planned chg Leadership seminars	3. Communication a State approach b 1. Disseminate practices	3 Communication a Regional and state b 1,2,3,5 Diss info & material TA to LEAD centers SD through network Form network

from the need assessment process, but that does not mean that the labs are working on identical problems. Under this broad rubric is considerable room for variation in how the problem is defined at more specific levels.

There is also tremendous variation in the amount of detail available on problem definition (as well as other program design dimensions). Some labs have prepared special papers (not examined in this review), while others provide only a paragraph or two.

Generally, there are several broad themes:

- o Local administrators have a great responsibility for implementing changes resulting from the reform movement and reform initiatives of the states.
- o There are important bodies of research on school improvement, instructional leadership, etc., that administrators need to become familiar with.
- o Schools and their leaders need to develop a culture of inquiry to use knowledge-based resources in their attempts to improve schools.
- o School administrators are isolated, and new structures are needed that put them in communication with their peers and enable them to access knowledge-based resources for school improvement.
- o It is a mistake to focus exclusively on the principal's role; leadership is provided by a number of roles at the school and central office levels.

These are not mutually exclusive problem definitions and might easily be strung together as one complex rationale. However, the tendency is to stress one or a few of these rationales.

Improvement Strategy

The use of knowledge-based strategies is a given for labs. (Money and regulation are alternatives available to governmental

entities. See Mason 1982.) The components of knowledge-based improvement strategies are the knowledge base, information services, and knowledge production.

Knowledge Base. There are distinct differences in the knowledge bases used for the improvement strategy. (Note that knowledge bases are also used for the linkage strategy. See below.) Here the focus is on the nature of the knowledge be transferred. First is a choice to be made among research knowledge, knowledge in the form of developed products, and that represented by existing practices or some other form of craft knowledge.

The main bodies of research knowledge mentioned are those on effective schools and leadership. Some labs provide a discussion of one or more of these knowledge bases; some list a number of the generalizations that have emerged, and others merely name the knowledge base used. At the activity level some specific bodies of knowledge come into play (e.g., school-home-communications at AEL).

A distinction can be made for products between those that are extant and those that are to be developed by the lab. In the former category, FWL proposed to use (and further refine) Peer Assisted Leadership (PAL), a product developed in prior years. In the latter category, AEL proposed to develop a document, Guidelines for Assessing Secondary Remedial Software. NWREL planned to develop training materials for use with school network personnel.

Examples of practices to be collected and reviewed include "exemplary programs" (RBS), "existing performance assessment

systems" (SEDL), and "career ladder options" (FWL).

Information Services. It may seem strange to see the category "information services" under improvement strategy since this would seem to be inherently a linkage strategy. However, the front end activities involved in information services are appropriate, i.e. database development and the preparation (in contrast to the dissemination) of reports, newsletters, inserts, briefs, etc. based on knowledge bases. Database development may be difficult to distinguish from knowledge bases used (see above). The term is used to refer to organized and manipulable knowledge bases.

AEL provides a range of information services, including writing topical reports, preparing topical pieces and inserts for the lab newsletter, preparing inserts for the newsletters of administration professional associations, and search and retrieval services for regional administrators. (These activities correspond to development in the Dunn ADD model for policy analysis (Dunn 1987). SEDL compiled a database on performance assessment systems and prepared reports based on it. It is noteworthy that only two of the seven labs chose to use information service strategies.

Knowledge Production. Knowledge production can take the form o research, evaluation, policy studies, or development. SEIL expected its activities in the first two years would lead to the identifying needs for future research. NE/I proposed two specific studies, one of central office leadership, and another of teachers as school improvement leaders. FWL and NWREL organized and developed training materials for institutes and NE/I prepared for

publication a Directory to R&D Resources for School Improvement Leadership.

It is often difficult to distinguish between the improvement and linkage aspects of a given effort. For example, in organizing a leadership institute, the instructional content constitutes the improvement strategy while the organization of the institute (e.g., whom to invite from what organizations, whether to organize it on a state or regional basis, whether to use large group instruction or organize subgroups by roles or some other criterion) constitutes the linkage strategy.

Linkage Strategy

The three components of the linkage strategy are knowledge base interorganizational arrangements, and communication mode.

Knowledge Base. The knowledge base for the linkage strategy consists of bodies of knowledge concerning the most effective means of knowledge dissemination, implementation, and utilization. It can take the forms of research or ordinary knowledge, products, or practices/craft knowledge.

Documentation of the linkage knowledge base tended to be thin or absent in the material describing these programs. This area was covered in the original proposals under "lessons of research and experience in terms of implications for effective strategies to address [each task]" (RFP p.36). Because it probably applies to all programs, it is not repeated for each. The citations in Table 11 are taken from both the proposal introductory material and program/project documentation.

Research cited as the basis for linkage strategies included the General Purpose Dissemination Assistance (GPDA) Study (Louis et al, 1984), the Dissemination Efforts Supporting School Improvement (DESSI) Study (Crandall et al, 1983), Rogers' conceptualization of adoption stages (Rogers, 1962), open systems theory, and others. The only example of ordinary knowledge cited in association with this program was knowledge of the region (AEL), although all labs provided this kind of knowledge in other sections.

For linkage knowledge products, there is again the distinction between existing products and those to be developed. FWL proposed to use and further refine its previously developed Peer Assisted Leadership (PAL) product. (PAL was also mentioned above as part of the improvement strategy knowledge based, assuming that PAL contains both substantive knowledge and a linkage strategy.) It further proposed to develop a trainer of trainers capability and to design summer leadership institutes. NE/I took the route of compiling a directory of extant school improvement leadership resources. NWREL proposed to design network and collaboration models in one activity and develop training processes for training school network personnel in another. SEIL proposed to use products developed by two other labs and centers (FWL's PAL and the former Texas Center's Concerns Based Adoption Model) and develop its own training modules.

Similarly, practices can be existing or planned. AEL noted that it had a good deal of experience with practices growing out of its work with several NIE-sponsored dissemination programs: RDx

(R&D Exchange), R&D Interpretation Service (RDIS) and RS (Regional Services), a claim other older labs might make as well. NE/I planned to develop an Action Guide for School Improvement (probably a blend of improvement and linkage knowledge).

Interorganizational Arrangements. Possibilities for national collaboration lie chiefly in the improvement strategy, mainly in developing the various knowledge bases. Linkage is inherently a regional function at the service delivery end, although there are also possibilities of national collaboration in terms of reviewing the knowledge base for a linkage strategy and developing linkage models. Several labs list other labs and centers as national collaborators, but few details are provided. Regional collaborators include SEAs, professional associations, institutions of higher education, principals' academies (with varied sponsorship), and study groups. Clients included both service improvement organizations (SIOs) and service delivery organizations (SDOs).

Each lab's configuration of relationships with collaborators and clients is summarized by categorizing its interpretation of the "with and through" strategy. Focusing on the SIO as the sole client represents a "pure" indirect strategy. The approach of NE/I and NWREL is indirect in that they treat SIOs as primary clients and assist them in implementing programs with SDO personnel. RBS works with SEAs, ISAs, and LEAs. Its work with large metropolitan school districts can be considered "with and through" in that central offices of large districts function much like SIOs. FWL

also works with the central office of a major urban district, not only as a client but also as a collaborator, in developing and testing products for use in its own district. On the other hand, AEL sees SDO administrators as its clients and state professional associations as its channels of access to them (i.e., sponsor).

Communication Modes. Virtually all labs organize their primary activities by state, although they held some regional conferences. The dominant service strategy is staff development. Variation occurs in whether new networks are organ zed or existing structures (e.g., principalship academies) are used; whether new linkage training is designed for SIO personnel; and whether the lab provides information or training to SDO personnel or assists or supervises SIO personnel in providing such assistance.

Conclusion to Improving Administrative Leadership

Our method has necessarily broken lab programs into pieces. Let us try for a more holistic view. These programs are all focused on improving knowledge and skills of a particular role group: mostly building administrators, but including central office staff and others in many cases. There appear to be two main approaches to the improvement strategy. One is to start with research literacure and to develop training packages. The other is to collect, review, and package particular administrative practices. The principalship academy, either pre-existing or newly formed, is the most popular vehicle for linkage. Most labs use an indirect strategy, training the staffs of SIO agencies, and sometimes working with them to implement training programs. Most

are organized by state rather than by region. It does not appear to be an area of significant national collaboration.

While use of inservice training is traditional, two aspects of most programs incorporate the findings of recent research. One is the recognition that the need for leadership resides not in a single role but a combination of roles at both the building and central office levels. The other is that single-shot training is only marginally effective and that more lasting effects can be obtained by involving trainees in a continuing network and providing various support services.

We now turn to a more fine-grained analysis of the interorganizational arrangements used as part of the linkage strategy in Task 2 and Task 4 programs.

Linkage Strategy: Types of Interorganizational Arrangements Conceptual Approach

In moving to a focus on the linkage strategy, it will be necessary to shift methodology. In previous analyses we have examined three aspects of the linkage strategy: the knowledge base, communication mode, and interorganizational arrangements. However, the "with and through" strategy was perhaps the most salient innovation in the lab RFP design, and interorganizational arrangements made by labs to implement this design feature warrant a more fine-grained analysis. Understanding the nature and variations of this indirect strategy is crucial to designing the next round of contract awards.

The field of interorganization theory has been developing for a number of years as an offshoot of open-systems theory (Negandhi, 1975). It has been studied in health management among other fields outside of education (S. Mason, 1979). In education the present author prepared a multi-award RFP issued by NIE for studies of interorganizational arrangements that resulted in several ground-breaking reports (Huberman et al, 1981; Yin and Gwaltney, 1981).

The interorganizational collectivity (IC) has been proposed as the basic unit of analysis (Van De Ven et al, 1975). Note that not all relationships constitute collectivities, e.g., a lab and an organization receiving one-way communications. The relational properties of IC's have been examined from two perspectives: (1) the dimensions of interaction or exchange between organizations (e.g., formalization, intensity, reciprocity, and standardization); and (2) the mechanisms for coordination between organizations (e.g., mediated or unmediated; domain consensus, complementarity of resources, homogeneity of structure, mutual awareness, and stability between the organizations in the exchange relationship).

Unfortunately, documentation available for this study does not perm this level of analysis. However, it would be helpful if we could get a clearer description of the different kinds of ICs developed by the labs. Four kinds can be differentiated by observing two different factors. First, does the collectivity have a single or multi-purpose? Second, is the collectivity limited to two organizations (i.e., a bi-lateral arrangement), or are more

than two organizations involved? The combination of these factors yields four kinds of ICs. (See Figure 7). Of course our meanings for these terms do not necessarily correspond to those used in the labs' reports. The reports being examined make many references to "networks" in particular, but this term seems to have different referents. The intent here is to use four terms and give them more

	Single-Purpose	Multi-Purpose
Bi-Lateral	PARTNERSHIP	COLLABORATIVE
Multi-Lateral	CONSORTIUM	NETWORK

Figure 6. Types of Interorganizational Collectivities

precise meanings.

We can take the classification system several steps further. First, we need to note the lab's relationship to the IC in question. In some cases the lab is simply a member of the IC. In other cases it is not a member but stands in the relationship of service provider to a client IC. Adding the membership factor to the four types of IC yields eight types of IC configurations, as shown in Figure 7.

Previously we had noted that the educational infrastructure is

	Bi-lateral Single-purpose	Multi-lateral Single-purpose	Bi-lateral Multi-purpose	Multi-lateral Multi-purpose
Lab is Member	LAB PARTNERSHIP	LAB CONSORTIUM	LAB COLLABORATIVE	LAB NETWORK
Lab not Member	CLIENT PARTNERSHIP	CLIENT CONSORTIUM	CLIENT COLLABORATIVE	CLIENT NETWORK

Figure 7. Types of Lab/Interorganizational Collectivity Configurations

made up of three kinds of organizations, KPOs, SIOs, and SDOs (see II-1.) For present purposes KPOs and SIOs are combined and labeled SIO.

Analysis of Lab Programs

In Table 12 the four kinds of ICs appear as the column heads. Not all relationships constitute ICs. It is very difficult to define the boundary between interorganizational arrangements that constitute collectivities and those that are too evanescent to be counted, but activities involving one-way communication from the lab to some organization are not shown. However, the stub of the table shows the types of organizations the lab is related to and its role in relation to them.

A number of lab programs, projects and activities are classified in the cells of this table. No claim is made that this table is complete or comprehensive. Many projects or other work units are no doubt missing because it was not possible to work out a system for classifying everything. The goal is to examine projects in several different cells to gain a clearer understanding

CHAPTER V TASKS 2 & 4

Table 12. Linkage Strategy: Classification of Selected Task 2 and 4 Lab Programs/Projects by Type of Interorganizational Collectivity, Type of Organization, and Lab Role.

Lab Membership and Type of Organization	Single-Purpose Bi-Lateral PARTNERSHIP	Single-Purpose Multi-Lateral CONSORTIUM	Multi-Purpose Bi-Lateral COLLABORATIVE	Multi-Purpose Multi-Lateral NETWORK
	LAB PARTNERSHIP	LAB CONSORTIUM	LAB COLLABORATIVE	LAB NETWORK
A. LAB IS A MEMBER 1. Service Improvement Organization(s) (SIOs)	Lab/center conference sponsorships: CPRE/NCREL, CPRE/SEDL, CPRE/SEIL CVE/AEL, NREA/McRel,etc. RBS: Applied Res/Policy Studies: Md High Sch Grad Requirements Study RBS: Applied Res/Impr Studies: Pa & Md studies of mandated minimum competency testing RBS & CIRCE: Effects of changes in assessment policy FWL 3.1: Suppt for Beg Teas w/CSU FWL 3.3: Preparing teas for work w/diverse stud popn, w/CSU NW 4.15: The Automated Workplace: Jt dev w/ corporate partners SEIL and McREL: contracts with IHEs & other agencies for RD&E	Lab Task 5 themes CSAP: Communication Services Assistance Prog (Lab network activity done by CaOAR) RBS & Consortium on Ed Policy Studies, Indiana U. NW 2.1: Info Ctr on Application of Technology: RICE database of courseware evals from "network" of SEAs NW 2.5: Collegial Tea Trng (w/ SEAs, ISAs, & IHEs NW 4.4: Technological Literacy for All: mixed meeting with subj matter and tea organizations FWL 1.5: Teaching for Sci Literacy: w/CSU & Kern Co CA	RBS/SEA agreements (Task 3?) FWL/CSU (CA State Univ) agreement	SEIL, NCREL (and others) State Advisory Committees NCREL: State Liaison Committee Lab portion of Urban Ed Network AEL, McREL, NCREL
2. Service Delivery Organization(s) (SDOs)	FWL 3.5: Promote district options for sch impr w/Clark Co NV McREL: School Audit Experiment with Shoshone, WY	RBS: Study of 10 High Schs with Mid Atlantic Metro Council NCREL 8.3: Curr Design in Tea Ed est a consortium to sponsor the study of induction progs		AEL: Teacher study groups AEL: Adm study groups
3. Mixed SIOs and SDOs		SEIL: SEED (Software Eval Exch) with SEAs and LEAs FWL 1.3: Sch Dropout Task F, Phoenix, w/ state leg, bus, etc. FWL 2.1: Outcome Based Ed w/ UT SEA & ISAs		
B. LAB IS SPONSOR/ SERVICE PROVIDER 1. Service Improvement Organization(s) (SIOs)	CLIENT PARTNERSHIP RBS: Applied Res/Policy Studies: 4 pol studies done for Pa legisl SEIL contracts with IHEs AEL: Classroom Instr Prog: provide TA to NEA's Mastery in Learning McREL: Resource support for ISAs in NE, KS, and CO	CLIENT CONSORTIUM SEIL: "Network" of site directors of SE Writing Projects (SEWP) SEDL: Themes A, B, C (or are these broadcasting rel's?) NCREL: Video conf w NDN facilitate NCREL: Technology Info Exchange FWL 3.2: Provide TA for implement prof dev ctr net f rur schs NV AEL: Design & test instr strategy for use in teacher ed	CLIENT COLLABORATIVE	CLIENT NETWORK NW 2.11: Regional Indian Ed Net (State Indian Ed Assocs) NE/I: Leadership for Scho Impr Net RBS: Coop Sch Impr Networks: o MD Council of Assist Supts o Labor-Mgmt Cooperation Network o Mid Atl Metro Council (5 LEAs)

(This table is continued on the next page.)

CHAPTER V TASKS 2 & 4

Table 12. Linkage Strategy: Classification of Selected Task 2 and 4 Lab Programs/Projects by Type of Interorganizational Collectivity, Type of Organization, and Lab Role. (continued)

Lab Membership and Type of Organization	Single-Purpose Bi-Lateral PARTNERSHIP	Single-Purpose Multi-Lateral CONSORTIUM	Multi-Purpose Bi-Lateral COLLABORATIVE	Multi-Purpose Multi-Lateral NETWORK
	CLIENT PARTNERSHIP	CLIENT CONSORTIUM	CLIENT COLLABORATIVE	CLIENT NETWORK
8. Service Delivery Organization(s) (SDOs)	RBS: Applied Res/Policy Studies: strategic planning studies in LEAs and local schools NW 2.8: Training Ctr for Classrm Assess: trng tchs, trainers, pre collab w SEAs, ISAs & IHEs NW 2.13: Pac Local Capacity Bldg NW 2.16: Problem Clarification/ Need ID: (Services to ind LEAs) NW 4.18: Voc ed pilot test sites FWL 1.2: Self-Directed Learning in Sci w/Washoe Co NV; Workshop Way proj w/Davis Co UT FWL 1.4: CSU training of tchs in LA FWL 2.2: Use of Tech: Plan & Serv w/CA SEA; res / plan w/NV SEA AEL: Classrm Instr Prog: on demand TA to schools	SEDL: Theme D Demo sites: Lab & LEA-SIO pair RBS: Field tests of special pops school improvement model NW 2.10: Effective Practices in Indian Education NE/I: Tch Dev: Tch Change Net for assist supts FWL 2.3: Resource Support to CA County Offices of Ed McREL: Demo sites in KS & CO	McREL: with Denver LEA, Cherry Creek Schools, Valdez and Willow Creek	NW 2.12: Ed Networks for Sch Impr: El Net; Middle/Jr Net/ Sr Hi Net McREL: LEAD Center Network McREL: Rural Network AEL: Classrm Instr & Gov/Org Progs: Study Groups & Reg Conf RBS: Coop Sch Impr Network: & Rural Schs Exchange (300+ distr)
9. Mixed SIOs and SDOs	NCREL dissemination partners (signed agreements)	SEDL: state level meetings NE/I: Ed-Work Partnerships	NW 2.7: Rural Networking: SIOs (mostly IHE's) each run rural net with NW help: diff foci.	Lab SIO/SDO: Urban Ed Network AEL, McREL, NCREL: supts & prs McREL Staff Dev Network

of what these different linkage arrangements mean in practice.

Despite this disclaimer I will hazard two generalizations. First, the collaborative (multi-purpose, bi-lateral) seems to be the least popular form of IC. The agreements that RBS has drawn up with each SEA in its region (which apply primarily to Task 3) fall in this category. Similarly, the relationship between FWL and the California State University (CSU) covers a range of activities. In fact the two organizations overlap in that the Southern Service Center operated by FWL is shown as a unit in the lab table of organization. At the bottom of the chart, the NWREL Rural Networking Program is really a three-level arrangement and therefore classified as "mixed." The lab provides support services for a number of SIOs (presumably separately), which in turn provide services to a network of rural schools. Perhaps the lab/SIO relationships would be better categorized as partnerships and SIO relationships as client networks.

The second generalization cautiously advanced is that there are far more single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks). This seems to point to the desirability of flexible arrangements for responding to shifting needs and opportunities

ICs with Lab Member. The top half of the table contains ICs in which a lab is a member of the collectivity. It is undertaking an activity jointly with one or a series of organizations on a more less equal footing. Variation occurs in terms of whether the other organizations are SIOs, SDOs or mixed, whether the activity has a

single or multiple purpose, and whether the relationship is bi-lateral or multi-lateral.

There were a number of cases of partnerships between labs and SIOs. A frequent activity was joint sponsorship of a conference with a research center. RBS reports working on research studies jointly with the Maryland and Pennsylvania SEAs. It had another partnership with the Center for Instructional Research and Curriculum Evaluation (CIRCE) at the University of Illinois. The FWL/CSU relationship, already noted at the institutional level, shows up again as partnerships for specific projects.

Although business corporations are not, strictly speaking, SIOs, one program involving corporations is placed in the SIO partnership cell. NWREL worked with several such corporations in its Automated Workplace program to get a more accurate idea of the work environments that students would be moving into.

There was one case of a partnership with an SDO: FWL's work with Clark County, NV, on the project, "Promote District Options for School Improvement."

The consortium may be the most frequent form of lab membership in an IC. Individual themes under Task 5 would be the clearest example: three or more co-equal organizations working together on one topical theme. Similarly, joint lab sponsorship of CSAP, (Communication Services Assistance Project) at CeDAR is a cross-lab activity, operated in this case by a third-part SIO.

NWREL has three projects involving multiple SIOs. In one, SEAs provide software evaluations for a database operated by the

Information Center on Application of Technology. In another, a meeting focused on Technological Literacy for All was attended by both subject matter and teacher organizations. And in a third, it worked with SEAs, ISAs, and IHEs on the Collegial Teacher Training Project.

Labs are also involved in consortia with SDOs. RBS made a study of 10 high schools working jointly with the Mid Atlantic Metropolitan Council (composed of SDO administrators). NCREL established a consortium to sponsor a study of induction programs.

In the "mixed consortia" category, SEIL operates the Software Evaluation Exchange (SEED), apparently similar to the NWREL project, but involving both SEAs and LEAs as sources of evaluations. FWL worked with a Dropout Task Force in Phoenix, AZ, with both the LEA and community representatives. It also operated an Outcome-Based Education project in Utah in conjunction with both the Utah SEA and state ISAs.

Continuing across the top half of the table, we have already noted the paucity of lab collaboratives. Lab networks are also relatively scarce. The Urban Education Network is somewhat difficult to classify. It is operated by three labs, so there is a lab network at that level. But as a whole it is better classified in the lower right box as a "client network," since the labs provide support for SDO members of the network.

Client ICs. Although not Task 2/4 projects, state advisory committees and liaison committees operated by a number of labs might be considered client networks of either the SIO or mixed

variety. RBS works with four networks, three at the SIO level and one at the SDO level. In the former group are the Maryland Council of Assistant Superintendents and the Mid-Atlantic Metropolitan Council (the five largest LEAs in the region), being counted as SIO personnel here because central offices of large districts function like SIOs; and the Labor-Management Cooperation Network. In the latter category is the Rural Schools Exchange. McREL operates a rural network and a LEAD Center network.

Improvement Strategy: RD&D Approaches

We would also like to develop a more fine-grained analysis of some of the improvement strategy categories.

Research Approach

In previous analyses we have used a breakdown of the research approach into research, evaluation, policy analysis, and planning. In Table 13 the categories appear in the stub. For each of these, a further differentiation can be made in terms of the primary source of data, i.e., primary data, secondary analysis, and interaction documentation. These categories appear as column heads in the table. The first two of these are straightforward. The third, "interaction documentation," needs some explanation. Labs hold many meetings with other groups and individuals. Frequently these are "working meetings" rather than listening to speakers. When people share ideas and interact at these meetings, a documentation of what occurs is often made that constitutes an intellectual product termed "interaction documentation."

Table 13. Improvement Strategy: Classification of Sel ected Task 2/4 Lab Programs/Projects by Research Approach.

Research Approach	Primary Source of Data		
	Primary Data	Secondary Analysis	Interaction Documentation
A. Applied Research	RBS:CSIP/Applied Res/Policy Studies Mid Atl Council study of 10 H Schs NW 4.5: Res on Classroom Assessment three studies collect primary data NW 4.6: Tea Turnover in Reservation Schools NE/I: Leadership for Sch Impr: Study of Urban High Schools FWL: Study of tea recruitment & retention in CA	NW 4.5 Res on Classroom Assessment One study is synthesis of res NW 4.13: Sch Improvement Res Synth NCREL: rev of res on strategies for improving instruction NCREL: 10 "Interpretations of res on teacher roles" & 4 interps of case study research NCREL: 24 papers/monograph on dimensions of thinking NCREL: Rev of lit on incentives for personnel AEL: Anal of longit DB on family conditions & student achievement AEL: Demog Study of Rural Smal Schools and Districts McREL: Teacher Demand & Supply	SEIL: Model for tea research on writing (subcontract) NCREL: Invitational seminar on strategies for improving instr will produce mats for summer inst AEL: Classroom Instruction Prog: Study group reports
B. Evaluation	SEIL: Tracer study of SEED (subcon) RBS: Paper: Exemplary SD Practices Related to Info Collection & Use McREL: Reader Response:McREL Update RBS: Studies of state mandated min competency testing in PA & MD; Study of MD HS Grad Requirements FWL: Eval prof dev ctr in NV co : Eval career ladder syst in UT : Eval CSU Summer Bridge & Intensive Learning Experience Prog AEL: The Effectiveness of Study Groups as an R&D Methodology	NW 2.1: Qtr software analysis reports NW 2.4: Item & Test Info Ctr: Consumer Guides & Guide to Item Banks	RBS: CSIP/Org Eff/Sec Sch Impr: Paper: Sec Schs & Central Office NW 2.5: Reg conf on Collegial Staff Dev (no proceedings?) NW 2.12: Regional Nets for Sch Imp
C. Policy	SEIL: Teacher labor market studies SEIL: Longit study of tea cert RBS: Appl Res/Policy Studies: Strat Planning Studies in LEAs & schs; Coord of Ed & Soc Services in PA	SEIL: Supply Side of Tea Lab Mkt RBS: 3 position papers for PA leg	Reports of policy forums
Planning	NW 4.18: Effective Voc Ed: Use strategic planning to work w LEAs toward new directions in voc ed McREL: North Dakota State Plan for Technology	NW 4.12: Profile of Pacific Schs NW 4.15: The Automated Workplace: synthesis of previous research NW 4.18: Eff Voc Ed: lit search NE/I: Leadership for Sch Impr: sec analysis of 2 sch impr studies NCREL: Rev of lit on SD; dev framework for planning SD progs McREL: various strat plan projs	NW 2.7: Rural Networking:supervise & monitor plan & dev of collab arrangements between nets & SIOs NW 2.17: State plans for working with and through SIOs NW 4.4: Technology Forecast Panel

The reliability of coding lab programs and projects into the cells of this table may not be high, but the typology may still have heuristic value in illustrating a fairly wide variety of research approaches and methodologies used. Again, no claim is made that this table represents a complete and comprehensive classification of lab activities.

While no attempt to review all of the work found in each cell is being made, a few comments are in order. Examples were found for every cell of the table. Collection and analysis of primary data is still an approach used by labs. While there is no way of quantifying and comparing the level of effort for the three columns, it appears that most labs are more involved in secondary analysis rather than the analysis of primary data. In addition, in a number of cases involving primary analysis, the work is being done by a subcontractor rather than by lab personnel. Interaction documentation constitutes an important form of knowledge production for labs.

The evaluation category may include some projects not actually funded by OERI; it is not always easy to tell whether the work being reported is inside or outside the OERI contract.

Development/Demonstration Approach

Development and demonstration are also knowledge-based improvement strategies, but they cannot be subclassified in the same way as research approaches. The categories used in the stub of Table 14 are of a mixed bag. Development is divided into two types, that done by the lab alone and that done jointly with some

other organization. Promising practices is a knowledge-based approach, but it is based, at least in the first instance, on craft knowledge, not research knowledge. We will investigate this strategy in more detail below. Finally, Demonstration involves implementation and operation of an innovation on site, usually but not always a local school, to document and illustrate the feasibility and effectiveness of the innovation. Demonstration is a permissible exception to the "with and through" linkage strategy when SDOs are involved that permits the lab to retain "hands on" experience.

The column heads of the table differentiate types of materials as student materials, teacher materials, trainer materials, and administrator materials. This is probably the least reliable classification of all because it is frequently difficult to tell for whom the materials are intended. Projects involving "program descriptions" are generally classified as "administrator materials," although the programs might well be oriented toward teachers or trainers.

Again, no claim is made that this table is comprehensive; in addition, generalizations are hazardous. It would appear, however, that the focus is on student materials less often than on other types of materials. This represents a sharp contrast to the former focus of older labs when the primary improvement strategy was curriculum development.

When development is involved, it appears that labs are more likely to proceed on their own than to engage in joint activity.

Table 14. Improvement Strategy: Classification of Selected Lab Task 2/4 Programs/Projects by Development/Demonstration Approach.

Type of Development Demonstration	Type of Materials			
	Student Materials	Teacher Materials	Trainer Materials	Administrator Materials
A. Laboratory Development	NW 2.2: Tea Ctr for Demo & Trng: Collection of hardware & software	RBS: Special Populations Sch Improvement Model NW 2.8: Trng Ctr for Classroom Assessment (also T of T & pre) McREL: Math scope & sequence for rural high schools McREL: Tactics Teacher Manual NCREL: Options handbook on strategies for instr impr	SEIL: Guide to Pvt Sector Resource for Principal Effectiveness SEIL: Effective Math K-5: workshop model, handbook, video tape RBS: Organizing for Sec Sch Dev NW 4.7: Res Based Sch Impr NW 4.18: Eff Voc Ed:trng materials NCREL: Prof Dev: Manual for staff dev planning NCREL: Models/indicators of instr leadership NCREL: Res synth on tea ed FWL: Outcome Based Ed: Casebook, Models of Instr Org AEL: Classrm Instr Prog: Devl Turnkey Training Activities McREL: How to Teach Teachers	SEIL: 2 clusters of modules: Competencies of High Perf Prs RBS: Spec Pops Sch Impr Model NW 2.7: Rural Networking: Trng mats for SIOs re role in developing rural nets NW 2.8: Trng Ctr CR Assess: trng materials for principals NW 4.6: Adm Guide for Tea Turnover in Reservation Schs NW 4.13: Sch Impr Res Synth: Dev electronic communication system RBS: Institutional Analysis: Directory of Instruments McREL: Ed leadership trng modules McREL: Planning guide for impl
B. Joint Development	NE/I: Modules for Thinking Skills Program (jt w Harvard prof)	NW 4.15: The Automated Workplace: dev corporate mentoring & field placement program (w bus collabs) FWL 3.1: Eff Suppt Beg Teas, w/LA, dev & test training prog FWL: Devl & test Teaching for Scientific Literacy McREL: ASCD tape on strategic planning	NW 2.5: Collegial Tea Trng: Mentor Teacher Handbook (with SIOs) FWL 3.1: w/Los Angeles SD, dev 3 sets of resource mats for mentor teaching	RBS: LORE (Leadership for Org Renewal & Effect) w/Phila RBS: Sch D Eff Audit (w NJ Sch Bds Assoc) NW 2.7: Rural Networking: Dev rur networking models NW 4.12 Pacific R&D Database AEL: Reg Liaison Ctr: Model of home-schoo-com partnerships w/Norfolk community
C. Promising Practices	SEIL: SEED (Software Eval Exchange see Tracer Study NW 2.1: RICE database on courseware evaluations (jt w SEAs) NW 4.14: Prom Prcs for At Risk Y McREL: Prairie Winds	NW 2.4: Item & Test Info Center NW 2.10 Eff Practice in Indian Ed NW 2.12: Reg Nets for Sch Impr NW 4.1: Computer & Curr Studies: cases of integrating software & curriculum NW 4.12: Pacific Eff Practices NW 4.13: Sch Impr Res Synth: Exemplary Practices NE/I: Identified print, prog & human resources on 6 topics, & resource bibliographies NCREL: Handbook of options for evaluating computer applications NCREL: Collect & collate info on cutting edge applications of tech to students at risk & HOTS NCREL: Collect, study & analyze SEA & LEA practices, policies, progs on personnel incentives FWL 2.1: Outcome Based Ed products school profiles & resources dir	SEDL: Theme B: Applying Technology to Sch Impr ??? NW 2.5: Collegial Tea Trng: Search for PPs for induction & long term prof dev (w SIOs) NW 4.18: Eff Voc Ed: study eff practices at sch sites NE/I: Tea Dev: Guidebook NCREL: Prof Dev: project in 2 states to ID distinctive SD progs FWL 3.1: Eff Suppt Beg Tea, w/ CSU dev casebook, Close to the Clsrm AEL: Prof Prep & Res: VA & WV, directory of tea trng resources	SEDL: Theme A: Partnerships with Parents, Business, & Communities SEDL: Theme C. Tea/Adm Perfmance Assessment Systems RBS: Compendium sel impr indicator NW 2.6: Sch impr thru Eff Tea Eval: Five Keys to Growth NW 2.15: Need ID: trng mats on problem analysis NW 2.14: Pvt Sector Networking: Linkage models NE/I: Tea Ed Reform Database NE/I: Leadership for Sch Impr: Directory of Resources FWL 1.1: Profile of state assessment programs FWL 3.1 Eff Support Beg Teas w/CSU Policy & Prog Casebook AEL: Gov/Adm: study group products
D. Demonstration	NW 2.2: Tea Ctr for Demo & Trng: Demos of hardward & software at headquarters & in field NW 4.14: PP for H1 Risk Y: Help selected LEAs plan alt learn envts McREL: Technology Demonstration SD DAT	NE/I: Agreements with 6 SEAs & 11 LEAs for demo schs, At Risk Y FWL 1.2: Self-Dir Learn in Sci AEL: School Excellence Sites (SES) McREL: ACCESS: Preperation for SAT and ACT	SEDL: Impr Sch & CR Productivity: outcomes for trng SIO facilitator 5 sites w SIO partners NW 2.13: Pacific Local Cap Bldg: Train trainers ("local cadres") FWL 3.1: Eff Suppt Beg Teas, w/CSU Support & document pilot demos in clinical supervision of beg teas McREL: Tactics training for MO Leadership Academy	RBS: Sec Sch Impr: demo sites, working w teams fr cent off FWL 3.5: Promote Dist Options for sch impr, w/ Clark Co NV

On the other hand, the promising practices strategy is almost always an approach requiring work witn other organizations.

Approaches to Staff Development

The last two sections have proviced an overview of lab linkage and improvement strategies and subtypes of interorganizational collectivities, and research and development/demonstration approaches. We would now like to get a more holistic view of contrasting strategies.

While all laboratories identified staff development as an important educational focus, there was considerable variation in definition of the problem and improvement and linkage strategies employed. Because they divide naturally into three subgroups, profiles of selected of staff development programs appear in three separate tables: 15, 16, and 17. Table 15 shows three labs that selected a trainer of trainers approach mixed with an important knowledge production component. Table 16 shows three labs that also had a knowledge production component but combined it with information dissemination rather than training. Finally, Table 17 shows the other three labs that adopted three different strategies: a nearly pure knowledge production approach (FWL), a networking and information dissemination approach (McREL), and a comprehensive approach (NWREL). Note that these are selected programs, chosen to reflect variations in approach. No claim is made that the program selected for any lab necessarily reflects its total approach to staff development.

Table 15. Selected Approaches to Staff Development: Knowledge Production and Training Trainers

Design Feature	AEL	RBS	SEIL
Program/ Project Name	a. Classroom Instruction Prog b. Training opportunities b. TURNKEY TRAINING*	Cooperative School Improvement Instructional Improvement TURNKEY TRAINING	EFFECTIVE K-5 MATHEMATICS REMEDIATION
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION 1. Need: to improve teaching & learning in region 2. 3 principles of action: o Work with and thru o Privide R&D-based info o Provide opportunities for teas to increase kn	A. PROBLEM DEFINITION	A. PROBLEM DEFINITION 1. Need for more teachers with four competencies 2. Goals: o Communicate theories and strategies of instruction o Train trainers of trainers
B. Improvement Strategy	B. IMPROVEMENT STRATEGY o Using methodology of RDIS synthesize research on st dev, math & sci, and oral & written comm & reading o Produce 4 training pkgs in 86 and 9 in 87	B. IMPROVEMENT STRATEGY o Produce/refine training packages in 3 content areas thinking skills, elementary excellence, and instructiona supervision.	B. IMPROVEMENT STRATEGY o Knowledge base is research synthesis on four competencies teachers should have. o Dev products: workshop model, handbook & video ta
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o NEA state affiliates are sponsors; trainers = SDO personnel "charged with staff development"	C. LINKAGE STRATEGY 1. Collaborators/clients o Collaborators: SIOs o Clients: staffs of LEAs, SIOs, prof assocs, & SEAs	C. LINKAGE STRATEGY 1. Collaborators/clients o SEAs sponsor and nominate participants o SDO personnel are trainees
2. Services	2. Services o Training workshops	2. Services o Turnkey training	2. Services o Develop non-content parts of workshop model o Train trainers
3. Provision for 2nd tier	3. Second tier o Ad hoc	3. Second tier o Ad hoc	3. Second tier o Ad hoc
D. Impact 1st level 2nd level 3rd level	D. IMPACT o 120 in 6 workshops in 87 o 236 by 19 of above	D. IMPACT o "...the use of materials was more piecemeal than programmatic"	D. IMPACT o 20 in 1 workshop in '87 o 32 by 2 of above
E. Remarks	E. REMARKS: Part of larger program. *Also provides turnkey training to NEA's Mastery in Learning project.	E. REMARKS	E. REMARKS Was subject of 3rd party tracer study.

KP/IT Approaches to Staff Development.

AEL, RBS, and SEIL all designed trainer of trainer programs utilizing materials developed for that purpose. The problem definitions of AEL and SEIL combine pragmatic and theoretic rationales. SEIL had the narrowest focus, namely K-5 mathematics remediation. AEL and RBS included both curricular foci (math and science, oral and written communication, thinking skills) and more general staff competencies (research on staff development, elementary excellence, and instructional supervision). For an improvement strategy, both AEL and SEIL produced research syntheses as the knowledge base for their training materials. It is not clear whether RBS used a research or promising practices approach; it specifies "produce/refine training packages in three content areas." Both AEL and RBS refer simply to "training packages." SEIL identifies three development products: a workshop model, a handbook, and a video tape.

The labs also varied in their linkage strategies. They tended to perceive staff development as an internal SDO function rather than one for which school districts look for outside assistance. Although state NEA affiliates (AEL) or SEAs (SEIL) acted as sponsors, the clients were SDO personnel charged with staff development responsibilities. RBS trained both SDO and SIO personnel.

Curiously, it appears that none made specific provisions for the training that clients were expected to provide. Apparently they believed that this would be taken care of by selecting

individuals with staff development responsibilities (AEL) or from SIOs with improvement roles (RBS). The third lab (SEIL), relying on nominations from SEAs, found that some of its trainees were principals with no training responsibilities or teachers who perceived themselves as weak in the subject matter and therefore unqualified to train others. Perhaps it is difficult to influence established and active inservice programs, and labs may not have much leverage concerning second and third tier training, but it seems that labs need to give further thought to these next steps before they employ a TT strategy. Impact data indicate considerable attrition from one tier to the next. In the case of AEL, although 120 trainers were trained in six workshops in 1987, only 19 of these provided training to others. These 19 trained 236 in the second tier. SEIL held only one workshop for 20 trainers in 1987. Only two of these trained 32 at the next level. Clearly reduction in the attrition rate could greatly increase the leverage achieved with a TT approach.

KP/Information Dissemination Approaches to Staff Development

A second group of three labs (NCREL, NE/I, and SEDL) combined knowledge production with information dissemination (see Table 16). Problem definitions tended to be pragmatic. All three labs employed a promising practices improvement strategy, although NCREL included a component for designing and testing training materials, and NE/I indicated an interest in using adult learning theory.

No collaborators were identified for the linkage strategy. Clients of the information dissemination efforts were more general

Table 16. Selected Approaches to Staff Development: Knowledge Production and Information Dissemination

Design Feature	NCREL	NE/I	SEDL
Program/ Project Name	Program for Professional Dev B.1 STAFF DEVELOPMENT	Priority Area 2: Teacher Development 2.1 PROFESSIONAL DEV MODELS	A.3 PROVIDE TA [to SIOs] TO HELP THEM PREPARE ELEM TEACHERS & ADMS FOR PARENT INVOLVEMENT
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION o Reform reports call for improved inservice for both beginning and experienced teachers o Need new goals and models & innovative delivery & implementation strategies o New staff dev legislation	A. PROBLEM DEFINITION o The variety of groups that provide staff development need support	A. PROBLEM DEFINITION Partnerships with parents can: o help with problem of shrinking resources & rising expectations o improve climates for learning
B. Improvement Strategy	B. IMPROVEMENT STRATEGY o Study and catalog staff dev programs & practices o Design and test training materials o Profile practices in schools of education o Prepare papers	B. IMPROVEMENT STRATEGY o Apply adult learning theory o Develop effective practices file/directory/guidebook	B. IMPROVEMENT STRATEGY o Compile bibliography and directory of materials on parent involvement
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients = "Dissemination partners" (misc KPOs & SIOs) [inferred]	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients = LEAs, ISAs and IHEs	C. LINKAGE STRATEGY 1. Collaborators/clients o Clients are trainers in state-level tea ed assocs, SEAs, IHEs, etc.
2. Services	2. Services o Information dissemination [inferred]	2. Services o Information dissemination	2. Services o Develop procedures and recommendations for providing tech assistance
3. Provision for 2nd tier	3. Second tier: o Ad hoc	3. Second tier: o Ad hoc	3. Second tier o Ad hoc
D. Impact 1st level 2nd level 3rd level	D. IMPACT	D. IMPACT	D. IMPACT o Six state-level workshops for 165 representatives. o No data on second and third tiers
E. Remarks	E. REMARKS Source: "Addendum to Full Service Plan FY 1987"; Project could not be identified in 4th Qtr Report	E. REMARKS Original more comprehensive program scaled down in second year.	E. REMARKS One piece of programmatic effort on parent involvement. Described as TA rather than training.

than targeted. NCREL apparently sent its information to all its "dissemination partners," which included a wide variety of KPOs, SIOs and SDOs. Similarly, NE/I sent information to LEAs, ISAs, and IHEs. SEDL's effort was more targeted, aimed at trainers in state-level teacher education associations, SEAs, and IHEs. The exact nature of SEDL's work is hard to categorize. It describes it as technical assistance (rather than training or information dissemination). Six state-level workshops were held for 165 "representatives" who were given information about the SEDL materials on parent involvement and "procedures and recommendations for providing technical assistance." It seems closer to being a trainer of trainers program.

No data on impact are provided, either in terms of adoption or use of promising practices (NCREL and NE/I) or provision of technical assistance by those receiving the SEDL materials.

Miscellaneous Approaches to Staff Development

Finally, three labs had unique approaches to staff development (FWL, McREL, and NWREL). Profiles of these programs are found in Table 17.

FWL. The approach used by FWL appears to be almost exclusively a knowledge production effort. The Los Angeles School District is a very large LEA that hires over 3,000 new teachers each year. The FWL is focused on development of a mentor program whereby experienced teachers provide support for these beginning teachers. This development effort was a collaborative one with the Professional Development Center and produced three resources: a

Table 17. Selected Approaches to Staff Development: Miscellaneous

Design Feature	FWL (Knowledge Production)	McREL (Networking & Information Diss	NWREL (Comprehensive)
Program/ Project Name	Prof Prep & Development EFFECTIVE SUPPORT FOR BEGINNING TEACHERS	Subtask 2.3: Network & Broker People and Resources 2.3.2: Foster Interpersonal Networks: STAFF DEV NETWORK	2.5 COLLEGIAL TEACHER TRAINING
A. Problem Definition (Educational Focus)	A. PROBLEM DEFINITION 1. Need: Los Angeles hires over 3,000 new teachers per year 2. Goal: Assist Los Angeles Prof Dev Center train 900 mentors	A. PROBLEM DEFINITION 1. Large region with geographi diversity, sparce populatio and isolated professionals 2. Limited infrastructure and declining local and state resources	A. PROBLEM DEFINITION 1. Too few excellence reforms focus on instruction level 2. Goals: o Establish prof dev network o Build capacity of SIOs to train area collaboratives o Diss findings fr kn bases & collab efforts reg & nat
B. Improvement Strategy	B. IMPROVEMENT STRATEGY Jt dev w/ LEA of 3 resources: o Leader's Guide for Preparing Mentor Teas o Mentor Teacher Casebook o Intern Teacher Casebook	B. IMPROVEMENT STRATEGY o Ad hoc: identified through network interaction	B. IMPROVEMENT STRATEGY o Synthesize res on effective schooling, tea, & prof dev o Dev handbooks for mentoring thru collab design confs o Find promising practices for induction and long-term prof development
C. Linkage Strategy 1. Collaborators and clients	C. LINKAGE STRATEGY 1. Collaborators/clients o Professional Development Center of Los Angeles LEA	C. LINKAGE STRATEGY 1. Collaborators/clients o Individuals w staff dev as major resp, fr SIOs, SDOs, and private consultants	C. LINKAGE STRATEGY 1. Collaborators/clients o Collaborators: SEAs & IHEs o Clients: consortia of SDOs
2. Services	2. Services o Development + publication and sale of resource books beyond Los Angeles	2. Services Network creation & sponsorship o Semi-annual meetings o Coordination mechanisms o Steering committee	2. Services o Info: diss hbooks; reg conf o TA to consortia o Jt trng with SIOs at demo sites & other SIOs o Demo sites in 3 States o Estab prof dev network
3. Provision for 2nd tier	3. Second tier o Trng mentors is regular responsibility of partner	3 Second tier: o Ad hoc	
D. Impact 1st level 2nd level 3rd level	D. IMPACT o Not specific y stated; Presumably ,00 mentors trained by 0 ctr staff.	D. IMPACT o Increased SEA communication o McREL participates in SEA inservice programs o SEA exchange of personnel	D. IMPACT o No data
E. Remarks	E. REMARKS	E. REMARKS	E. REMARKS

Leader's Guide for Preparing Mentor Teachers, a Mentor Teacher Casebook, and an Intern Teacher Casebook. The linkage strategy was the use of these materials by the Los Angeles School District in its regular staff development program. Presumably over 3,000 mentor teachers were trained by the Professional Development Center. In addition, the materials were made available for purchase by other districts. In this case joint development with a large SDO virtually assured implementation.

McREL. McREL's Staff Development Network Program is probably the most opportunistic of the nine. (Other staff development activities are carried out in other programs.) It consists of creating and supporting a network of persons responsible for staff development in SEAs, other SIOs, SDOs, and private consultants. McREL's support consisted of (1) organizing semi-annual meetings, (2) coordination mechanisms, (3) a steering committee, and (4) distributing related information. The resulting staff development improvement efforts were ad hoc, emerging from the interaction of network members. McREL cites as impact increased communication among staff development personnel in different SEAs, McREL participation in SEA inservice programs, and exchange of staff development personnel among SEAs.

NWREL. The staff development program of NWREL, Collegial Teacher Training, is the most comprehensive. It notes that too few excellence reforms focus on the instructional level. The goals of the program are to establish a professional development network, build the capacity of SIOs to train LEA collaboratives, and to

disseminate regionally and nationaly findings from knowledge bases and collaborative efforts. Three improvement strategies are used: research synthesis, handbook development, and selection of promising practices for both induction and long term professional development. For linkage, both SEAs and IHEs are listed as collaborators, although the nature of the collaboration is not specified. Interestingly, the clients are not individual LEAs but consortia of LEAs interested in improving staff development efforts. Given the small size of most Northwest districts, joint staff development efforts are apparently felt to be more cost-effective. Specific services run the gamut, including regional conferences, dissemination of handbooks, establishment of demonstration sites in three states, joint training with SIOs at these sites and at other SIOs, provision of technical assistance to consortia of SDOs, and establishment of a professional development network. Unfortunately, no impact data are provided.

Comments

Staff development was recognized as an area of need by all laboratories. Some focused on the problems of inducting beginning teachers while others focues on inservice for experienced teachers, or both. One or more labs used virtually all improvement and linkage strategies. This would be a good topical area for labs to get together and compare notes on what works best and possibly design some comparative studies that would produce more systematic evidence.

The Promising Practices Improvement Strategy

The RFP enjoined labs to use R&D-based knowledge as the basis for its improvement efforts. When the labs employ a research synthesis strategy or develop materials designed with reference to some research knowledge base, it is clear that they are using this approach. When they search for and select promising practices for cataloging and disseminating, it is difficult to say whether the practices are R&D-based.

For some years, programs supported by OERI have attempted to give equal weight to craft knowledge and R&D-based knowledge. During this same period philosophers of science have argued the relative merits of various paradigms such as positivism, behaviorism, action research, interactive research, and naturalistic inquiry. These issues are beyond the scope of this study, but we would like to get a clearer picture of just what is involved when labs employ a promising practices methodology. What kinds of search strategies are employed, and what criteria of selection are used? In what sense, if any, are the practices R&D-based?

Most of the labs employed a promising practices approach in at least one project. Unfortunately, the information available for this study is not detailed enough to permit the kind of analysis employed for other issues. For example, an action step for a project might specify "Identify criteria for selection of promising practices," but the criteria used are not reported in the kinds of documents used for this study. Therefore, this section will be

limited to identifying some of the programs and projects that employ this approach, examining some variations, and discussing some of the issues involved.

The following is a list of lab programs and projects that appear to employ a promising practices approach:

FWL. 3.0 Enhancing Teacher Quality and Support for School-Based Improvement:
- 3.3.2: Inventory preservice and inservice interests and activities in the western region.
- 3.5.1: Help districts assess existing school-level practices and capabilities.

NCREL. 8.1. Staff Development: Identify distinctive staff development programs in two states; describe data collection procedures and standards employed. Publication in 1988.

NE/I. 3.1. Resources for Effective Classroom Practice. Six topical areas; publish resource bibliographies, overview articles, list of materials, and list of program descriptions.

NWREL. Activity 2.4: Item and Test Information Center: Gather and compile tests, testing ideas, assessment approaches. issues and items;
Activity 2.5: Collegial Teacher Training: Conduct search for promising extant models for induction and long-term professional development.
Activity 2.14: Private Sector Networking: Survey regional and national linkage models and classify by purpose.
Activity 3.4 Educational Standards and Their Impact on Organizations: Establish a repository of state and district standards developed throughout the Pacific and Northwest Regions, as well as selected standard-setting "models" identified from across the nation (Task 3).
Activity 4.7: Study of the Core Curriculum: Gather data and prepare profiles of different models of "core curriculum" in the region.
Activity 4.13: School Improvement Research Syntheses: Identify, describe and make visible and available for use among practitioners information about exemplary uses of effective schooling practices for school improvements at the state, intermediate district and local school levels.
Activity 4.14: Promising Programs for High Risk Youth: conduct a regional search of alternative education programs that are effective at the middle school and high school level.

Activity 4.18: Study of Effective Vocational Education: Identify through a literature review and contacts with leading R&D institutions applications of effective schooling research to vocational education.

SEDL. A. Developing Educational Partnerships with Parents, Businesses, and Communities:

A.1.1. Identify and describe promising programs/ practices of school-business partnerships.

A.2.1. Identify and describe examples of new and promising parent involvement programs and networks.

B. Applying Technology to School Improvement: Identify and describe innovative and promising classroom practices and school programs that use technology.

C. Improving Teacher and Administrator Performance: Identify and synthesize information on teacher and administrator performance systems.

SEIL. Project SEED (Software Evaluation Exchange Development and Dissemination): Indexed annotations on software evaluations made by practitioners trained in procedure and mailed to schools.

A number of observations can be made about this array of promising practices programs and projects:

- This methodology is applied not only to classroom practices but also administrative practices, testing, software, [academic] standards, and professional development programs.
- Some projects look for practices linked to principles in the research literature (e.g., NWREL 4.13 and 4. 18)
- One part of the FWL project seeks to enable SDO personnel to make better choices of practices rather than to provide the promising practices.

What makes a practice R&D-based? It can acquire this status either deductively or inductively. In the linear model, a practice is developed on the basis of principles uncovered through research. Much development has been inductive, however. Practices are

designed on the basis of professional experience or hunch and progressively refined through evaluation and redesign. Practices that are originally designed deductively may go through a similar process of testing and refinement. Whether a practice deserves to be called "R&D-based" depends on the degree to which it is logically consistent with research principles and/or subjected to a rigorous process of evaluation and redesign.

Research itself can be either deductive or inductive. The effective schools research has been inductive (for the most part). Schools judged to be more effective on given criterion measures were found to exhibit certain characteristics more than did schools judged to be less effective. But there was no evidence that these characteristics caused the schools to be more effective. When schools are changed to exhibit the characteristics of effective schools, this may constitute a deductive test of principles arrived at inductively. It may be that some of the labs' promising practices projects are of this nature.

An important evaluation question for the labs is whether their promising practices activities meet the test of logical consistency with research principles and/or the test of rigorous evaluation. Practices that are selected solely on the basis of practitioner testimonials belong in a different category of "craft-based" practices.

Conclusion

This chapter has analyzed Tasks 2 and 4, which represent from

60 to 78 percent of individual labs' effort. Although Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy, we again found that all projects have three strategic dimensions: a linkage strategy, an improvement strategy, and an educational focus. Projects tend to be identified in terms of the strategic dimension that was the point of departure in the planning process.

Further refinements were made in the conceptual framework for all three strategies. Starting with a set of programs dealing with improving administrative leadership, the educational or substantive focus dimension was further refined by observing varieties of ways the problem was defined. Some saw the problem in terms of the need for administrators to understand new bodies of research findings, others in terms of the isolation of administrators, etc. Labs used both theoretic and pragmatic rationales and focused on both curricular knowledge and teaching competencies.

Linkage strategies had previously been analyzed in terms of knowledge base, interorganizational arrangements (national and regional collaborators), and interpretations of the "with and through" strategy. Turning to a set of Task 2 programs, the linkage strategy was elaborated by identifying four types of interorganizational collectivities (partnerships, collaboratives, consortia, and networks) and differentiating those of which the lab was a member from those that were served by the lab as clients. Some tentative findings were: the collaborative (multi-purpose, bi-lateral) was the least common form of interorganizational

collectivity, and far more single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks) existed.

Improvement strategies previously had been described in terms of the knowledge base employed (research, products, and practices), information services provided, and the KP activities involved (research, evaluation, policy studies, or development). In this chapter a set of Task 4 programs was further studied by subdividing research into applied research, evaluation, policy studies and planning; and coding the primary source of data (primary data, secondary analysis, or interaction documentation). Examples of all approaches were found. Under the heading of "development/ demonstration approach," four categories were recognized: lab development, joint development, promising practices, and demonstration. Programs in each were classified by types of materials (student, teacher, trainer, and administrator materials). There was much less activity involving student materials than the other kinds.

All labs had programs or projects dealing with staff development. Three labs used a trainer of trainers approach combined with the production of training packages. Labs tend to see staff development as internal LEA function and identify the final trainers in the chain to be LEA personnel, especially in large districts. However, they often work with SIO personnel in early stages of the chain. Trainer of trainers programs were found to be weak in making specific provisions for first wave trainers to

follow through and train others.

Three other labs combined knowledge production with an information dissemination strategy in seeking to improve staff development. Evidence for the impact of these approaches was sparse.

The other three labs had different approaches to staff development. FWL was largely a joint development effort with the Los Angeles public schools. McREL combined networking with information dissemination, while NWREL used a comprehensive strategy.

It was suggested that staff development was an area in which useful comparative studies or "strategic research" might be conducted.

Finally, the "promising practices" approach to improvement, which involves collecting information about extant programs, was singled out for special analysis. It was noted that it may or may not be an R&D-based strategy, depending on whether the practice is logically consistent with research findings and/or subjected to a rigorous process of evaluation and redesign. The promising practices methodology was applied not only to classroom practices but also to administrative practices, testing, software, standards, and professional development programs.

CHAPTER VI

SUMMARY AND CONCULUSIONS

Nature of the Study

This study has described the nine regional educational laboratories supported by the U. S. Department of Education's Office of Educational Research and Improvement. The labs are operating under five-year contracts for 1986-1990. The study has analyzed lab-produced documents describing lab operation for the first two years of this period, highlighting the status of the program at the end of the second contract year. These were largely management documents (plans, annual reports, self-assessment reports, etc.) rather than program documents.

These aspects of the study, dictated by the request for proposal, impose certain limitations on the analysis. The reports vary greatly in detail and specificity. Consequently it is possible in some instances that a lab may be coded as not exhibiting a certain characteristic or undertaking a given kind of activity when that is not the case. Such information may exist in some document not examined, or if the information was provided it could have been missed in the analysis. This possibility was considerably increased because several lab reports lack continuity. For example, a hierarchical program structure with every program project assigned letters and/or numbers would be set out in a plan but would be abandoned or changed in later documents. Having this report reviewed by both the OERI institutional liaisons and the labs should help overcome such problems.

Some readers may doubt the credibility of lab produced documents. If one discounts occasional passages of self-congratulation, the factual information can be accepted as reasonably valid. There are many examples of candor in discussing problems and how they were dealt with. If OERI did not believe these reports contained useful information it would surely not have commissioned this study.

Conceptual Frameworks

One way that this report has attempted to advance our understanding of lab operations is by borrowing, adapting, or inventing conceptual frameworks for profiling and comparing lab programs and projects. Hopefully they will prove useful in designing further studies of lab strategies.

The RFP governing the lab competition has, of course, been a major point of reference (NIE 1984). In that document the mission of regional educational laboratories was specified by the task structure and a set of "statements" (see Appendix A). All lab programmatic efforts were found to have three strategic dimensions that can be derived from the RFP: an educational focus, an improvement strategy, and a linkage strategy. The major difference is that, whereas the RFP specifies a linkage strategy in Task 2 and an improvement strategy in Task 4, this analysis has demonstrated that programs and projects listed under these tasks exhibit all three strategies. This three-dimensional schema has provided the major framework for the analysis of all lab programmatic

activities. Each dimension has, in turn, been further broken down into more detailed classifications of tactics, as follows:

(1) Every (non-management) program and project has a substantive focus. What aspect of education is being addressed? The terminology used for this strategic dimension varies in different chapters, but the most generic and appropriate name is probably educational focus. In the context of needs assessment this dimension was examined as educational need or problem. In the context of state policy analysis it was examined as policy issues and domains. An adaptation of a classification of policy issues or domains used by FWL and derived from one by Mitchell and Encarnation (1983) was found to be reasonably comprehensive and mutually exclusive. In the context of Tasks 2 and 4 educational focus is examined in terms of variations in problem definition, including a distinction between theoretic and pragmatic rationales. Clearly, the specifics of how a problem is defined will have a lot to do with the selection of other strategies and tactics.

A recapitulation of the categories used to describe the educational focus follows. These and other classifications in this chapter update and consolidate conceptual frameworks used in the analysis. No one analysis in the body of the report used the full set of categories.

EDUCATIONAL FOCUS
- Problem definition
  - Theoretic rationale
  - Pragmatic rationale
- Educational need/problem/policy/issue domain
  - Buildings and facilities
  - Curriculum and instruction

Organization and governance
Program definition
School finance
School personnel
Student type
Student testing

(2) All programmatic activities have an improvement strategy. Labs are limited to knowledge-based improvement strategies by the RFP (in contrast to strategies based on providing funds, changing regulations, etc). This dimension focuses on the types of knowledge used for educational improvement and how it is obtained and processed. Some facets of knowledge-based improvement strategies examined include knowledge bases used, information services provided, and types of KPU, including sub-types of research approach and primary sources of data.

A recapitulation of the categories used to describe the improvement strategy follows:

IMPROVEMENT STRATEGY
Knowledge base
  Research findings, by field (ad hoc)
    Effective schools
    etc.
  Products
    Extant
    To be developed
  Practices
    Extant
    To be compiled
Information services
  Database development
  Reports based on databases
Knowledge production to be undertaken
  Approach
    Research
    Evaluation
    Policy studies
    Planning
    Development

Primary type of data
Primary data
Secondary analysis
Interaction documentation

(3) All programmatic activities have a linkage strategy. Labs are sociologically marginal organizations operating in a loosely coupled configuration of educational units. Since education lacks system characteristics, there is no assurance that new knowledge and practices will flow through it efficiently. Labs are in the position of having to continually negotiate their role in the organizational infrastructure. Consequently all programs and projects must specify a strategy and tactics for linking to other educational organizations. The RFP called for an indirect "with and through" strategy as the dominant mode of operation, i.e., labs would work primarily with and through other service improvement organizations (SIOs) rather than directly with service delivery organizations (SDOs). In this context, the conceptual framework was further elaborated to specify knowledge bases, interorganizational arrangements, and communication modes.

A recapitulation of the categories used to describe the linkage strategy follows:

LINKAGE STRATEGY
Knowledge base
Research findings, by field (ad hoc)
GDPA study (Louis et al 1984)
DESSI study (Crandall and Loucks 1983)
etc.
Ordinary knowledge
Products
Extant
To be developed

- Practices
  - Extant
  - To be developed
- Interorganizational arrangements
  - Collaborators
    - National collaborators
      - Other labs
      - University centers
      - National associations
      - Other
    - Regional collaborators
      - KPOs
      - SIOs
      - SDOs
  - Clients
    - Primary
      - Chiefs
      - Other SEA
      - State government
      - State-level associations
      - IHEs
      - ISAs
      - SDOs
      - Cross section
      - Other
    - Range
      - Narrow
      - Medium
      - Broad
    - Type of client
      - Organizations
      - Individuals
      - Networks
      - Mixed
  - Interpretation of "with and through" strategy
    - SIOs are clients
    - SIOs are collaborators/sponsors, SDOs are clients
    - SDOs are collaborators and/or clients
  - Type of interorganization collectivity (IC)
    - Lab is member of IC
      - Partnership
      - Consortium
      - Collaborative
      - Network
    - IC is client of lab
      - Partnership
      - Consortium
      - Collaborative
      - Network

- Communication mode
  - Approach
    - Regional
    - State-by-state
  - Type
    - Information services
      - Search and retrieval
      - Publications
      - Electronic services
      - Presentation meetings
      - Briefings
    - Technical assistance
      - Telephone, mail
      - In-person consultations
    - Professional development
      - Training workshops
        - Training of trainers
        - Other
      - Participation in inservice programs

The conceptual frameworks presented above deal with lab program activities. Other frameworks apply to organization, governance, and planning activities, but only those for planning activities will be reviewed here."

The planning process implicit in the RFP requirements and exhibited by the labs was a version of strategic planning. Its major components are needs assessment, regional capacity assessment, self-assessment, and laboratory plans.

Needs assessment might be structured in terms of the classification of policy domains presented in the educational focus framework. Needs assessment has tended to be pragmatic in orientation. Consideration might given to structuring needs assessment along theoretical dimensions. For example, how are regional schools distributed in terms of characteristics of effective schools? Of course labs are dependent on the availability of good indicator data for this kind of information. Several labs did

collect needs survey data using the Grunig communication theory, which seemed to be useful in determing the degree of concern with specific issues. A number of meanings of "need" were noted, and the concept should be clarified for further needs assessment efforts. Further, needs can be specified at different levels of generality. A level midway between the generic functions of education and the level of technical design was recommended.

The weakness of regional capacity assessment was noted, together with the failure to use the methodology developed in the ARROE Study (Frankel et al 1979; Lehming 1982). That study collected information on educational organizations performing research and research-related activities by type and including purpose, areas of primary educational R&D work, size of staff, specialities of professional staff, amount and source of funds with breakdowns by educational level and R&D function, and types of publications and dissemination activities. Adaptations of this framework to make it commensurate with other components of the strategic planning model would be necessary.

A review of the questions addressed in self-assessment activities revealed two types: criterion and purpose questions. Criterion questions could be grouped under the three strategic dimensions discussed above in addition to a fourth for organization and management.

CRITERION EVALUATION QUESTIONS
Educational focus
Relevance

Improvement Strategy
- Quality
- Utility
- Impact/effect
- Client satisfaction

Linkage strategy
- Interorganizational arrangements
- Reaching audience
- Lab visibility
- Indirect strategy

Organization and management
- Efficiency
- Capacity for self-assessment

PURPOSE EVALUATION QUESTIONS
Improve program
Improve organization/management
Improve self-assessment
Development staff
Achieve contract compliance
Increase knowledge

At a more general level, a variety of models or images were employed in self-evaluations.

EVALUATION MODEL OR IMAGE
Systems/CIPP
Quality control
Strategic planning
Goal free evaluation
Evaluator as educator
Institutional renewal

Lab plans are expected to flow from these needs-sensing, capacity assessment, and self-assessment activities. One would therefore expect the plans to use the conceptual frameworks related to each of these processes. In addition, there is the issue of how lab activities are structured into work units and organized for supervision and management.

The present study found the task structure mandated by the RFP useful in providing more detail on the mission of the labs but tended to be confusing for structuring work. Some kind of

hierarchical structuring of programs, projects, and activities was used by virtually every lab and seems desirable. Problems arose when names and numbers of work units were changed and it became difficult to trace a work unit from one report to another (e.g., from the full service plan to annual reports, to self-assessment reports, etc.).

Findings

Governance and Organization

The nine regions differed widely in their demographic, educational and economic characteristics. However, there is probably as much variation within regions as between them, and regional homogeneity is not the basis for the regional organization of laboratories. Rather, logistic considerations such as size of area, travel distances, and number of organizations with which to establish relations dictate a sub-national approach to laboratory services. Whether nine is the right number or the present configuration of states into regions is the right one is an open question. Nevertheless, given the difficulty of a laboratory establishing itself or changing constituencies, changes should be considered only in response to some compelling demand. It is difficult to discern the rationale for the relationship between budget levels and regional requirements. It may be desirable to find a new formula for the next round of competitions.

Labs have met federal specifications for establishing independent governing boards and seem well connected to regional

constituencies both through their boards and adjunct structures such as advisory committees. This is especially important given the loosely coupled nature of the educational configuration.

In terms of organization, all labs have some combination of program and service units. . Most employ some form of matrix management. If they did not have to report to OERI by task, both organizational structures and reporting requirements might be simplified. While a small degree of decentralization, as practiced by FWL and McREL, for example, seems to work reasonably well, the more radical form tried initially by NE/I had to be abandoned. Labs would probably have to be larger by several orders of magnitude before radical decentralization was feasible (i.e. large enough to have a "critical mass" at every location).

Planning

Some of the planning findings have been covered above in the section of planning conceptual frameworks. But a few additional comments are in order.

Labs do a reasonably good job of needs assessment but a poor job of regional capacity assessment. Given the requirement that labs stress the "with and through" strategy it might be helpful if labs viewed regional capacity assessment as measuring the needs of regional service improvement organizations. Labs also need to make explicit the ways in which components of the strategic planning model are analyzed in relations to each other. What is the logic and analysis whereby needs are compared with capacity to yield planning priorities? Alternatively, if regional capacity

assessment is not necessary to good planning it should be dropped from the model.

Self-assessment as presently conducted is trying to serve too many purposes, and the process needs to be separated from OERI's program evaluation efforts. In addition, product testing in the development process or selection of promising practices should be outside the bounds of self-assessment. Many documentation activities (e.g., phone logs) may be useful for internal management but are not particularly useful for reporting to OERI. Most contract compliance issues should be relegated to quarterly and annual reports and limited to a management by exception procedure.

Most important, new emphasis needs to be placed on an RFP requirement that seems to have been largely overlooked. "...the laboratory is expected to contribute to knowledge about effective strategies for improving education through carefully designed studies of how its own dissemination and improvement efforts are working" (NIE 1984, p 21). The AEL examination of the study group strategy and tracer studies supported by AEL and SEIL appear to be examples of what is needed.

This goal is give explicit recognition in the Task 5 Evaluation Collaboration. The Summary Report of the Task 5 Evaluation Collaboration (1987) lists as one of four objectives:

> To provide a broadened perspective on laboratory operations by synthesizing evaluation information on the effectiveness of selected major laboratory strategies

However, the initial activity identified to implement this objective seemed rather limited. It was to compile a descriptive synthesis of how Tasks 2 and 3 were being implemented at each laboratory. Only four labs had provided the necessary information by the end of 1987.

Work with State Level Decisionmakers

At least one lab viewed the task of working with state-level decisionmakers on school improvement issues risky because maintaining a neutral posture on controversial policy issues was difficult, but most labs did not even mention such difficulty. In most regions other organizations seem to welcome the idea of a lab's convening diverse groups to discuss and analyze issues of common interest and otherwise play a catalytic role.

Labs differed in whether they focused their Task 3 effort largely on the CSSOs or SEAs more generally, or worked with a broader cross section including the governors' offices, legislative committees, professional associations and interest groups. They also differed considerably in the improvement role assumed. Some functioned primarily as convener of state and regional policy forums and conferences, some as resources for policy analysis, some as monitor of educational reform efforts, etc. This is an area in which some progress was made in Task 5 in planning some activities for year three and beyond as collaborative lab efforts. Their support of William Dunn at the University of Pittsburgh in elaborating his ADD model and preparing a handbook of policy analysis methods should help considerably in developing a common

understanding of the policy analysis function.

Most labs directed their efforts primarily at the early stages of the policy process (agenda and formulation). RBS was a notable exception, focusing primarily on the implementation and evaluation stages.

One unresolved issue needs to be addressed. It would seem essential for each lab to have information on the educational reform legislation and programs in each state and to know just which states are engaged in different kinds of initiatives. This is logical aspect of environment scanning or needs assessment. In addition, this information would be useful to many national organizations, and organizations participating in the State Education Policy Consortium expressed such a need. Some labs collect these kinds of data, but whether regional laboratories are the best mechanism for developing this kind of national database is an open question. Data comparable on a national basis are needed, and it might be more practical for OERI or the Center for Education Statistics to collect the data in some other way.

Tasks 2 and 4

Although Task 2 corresponds to the linkage strategy and Task 4 corresponds to the improvement strategy, all programs and projects classified into and reported to OERI under these rubrics were found to have all three strategic dimensions (educational focus, linkage strategy, and improvement strategy). In analyzing this set of activities it was possible to elaborate various parts of the conceptual framework, as reported above.

In examining a set of programs to improve administrative practices, variations in defining the problem were observed:

- o Local administrators have a great responsibility for implementing changes resulting from the reform movement.
- o There are important bodies of research on school improvement, instructional leadership, etc., that administrators need to become familiar with.
- o Schools and their leaders need to develop a culture of inquiry orienting them toward using knowledge-based resources in their attempts to improve schools.
- o School administrators are physically isolated, and new structures are needed to put them in touch with their peers and help them access knowledge-based resources for school improvement.
- o It is a mistake to focus exclusively on the principal's role; leadership is provided by a number of roles at school and central office levels.

Two main approaches to improvement were found. One synthesizes relevant research findings and develops them into training packages. The other collects, reviews, and packages promising administrative practices. The most common vehicle for linkage was the principalship academy. These academies are sponsored by different kinds of service improvement organizations, and labs generally worked "with and through" these organizations.

The further study of linkage strategies was placed in the context of interorganizational theory (Negandhi 1975), and four types of interoganizational collectivities (IC) were formulated, based on whether the collectivity was bilateral or multilateral and whether it had a single purpose of multiple purposes. These were further differentiated in terms of whether the lab was a member of the IC or provided services to a client IC. While it was not

possible to make a comprehensive classification of Task 2 and Task 4 programs, the analysis produced several suggestive findings worthy of further study. The collaborative (multi-purpose, bilateral) was the least common form of IC. More single-purpose arrangements (partnerships and consortia) than multi-purpose (collaboratives and networks) were found.

A more detailed examination of research approaches found examples of applied research, evaluation, policy studies, and development. In each of these, examples were found using each source of data (primary data, secondary analysis, and interaction documentation).

A group of programs on staff development was examined to refine our understanding of the improvement tactics used. Three labs combined a training of trainers approach with development of related training packages. These programs tended to be deficient in terms of making adequate arrangements for those trained to provide second tier training.

Three other labs combined knowledge production activities such as publications and information packages with information dissemination activities. Little evidence of impact from these strategies was presented.

Another three labs had unique approaches to staff development FWL worked with the Professional Development Center of the Los Angeles Public Schools to develop three sets of training materials for mentor teachers. McREL combined network creation and support with information dissemination. NWREL used a comprehensive

strategy, using just about every improvement and linkage tactic.

Finally, a separate analysis was made of the "promising practices" approach to improvement. This tactic consists of collecting descriptions of programs and practices already in existence and providing access to this information to others. This methodology was applied not only to classroom practices but also to administrative practices, testing, software, academic standards, and professional development programs. Unfortunately, the documentation available for this analysis did not provide much information on methods of identifying promising practices, the criteria used for selecting them, or evidence of effectiveness. It was noted that this approach may or may not be an R&D-based approach to improvement, depending on whether the practice is logically consistent with research findings or subjected to a rigorous process of evaluation and redesign.

Final Comments

At a number of points the tension between the rational systems perspective and the configurational perspective was noted. A similar tension exists between requirements for proactive planning and need for accountability under government contracts on the one hand and need to be flexible and responsive to shifting demands from constituents on the other. These tensions cannot be eliminated, but they can be ameliorated if all actors in the drama get a better understanding of the limits of planning and accountability. Lab programs are high-risk endeavors that can be

undercut by unpredictable changes in their environment such as changes in SEA personnel. The important thing is to have consensus on the broad mission and goals of the labs and recognition that changes in specific activities in response to unforeseen circumstances are all right if they are consistent with broader purposes. The RFP under which these laboratories were selected and funded did an excellent job of clarifying the mission of the program and provides a good basis for program management. It does not appear at this point that any radical changes would be needed for the next round of competitions.

Several minor adjustments have been suggested along the way. One is to devise a new task structure that does not define any one of our three strategic dimensions as a separate task. On the other hand, it might be useful to ask that the three-dimensional schema be used in describing each programmatic effort. No program description would be complete unless it described its educational focus, improvement strategy, and linkage strategy.

Another suggestion was to develop more specific guidelines for annual reports, quarterly reports, self-assessment reports and needs sensing reports. There is some overlap among these reports, and the separate purpose of each needs sorting out. It would also be desirable to define a program structure of programs, projects, and activities that would be consistently followed from one report to another and over time and that would permit development of a management information system for the total laboratory program.

The regional educational laboratory program has been

controversial for over 20 years. It never lacks for critics who ask for hard evidence of massive impacts. Alas, few, if any, government programs can meet that test. Perhaps an analogy exists between the laboratory program specifically and the educational system generally and the bumble bee. We are told that according to all the principles of aerodynamics the bumble bee cannot fly - but it does. Sometimes it seems as if we are told that the educational system is a total failure: that children don't learn, teachers don't teach, and new knowledge has no impact on the improvement of education. Yet our common sense tells us "it ain't necessarily so" - that somehow it works in most places and at most times. Our task is to find cut more about how and why it works when it does so we can improve education in all places for all children. The laboratories are making steady progress toward doing just that.

APPENDIX A

EXCERPTS FROM REQUEST FOR PROPOSAL
REGIONAL EDUCATIONAL LABORATORY INSTITUTIONAL OPERATIONS

Task Structure

Task 1: Develop effective governance, management, planning and evaluation systems for the laboratory.

Subtask 1.1: Design and implement effective governance, staffing, and management systems for the laboratory.

a. Establish or reshape the governing board and other advisory structures.

b. Develop or improve management systems and procedures for the laboratory.

c. Recruit and assign staff and develop or refine policies a procedures for their effective utilization.

Subtask 1.2: Assess regional needs, capabilities, and opportunities and establish priorities for laboratory activity.

Subtask 1.3: Prepare plans for future services.

Subtask 1.4: Conduct self-evaluation of laboratory projects and services.

Task 2: Work with and through existing organizations to improve schools and classrooms.

Task 3: Work with State-level decisionmakers on school improvement issues.

Task 4: Work to create research and development based resources for school improvement.

Task 5: Work in collaboration with centers and with other laboratories on regional and national education problems

Statements

1. Laboratories focus on school and classroom improvement.

2. Laboratories feature dissemination and assistance strategies.

3. Laboratories engage in applied research and development th support improvement.

4. Laboratories serve designated regions.

5. Laboratories have independent governing boards.

6. Laboratories are part of a nationwide system.

APPENDIX B

TASK STRUCTURE OF LABORATORY PROGRAMS FOCUSED ON IMPROVING ADMINISTRATIVE LEADERSHIP

The following task structures are taken from proposals, which generally contain the most complete statement of rationale and task structure. In many cases activities were subsequently modified or deleted. Numbering is that used by each lab:

- AEL: School Administration and Governance Program.
  1. Provide R&D-based information to school administrators.
  2. Establish and operate State study groups.
  3. Provide technical assistance to school administrators through in-State workshops, conferences, and SES sites.
  4. Plan and collaborate with other lab programs.

- FWL: Professional Preparation and Development
  - 3.4 Support for school level leadership
    - 3.4.1. Refine and demonstrate Peer Assisted Leadership (PAL).
    - 3.4.2. Develop and test a trainer of trainers capability.
    - 3.4.3. Examine special problems in school leadership (one topic per year).
    - 3.4.4. Develop and implement summer leadership institutes for practicing administrators and teacher leaders.
    - 3.4.5. Promote districts' options for school improvement.

- NE/I: Leadership for School Improvement
  - 1.1. Support materials for school improvement leadership.
  - 1.2. The School Improvement Leadership Network
  - 1.3. Research on leadership for school improvement.

- NWREL: Rural Networking for Leadership
  - Identify up to three regional agencies that are interested and have good potential as agencies.
  - Develop up to three models for network and collaboration development among small...schools.
  - Develop processes and materials for training personnel from cooperating regional agencies and schools.

- o Identify cooperating schools and establish up to three networks and test each of the three models in a network.
- o Evaluate the effectiveness of each of three models in terms of improving instruction in the schools and prepare the successful model(s) for dissemination.
- o Disseminate and support the implementation of the successful model(s).

o RBS: Organizational Effectiveness

1. Management development
2. Secondary school improvement
3. Labor-management cooperation

o SEDL: Improving Teacher and Administrator Performance

C.1. Investigating teacher and administrator performance-assessment systems associated with implementing rewards, incentives, or career- development.

C.2. Identifying and describing teacher and administrator performance-improvement programs that couple performance assessment with inservice education/staff development.

o SEIL: C. Improving Leadership Skills of School Principals

- o Provide information to practitioners on national and regional resources; national, State, and local initiatives and current literature; and form a regional resource network
- o Design and develop products and staff development activities based upon current Council efforts to provide immediate application to school principal training, making use of best adult learning theories.
- o Collaborate with existing resources to secure additional staff development materials.
- o Develop and implement plans for service delivery to practitioners through principalship academies, with assistance of State advisory committees.
- o Provide technical assistance to intermediate service organizations (principal academies)...
- o Plan, implement and evaluate activities for particular application and effect upon traditionally underserved populations, and revise accordingly.
- o Coordinate with other lab projects to maximize effect.

- Coordinate with other labs and centers...
- Identify research needs and recommend a school principals research agenda.
- Evaluate and revise plans to provide direction for third, fourth, and fifth years.

APPENDIX C

GLOSSARY OF ACRONYMNS AND ABBREVIATIONS

ADD	Analysis, development, and dissemination [model: Dunn]
Adm	Administrator
AEL	Appalachian Educational Laboratory
CIPP	Context, input, program and product [evaluation model]
CCSSO	Council of Chief State School Officers
CES	Center for Education Statistics
CPRE	Center for Policy Research in Education [Rutgers U.]
CSSO	Chief state school officer
Demo	Demonstration
DESSI	Dissemination Efforts Supporting School Improvement (Crandall and Loucks 1983)
Dev	Development
DM	Decisionmaker
ECS	Education Commission of the States
ERIC	Educational Resources Information Center
Eval	Evaluation
FWL	Far West Laboratory
GDPA	General purpose dissemination assistance (Louis et al 1984)
IC	Interorganizational collectivity
IEL	Institute for Educational Leadership
IHE	Institution of higher education
IOA	Interorganizational arrangement
ISA	Intermediate service agency
KP	Knowledge production

KPO	Knowledge production organization
KPU	Knowledge production and utilization
KU	Knowledge utilization
LEA	Local education agency
McREL	Mid Central Regional Educational Laboratory
NCREL	North Central Educational Laboratory
NE/I	The Regional Laboratory for Educational Improvement of the Northeast and Islands
NGA	National Governors' Association
NIE	National Institute of Education
NWREL	Northwest Regional Educational Laboratory
OE	Office of Education
OERI	Office of Educational Research and Improvement
RBS	Research for Better Schools
R&D	Research and development
RDD&E	Research, development, demonstration, and evaluation
RDIS	Research and Development Interpretation Service
Res	Research
RS	Regional Services [Program]
RX	Regional Exchange
SA	Self-assessment
SEA	State education agency
SEDL	Southwest Educational Development Laboratory
SEP	State Education Policy [Program]
SEIL	Southeastern Educational Improvement Laboratory
SIO	Service improvement organization
SDO	Service delivery organization

Tea	Teacher
TT	Training of trainers

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After extensive consultation during 1984–85 in preparation for a recompetition of then-existing awards, the Department established six "premises", or principles on which laboratories should operate. As stated in OERI's 1985 solicitation of proposals, these premises were that the laboratories would: (1) Focus on school and classroom improvement; (2) emphasize dissemination and technical assistance; (3) engage in applied research and development to the extent that these strengthen laboratory efforts at school improvement; (4) serve designated regions; (5) have independent governing boards; and (6) be part of a nationwide system.

These premises and related policies adopted in 1985 brought two particularly significant changes in the laboratory program. The first was that the large scale product development and applied R&D that the laboratories had participated in were deemphasized. Rather, dissemination and technical assistance were emphasized. Second, a substantial portion of laboratories' work towards school improvement was directed to be delivered in accordance with an indirect service strategy.

Laboratory services delivered pursuant to this strategy since 1985 have been directed "with and through" a variety of service improvement and intermediary organizations (e.g. State education agencies, education service agencies and professional associations), rather than directly to schools and classrooms. The reasoning underlying this strategy has been that there are too many school districts, schools and classrooms in the country for laboratories to work with even a significant portion of them directly. Working with intermediaries through the indirect strategy has thus been designed to leverage and extend the benefits of laboratory funding. However, not all laboratory work is delivered through the indirect strategy. Laboratories may work with local districts and schools under specified conditions; they also serve State decisionmaker needs directly with a portion of their funds. The various strategies for delivery of lab services will be reconsidered as part of planning for the recompetition.

Fiscal Year 1989 funding for the program is $22.1 million. This amount includes $3.1 million in special appropriations for a laboratory rural initiative. The present laboratory contracts expire on November 30, 1990. The forthcoming recompetition wil determine what organizations will operate laboratories in the funding period beginning December 1, 1990.

The laboratory regions and the present contractors are listed below.

Regions	Present Contractors
Northeastern (CT, MA, ME, NH, NY, RI, VT, Puerto Rico, and Virgin Islands);	Regional Laboratory for Educational Improvement of the Northeast and Islands, Andover, Massachusetts.
Mid-Atlantic (DE, DC, MD, NJ, and PA).	Research for Better Schools, Inc., Philadelphia, Pennsylvania.
Appalachian (KY, TN, VA, and WV).	Appalachia Educational Laboratory, Inc., Charleston, West Virginia.
Southeastern (AL, FL, GA, MS, NC, and SC).	Southeastern Educational Improvement Laboratory, Research Triangle Park, N.C.
Central (CO, KS, MO, NE, ND, SD, and WY).	Mid-continent Regional Educational Laboratory, Aurora, Colorado.
Southwestern (AR, LA, NM, OK, and TX).	Southwest Educational Development Laboratory, Austin, Texas.
Midwestern (IL, IN, IA, MI, MN, OH, WI).	North Central Regional Educational Laboratory, Elmhurst, Illinois.
Western (AZ, CA, NV, and UT).	Far West Laboratory for Educational Research and Development, San Francisco, California.
Northwestern (AK, ID, MT, OR, and WA).	Northwest Regional Educational Laboratory, Portland, Oregon.
Pacific Basin* (HA and Pacific Insular Areas).	Northwest Regional Educational Laboratory, Portland, Oregon.

*A tenth region to serve the State of Hawaii and other Pacific jurisdictions was established in 1985; however, the Northwest Laboratory was designated to serve this region during 1985–90 and support preparations there for a new laboratory. It is expected that a separate award to serve this region will be made in the 1990 recompetition.

Authority: 20 U.S.C. 1221e.

Dated: June 21, 1989.

Bruce V. Manno,

Acting Assistant Secretary for Educational Research and Improvement.

[FR Doc. 89-15109 Filed 6-22-89; 8:45 am]

BILLING CODE 4000-01-M

DEPARTMENT OF EDUCATION

Open Meetings on Recompetition of Regional Educational Laboratories

SUMMARY: This notice provides the schedule and background information for five open meetings being conducted in preparation for the recompetition of regional educational laboratories funded by the Office of Educational Research and Improvement (OERI).

DATES, ADDRESSES AND TIMES:

June 26, 1989, OERI, 555 New Jersey Avenue NW., Room 326, Washington, DC, 9:00 a.m. to 11:45 a.m.

June 27, 1989, OERI, 555 New Jersey Avenue NW., Room 326, Washington, DC, 9:00 a.m. to 11:45 a.m.

July 19, 1989, Kansas City Airport Marriott Hotel, 775 Brasilia Avenue, Kansas City, Missouri, 9:00 a.m. to 12:00 Noon; 1:00 p.m. to 4:00 p.m.

July 19, 1989, OERI, 555 New Jersey Avenue NW., Room 326, Washington, DC, 9:00 a.m. to 12:00 Noon; 1:00 p.m. to 4:00 p.m.

July 21, 1989, San Francisco Airport Hilton Hotel, San Francisco (California) International Airport, 9:00 a.m. to 12:00 Noon; 1:00 p.m. to 4:00 p.m.

FOR FURTHER INFORMATION CONTACT: Ms. Adria White, Office of Educational Research and Improvement, U.S. Department of Education, 555 New Jersey Avenue NW., Room 502, Washington, DC 20208-5644, Telephone (202) 357-6181.

SUPPLEMENTARY INFORMATION: The Office of Educational Research and Improvement (OERI) is preparing for a recompetition of regional educational laboratories in 1990. In preparation for this competition, OERI is seeking views and advice from the field about educational needs and problems in the United States and how laboratories can help respond to them.

OERI will hold five open meetings to help plan for the recompetition. Representatives of major educational associations and other organizations have been invited to present their individual views about the future of the regional laboratory program at the meetings to be held at OERI on June 26 and June 27. These two meetings will be identical in purpose and format, but the invited participants will be different.

The next three meetings, two on July 19 and one on July 21, will be non-invitational, at which members of the public, including State and local officials, educators, and private citizens, may present statements to OERI officials about the regional laboratory program. Written statements from the public forwarded directly to OERI by July 21, 1989, in response to this announcement also will be considered in planning for the recompetition.

Format of the Meetings

At the two invitational meetings on June 26 and June 27, OERI officials will make brief introductory statements. Invited representatives of the educational associations and organizations will make statements about the laboratories, reflecting the views of their various constituencies. (Further details about issues which may be discussed are provided below.) The public may attend and listen to the presentations made in these two meetings.

At the three non-invitational meetings on July 19 and July 21, following introductory statements by OERI officials, members of the public will make statements about the laboratories. All public statements will be limited to 10 minutes each. Persons speaking will be asked to submit written copies of their statements at the meetings. (Written statements from persons not attending the meetings may also be submitted directly to OERI, as indicated above.)

How To Participate

Persons wishing to attend any of these meetings, or participate in the non-invitational meetings, should contact the OERI meeting coordinator, Ms. Adria White, at (202) 357-6181, or write to her at the address above. Anyone appearing at a non-invitational meeting to speak without previously scheduling a time in advance with Ms. White will be assigned a 10 minute time interval that day, if time is available.

Major Issues

OERI is seeking views and advice from the public, especially on the following questions:

1. What activities conducted by regional educational laboratories have been most valuable in the past 2-3 years?

2. How can regional laboratories contribute to improving performance of our educational system—what are the key issues and problems they should focus on in the future?

3. What kinds of laboratory activities and strategies (e.g., syntheses and other research and development (R&D) products, direct technical assistance, training and capacity building, etc.) would be most beneficial in the future?

4. What form of relationship(s) between laboratories and organizations or other persons seeking improvement in schools would be most effective?

OERI will also accept advice on other issues related to the future of the laboratory program.

Additional Information That Will Be Available

The U.S. Department of Education plans to issue a solicitation late in 1989 for proposals to operate regional laboratories in the funding period beginning December 1, 1990. Proposals will be due in the early Spring, 1990. The exact dates for these events will be announced later this Summer. This and other information related to OERI's planning for the regional laboratory recompetition may be obtained as it becomes available by contacting Ms. Adria White at the address or telephone number provided above. Among the items to be made available are:

1. Commissioned papers and reports about the regional laboratory program (some are currently available);

2. A written synthesis and verbatim transcripts of the two invitational meetings, plus verbatim transcripts and statements submitted to OERI in connection with the non-invitational meetings;

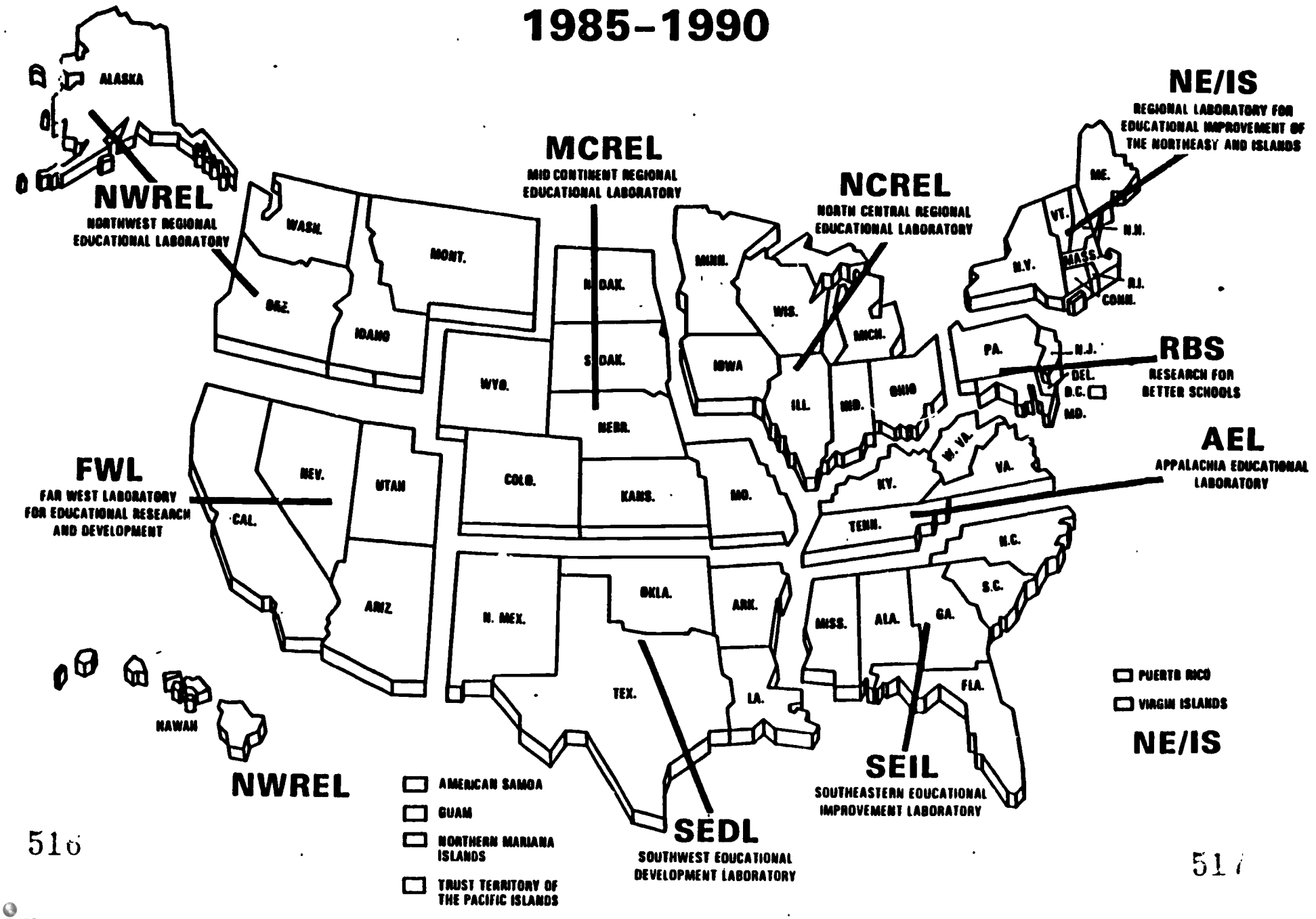
3. Final announcement of the solicitation and award schedule and a copy of the solicitation itself.

Information About the Laboratory Program

The regional laboratory program was established in 1965 to help get the best available knowledge about improved practices and methods into the nation's classrooms. Laboratories were to develop and disseminate this knowledge and provide training and technical assistance in its application. Twenty laboratories were originally established, although there was no systematic delineation of the regional boundaries for their services. At present, nine regional laboratories serve all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands and Pacific Island entities.

The program is now authorized by section 405(d)(4) of the General Education Provisions Act (GEPA), as amended (20 U.S.C. 1221a). Section 405(d)(4)(A)(i) of GEPA provides that regional laboratories must be "established by public agencies or private nonprofit organizations to serve the needs of a specific region of the nation under the governance of a regionally representative governing board * * *." The regulations for the program are contained in 34 CFR Parts 708 and 707 (53 FR 30790 (August 15, 1988)).

U.S. DEPARTMENT OF EDUCATION
OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT
EDUCATIONAL LABORATORIES
1985–1990



REGIONAL EDUCATIONAL LABORATORIES

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OERI Institutional Liaison:
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Executive Director
Southwest Educational
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(512) 476-6861
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For Laboratory Program
Information, Contact:

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Team Leader
Regional Educational Laboratory
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Executive Director: Dr. Terry Eidell

Chair, Board of Directors: Dr. Henry Marockie, 11/87-11/89
Superintendent, Ohio County Schools
2203-5 National Road
Wheeling, West Virginia 26003
304-243-0300

Areas Served: Kentucky, Tennessee, Virginia, and West Virginia

I. Major Activities

- Classroom Instruction (CI) stresses the improvement of teaching and learning in K-12 classrooms in the Region. It works primarily through teacher associations in each state.

- School Governance and Administration (SGA) stress improvement of K-12 schools in the Region by working with and through associations of administrators and school board members.

- Policy and Planning Center (PPC) operates as a mechanism for maximizing long-term involvement by state officials in activities designed to foster an inquiry-based approach to decisionmaking.

- Professional Preparation and Research (PPR) involves work with the Region's higher education institutions to help schools derive benefit from locally available R&D resources.

- The Regional Liaison Center (RLC) maintains working relationships with under-represented groups in the region's urban areas and heavily population minority areas, and provides networking opportunities for groups of parents, community groups and schools to plan school improvement projects.

- The School Services Center (SSC) provides needy access to information services; conducts short-term R&D activities; and coordinates the lab's needs assessment, documentation, and evaluation activities.

- o Rural Small Schools Program (RSS) operates to involve rural educators and community members together in school improvement. The RSS program is testing a model of school-community partnership in four sites around the region; building a regional information base; testing a process to enable schools and communities to make decisions based on data; and actively participating in and supporting the work of professional associations concerned with rural education.

II. Major Accomplishments

Students:

- o Impacted the decision of 73 children in the original preschool education project to stay in school and eventually graduate from High School. Through television programs and personal interaction with parents, the HOPE project promoted expectations between parents and children for a continuing, healthy relationship with school faculty and staff. (Annual report FY 88 p. 90)

Parents:

- o Demonstrated a method for increasing parent involvement through one component of a model for improving home-school communications in Norfolk, Virginia; set up a tutoring program with assistance from Norfolk State University (NSU) and conducted an all-day training session for parents in both tutoring and training skills. These parents trained other parents to be tutors in the community tutoring program. This effort resulted in dramatic increases in parent involvement.

- o Developed an instrument to measure parent involvement in school improvement initiatives, and pilot tested it in Hart County, Kentucky, with good results.

Teachers and Administrators:

- o Sponsored, with various teacher and administrator associations, training-for-trainers on a number of topics, including at-risk students; first tier trainers assisted in a Virginia teleconference in May 1988 involving 150 second-tier trainers (teachers and administrators who will replicate the training at their local schools) in nine sites across the state.

- Addressed the problems of teacher isolation and lack of direct involvement in school improvement efforts in a national project. The NEA Mastery-in-Learning (MIL) project links teachers in school improvement efforts to educational research and development products and services.

- Created and provides technical assistance to 28 study groups as an approach to working with and through other associations. Counselors, teachers, administrators, university professors, or a mix of these individuals, depending on what the study topic is, comprise the group. Each study group assimilates research and practice into a meaningful document that can be used in the field by education practitioners.

- Responded since 1986 to 4,815 requests for materials, resulting in the dissemination of 54,043 documents and processed 862 information search requests.

Policymakers

- Developed eleven issue synthesis papers for policymakers. More than 4,500 copies of these papers have been distributed at the request of policymakers.

- Impacted state legislation. Early in FY87, an AEL Professional Preparation and Research program project agreed upon a clinical faculty model to replace conventional supervision of undergraduate student teaching, based on a pilot program developed by the University of Virginia, the idea was presented to members of the state legislature. Both houses of the Virginia legislature approved the Clinical Faculty Bill (HB1616) without dissent, and the bill was signed into law by the governor.

III. Principal Products:

a) Newsletters:

- The Link, a quarterly newsletter, contains announcements of upcoming events, education news from AEL member states, and reports on education research. Special four or eight-page program-specific inserts are directed to different audiences-- teachers, administrators, local school board members, higher education faculty, educators in rural and small schools, and state level policymakers. 8,000 per issue are distributed.

b) Knowledge Syntheses:

- Developmental Teaching: A Cognitive Approach to Improving Student Achievement, (Occasional Paper 027), Prepared by Edwina D. Pendarvis and Aimee Howley, November, 1988.
- The Effectiveness of the Study Group as an R&D Methodology, by J. Barnette, D. Smith, and B. Burch, November, 1987. (Occasional Paper No. 025)
- The Changing Context of Education in a Rural Setting, by E. Robert Stephens, (Occasional Paper 26) November, 1988.

c) Policy Papers:

- Categorical Certification in Special Education: Does It Really Make a Difference?, by Margaret J. McLaughlin and Barbara Stettner-Eaton, October, 1988.
- Professional Standards for Teaching: The Assessment of Teacher Knowledge and Skill, by Gary Sykes and Suzanne M. Wilson, August, 1988.
- Prekindergarten Programs in Public Schools: A National and State Review, by Susan L. Trostle and Barbara Merrill, November, 1986.

d) Training and Development Resources:

- Teacher as Decisionmaker -- An AEL School Excellence Workshop, AEL, July, 1987.
- Educational Goals Workshop: What a Difference a Goal Makes, AEL, September, 1987.
- Effective Questioning Workshop: Good Questions Don't Just Happen, AEL, October, 1987.

e) Specialized Products:

- Disparities in Curriculum Offerings: Issues and Policy Alternatives for Small Rural Schools, by David H. Monk, August, 1988.
- A Demographic Study of Rural, Small School Districts in the Appalachian Region, by Merril L. Meehan, November, 1987.

- TEA-AEL Parent Education Notebook, a 1986 study group product (Tennessee Education Association), provides activities for teachers to distribute to parents to enhance their children's development in six skill areas. The Notebook has been the most requested AEL study group product to date (over 1,100 copies have been disseminated) and it has been selected for inclusion in ERIC.

- Results of First Stage Field Testing of a Preferred Design for Organizational Effectiveness Studies of Rural, Small Schools, (a paper presented at AERA), April, 1988, by Willis J. Perry, Jr., John R. Sanders, and E. Robert Stevens.

- Programs of Promise: A Summary of Current Programs Focusing on the Recruitment of Minority Candidates to Careers in Professional Education, by The Tennessee Association of Colleges of Teacher Education and Appalachia Educational Laboratory Study Group, March, 1988.

Far West Laboratory for Educational Research and Development
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Dr. Dean H. Nafziger, Executive Director

Dr. Raymond S. Kellis
Chairman, Board of Directors, 9/88 - 9/89
Superintendent, Peoria Unified School District No. 11
P.O. Box 39
Peoria, AZ 85345
602-878-1028

Areas Served: Arizona, California, Nevada, Utah

Major Activities

- Teaching and Learning. This program focuses on enhancing student thinking and working skills. The core efforts include: 1) developing training modules to enable middle school teachers to facilitate student thinking and writing skills; 2) serving as a resource in the region for effective teaching strategies and practices; 3) providing inservice training and consultation to science teachers and SEA personnel; and 4) conducting workshops to improve the self-directed learning of at-risk elementary school students.

- Improving Organizational Effectiveness. FWL works with local and state education agencies to build their capacities to identify and implement strategies for improving school effectiveness. Tasks include: 1) conducting pilot tests of systems analysis instruments developed last year and developing resource materials to assist school administrators to review and select change strategies based on the assessment data; and 2) providing technical assistance, training and support to state education agencies and educational service centers in the region to implement school improvement plans.

- Professional Preparation and Development. Projects under this theme include: 1) providing effective training and support for beginning teachers; 2) preparing teachers for work with the diverse student populations within the region; 3)supporting school-level leadership for teachers and principals; and 4) providing state-level decisionmakers with current information about alternative approaches to funding and implementing staff development programs.

- Students at Risk. FWL is responding to this critical service need by 1) establishing itself as a regional resource center for information and services for at-risk youth; 2) disseminating information about partnerships between urban schools and businesses; 3) documenting the success indicators of instructional programs for at-risk students; and 4) designing, implementing and documenting an intensive early intervention program and longitudinal study using the model employed by the Syracuse University Children's Center.

- Rural and Small Schools. Under the auspices of the Rural Schools Assistance Center, FWL developed a program of regional services aimed at 1) informing rural practioners of available resources and promising practices, 2) strenghening rural partnerships and developing networks, and 3) directly assisting school improvement efforts at both the district and state level.

Major Accomplishments

- FWL collaborated in school improvement efforts that involved all four state departments of education; all 58 county offices of education in California; Utah's four regional service agencies; 13 other state agencies, associations, or consortia across the four states; and 70 school districts ranging from some of the largest to some of the smallest in the region.

- FWL convened more than 170 business, civic and education leaders from the four-state region for a discussion of the vital roles schools play in urban economic development. The conference was co-sponsored by FWL and the ERIC Clearinghouse on Urban Education, Teachers College, Columbia University. Twelver panel discussions highlighted business and industry expectations of schools, strategies for developing partnerships between schools and businesses, the critical role of higher education in strengthening urban schools, and critical issues for urban educators to consider in preparing for the future.

- In Davis County Utah, FWL completed a descriptive study of a highly popular elementary curriculum called Workshop Way. This descriptive study and a needs assessment survey of 757 teachers in the district, will allow the district to better implement and support the curriculum. In addition, the study draws general conclusions about how teachers can help sutdents develop their own responisbility for learning, a key concern of educators throughout the region.

- In Washoe County (Reno), Nevada, FWL worked with a study group of eight teachers to design and implement an intervention to improve student's self-directed learning in science. Classroom techniques and materials for students are incorporated in a self-instructional manual for teachers and teacher trainers which guides teachers from diagnosis of student learning difficulties through targeted classroom instruction to monitoring and feedback. Some teachers were quite successful in helping students to change the way they learn and study.

- FWL created a rich set of resource materials to help the Los Angeles Unified School District train its 900 mentor teachers. These documents are now used by the district's Professional Development Center in training its mentor teachers to guide and assist the district's 3000 new teachers each year.

- By 1988, fourteen periodical publications had been mailed to 9,530 public schools, 1,889 private schools, 4,269 superintendents, board presidents and central office staff in local school district offices, 498 superintendents and staff in intermediate education agencies, 89 heads or staff in schools, colleges or departments of education, and the chief state school officers, and 154 state department of education staff. Three policy briefs were sent to 1,254 persons and a rural newsletter was sent to 772 persons.

Principal Products

a. Newsletters

Policy Brief, published quarterly and distributed to 1,254 policymakers and legislative staff in the region.

Resources and Practices, published quarterly and distributed to 16,546 public and private schools, superintendents, board presidents, central office and intermediate education agency staff, institutions of higher education faculty and deans, chief state school officers, and state department of education staff.

b. Knowledge Syntheses

Cooperative Learning in the Classroom, John Mergendoller and Martin Packer, November 1988.

Sketches Information Brief on Educational Research: Computers for All Children, October 1986.

c. Policy Papers

Student Assessment Programs in the Western Region, May 1987.

Student Dropout Problem: Implications for Policymakers, Fall 1987.

d. Training and Development Resources

The Mentor Teacher Casebook. Edited by Judith Shulman and Joel Colbert, published by FWL and the ERIC Clearinghouse on Educational Management, University of Oregon, November 1987.

The Intern Teacher Casebook. Edited by Judith Shulman and "Programs for Preparing Teachers for Working with Diverse Student Populations." Beverly Cabello and Roger Dash. September 1988.

Teaching for Scientific Literacy Trainer's Manual, Alexis Mitman, John Mergendoller and Steven Schneider, November 1988.

- Specialized Products

Special Reviews in Leadership: The Principal and Secondary School Improvement, Summer 1987.

The Redesign of Education: A Collection of Papers Concerned with Comprehensive Educational Reform, Volume 1. December 1988.

Programs for Preparing Teachers for Working with Diverse Student Populations. Beverly Cabello and Roger Dash, December 1988.

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Executive Director: C.L. Hutchins

Chair, Board of Directors, 12/86 - 11/90
John Prasch
Professor of Educational Administration
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Lincoln, Nebraska 68510

Areas Served: Colorado, Kansas, Nebraska, Missouri, Wyoming, North Dakota, and South Dakota

Major Activities

McREL's activities are organized under the following tasks:

- School Improvement Program. This program focuses on direct improvement of education practice. The work includes: 1) producing and disseminating R&D based information; 2) supporting regional school-improvement networks; and 3) providing technical assistance and training that strengthens capacity of state systems to improve schools.

- State Policy Program. This program is designed to strengthen the region's capacity to develop and implement policies that support school improvement. The work includes: 1) developing and maintaining a regional policy data base for use in creating information products to disseminate to state education policy makers; 2) participating in networking activities with state policy leaders; and 3) providing policy-related technical assistance to state systems of education.

- Education Redesign. McREL is working with with issues of how education must be restructured to meet 21st Century needs. A set of activities include sponsoring international conferences on the future of education, developing new resources including state-wide strategic plans for education change, developing and evaluating ways to accellerate student outcomes, demonstration sites that test direct interventions in current school practices, inventing and assessing systems for measuring student learning, teacher change and the effectiveness of student and school level interventions, and spearheading collaborative work with two other laboratories on the theoretical underpinnings

of human system redesign.

- Rural and Small Schools. McREL sponsors a variety of projects to address specific weaknesses in rural areas. These include: 1) increasing student access to information about post secondary choices (Project Access); helping schools organize themselves to expand course offerings through collaboration and technology (Decisions about Technology Project); and 3) experimenting with how the school can be a focus for community economic development (Rural Schools and Community Development Project). In addition, professional isolation for rural teachers and administrators is reduced by collecting and sharing promising rural practices, supporting a database on rural education and circulating rural education information.

Major Accomplishments

- Provided extensive assistance to the state of North Dakota to develop a strategic plan designed to establish a clear sense of mission and focus. The strategy planning process was the catalyst for the input of ten state task forces involving virtually every legislative and educational group in the state, and will culminate in a North Dakota education agenda for the future which will include legislative proposals, program recommendations and a framework for curriculum and instruction. Recommendations are likely to address schools organization, school finance, coordination among the systems and teacher and administrator training.

- Provided technical assistance and support over the past several years to help the Missouri state department of education revise and improve its reviewing and classifying public schools. The new thrust is toward a process (teaching and learning dynamics) and outcome approach (evidence of improved learning) to defining quality education rather than input characteristics. The reform of the school classification system has potential for widespread educational improvement in the state of Missouri and would shift the role of the State Department of Education from one of monitoring to providing assistance.

- Networks and serves as a broker of agencies and resources, particularly in rural small schools in the

region. For example, McREL has provided assistance to help small school districts form clusters in order to increase their problem solving capacity through collectively sharing resources such as developing joint staff development programs, sharing specialized staff and alternatives to delivering curriculum through the use of technology, and distance learning.

- Developed the Rural School and Community Development Project in collaboration with the Black Hills School Cooperative in South Dakota. McREL provides support and technical assistance to eight rural schools and community development sites in South Dakota to restructure the high school curriculum. The project is creating new relevance by including the community as the focus of study and teaching students how to create jobs and begin their own businesses, thereby improving local economies.

- Provided technical assistance to staff members of the Kansas State Department of Education on collaboration and coordination in planning and delivering staff development and technical assistance to local education agencies.

- Disseminated information through its publications, which present research-based concepts in a practical, easy to read style to help educators keep in touch with the growing literature on school improvement. McREL tailors one of its publications directly to teachers Last year McREL disseminated more than 70,000 copies of publications.

Principal Products

a. Newsletters

McREL Up-Date is published three times a year and is available to anyone requesting to be on the laboratory's mailing list.

Policy Notes is a summary of issues relevant to educational policy makers and is published quarterly.

b. Policy Papers

School Finance Report is an annual update of education finance issues in the Central Region prepared by John Augenblick of Augenblick, Van de Walter and Associates.

Report on Education Trends is an annual report on national education trends prepared for the Central Region by Shirley McCune and McREL state policy staff.

c. Training and Development Resources

Noteworthy is an annual magazine that contains solid practical information centered around a specific theme. This year's issue was on the topic of restructuring or redesigning schools. McREL disseminates 15,000 copies to the region's superintendents, assistant superintendents, curriculum specialists, staff developers, and principals.

Effective Leadership for Improvement and Change: Administrator Training Materials is designed to help administrators understand the various leadership roles they can or do perform and how they may increase their overall effectiveness. Prepared by Shirley McCune.

Rural School Source Book is a sample of exemplary programs, practices and resources for rural educators compiled under subcontract by Dr. Mary Jaquart and Dr. Joe Newlin from Colorado State University, Fort Collins, Colorado.

North Central Regional Educational Laboratory (NCREL)

295 Emroy Avenue
Elmhurst, IL 60126
312-941-7677

Jeri Nowakowski, Interim Executive Director

Ted Sanders, Chair, Board of Directors (April, 1988 to March, 1989)
State Superintendent of Education
Illinois State Board of Education
100 North First Street
Springfield, IL 62777-0001
217-782-4321

Areas Served: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio and Wisconsin

Major Activities

NCREL's mission is to support school reform initiatives in the seven state region in program areas that are designed to 1) improve curriculum and instruction 2) enhance the education professions and 3) strengthen school partnerships. This mission is accomplished through the following strategies:

- Facilitating Action R&D Projects. This strategy focuses on the lab 's collaborative work with a set of partners to deliver information and services to specified sets of clients in designated schools.

- Developing R&D Based Information. The strategy extends the lab's capabilities for carrying out action r&d projects, policy forums, and dissemination services. Specific r&d efforts undertaken by the lab include developing a line of products called "profiles". The profiles describe the results of the lab's action r&d projects. Sets of profiles will describe project specific activities such as a case study, while other sets will present methods of facilitating project activities. Under this strategy, the lab also engages in the collection of papers and reprints relevant to project activities, develops portfolios of intervention resources, develops policy briefs, and develops and delivers video-teleconferences.

- Conducting Policy Forums. In this strategy, the lab convenes policy forums for each state in the region focusing state specific activities. Regional policy forums addressing on issues of general interest in all seven states are also conducted by the lab. Additionally, the lab supports regional policy networks such as the State Assessment Network and interacts with national policy association including the Education Commission of the States, when appropriate.

- o Dissemination Services. This strategy is designed to increase the awareness of a large number of educators in the region about r&d information resources available to them. The r&d resources are an outgrowth of the laboratory's program areas. Major activities include the distribution of announcements of available publications, the delivery of presentations to selected audiences and the operation of a referral/brokerage service for speakers, trainers, and consultants.

- o Rural and Small Schools. The primary focus of NCREL's rural education initiative is the Wisconsin Rural Reading Improvement Project. Eighteen small rural districts in seven west-central counties in Wisconsin are engaged in a project to improve reading instruction in elementary schools. Technical assistance and staff development services are delivered through five telecommunications technologies. In the other six states served by NCREL, small scale rural initiatives are designed to help small, rural schools participate fully in state-initiated educational reforms.

Major Accomplishments

- o Established an ongoing service of monthly training and planning seminars for more than 100 members of the Professional Development Leadership Teams from 26 high schools in the Chicago Public School System.

- o Planned and conducted a series of teleconferences designed to provide high quality staff development to states and school districts using video capabilities and supporting print materials.

- o Conducted several regional conferences designed to provide decision and policy makers with current information on educational issues. Such conferences include the first (1987) and second (1988) regional conferences on "Kids-at-Risk."

- o Conducted sixteen invitational policy seminars across the seven state region. As a result of the Minnesota policy seminar, specific legislation to implement a Professional Development Statue was introduced and passed by the State legislature in 1987.

- o The Wisconsin Rural Reading Improvement Project won second place for "Best Distance Learning Program 1988 - K through 12" at the Seventh Annual TeleCon Awards Program sponsored by Teleconference Magazine.

Principal Products

o Newsletters

-- "Testing and Assessment Quarterly," published four times a year for approximately 5,000 recipients interested in testing and assessment and its relationship to school improvement.

-- "The Rural Ed View," published four times a year for approximately 1,000 recipients interested in the education of students in rural and small schools in the NCREL region.

o Knowledge Synthesis

-- From Isolation to Collaboration: Improving the Work Environment of Teaching, Synthesis of Literature, 1987. Scott & Smith. Companion annotated bibliography: The Social and Organizational Context of teaching: An Annotated Bibliography, 1987. Scott.

-- Students at Risk: A Review of Conditions, Circumstances, Indicators, and Educational Implications, 1986. Doss-Willis.

-- Incentives that Enhance the Teaching Profession: Background Paper, 1987. Bartell.

-- Proceedings of a Seminar on Incentives that Enhance the Teaching Profession: A Discussion of the Policy Issues, 1987. Bartell, editor.

-- Describing Rural Primary and Secondary Education: The Role of State Education Agency Information, 1989. Harned.

-- Financing Rural Education in the North Central Region: A Pilot Study in Illinois, 1989. Lows.

Northwest Regional Educational Laboratory (NWREL)

101 S.W. Main Street, Suite 500
Portland, OR 97204
(503) 275-9500

Dr. Robert R. Rath, Executive Director

Dr. Barrey C. Parker, Chair, Board of Directors (Term Expires June, 1989
Superintendent
Independent District of Boise
1207 Fort Street
Boise, ID 83702
208-338-3400

Areas Served: Alaska, Hawaii, Idaho, Oregon, Montana, Washington, Territory of American Samoa, Territory of Guam, Commonwealth of the Northern Mariana Islands

Major Activities

NWREL structures its activities in terms of seven long-term program priorities based on assessment of educational needs in the region. A total of about 40 OERI-funded project activities fall into these seven areas. Most represent the continuation or expansion of activities initiated under prior contracts with OERI/NIE or the old Office of Education, dating back to the establishment of the laboratory in 1966.

- Assessment and Evaluation. School improvement efforts have placed increasing emphasis on the systematic measurement of student achievment and evaluation of the effectiveness of improvement efforts. Activities in progress with respect to this priority include a variety of evaluation and assessment projects, along with research and training activities carried out through the Center for Classroom Assessment.

- Cultural Understanding and Equity. The Northwest States and the Pacific islands contain a rich blend of cultural and ethnic groups. The Pacific Region Educational Program assists educators in Hawaii, the Territory of American Samoa, the Territory of Guam, the Commonwealth of the Northern Mariana Islands, Palau, the Republic of the Marshall Islands, and the Federdated States of Micronesia (including Kosrae, Pohnpei, Truk, and Yap), through networking, capacity building, and R&D to carry out school improvement strategies. Both in the Pacific and the Northwest the NWREL also operates a variety of non-OERI funded programs, such as the Center for National Origin, Race, and Sex Equity.

- Education Involving Business and Human Resource Agencies. Schools are increasingly entering into new and creative relationships with the private sector in their communities. The NWREL's Education and Work Program provides a variety of research and devleopment resources for local, regional, and national policy and practice in career development and occupational training, with program activity strands in effective vocational education, effective programs for high risk youth, technological literacy, and education/private sector partnerships.

- Professional Development. Development of people is central to an organization's long-term vitality and effectiveness. The NWREL conducts programs for improving the education professions through teacher evaluation for growth and development and via collegial development.

- Rural Education. Small rural schools have special needs arising from isolation, size, and depression in the traditional rural economy. Through OERI's Rural Education Initiative the NWREL provides training and technical assistance for improvement of small rural schools, while the R&D Access for Rural Schools program assists rural schools in implementing R&D based solutions to their problems.

- School Improvement. Student performance can be improved through the consistent application of research and development knowledge on effective schooling practices. The NWREL's School Improvement Program works through school improvement organizations to assist practitioners in using effective schooling practices and goal-based management processes to improve student performance.

- Technology. Advances in technology offer opportunities to better serve all students, especially the isolated and at-risk. The NWREL's Technology Program develops and disseminates effective applications of technology, conducts research on the application of technology to educational needs, evaluates the effectiveness of technological applications in educational programs, and conducts training and demonstrations of applications of technology for instruction and administration.

Major Accomplishments

In 1988 NWREL conducted training and technical assistance activities involving over 37,000 educators in its regions. The laboratory produced 791 different reports, publications and resource documents, including "Consumer Guides" on assessment tools in the area of early childhood education and on assessing leadership and managerial behavior, a regional database of information on over 1800 districts in the six Northwest States, a monthly newsletter (The Northwest Report) distributed throughout the region, a report on research and practice in rural teacher preparation programs, a wide range of policy analysis papers, a variety of brief and extensive research synthesis reports, and a series of reports identifying and evaluating available instructional software packages. Orders were filled in 1988 for over 12,000 copies of 34 NWREL products.

Specific accomplishments include:

- Developing and training "R&D Cadres" in the various Pacific Basin Region entities;

- Co-sponsorship of the annual Pacific educators conference; approximately 500 attended the 1988 conference, in Guam;

- o A regional conference on "Work Now and in the Future" that drew over 600 participants and presenters in 1988;
- o Establishment of the Northwest Partnership Network, a clearinghouse for promising practices on business-education alliances;
- o Development of a regional database with information on over 1800 districts in the six Northwest States;
- o Maintenance of the Northwest/Pacific Regional News on ED-LINE;
- o Expansion of the Rural Education Consortia-Network, to include 13 agencies in the regions, working cooperatively to address the needs of small schools;
- o Co-sponsorship of State teacher evaluation conferences (in Idaho and Montana in 1988), and sponsorship of the Annual Northwest Teacher Evaluation Conference;
- o "Onward to Excellence" school improvement leadership team training and technical assistance was provided to over 400 schools;
- o The RICE database was converted from a mainframe database system to a microcomputer and made available in an offline mode.

Principal Products

o **Newsletters**

--"Northwest Report" is published monthly, with special sections devoted to Urban Education, rural Education, Pacific Education, Indian Education, and Education Policy Makers.

Consumers Guides

--"Assessing Leadership and Managerial Behavior"

--"Assessing Learning Motivation"

--"Assessing School and Classroom Climate"

Publications and Reports

--Planning for Computers in Education Handbook

--"Summary of Research on Class Size"

--"Close-Up: Parent Involvement in Education"

--"Software for Substance Abuse Education: A Critical Review of Products"

--"Teacher Training in Classroom Assessment: Exploring the Impact"

--"Strategies for Developing Sound Grading Practices"

--Mentor Teacher Handbook

--Profile of Pacific Schools

--"Distance Education: An Overview" (ED 278 519)

Regional Laboratory for Educational Improvement of the Northeast and Islands (NE/IL)
290 South Main Street
Andover, Massachusetts 01810
Phone: (508) 470-0098

Executive Director: Dr. David P. Crandall

Board Chair: Margaretta Edwards (term expires September 29, 1989)
Assistant Director
Rhode Island Small Business Development Center
Providence, Rhode Island

Areas served: New York, New Hampshire, Rhode Island, Vermont, Connecticut, Massachussetts, Maine, Puerto Rico, and Virgin Islands

Major Activities

- Teacher Development, including the dissemination of strategies for improving teacher effectiveness, efforts to expand the role of teacher mentors, and a major effort to develop instructional approaches for introducing thinking skills into the curriculum.

- Public Policy, including both dissemination and technical assistance to state-level policy makers and assistance for a "common market" study of teacher supply and demand in the Northeastern States.

- At-Risk Youth, including the preparation of guidebooks and direct technical assistance to model schools in each state and jurisdiction in the region.

- Rural and Small Schools network across the region; and

- State Specific activities, which provide services tailored to unique priorities of each State.

Major Accomplishments

Development and Dissemination of Products. The products listed on page 3 embody much of the work performed by the laboratory and represent key accomplishments, usually achieved in partnership with, or as a service requested by, practitioners, service organizations, or educational leaders in the region. In their development and in their dissemination those products have served as foci of most of the lab's program activities to date. Other similar products are still at various stages of development and some items, such as issue analyses and concept papers prepared for various policy clienteles, are not shown as major products.

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Constitutent Services--Planning and Technical Assistance. Substantial effort during years 1-3 went into establishing collaborative relationships with specific clientele groups and organizations involved in improving education in the region. This involved creating awareness of what the lab had to offer, providing technical assistance, and developing joint activities, as well as disseminating products.

Some accomplishments of this type were:

- Developed and convened a regional network of agencies that provide training for school principals. Supported dissemination and training for use of the Far West Laboratory's Peer Assisted Leadership model to strengthen performance of principals. Created and disseminated four issues for a principals' newsletter, Linking Leaders.

- Supported the Teacher Change Network, a group of school district leaders interested in research-into-practice issues, and assisted the Connecticut SEA in establishing a mentor teacher program.

- Conducted forums and roundtable discussions for state legislators and SEA leaders on issues in teacher supply and demand, at-risk-youth, curriculum, and use of technology. Obtained joint sponsorship for such work from Education Commission of the States, Danforth Foundation, Boston University, and others.

- Conducted regional and state conferences on specifying approaches to problems of At-Risk Youth.

- Prepared a reference guide of groups in the region using various approaches to reform in teacher education.

Principal Products

- Newsletters

  - The Cutting Edge: New R&D Products (monthly, except December and July)

  - Rural/Small Schools bi-monthly newsletter, Alert, and exchange packets of school practice material disseminated to 480 districts and 30 organizations in Small School Network.

- Business-Education Partnerships: Strategies for School Improvement

- Implementating the Recommendations of "Becoming a Nation of Readers": A Guide for Practitioners

- A Directory of Research-Based Tools for Implementing School Improvement Plans
- Leadership and Support for School Improvement
- Continuing to Learn: A Guidebook for Teacher Development (Published in collaboration with the National Staff Development Council.)
- Teaching Thinking Skills (The first of a 10-unit thinking skills program being developed with David Perkins to infuse teaching of thinking skills across the curriculum.)
- Teacher Quality in Puerto Rico (Prepared for Puerto Rico Department of Education.)

Laboratory: Research for Better Schools
444 North Third Street
Philadelphia, Pennsylvania 19123-4107
Phone: 215 574-9300

Executive Director: John E. Hopkins

Chair, Board of Directors: Robert C. Carlson, July 1988-June 1989
Executive Assistant to the Superintendent
District of Columbia Public Schools
Presidential Building
415 12 Street, NW
Washington, D.C. 20004
Phone: 202 724-4222

Areas Served: Delaware, District of Columbia, Maryland, New Jersey and Pennsylvania

Major Activities

. Cooperative School Improvement. This program works with five regional networks, including (1) the Mid-Atlantic Metropolitan Council, composed of Superintendents of Baltimore, District of Columbia, Newark, Philadelphia and Pittsburgh public schools (2) the Urban Superintendents of New Jersey (3) the Intermediate Units of Pennsylvania (4) the Maryland Assistant Superintendents' Council and (5) the Rural and Small Schools Exchange on projects focussing on four content areas: thinking skills, organizational development, secondary school improvement and beginning teacher induction.

. State Leadership Assistance. This program provides assistance to state level decisionmakers and state education agencies in five areas: basic skills achievement; curriculum, instruction and the use of technology; the quality of teaching; the effectiveness of schools at all levels; and education for at risk students; and also assists state decisionmakers explore developing issues through planning and organizing meetings on topics of interest to them.

. Applied Research. This project conducts research of two kinds: (1) improvement studies which are focussed on issues of broad regional and national interest using data drawn from various educational organizations in the region, including SEAs, districts. schools and classrooms; and (2) policy studies which are tailored to the needs of specific regional clients.

. Special Populations. This project has two foci: (1) to increase awareness of the needs of low-achieving youth, and (2) to develop a model to help educators increase their skills and ability to implement improvement processes for low-achieving youth, primarily those located in suburban and rural settings.

. Rural and Small Schools Project. This project is (1) providing continuing assistance and evaluation of progress and outcomes at three sites where a computer-managed instruction program has been implemented, and (2) assisting three RBS-created state-level Rural Assistance Councils in Delaware, Pennsylvania and New Jersey develop statewide plans for improving rural education.

Major Accomplishments

. Assisted the Pennsylvania Department of Education modify its Chapter I monitoring process for 300 schools to include factors related to student basic skills achievement.

. Provided support to the Maryland State Department of Education in the establishment and operation of a commission on students at risk which assists local communities and schools address the problems of students at risk.

. Created and maintained an active urban network comprised of superintendents of the five largest districts in the region (Baltimore, District of Columbia, Newark, Philadephia and Pittsburgh) under whose auspices projects in the area of thinking skills and secondary school improvement have been implemented in each district.

. Completed a two year study of statewide testing programs for Maryland and Pennsylvania which compared the local effects of the testing programs; and disseminated study findings to state policymakers, local educators and at national conferences.

. Designed a study of the role of the central office in school improvement that is using as study sites seven districts in New Jersey and Pennsylvania with a reputation for strong central office involvement in school improvement.

. Provided leadership to a collaborative effort among the nine regional laboratories which focusses on the teaching of thinking skills; and which resulted in a number of joint products, a newsletter, and a seminar for OERI and Washington-based education association staff in which the work of the collaborative was presented.

. Assisted the New Jersey Department of Education in the planning and development of the Beginning Teacher Induction Center in Glassboro, New Jersey.

. Planned and conducted a three day retreat for 42 SEA managers working on school improvement from Delaware, Maryland, New Jersey and Pennsylvania which explored the role of the SEA in local educational practice.

. Designed and implemented, in collaboration with the Maryland Department of Education, a study of the Maryland High School Graduation Requirements.

. Assisted the Technical Assistance Center at Coppin State College in Baltimore incorporate a teaching of thinking skills for students at risk, component in its teacher education program.

. Created a network of 502 rural educators and facilitated the exchange of information among this network.

. Created rural assistance councils for the states of Delaware, New Jersey, and Pennsylvania which are developing statewide plans and guidelines for improving rural education in those states.

Principal Products

Knowledge Synthesis:

. Critical Thinking and Thinking Skills: State of the Art Definitions and Practice in Public Schools. Barbara Z. Presseisen. 1986.

. Looking at Schools: Instruments and Processes for School Analysis. Janet McGrail et al. 1987.

. Places Where Children Succeed: A Profile of Outstanding Elementary Schools. Bruce L. Wilson and Thomas B. Corcoran. 1987.

Policy Papers:

. Secondary Schools and Central Office: Partners for Improvement (Design and Final Report). Rima Miller et al. 1987

. The Coordination of Education and Social Services for At-Risk Students: Early Intervention, Substance Abuse, and Teen Pregnancy Programs. William Firestone and Dale H. Drewes. 1987.

Training and Development Resources:

. A Catalog of Programs for Teaching Thinking. Janet Kruse and Barbara Z. Presseisen. 1986.

. Classroom Activities in Thinking Skills. Janet Kruse. 1987.

. How to Develop Your School's Readiness for Improvement: An Analysis Process and Recommendations. Joseph J. D'Amico and H. Dickson Corbett. 1987.

. Team Planning for Educational Leaders: A Training Handbook. Rima Miller. 1987.

Specialized Products:

. Directory of Regional Educational Resource Organizations: The Mid-Atlantic Region. Peter J. Donohoe. 1987.

. Trends in School Improvement: Regional Test Results 1984-1987. Thomas W. Biester and Joan L. Buttra 1987.

1. Laboratory:

Southeastern Educational Improvement Laboratory (SEIL)
P.O. Box 12748
200 Park, Suite 200
Research Triangle Park, North Carolina 27709-2748
Phone: (919) 549-8216

Executive Director:

Charles J. Law, Jr.

Chair, Board of Directors, December 1967 to November 1989

Dr. Richard A. Boyd
State Superintendent of Education
Mississippi Department of Education
Post Office Box 771
Jackson, Mississippi 39205
Phone: (601) 359-3513

Areas Served: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina

2. Major Activities:

Major activities of the Southeastern Educational Improvement Laboratory are organized under the following programs:

- Improving Instruction in Mathematics. The primary focus of this program is to provide activities and services to K-12 mathematics teachers and supervisors on alternative ways to improve mathematics instruction, particularly for low-achieving students. Among the major program components are minority recruitment and career awareness, mathematics remediation strategies, and higher order mathematics thinking skills. A secondary focus is providing mathematics in-service activities for parents.

- Improving Instruction in Writing. This program builds and strengthens networks among State education agencies and the Southeastern Writing Project sites. A key objective is to increase the participation of teachers and administrators of at-risk students in writing improvement activities. There is a project to develop and test training materials for administrators in fostering high quality writing programs in their schools and districts.

- Improving Leadership Skills. This program works with the leadership/management centers in each State education agency and the Project LEAD centers to develop the leadership skills of educators. Program components include training administrators through the use of a set of materials, Competences for High Performing Principals; disseminating information about successful approachs to training and placing minority and female administrators; and supporting staff development activities for school leaders that provide them with the skills needed for responding to changing needs of educators and students.

- State Policy and Educational Reform. Primary activities include the provision of on-demand policy analyses, mapping and tracking educational reform activities, and conducting policy forums for State legislators and their legislative aides, State Board of Education members, Governors' education aides, and high-level SEA personnel. Eleven policy papers for educational policymakers are under development.

- The Teaching Profession. This program sponsors research in the teacher labor market in the Southeast, such as an annual Wage Comparability Study comparing the earnings of teachers with other college-educated workers in the six-State region. A key activity is attempting to increase the successful recruiting of minorities into the teaching profession in the Southeast. The program also publishes reports on teacher recruitment, retention and professionalization.

- Dropout Prevention. The activities of this program are designed to address the problems of students likely to leave school before graduation. The objectives are to identify effective dropout prevention programs, inform practitioners about these programs and about other resources, and to identify issues needing further research. A key activity is pilot-testing methods to encourage and assist adoption of successful dropout prevention programs.

- Making More Effective Use of Technology. Major activities include refining and implementing the Software Evaluation Exchange Dissemination (SEED) project, identifying effective instructional practices that feature the use of technology, and informing educators in the region about primary technology programs through State and regional conferences. Project SEED is a partnership of State education agencies to train local teachers to evaluate instructional software and to disseminate these software evaluations to schools throughout the region.

- Rural and Small Schools. Now in its second phase, this program identifies promising practices in rural education; disseminates information about these practices to rural, small schools and others; works with two rural, small schools in each of six States in the region to help them attack persistent rural education problems, and helps these schools provide technical assistance to additional sites; and supports the development of School-based enterprise projects. In addition, the program generates information about rural education in the region and is developing a data base on rural, small schools that will lead to a profile of rural education in each State.

3. Major Accomplishments:

- This new laboratory has developed a sound governance structure, developed strong ties with major constituencies in the region, and is becoming more effective and successful in providing its clients with an array of services.

- An external evaluation of SEIL activities for 1986 and 1987 found that, "In only two years of existence, SEIL seems to have done a good job of making itself generally known in the region."

- In the first year of its existence, SEIL disseminated 4303 copies of its R&D products, while in the second year 34,789 copies of SEIL R&D products were disseminated.

- To date, 546 evaluators have been trained under Project SEED, 597 instructional software programs have been evaluated, and information about these evaluations distributed widely throughout the six-State area.

- A tracer study of the effects of selected SEIL activities concluded that, "The service component of both the SEED project and the effective Mathematics Teaching workshops were well received in terms of their relevance, comprehensiveness (especially for mathematics) and clarity. Both were found to be useful by those who participated."

- The North Carolina Public School Forum's Study Group, comprised of Forum board members and business leaders, used the 1987 update of the SEIL wage comparability study to formulate recommendations on teacher salaries that were shared with the General Assembly and State Board of Education. The Forum's executive director reported that the salary subcommittee's focus shifted from increasing beginning teacher salaries to improving career earnings of experienced teacher as a direct result of the report.

- The rural education program has progressed to the point where it pulled together information from 18 local school districts to document activities for dissemination. The first product for disssemination highlighted parental involvement in rural schools.

- The first of what will be annual regional conferences was held December 6-8, 1988 in Orlando, Florida. Focused on the theme "Building Educational Success for All Our Kids," the event attracted over 125 educators from the Southeast. Without exception, evaluations received were enthusiastic and indicated that those in attendance would both attend a similar conference in the future and encourage others to attend it.

4. Principal Products:

a. Newsletters:

- The Key, six issues per year; contains descriptions of products developed by laboratories, R&D centers, and others supported by OERI, which are distributed widely to practitioners and policy makers.

b. Knowledge Syntheses:

- Improving the Second "R": Writing Projects on Staff Development, Carole Capper and Naida Bagenstos, May 1987.
- "Teacher Fringe Benefits in the Southeast," Program on the Teaching Profession, 1988.
- Programs for Preparing Minorities and Women in Educational Administration, Sandra Tonnsen, and others, 1988.

c. Policy Papers:

- Dimensions of Public Support for Financing Education Reform in the Southeast, Frank Howell, December 1988.
- A Summary of AIDS Educational Policies in Six Southeastern States, Stephen Peters, April 1988.

d. Training and Development Resources:

- Effective Mathematics Teaching: Remediation Strategies, Grades K-5, Gypsy Abbott et.al., 1987.
- Competencies for High-Performing Principals, a set of ten training modules by various scholars, 1987.

e. Specialized Products:

- An Analysis of the Comparability of Teacher Salaries to the Earnings of Other College Graduates in the Southeast: 1987 Update, Ronald Bird, 1988.
- Telecommunications - Based Distance Learning: a Guide for Local Educators, Sally Bond, 1987.
- Improving Mathematics Curriculum and Instruction: a South Carolina Model for Using Statewide Test Data, Joseph Ryan, 1988.

Southwest Educational Development Laboratory (SEDL)
Austin, Texas

Preston C. Kronkosky, Executive Director
Pat Crist, Board Chairperson, State Capitol Bldg. Oklahoma
FY 1989 Funding: $1,423,041.00

Areas Served: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas

Major Activities

SEDL's regional laboratory service strategy is to address issues identified by educators, intermediaries, and decisionmakers as current and significant areas of need. Based on continual needs sensing and evaluation activities, SEDL's Board of Directors selects and annually recommits the organization to work on groups of programmatic themes under its regional educational laboratory contract. During 1989-1990, these themes include:

- Improving Teacher and Administrator Performance
- Improving School and Classroom Productivity
- Facilitating Student Achievement in Reading, Writing, and Critical Thinking Skills
- Information Services for Educational Decisionmakers and Regional Partners

In addition SEDL is working to improve staff development delivery systems for r small schools under a special Rural, Small Schools Initiati

Major Accomplishments

- In August of 1988 SEDL held a major regional conference centered around the publication, Organizing for Excellence, a systhesis report on effective teaching and administration. The report, prepared by SEDL staff, proposes the development of a research based administrative training model which many of the regional conference participants agreed to utilize as a central framework for the home grown models they would develop.
- Through its continued provision of valuable information to state legislators, state education department officials, and their staffs, SEDL's ED AIDE team has been able to have a regional influence on decision making and programming in such areas as youth-at-risk, options for language assessment, effect of class size on merit pay, distance learning and economic development. The team's rapid response service assures its clients of receiving the latest, most up to date information on a variety of topics in a timely, facilitative manner.

- SEDL has established a demonstration school program wherein 5 schools, one per state, which are resource bound and serving low income children, are receiving an intensive program of school improvement assistance. The assistance is provided via a team approach comprised of representatives of SEAs, LEAs, local universities and business and community organizations. The learning to emerge from these demonstration sites will be used to develop assistance and training of facilitators for other school improvement efforts.

- SEDL has been providing resources and assistance to the five LEAD programs in its region, including the preparation of a comprehensive synthesis of competencies associated with the administration of effective schools entitled "Dimensions of Effective Leadership" and a directory describing resources for administrator assessment and staff development. The "Dimensions" report has been disseminated to all 51 LEAD programs throughout the country.

- Because SEDL was so successful in training the 20 directors of the Texas Intermediary Service Units in school improvement techniques, the lab was called upon to train the Texas Education Agency's Accreditation Division: the division in turn trained many principals and other administrators from all over the state.

- Under its Rural, Small School Initiative, SEDL, working through 30 strategically located elementary schools, trained scores of trainers and other partners in strategies and techniques designed to improve rural, small schools. The training techniques, materials, and processes developed by SEDL will be utilized by SEAs and LEAs in the seven state region for training additional intermediaries who will work with an ever widening cycle of rural, small schools in the Southwest area.

Principal Products

"Insights on Educational Policy and Practice", this will be a series of six papers (one per month running from March to October of 1989) based on the latest research on a number of selected policy issues.

"Investigating Alternatives: Ways of organizing Educational Systems", a series of four resource papers to be used in the delivery of training and technical assistance and for dissemination to state level policy and decision and makers and LEAD centers in the SEDL region.

"Review of Literature on the Role of the Superintendent", expected publication date, June, 1989.

"Gaining Entry and Bonding with Small Rural Schools", a specialized article due out in November of 1989.

Conditions and Needs of Rural, Small Schools in the Southwestern Region", Sept., 1989.

"Critical Issues in Student Achievement", this will be a series, updated periodically, which discusses factors and conditions that facilitate student achievement through reading, writing and thinking. Due in May and November of 1989.

"Facilitating Student Achievement: Focusing on Promising and Exemplary Programs in Reading; Writing; Partnership; Technology". Due out Summer of 1989.

"Insights on Policy and Practice", this will be a series of papers directed to state level policy makers and decision makers.

"A Review of the Literature on the Relationship Between School District Size, Student Spending, and Student Achievement', this will be a series running over 1989-90. The first paper will be due in July of 1989.

REGIONAL EDUCATIONAL LABORATORIES RECOMPETITION PLANNING MEETINGS

June 26-27, 1989

SUMMARY REPORT

U.S. Department of Education
Office of Educational Research and Improvement
555 New Jersey Avenue
Washington, D.C.

Anne H. App
Word for Word
Bethesda, Md.

September 22, 1989

REGIONAL EDUCATIONAL LABORATORIES RECOMPETITION PLANNING MEETINGS

Office of Educational Research and Improvement
555 New Jersey Avenue, Room 326
Washington, D.C.
June 26-27, 1989

JUNE 26 PARTICIPANTS

Invitees

Alan E. Farstrup, International Reading Association
Ronald Field, National Conference of State Legislatures
Anne Henderson, National Committee for Citizens in Education
Rich Long, International Reading Association
Mary Grace Lucier, National Advisory Council on Educational Research and Improvement
Ramsay Selden, Council of Chief State School Officers
Gerald Sroufe, American Educational Research Association

Office of Educational Research and Improvement (OERI)

Nelson Smith
Director
Programs for the Improvement of Practice (PIP)

David Mack
Director
Educational Networks Division, PIP

Charles Stalford
Evaluation Team Leader
Educational Networks Division, PIP

Barbara Lieb-Brilhart
Laboratory Team Leader
Educational Networks Division, PIP

Observers

Laurence Peters, Subcommittee on Select Education of the House Education and Labor Committee, U.S. Congress
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JUNE 27 PARTICIPANTS

Invitees

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Marily DeWall, National Science Teachers Association
Penny Earley, American Association of Colleges for Teacher Education
Betty Hale, Institute for Educational Leadership
Lew Rhodes, American Association of School Administrators
Dena Stoner, Council for Educational Development and Research
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INTRODUCTION

The Office of Educational Research and Improvement (OERI) of the U.S. Department of Education will issue a solicitation early in 1990 for proposals to operate regional laboratories in the funding period beginning December 1, 1990. As part of its preparation for the recompetition, OERI has sought views and advice from the field regarding educational needs and problems in the United States and how the regional laboratories can help respond to them. To that end, OERI conducted five open meetings in June-July 1989, including two with invited representatives from major educational associations and other organizations. The other three meetings were structured for public input.

Participants in the invitational meetings held June 26 and June 27 at OERI offices in Washington, D.C., were invited to make statements about the laboratories reflecting the views of their various constituencies. They were also asked to provide comments and suggestions regarding four broad issues:

- What activities conducted by regional educational laboratories have been most valuable to your constituency in the past 2-3 years?

- What are the key educational issues laboratories should focus on in the future?

- What kinds of activities and strategies (e.g., syntheses and other research and development products, direct technical assistance, capacity building, etc.) would most benefit your constituency in the future?

- What form of laboratory relationship(s) with your constituency (e.g., centralized vs decentralized, formal vs informal, partnerships vs contractual) would be most effective in the future?

The meetings were co-chaired by Nelson Smith and Charles Stalford of OERI. They noted that the purpose of the meetings was not to reach consensus but rather to hear individual views from different educational constituencies. Stalford said that OERI would consider every participant's comments, but should not be seen as endorsing any particular point of view expressed at the meetings.

This report is drawn from the reporter's notes and the official transcript of the proceedings. It includes summaries of statements made by individual participants and the discussions around those statements. It also includes summaries of comments on other issues that emerged during the general discussions. In instances where comments are not attributed to an individual

participant, the statements are syntheses of comments made by one or more participants.

MONDAY, JUNE 26

Several themes emerged from the individual participants' statements and comments by other participants:

1. Ways in which the labs can work most effectively with professional associations, including strengths and weaknesses of the labs' indirect service strategy for this purpose.

2. The general adequacy of the regional concept of service at present.

   - The need for labs to respond to individual state needs as well as regional needs.

   - The extent to which current educational problems are regional in nature.

3. The need to have a grassroots-driven lab system that could provide short-term, decision-oriented research in response to educators' immediate needs.

4. What is needed to make research useful in classrooms.

   - Putting research in a form teachers can understand and providing them assistance in using it.

Alan E. Farstrup, International Reading Association (IRA): For the most part, this constituency does not have a high level of awareness regarding the work of the laboratories. The IRA has had a close relationship with the (research) center involved in the study of reading, and has also worked with the center studying writing and literature. The IRA receives the centers' reports and provides input on the materials related to these fields. Their relationship with the ERIC centers also involves working together to develop publications, including both technical reports and syntheses.

The IRA's relationship with the centers points to its desire for more direct relationships with the labs. The notion of leverage incorporated in the lab indirect service strategy (of working with and through intermediary organizations such as state education agencies towards school improvement) is acceptable, but the strategy has not worked up to now. In previous years, the labs' "Research Within Reach" program was a successful model of cooperative work. The IRA members want to be involved in selecting subject matter for dissemination, rather than having the "truth handed down from on high."

There is a wide spectrum of subject matter groups and professional groups who can tap into the labs' work in different ways. Their needs are not regional; they vary with the topic. For example, a major issue currently is student-centered vs curriculum-centered instruction, or a holistic approach based on the child's needs vs the approach which teaches a prescribed hierarchy of skills. This issue is bubbling through several subject matter areas, including reading, and positions are being taken based on very little evidence. Labs working in this area would be particularly useful to the various groups.

Ramsay Selden, Council of Chief State School Officers (CCSSO): In some regions, the lab is well-known and appreciated, while in others, it is not perceived as being useful. This regional variation hinges on the degree to which the lab meets the states' specific needs. The labs' usefulness is further complicated by the fact that some regions are fairly homogeneous, with identifiable common needs among the states, while other regions are more diversified. Thus, it is easier to identify a regional agenda in some regions than in others. Some, such as the Southeast, have states with vivid, distinct, coherent needs, and there has been a great deal of interaction with the lab growing out of those needs.

The idea of labs which deliver generic services across the regions does not work, as this does not meet the needs of the states. While there are some needs common to all states, many are state-specific. Therefore, three levels of need can be identified: 1) general (common to all regions and labs), 2) regional (coherent across states in a region), and 3) state-specific. The labs would probably be perceived as useful if they were meeting a combination of these needs. The labs' task to provide assistance to state decisionmakers will vary in accordance with the way the chief state school officer (CSSO) perceives the need for this assistance.

At the level of general need, there is also a need for consistent expertise across the regions. There are areas where the national expertise is very focussed, such as reading for disadvantaged low achievers, and the labs can serve an important brokering function by putting the states in touch with the national experts. The brokering function can also take place at the regional level.

Many states are much better staffed than when the labs were first established, and can do things themselves that the labs were set up to do. States' capabilities differ, and some have good expertise in many areas. But the key is for schools to identify their problems. Their felt needs are often more specific than the research questions for which we have answers. It would be useful to have a model group of professionals who could circulate among the schools in a state and identify the

problems. They could then suggest appropriate experts or others who are dealing successfully with the particular problems.

Gordon Ambach, executive director of the CCSSO, has testified that when states perceive the labs as useful, it is because the labs have met their individual needs. He proposes that the labs be structured and funded to achieve that end, perhaps by having a set-aside of part of the lab funds to provide assistance by experts of the states' own choosing, on a state-by-state basis, for whatever needs the state identified.

Gerald Sroufe, American Educational Research Association (AERA): We are talking about a well-intentioned effort to make a 20-year-old system work. We have divided the country into regions, but there are few regional problems. This concept also overlooks technology which changes the need for face-to-face communication and assistance.

The labs are not really labs and the centers are not really centers because of underfunding. Providing policy advice to decisionmakers is not a lab function. The research is good and addresses ideas in education, but it does not lend itself to effective classroom application. The labs should receive more funds, and should do fewer things better--perhaps there should be fewer labs funded at a higher level. Getting the research results into schools is the labs' function, and we need applied research and packaging to meet the states' needs as they arise. Labs might be asked to do just one thing, such as get cooperative learning into the schools. At present, the labs are supposed to serve other functions as well, but they cannot do everything. It would be more useful if, instead of the current regional focus, the labs had a topic focus and were engineers of educational ideas.

Both the centers and labs have been moving from their primary focus, e.g., the centers have moved into dissemination, which is a lab function. The question of articulation has not yet been addressed.

Observations related to above presentations

The following statements are syntheses of comments made by one or more participants; they do not reflect consensus on the issues.

Lab structure and function

- The amount of funding for independent field studies, which promoted a competitive process, has dwindled dramatically in the last few years. It would be useful to have a cost analysis to see if funds provided to the labs as they are currently structured are being well spent.

- The labs' agenda should be determined by need and through a competitive process involving schools of education, profit and nonprofit organizations, and associations.

- A grassroots-driven lab system would have implications for administration and staffing of the labs. For example, they would need to have people on retainer who would be flexible and capable of responding to many different entities. Many needs will be very different across the states and regions, so it would be necessary to identify the needs and then hire people.

- We need more short-range, decision-oriented research. There is a class of issues states must deal with for which they do not have a theoretical base. For example, some states have been under a great deal of pressure to lower class size, although the research community believes that the issues are much more complex than this one single factor. Because of the pressure, Tennessee undertook a large, controlled experiment at its primary, upper elementary, and secondary levels. The findings showed that lower class size benefits lower-level, under-achieving students. It is in areas such as this that the labs could help by providing a research base to inform decisionmaking.

Getting research into the classroom

- As an illustration of what is needed, we can look at the center in Pittsburgh which is doing research on how people learn, specifically in the areas of reading, math, and writing. This research is a rich resource, but it cannot be used in the classroom in the form in which it comes from the researchers. There must be someone at the teaching level who can provide input for designing a way to use the research in the classroom. There are some models of this. For example, as part of its professional development activities, New York City has developed techniques that will provide concrete, hands-on ways to use the Pittsburgh and Illinois cognitive research. In Orange County, Calif., staff at the district level have been trained to work with the basic research and translated it for classroom use.

- If the labs were structured around topics, we might have a lab with science instruction improvement as its single mission. This lab would take any district in the country and show it how to use the research in classrooms. At present, the labs deliver training through a train-the-trainers mechanism. This develops networks that reach to the district level but there is little direct work with teachers.

Ronald Field, National Conference of State Legislators (NCSL): In the past, at least one lab was responsive to the issue of drug education when it was brought to them by the governors of several Northwest states. The governors' offices did not use a lot of information offered by the lab, but there was interest shown by the lab in a real policy issue that was significant to the governors of these states. The current tasks for the labs include serving state decisionmakers needs directly with a portion of their funds; however, this is difficult.

Education is a major policy issue in the states. The Federal Government has a role in education; however, the responsibility for providing a system of common schools rests on the states. States delegate this responsibility in various ways--state boards of education, chief state school officers (elected or appointed), etc. Since 1983, state legislatures have appropriated more than half of all funds for public education--it is the largest single item in every state's budget. This puts the state legislatures back into the decisionmaking process regarding what education will look at and how it will operate in a given state.

In this situation, the state legislators have a great need for information. The National Governors' Association has been looking for ways to develop more information sources, and one way is to work with the labs. One or two lab directors are particularly interested in working with the NCSL to serve policy needs.

When we look at the lab strategies and activities that benefit the NCSL constituency, there are some ways the regional labs could be of assistance. For example, they could provide state-by-state technical assistance regarding a particular policy issue. However, it is not clear that a state legislature would call upon the labs. Labs as currently structured are not the kind of place that legislators feel comfortable going to. The legislatures see the labs as part of the educational system rather than as an information system, so it will be necessary for the labs to develop a relationship with the legislatures so they will know the labs are there for them to call on. The NCSL could perhaps serve as a disseminating or brokering agent for one or more labs. In particular, the NCSL State Services Office, which provides technical assistance to state legislatures in a number of policy areas, might serve as a dissemination or brokering agent for the labs.

Since 1970, there has been growth in both numbers and capability of legislative staffs. This has included research staff members; however, the research staff is still small in most states and cannot do a great deal of basic research. The need now is to provide for the state legislators service not unlike the Congressional Research Service for the Congress. This

service could provide results from other states, universities, national studies, and other organizations on the policy issue at hand. A national applied research database would equalize the states' ability to draw on national expertise to help guide their decisions. That is a big task, and how the labs might feed into it is an open question. The existing computerized database "Legisnet" could build on OERI data and supplement them with data from other sources.

It is true that some states are highly politicized, to the point where every legislative committee has a majority and minority staff. If information is made available to one side and not to the other, problems may arise. This may mean that state-by-state direct help from the labs will be difficult, and working through the NCSL would be more practical and prevent the labs from being drawn into political situations. The most effective way to work with legislatures is not to take advocacy positions, but to offer options, including the scope and background of the issue and information from other states and sources, as well as recommendations the policymakers might consider.

Mary Grace Lucier, National Advisory Council on Educational Research and Improvement (NACERI): Our members do not deal with the labs. From time to time, lab people have attended our meetings out of town, but they did not tell us anything new or exciting about how to run a school. We cannot criticize their performance from personal knowledge. It might be helpful to inventory what the current labs have done and see what works, and also to see what the centers have done that is useful and could be retailed. There are innovative ideas coming from the states that the labs could broker more extensively.

Related observations by Charles Stalford, OERI

- The lab/center coordination issue has been under consideration at OERI. The Laboratory Review Panel has discussed the need for further coordination among labs, centers, the Educational Resources Information Center (ERIC), the National Diffusion Network (NDN), and other Department programs. Although there is some collaboration, it is not a clearly articulated system, and there is some overlap in developing syntheses, applied research, and dissemination.

- There has not been enough money to do the kind of lab evaluation OERI would like. The labs do a self-evaluation, and OERI would like to have money to complement that evaluation. A study is presently being conducted through the National Center for Educational Statistics' (NCES) Fast Response Survey System to determine the levels of receipt

and use by public school districts of various R&D resources, including those provided by OERI programs.

Final comments

Alan Farstrup, IRA: Given the smallness of the resources, I would propose more radical restructuring and more focused efforts rather than tinkering with the 20-year-old lab system.

Ramsay Selden, CCSSO: There should be a real caution on the principal of indirect activities. How you work through intermediaries must become very thoughtful, strategic, and promising, otherwise you will accomplish nothing.

Ron Field, NCSL: In the case of the NCSL, the states see us not so much as an intermediary, but as a trusted extension of the legislatures. We would serve as a "buffer of understanding," although we would be offering the same assistance states would receive if they went directly to the labs.

TUESDAY, JUNE 27

Opening comments were made by Ted Sanders, Under Secretary of the U.S. Department of Education. Dr. Sanders noted that he had been involved with the labs in several capacities--as a consumer, a board member, and a participant in the previous recompetition planning. Dr. Sanders stated that he had come to the meeting for one "very simple purpose...to symbolize the importance of this [planning] activity."

The labs' role as broker, an issue raised peripherally in the previous day's discussion, was the predominant theme on Tuesday. This theme was approached from various perspectives and many aspects of the brokering function were discussed as the participants made their statements. One issue was the extent to which individual labs should seek to become expert in many different areas of education or whether they should act more as brokers in referring people with educational needs to the best source for help, whether in a lab or not.

The needs and interests of various individual associations were also discussed.

Penny Earley, American Association of Colleges for Teacher Education (AACTE): This association includes many different kinds of institutions. In most regions, our members have worked successfully with the labs. A useful aspect of the lab/center configuration was the concept that the centers would do the basic, empirical research and the labs would do dissemination; however, this has been blurred over the years.

As the institutions which prepare people to go into the classroom as teachers, this constituency can be seen as consumers who are tied closely to the labs. In one region, there is a formal relationship; in several others, schools of education are involved in governance of the labs. In some cases, the relationship is professional, collegial. ERIC is also used a great deal in teacher education. The AACTE membership strongly encourages linkages between the institutions and the labs and centers. The issue is whether such relationships should be prescribed or encouraged. Our membership would probably fall between these two positions.

When we look at the institutions' relationships with the centers and labs, we see an organizational distinction between research generating institutions, such as the University of Michigan, and institutions which use research in practitioner preparation, e.g., Western Michigan University. Those which generate research will tend to have closer ties with the knowledge production side of our business, while those which utilize knowledge based on research will be more closely linked to the labs. In those cases, the lab forms the link between what

happens in the centers and what happens in the other (knowledge utilization-oriented) institutions.

Our membership feedback indicates that some of the institutions' relationships with the labs seem to be based on "institutional and individual personality traits." If an institution is committed to outreach and is visionary, it will be more likely to form relationships with entities such as the labs. Institutions which see their mission more narrowly are less likely to form such relationships. Our organization's hope would be that the bulk of our members would see opportunities in working with the labs, ERIC, and other OERI-funded programs.

Michael Usdan, Institute for Educational Leadership (IEL): I have a general question about whether you are attempting to reconcile the pre-1985 strategy of large-scale product development and the indirect service strategy implemented in 1985. Instinctively and intuitively I favor the direction OERI moved in 1985, as I think it makes sense politically and substantively in terms of reaching the field. I do not know the political nuances or the operational pluses and minuses of the strategies, but I do think the 1985 direction makes sense.

The problems of research diffusion and brokering information from the universities remain difficult ones. There is very little currency in any professional field in terms of people who spend their lives as brokers, translating the research into practice in the field. They are a rare and courageous breed, and they have great difficulty gaining currency in either the school systems or the universities.

Whatever the Federal Government can do to devise a strategy (perhaps a combination of the pre- and post-1985 ones) that will reward institutions, be they teacher education institutions, state education agencies, or other intermediaries that will perform the brokerage functic effectively, will be welcome, because no one else understands it or is doing it.

Betty Hale, Institute for Educational Leadership (IEL): I am interested in how independent research being done in universities gets into the pipeline and fed into the ERIC system. A lot of the Federal Government's education research agenda is funded through the labs and centers, and I am curious as to how all the pieces can be pulled together.

If I directed a regional laboratory and wanted to serve people better, I would suggest some focus group conversations with opinion leaders among the ranks, such as teachers, to find out how to serve people in the field. It could be very fruitful to have a conversation around the question of how the people in the field get their information. The issue goes beyond name recognition. It has to do with people knowing about resources

and where they can turn for help if they have issues they want to resolve. We know people are out there generating information and coming up with new strategies that could be put into practice. The real challenge is to make sure that information gets to the right people.

Lew Rhodes, American Association of School Administrators (AASA): Our constituency has a great deal of information on the labs and centers. For us the issue is how the situational decisionmaker--superintendent, principal, or teacher--can use the research information. The knowledge usually comes to the practitioner through a personal interest to find out something, through his/her own experience, or through peers. But there is very little vertical communication in this profession, so people at the various levels often do not realize that those at other levels have similar values and goals. The thing that has been missing most of the time has been opportunities, through "trusted brokers," to exchange information not only with peers, but also vertically around the same issue. We must provide opportunities to communicate across the levels and to reflect together on our mission.

The labs can play a critical role as brokers between the basic researchers, who often do not understand practitioners, and the research users. For a while, the labs saw dissemination as a one-way process, but there are labs which understand that it has to be a two-way, interactive process.

We want to make the labs trusted brokers, but this causes a problem when it comes to evaluating the facilitator/broker role. Site-based management efforts are failing in many areas because superintendents and central offices do not have the skills needed to act as brokers. In a way, OERI is like the central office of a school district, in that it is perceived as a "blob." If the labs are to play a role as process facilitators, OERI needs to look at its own structure and seek to model a facilitative process with the labs themselves.

Question from Charles Stalford, OERI: In the discussion yesterday, we heard that it would be desirable for the labs to be able to respond to the states' needs as they occur and to assume the "trusted broker" role. How could the labs be organized to be prepared to offer assistance in situational decisionmaking?

Lew Rhodes, AASA: With situational decisionmaking, you only need help when you need it. You turn to a trusted broker, who either knows what you want or who can put you in contact with someone else who does. It takes a while to build up such relationships. You have to get a sense that the broker knows what your problems are like. The easy one to facilitate is to have enough opportunities where people get together with other

people who have similar situations and know who to call. That is what most of us do.

I was involved as an observer when the National Institute of Education was created. I went on to become a contractor working with the labs, and I now represent the users of the information. In the early days, one objective was to see how the project monitors could play a more helpful role than being just "paper pushers." In an organization such as OERI, there are certain decisions that go with the policy of the "board" and that must be done as the administration changes. But in OERI there is an infrastructure made up of people with a base of experience and wisdom that has been sustained, even as the political situation has changed periodically. These people could play a supportive, facilitative, brokering role to help the labs be effective places for creating, gathering, and sharing information.

Michael Usdan, IEL: Part of the answer to the question of how to assist situational decisionmaking is the anticipatory skill of sensing the emerging key educational issues. For example, restructuring is currently receiving a great deal of attention, but no one knows quite what it means. There is a need to identify a set of nationally salient issues. The labs can then network and pull together around those issues to build capacity to respond. The labs are uniquely positioned to play the broker role in schools and the wider community. Maybe for a change, the labs can help the education enterprise get ahead of the action, rather than be reactive.

Dena Stoner, Council for Educational Development and Research (CEDaR): I am struck by the brokering concept. In looking at the idea of wisdom, we get in a simplistic mold and view wisdom as coming from the top down. We take the research and "tamp it down" to the place where it can flow into the schools. In thinking about situational decisionmaking and practice, I see labs using wisdom that flows up from within the system. We think about brokering in terms of disseminating from the top down, but the labs should help translate wisdom both up and down in the system.

The broker should be a way station between a place to reflect and a place to have action. There is a sense from brokering activities, also, that is different from other sources. Such wisdom may encourage risk-taking. The labs have a critical role as nurturing and inspirational entities; it is part of breaking down the idea of top-down wisdom. This is an opportunity for the Department of Education to model that nurturing role.

Additional points of discussion on brokering

The statements below are syntheses of comments made by various participants, and do not represent consensus on the issues.

- In addition to the nationally salient issues that cut across the labs, there are issues which are regionally- or state-specific. How could those be reconciled? The labs could respond to both kinds of issues. The issues are fluid, so the labs' ability to serve could be fluid.

- Brokering is not only giving information. It also is helping people reflect on what they should do, what is working, and when it is best not to move. Issue sensing is important, but there may be a fine line between it and agenda setting. It is important that the labs not be seen as prescriptive.

- Should every lab develop the capacity to respond to the restructuring issue, or should the labs be brokers to some central source of wisdom on the subject? Every lab should develop the capacity to respond to restructuring needs, as there is no other place to go for help with this problem. The nature of the solicitation for proposals will determine the labs' relevance. We know that the nature and scope of a problem changes and is individualized in different educational settings, but we seldom look at research and say that it can be implemented in various ways to meet different needs. The labs should have a mindset that allows them to build this capacity.

- There are many people in the education field who have some level of understanding of many things they deal with. But they also need to know where they can turn for in-depth information in specific areas, and it is here that the trusted broker's role becomes essential. There should also be an evaluative element, as we sometimes find that what research has told us to expect is not what is happening. The labs should be aware of the need for evaluating information.

Following the discussion on brokering, comments were solicited regarding specific interests of associations in relation to the lab program.

Marily DeWall, National Science Teachers Association (NSTA): Teachers at the college level are very interested in research from the universities, and the NSTA has disseminated research findings by publishing several popular documents. I am not clear as to whether or not NSTA members are really aware of

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the centers and labs, although at one time a close working relationship with the Far West Lab existed.

NSTA has some concerns that are relevant to the labs. Our primary concern is the status of science education. This has received a great deal of publicity, particularly regarding the lack of science education at the elementary level. Teachers are not taught to teach science at this level, and we need better preservice and inservice training. The NSTA is beginning certification in nine science areas. This will be an extra credential for teachers, and is a more stringent certification than is generally given by the state. We are also interested in laboratories and equipment, as studies show that hands-on science education has good results. We are seeing more reliance on textbooks and less hands-on education, which is not going to make for students who want to pursue science.

We are interested in middle school/junior high structuring, as we are beginning to get some information that segregating students into middle school is not practical and a return to the K-8 structure might be indicated. We also are curious about distance learning. Although it generally is not practicable for teaching science, we know it is being done, particularly in areas where there is a shortage of teachers. There is an interesting project, JASON Project, which uses a satellite to show live explorations in the Mediterranean Sea.

Our highest priority is restructuring the scope, sequence, and coordination of science instruction in secondary schools; only 20 percent of the student population studies chemistry and physics We need more teacher training and curriculum revision. With a grant from the National Science Foundation, we held a major strategic conference with superintendents, teachers, and others to look at these issues. We are planning five implementation centers to put the restructuring effort into practice, beginning in 1990-91 with the 7th grade. We also have applied for Department of Education funds for development of curriculum materials in the first year.

The average teacher or curriculum developer goes to the national NSTA or their state organization for help in designing courses. Most of the states have a science teachers' organization. Some teachers and curriculum developers go to the teacher education school at a university with which they have ties. The extent to which the labs are known in this constituency is not clear, but the labs could be useful both in gathering and brokering information for us. We, in turn, would help disseminate what the laboratories are doing. We also need help in retraining teachers, as many are teaching in areas where they have had little or no coursework.

Adria Thomas, National School Boards Association (NSBA): The relationship between members of the NSBA and the labs is not clear. However, the national organization has worked with the Far West Lab on school board development. This issue is receiving increased attention. And with states becoming more involved in setting policy and other issues, school boards need more training. School boards particularly need information in the area of implementing effective reorganization practices with the same amount of money that has been available for the existing board structure. The labs could be useful in this area.

Frederick Brigham, National Catholic Educational Association (NCEA): The association has a broad constituency. We see the labs as valuable resources for private schools, as well as for public ones. I am not aware of how extensively our schools use services of the labs. Some of our schools have used the lab in the northeast region in the areas of curriculum development and business partnerships. Some were going to use the lab in the southwest region on a special project, but that is not active at this time.

Our goal is to increase the number of collaborative models between public and private schools, particularly regarding the use of community resources. The labs would be useful in this area, and we want to make their services known to our schools in every region. In their role as brokers, the labs could be catalysts to help break down walls between the public school bureaucracy and the private schools and establish a sense of community and shared educational goals between the two groups.

There is a wealth of knowledge which schools crave to share. To what extent are the labs using technology in obtaining and disseminating information? They could also help integrate technology into the educational process, both as a learning tool and as a resource for administrators. Technology has the ability to bring people together, and we need both the equipment and people who are conversant with it. This is an area where the labs could be useful.

Sara Wallace, National Council for the Social Studies (NCSS): I am not sure we have a direct link with the labs. However, we are interested and try to be informed about what the labs are doing. The NCSS uses social studies as an umbrella term that embraces history, geography, economics, anthropology, social psychology, sociology, and political science. The NCSS has a national council which represents 26,000 members. It also has a group of college and university professors who work on research and curriculum design and a group of supervisors who look at state and local curricula. Along with the national staff, these two groups determine what is needed in the field to meet local needs.

Out of a 5-year study of members' perceived needs, models for curriculum scope and sequence have been developed and will be printed. I do not know how the labs will fit into this, other than as curricula are designed at the state and local level, they will need to be evaluated. We are as concerned about content in this diverse group of subjects as we are about the need for students to develop critical thinking in relation to the subjects. The labs could have a role in designing an objective evaluation process. And I concur with the idea that technology could help break down the isolation many teachers experience by providing a way to share information.

Another concern is teacher certification. We are working on this, and are looking at standards for college programs dealing with initial credentialing. Many social studies teachers are teaching in areas which they are not qualified for and do not want to be in. We want to see teachers trained and competent to teach in the areas where they are compatible. I do not know how regional laboratories can fit into that. Finally, we would like to see more social studies taught at the elementary level, as we believe students can learn a great deal more at this stage than we are currently offering.

Additional points of discussion

The issue of technology, first raised by Frederick Brigham, was discussed at some length. Other topics included 1) regional configuration and governance and 2) indirect service strategy.

Technology

Nelson Smith, OERI: In our technological age, we have the ability to draw on the world instantaneously to put together wisdom and have it bubble up or down in any way the sender and receiver decide. If a lab is operating in a given region of the country and yet can draw from all around the country and the world and disseminate the same way, does this have implications for the nature of the regional services the labs deliver?

Dena Stoner, CEDaR: I am using the concept of wisdom not as something that can necessarily be captured and filed, but in a broader sense. You can use technology to do the other things that laboratories do, e.g., in-servicing roles, their own development, and their own research activities that they do in collaboration with others. But we need to make sure that we are using the word "wisdom" in more than just a data-informational sense.

Lew Rhodes, AASA: The word "wisdom" is not the problem--the problem is technology and the issue of isolated practitioners. What technologies do we have today that

would allow people the access to information they need when they need it and would allow them networking, trust, and support? We have the technology, but most of it is being misused because it is being applied the old delivery mechanism way. The ideal thing would be for every teacher and administrator to have a computer at home, where they would have time to reflect. But this will not happen. So what is working now is conferences where there is a facilitator or broker who keeps things going. But these things could be done much better electronically, with interactive, pure exchange or audio conferencing, which would allow people to do more. The people who are doing electronic conferencing now are operating bulletin boards, which is a poor concept because once you have seen what is there, you stop looking.

OERI could design its reporting systems for the labs to require that they feed back their "learnings" so they can be shared with others. It could be mandated that they network access points. We know that an isolated practitioner is going to turn to someone she/he trusts, either in a university, an agency, or the peer group. How can the labs network the people the practitioner is going to turn to? I would like to see something in the RFP to pull the labs into the process and shape the way people can continually learn.

Dena Stoner, CEDaR: We can use technology and continue to have a regional configuration and networks. They are not incompatible. Policymakers often think that technology is the answer, particularly in the case of isolated schools, but it is not; the real issue is substance. Technology is not the role of the labs. It is a tool, a means for expressing the role of the labs, which is multifaceted given the demands of a region.

Regional configuration and governance

Penny Earley, AACTE: A subtheme of the discussion is the integrity of the existing regions and whether or not they are efficacious and necessary, particularly with the technology now available. I think that the regions are necessary, as they serve a function that is separate from whether or not they interact with each other or go across regional lines to do some of their work. The regions serve a function by creating a management unit which includes a network or community of states, around the lab, and people are comfortable working with one another in that community. I would hope that OERI would give some serious consideration to the importance of the communities that have developed in the regions and the consequences to those educational organizations if there were a reconfiguration.

Nelson Smith, OERI: The issue of regional configuration arose in the June 26 meeting as part of the question about the states' interests and whether or not the states are sufficiently served by the representation they have on the governing boards. We invite discussion on this subject.

Michael Usdan, IEL: For administrative reasons, you have to decentralize structurally. The educational reform movements of the mid-1980's were led by the states. I believe that a major issue now is how the state and local relationship will be redefined in the 1990's. I think there has been a consensus that meaningful changes beyond the states' prescriptions will take place at the district and school levels. I would argue that one of the networking, brokering, and convening roles of the labs in 1990 will be to serve as a force that can transcend the vested interests of state officials, associations, and local groups and promote meaningful dialogue. The labs must project the fact that they are structured as neutral brokers, and this should be considered in any effort to reconfigure the labs.

Nelson Smith, OERI: This would mean that the governing bodies might pay as much attention to the local groups in the 1990's as they have to state groups in the 1980's. I think that the country is in a different place in 1989 and 1990 than it was in 1985 in terms of the respective roles of the state and district.

Michael Usdan, IEL: I am not totally familiar with your governance structure. However, I know that the chief state school officers play a critical role in the current configuration, and that education remains a legal responsibility of the states. But somehow you need to ensure that local perspectives are included. "Local" is not easily defined, because it is more than the district level. Increasingly, it is going to mean the building level. It is starting in Chicago and other places. It is the reconfiguration of collective bargaining. In many parts of the country, there is a grassroots movement related to governance.

Nelson Smith, OERI: What about other regional associations such as the Southern Growth Policies Board and other preformed bodies that include education among their interests?

Michael Usdan, IEL: I think linkages should be made between those groups and the labs in their regions. If I were involved with the RFP, I would ensure that it included a perspective to help break people in traditional educational institutions out of their parochial and narrow turf. What the public schools have going for them in the future

politically is the linkage with economic development. The business community and political community are linked together in terms of economic development, and this is why they are interested in the public schools.

Indirect service strategy

The following statements are syntheses of comments and do not reflect consensus.

- The indirect service strategy, whereby the labs are to work with and through existing organizations to improve schools and classrooms, should be reconsidered. Charles Stalford noted that the Laboratory Review Panel, which advises the Assistant Secretary, has commented on the indirect strategy in its 1987 and 1989 reports.

- In answer to a question on the best way to design the labs to serve district-level needs, some participants felt that combining the indirect strategy with other delivery modes might be best.

Final comments

Lew Rhodes, AASA: As OERI moves toward putting the recompetition solicitation on paper, it should think about the two worlds it deals with, which do not connect. The research designer tends to see the world as a delivery mechanism in which the new context is the stimulus and children learn the response. In the world of the practitioner, the child is the stimulus and teaching is the response. What is missing between these two worlds is what biology calls osmosis, where an agent allows two things that do not connect to exchange what they need. There must be mechanisms to allow these two worlds to exchange ideas and information from a basis of understanding and trust. The lab program can be a vital resource in accomplishing this.

Dena Stoner, CEDaR: We have not discussed the issue of the role the labs play in working with and for policymakers. We must recognize the fact that policymakers are in action. They cannot wait for research studies when they need to take action. The labs have knowledge, and when they are asked for it by teachers, boards, CSSO's, or state legislatures, they respond. In a sense, the labs are risk-takers. We have not talked about the fact that the U.S. Congress also looks to the labs for knowledge and for the labs' opinions on issues which are in action. The labs play a critical role with policymakers in the classroom and elsewhere, and when a decision is made, the nature of the problem is immediately changed. We need to remember that the situation is always fluid.

Charles Stalford, OERI: I recognize the fact that labs do provide information to the Congress. In a formal sense, the mission of the lab is to deliver services to a region, but that does not preclude doing other things. Could you discuss the implications of your comments on Congress as an audience?

Dena Stoner, CEDaR: The Congress has listened to the public and has authorized the labs, centers, NCES, and other entities. It has oversight responsibility, and thus is an audience for the labs.

Penny Earley, AACTE: We have to remember that when we talk to members of Congress in our respective roles, they will often ask what the implications are for their states. That is where the labs are important. If there is a resource that serves the congressional member's state or region, the member will want to know what that resource's impact will be on the particular state. I think that perhaps the way the labs will influence Federal policy is by making connections between the states/districts and some of the particular substantive issues they are considering.

CORRECTED TRANSCRIPT

UNITED STATES DEPARTMENT OF EDUCATION

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OFFICE OF THE ASSISTANT SECRETARY

FOR EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)

*****

A PLANNING MEETING FOR:

A NATIONWIDE RECOMPETITION OF EXISTING AWARDS

TO OPERATE REGIONAL EDUCATIONAL LABORATORIES

*****

UNITED STATES DEPARTMENT OF EDUCATION

CONFERENCE ROOM 326

555 NEW JERSEY AVENUE

WASHINGTON, D.C.

*****

MONDAY, JUNE 26, 1989

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SPONSORED BY OERI

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ANN RILEY & ASSOCIATES, LTD.

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CORRECTED TRANSCRIPT

PARTICIPANTS

MR. NELSON SMITH	OERI
MR. CHARLES STALFORD	OERI
MR. DAVID MACK	OERI
MS. BARBARA LIEB-BRILHART	OERI
MR. RONALD H. FIELD	National Conference of State Legislatures
MS. MARY GRACE LUCIER	National Advisory Council on Educational Research and Improvement
MR. RICH LONG	International Reading Association
MR. AL FARSTRUP	International Reading Association
MR. GERALD SROUFE	American Educational Research Association
MR. RAMSAY SELDEN	Council of Chief State School Officers
MS. ANNE HENDERSON	National Committee for Citizens in Education

ALSO ATTENDING:

MR. LAURENCE PETERS	SubCommittee on Select Education the House Education and Labor United States Congress
MR. BOB TATE	Sub Committee on Select Education the House Education and Labor Committee United States Congress
MS. A.C. DALY	National Advisory Council on Educational Reasearch and Improvement
MR. HARRIS KELLER	Office of Elementary and Secondary Education In the Department of Education

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In addition to the people above mentioned, OERI staff members were also present.

PROCEEDINGS

(9:00)

MR. SMITH: I'm Nelson Smith for Programs for Improvement of Practice, PIP, and I'd like to welcome you to this meeting.

As you know, we've had a process for advising us on the recompetition of Regional Educational Laboratories and the products of that process are on the table back there, a number of commission papers, the report of the Laboratory Review Panel, all of which we want to disseminate so that people can be informed as they offer their own advice and encouragement to us in this process.

We're going to be doing more meetings next month. The purpose of this meeting today is to ask from education associations and other related organizations who have a stake in the outcome of this recompetiton t o r views as to how we ought to proceed.

You've gotten a letter which outlined a number of categories of questions that we'd like to ask of you. Before we begin, I would simply say we hope you can help us answer those questions. We also hope that you can go as far as you feel comfortable going beyond those questions.

The recompetition of labs is a highly complex matter and there are innumerable possible configurations

and approaches to the organization of the labs' structure. So we hope that you will think in as large terms as possible both about these questions and any others that come into your minds while we're talking this moring.

So with that, I would just, again, say welcome and then turn it over to Charlie Stalford.

MR. STALFORD: Thank you, Nelson. I'm going to chair the meeting this morning. Before we go any further, however, I think it's appropriate that we have an opportunity for everyone to introduce themselves both here at the table and those who are around the the table. partially for our own information, partially for the information of the Reporter and the person synthesizing this meeting.

The meeting will have a verbatim transcript prepared by Rita Shepard, seated to my right at the end of the table. Anne App will prepare a short written synthesis of the meeting as well. I'll talk about the purposes later.

So with that, let me stop and start the introductions around the table.

MR. MACK: I'm Dave Mack, I'm a long time person working with OERI and the Regional Educational Laboratories Program, Director of the Educational Networks Division that manages the Regional Laboratory Program.

MR. FIELD: I'm Ron Field with the National Conference of State Legislatures, and I'm the Senior Staff Director for the Policy Committee on Education and Job Training.

MS. LUCIER: My name is Mary Grace Lucier, and I'm the Executive Director of the National Advisory Council on Educational Research and Improvement.

MR. SELDEN: Ramsey Selden with the Council of Chief State School Officers, State Education Assessment Center.

MR. LONG: Rich Long, and I work with IRA in the Washington office.

MR. FARSTRUP: I'm Al Farstrup, I'm Director of Research for the International Reading Association.

MS. LIEB-BRILHART: I'm Barbara Lieb-Brilhart. I'm a team leader at the Laboratory Program and work with a group of institutional liaisons each of whom administers and monitors the work for the government for the laboratory.

MR. STALFORD: I'm Charlie Stalford, I'm the Team Leader for evaluation in the Educational Networks Division.

I want to make a short statement here, partially to establish the ground rules, and partially in order to keep it consistent with the meeting tomorrow which will

have the same purpose with a different group.

The purpose is we hope to achieve through this meeting and to set forth the ground rules, both to facilitate its recording and synthesis, and also to keep the discussion within appropriate bounds in that it is related to the pending procurement in the Department of Education.

This meeting is one of two being held on June 26th and 27th. The purpose of the meetings is to obtain the views of education associations and other organizations representing major educational constituencies about the work and the future of the Program of Regional Educational Laboratories.

The associations and organizations which have been invited to be represented at this meeting but who are not present also have the opportunity to submit written statements directly to OERI regarding the issues to be discussed. Let me stop for a moment and ask, have any of you brought any written statements who are here? I don't anticipate that. But the synthesizer wanted to know that.

These two meetings are not the only opportunity to provide input to OERI regarding the lab recompetition. OERI will hold three open meetings in July at which members of the public may express their views about the lab program and the recompetition. These meetings will be

held on July 19th in Washington, D.C., Kansas City, Missouri and on July 21st in San Francisco. Members of the public who wish to make a statement to OERI but who are unable to attend any of these meetings may also submit written statements directly to OERI. Written statments submitted either from associations or organizations represented at these meetings in June, or the open meetings in July should be submitted to us by July 21st. Details about these meetings, how to submit statements to OERI, and also other background information about the lab program and recompetition are contained in the notice published in the Federal Register, Friday June 23rd. A copy of that notice is printed in the Register and is available at the back of this room.

The issues that OERI wishes to receive views about from association and organization representatives in these two days of meetings are contained in the invitation to representatives and are also found in the Federal Register notice. If there is any question about those when we begin, we can go over those issues.

The purpose of these two meetings is for OERI to learn the individual views of the representatives of the associations and organizations about these issues, particularly from the viewpoint of the constituencies they represent. The purpose is not to obtain consensus views

of those present on any of these issues.

OERI will seriously consider views expressed here and received through the other means described previously. It does not mean that OERI endorses any of them or that they will necessarily be reflected in the final policy regarding the lab recompetition or the solicitation of the proposals itself.

Following this introduction and a short period for questions and answers, which you may have about it, we will ask association and organization representatives to comment individually on the issues in the invitational letter. You may also raise other issues that Nelson mentioned before that you may have on your mind related to the lab recompetition that are relevant to your constituencies.

Acting as Chair, I may ask some of you to elaborate or otherwise clarify those ideas as appropriate. And, indeed, Barbara Lieb-Brilhart, or David Mack, or Nelson may do the same. Neither I nor any other OERI staff who participated in the meeting will engage in any sort of discussion which has the appearance or would actually result in OERI making an agreement or negotiating policies for the recompetition. I'm sure you can understand we do not want -- actually be, or appear to be, making agreements about the recompetition.

Also present in the audience this morning are other staff of OERI Programs for the Improvement of Practice which administers the lab program and other OERI staff from other programs. (Possibly, I don't see any right now). There is one staff member from the Department of Education in the Office of Elementary and Secondary Education and there are two staff members now present from the Congress.

It's announced in the Federal Register the public has been invited to attend and listen to the discussion of these meetings. The public will have an opportunity to present views about the lab program and recompetition at the July meetings. So there will not be an opportunity for the public to comment at these two meetings in June.

If representatives of other OERI or Department Of Education programs wish to make comments about the recompetition, in particular, about the relationships of the lab program and their programs in the future, I'll recognize them to make such comments. I point that out particularly, perhaps, for Mr. Keller who is here from OESE and anyone else from other federal programs who may have some thoughts about the relationship of their program as a departmental matter to the laboratory program that will not be considered public input. This input will be accepted in the spirit of increasing the communications

and coordination between various OERI and departmental programs.

Again the making of such statements should in no way be interpreted to mean OERI staff involved in the recompetition endorses or would necessarily act on that.

I mentioned to you before that we will have a verbatim transcript of this meeting as well as a written synthesis of it. The synthesis of transcripts of these meetings will be made available to the public as soon as they're available which will be around mid July. Transcripts from the open meetings in July, plus any statements submitted directly to OERI will also be made available to the public.

In addition, policy papers commissioned by OERI for recompetition planning and other documents listed on the tables at the back of this room are now available to the public.

We are making these documents available for two purposes. The first is to enhance public understanding of the lab program and its significance in the recompetition. The second purpose is to encourage preparation of the highest quality proposals as possible in the recompetition from nonincumbents and incumbents alike. We hope that these documents will receive wide distribution.

Those present today and anyone else who makes a

request can have their name placed on an OERI mailing list to receive any and all of these documents, notice of future events in the recompetition, the copies of the solicitation of the proposals itself, and an announcement of the outcome of the recompetition. We are committed to a free flow of information regarding the recompetition. We believe that it is both in the public interest and also the long-term viability of the lab program.

If there are any questions that you may have about the process or goals of the meeting, we'll return to those. We do want to express our appreciation of the staff for Nelson Smith's presence today, and I believe to two people have come in since we started. So let us introduce them.

MR. SROUFE: I'm Gerry Sroufe with AERA.

MR. PETERS: I'm Lawrence Peters from Select Education.

MR. BALCOME: I'm Steve Balcome with Information Services.

MR. STALFORD: Anyone else come in that I didn't see? Are there any questions, particularly from those of you at the table, about what we'd like to obtain here for our purposes and how we should go about them?

I would like to ask, again, the Reporter requests that you speak up. This room, you may have noticed, has a

sort of ambient noise in it. The cooling system runs all the time and words get lost. I'm saying that for my own benefit as well as anyone elses.

I was going to ask before you begin to restate your name. But this group, I think, is small enough so that should not be necessary.

Well let us turn to the issues and perhaps I'll just restate them quickly for the benefit of everyone in the room. The folks who are here and others who were invited who may be here tomorrow were asked to comment on the following four issues from the perspective of the constituencies which they represent.

What activities conducted by Regional Educational Laboratories have been most valuable to your constituency in the past two or three years?

What are the key educational issues laboratories should focus on in the future?

What kinds of activities and strategies, for example, synthesis and other R & D products or direct technical assistance, capacity building, and so forth, would most benefit your constituency in the future?

Finally, what form of laboratory relationship or relationships with your constituency, for example, centralized or decentralized relationships, formal relationships, informal, and I might add, partnerships or

contractual, what forms of those relationships would be most effective to work with your constituency in the future?

The table is open for discussion, and I hope that we can obtain views from each of you who are here representing the different associations. And as indicated, if we feel a need to clarify or gain some elaboration, we'll engage in that discussion with you.

I add only one other note about the time, that the meeting is scheduled to run until 11:45. We are not committed to that at all costs. If we run out of things to say at that time, we will stop, of course. But we will go as long as it's useful to do so. So may I open the table to reactions and comments on these issues or related ones.

MS. LUCIER: Are we still talking about this configuration of labs, this regional division?

MR. STALFORD: Yes.

MS. LUCIER: We're actually going to have one lab as presently constructed?

MR. STALFORD: Yes.

MR. SMITH: I think that is the current plan. But I think we should take the position that everything is open to discussion. If you have a comment about that configuration or suggestion or would like to make a

statement about it, feel free.

MR. FARSTRUP: After I received you're invitation I did some informal inquiry about these issues, and it seems that this is, perhaps, the first time in at least three or four years that our association had any formal contact regarding laboratories.

So I'm concerned when I ask people, not only association officials, but members or teachers that most people wouldn't be able to address either one. At least a large number, many people, wouldn't be able to address either one with a lot of information about it because they simply are not aware of a lot of activities that regional laboratories have been involved in.

MR. SMITH: May I ask a question? Your constituency in the IRA consists mainly of whom?

MR. FARSTRUP: The largest portion of our members are reading specialists and classroom building or district level coordinators that are reading programs and language art programs. They're school district based people. We also have about 12 percent university. They would probably be much more aware of the efforts of laboratories.

The concern that I have is related to one of the strategies laid out in the paper, the indirect service strategy, they're trying to leverage what the labs are

doing working with intermediate agencies, and I'd like to think that there is a lot more to be done in that area, IRA in particular.

One of our strengths is the dissemination area, Reading and Language Arts. Some sort of working relationship or parternship to assist in the dissemination process could be very hopeful, I may be wrong. But I'm not aware of any contracts to get that going.

MR. SMITH: Would you say that there have been any more contacts with the research centers than with the regional labs?

MR. FARSTRUP: Much more contact with centers than with the labs. Contact with center is fairly constant. Naturally the center involved with a study of reading is the one that we have most to do with. But the Centers for the Study of Literature and Writing, those centers are also pretty regularly in touch with the association, and we receive their reports and we have regular discussions about products that they produce and we might disseminate. I can't think of any similar contact with the laboratories.

MR. SMITH: What kind of relationship would you like to see with the labs? In other words, for your constituency, being that they apparently are not being reached in the indirect service strategy, what kinds of

services, what kinds of goods and services or products would you like to see coming out of the lab and how delivered?

MR. FARSTRUP: I think the model that we followed in working with the ERIC Centers is a reasonable one where the ERIC Center dealing with literacy and reading and language arts has worked with IRA to develop publications, joint publications to focus on particular issues. That is one possibility of the dissemination. Not just of technical reports, but perhaps the implications or synthesis reports off some sort.

I would think some efforts to involve labs in presenting significant findings and results through our program of conferences would be helpful. Opening up a line of communications or having a contact on a regular basis with the labs would be very helpful.

There are any number of mechanisims we have with dissemination, ranging all the way from our bi-monthly news letter to formal publications and conferences. I would suggest that this kind of relationship is not just relevant for the Reading Association, but for the world of professional associations in general.

MR. STALFORD: If I may clarify, Alan, with regard to the indirect service strategy when you first brought it up, you could have been saying that, perhaps,

that is not the way to reach your local level of reading specialists or you could apparently -- you are saying you wish it was done, the indirect services did not necessarily change, but was more effective in working with your groups?

MR. FARSTRUP: I'm willing to accept the notion that you leverage or impact with working with other groups, if you want to characterize that as indirect service. I don't think the strategy has worked up to now. Perhaps it works better at the policy maker and administrative levels.

One of the concerns that seems to be arising from our constituents is that often truth is handed down from on high, rather than being allowed to bubble up from the classroom and to be disseminated outward. Many of our members are asking actively to be involved in research design and decision making based on their day-to-day classroom experience or their experience in managing reading programs within school districts of all different sizes. This kind of comment is being made in relationship, not only to the labs, but to the centers as well.

MR. MACK: Not during this performance period of the labs, but previously, the laboratories did it through the Research Within Reach of the RDIS, (Note: RDIS refers

to the Research and Development Interpretive Service), project did both the elementary and secondary thing and worked with IRA on that --

MR. FARSTRUP: We have had that case and that has been very successful.

MR. MACK: That was in the past?

MR. FARSTRUP: Yes.

MR. MACK: More activities like that would be in line with the sort of thing that you are talking about?

MR. FARSTRUP: Yes. That has been a very successful cooperative effort, and it's one that, I think, provides a good model for future work. I think that has been the main example of cooperative efforts that we've had, at least in the time that I've been in the IRA which is about four years now.

MS. LIEB-BRILHART: You mentioned that ERIC was doing joint publications with you. What role would you see that would be different from the labs than with the ERIC program, if any?

MR. FARSTRUP: I think it would be very similar. There needs to be a mechanism for jointly selecting kinds of topics and information that is disseminated. And naturally, not everything that the labs produce would be appropriate for associations to deal with. I think there is a wide spectrum of subject matter groups and

professional groups out there that could tap into the various levels of information in different ways. There have been some successes. But I think, by and large, there needs to be a greater effort in that area.

MR. SMITH: When your constituents work with the ERIC system or with the centers, they work with any centers from around the country or the clearing houses that are appropriate to the subject matter, right?

MR. FARSTRUP: Yes.

MR. SMITH: Do you see any distinctly regional quality to kinds of things that your constituents might need from the lab system?

MR. FARSTRUP: Quite frankly, no. I think it varies with the individual things that the labs are doing, the topics that have been taken up. At the present time, a lot of interest is being focused on issues such as whether student-centered curriculum changes are more effective than the more previous model of curriculum-centered instruction.

We're dealing with literature based construction. Integrated language arts is a large movement in our profession right now, and we're coming out of a time when there was much more attention to curriculum-driven instruction rather than sort of a child-centered instruction.

When you talk about needs for dissemination, those labs that are working in that general area would be a particular interest to our constituency to look at the effects of growing implementation and literature instruction, for example.

MR. STALFORD: Can you explain, at least for me, briefly, the distinction between curriculum-driven and child-centered instruction?

MR. FARSTRUP: It's put in terms, if you want to put it in extremes, in the early reading instruction. For example, you have one perspective that deals with skills, hierarchies, perhaps, way down to the level of individual phonics skills and that are prescribed by the curriculum. And the child follows that curriculum, rather than dealing on a more wholistic scale or a different level of trying to assess what the child needs and letting that dictate where they're headed instructionally. It's the focus on a child as a source of information about what ought to be taught versus the focus on a curriculum document of some sort as what ought to be taught, that is one way to put it.

I think that issue is bubbling in more than one subject matter, not just in reading. There are a lot of statements being made, a lot of positions being taken without a whole lot of hard information research evidence

one way or the other.

MR. SELDEN: I'm Ramsay Selden with the the Chief State School Officers. I am sort of troubled about the fact that the laboratories have identified Chief State School Officers as one of their primary constituents, and I've heard lab directors say that the first consideration that goes through their mind is how and what they're doing in the interest of the chiefs in the region. Yet on the other hand, I'm not sure that there is that cross between all of the laboratories.

There are a lot of activities that Chief State School Officers or their staff would be able to point to in the labs that they know about that they would be able to say has been particularly helpful. That I think varies a lot among the regions. I think in some cases the laboratory program is very well-known and appreciated by the states in that region.

I think in other regions, the laboratory program is not very well-known and is not perceived as being particularly useful to that region. It's a highly variable, I think, phenomenon. I think what it means is in cases where the laboratory program has in one way or the other developed to respond to the specific needs that the states in an area experience, that's where it seems it's being useful.

The general services, the concept of generic services that are provided through a regional laboratory, my sense is, that it hasn't been particularly valuable to states, but the more specific services have. For example, the Northwestern -- I shouldn't name names. But in the Northwest there has been a fair amount of activity by the lab helping with educational technology and distance learning. That is a big need, especially in Alaska.

My perception is that in the Southeast, the laboratory there has, the program has been developed with a lot of interaction with the state agencies and there is a lot of satisfaction with the issues that they're dealing with which have grown out of the Southeastern states' needs.

But, for example, in the Northeast, there are seven states there which have formed a regional project on teacher supply and demand. They've done it on their own, pretty much independent of the laboratory because they have wanted to look at the interaction. A teacher can live in southern New Hampshire and teach in three or four states because of the commuting proximity.

So if Maine or New Hampshire creates incentives for teachers, they can draw teachers from Vermont and Massachusetts very quickly before anybody realizes what's happening. So those states are concerned about a regional

model for teacher supply and demand. They've been working at an institute at the University of Massachusetts to develop that model and analyze what's going on there.

I guess my recommendations would be that the activities that the laboratories take on which are valued by states are very specific and immediate in their utility to the states, and that the concept of sort of general services that each regional institution can provide that would be perceived as useful to states is very tricky and that I would encourage more tailoring of activities to meet what states feel are their needs, rather than trying to come up with a program that provides general service that all states would value because I don't think that has worked particularly well in the past.

I would encourage, in terms of the future, ranging from everything from the regional break-out to the mission of these institutions the way they're funded, a really clean-slate approach. I think we have an opportunity to rethink this from the ground up and that that really ought to happen. I think it would be a shame to hold ourselves to movement at the margins if more radical fundamental changes are required.

MS. LIEB-BRILHART: As you know, chiefs serve on laboratory governing boards, and one of their roles is to help shape and direct the work of the lab in relation to

the needs of the regions. Do you have any feeling about how well they think they're doing, that how well that role is working on governing the boards?

MR. SELDEN: I think in some regions it's working. I think in the Southeastern Region, and maybe that is because that laboratory has evolved more from scratch much more recently than the other institutions, but I think that if you ask the chiefs in the Southeast, if you asked all the chiefs, like I assume you have, my guess is that you would find the chiefs in the Southeast feel that the program in the Southeastern Lab is more responsive to what they as a cluster of states need.

The Southeastern states have fairly vivid or distinct needs that are also coherent. They're homogeneous within that region. They've got tremendous basic educational improvement needs, limited resources, a lot of equity problems, a lot of things like rural school problems. And I think that argues for a program that, you know, responds to those needs, you can probably make a lot of states happy.

I don't know whether the problem is that activities in other labs in other regions have been more in place and the states haven't been able to redirect or to determine what they do, or if the needs are less distinct or less homogeneous in other regions. But I

don't see that kind of thing.

I was at a meeting, on this one I won't name names, but I was in a state where there is very specific activity going on to develop assessment report cards in the schools. And there was a very sincere conscientious attempt by the laboratory to assist that and it really -- the lab was not perceived as being able to offer the state anything that was particularly useful, and they were virtually asked not to bother.

That is a very strong issue, a hot issue that a lot of states are trying to deal with and why the labs were not perceived as having the capabilities to help states deal with that problem -- it bothers me, at least in that particular instance.

MR. SMITH: Can I ask you to go back to two instances you cited about very specific, clear needs, the one in New Hampshire with teachers across the border and the Southeast Region. It looks to me like those are very clearly defined needs that encompass certain portions of at least those two regions.

Do you think that the success of the lab boards in responding to regional needs is related to the specificity of those needs as regional needs? Is there a match that is appropriate to you between the configuration as we now have it and the actual needs that those boards

are governing, trying to respond to, rather?

MR. SELDEN: I think when states are satisfied with the services that they are getting from the labs, because the services are very distinct and meet what they perceive to be their most important or most urgent needs rather than being a generic service that is built into all of the labs which states happen to feel is useful, I don't think that the latter work has much more than the former.

I think that is because states have very specific agendas. They are under a lot of pressure to do very specific things, and if a laboratory is able to help, they'll be appreciated, if they're not, they are going to have to do those things on their own.

MR. SMITH: I guess my question is that, indeed, every state does have a pretty specific agenda. Governors get elected on the basis of reforming an education system and whatnot. But the agenda of a region is much less clear. Do you think that there are some areas, perhaps, that just don't have an agenda, there are some regions that don't really have an agenda as a region?

MR. SELDEN: I suspect that there would be some fairly common needs that would mitigate toward a common agenda in most regions and that those would be combined with fairly distinct states, individual state needs, so that, you know, there are three things we're talking

about.

General needs you can build into every laboratory that every state wants, that I don't think are very successful, regional needs that are coherent and states in the region feel, and than individual state needs. I think in each region what we're talking about is some combination of regional and state-specific needs and that the success of the lab -- the extent to which the lab is perceived by the states as meeting their needs -- the lab would be meeting a combination of regional and individual needs.

I think that in some regions, the regional needs may be more clear, they may be stronger, they may be easier to identify than in other regions. I think the Southeast and Northeast, because of the geography are, perhaps, examples of that. Maybe upper Midwest and the Rocky Mountains and Plains areas it's less easy to get a handle on what their regional priorities are.

MR. STALFORD: Ramsay, as you probably know, the labs now have as a task in their current contracts one of four programmatic tasks, to provide assistance to state decision makers, in part, I presume, on policy related issues. Are you saying that the need for that will vary by state? That is, perhaps, I think you're saying that some states may need assistance more than others. Do you

have any views about that cross-the-board requirement to assist state decision makers that is contained in the lab contracts?

MR. SELDEN: I think that where a chief state school officer as a decision maker perceives a need for assistance, is going to -- I would think that they would be almost completely unique in each state and that for the laboratory working with eight or ten states, they essentially would be working with the ten case profiles of what that chief imagines himself or herself to need help with.

Secondly, even the common things that they need help with, they need really good expertise on those issues. This whole business of school report cards that I brought up earlier, I think, is just a perfect example. They're are three or four national experts that can help a state think their way through those issues. How you provide that expertise to a state through a regional laboratory, I think is by referral but not by trying to create people who are specialists in an area in the regiona' lab. I think that is why it didn't work in this one instance is the person from the regional lab who was willing to help simply wasn't knowledgable enough about the issues that the chief needed help with.

So I guess that would argue for labs on some kind

of a brokering role and putting the state people in touch with national experts who can provide this assistance.

MS. LIEB-BRILHART: Ramsay, on the instance, using the example because it's a good one, of the Northeast what they're calling the common market approach on teacher certification, do you think that had those chiefs not all been together on the lab board, had the lab not convened them and provided information, do you think they would have gotten together on their own without this outside agent to convene and to provide information for that purpose?

MR. SELDEN: I think so because I think two or three of the chiefs and their research and testing directors felt the need. I think Massachusetts -- I'm sorry, Connecticut, New York, and Vermont would have come up with the mechanism for doing that if the lab board had not provided the opportunity. My sense is that Connecticut pushed it and that they would have used some other mechanism.

MR. SMITH: Your suggestion about the lab brokering role is interesting. If the labs are individually all trying to broker the available experts there are to certain states, is there any advantage to doing that on a regional basis or if you're talking about subject matter expertise that crosses regional boundaries

could that be better handled out of one central brokerage do you think?

MR. SELDEN: There are some things which I think some topics -- and I've talked with you, Nelson, and with Charlie and David about this. But there are some educational improvement brokering activities where the national expertise is so focused that I think you have to have, you've got to have the state, the local people put in touch with national experts somehow. Whether a regional laboratory can serve as a link in that process, I don't know.

But I'm utterly convinced that if a school district is trying to improve reading comprehension for disadvantaged low achievers, they should interact with experts at a place like the Center for the Study of Reading or with members of International Reading Association who are knowledgeable about those issues.

But those are sort of two national repositories of expertise, and I think they ought to be put in touch with those repositories of expertise rather than having regional laboratory staff trying to solve that problem for them because I don't think they are going to get deep enough help with what they are trying to do through the regional institution.

On the other hand, I think there are some things

that can be done. In the SEDL region right now Arkansas is moving into this business of school report cards and school incentives and a person at SEDL is helping Arkansas organize a meeting on this. That seems to be working really well.

There are functions that I think are fairly efficient to break down on a regional basis because you break down the economy of scale. Ford motor company provides customer service on a regional basis because it's easier to cover five states than the whole country, you know, I have one office in Dearborn that tries to serve the whole country.

MR. SROUFE: Ramsay, let me interject to this because it relates to something Nelson said before also about the regional idea. It's true that Ford does that. But it's also true that they do that based on experience of where they need the help and where that system makes sense. They don't just divide up the world on a map and say these are the regions, and I was thinking about the park across the street here by the train station, there is a path that runs through over toward the Capitol. That path wasn't put there in L'Enfant's plan. It was put there because that is where people walk.

What we've got is a system that says this is how we divide the world up and now how can we make this

rational? It isn't rational. There is nothing in this country that is regional except, I think, the Tennessee Valley, and it has a river that runs through it.

So I get a little uneasy about saying, if we put the chiefs on the governing board, then they'll buy into a system. I think it's well intended people trying to make a system work that is 20 years old and we ought to be trying to take, to the best we can, experience, data-based experience on what we have experienced in the last 20 years and it seems to me that there are very few regional problems.

The other thing, and I'll be done for awhile, the concept overlooks technology entirely. I think that is fair because 20 years ago we didn't have much technology. But anything that is based on having people get together face to face because they can drive a shorter distance seems to me to be an outmoded concept at this point, and I would think we can say maybe there ought to be these things located in these areas.

But let's put one then in the Southeast or Southwest, wherever it makes sense, say that is the model that works well there, it may not work well in other places. You certainly can't expect to get the kind of expertise that you're asking Ramsay to verify in each of those labs because the mission is so vague.

MR. SELDEN: My example of what SEDL is doing with Arkansas, there is no regional reason for that. They could be doing that efficiently if they were working with the first ten states in the alphabet instead of the ten states around Austin, except long distance charges may be smaller.

MR. SMITH: Can we turn it around the other way? Since you mentioned Arkansas asking for this help from the regional end, can you comment on the ability of the states themselves these days to do some of the things for which the labs were set up 25 years ago. For example, finding expertise like that, setting up conferences. The states it seems to me are in a much different posture from where they were originally, and some states have developed lots of capacity and others have not. Could you address the ability of the states to do some of those functions now?

MR. SELDEN: Some of them, yes. I think the states are better staffed than they were 20 years ago. But I think it's still very uneven. There are some states that have very good staff in some areas. There is no state that I would say has really adequate, professional staff in every area from assessment to curriculum, to evaluation.

My experience from working with state agencies is that there are six or eight states that have excellent

assessment evaluation staffs, another ten or twelve that have very good curriculum approval and are capable of developing curriculum objectives. But that even the big sophisticated state agencies in an area like that don't necessarily have strength across the board. The biggest state agencies like California and New York come closest but they still are very thin in terms of expertise in some areas.

MR. SMITH: So even within a region, you may have six or eight states that have very different abilities in areas that might cut across all those states like assessment, for example?

MR. SELDEN: I've done some work with Louisiana. Louisiana happens to have, just because of history, some good assessment and evaluation people, two or three Ph.D's in research and evaluation in state agencies. But that is just happenstance, they don't have that kind of expertise in Arkansas.

There is one other thing that you touched on, Nelson, and I'd like to kind of pick up on it and that is where you locate this brokering function because -- I guess I want to finish on two points from our perspective. One is I have observed that the R & D Utilization Service, the concept of distilling and synthesizing what is known, what works in a given area, getting that around is useful

up to a point. But that generally, unless a school says they've got a general reading problem in a school district and research within the region on reading can kind of help them narrow things down and decide where their specific problem is and what resources they want to try to obtain in order to deal with that problem; usually their felt need or their perceived need is more specific than a general synthesis or summary research can meet. My sense was that when people were driving around in the R & D Utilization Service with these boxes of research within reach in the trunk of their car there were people with answers to questions that weren't really being asked; and that instead, I don't know how much the agricultural model applies to education, but I think some adaptation of a model where there is a group of professionals whose job it is to circulate among schools or districts within a state and to identify what problems people are trying to deal with.

Is it reading comprehension among at-risk traditionally low achieving kids in school district X or schools district Y? If they hear that is the problem, having people who know who to put them in touch with in order to try get help with that problem, or who else is trying to deal with that problem that they may have visited a week and a half earlier who has got a very

successful approach.

I think there is a key here of tuning into what the local district or school's problem and goal is and trying to connect them with a source of expertise or information or a model that they can apply. I don't see that going on. That can be organized on a regional basis, on a state state basis, or some other basis. But, personally, I'd like to see people in state education agencies performing that kind of function.

MR. SMITH: That also sounds like a very direct service strategy.

MR. SELDEN: Yes. I've got a lot of questions about indirect strategies. I can see a lot of reasons why they wouldn't work.

The other point I'll make, and that is, our executive director has testified to this effect, and I need to make a point here today and it gets back to my opening observation, is that when the states perceive a laboratory to do something useful, it's because it meets the state's individual need. And Gordon has argued that the way in which the laboratory program is structured, it should include some kind of funding structure or other mechanism so that the laboratory program can respond to individual state needs.

He's talked about having a set-aside so that

states can draw on an allocation of resources to meet their needs and that the laboratory could be asked to do that or that it might actually be resources that are available to the state that the laboratory or other providers can use in order to meet the states' needs. But let's say, for example, that Arkansas does want to move into school report cards and that they've got an allocation of X, they could use part of that allocation to get a consultation on school report cards or to have somebody come in and give them a plan or to do some research on how school report cards affect performance among local schools on a pilot-test basis.

The idea is that is what they need and that they should have some resources to be able to pursue that. I think if that set-aside were applicable, to not just the labs, but other providers, that would help introduce some market competition among the providers for these services.

MR. STALFORD: Could you explain what you mean by applicable to other providers?

MR. SELDEN: Lets say Arkansas has $28,000 allocated to them. That money can either be spent at a laboratory or it can be spent at a university or a profit or nonprofit research institute that can do the work.

MR. FARSTRUP: I'd like to raise a related point that may be directly the same thing in that the amount of

funding available for independent field-initiated projects and studies has really dwindled badly, traumatically, in the last several years and that has removed kind of a market force, the kind of thing that Ramsay is talking about.

If you had more resources available through whatever mechanism, through a set-aside at the laboratory level or some kind of allocation to the states or more competitively the federal level, it might help establish the worn out grass paths that we heard mentioned before so that we would know what the streams of need were through the competitive process so that as needs arise the inquiries come, the projects are proposed. Perhaps the laboratory function can be one of streamlining that process so that it doesn't have to be a long wait until a decision can be made.

But I really do think it's important to kind of do a cost effectiveness analysis here and say is the money being spent on the structures, the administrative structures on all that the labs represent, being spent as well as it can and what effect does that have on field initiated, independent studies and the availability of funds for those kinds of activities.

MR. SELDEN: I think that what Alan is saying would help resolve sort of a chronic or endemic dilemma

with the labs, and that is what you do with a place like the Northwest Lab that has this real strength in an area like performance testing.

The Education Department, OERI, has not known what to do about that because the labs are supposed to be kind of cookie cutters, they're not supposed to develop a lot of research or provide research expertise in a particular area.

And I remember the Department went through one phase in the recompetition where there was a lot of thought given to trying to discourage work, the idea was that if you got the kind of special expertise that belongs in the university but it detracts somehow from the laboratories' function. I think that recently the Northwest Lab just completed a contract with California to help develop performance teacher assessment. California went to the Northwest Lab to get that work done and their own because Northwest had expertise and they wanted them to do it.

I think if you had this allocation where states had funds available to them to meet these needs, it would allow special deep levels of expertise like that to emerge at laboratories and people could go to one laboratory from all over the country in order to get that if that is what they want.

MS. LIEB-BRILHART: Did you mean the Far West Lab, just for the record?

MR. SELDEN: No, I did mean the Northwest.

MS. LIEB-BRILHART: I just wanted to make a comment and ask a question from anybody who wants to answer it. There is some applied research, you're quite right. The amount or the portion of the allocation is less than some other tasks the labs are doing. They are doing some applied research at the local level, for example, the Far West Lab, which developed some strategies for training mentor teachers and then some products which are being nationally disseminated. So it worked for development and then dissemination.

We've heard a number of tasks that some people thought were appropriate for labs or that they might be doing synthesis, maybe more applied research, maybe more policy help to the chiefs, there is a whole array here.

If you had $2 million a lab a year to serve a seven or eight state region, where would you put the emphasis on the functions that they should perform from your constituents' point of view, anybody?

MR. SELDEN: Personally I think that Gerry can comment on that. I think that sort of short range, immediate, whatever, decision-oriented research is under-funded. I think there are a lot of practical,

immediate problems that don't get addressed. I would hate to see that happen at the expense of basic research because I think that the research that has been going on is fabulous, and I don't mean to say it should be displaced.

But I don't think that there is enough of that short-ranged research, and, I guess, if I had to set the priority amongst how the $2 million is allocated, if there is just sort of general information providing facilitation going on in the laboratory, I would prefer to see less of that and more set aside for potential short range, problem-solving research. But that agenda, I think, needs to be determined by need and by a completely competitive process.

I think to just say that every lab will do 40 percent applied research would be disastrous. I think that OERI ought to say that some amount of applied research ought to be going on in the laboratories.

MR. STALFORD: Could I ask you to speculate about the implications? Is something you're saying with others as well as, perhaps, to think about the implications of administering the laboratory that would be "more grass roots driven" in terms of responding to needs that come up? Do you have any thoughts about how one would staff such a place, or put people in containers or keep it loose

and flexible in a way that I think some of your comments would suggest, is it feasible to do that?

MR. SELDEN: A fascinating example would be SWRL where this was a federally funded lab which lost its federal funding, whatever that was, five years ago, seven years ago. SWRL was doing a service, applied research evaluation program development for the Los Angeles City schools, a little bit for the state of California, a little bit for the state of Arizona in supplemental projects apart from the basic lab contract.

If I were trying to manage something that responded to my constituents or my region or forcing me to deal with the region, obviously the secret of success there is to figure out what they want in staff, hire people so that you could do good work in the areas that they want done. Los Angeles happened to want a lot of structured, individualized, instructional program development and that is what SWRL hired a staff to do.

If you draw a line and say I'm going to serve California, Utah, Arizona, and a couple of other states, I guess I would spend a lot of time identifying the work, the very specific kind of work that those states need, and it could be incredibly different.

California has a lot of work going on in teachers, and teacher assessment, and mentor teachers, and

that sort of thing. Utah has got this huge demographic problem, there is a tremendous growth in their school age population.

So what I did, I might have to decide, I can serve California but I can't also serve Utah with the same institution without having essentially two institutions under one roof, and I might have to make a practical decision to do it one way or the other.

MR. SROUFE: My assumption about the labs is that they're well-intentioned people working as hard as they can, and anything we say that is critical in my mind is wrong, not to the people who are making more effort, but you said that we'd agreed that writing policy advice for the states was one of the functions that we would buy, and question was priorities. I would not buy that as a function. I think it is an impossible task for the regional labs to try to provide and I can't imagine the chiefs looking at them as a source of policy advice, I would not subscribe to.

In terms of what they could do with a little extra money, one of the things that has been noted already, in all of our R & D budgets we're working out of a culture of poverty. And so we've got names on things that are totally unrelated to reality. But we call them research centers, when $400,000 is not a center. But the

Vocational Education Research Center is a center that is $6 million and we don't have any of them. But we call them centers and then we call these things laboratories and I suspect 25 years ago someone had a concept of a laboratory, like the laboratories, they're not laboratories. What we found ourselves doing is trying to keep accommodating a shrinking budget and expanding needs, and so we get into these little mind games, we could do this or we could do that.

It's clear that there is a function that needs to be done here. No matter how good the research is, it don't lend itself application to classrooms from wherever it comes from, and that is very hard work. I think a lot of times people assume that AERA feels that the centers are the only things that count. Well we think they count but that is certainly not the end of the education product.

W.W. Charters wrote an article about 20 years ago about idea men and engineers in education, or maybe it was just the opposite, engineers and idea men, and his point was that all we talk about in education are the ideas, cooperative learning, or new kinds of reading programs, and we never talk about what it takes to get those effectively into a school system.

The engineering aspect of it, and Charter's point

was that we've got a malfunction in our system, I think that is true and I'd like to see what we're calling the laboratory piece, not only there but in a much more highly funded level. But it seems to me what we're doing now is not that at all. We're making this system work, we're articulating the system that we've been given. But it isn't doing that.

I think the idea of having people try to do much less and doing it better, how would you take cooperative learning and get it into the schools. That alone could be a function of laboraties and not have to be doing all of these other things that they're required to do now to justify a piddling amount of money. Look at the other federal agencies, the R & D things, $7 billion in military.

So I think we have to keep that in mind. But I'm a little uncomfortable saying we've got nine of these. At one time we had 26, as I recall. Maybe we should have three, and I'd like to keep that issue open but talk about what is the function here, what's needed in education.

Clearly what's needed is applied research and packaging and addressing peoples' needs as they come up. I don't think the laboratory system allows us to do that very well. Just by the way it's designed. I think that must be a total frustration for people trying to run these

organizations and keep them viable, satisfy all these demands.

I would think that one of the states decided that the labs could not help them with their problem. Of course not, how many problems can a lab be expected to help anyone with, and I think the proper response from the lab would be, that is fine, but what we're doing is this. But they're kind of denied that because they're supposed to serve all comers, and I think that is not a reasonable thing to do.

I think they would be better off if, instead of a regional focus, they had a topic focus and they would be engineers of educational ideas.

MS. HENDERSON: How would that jive with the idea for the centers?

MR. SROUFE: What's happened, I think, is that both groups are moving toward the middle by plan because the centers, in order to justify their budget, because the previous director thought they should be well-known in the area and then they've gone into dissemination on a large scale and in large part, that is how they feel they're evaluated. So they're doing some of what the labs might be doing and the question of articulation we haven't addressed yet.

MR. STALFORD: Let us welcome Anne Henderson from

the National Committee for Citizens and Education. Thank you, Anne. There seems to be movement to get coffee. Why don't we take a minute or to to get some coffee.

(Short break.)

MR. SMITH: I just wanted to pursue a point that Gerry Sroufe raised which was the question of applied research, and we've been discussing what the labs do as a dissemination or as a service, and Jerry raised the point that, in fact, there is a need to create some sort of step in between pure research in the classroom and that it might be -- I'm not exactly sure what that is, what its characteristics would be, how it differs from dissemination of effective practices, let's say. Can you address that for a minute, Gerry, and clarify the sorts of things that you might mean need to be done in some format, in some structure to bring applied research to bear on the classroom?

MR. SROUFE: You have a center in Pittsburgh and some of the work they're doing is with cognition and they seem to be able to learn things about how people learn that are applicable to Math and Reading and maybe even writing and it seems to be a very rich source of understanding that we can use in the schools.

But we can't use it in the schools just as it comes out of Bob Glazer's research. What we have there

are some interesting things and he tells some interesting stories. He was in town last week and told about some of the things they are learning about how people go about learning. That work obviously has application to the classroom and to the work teachers do. But it doesn't have application as it comes from Bob Glazer. It needs someone who knows about the teaching process, and different grade levels, and different subject matters to say, this is how we can use this to design a really good math program. This is the step we don't have.

It turns out that people at Pittburgh are very talented and that they do a lot of this type of work. But there are only a few people there and shaping research so that it makes sense in the classroom is another thing althogether. I don't think we are doing this piece. What we are riding on is the fact that people like Lauren Resnick understand classrooms and have translation ideas in the back of their minds as they are doing the reasearch.

But getting it into a format and into the classroom and evaluating it is another aspect of the process. I think we do very well with the resources we have in coming up with good ideas about Math, Reading, Science. But where the process drops off is in terms of putting them into the classroom. That we be an example of

where I think we ought to go.

MR. SMITH: Can anybody suggest a model or models that do that well apart from the Regional Lab Network. For example, is there some sort of institution that does well at applying, translating basic research into the classroom, whether it's done on a regional basis or a local basis, or generically across the country for diciplinary or topic area? You don't need to answer that right this moment. It would be useful if we're going to think about applying research to have some other models to look at.

MR. SELDEN: I think there are some instances where some institution does that. I was thinking of reading after the cognitive research that Pittburgh and Illinois did, and reading sort of revealed these processes of comprehension that good readers have that poor readers don't have.

The New York city school system ran a project called STAR which put together teacher techniques and a professional development program to show teachers why these things were important and how to teach them. It was a very hands-on teacherly, traditional, professional development approach. Things were very concrete, people were given a lot of stuff that they could take back and start using the next week, it was very applied.

MR. FARSTRUP: I can give another similar example, the Orange County Florida schools in the Orlando area are working with their secondary teachers in much the same way. They have a staff at the district office level who are very familiar with the basic and more applied research that is going on and are drawing from a number of sources and have a very extensive staff development program where they work directly with the secondary teachers and the middle school teachers to demonstrate the techniques that are research-based to help them move those into their classroom and to help them evaluate the impact. But there you have a district level staff of people who are well versed in what is happening in research and who can serve as translaters.

I think it's that translation function that is extremely important and that means in order to translate, you've got to have something to translate; that means the basic research really has to continue and it has to be well funded, and you've got to find some mechanism to support these translaters at the local and state level. Perhaps the labs could function in some way there.

MR. SELDEN: Gerry, earlier, suggested the labs could be organized around topics. We were talking at the break about what institution would do that if you took Science instruction. You could imagine a lab, a single

national lab, whose mission was to help school districts or schools or teachers improve science instruction based on the best thinking and research on how people learn science and how science testing drives the structure and so on.

This lab would take Orange County Florida that wanted to work on Science instruction and show them how to put together a curriculum implementation and teacher professional program that would result in better sciences.

MR. FARSTRUP: The Orange County project is exactly the case in point because they are not trying to develop a secondary reading specialist, what they are doing is working with the teachers on Science, Biology, Math, Social Sciences, trying to get them tuned in to what we know about how people comprehend what they read so that they can do a better job in their discipline while helping with the reading comprehension helping process.

MS. HENDERSON: Do the labs do any training?

MS. LILB-BRILHART: Yes, a great deal of it. I'd say that's the one function all nine of them are involved in.

MS. HENDERSON: How do they do that? How do they deliver that? Do they go to individual school districts and hold regional training events, do they plug into other things, or what?

MS. LIEB-BRILHART: All of that is involved. Mainly training of trainers very often who may be from SEAs and from district levels. For example, Research for Better Schools in the Mid Atlantic region has developed networks, let's say, of superintendents or of others who might receive training in a particular area and get it down -- or people work with superintendents and get it down into the districts, or they might work directly with a district.

MS. HENDERSON: Teachers?

MS. LIEB-BRILHART: In some cases if it's on a contract basis. But normally they're on a level where somebody would be training the teachers.

MS. HENDERSON: Training somebody to train them?

MS. LIEB-BRILHART: Right, because of the indirect strategy.

MR. STALFORD: Ramsay, when you were asked before where would you put the money, you said essentially short-range, immediate problems. Do you perceive or do others perceive that those problems would not necessarily be driven or derived from research or for which there might not even be a research base around?

MR. SELDEN: Let me give you an example. I think class size is a good example. The state of Tennessee spent nearly $5 million doing a controlled planned

variation experiment on the effects of small classes where they had some kids in a control group with big classes, and some kids in a treatment group with small classes, and they ran it over a period of time, and they had it going on at the primary, elementary and secondary levels.

This is an issue that the research community feels that the real issues there are much more complicated and that the interaction between students and teachers is a much more complex phenomenon than that kind of a project would help them solve.

Meanwhile states of California, South Carolina, and Tennessee were under a lot of pressure to lower class size. And people kept telling them we don't really know whether class size makes a difference. Nothing in the literature would suggest it does but it is essentially an unresolved problem.

So Tennessee conducted this three or four year controlled, variation study to find out and inform their own policy making. Essentially it was not particularly, theoretically-grounded research. It was pretty immediate.

MS. HENDERSON: What did they find?

MR. SELDEN: I think it works for the lowest achievers at the lower grade levels. That is where it paid off. I guess that is an example. Please don't interpret that as saying that the laboratories ought to

have 40 percent of their efforts put into class size. It's a class of issues that they had to deal with that is not theoretical.

MR. STALFORD: I wonder if I could change the direction a little bit here, not entirely, in part to give Ron Field a chance to make some comments.

Let me introduce the issue this way. At the recent Laboratory Review Panel meeting, one of the issues that was discussed was the degree to which laboratories should devote their energies towards serving chief state school officers and or other constituents. And the issue is, in part at the state level, to what degree should the laboratories be oriented towards the needs of chiefs as opposed to -- I don't mean that literally -- but versus the needs of state legislatures or governors, but also to what degree -- this is a broader issue -- should they be focused upon state needs and to what degree compared to the needs of other groups within a state -- local, intermediate, parent groups, groups, perhaps, that would not be seen as so high in a kind of hierarchy in at least authority.

There are opinions on both sides of that, and I believe the labs currently vary quite a lot in their own behavior towards that.

Let me offer you the opportunity to comment on

that or anything related to that.

MR. FIELD: I'm delighted to be asked here. I'm probably the least authoritative person on the labs and centers; although I should say that I did serve as a research assistant when I was in graduate school at the University of Oregon at the Northwest lab and it was only as a result of that experience that I know that even 20 years ago that at least that particular lab did try to serve a state policy issue that was brought to them by the Governor's office in Montana, I want to say Wyoming, although I don't know that is in that region now or ever was.

But Idaho and Washington State had to do with a subject that still seems to be swirling around us, drug education, and I was assigned to that project. I think what was come up with was up to the Governors' offices, as I recall, I remember a meeting around a table much like this, at which they could choose to accept the information that the lab put before them or not and a lot of this they rejected out of hand as not operable for their states. But at least there was an indication of an interest at that time by that particular lab to deal with a real policy issue that was brought to them by the governors of three or four states.

I was reading the fact sheet, and this is going

to be a detoured way of answering your question. As I was reading down and I read the definition of what the laboratories were set up to do and what the premises were for their continuation, and I was trying to, perhaps in a strained way, to extrapolate from that to find out why I was here, until I got down to near the very end of the page and here was this parenthetical thought or comment almost as an afterthought that laboratories were also to serve state decision makers' needs directly with a portion of their funds.

It seemed a rather tentative way to state that. And maybe the reason for that is what Mr. Sroufe said, that this is a very difficult thing to do for the labs. I don't know if it's impossible. But it seems to me that in dealing with public policy issues as, and education is certainly the largest of all those, and when you're talking about assisting state legislatures and doing their jobs relative to education, it is a very large job indeed because legislatures finds themselves in a, especially today, very interesting place.

If you take the federal system that our country has, that is the states and the national government together, and you recognize that the federal government has no constitutional mandate in education, and, therefore, it becomes a reserved power of the states, and

most state constitutions specifically charge the legislatures with a responsibility of providing for a system of common schools. And the states and the legislatures, very sensitive to the politization of education over the years have chosen to delegate that out all sorts of ways.

In some states, of course, a state board of education may be a constitutional entity, in many states it is not. In a few states the chief state school officer is an elected official, in most states he's not. In only one state in the union do school districts, local school districts have any kind of constitutional authority. In 49 of the 50 states they are statutory creatures of the legislature. Now we found ourselves where since 1983, state legislatures appropriate over half of all the money in the country to support public schools.

That was a fairly important historical landmark, it seemed to me, that we passed. And I doubt if we'll ever see it go back the other way. If anything it may only get to be more. I was going to say get worse or better.

But it has also had the affect of injecting the legislature, like it or not, back into the decision making process, in a very big way in some states, as to what education shall be, shall look like, shall operate in a

given state.

So, we come to a point where with this newly refound responsibility, legislatures need information more than ever to deal with these issues. These are issues that you bring together in a group of a couple hundred people. There may be a few teachers among them; although when I worked at the Oregon legislature, when I left there in 1975, it was very interesting to note that teachers were the largest single occupation in the legislature, especially in the house. I doubt if that happens in too many states.

But in any case, they find themselves now with tremendous need for information, and I should say that we are now at a point, too, where not only do states appropriate about 52 percent or so of all moneys for education, for public education, and some for private education, and that not only that it has become the largest single item in every state's budget. So we're talking about a major public policy issue at the state level.

We've been trying to find ways to, as an organization that is considered by the IRS an extension of state governments, we and the Governors Association are both viewed that way, and we've been trying to find a way as a service organization for them, as well as a federal

lobbying organization for them, to find ways to develop more informational opportunities.

One of these has been to discuss some of this possibility, some of these opportunities with a couple of the labs. There are a couple of lab directors who are particularly interested in working with and through NCSL in providing issue specific assistance information to serve legislative policy needs.

There used to be a project that we operated jointly with NIE and than OERI that provided a small amount of incentive money for state legislative studies in education policy. That provided an awful lot of service for a small amount of dollars. It often times provided an opportunity for legislative research staff, or legislative fiscal staff, or an education staff in one or another house of a legislature to deal with an issue within education, often times related to education finance.

But as in the case of Tennessee in recent years when the Merit Teacher Program, the Teacher Ladder Program was a big howling issue, it was resolved interestingly enough in a negotiaion between the legislature and the Governor based on findings from this little piece of applied research that was funded through this cost-sharing program that came through NCSL from OERI.

Clearly because legislatures are policies and

appropriating bodies, a lot of what they deal with in terms of schools is school finance. That seems to be where a lot of the policy shakes out. This has become a big issue again. That is how the cost-sharing awards first began in 1976, it was a combination of a Ford Foundation grant and an NIE grant because during the old days that was a very, very big issue.

Now it seems to me that that issue is coming back with a vengeance. Clearly the the Supreme Court in the the state of Kentucky certainly thinks it's a big issue, and I understand that Tennessee, looking next door to its neighbor, already some public officials have already said there, maybe what they did is good idea.

In any case, school finance and the equitability of funding school districts across states and especially with legislatures more into the issue than ever before with the amount of money they put into it is going to be a very important issue in the next few years, I think, with legislatures.

I was considering some of the questions that were asked here. What activities conducted have been the most valuable to our constituents? I don't know if I could name any. I don't know. Clearly it seems that the labs were not set up to serve state legislatures and so there is no reason to expect that except by accident, perhaps,

or by some very indirect means through the dissemination process that anything that they would have done would necessarily have been aimed at serving state legislatures. So that is not a criticism, that is just an observation.

What are the key educational issues in the future? I don't know that anything we've ever dealt with has really gone away. I have been in the business of education and education policy since the mid 60s, and I'm always amazed that things keep repeating themselves, or how they keep repeating themselves. Maybe at a somewhat different plane.

But basically the same fundamental issues keep coming back, and that is not bad, necessarily. Although it does say we never really resolved some of those problems to begin with. But, you know, it's an evolutionary process, and we're still working at it and that is important and we probably solve a little bit of it each time it comes around.

So the issues are all there. We're still talking about education finance, how to serve rural areas along with urban areas, and that has even become more difficult at the state level. Somebody asked me the other day in a different forum, well, it's always been kind of the common perception that state legislatures were kind of weighted toward the rural side because that is where most of the

legislatures came from.

That was probably true before one man-one vote. But increasingly as our society has concentrated more into not only urban areas, but contiguous urban areas within states and between states increasingly the proportion of legislators that serve in the state legislatures are elected from more urban and suburban settings. And so rural areas no longer have that kind of control.

So there are some specific issues there now that they are starting to raise their heads about how do you serve the economic, social educational needs of rural areas.

But then at the same time you've got the impacted inner cities in a lot of states with some tremendously serious problems there, and that problem seems to be one that gets worse instead of better, and how do you resolve that, and all of the other things in between, the problems of Math and Science education and our comparative results to other nations in the world, how we're going to compete in a global society.

So not only do the same problems keep coming back, but I think they get compounded now with some of the other things that are added on top of them. Before it was only a matter of how could you provide enough people within your community to serve the manufacturing needs, or

whatever it was, of that community and in the state economic development became a big issue. And now not only do we have national, but global concerns. And it really is global. How many communities are, perhaps, not at the elementary, secondary level; although there is some concern about that especially at the secondary level with vocational education and how it ties into training to attract manufacturers from abroad.

It really is a compounded problem and it all revolves, perhaps as it always has, around economics and how to serve the economic needs of a community or a state, whatever.

The kinds of strategies and activities that would most benefit our constituency, I guess, really need to go down to the last question in the form of relationship to begin to answer that. I'm not altogether sure. I jotted down three possible ways that a regional laboratory might assist a state legislature or state legislatures. My first thought was, taken in the most direct way, would a laboratory be able to serve on a one-to-one basis, a state, or on a state-by-state technical assistance basis dealing with applied research in a particular policy area.

First of all, I don't know that a state legislature would know to call upon them. So that would mean developing a relationship by way of communication

with leadership of the chambers in, perhaps, their own region or maybe going to the concept of the laboratories developing expertise in particular areas that people would know to go to them to deal with a particular educational issue.

But I'm not so sure that that really is going to work because, again, I do not envision as currently structured, the laboratories being the kind of place that many state legislators are going to be comfortable going to. They don't see them as part of that informational system that they might even feel comfortable with. It's a professional's laboratory. It belongs to the education community. It's not a public policy laboratory.

Then maybe we could deal -- the other possibility is to ameliorate some of those concerns, possibly to have what may be developing right now, in fact, a relationship between one or more of the laboratories through an organization like NCSL that does provide direct technical assistance to state legislatures in a number of policy areas, education being only one of many, and we do have a whole office in Denver, our State Services Office, that does nothing but this kind of work. It does applied research and technical assistance and writes briefing papers that provide policy option recommendations and all those kinds of things, and it seems to me that through the

information and dissemination and, perhaps, issue-specific areas that the labs deal with that we might be able to serve as a disseminating agent, perhaps as a brokering agent, perhaps, I don't know, there are a variety of ways that seems to me might be possible as a tandem arrangement.

And we are constantly being asked by state legislatures, legislative staff, which I might say in the last 20 years especially, 20, 25 years, not only at state agencies has there been a growth, not only in number of bodies but in competency and capability, that has been true also in the staffing of the state legislatures. Since the mid to late 60s that has been a considerable growth and one of the most significant parts of that has been the development, since about 1970, of legislative research staffs at the state level.

Unfortunately in most states they're not very large and while, especially in very part-time legislatures, they may be one of the very few pieces of the permanent staff. Often times when, say, a small state legislature is out of session, the only staff that might remain around are those that serve the leadership offices, the legislative fiscal staff, and maybe a couple of people in the legislative research office that actually, not only do research, but wind up staffing some of the interim

committees that are appointed to oversee state programs.

That being the case, they are not going to get a lot of even very basic applied research done because their staffs are pretty small. One of the things that has occurred to us, and I've been thinking about it only in education, I'm sure it, too, could apply to other areas. The need, especially now, is to provide for the state legislatures service not too unlike the Congressional Research Service for the Congress, an on-call, on-demand capability that they can call upon to help them deal in an applied research manner with an issue specifically aimed at resolving an educational policy problem within their state by drawing in, perhaps, results of this kind of study that might have been done in other states, what the legislature did about it, if anything, how successful or unsuccessful it may have been, also national studies, studies that have been done by other organizations, studies that might have been done by CRS, by universities, a national applied research capability that would compliment what the states have developed for themselves. But take it a step beyond that and really make it available to them, a data base that would equalize then the capability of all the states to -- or would make equal their capability to draw upon all of that and to make decisions for their states with the best information

possible. That is a big task and how the labs might feed into that may be a very open question. But it is something we're working on and we're working on it in conjunction with OERI at different levels and with other sources as well.

We have to start at that. We have a computerized data base called LEGISNET, it deals with issues, all issues. But there is a base of information in there that relates to education already that could be built upon and supplemented with a lot of other things and I would like to think that what the laboratories do could contribute to that in some way.

MR. SMITH: I'd like to ask a question. For policy kinds of information, do you know whether legislatures or whether NCSL itself works with CPRE, Center for Policy Research and Education, one of our funded research centers?

MR. FIELD: Yes, we do and our Denver office does. To what extent I couldn't really tell you. I don't think it is a daily basis.

MR. SMITH: I asked that because I'm kind of puzzled by what would be the appropriate relationship for policy information between a lab and a state legislature or between the labs collectively and the outfit that you're talking about, whether some version of CPRE, which

was more research-oriented rather than applied research-oriented would be the right place to tap for that sort of information or whether a separate kind of entity or group of entities might be more appropriate?

MR. FIELD: I don't know that I really can answer that question right now. It seems to be something that needs to be thought out a little bit more

MR. STALFORD: Let me just mention something for the record. As the author of that particular fact sheet that you're referring to, the kind of parenthetical reference to the state policy work was, perhaps, the appearance was -- the conclusion here was, perhaps, not entirely warranted, that is, it showed up that way because we wanted to emphasize the pending issue about the indirect service strategy and whether that should remain the same or not.

In fact, it was an afterthought in my drafting to be clear to the reader that the indirect service strategy did not encompass all of the labs' funding.

However, as a factual matter, task three of the five tasks which is the last to serve in state decision makers is one of five. It is not the largest. The largest task is to work towards school improvement with and through a variety of intermediaries, basically, or in some cases collectively. That is task two. The first

task is to run the institution. The third task then is to work with state decision makers. What, Barbara, I don't recall is a percentage of funding that goes into task three?

MS. LIEB-BRILHART: It varies. There is a wide variation. All of the labs in varying degrees have done some work with state policy and decision makers, even state legislatures. The Appalachia Lab has produced a number of policy briefs on issues that were pending in the legislature, and I think most of them have done something in various degrees.

One of the problems I'd like your feeling on is that some of the labs find themselves getting into political battles that they'd rather stay out of at the state legislative level, and I don't know how you avoid that once you get into this business.

MR. FIELD: I don't exactly know what you're referring to although I can imagine, depending on the state; maybe because I spent the weekend there, Pennsylvania comes to mind which is a highly politicized state. The legislatures, every committee of the legislature has both a majority and minority staff and, in fact, the two parties can hold, in the same committee, can hold separate hearings.

So it's very understandable if, let's say, the

republican or democratic staff of the house education committee called for some information that wasn't made available to the other side that could be pretty sticky. But there are states where that can happen and that is why I suggested that on a state-by-state direct basis it might be a questionable way to go. I'm sure in some states that would work fine and maybe in states where the lab resides and they know who they are.

But I'm thinking more that working with and through, perhaps, NCSL or ECS, some kind of a partnership whereby some very good technical assistance information and material could be developed, say, aiming at the resolution of a particular policy issue in a particular educational area. That is how things are going to be d When we provide that kind of technical assistance, it usually comes down to developing what we call a legislature's guide to a particular issue problem, public policy problem that the culmination of which is a set of policy options as recommendations. Never presume to tell a legislature what to do.

MS. LIEB-BRILHART: Never an advocacy position.

MR. FIELD: That's right, exactly, it is not an advocacy position. You present the information, detail the scope of the problem, try to provide some background and what other states may have done with this, what some

of the current state of the art thinking may be on it from different expert sources, and if possible, then develop around that some policy recommendations that they might consider for themselves, and they may just take an amalgam of those and put something even different together.

MR. SMITH: Excuse me, I'm afraid I have to run to a meeting upstairs. But I want to thank you all for coming, and please continue.

MR. STALFORD: Just a note of time, we are scheduled to break at 11:45 or before then. But we won't go beyond. Any other points, Ron, anything else you want to raise?

MR. FIELD: No.

MR. STALFORD: I do want to give an opportunity for, Mary Grace, if you have any other comments on behalf of the Council or Dr. Heslip, questions that you'd like to make. I was going to ask Anne Henderson when she comes back the same thing. Also Laurence Peters and Bob Tate if you have any questions or thoughts you would like to introduce here and other federal staff? Mary Grace.

MS. LUCIER: We don't deal with them, the labs at all. From time to time we have had meetings out of town where lab people would come and explain to our Council what they were doing; and, frankly, they were not too exciting. And I won't tell you where it was, but they

just came and explained how principals had to exercise leadership. You weren't being told anything new or dramatic of how this would technically help someone who is running a school. So I really can't criticize their performance from personal knowledge.

But I wondered shouldn't we think about inventorying what these labs which have presently been funded, what have they accomplished, what actually have we found out that does work for them, and could these labs not coordinate a little better with the centers. The centers might have some guidence on how should the research they've been finding out be better retailed for the consumer.

It strikes me that there might be some leads there. But every time the cycle starts up, we have to start from sort of a zero based knowledge and there might be some breakthroughs there.

And also we all read Education Week. We are finding that there are so many of the these innovative ideas that are coming from the states and it seems to have not a lot to do with the labs or centers or any of these institutional entities that the labs might be able to broker those a little bit more effectively.

Usually my members are strictly west coast or east coast type people. Now I'm getting more of a middle

America people who really are seeing educational products as the key to economic progress in their states. So that is a big issue with us.

Another one is the human resource crisis in the labor force, Project 2000 and all of that stuff. That is a big concern to our members. And if the labs have any ideas to offer us. There is new work to be done there.

MR. STALFORD: The topic of coordination between labs and centers and indeed labs and ERIC and the National Diffusion Network has been before us quite a lot recently. The Laboratory Review Panel pointed to that as an issue. Barbara Lieb-Brilhart was recently involved in a meeting. Do you want to say something about that, Barbara?

MS. LIEB-BRILHART: There were representatives from labs, centers, NDN, ERIC, and the meeting had tried to look at the issue of collaboration and coordination. We tried to chart a degree to which it was going on and there are some projects going on between labs and centers. It's sporadic, it's not on a systematic basis. For example, RBS has lots of projects with the Johns Hopkins Center and there are other examples. Geography may make a difference or natural interests. But it's not what you could call a system at this point.

I think what we also found were that there were a great many overlapping functions, more than we had

suspected, that there was synthesis going on in all four programs, there was some applied research going on in all four programs, and some dissemination.

So we don't have a clear picture of those programs working together as an articulated system, although, there was more collaboration going on than we had realized.

MS. LUCIER: Just getting down to the consumer level because our members who obviously are not here, there are only 15 of them. But they are always amazed when we find that the stuff has been done and it's available in labs.

MR. STALFORD: We have in the evaluation area, we have sought to do more evaluation than we've been able do. We haven't nad discretionary funds available for that sort of work. The laboratories do self assessments. They're illustrative to a considerable degree. They tend to focus on information to improve the programs, which are understandable, rather than a study of the impact, per se. If we had money we would have attempted to compliment that work. But we haven't had a great deal of funds.

We will have a study, in fact, that has been completed and a report is now been prepared through the National Center for Educational Statistics, a Fast Response Survey System which does not measure the impact

of the laboratories' work but does give us some idea of how widely it is spread and how frequently it is used. Not only the laboratories but the centers and ERIC and NDN as well. But that is an area where we, indeed, would like to have more information.

MR. SROUFE: One of the topics that came up in a similar meeting designed to come up with the research agenda for the centers, which I was intrigued with, was the idea of focusing on how information does in fact get transmitted to the schools. I like the idea for two reasons.

One is that I don't think we know how the process works. We have our assumptions. For example, we assume that ERIC is the right way. I think the assumptions supporting ERIC are totally erroneous. There is little pent-up demand for research knowledge on the part of classroom teachers in the form provided in ERIC. So, simply making the information more convenient to find is not likely to increase its use. We make similar, untested assumptions about how the centers and labs work is accomodated by the schools.

And the other part of the idea I like is its comparative approach to ways in which ideas get disseminated in the rest of society. What it costs to get an idea in the public's mind. I was interested in Mary's

comment about people on the Council not being aware of some of the things going on in education. This is not really suprising.

Look at Batman, a simple minded idea, and how much it costs to get people to recognise it. Yet we're dealing with subtleties of great magnitude, and a system in which we don't fully understand how ideas get transmitted and used. I think the idea of NCES doing this evaluation is rediculous. I'll be suprised if they find any evidence of the impact of the labs or ERIC in this hugh education system, and I don't know why we should expect that they would.

But I think the idea of looking, again, at how the system actually works is better than looking at how to make the various pieces we have work better. Maybe we should be asking about how to improve ERIC by looking again at how the system actually gains and uses information.

MR. STALFORD: Any other comments? Laurence, Bob?

MR. PETERS: Just this one formal one which is to welcome the opportunity to participate and commend you for holding this meeting. It has been very, very useful as you begin to look to the recompetitions.

MR. STALFORD: Harris, you're here from the

Office of Elementary and Secondary Education. Do you have a thought or two about how this relates to the priorities in that office.

MR. KELLER: Just a few comments because two of our highest priority programs right now have been touched upon, and that is our math-science and our drug education. Our Chapter One is the old-time one at ECIA. That seems to work pretty well in gathering and disseminating information.

The one program we're concerned about right now is Math and Science. We're able to get the money out to the field. But then what happens with it when it gets out in the field, we don't know. And we're meeting with so many different organizations and I know that FIRST over here is involved. (Note: FIRST refers to the Fund for the Improvement of School and Teaching at OERI.)

But how through the labs and the centers and the organizations can we all draw this together so that we can get the maximum benefit of these dollars out there because, as you say, we've got so many problems in education.

The Math and Science program is one of the most critical. If we are to compete with all the various countries, the Japanese, the Germans -- Germans with their centralized education systems and their ability to

target -- get on these things; some things have been started, such as the computer consortium down in Texas and all.

Anything that can be done that way to get that information out to everybody concerned would be of great value not only to us, but to all the Departments of Education.

MR. STALFORD: Okay thank you. Any other comments? Anyone from OERI staff?

This has been very helpful information for us. I think it has been very pertinent to a number of central concerns that we have about issues for the future of the program.

I think we're about finished. Does anybody here at the table have any other further or final thoughts they'd like to make about these issues?

MS. LUCIER: I'm always interested in the commercial culture as being a primary educator of our children and they do a marvelous job. I'm wondering if there isn't some aspect or some criteria on how the commercial aspect in the commercial culture really impacts on the kids?

MS. LIEB-BRILHART: That is a very good point and it relates to some other points that were made. I think the answer is money. I think you can do much more with a

commercial budget than with $2 million for a lab per year or less and I think we're talking about marketing and redundancy over and over between the same message which takes a lot of resources.

MS. LUCIER: We've got unbelievably old models and. They are doing an astonishing job, and I'm wondering if there is not a whole lot of unused knowledge out there that we can --

MS. LIEB-BRILHART: Sure there is a lot we can learn from.

MS. LUCIER: Everybody is potentially a customer.

MR. FARSTRUP: Given the smallness of the resources, it seems to me that fine tuning may not be an answer. I think you need to look at fundamental design issues. And I like what Ramsay said early on, you may need to look at more radical changes in the way of structure than simply trying to make a 20 or 25 year old creature limp along for a few more years.

I think there are a lot of fine researchers out there that are not being used to their full potential and they are able to. I think funding is at the core of a lot of this. You're asking more and giving less all the way along, and you're over promising and under delivering. I'd rather see more focused efforts and over-delivery.

MR. SELDEN: I guess I would close. And a real

caution on this whole principle over the last period of time on indirect activities because I can't imagine anything worse than education to try to improve thrcugh indirect actions.

I think what Ron was saying earlier, how you work through those intermediary organizations must become extremely thoughtful, strategic and promising in terms of the likely payoff because there is a lot you can do indirectly that can accomplish zip, you know, just by loss.

MR. FIELD: I would like to just add to that because I think it's absolutely right, that isn't so much that for instance an organization like NCSL is an intermediary, but we're a trusted part. The reason that that works, at least in our case, is that we're seen as a trusted section of the state legislatures themselves.

So it is more likely that they would come to us and feel comfortable obtaining a service that actually might be available from a lab through us than they would going to a lab directly. And the service that is rendered might turn out to be the same if had they gone directly.

But we can provide a buffer that provides a bunch of comfort and a common approach and understanding that they might feel uncomfortable trying to to do it some other way.

MR. SROUFE: What do you expect to happen at these open meetings?

MR. MACK: Those meetings will be really quite formal. There will be prepared testimony delivered, and we will simply convene the meeting and folks who have anything that they wish to say for the record or enter into the record can prepare materials that would be accepted at that meeting.

It's an opportunity for not just invited groups as yours, but for anyone to present material. What we found previously was that while we got a lot of useful information at those meetings, some of it was focused on very narrow issues that people were concerned about and that it was good for us to hear about those but they -- in other words, we expect that information not to be as focused as this.

MR. SROUFE: It looked like an interesting idea.

MR. STALFORD: By definition it's a different structure.

I appreciate your efforts. I think making a rational decision in an irrational world is always hard.

MR. MACK: There would be a record of whatever we get from that as well as from this and that record will be available to you. Make sure that you get a full set of the materials that are available back here if you didn't

get them when you came in. Make sure you get them when you leave.

MR. STALFORD: Anything that is not there that you'd like to have, we'll be happy to get for you. Again, on behalf of Nelson and us, thank you very much for coming.

(Whereupon, at 11:45a.m., the meeting was adjourned to reconvene at 9:00 a.m., June 27, 1989.)

UNITED STATES DEPARTMENT OF EDUCATION

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OFFICE OF THE ASSISTANT SECRETARY

FOR EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)

*****

A PLANNING MEETING FOR:

A NATIONWIDE RECOMPETITION OF EXISTING AWARDS

TO OPERATE REGIONAL EDUCATIONAL LABORATORIES

*****

UNITED STATES DEPARTMENT OF EDUCATION

CONFERENCE ROOM 326

555 NEW JERSEY AVENUE, N.W.

WASHINGTON, D.C.

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TUESDAY, JUNE 27, 1989

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MR. MIKE USDAN	Institute for Educational Leadership
MS. ADRIA THOMAS	National School Board Association
MR. FREDERICK BRIGHAM	National Catholic Educational Association
MS. SARA WALLACE	National Council for the Social Studies

ALSO PRESENT:

MR. BRUNO MANNO, Acting Assistant Secretary, OERI

MR. ARTHOR LOVE, Deputy Assistant Secretary for Policy and Planning, OERI

MR. MILTON GOLDERG, Director of the Office of Research, OERI

MR. JOHN HOPKINS, Research for Better Schools, Inc.

MR. TONI HAAS, Mid-continent Regional Educational Laboratory

MR. CHRIS M. FISHER, Office of the Under Secretary, Department of Education

MR. DAVE KILTROSS, CD Publications

MR. DAVE CHESTER, Education Reports

MR. LAURENCE PETERS, SubCommittee on Select Education of the House Education and Labor Committee, United States Congress

MR. BOB TATE, SubCommittee on Select Education of the House Education and Labor Committee, United States Congress

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In addition to the above mentioned people, other members of OERI were present.

PROCEEDINGS

(9:00)

MR. SMITH: I'm Nelson Smith for Programs for the Improvement of Practice, and I want to welcome you to the second of two days in which we are asking for the views of associations and organizations about the recompetition of the Regional Educational Labs. We are going to be having some additional sessions in July for the public here in Washington and elsewhere

But this is an opportunity for those who have fairly well defined constituencies to come and tell us the views of their groups about this issue. As we get started this morning, it's a real pleasure for me to introduce the Under Secretary of Education, Ted Sanders, who has agreed to come and open the proceedings this morning.

Ted began his career as a teacher in Mountain Home, Idaho and later taught in a Navaho elementary school in New Mexico. He was the assistant superintendent of instruction in New Mexico and from there went to become the chief state school officer in Nevada. And after six years in that post, he went to the same post in Illinois.

So he has extensive experience at the chief level. He has been president of the Council of Chief State School Officers, president of the Board of the North Central Regional Educational Laboratory, and Vice

President of the Executive Committee of the National Council for Accrediting Teacher Education. He is a member of the Board of Directors for the Educational Testing Serivice, the Math Sciences Education Board, and the Board of Trustees for the Foundation for Excellence in Teaching.

So he brings a rare combination of perspectives to the proceedings this morning, and it's a great pleasure to welcome the Under Secretary of Education.

MR. SANDERS: Thank you, Nelson. I really didn't expect the introduction this morning. I come this morning for one very, very simple purpose, and that is hopefully to symbolize for you the importance of this activity in which you're engaged this morning.

This is a rare opportunity to engage in a very spirited debate about the regional laboratories. I have interest in those laboratories from a variety of perspectives. One as a consumer of their products and their activities.

You can see from Nelson's introduction that I had a direct involvement not just in one but in several of the laboratories. I had a direct interest in three others and either served on the board or in other various capacities with respect to them.

I also had the good fortune to work with Dave and Bill and others several years ago when the administration

was thinking through, again, the recompetition at an earlier time, the recompetition of regional laboratories and the centers, and I thought to all intents that we found all the answers as we debated recompetition at that time.

So I'm very, very anxious, personally, to hear the results of your discussions today as well as the other spirited discussions that will take place across the country about the laboratories and their place in the improvement of public and private education in our country.

So I welcome you and wish you well for the time that you'll spend today and thank you, recognizing that this is a fairly significant commitment of time on your part this morning, in the preparation that you've done and the contributions that you'll make.

So I say a very special thank you on behalf of the Secretary and myself and wish you well for this discussion. We're going to listen carefully to what it is that you have to say to us. Thank you.

MR. SMITH: As we did yesterday, I'll just simply say at the outset, although you've gotten a letter of invitation that spells out some very clear questions about how we want to proceed, I expect that we'll go beyond those questions.

The floor is open to any consideration that you want to bring up about the operation of the structure of the labs. And although we have delineated four very clear areas of suggestion, I think that our best charge this morning is to go as far in the field as we need to to bring up any concerns that you want to bring up.

So without further adieu, let me turn it over to Charlie Stalford to explain how we are to proceed today.

MR. STALFORD: I think it would be best before we get into the business of this morning to have a brief round of introductions here for people who were at the table and for those who are in attendance also. We'll ask each of you to do that yourselves.

Before doing that, I do want to recognize, however, the presence here of the Acting Assistant Secretary, Bruno Manno. In the back of room, who just came in, is Arthor Lowe, Deputy Assistant Secretary for Policy and Planning. We're pleased to have Milt Goldberg here with us, Director of the Office of Research. Most of you know Milt was Director of Programs for the Improvement of Practice previously and is quite interested in the program.

To my right is David Mack, Directors of the Educational Networks Division, and to his right is Barbara Lieb-Brilhart, a Team Leader for the laboratory program.

I'm the Team Leader for the Evaluation in the Educational Networks Division, and I'm running these processes that are related to the recompetition.

So with having introduced some of the OERI people, may we go around the table, please, perhaps starting with you, Gerald, and introduce yourselves and then we'll have people outside the table introduce themselves also.

GERALD SROUFE: I'm Gerald Sroufe, I'm with the AERA, and I was here yesterday. So I intend to be quiet, I've had my day in the sun. But I was interested in hearing what the rest of you had to say.

MS. EARLEY: I'm Penny Earley, I'm with the American Association of Colleges for Teacher Education and I heard Gerry was going to be quiet today, and I wanted to come and see that.

MS. STONER: I'm Dena Stoner with the Council for Educational Development and Research.

MR. RHODES: I'm Lou Rhodes with the American Association of School Administrators.

MR. STALFORD: Sitting next to Lou is Anne App who is doing a synthesis of these proceedings for public distribution, and seated next to Anne is Rita Shepard who will be doing a verbatim transcript which will also be available for public distribution.

MS. DEWALL: I'm Marily Dewall, and I'm with the National Science Teachers Association.

MR. WARREN: My name is Carl Warren. I'm an intern at the Institute for Educational Leadership working with Mr. Usdan and Ms. Hale.

MS. HALE: I'm Betty Hale with the Institute for Educational Leadership, and I also work with the National Leadership Network. You would be interested to know that the institute does not have a constituency we have, however, a generic interest in research and its quality.

MR. USDAN: Mike Usdan with the Institute for Educational Leadership, and I'm intrigued that the inner ring seems to be outnumbered by the outer ring.

MR. STALFORD: If I may, this is for my benefit as well as anybody else, there is some ambient noise in the ceiling here. Not only for those of you at the table but as you introduce yourself from outside, if you could speak up so we could be sure to get your names, please.

(In addition to the people above mentioned, other members of the OERI staff and various associations and organizations were introduced.)

MR. STALFORD: Thank you very much. Because this proceeding is related to a pending procurement, I want to actually read a short statement that will set forth the ground rules, as it were, for what we can do here and the

nature of the conversation we can have and that we are not going to have, for your benefit and for the benefit of everyone who has an interest in this competition.

This meeting is one of two being held, the other held yesterday, to obtain the views of education associations and other organizations representing major educational constituencies involving the work in the future of the Regional Educational Laboratories. Associations and organizations which have been invited to be represented at this meeting, but who are not present today, or who were not yesterday, will have the opportunity to submit written statements to OERI directly regarding the issues that we will be discussing today.

These two meetings are not the only opportunity to provide input to OERI regarding the recompetition. OERI will hold three open meetings in July at which members of the public can express their views about the lab program for the recompetition.

These meetings will be held on July 19th in Washington and Kansas City, and July 21st in San Francisco. Members of the public who wish to make a statement to OERI but are unable to attend any of these meetings may also submit written statements directly to us. Written statements from either these meetings or the July meetings should be sent to us by July 21st.

Details about these meetings, how to submit statements to OERI and other information about the lab program and a recompetition are contained in a notice published by the Federal Register last Friday, and a copy of that notice, as printed, is on the table in the back of this room.

The issues that OERI wishes to receive views about from association and organization representatives these two days of meetings are contained in the letters of invitation to those of you who were invited and are also found in the the Federal Register notice. I'll go over these briefly before we begin.

The purpose of these meetings is for OERI to learn the individual views of representatives of associations and organizations about these issues, particularly regarding the view points of the contituencies they represent.

The purpose is to obtain consensus views on any of those issues. OERI will seriously consider views expressed here and through other means described previously. But its receipt of these views doesn't mean that OERI endorses any of them or that they will be necessarily reflected in policies regarding the recompetition or the solicitation itself.

Following this introduction and a short period

for any questions and answers which you may have about it, we will ask association and organization representatives to comment, individually, on issues in the letter. You may also raise issues related to the program other than those that may be on your mind as Nelson indicated before.

Acting as chair, and other people in OERI may enter into this discussion as well, I or we may ask those of you presenting any views to elaborate or otherwise clarify those ideas as appropriate. However, neither I nor anyone else from OERI will engage in any sort of discussion which has the appearance or would actually result in OERI making an agreement or effectively negotiating about the terms of the solicitation, which would not be appropriate.

As announced in the Federal Register, the public has been invited to attend and listen to the discussion at these meetings and the public will have the opportunity again to present views in July. Therefore, this meeting is not set up for public input, but the public in attendance may listen and learn about the views expressed here.

The synthesis and transcripts of these meetings will be available as soon as possible, which I anticipate will be in mid-July. There are on the tables in the back of the room, most of you have seen, copies of commissioned

policy papers which we had prepared under contracts to help our thinking about the recompetition, and a display copy of the document synthesizing information about the laboratory program the first two years. There is also a listing of those publications there.

If you would like any that you don't want to carry home or if you would like a copy of the synthesis, please put your name and address on one of those forms and leave it with us.

There are two purposes for making these documents available to the public, there are two purposes. First is to enhance public understanding about the lab program and the significance of the recompetition which will be held in 1990. The second purpose is to encourage preparation of the highest quality proposals possible from the recompetition, nonincumbents and incumbents alike.

Those present today, and anyone else who makes a request can have their name placed on an OERI mailing list to receive any and all of these documents, notice of future events of the recompetition, copies of the solicitation and proposals itself, and an announcement of the outcome of the recompetition.

OERI is committed to a free flow of information regarding the recompetition with a firm belief that it is both in the public interest and the long term viability of

the lab program.

Before we begin I'll answer any questions about the invitations to the meeting or documentations about this meeting and the processes. Does anyone have any questions, procedural questions at this time?

Again we wish to express our appreciation for members of the the OERI management here, including the Under Secretary. With no further ado, perhaps, for the benefit of at least some who are in the audience, I wiil briefly go over the four issues that were in the letters of invitation to those of you seated here at the table.

The first one was what activities conducted by Regional Educational Laboratories have been most valuable as to your constituency in the past two to three years?

Second, what are the key educational issues laboratories should focus on in the future?

Third, what kinds of activities and strategies, for example, sytheses and other R & D products, direct technical assistance, capacity building and the like would most benefit your constituency in the future?

Finally, what form of laboratory relationships with your contituency, for example, centralized or decentralized, formal or informal, contractual or not, what form of relationships would be most effective in the future?

There are, indeed, lots of other issues that can be discussed, but those that appear to us to be the most vital, but others may come to mind. So we solicit your views. The table is open for comments on those or others related to them.

MR. SMITH: Looking around the table, I'm thinking, perhaps, we have people whose "contituencies" are not the same kind of constituencies we had yesterday. Maybe a sort of general opening statement might be appropriate from folks around the table.

Betty, you're nodding your head, would you like to kick off?

MS. HALE: One of the things I was curious about was, perhaps, a fifth question which would be of interest to me which would have to do with the vision from the U.S. Department of Education with respect to all of its sort of research or "research activities," how are they going to fit together? And it seems to me that is something that we ought to be thinking about. What is going to be the relationship between the laboratories and the centers and the two new centers and all of the various sorts of things that you're funding?

MR. SMITH: That is a good question, and that permeates the whole dialogue about the recompetition of the labs and the other portions of the system. Do you

have your own view that you'd like to volunteer about what sort of relationship or at least what portion of that overall relationship the labs ought to occupy?

MS. HALE: I'm not sure I have any hard and fast notion of it. As I was coming here this morning, I started thinking that you have all these researchers in universities, and I don't pretend to understand or know all of what they're trying to do, I just know that a lot of people are doing a whole lot of research. I don't know how and that independent researchers are doing ever gets into the pipeline. How does all of that get fed into the ERIC system?

It seems to me that there is a whole lot going on out there, and yet, the federal government's education research agenda, a lot of those dollars go through the labs and centers, and I'm curious about what we see as how we want to put all that together.

I don't have any problem, also, sitting here and saying that I think that there are couple of big issues which have to do with totally different organizations and how do we prepare people to work in totally different organizations. I think the leadership requirements are very different. So, I mean, I can also talk about some of the things that we at the institute would think ought to be on any research agenda.

MR. SMITH: When you say totally different organizations, you mean the new entities that we ought to be thinking about creating or the organizations people will be working in the future?

MS. HALE: People are running around talking about how they're going to restructure the schools, they want to do more school improvement, they want to do more on Science and Math. And I think that those are the same issues that are confronting the private sector, and it is the business about helping workers reclaim their work environment, what do we do about our teaching force?

I think there are a lot of issues, and I don't understand enough, I guess, about sort of, do the labs have a concrete agenda or is it sort of up for grabs? That might be an interesting place to start. Who decides what research the labs are going to do? How do they decide it?

MR. SMITH: That is one of the questions I think which -- we've worked our way back to our list here because one of the questions has to do with who decides. We, as you may know, in 1985, created a certain governance to the labs and their agendas are set by the governing awards which include chief state school officers and others.

One of the questions on the agenda, I think, is

the question of governance and the question of to what extent the federal government does and should influence what the laboratories do.

Maybe we could ask some of the other folks here representing the constituencies, as it were, Penny, for example. The teacher educators, is there a feeling out there among them about the nature of activities the labs have been carrying on or their role in the system?

MS. EARLEY: As a matter of fact, there is a feeling. Since our membership is public, private, large, small institutions of higher education, you might imagine it would be correct that the feelings are not exactly uniform.

But overall, our members have, in most regions, worked quite successfully with the laboratories. In one instance in one laboratory our state affiliates worked in to the proposal that was funded for that laboratory as a way of making the tie between the research that happens at universities, particularly the research that is university based but not center supported, and then the laboratory.

One of the nice pieces in the lab and center configurations that I think, perhaps, we haven't looked at closely in past years is the original concept that the centers would do the basic kinds of empirical research and that the laboratories worked closely with them and be

their dissemination arm. I think those distinctions over the years, they haven't been blurred. But we haven't paid as close attention to them as we might.

In terms of the higher education community, they see themselves very much as a link between the kind of research that is occurring in the institutions. But much, much research is school based, lots of it is school based and not at all limited to what happens in institutions of higher learning.

But they are a link between the research that goes on institutionally, the research that goes on in the schools and is done by faculty members and serious researchers, and then the laboratories as the dissemination piece. They're also consumers of laboratory materials. Not so much in terms of their own research, but in terms of preparing individuals to go into the classrooms. In that sense they become consumers of research that goes to the various lab networks. So in many ways they're tied very closely with what happens in the laboratories.

In one region, for example, there is a formal relationship. In several others, there is, as part of the government structure, involvement of higher education and particularly schools of education in the governance of the laboratories, and then in some of them it's a much more

professional, collegial kind of relationship where it is not specified. But it occurs anyway just because of the nature of the individuals who are involved.

On one hand I think there is merit for encouraging certain kinds of ties and relationships that might involve higher education and allowing higher education to be seen as one of the linkages, the link between what happens in the centers and particularly what happens in the labs, and also what happens in the use of the ERIC system.

Our people are, as you would expect, big consumers and users of ERIC in the teacher preparation program and they train the people who are going to be teachers in the utilization of the ERIC system.

So there are a number of points where institutions of higher education touch the various pieces, and I like the idea of the linkages. The issue that I think is a fundamental one is whether or not that is something that should be prescribed or whether or not something that should be encouraged or whether it's something we're just silent about and hope that it would occur.

I suspect in terms of my membership we would fall somewhere between strongly encourage. But I'm not certain we would really be strong endorsers prescribing certain

kinds of arrangements

In general, our organization is one that gets a little bit nervous when what we see is overregulation from anybody, federal, state, or other. But we do like instances within government where certain kinds of relationships that are proven to be positive and are useful in particularly link-various sectors, K-12, higher education, state government, federal government, and so on, where those kinds of relationships are encouraged.

MR. SMITH: Before we go on, let me ask our new arrivals to introduce themselves.

MR. BRIGHAM: Frederick Brigham, National Catholic Education Association.

MS. THOMAS: Adria Thomas, National School Boards Association.

MR. SMITH: Penny, you touched on something which we discussed at some length yesterday and that is the fact that the laboratories are part of this larger arrangement and one other major sector is the research centers, and your constituents work with both. Could you address a little bit the question of the difference between the role they might play with centers and the role they might play with the labs? Is it a question of research versus applied research or research versus dissemination?

MS. EARLEY: It probably breaks down more along

the dissemination, although I don't think those lines are that clear. I think it is more a situation where universities that are going to work with people that are doing interesting work and reasonable work and have both opportunities to advance knowledge and to share knowledge.

One of the distinctions we tend to make in our membership, and I will say it's an organizational distinction we make, I'm not certain all of our members would see this distinction, it's between the research generating institutions and the research utilization institutions.

The research generating institutions would be a place like Michigan State which clearly is in the process or business of knowledge production as well as being a practitioner, preparation school. Keeping in the same state, Western Michigan University or Eastern Michigan University are practitioner preparation schools and they don't have the heavy research emphasis that a place like Michigan State or the University of Michigan would have.

So for us, the centers, perhaps, are more oriented to the kinds of activities that can go in, or that will occur, in the knowledge production side of our business. And more often than not you'll see that cluster in places that are the research type institutions; although one of the things we are doing is encouraging

relationships between these different types of institutions, and our memberships.

So the kinds of research that are being done at a place like Michigan State may be tied either in a formal or informal way with activities that are going on in one or more of the knowledge utilization type schools.

With respect to the laboratories, I suspect that the relationships are closer to those institutions that are more the knowledge utilization places. They are the ones that are taking the work that is being done at Michigan State or teachers' colleges and the various, both federally funded and nonfederally funded, research centers, and they're trying to change their curriculum and modify the teacher preparation work as well as looking at how this is going to inform what happens in schools and what are the implications of that preparation of teachers. The lab forms part of the link between what happens in the centers and what happens in these other types of institutions.

So for us it really isn't that easy of a question because of the diversity of the types of institutions that are known as teacher preparation schools and the different missions that they have.

MR. SMITH: Let me ask you a question about the teachers that are educated. Can you tell me what

purportion are actually educated in state colleges of teacher education as opposed to a place that will send teachers out beyond the borders of the state.

MS. EARLEY: I thought you were asking one question, but I think you were, maybe, asking me another and I want to get a clarification. Are you asking me the numbers of teachers that are prepared in research type institutions versus state colleges or private schools, or are you asking me what proportion of teachers will stay.

MR. SMITH: Let me ask the next question. What I'm getting at is the relationship of the laboratories to the states. In other words, one of their missions is to assist the states in those areas such as teacher preparation. Do they succeed in doing that? Can you comment on that in perspective of institutions that are supposed to be serving the needs of a given state?

MS. EARLEY: I can speak in a sense of what would be essentially a key study basis, and that is the feedback I've had from my membership.

Particularly I would say the practitioner preparation type schools, especially that have good relationships with their laboratories and use the laboratories as a source of information that prepare teachers.

As it happened last week, I was talking with the

Dean at Idaho State who has an especially good relationship with the Northwest lab and uses the products of the lab to work into their teacher preparation program. How many of those teachers go beyond Idaho that they prepare, I don't know that. That is a different kind of question and that suggests information that we don't happen to have.

I think the source of relationships, however, are in a sense born of institutional and individual personality traits. If you have an institution that is committed to working with the schools as part of its mission, is committed to outreach in the state, is committed to thinking, maybe, in a visionary sense about what we call simultaneous renewal of both the schools and teacher education programs, those are going to be the institutions that will be more likely to form relationships with entities such as the laboratories. Other institutions see their missions somewhat more narrowly, and those are ones who might be less likely to.

It would be the hope of an organization such as mine that the bulk of our members would be the ones who would see the opportunities in entities such as the labs, ERIC system, the centers, all of the OERI funded operations.

MS. HALE: Nelson, do you have data, sort of a

public opinion poll as it were, on how many people know that the labs exist?

MR. SMITH: We have something like that. Maybe Charlie could describe our survey.

MR. STALFORD: We have near completion the study done through the department's Fast Response Survey System of the National Center of Education Statistics, which is a survey of the receipt and degree of use of various R & D resources by school districts from laboratory centers, ERIC clearinghouses, and National Diffusion Network Facilitators.

The survey also has a needs analysis type of question in it which asks the districts to prioritize the areas in which they will most need assistance in the future. I think in a quite interesting way it has an open-ended question which says tell us about -- name a particularly valuable R & D resource from anywhere, and what was the topic.

We have a very early draft of that survey from NCES. The second draft will be ready for distribution with the labs shortly, and we can discuss it at that time.

I'd say this, Betty, a couple of things about it. As a sort of screening question, the questionaire asked whether you know who these organizations are. That isn't why we did the survey. But we wanted to stop them from

answering questions about things if they didn't know who we were talking about. So in effect, we got data on that issue as well.

We did, as a matter of procedure, list all the labs and the centers on the survey to facilitate recognition and minimize confusion. I don't recall what the numbers were.

But I think there is a fairly healthy percentage of people who recognized the laboratories. I just don't recall the numbers for the other programs. We'll have information on that shortly. We have not had information of that sort, really, before. I think many years ago there was a survey done by the General Accounting Office which may have come and provided somewhat of the same information. But this one has, the Fast Response Survey System frequently does have a response rate of 95 percent or so for at least the closed-end, multiple choice types of questions.

So we'll have pretty good information about that, subject to the limitation it's a one-page survey and there is always a chance for misinterpretation.

MS. LIEB-BRILHART: One thing under the current contract scope of work under which the labs are operating is that they're working with an indirect service strategy where they select, along with their boards, the kinds of

service providers they're going to work with in the region. I think one would not expect that everybody in the region would necessarily recognize the lab. But we would expect those service providers.

MR.STALFORD: That is true, the school district is not the primary client in many respects for the labs so results, even if positive, need to be placed in that context in order to understand them.

MR. USDAN: I have a question. I have a general question. I think it's kind of relevant to future planning and it relates to the indirect service strategy which you implemented in 1985, and, obviously, it's had four years to kind of work out.

According to the last sentence in your fact sheet, the various strategies for the delivery of the lab will be reconsidered as part of the planning for the recompetition. Does this mean that you're kind of attempting to reconcile the pre '85 strategy where, again, you had the large-scale product development prior to the intermediate delivery-system strategy or kind of a degree of satisfaction or dissatisfaction? I ask this as kind of a casual observer of the world?

MR. SMITH: It means that we're open for discussion on all of the above. There is no particular, at this point, leaning towards reconciling the later with

the earlier. But we are looking for a lot of views, and we've had a lot of comments about the indirect service strategy.

MR. MACK: It's a question that during the three and a half years or so of this contract, OERI has maintained a group as to advise the Assistant Secretary on the management of the laboratory program. In total, and as part of their study, they have, in fact, raised a question about the indirect service strategy, and that is one of the reasons that it was inserted there as one of the items that might be considered.

MR. STALFORD: I would say this, that my understanding of the history of it is that it wasn't a total revolution of the program in 1985. To varying degrees, different laboratories had engaged in that sort of delivery strategy before; although over time the emphasis on product development went down.

As we said, the Laboratory Review Panel has commented on that strategy and both of its reports have been submitted to to the Assistant Secretary, both copies of those reports are available here at the table, in 1987, and, again, this spring.

As Nelson said, the table is open. I would just say that among the issues that have been raised by the panel is the fact that it is designed to, and does in many

ways, leverage the services of a small number of institutions who otherwise are not, except by disseminating lots of products, certainly able to serve directly thousands of school districts.

On the other hand it has raised questions about the evaluation of the laboratories' work because as Barbara implied, it's hard to even be recognized in some cases, at least at the school district level. If you had provided information that kind of has its identity submerged.

So that matter is, indeed, open for consideration.

MR. SMITH: Do you have some notion about that? Do you want to volunteer? In other words, despite your lack of a constituency, which we don't hold against you --

MR. USDAN: And lack of very specific knowledge about these issues I might add to it.

MR. SMITH: If were you going to set out to design some sort of system to serve the needs of people at the, let's say, the school district level with some combination of technical assistance or services, what have you, what would your thoughts be about how that ought to look?

MR. USDAN: Well instinctively and intuitively I favor the kind of direction you moved in in '85. I think

it makes sense politically and substantively in terms of reaching the field.

Again, I don't know the nuances, political nuances, I don't know what the operational pluses and minuses of these strategies have been. I think it makes common sense.

I think the problems of research diffusion and brokering the information from the universities, as Penny said, the information generating places, it remains a terrible problem. There is very little currency in any professional field in terms of the people who spend their lives as brokers, if you will, translating the research into the field into practice. That is a rare, very courageous breed, and they find they have great difficulty gairing currency either in school systems or in universities, and that remains the prime dilemma. I'm not not terribly sanguine about the university solving this reward system.

My own general comment would be that whatever the federal government can do in terms of devising a combination, maybe it's the pre '85 and the post '85 strategy that basically will reward institutions, be they teacher education institutions, state education agencies, intermediaries of any kind that basically will reward the people and reward the institutions that perform the

brokerage function effectively because nobody else is doing them or understanding them.

Again, the rhetoric is easier than the implementation, and I'm aware of that. That is about the extent of my wisdom on the topic.

MS. HALE: I think one thing that, I mean, assume for the moment that I directed one of these regional laboratories, and I thought I wanted to try to serve better. I think we may be talking to the wrong people to find out how to serve people who are in the field.

It might make some sense to think about a couple of focus group conversations, Nelson, with a series or a group of opinion leaders who are among the ranks. One of the things we know is about, sort of, you know, the role that one or two teachers may play in a particular system. And it could be very fruitful to have that conversation that says, you know, how do you get your information, how do you know?

The reason I asked the question, it goes beyond name recognition. It's people beginning to feel that they know about resources. Where can I turn for help, where is the equivalent of the 800 number if I have some issues that I'd like to have resolved?

We know people are out there generating information and coming up with bright ideas and new

strategies that could be put into practice. Real challenges to make sure that information gets to the right people.

MR. SMITH: That is a nice idea. We are, as Charlie mentioned, going to be having these sessions next month which will be for public comment. But they will be somewhat more structured than that.

Maybe since we have around the table science teachers, and school administrators, and school boards, maybe we can pose the same question that was in the Fast Response Survey of are your people aware of the regional labs? Do they receive goods and services from them? Can those goods and services be characterized? Can you comment on that portion of the question? Is your constituency actually aware of the operations of the lab, are they served by them, and how could you characterize that service?

MR. RHODES: I suffer, I think, from too much information about the labs, and I'm trying to keep a focus because I've just come from a meeting with urban superintendents looking at the politics of urban reform and asking myself the question in all of our discussion for five days, did research show up? Some of the research was funded by one of your centers and research wasn't talked about too much in terms of how you are really going

to deal with any comprehensive issues of reform today.

But the way it was, I am trying to put it in perspective and -- I guess the question that is really missing is how does a situational, comprehensive decision maker, which is a superintendent, principal, and teacher, and they've got to always deal with the forest and the trees in their situational decision, and most of the decisions are real-time situations. Where does research play a role? And the answers I come up with that compare with my experience with the lab program over the years, and it's really interesting.

More and more it comes to what Mike was just saying. Research creeps into the the consciousness of most practitioners through opportunities either because of personal interest to find out something you think may help you or through direct experience of yourself or people like you, peers. And what has been missing most of the time have been opportunities, trusted brokers, number one, opportunities to exchange not only with peers, but vertically around the same issue.

One of the things that we're very aware of right now is that there is very little vertical communication among school practitioners. We're spending a lot of money on horizontal networking.

MR. STALFORD: Can you separate vertical and

horizontal?

MR. RHODES: Yes, sure, a quick little anecdote. Last summer we tryed to unpack the decision making process of practitioners who had turned ideas into action. They said everybody is trying to tell us what to do in the school. But nobody knows really how effective decision makers make these decisions, and they don't either, it seems intuitive. Your Dick Wallaces in Pittsburgh, your effective principals, they just seem to get up there and know what they are doing. How do they know that?

So we brought teachers, principals and superintendents together and some union people and put them through a process to unpack it. And out of all of that, some interesting serendipitous things came up. On the last day a teacher got up and said, hey I have got to tell you, I never knew that superintendents had the same values as teachers. I never knew that. And the union people all shook their heads, that's right. The superintendent people said, we never knew that unions could be a positive force to accomplish what we want to accomplish. We never knew that. And then the whole group began to look at how could this happen. They said we're the only profession where adults talking to other adults about the nuts and bolts of every day problems isn't part of doing the job. We go to committee meetings, we go to

lab meetings. It isn't part of doing the job.

Somehow we've got to get vertical communication. You see, horizontal isn't enough because everybody is making decisions about the same thing. The board makes decisions about policies, superintendents about time, so does the superintendent, so does the principal, so does the teacher. They never have a chance to see how they affect each other, yet they are controlling each other.

So we're trying to build in vertical communication in all of our so called dissemination processes. So coming back to what I'm meaning here is there is a big need if we're trying to get research into practice, into the consciousness of minds of our teachers, principals, and superintendents, there has got to be opportunity for that, there has got to be opportunities for vertical exchange, there has got to be opportunities outside of the vertical exchange for thinking. Situational decision making doesn't allow time for thought and reflection.

I am very much aware that that is a critical role that the labs can play because they're caught between the basic researchers who haven't had the experience and opportunity to understand practice. And for a while, a lot of the applied researchers, the labs didn't really understand how and why practitioners would use research

and other new information in their work. They kept seeing dissemination as a one-way process, as a delivery process. Yet there are labs that understand more how it had to be a two-way interactive process.

I think maybe I'll stop there and come back on some of these other ideas. I just want to support Mike's suggestion that we want to make the labs more trusted brokers. It causes a real problem, as you say, when it comes to evaluating facilitator, broker role. Right now, in a way, this office, this department, this part of OERI is like a central office of a school district. It's received as a blob, in the words of your own former leader bureaucrats.

We're very aware that right now site-based management is falling apart in most cities because the central office isn't being utilized as facilitative brokers, they don't have the skills. The superintendents don't organize them, evaluate them, they play just the role what you're talking about the roles play here. The reason I say that, and I realize it's going to go around in a circle, is that in order for the labs to play that role, to be evaluated as a process facilitator, you need to look at your own structure here and model it.

I looked around the room, there are at least a dozen people here in this program who go back to the very

beginning of NIE who represent a valuable resource in understanding how this all works, valuable linkage agents to the associations, to the field out there. In some ways your own management processes could be modeling something for the labs as, again, informal brokers. There is no way you can create, in reality, the way the government has to work, formal power structures within OERI for the labs incentives program.

But I don't feel you're organized right now in the way your own staff has utilized its resources to facilitate that sort of brokerage role. What I'm trying to say is as you figure out how to become facilitat[illegible] brokers, trusted brokers to the labs, they'll have a model for how to do it in schools.

MR. STALFORD: I don't want to lose Nelson's invitation for other people to comment on this issue. But if I may pursue something about the brokering role and the need of a trusted agent in a situational decision making.

There was a discussion at yesterday's meeting in part which focused on the desirability of responding to needs as they occur, to be there at the right time at the right place. That is the words that were used. But there is sort of a sense you have to be effective in this brokering role.

Do you or any others have any organizational

thoughts about how a lab or anyone that is organized on a continuing sustained basis and, indeed, in the case of labs organized by regions, how one organizes oneself to be there when a situational thing comes up, or to be called upon when a situational thing comes up?

MR. RHODES: I'll give you an example because it came up yesterday. As you say, you only need help when you need it. That is one of the problems with situational decision making. You can't go to ERIC. You turn to either a trusted broker where you can call somebody or even if they don't have the answer, they can tell you who to call or you've had some opportunities to network in such a way that you know who to call, you know there is another superintendent like you and you've met him or her.

So the two access points come up, again, out of somebody you can call who you think can find the answer for you, or find somebody who can. And that takes a while to build up that relationship. You've got to get a sense that they understand what your problems are like. But the easy one to facilitate is to have enough opportunities where people get together with people who have similar situations, they know who to call. That is what most of us do.

MR. USDAN: Charlie, if I may, I'll just kind of piggyback on some of the stuff that we're talking about.

I think part of it relates to your second question and the anticipatory skills of trying to try to sense what the key educational issues are going to be in terms of the next funding cycle.

Lets pick an example that I think kind of gets to Lou's unpacking metaphor, restructuring. This is going to be an issue. Nobody knows quite what it means. The only thing I think we all know is that school boards are over here on restructuring, the school superintendents are over here, the teachers are over here, and it's a seamless web because whatever it's going to mean, whatever strategies get generated, they're going to have to be predicated on everybody's role of changing in this enterprise.

And nobody, to my knowledge, has begun to systematically pull the various components of the educational government structure together around an issue like restructuring. If the school board's role changes here, the school superintendent, teachers, et cetera, et cetera.

And if one can kind of anticipate a set of issues in terms of your request for proposals, then I think one of the things you really ought to assess is the ability, the sensing capacity of the people that supply grants. Part of it, I think, is having the honest broker who can tell you who to contact. But also, it's the ability and

with all respect to regional disparaties, et cetera, et cetera, a whole set of salient issues are going to be national issues. The issue of restructuring is going to surface in each of your nine regions in the next five or eight years. And there are a whole set, I think, of generic issues that anybody in this room could come up with.

So I think that part of the capacity of these labs should be, instead of the segmented approaches, that individual constituencies take the ability to coalesce, to synthesize, and to still operate as the network pulling groups together, and that is what education desperately needs because we're a fragmented enterprise, talk to each other, either horizontally, or, the world is changing, our constituency is shrinking, and the enterprise desperately needs this kind of capacity.

I think labs can be very, you know, kind of uniquely positioned to kind of play a brokering role, not just within the educational world, but within the larger world outside. The issue, particularly in urban centers of linking schools with other general governmental human services and educational services in our areas, is an issue that is going to be a explosive one in the years ahead.

Maybe for a change the labs can help the

enterprise get ahead of the action instead of just being reactive.

MR. SMITH: Can we pursue that point for just a second, Penny? You've raised a very critical point earlier. The question that comes up that when you do have these issues that absolutely are going to cut across the the labs, you have issues like restructuring that go across the whole country that may have some regional characteristics but essentially are the same issues.

And then you also have instances come up, one of which was mentioned yesterday, for example, teachers, there is a flow of teachers across the state line and they have to be sure that the training and certification requirements are worked out on both and the lab has a very specific, regional local responsibility in a case like that.

How do we reconcile those two major objectives for the labs in the recompetition making sure that they address, individually and collectively, these major national themes, but that on the other hand they give an appropriate sensitivity to indeed have regional and local characteristics?

MR. USDAN: My sense is they have to do both. I don't see them being exclusionary. The issues that are fluent and the world they're going to be serving is going

to be constantly fluent.

MS. EARLEY: Two points picking up on both Mike's point and some of the earlier points. I think we have to remember the important role of a broker is not just to throw information at people, but sometimes it's to help us reflect on things. A good broker, if you are dealing in the financial world, will also tell you when it's wise not to do something as opposed to just giving you a cook book for how you might go about doing it.

And I think knowledge brokering is very similar. There are times when it is appropriate to sit back and reflect on things rather than just get information syntheses and see if this one will work and maybe that one will work.

I think that is an important role that brokers can play, and that may involve bringing people together at the right time. It may involve being a little bit more forward in saying here are some of the products, but there are some others things that you need to think about relative to that.

And then picking up on Mike's point, one of the things that we do in my organization is we do some issues sensing and we do nationwide tracking of what's happening in teacher education issues. And there is a very thin line between issue sensing and agenda setting. And I

think that is something that has to be delt with with extraordinary care, while I think it's very appropriate for the labs to do issue sensing. And I know some of them do that in their regions, they're trying to gear up to do issue sensing kinds of activities.

I think we have to be very careful that in saying that, I'll just pick up school restructuring, school restructuring will be an issue, maybe it will. Are we then making it an issue by the nature of the way the sensing occurs. So that it's not that it's necessarily a double-edged sword.

But there is another dimension to the topic of issue sensing that becomes almost prescriptive, and I think that has to be explored and a decision has to be made, in fact, with what the federal government wants to do, visa-vis, the labs; by doing issue sensing do you want to do agenda setting.

MR. SMITH: A variation on this that came up yesterday, when you have an issue like restructuring, should we expect every lab to try to develop a capacity to be expert in school restructuring or should they be brokers to some central focus of wisdom on the subject of school restructuring or some collection of wisdom through the centers and labs and other sources, let's say? Is this something which we should expect a capacity to be

built for in every region?

MR. RHODES: You almost have to, unfortunately, because there is no center for wisdom and restructuring in most educational issues today. The whole applied research problem today is how to learn from what you're doing, and the extent to which the labs can help districts learn from what they're doing, the labs will gain because they'll be able to feed something back into the network if, in fact, the labs are a network. An if to an extent each lab is independent and is fighting for survival and has no solicitator keeping communication going up here, it's going be real hard.

Let me throw just one other point on that in. Here is a place in the way you put out your solicitation it can have a lot of impact on whether the labs are going to be relevant to schools today because there are some things that go beyond the conventional wisdom in terms of research and dissemination.

A very well-known researcher set up this meeting last Saturday and said why don't we use all we know about what works. And the point was made to the discussion that the scope of a problem changes the nature of the problem, and things that work in one classroom or one building, very seldom will work across the whole district. Yet a superintendent has to make a decision for the whole

district because we seldom do research or bring it into a context where we say how could we make this work for everybody. Because it runs against what the research people say is a pure thing.

Life isn't pure, and it's just like that old fable about strawberry shortcake for 25,000 people. You may know the recipe for strawberry shortcake, but when you have to make it for 25,000 people, you're suddenly dealing with all sorts of other problems, transportation, unions all this kind stuff, and that is what you have to deal with.

And we seldom look at the research provided to the decision makers in a way that says, hey, you don't have to implement it this way on the first day. Here's how you take this practice or this strategy or whatever it is and start implementing it so that you have equity and excellence in every decision you make.

So if you want the labs to be facilitating, that sort of mind set, like it's nice to know about how to come up with a new science program, but if you're responsible for implementing all the Math curriculum, History curriculum, Science curriculum, Geography, how do you do them all at once? If you want our labs to be helping the schools learn how to do them all the once, which is what the problem is, that is a different problem, you need to

somehow find words that put it in the RFP.

Number two comes back to Mike's point. Right now the schools don't know how to collaborate with the other social services, especially in your urban areas. Somehow, you've got to get the labs thinking, and it's very hard because their money comes out of education. Somehow their reward system through this program has to facilitate all the human services providers around educational issues, especially in urban areas. And that can only come from the leadership in this program.

MS. HALE: I just want to respond to that. I'm not sure that I would see the labs as they are currently comprised. I don't think the labs have that capacity, and it's not clear to me they could develop the capacity.

I think it's important, as we think about the recompetition, to think about how labs might get creative about serving better in their urban constituents because I wanted to ask just for clarification, you just got back from an urban thing, whatever it was. Is it a commonly held perception, that you just stated a couple of minutes ago, Lou, about the labs not being relevant or research not being relevant on a day-to-day basis, is that sort of something commonly held by the urban cohort of superintendents more so than suburban and small schools or is it across the board with your consituents?

MR. RHODES: No. If I implied that, I didn't mean to. What you'll find with your good urban superintendents, and there have to be four or five good ones, is research is important in part of their own personal lives. It's crept into their consciousness. They've applied some of these things. But very seldom right out they don't go to a lab and say, give me the latest research on this.

MS. HALE: My point is, is it more apt that urban superintendents will feel ill served by labs in a way that suburban and small school superintendents won't feel? I'm trying to get a sense of whether your school superintendents -- you don't know?

MR. RHODES: I don't know how they feel about their own labs.

MS. HALE: Or just about the labs in general?

MR. RHODES: I was talking about the Midwest chief yesterday and I asked him if he knew this other chief. He said not too well, I tend only to talk mostly to chiefs in our region because we go to these meetings sponsored by the lab. But there aren't very many of those.

MS. HALE: Which may help answer your question, Nelson, about does each lab have to do a little bit on this whole spate of issues or could we think about one lab

developing some greater expertise.

I think the only way that would work is that you almost have to have a lab that did nothing other than coordinate out the information.

MS. LIEB-BRILHART: As I'm listening to the conversation here, I just want to point out that there have been a number of functions mentioned for labs. I just want to point out some of these are product development disseminations, convening brokering, and what I would call ghost busting, you know, if you're in trouble, call us.

There are a lot of functions here, and if you had anywhere from $1 million to $2 million a year to serve, in some cases, seven or eight states, where would you put your money if you were the feds, on what strategies for labs?

MS. STONER: I don't know if you can do it that way, Barb. I've been interested in the discussion, and I'm constrained because I represent the laboratories.

But I'm really struck by the brokering concept. It's an interesting one and maybe we ought to think about that a little bit. And I'm also struck by the word wisdom that was used here. And we might want to think about the relationship between these two terms.

We get into a very simplistic way of thinking,

particularly when we think about research in this town. It doesn't just happen in education, you'll find it happens in health, it happens in agriculture. We have this idea that somehow wisdom is a top down, flowing mechanism, that it's somehow generated in an ivory tower someplace. I came from the Rural Electric Organization before I came to the Council, so I can use this example. There is some substation along the way where it is tamped down like electricity and then it flows out to the school districts in some usable kind of a way.

I think that this is a very simplistic way of thinking about wisdom, and maybe we thought about the roles of the labs and centers 25 years ago in a more simplistic way. But when you're thinking about practice and situational decision making, the laboratories, from what I know about them over the years from working with them, are pooling wisdom that is flowing up from the actual situations themselves.

If you're in a distressed school district in an urban area, wherever, and you see a superintendent and a group of teachers that are coping and children are learning, that is one of the most magical things that happens in education. And if the laboratories can be involved in that process and help translate that up and down, it's a very important kind of role.

So when we talk about brokers, it's not just brokering in my opinion. I don't think you can -- particularly when you use the dissemination word, it's such a top-down idea. We're now now at the point, I think, where we need to think of the laboratories as a way station between a place to reflect, make that happen.

And also that means that they have another role. When you're doing brokering, you're really brokering in the way that Penny was using the word brokering, if you think about doing deeds in businesses, there is a sense of wisdom there.

So when there is reflection, a two-way flow of information creating a pool of wisdom that is different from other sources, you have a sense of risk taking. After reflection, after thought, after synthesis, we may have the opportunity to have people come with new courage.

The laboratories have an inspirational role there and a nurturing role that I think is critical. But it's part of the brokering system, it's part of breaking up this idea of a top-down idea of wisdom, and it's a very key, key federal role of research.

Take a look, let's go to some analogies. You take a look at what we're doing in high-tech area. What is the federal government doing in order to disseminate, nurture industries? They are building entities, it's is

just like we're talking about.

OERI has an opportunity here that is a very precious kind of an opportunity. I also agree the way you're configured here, you are a very important role model, you are a part of this system. And it's time for the Department of Education to get out of this concept of just shuffling paper and become a nurturing organization in itself. I think it's a very important role for you.

MS. HALE: I think both you and Lou probably need to say a little bit more about sort of the way the Department of Education or OERI or the teams that work with the labs are configured. Do you see that one of the issues is that they need to provide more service in the same sorts of ways that you would then want the labs to provide service to its constituents, or you're going to have to say more? I don't understand?

MR. RHODES: I first got involved as an observer of this organization back when it was being created, and I worked down the street with a group that was doing a study of whether there was a need for NIE. And then I got involved with Milt Goldberg with how to make the life of a project monitor, how could they play more helpful roles than just being a paper pusher. Over the years I began to work with the programs. I was a contractor outside, I worked with the labs, and now I represent the users so

that I've got sort of too much information as I said at beginning.

In an organization like this, as well as in a school district, there are certain decisions that have to be -- that go with the policy of the board. There are certain things OERI has to do as the administration changes, and that is fine. But there is an infrastructure of people who represent the wisdom. My definition of wisdom is information plus experience, who represent an experience base who, if they get too caught up with the politics of it or the fact that the agency always represents a pool of money to people out there who want the money.

They say there is a group in there who could be playing a supportive, facilitative, brokering role. They could create some of the linkages that break down when people don't trust you because you have got money, they're not going to give you good information because you may take away their grant and all that.

That is where I'm coming from in terms of how this place needs to manage its staff almost apart from its funding mechanisms.

Now could I deviate a little bit from that? There is something happening in urban districts, if you look at where the good ones are, that parallels what is

happening in the American industry right now. And I hadn't thought of it before, but it does relate to the role of this agency.

Your good school superintendents are in a different model of using information in running the district. Before they used to pull information up for their decisions. Your good superintendents are now moving information down just because they know there is no relevant information without somehow combining it with experience.

So what they're doing is saying, hey, our job is information. We don't know what to do anymore. Somehow we have run our shop in such a way that we're creating wisdom by moving information down, letting people wade through data to a building level, understanding their own problems, and to get to the point of understanding their problems, now provide information about what research says. But that information is of no use until the people get to the point of having that need.

So the culture of the way we're running schools is changing. We finally have ended up with trying to find a definition of culture that would fit all this, and we found one. We found it in the dictionary at the very bottom of the page, and it comes out of biology. It says a culture is a prepared nutrient medium which allows

growth to take place.

And in fact that biology model is exactly right because the medium is information. and what we're trying to do is help teachers, principals, and everybody in the district to have access to the information when they need it to allow them to be more effective. And that is just the role we're trying to build in the central offices now, and you're talking about trying to build it in the federal government.

How do you provide a place where you can get access to information that is going to help you be more personally effective in school -- superintendent, teacher, whatever you are. How does the lab network, there is no way they can know everything, but how do they become a focal point to generate information within their regions which combines experience and the best that we know from research and everything else.

They're information creators, I guess, that is their role. They provide opportunities to generate widsom which is experience plus what we know from research and then share it.

MS. HALE: What about the equivalent of a USA Today publication.

MR. RHODES: USA Today is intellectual popcorn. There is no wisdom in it.

MS. HALE: I think I disagree with you. I think that is a model that would enable you to get some teaser pieces of information out because people who want to know more about that stuff, then, in fact, find out.

When U.S.A. Today says that MIT has just produced a report that has five imperatives for regaining the competitive edge, it lists the five, you read that, then you get on the phone, or in my case you have your summer intern call MIT and say how can we get a hold of that report?

MR. RHODES: Let me agree with you on that. There are people who are in CEO positions for their unit who have to have what we call a snorkel deep understanding of everything because you don't know what is going to come in the door next.

So you need a USA Today just to know that if someone else has got a -- whatever it is. But then they also, at times, or have access to know where to go, now I really need to know what to do about this. So at that point you really have to have the confidence to have somebody in your staff or this trusted broker that that you can go to say, hey, I really don't know this.

MS. STONER: Lets say he puts on a tank and goes down to examine a problem beyond snorkel deep, he may come up and he may say, you know that stuff you told me doesn't

work, it's not like that down there. What the research told us to expect isn't actually what happened.

So there is an evalutive role here, as well, that does come from wisdom in the sense of this experience, that adds to research.

MR. SMITH: We are scheduled to go to 11:45 this morning, and I think this might be a good time to take a short break. Why don't we just take a few minutes.

(Short break.)

MR. SMITH: Before the break I said that I would ask some of our other collegues to comment here, and I think that is what I'll do now, to ask either what kind of relationships they have observed between their organizations or their constituencies on the labs or in case that is not available, obviously, what does their constituency need, what kind of gaps are there to be filled, what sort of role might an organization like the regional labs helping their constituents do their jobs.

So let me first call on Marily DeWall.

MS. DEWALL: I was just saying that I haven't said anything this morning because I'm not very knowledgeable on what the role of the laboratories actually is. I know that NSTA, in the past, has sort of fulfilled the indirect service strategy of laboratories by serving as a disseminator for some of the information that

has come out of the laboratories. (Note: NSTA is the National Science Teachers Association.)

As a matter of fact, NSTA has reprinted this document three times. This is Research Within Reach, Science Education. It was actually produced by the Appalachia Educational Regional Center and apparently the center or the laboratory only had enough funds to print a very small distribution so they gave NSTA the plates, and we've printed them on a very large scale, and we've been selling this as an NSTA. This is one of our best sellers.

So we know our audience, and we have about 45,000 members, Science teachers who are teaching preschool through the college level, are very interested in research. Most of our research is generated magazines, magazine articles and these come from primarily the university levels, and the universities may or may not be working with centers. I really don't know.

I know in the late 70s we had a close working relationship with the Far West regional laboratory because their mission seemed to be Science and we were involved with them in the production of their kit that sort of compared the alphabet soup program of the 60s. But recently I'm just not aware of any kind of relationship with the centers or with the laboratories, and I'm not sure our members are really aware of them.

I said that I could talk about some of the things that NSTA is currently concerned with, and I think probably most of these have applications to work that could be done in laboratories and information that could be generated from them. We are, of course, primarily concerned with the status of science education in the United States. We've gotten a lot of bad press in recent years. We'd like to help do something about it.

We're particularly concerned with the lack of science education in the elementary schools. And we need to have better preservice and service programs to help these teachers. These teachers just have not been trained to teach Science. They're afraid to teach Science. They perceive Science as a very difficult subject that they can't do; therefore, Science often is not taught at all in the elementary schools.

We're concerned with teacher qualification and with certification. NSTA has just started a certification program where we offer certification in nine different Science areas. It is not a certification that replaces any kind of state certification, it's an extra credential that a teacher can get if a teacher is pursuing a higher position, it's something nice to put on the resume. But the NSTA certification is a much more stringent certification than is generally given by the state.

We're also very interested in the types of Science laboratory facilities that are available and lab equipment. We don't think from what we know that many schools have very sophisticated lab equipment. This is an area of research that we know is positive, that hands-on Science is the way to go in the classroom, that doesn't seem to be born out in actual practice. We're seeing less and less hands-on and less and less laboratory activity in the Science classroom and more of a reliance on the Science textbook which obviously is not going to make for students who want to pursue science.

We're interested in the whole middle school and junior high structuring. This obviously is a grade structuring. We know that the number of junior highs are declining. The numbers of middle schools are obviously escalating. We've just started a middle level publication addressed to middle school and junior high Science teachers. But now we're hearing inklings of information that indicate that maybe it's not practical to segregate early adolescents in a special school because of the overpowering peer influence of this group. Maybe it's more practical to go back the K-8 configuration. So we'd like to know more about that.

We're curious about the possibilities of distance learning. We don't think this is terribly practical for

Science teaching. But we know it's being done particularly where there are shortages, for example, of Physics teachers.

We've recently been involved with the The JASON Project that some of you may know about which was supposed to motivate kids to want to get involved with Science. This is a project we were working on with Robert Ballard. It was a two week down-linking where kids went to various museums around the country and spent an hour doing live exploration at the bottcm of the Mediterranean Sea via satellite. So they were seeing things that a robot was filming at the same time, virtually, that the scientists on the shipboard were seeing it, and that was a very exciting project. And we're interested in more of this kind of thing.

I think our highest priority right now at NSTA is the restructuring issue. And Bill Aldridge has published a paper that appeared in our newsletter last January on restructuring the scope and sequence and coordination of Science in the secondary schools. His thesis was that in many European schools and the Soviet Union and in China, children start taking Physics, Chemistry, Biology, and Earth Science in the seventh grade, and by the time they graduate from high school, they've had six years for each of the subjects. And this may be the reason why the

United States students don't compare well with counterparts in other countries, even our best and brightest students. Only 20 percent of our population of students takes chemistry and physics currently.

So this new plan which involves teacher retraining, new curriculum, obviously we would have to win text book publishers over, just enormous obstacles and possibly a longer school day, has a lot of implications for educating all students in all Science.

What we're doing now, we've just gotten a grant from the National Science Foundation for a major strategy conference which will be next month which involves people from all levels of Science education, from superintendents to classroom teachers. And from this meeting we hope to identify five implementation centers around the country where we actually try to put this restructuring into practice starting with the seventh grade in 1990 and '91. We already have three school districts that want to do it.

Anyway from this meeting we're hoping that we will have all five and we can start progressing further. We also applied for Department of Education funds to produce the curriculum materials that would be used in this first year.

MR. SMITH: Those implementation centers, how are those going to be arranged do you think, thematically?

MS. DEWALL: I think one of the agenda items for this July meeting is to determine that. When Bill first proposed it, it was thematically. One center would address curriculum and one center would address teacher retraining. Another center would address just the sequence of classes, the sequencing of Science.

So I'm not sure. Things are sort of in flux right now. So I'm not sure what the results of that will be.

MR. SMITH: Can you tell us where does the average teacher, principal, curriculum developer, let's say, who is interested in hands-on Science go now for assistance in setting up a program like that, putting aside the resource question for the moment, but just in terms terms of designing a program, designing a curriculum, developing assessment for it and those sort of curriculum related questions that come up, where typically do they go for the information now.

MS. DEWALL: Some of them come to NSTA or to their local state organizations. Most of the states have a Science Teachers Organization. So there is a local network as well as a national network. Some of the schools seem to be tied in with the university, so they would go to the teacher education people in the universities.

I don't know how many of them are aware of the existence of the laboratories. I would assume in some areas where there is a laboratory near, the teacher may go there.

MR. STALFORD: Could you speculate about thinking about the goals of NSTA and the nature of the laboratories as has been described here this morning about the ways in which they might be most helpful, just from your perspective, might be most helpful in achieving your goals. For example, would it be helpful if they had some sort of science expertise themselves and were doing research or applied research on their own or would you look to them to be brokers as the term has been used before or facilitators?

MS. DEWALL: I think they could be helpful to us in either of those roles. There is a lot of data that has not been collected that would be very helpful for us to have. I think that the primary, our primary interest in the laboratories would just be to know about what is happening. Maybe the laboratories aren't focusing so much on science and maybe on a broader education scale.

So we're not seeing the things that are specifically related to your organization. I'm just not aware of what the laboratories are doing. We could certainly help as far as disseminating what the

laboratories are doing. I can see it as a two-way avenue where we could get out the information if the laboratories were providing the things that would be helpful to our teachers.

I think one area that the laboratories could help us with is the retraining of teachers with the service aspect. We did a survey of -- NSTA owns the national registry listings of all Science teachers in the country which is very helpful in collecting data and a lot of organizations use it for data collection.

We did a survey in 1986 and found out that over 90 percent of Science teachers, high school Science teachers are teaching outside of their subject area of training. In other words, Physics teachers are also teaching Chemistry and Math and Earth Science. And some of these secondary subjects they're teaching, they've never even had a course in.

So I think the the whole retraining issue is of real importance to us and to be able to set up these workshops that would provide teachers with current information on the subjects that they're teaching.

MS. LIEB-BRILHART: We just recently looked because we were asked the question of what is happening in Science in the laboratories, whether they're dealing with it at all, and some labs have a little bit. But that is

because, and I want to broaden this to a related issue, that is because at a certain point in time their Board identified that as a need in the region for the lab to be focusing on. And that is how priorities typically get sent by the laboratories to their Governing Board. So you'll find different subject matter entities in different laboratories.

I wonder if some of you could respond to that. We have this tension between wanting to respond as a federal program with national priorities and then Governing Boards which are setting regional agendas for the laboratories. Does anybody want to respond to the way how to go or how policy might be derived from that?

MS. EARLEY: I think there is a wisdom in the terms we use, regional laboratories, and national research centers, they suggest that there has been thought about this in the past and that the national issues, there are entities to deal with national issues in a certain way and that the regional nature of the laboratories suggest that that's what they're to be about. I feel that is a relatively wise way to go.

As I mentioned before, I'm troubled with too much federal overlay and too much direction. We tend to in over regulating also create expensive expectations of things that it's often very difficult to meet just by the

nature of the expectation that every priority that is set. Every suggestion that becomes a mandate easily requires 100 percent of the time and resources of the federal program, whether it's the labs or any other federal program.

MR. [illegible]SMITH: Adria, do you want to talk a little bit about the school boards?

MS. THOMAS: Sure well I'm not sure how extensive the relationship is with our primary concern in a particular state, individual things happening in particular states with labs. But I couldn't say how extensively we've worked.

I know that as a national organization we've worked with the Far West lab developing materials for school board development. That is one the things that we're doing as an organization. We're certainly expanding -- spending in that area because issues are so complicated. And with state intervention and other issues, we're looking more at school boards and getting more training on particular issues and curriculum things. They don't go beyond the policy realm but they need a little more information.

Some of the things that I think would be critical to school boards would be information on effective practices in terms of how to reorganize services with the

same amount of moneys. I think that one thing is that they don't read extensive record reports so it -- they don't read, don't have the time to read a lot so it would have to be kind of short pieces of information to alert them on things.

MR. SMITH: You mentioned training of a sort that would go beyond policy related questions. We discussed yesterday the whole question of the lab's service to policy makers. And I think one of their tasks, now currently, is to provide information on policy questions. Can you talk about that, Charlie. I'm not sure if that is right?

MR. STALFORD: Provide assistance to state decision makers which may have more analysis.

MS. THOMAS: Analysis?

MR. SMITH: Is that something the state board members see as a critical continuing kind of need in addition to the sort of thing you're talking about with training specific questions related to practice?

MS. THOMAS: When you say at state level, I'm not sure exactly what you're addressing. State associations in terms of working at local school boards?

MR. SMITH: Is it limited to state policy makers or is it decision makers?

MS. LIEB-BRILHART: It's not limited. But one

specific task requires the lab to work with the state education agencies in policy development. Some of the things that come out of that task policy analysis document, for example, are on teacher supply and demand. Several labs have worked on that issue.

MS. THOMAS: Do the labs work with the state school board associations.

MS. LIEB-BRILHART: Some do.

MR. STALFORD: I stand to be corrected on that. But I think in the aggregate of that work, it probably tends to focus on state education agencies or chief state school officers to a lesser degree.

MS. THOMAS: That was my feeling. As I say, I don't have an absolute idea.

MR. SMITH: We have been joined by a new member. Would you introduce yourself, please?

MS. WALLACE: I'm Sara Wallace from the National Council for the Social Sciences.

MR. SMITH: Fred, why don't you talk a little bit about your constituency in the labs?

MR. BRIGHAM: We're a membership organization of about 8,867 elementary and secondary schools, 215 colleges and universities, 18,000 thousand parish religious education programs. We would include in that adult education. So we represent rather a broader constituency.

Those groups that would primarily relate to the labs would be the elementary and secondary school departments and the chief administrators and superintendent in the various dicceses, 185, to be exact, across the country?

MR. STALFORD: If I might interject, Fred represents the National Catholic Education Association.

MR. BRIGHAM: I'm, at this point, I was mentioning to Nelson at the break, I'm not aware of how extensively our schools use the services by the lab as resources. I do know that some of our schools have been very active in working with the Northeast Regional Lab. I do believe some schools, business partnerships, and I think one area was on curricular development. I think also this discussion with the director of the Southwest Lab, he indicated that he was going to be contacting some schools down there on a special project to direct and coordinate. But that wasn't something that was active, per se, at this time.

In terms of the Northwest Lab and how extensively they're relating to our schools in an area, I'm not in a position to speak to that. Based on what I know about the Regional Labs, I see such organization resources as a valuable center for all of education, both public and private. And one of our concerns, goals, is to effect

where we can more collaborative models of public and private education and communities in a more effective use of community resources. It seemed to me that the lab, if it isn't already doing that, our schools could utilize the services of the lab in that context more effectively.

We as an association would like to make known the exact services being offered by labs and remind each of the constituent members in those regions on a continuing basis through our newsletters and through other publications.

In terms of the earlier conversation about what the role labs might be or should be and brokers, if you will, between the basic applied research and other -- introducing schools and teachers and administrators to resources that are being developed and proven effective -- any group like this that can act as a catalyst or as a center to bring people together can break down the walls of isolation that sometimes exist. I think that on one hand the public school systems have the isolation that is born of bureaucracy because I work in both the public and private education, private education depending on where it's located. If it is in a suburban or rural or urban area it is facing some of the problems and feels very isolated. I'm talking about the principals, especially.

So whatever can be done to bring a sense of

community, to establish a sense of community among all of us who share the same educational goals, more effective education for students, I see it as an opporutnity.

The other question I raise here, and again, it can be clarified, someone may be able to tell me, to what extent the labs use technology in disseminating their information and also obtaining information from the people they serve.

I have found on an experiment that we're workirg on, pilot project, a conferencing network that there is a craving on the part of people in different parts the country. I'm talking about administrators to share and I have schools in Canada, New Jersey, Oklahoma, California, Ohio different in both students and teachers and especially administrators. I've been impressed by the wealth of knowledge that is out there and also the craving for knowledge and the willingness to us a computer to develop projects.

I know that individual schools are doing that and we're talking now with people how we might expand that. I think one of the problems that needs to be faced by these labs is, or could help, is a whole question of integration of technology in the education process. It's been brought into our schools as a learning tool. It's been used and is being used as an administrative resource for

administrators as an information resource. I think the most important fruit of that in terms of this knowledge explosion we're dealing with is the ability to bring people together as learning communities and more is needed in the equipment. There is a need for people who are conversant with the way this works to be serving school districts, individual schools, both public and private.

That is my thought there. I see these lab centers as being able to effect that based on what I know about.

MR. SMITH: You raised a question which I think goes back to Dena's comment earlier, and I'd like to go back to you, Dena. You said before that we sometimes have had the image that dissemination, is something that occurred sending wisdom on down to the local level and that you favor a more collegial sharing kind of approach where wisdom also bubbles up from the local level.

In a technological age, we now have the ability to draw from more of the world instantaneously to put together wisdom, if you will, and have it bubble up or down in any way the center and the receiver decides. Can you comment on what kind of implications that might have for the question of regional service?

In other words, if a lab is operating in a given region of the country and yet it can draw from all around

the country and all around the world and then disseminate around the country, do you think that has implications for the nature of the regional services that the labs deliver?

MS. STONER: I'll have to move to the assumption question first. The way I was using the concept of wisdom was not something necessarily that can be captured or filed, necessarily. But it is a collaborative role that is not necessarily technological.

You can use technology to do the other kinds of things that laboratories do which are those that Mr. Brigham noted: in-servicing roles, their own development, their own research activity that they do in collaboration usually with practitioners and other researchers and universities.

So I think we need to make sure that we're using the word wisdom in more than just a data informational sense. I was using it in a much broader sense, and I think you were too.

MR. RHODES: The word wisdom isn't the problem, the word is technology. I don't think we want to use technology. What we're trying to say is what could technology allow the labs to do.

MS. STONER: How does it inform.

MR. RHODES: No, technology doesn't inform. What we're talking about are isolated practitioners. There is

one teacher to a class, one principal for a building, one superintendent for a district. Who do they need to be connected to and how how often when they want to do it.

What technologies do we have today that would allow people the access, the information they need when they need it that will allow them pure networking, trust and support. And we have the technology and most of them are being misused because they're being applied the old delivery mechanism way.

In the way you're talking about, the ideal thing would be for every teacher and administrator to have a computer in their home. The only time you have a chance to reflect, to think in any reactive job is when you're showering, going to bed at night, or driving to work.

There is no school board in the world that would give teachers and administrators a computer, one. And two, take them home. Most of the people who are operating electronic conferencing are trying to do bulletin boards which is a poor concept because nobody even uses cork bulletin boards. Once you've seen what's on the bulletin board you stop looking. That is what has happened with electronic bulletin boards.

What is working now because what you're taking about are facilitated conferences where there is a broker or facilitator who keeps the thing moving. And again,

every lab you've got right now that are trying it and experimenting with it are doing very well.

But that ought to be one of the mandated functions. The things we're talking about can be done a lot better electronically. Once people start modeling and putting it out there and schools start discovering and they can find these things out from their peers when they need it.

So in terms of what you're saying, yes, technology, that type of technology, interactive, pure exchange, comparative conferencing, audio conferencing, it is a means to allow people to do more.

MR. SMITH: You think that it does or ought to modify their brokering rule for everyone of the labs, whatever their specific area is?

MR. RHODES: I have a weird point of view. I feel the federal government, in its guidelines, blows the lawyers minds that there are some programs in the old Office of Education that did this who put out in their guidelines and that are to be processed, processed. So that the people, you know, the mandate how people plan, who they have, how they collect information and learn from it and how they share it with is the way you design your reporting systems. They have to have this in order to get the money.

And the types of things that you're talking about here are process activities like problem focused meetings from repair exchange and commercial exchange so that electronic conferencing can be put in the guidelines, how they feedback their learnings, "developing wisdom" to the somebody in the OERI who can share that with others. Right now most of the the time they feedback just accounting stuff where you have to be careful you don't get, you don't do something wrong.

I would think you can mandate that they network access points. If we know that an isolated practitioner, they're first going to turn to somebody they trust, either in their university or their intermediate agency or their peers. How can the labs network those people they're going to turn to?

We should be networking those intermediate access points somehow the labs function. I guess that is the type of thing I would like to see in an RFP, something that goes all into the same process and almost forces, shapes the way people continually learn.

MS. STONER: Mr. Smith, I don't see the inconsistency. You can use technology and have networking processes and have regional. They are absolutely not incompatible. And when you're dealing with technology, and it's a problem right now, when you're dealing with

policy makers on the, particularly when you think about isolated schools, they think technology is the answer, and it's not.

I mean we must be concerned about the substance that the technology uses and it must be used within a role. Technology is also not the role of the laboratory. It is a tool, a means for expressing the role of the laboratory which is multifaceted given the demands of a region. There are all kinds of things that it needs to do.

MS. EARLEY: Perhaps you can clarify something for me. I think I've heard in a couple of questions today a kind of subtheme that has not really been addressed, and maybe it just needs to sort of crawl out on to the table here. And that is the integrity of the existing regions. I think perhaps there have been some questions that have been posed to us whether or not regions are necessary, whether or not efficacy is a regional configuration? I'm just curious as to whether or not with this is one issue that OERI is going to address?

MR. SMITH: I think it's about what has been raised and everything is on the table, all the questions that pertain to the operation and structure of the labs are open to discussion at this point. And that is the reason why we're having this meeting and the meeting in

July as well. Do you have a doubt about that, a common doubt that the regional question is it, it is, or as it might be?

MS. EARLEY: I suppose I do. In listening to some of the discussions, and this is sort of in passing, technology doesn't necessarily complicate an issue.

So the question is, if you do have a kind of technology, is there a necessity for having regions? And I would tend to say, yes. And I would tend to think that the regions serve a different kind of function that is separate from whether or not they interact with each other or go across regional lines to do some of the work that they do. And it's creating something that is a manageable unit and creating a network or a community of states in an area that surely can make an argument.

Maybe you can divide up the United States in lots of different ways. But the states' idea of a community has been created much that their community is created around a lab and people feel comfortable in working one or the other. So before OERI would consider redesigning its way the regions are configured, I would hope that they would give some very serious consideration to the importance of communities that have been developed in the those regions and what would be the consequences to those communities of educational organizations if there were a

reconfiguration?

MR. SMITH: I think the way the question arose yesterday might inform this discussion a little bit more.

It came up yesterday as a question of the relationship to states among other things, but principally what the interests of the states are, are they sufficiently served by the representation the states have on the governing boards, is the arrangement of a state as a whole representing an interested state, and can the constituencies within the states be met? In a way, I think that is a subquestion, and one that you just brought up, and we also invite discussion to that as well.

MR. USDAN: For administrative and substantive reasons, you have to decentralize. At the risk of perhpas alienating some friends at the state level, I think that a few years ago the educational reform movement was predicated on state dominance.

Now, however, I really feel that one of the very major issues is how state and local relationships are going to be redefined in the 1990's. We have had so many reform waves that I am drowning in them. I think that there has been a consensus recently evolving around the country that indeed if anything meaningful and enduring is going to happen, it is going to happen at the building and district level.

I would argue that one of the most important networking, brokering, and convening roles of the labs in the 1990's will be to serve as a mediating force that can transcend the particular vested interests of state and local officials, associations and groups. I think there is going to be an urgent need for a great deal of very sustained local and state dialogue and that the labs can play a crucial role in brokering the process.

In other words, those concerned with influencing educational policy will have to pay as much attention to local groups as they have to state groups in the '80s. I would argue that the country in terms of educational reform is at a different place in 1989 than it was in '85 in terms of the respective roles which both local and state authorities must play in the future.

Although education, of course, remains a legal responsibility of the states, local perspectives will have to be brought into the forefront of the education reform debate to a greater extent than they have. This will be so even if the local level isn't easily defined because it consists of more than just the district; increasingly local is going to be defined at the building level. New building level initiatives are starting in Chicago, Dade County, Rochester and growing numbers of other places. Indeed, the very nature and structure of collective

bargaining will be reassessed in growing numbers of districts. I think there are growing grass roots efforts emerging throughout the country to change governance patterns that will require much more intensified local-state dialogue. The labs in the 1990's ought to be positioned to facilitate and influence this discussion.

MR. SMITH: That means your governing bodies that you pay as much attention to some of local groups as you have the state groups in the '90s. Because I think -- mid '80s because I would argue that I think the country in terms of educational reform is at a different place in 1989 and 1990 than it was in '85 in terms of respective roles, the local and state issue.

MR. USDAN: I'm not sure. I'm not that aware of your government structure. I know, for example, that the chiefs play a particularly critical role in the current configuration and obviously their public education remains a legal responsibility of states.

I just feel that chiefs, by definition, and I'm a former state bureaucrat, too. I know the prerogatives, I know the turf. But somehow or other I think you've got to ensure that local perspectives are built into the table as well. And even local isn't easily defined because it's more than the district level, increasingly it's going to be the building level. It's starting in Chicago, starting

in other places. It's started in Dade County and it's starting in Rochester and these other places. It's the reconfiguration of collective bargaining.

In many parts of the country that is beginning to happen. I think there is a kind of a grass roots kind of movement in terms of the government issues that I'm not sure, what triggered it in my mind was that the concern that the state is being represented.

MR. SMITH: What about other regional associations such as, for example, the Southern Growth Policies Board, something like that where there is a regional preformed body that has interest and include education in those areas, would those be inappropriate?

MR. USDAN: I think the linkages certainly should be made with those groups and the labs located in those areas. I don't know whether they have tied into those groups or not. But if I had the power of life and death over proposals, I would make sure that the thinking included that kind of perspective to break people in traditional educational institutions out of their own parochial and narrow turf. I think it should be a prerequisite.

What the public schools have going for them in the future politically is the linkage with economic development because we don't have the troops any longer.

You don't have the numbers, there are only 23 percent of adults in the country with kids in schools.

So our hope is the linkage with the economic development argument, most notably in the South where so much of the action has taken place, and with the influence and the role of the business community which is linked with the political community in terms of economic development. That is why they're interested in the issue, not because of esoteric issues and pedagogy or educational research.

MR. SMITH: We have two disciplinary groups at the table and Marily was saying she was wondering if you were the only we have invited along with the Reading Associations that were here yesterday.

Ms. Wallace, would you like to talk about Social Studies and they're relationship with the labs?

MS. WALLACE: I'm not sure that we have a direct link with the labs. I think that we are interested and try to be informed about what the the labs are doing. I have a little bit more experience, personally, with the Far West Lab than I do with any other labs that we talked a little bit about, the relationships between Far West Lab or school districts or, in particular, those districts in California in which I was involved.

I can share with you some of the things that

we're doing at NCSS and how we operate and maybe dispel some misconception about what Social Studies is for us.

We see the term Social Studies as an umbrella term that embraces the specific subject areas, History, Geography, Economics, Anthropology, Social Psychology, Sociology, Political Science. And in those areas, we as a national council, represent 26,000 members who are also members of 110 affiliates throughout the United States. We represent members in 69 countries; although we are not considered an international organization. We do have memberships in these various countries and certainly from time to time are doing research on subjects of interest to our members, whatever they are.

We also have within the organization affiliated with the National Council, a College and University Professors Group that we look to present research and answers to some questions and curricular design along with a supervisors' affiliate. And the supervisors' affiliate represents a state and local Social Studies curriculum throughout the United States.

So we look to those two groups along with national staff to tell us what is needed out in the field, to talk about curriculum design, to assist local groups and teachers, whether they be at the county, regional, or state level, and design a curriculum to fit local needs.

We do not design curriculum because we don't believe in a national curriculum. We believe that is left to the state and local groups.

The association has adopted, and that will be printed and published in the fall, three model scopes of sequences that we are recommending and this grew out of about a five-year study of what we think is needed and what our members tell us is needed out there. I don't know how the regional labs will fit into this other than at some point I'm sure as these scopes and sequences are designed, for instance, on papers as curriculum designs, there will be some need for objective evaluation of how that fits with what we think students ought to know.

We are as concerned about content and when students begin to look at content as we are about the need for students to be able to think critically about what they are presented in Social Studies. We sometimes get criticized for being more process oriented than we are content oriented. I assure you that is not the case.

It is, however, a case that we are a very diverse group and very few people can decide on exactly what the facts are. So we think that students need to be presented with a number of facts and they need to be able to criticize those facts. And critical thinking is what I'm talking about. We think this process needs to be in place

and to the degree that regional labs can design, can design objective evaluation processes so that we know that that is happening, that is something we'd be very interested in looking at.

And I would concur with Mr. Brigham that we're concerned about technology isolation by teachers. We know that teachers go into a classroom, close doors and they're very isolated. And what they don't know, no one else knows that they don't know.

So I think that if teachers had some way, some nonthreatening way of being able to communicate with other professionals and talk about some of the concerns that they have, some of the problems that they have in dealing with the students as well as the content and locating the content, just in sharing the stresses that they feel about the job.

So we'd like to see technology used in a way that is, perhaps, not traditional. We're not talking about the teacher being able to go in and sit at a word processor and come up with lesson plans for the day, and that is all we're talking about. It's a lot more than that.

We're interested in and concerned about teacher certification and we're members of a group that is designing and making some statements about teacher certification and, of course, we've been intimately

involved with the Commission for the Study of Social Studies which we're hoping will propose their finding in November. And I think that is the time that they've designated is when at least preliminarily the report will be out.

We're also concerned about teaching standards or college programs dealing with the certification, the initial certification, analyzing, testing of teachers. We see too many Social Studies teachers as Science teachers. Too many teachers take on the roles that they are not prepared to teach. Many of our Social Studies teachers are teaching part time because they've had to take a year of American History and Government and many of them would prefer to be doing something else. But because they have a certain number of subjects in the Social Studies area, either History et cetera, or one of the other subjects, they are trapped to teach Social Studies. Often some of them are waiting to be coaches. Some of them are coaching and that is their primary reason for being there and waiting until there is opportunity to move out of this peripheral subject area for themselves. And we're very concerned about that.

We'd like to see teachers trained to teach at that area and that they're compatible in, and I don't know how the regional laboratory can fit into that. I do know

it's a problem. I do know that the members share with us that they are concerned about being strapped to subjects that they are not prepared to teach, that they have not had any real dealings with since they were in their freshmen and sophomore years of college.

And yet we look at declining enrollment in some districts and collective bargaining and because they have it on their credentials, they are certainly tied to accept that certain subject they are placed into at that role.

Maybe I can stop there and have you ask me some questions. One other thing that we would like to see Social Studies become is more a part of the elementary curriculum. We know that Reading is important, Math is important. We think that Social Studies, as does Science, and I say that not because Marily is there because that is what I've seen having come just 15 months from a school district and seeing that it's very easy to put Social Studies aside and not teach Social Studies at the elementary level.

We think that students can learn many things much earlier than they are now being given credit for learning.

MR. SMITH: One question I'd like to ask Barbara about. To what extent do labs now participate in evaluation?

MS. LIEB-BRILHART: There is some of it

particularly in the area where they're doing applied research which is part of the scope of work where they might look at a program and test the effects before disseminating it more broadly in the region. There is some, it's not a large part.

MR. STALFORD: They do some other contracts on the side, it varies by lab to lab?

MS. LIEB-BRILHART: There is a wide variation.

MR. SMITH: We have to wrap up in a very few minutes here. It's just about 11:45 now. Does anybody have a final comment?

MS. STONER: One of the things that we haven't raised so far and I think we need to get it on the table is discussions about policy makers and the role laboratories play in working with and for policy makers.

I think we need to recognize something that is a characteristic of policy makers who are in action. They can't wait until the research study about how to teach Social Studies is out 15 months from now. They must move now.

Laboratories do have knowledge, and when asked, they provide opinions and give to the extent that they can acknowledge that they have it. They are risk takers in a sense and they give it to a whole group of policy makers. And I'd just like to name some more names, teachers,

school boards, chief state school officers, state legislators. I won't get them all.

But one we haven't talked about at all here and that is the U.S. Congress. They look to the laboratories also for opinions and for knowledge about what is happening in action because they are also always in action and having to take risks.

So they play a very critical role with policy makers in the classroom or whatever it's trying to decide what to do. And then when a decision is made, as my collegue said so well here, that once a decision is made, it immediately changes the nature of the problem and so what the same decision that was given before may not work the next time. So they're in a fluid situation. And I think we need to remember that.

MS. LIEB-BRILHART: One thing to add is that they're increasingly doing policies and option papers for state legislatures as I look through the list of products here.

MR. RHODES: One final word, I guess, about the nature of where you go from here and your chances of producing something on paper for a program that will survive a political environment and reality, how important is your own understanding of conditions for which the labs are there? Even though you can't always get the lawyers

to do the right words, it's important that we all understand what the important function that we've all been trying to find words for, and I'm going to have to go back to the biology metaphor because when you're in an association, you get invited in all the curriculum groups. They're all redesigning a curriculum.

And the only thing I can come up with is two words and they don't connect. The research curriculum designer, industrial complex, whatever they call it, and they must operate this way, looking at what's best, they provide knowledge, whatever it is. But they tend to see the world as a delivery mechanism in which the new context is the stimulus and kids learn the response. And that is appropriate to help some design, I guess.

There is another world that is polarized out there that is 180 degrees different in which the kids are the stimulus, and teaching is the response. Just like in medicine, the patient is the stimulus and what the doctor prescribes is the response.

Those two worlds don't connect. And what is missing is what in biology is called osmosis, an agent that allows two things that don't connect to exchange what they both need to exchange what they both need, the information they both need, nutrients, if I go back to my culture definition before, to be able to take what they

need when they need it. That is what everybody is talking about.

We're talking about trusted neutral groups that overlap, that don't connect, they can't connect, their time-frames are different, their problems are different, they're not supposed to connect. But we need these mechanisms that allow us to get what we need for each other based on mutual understanding and trust. And the lab program can be a vital resource in that.

I just want to say we're behind the program and I hope you can turn it into paper that will communicate to the people.

MR. STALFORD: Could I ask you a question about your comments, about the comments about the Congress? I recognize the reality of what you're saying that labs do provide information to the Congress, I recognize that. In a formal sense the mission of a lab is to deliver services to a region and that doesn't preclude doing other things. But I'm tying to sort through the implications of what you were saying about Congress as an audience?

MS. STONER: It was definitely an audience. I guess I don't understand your question. They are policy makers. They are the reason that the laboratories, the centers, and all the centers and National Center for Education Statistics, in the sense that they have listened

to the public and have the authorization for these particular entities. They have oversight responsibility and in that oversight responsibility they are policy makers. And so I think it's a very critical part of the thinking about what to do.

MS. EARLEY: In other words, what Dena is saying here, I think, we all have to remember when we go up and have little chats with members of Congress in our respective roles, they will often say what are the implications of that for my state? And that is where the labs become important. If there is a resource that serves their states or region, they're going to turn to that resource and say, okay, I'm here representing New Mexico. I want to know how this is going have an impact on New Mexico. So maybe they're going to go to the Southwest Lab and say can you people tell me how this is going to impact on New Mexico, and those people are using some particular expertise.

I think, perhaps, that is more how the labs are going to influence federal policy. By making the connections between the districts and states they represent and some of the particular substantive issues that might be under consideration.

MR. MACK: John, did you have a comment?

MR. HOPKINS: It's along the same line that Penny

was saying, that I have no difficulty seeing it as a responsibility of mine to inform representatives from my region as to the condition of education in my region. They may work here in Washington, but they are representatives of people in the Mid Atlantic region. And so I am performing an information function for them.

MR. SMITH: Any other comments? Thank you all, this has been a very good session.

(Whereupon, at 11:55, the meeting was was concluded.)

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

OPEN MEETING

ON

LABORATORY RECOMPETITION

MARRIOTT HOTEL

KANSAS CITY, MISSOURI

9:00 A.M.

July 19, 1989

Hearing Officer:
John C. Egermeier
U. S. Department of Education
Office of Educational Research and Improvement
Washington, D.C.

ARGIE REPORTING SERVICE
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STATEMENTS

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P R O C E E D I N G S

HEARING OFFICER EGERMEIER: Perhaps we should begin.

Thank you all for coming. This will be a small intimate group today. There will be a few people coming during the day, but the purpose of the meeting, as you know is to simply provide an opportunity for anyone who wishes to come in on a face-to-face basis and make a presentation of their views as an alternative to putting it in the mail.

We are taking the turn out as much of an indication or perhaps more indication of the type of budgets of both time and travel as it is in the indication of interest.

We have heard a lot -- we have heard from a lot of people by mail on these programs.

Now, the format for the meetings is that I will lead each of these meetings, and read into the record a standard preparatory state-

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ment.

And so I will do this first and then we will proceed with the presentations.

I am John Egermeier of OERI, the Office of Education and Research and Improvement, U. S. Department of Education.

This is one of three open meetings at which the public may make suggestions to OERI about the future of the regional educational laboratory program in connection with the forthcoming recompetition of existing awards to operate the laboratories.

A fact sheet about the meetings is available. It's been passed out, plus copies of a notice about the meetings printed in the Federal Register on June 23rd, 1989.

The purpose of these meetings is to extend an opportunity for interested groups and individuals to submit their views and advice on educational needs and priorities and on

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ways the regional educational laboratories can be most responsive to those needs.

These views are being sought by OERI to assist planning for the forthcoming recompetition of existing awards to operate laboratories.

OERI seeks the individual views of the presenters or the organizations they represent at these meetings, not a consensus of the participants.

As indicated in the Federal Register notice, OERI is especially interested in seeking views and advice from the public on the following issues:

One, what activities conducted by the regional laboratories have been most valuable in the past two or three years?

Two, how can regional laboratories contribute to improving performance of our educational system

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-- what are the key issues and problems that they should address in the future?

Three, what kinds of laboratory activities and strategies (for example, syntheses and other research and development products, direct technical assistance, training and capacity building, et cetera) would be most beneficial in the future?

Four, what form of relationships between laboratories and other organizations or persons seeking improvement in schools would be most effective?

I will chair the meeting. Persons wishing to make a statement at these meetings have been assigned ten-minute blocks of time.

I request that each presenter identify herself or himself and, if appropriate, the organization or group they are representing before making their statement.

Presenters are also asked to leave a written copy of their

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statements with me before leaving the room, if possible.

A verbatim transcript will be made of presentations at this meeting, and also of presentations at the other two meetings being held this week.

The reporter at the table here is present for that purpose. OERI will make the transcripts publicly available to anyone interested in the recompetition.

Other papers and reports related to the recompetition are also available to the public. An order form for these documents has been distributed and is available to any who are interested.

Persons in attendance, but not presenting today, plus others in the public, may also submit written statements directly to OERI on the issues stated previously.

Such statements should be sent to OERI at the address in the fact

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sheet and be mailed by July 21st.

Are there any questions about today's meeting.

(No response.)

HEARING OFFICER EGERMEIER: If there are no questions, we will begin, and the first presenter for the day is Dr. Lee Droegemueller, Commissioner of Education for the State of Kansas.

Thanks. This is not an amplified. It is a recorder. If you are unable to hear because of the acoustics here, you may want to move up. But give them a try.

DR. DROEGEMUELLER: They'll all hear me.

HEARING OFFICER EGERMEIER: All right.

DR. DROEGEMUELLER: Well, I'm Commissioner Lee Droegemueller, Chief State School Officer from Kansas and a member of the Board of Directors of the MidContinent Regional Education Laboratory.

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I am here today in my role as a client of McREL that serves the State of Kansas.

McREL provides numerous educational services to the State of Kansas. That includes the Legislature, the State Department of Education, our Regional Service Centers and individual school districts.

As a Chief Executive of the state educational agency, McREL is made available to me, "think tank" resources, risk capital in small amounts and the most important is the human resources. The human beings, the expertise that they bring us and their people.

McREL staff provides up-to-date research and assistance to state agencies through publications, consultations and educational meetings.

For example, Research Round Up is a monthly publication with brief reports and cutting edge studies, projects and programs.

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A second publication, Noteworthy provides concise but in-depth coverage of significant educational issues. And I say concise, it's very important in today's rushing time expanding world to have concise reports. And those are just excellent.

Probably one of the highlights of this past year was the conference sponsored by McREL in our region. That conference was the School Year 2020.

It brought international experts in education to our region. Kansas legislators, State Board members and staff attended the conference with McREL's financial assistance.

This meeting and McREL's Rural Education Development Project were extremely instrumental in bringing to our state's attention the need for restructuring or rethinking our educational needs in view of international economic and educational competition.

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Preparation for this conference and follow-up by McREL staff were instrumental in setting the stage for additional state funding of at-risk students, innovation and change. In fact, that will contribute -- the state will contribute around $5 million dollars this next year for that specific purpose.

McREL staff members, such as Shirley McCune provide nationally recognized assistance to the Department.

Dr. McCune helped draft the international award winning Strategic Plan. Following the Strategic Plan, Dr. McCune and her staff designed and conducted a job audit of SEA employees that resulted in recommendations for organizing staff to implement the Strategic Plan.

Other consultants such as Brian Hall came to Topeka and talked to the State Board and agency staff about organizational values and change after

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the administration completed a values assessment instrument.

This particular project has been very instrumental in redeveloping and redesigning our State Department. So it was very much beneficial to us.

Robert Carkuff further will provide further strategic planning assistance with the support of our regional laboratory.

McREL staff also consulted with us on outcomes accreditation. Dr. McCune has worked closely with a group of staff, legislators and superintendents on establishing an educational indicator system, which will show how well the education system is doing in Kansas.

I especially appreciate the assistance in the equity issues that Shirley McCune has given to our staff. This type of information and expertise takes year to acquire, and even more years to make work.

Many students and teachers

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in Kansas are learning better today because of her work and expertise.

The ability of an SEA to attract and hire staff in such a specialized areas with restricted budget, agency size and staff number limitations, is always quite severe.

The McREL staff adds a se vice in research, specialized knowledge for our state agency that we could not afford.

It plays an important regional convening role. At the Board of Directors meeting a network of Chiefs has been created. It allows us to get together and share common concerns, triumphs strategies and support for one another.

Even if we could acquire research funding at the state level, it would not provide the regional overview that we are now receiving from McREL.

The very nature of the multi-state regional laboratory service area produces planning and research

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that takes on a regional perspective.

It is my view that state universities or individual state agencies could not easily offer this highly needed regional perspective.

I might add along with that, the economic scans of the region, the Mid-America crisis that we're now facing are just part of the work that's being done with McREL and our legislature and our State Board.

McREL provides a national voice for issues that transcend the region. Because the laboratory's staff members spend so much time in the field, their expertise is grounded in the realities of educational practice.

This region has traditionally had strong public schools, and what is being learned here can make a contribution to improving the quality of education nationally.

McREL is a vehicle for getting skill knowledge as well as research knowledge into the national

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discussion about how education might best be improved and changed.

Our regional laboratory is one of the major forces assisting our state agency in the educational restructuring needed as we move into the twenty-first century.

The regional and national perspective of McREL is not available in other existing research and planning agencies in our area.

The highly competent staff and their ability to work with all levels of educational personnel is even a greater asset.

Kansas education and our state agency very much need the continued support of our regional laboratory.

HEARING OFFICER EGERMEIER: Thank you. Let me just ask if the reporter has any clarifying questions?

THE REPORTER: No. Thank you.

HEARING OFFICER EGERMEIER:

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Thank you very much.

Our next scheduled speaker is Dr. Richard Phillips of the Missouri Department of Education.

Since he is not here, we will take a short recess.

I understand that the third speaker Dr. Earl Jensen was scheduled and he won't be here. So we will just take a short recess until we see if Dr. Phillips will be arriving.

(Off the record.)

HEARING OFFICER EGERMEIER: We are ready to resume, and continue the morning session here.

Our next presenter is Dr. Richard Phillips of the Department of Education in Missouri.

Dr. Phillips.

DR. PHILLIPS: Good morning.

My name is Richard Phillips and I am employed by the Missouri Department of Elementary and Secondary Education for the State of Missouri.

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Before I begin let me state to you the procedures that I will go through and also to give you information regarding the support that our agency has for what I am about to say.

I visited last night with our Commissioner of Education and the members of our staff, and what I have to say is supported by our Commissioner and by the members of our staff. So I represent our agency.

In terms of the structure of how I will address these remarks, I have prepared written comments that I have submitted. I will use that as an outline and speak from that.

And hopefully, I will give a clear picture of some of the activities that we have been involved in with the lab over the last several years.

It always a pleasure to come together colleagues and visit about positive activities that are occurring within our state and across

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the country, and specifically to speak regarding the assistance that we receive from our colleagues at the lab. So I am glad to be here.

I have worked with McREL for the past eight years on a number of projects and a number of activities.

And I will not in this short period of time be able to cover everything that we've been involved in.

I will speak specifically to those items that I have been involved in personally or that the members of my staff have been involved with.

In 1983-84 school year, we began to develop computer clusters across the state for the purpose of providing in-service training to school officials in small out-state schools in Missouri.

McREL provided the direction and leadership in seeing that activity come to fruition. One of the unique components of this activity was

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not just the computer clusters itself, but the Department became an active member of that participant.

In one cluster we had six school districts that formed a cluster, of which the Department was an equal partner through funds provided by the lab.

The interesting characteristic of this cluster was that the cluster of the co-op, if you will, employed a computer consultant to provide in-service training to the staff members in those school districts and also to the Department.

Prior to that time our Department had no in-service activities for the utilization of any computers at all.

In December of 1983 122 members of our staff went to a series of in-service activities provided for by Tony Sander, who was employed by this computer cluster to provide in-service training.

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At that time our agency had one computer that was housed in the Commissioner's office and no one used it.

After that time staff members began to see the need and the advantage of utilizing microcomputers for a variety of activities.

At this time we have microcomputers on the desk of all professional and support staff members throughout the agency.

Accessing information today is much different than what it would have been had we not had this assistance early on.

Not only did this computer cluster provide unique opportunities for the staff members in those small schools, but it was a direct link for our agency in improving upon the quality of services that we provided to the 545 school districts across the state.

The utilization of

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computers for information management became a real object for us. Today we are going through a massive revision of all of our data systems that center around utilizing information for the purpose of improving services to the school districts in the state.

That could not have been realized without the assistance that we had several years ago in beginning the staff training and the things that we did.

This assistance from Tony Sander, who was a part of this cluster was supported by McREL for three years. Tony became essentially a member of our staff and was the computer expert that provided service -- in-service training to the school districts across the state.

We used this person to help improve the efficiency of the utilization of computers for school districts across our state. And it was a very important activity for us, not only

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internally, in terms of how we managed information and the utilization of computers for a variety of activities, but it also improved upon the use of computers throughout the state on the part of school officials.

Another component that we tried to work with during this period of time was to examine who we delivered services to schools.

One of the things that we did with the computer cluster was to examine ways the Department could improve upon efficiency and effectiveness.

The superintendents in this cluster were beginning to tell us that the exchange of data was overburdensome and was causing undue hardships and taking insurmountable amounts of time.

We then began to work with Tony Sander in developing a data exchange that I think is the only one in the country.

Again, keep in mind that

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all of this was supported by McREL during this period of time.

We have an interactive edit package for exchanging data. In the classification program that I administer, it's a personnel file of all school teachers, all administrators giving their class assignments, their salary, the kinds of things that they're involved in, the years of experience, et cetera.

All that is on our data file. With this interactive edit package, school districts can essentially edit their data before it comes to our department.

There are approximately 500 edit checks built into this system that allow school districts to edit the data before it comes to our agency.

In other words, if a school official is filling out particular information on a staff member and leaves out salary, there is an error message that is given at that time.

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If a school official wants to know how many people in that district are being paid by our -- are intended to be paid by state funds, the computer, this system will also tell them that.

It will give them different printouts regarding the number of Chapter One people, vocational people, et cetera, that the school district has.

So school officials can essentially edit and evaluate their data before it comes to our agency. The savings in this has been tremendous.

Prior to this time when data would come into our office, it would come in essentially unedited, dirty, if you will, with missing pieces of data.

We would turn, as it would come into our office, the office that I administer, we would spin the data off for special education people, for

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Chapter One people, for vocational people, Chapter One gifted, et cetera.

They, in turn, would then call the school district to clean up the data. They would, after they would get the clean data from the school, it would be transmitted back to our office.

It took an unbelievable amount of time. All of that has now-- is now taken care of by our office. If a person has missing data, which is very rare at this time, in special education, that information comes directly to us.

School officials are no longer called by special education staff, vocational staff, preschool, gifted, whatever, for pieces of data. That comes through our office.

It has -- to give you an example, in special education we have ten consultants. Those people from the first of October to the middle of December have historically called

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school districts, spent that period of time, calling school districts for clean data, updated data, et cetera.

Now, those people no longer do that. They are able to provide direct service to the public schools in the state either through staff training, other means of technical assistance.

So the relief of data burden for them because of this interactive edit, has been tremendously beneficial to the schools of our state and also to the work of our agency.

And again, I submit to you, this is the only one of its kind in the country that we're aware of.

And to repeat myself, this gives school officials an opportunity to examine and clean the data before it comes to our office. It has been extremely beneficial to all of us.

The in-service professional growth opportunities that have been provided to us through McREL have been

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unending.

In July of 1982 myself and the members of our staff were privileged to attend the meeting in Snowmass, Colorado, which we began to seriously look at the effect of school's research on better schooling practices.

As a result of that meeting, the McREL provided for members of our staff -- in Jefferson City for 117 members of our staff -two days in-service regarding a miniature agenda of this activity.

From that agenda, which by the way, was the first time, and I've been with the Department ten years, and I was a superintendent prior to that for seven years, so in a seventeen year period of time as far as I can tell, that was the first time that members of our Department were called together, members of the vocational staff, special ed staff, et cetera, were able to come together in the same room and

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begin to examine issues and began to address the issue of how we can improve upon the quality and quantity of services provided to the citizens of our state.

That was the first time that that had ever happened. Again, this was provided to us by McREL. From that meeting began to emerge a series of activities.

I administer the classification program. We have ten state supervisors of instruction that live in the region, various regions of the state and work directly with the schools.

They are the lead people in administering the Department's programs.

In 1983, August of 1983, McREL began to provide for us a series of in-service activities for those ten state supervisors of instruction. And that practice or that service has continued through this day.

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We have in-service activities planned for our state supervisors of instruction the week of August the 14th.

And, again, the results of these kinds of activities have been tremendous. For us to have the vision and expertise of individuals outside our agency has been tremendously beneficial to us in planning strategies and providing direction in how we can improve upon the quality of services that we provide to the citizens of our state.

As a result of the 1982 Snowmass meeting and the meetings that followed, meetings with our state supervisors of instruction through the in-service activities provided by McREL, began to emerge a different attitude about how we assess the school programs and services that are provided in the local districts.

We began to take a critical look at how we assess and evaluate

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school district's programs and services. And thus, began to emerge a new look which we are now referring to as the Missouri School Improvement Program, which I submit to you is probably the most exciting thing that's happening across the country at this time.

We are in the process of looking at how we, not only assess school district's programs and services, and we're designing a system that we hope is fair and accurate, but a system that more importantly perhaps provides structures of support to the 544 districts in our state.

Recognizing that each district is different with different sets of characteristics, with each district being placed in a different type of community.

It is important that we assess the school district based upon its resources and based upon its ability to do the best it can and at

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the same time challenging the district to continue to improve.

But this system has built-in levels of support. What has happened as a result of McREL's continued involvement in this activity has emerged a change of philosophy of monitoring programs that we have historically done, where we've gone in a district and said such things as, you're out of compliance, we're going to withhold state aid.

I submit to you, that's very helpful. That's a pun. From a system of walking in to a school district with a team approach, the team approach being individuals from our Department, from institutions of higher education, from the professional ranks of the public schools, superintendents, assistant superintendents, principals, teachers, et cetera, board members, lay people from the community, presidents of the Chamber of Commerce, president of the School Board, et cetera.

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But grouping a team of people to examine a school district based upon a predetermined set of criteria and assess how that district is doing based upon that criterion, more important that team has a responsibility, as I said a while ago, of providing structures of support for that school district.

The team's responsibility is to assist the school district in identifying resources for improvement in the areas of concern and also developing a set of recommendations or a series of recommendations to address those areas of concern.

Thus, began to emerge a system of what we refer to as school improvement.

The second component to this new school improvement program and equally important to us, is the fact that we currently administer the various programs and services within our agency on an independent basis.

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The special education people have their own system of administering the special education programs across the state, as do the vocational programs, Chapter One, preschool, finance, food service and around it goes.

There are approximately 28 different programs and services that we have the authority to monitor and administer.

The new school improvement program is focused on an integrated cooperative review format, in which the school district will receive a review of all the programs and services that the Department has the authority to administer in one shot, instead of the 28 independent reviews, all of which have their own administrative style, all of which have their own unique characteristics of how they are administered.

But this, the team review approach, focusing on school improve-

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ment and the integrated review collapsing all of the various components of the Department's programs and services into one review is extremely beneficial to the school districts of the state.

This coming year will be the third and last year of a piloting process of which McREL has actively participated in the team reviews with us to critique how well we are doing, to provide guidance and assistance as to how we develop an administrative structure for administering this program, to providing direct assistance to the Commissioner, the State Board of Education and myself and other who are working with this program.

And, again, I submit to you, as I view the activities of our Department I think and as I look at what's happening across the country, I think this is one of the most exciting projects that is currently occurring.

And, again, McREL has been

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an equal partner in helping us develop the style for this process and also the administrative procedures.

As I visit with other members of our staff and as I indicated to you last night our Commissioner of Education on some of the things I wanted to say, recognizing the time limitations that I would have, we agreed that we feel that this is a very unique period of time in the history of public education, and also a very unique period of time in the history of our Department.

The activities in our Department we think are extremely exciting. We view us as an agency of moving more from a monitoring dictatorial type of a role to that of a partnership role with the school district officials and the communities of our state.

We're looking at the new classification program and other activities that we are involved in

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being very helpful to the five million plus citizens of our state.

And, again, McREL has been a unique partner in helping us arrive at that goal or help us work toward that goal.

And, again, we think we're in a very unique period of time in the history of our department and the public education of our state. And it's exciting and refreshing to have those that you can depend on be a part of that activity.

There is much more I could say about our involvement with McREL because there are a variety of activities that they have been involved in with us.

The Commissioner wanted me to mention two items to you that are not a part of the written record because our conversation was last night and I already had this worked up that I need to submit to you.

We are aware that the chief

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state school officers across the country have a concern about redistributing the money that goes to the lab directly to the State Departments of Education.

Both the Commissioner and I and other members of our staff feel like this would be the downfall of the quality of service that we currently receive.

Having an independent lab, such as McREL, not a part of our agency gives us a fresh, bright realistic look at the problems and issues that we deal with.

If those monies were to be transmitted to the State Department of Education we would be strapped by the inadequate funding issues that we currently have.

We would suffer from the acute inability to attract the quality of people that currently exist on the McREL staff because of our low salary and ridiculous fringe benefits that

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exist.

So having the money redistributed in that fashion would be a detriment to the quality of services that we currently receive.

We are able to receive an unbiased, fresh, clear vision of what the issues really are from someone other than members our own staff.

This gives us an independent review of what's occurring across the country, across the world and we feel as though if these monies were distributed to our staff for us to employ people with the political restraints that we have relative to funding, the limitations that we would have would be a detriment to us.

The other issue that we wanted to bring before you was the concern of long-term funding. When we began this crusade, if you will, or this enthusiastic interest in redesigning our assessment practices, that activity, as I said, began to unfold in

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1982-83 and then in 1983-84, more specifically.

Now, that's been a long time ago. And there are those critics who will say, why don't you move quicker, and the fact that we move with glacieral speed.

When you move a structure, when you change a structure such as we are dealing with with the classification program, it takes a lot of time.

There are a lot of people involved with varying interests. We have the political arena that we must deal with.

We have the reality of turnover in staff. We have the reality of dealing with 545 different communities, different political structures across the state, et cetera.

The need for long-term support for this kind of an effort is critical to the success of what we do, not only what we are currently involved in but the things that we have planned

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for the next century.

And we would submit to you that the current structure of funding and administering the regional labs, at least in our case, McREL, is something that we would support on an ongoing basis and encourage those that have administrative authority over the labs to direct situations that would entail long-term support.

I would be pleased to answer any questions that you have at this time, and I would conclude very quickly to say to you that we view McREL as being our professional colleagues, as our friends.

To be able to call and say, I have a problem and have immediate feedback, whether it be from the Kansas City office or from the Aurora office is very refreshing and very supportive to us.

To be able to have people critique written materials, to be able to have people help us plan strategies,

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is extremely important to us.

Yesterday, Larry Hutchings, Susan Everett of McREL met with the Commissioner, myself and the members of our staff to help us plan strategies about the 1989-90 school year relative to the implementation of our school improvement program which is designed to be implemented July 1, 1990.

I will meet with McREL staff members tomorrow and Friday with other members of my staff. And those are the kind of activities that continue on an ongoing basis.

It is extremely important to us. It's important to the citizens of our state that this support continue.

I thank you for your consideration. Again, I would answer any question that you would have at this time.

HEARING OFFICER EGERMEIER: Thank you. We appreciate you taking the time to come in and provide us with

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a statement. It's very worthwhile.

DR. PHILLIPS: I enjoyed being here.

HEARING OFFICER EGERMEIER: Our next speaker is George Krumrey, who was scheduled for the afternoon presentation, but we would like to hear from him now.

George Krumrey is president of the Iowa Parent Teacher's Association and is a member of the Board of the North Central Regional Educational Laboratory.

Mr. Krumrey.

MR. KRUMREY: It is a pleasure to be with you this morning, and thank you for this opportunity.

As was stated, I am George Krumrey of Des Moines, Iowa. I am a Lutheran parish pastor and president of Iowa PTA, and also a member of the Board of Directors of the North Central Regional Educational Laboratory.

Although I have not seen a list of those who are presenters, I may

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be one of a kind here today, in that I am not a professional educator.

In Nelson Smith's recent cover letter, I am in the last group mentioned, the general public.

Our region believed it advisable to send such a person here for, among others, these two reasons: It is the general public who foot the bills directly and indirectly for all the goods things that are being mentioned here today.

And also, the bottom line of it all is what it does for the children and youth in the educational process, children and youth from the entire spectrum, including the gifted and talented to those who are at risk of throwing in the educational towel and quitting school.

My remarks in general will follow the major issues enumerated on Page 26403 of the June 23rd Federal Register.

Since I can in no way speak

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for or about the other eight labs, I am speaking as a representative of the North Central Lab.

It is difficult for me to evaluate accurately, in a comparative manner, but I will mention three.

One is the increasing use of telecommunications-supported staff development. This is particularly useful in rural areas, in enabling educators to keep abreast of specific strategies for school improvement and restructuring.

Realizing always that reading is still fundamental, a second excellent project has been the Wisconsin Rural Reading Improvement Project.

Our region decided that instead of doing a little of this in all of our states, we would focus on one state, and that has been Wisconsin, as sort of a pilot project. And obviously with the success it has achieved in Wisconsin, we expect to

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expand it.

And thirdly, we obviously have large cities in our region, such as Cleveland, Columbus, Ohio, Detroit and Chicago.

Among our initiatives for those schools is the Accelerated Schools Action Project. And I am leaving a couple copies of a summary of our labs work in it's five-year history.

One other project that was especially meaningful to me was a three-day conference on at-risk students held last August in Chicago.

People from different professional disciplines as well as parent representatives, like myself, had the privilege of attending.

I found it exceedingly worthwhile and useful. And among the papers I have here is a summary of that conference.

How can regional labs contribute to improving performance of

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our educational system? In my opinion, they can do the most by servicing, by various means, as a clearinghouse, in two primary ways: Among the states in the region, and among the various segments of the educational community.

They can help prevent a duplication of effort and wasted expenditures, and at the same time look for cracks in the educational framework.

Communication is so very important. In North Central we have 102 more or less official receiving/disseminating "partners," who help serve as our antennae as to what is new, what is needed and what works best.

Aiding in this communication are our publications such as Policy Briefs, a new bimonthly publication reporting briefly on significant educational policy issues, such as strategies for preventing dropouts and open enrollment.

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Another gem has been in existence longer, the NCREL CLIPBOARD, sort of a potpourri of what's new in educational thinking and practice.

These are loose sheets done in what I call bit size for busy people to get the information rather quickly and easily.

Regarding what is needed for the future, I would say all the help that we can get and give toward marketing what I consider a fine educational system. I think we all realize that America's public schools have been under heavy attack in recent years. And they are not perfect, but some of the raw materials that our schools receive present a tremendous challenge.

We need to market our schools better to combat the negativism of our critics. And I know of some fine examples of such marketing, such as the middle school where my wife is a teacher associate in Des Moines.

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They're doing an excellent job, as is the whole Des Moines District on marketing our schools.

At the same time we need to remind the public we are always open to their constructive criticisms. A continuing need across the nation is more parental involvement.

And I think our schools, our school districts, our states and our regional labs need to give, perhaps, more attention to what we can do for greater parental involvement.

A goal of each regional lab should be to, as much as possible, help erase or overcome state boundaries, and generate more and more collegiality and teamwork.

The seven-a-year NCREL regional forums are an example of more teamwork, more working together across state lines.

Regarding the form of relationships between laboratories and organizations seeking improvement, I

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would say that our state advisory committees we have in the North Central Region, when they are operating as intended, are ideal, as they bring together state educational agencies, higher education, professional associations and parents for dialogue.

The right hand must know what the left hand is doing and why.

I have here a number of publications that have come out through out North Central Lab, some are original with our people and some they have simply printed to make available to more people.

Some have to do with rural education. One that particularly caught my attention is entitled America's Third World, a reprint from Newsweek Magazine.

And it talks about a segment of a population that is quite separated from those of us in the middle and the upper social-economic class.

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But they are there, they are among us, they have needs and rights just as we do. So I have a number of NCREL publications here.

Thank you, and if any have any questions, I will be glad to hear them.

HEARING OFFICER EGERMEIER: Thank you, Mr. Krumrey.

That will conclude our on-the-record presentations until further notice.

(Whereupon, the meeting was closed.)

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C E R T I F I C A T E

I, DIANE MARSH, do hereby certify that I appeared at the time and place first hereinbefore set forth; that I took down by means of cassette recording the entire proceedings had at said time and place; and that the foregoing pages 1 through 51 constitute a true, correct and complete transcript of my said cassette recordings.

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REPORTER

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CORRECTED TRANSCRIPT

UNITED STATES DEPARTMENT OF EDUCATION

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OFFICE OF THE ASSISTANT SECRETARY

FOR EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)

*****

AN OPEN MEETING FOR:

THE RECOMPETITION OF REGIONAL EDUCATIONAL LABORATORIES

*****

UNITED STATES DEPARTMENT OF EDUCATION

CONFERENCE ROOM 326

555 NEW JERSEY AVENUE, N.W.

WASHINGTON, D.C.

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WEDNESDAY, JULY 19, 1989

*****

SPONSORED BY OERI

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CORRECTED TRANSCRIPT

PARTICIPANTS

MR. CHARLES STALFORD, OERI

MR. DAVID MACK, OERI

MR. NELSON SMITH, OERI

PRESENTATIONS BY:

MS. DENISE A. ALSTON,	Children's Defense Fund
MR. REUBEN G. PIERCE,	District of Columbia Public Schools
MS. MARY BETH JORGENSEN,	Maryland State Department of Education
MS. GERALDINE RODGERS,	Retired Teacher
MS. PAMELA K. BUCKLEY,	Commonwealth Center for the Education of Teachers
MS. MYRNA COOPER,	United Federation of Teachers
MR. THOMAS SCHULTZ,	National Association of State Boards of Education

(Various members of OERI staff and the public were present.)

P R O C E E D I N G S

(9:10)

MR. STALFORD: Good morning, my name is Charles Stalford from the OERI staff. This is one of three open meetings this week at which the public may make suggestions to OERI about the future of the Regional Educational Laboratory Program in connection with the forthcoming recompetion of existing awards to operate laboratories. A fact sheet about these meetings is available in this room. I think most of you have it. It is in the back, plus copies of a notice about the meetings printed in the Federal Register on June 23, 1989.

The purpose of these meetings is to extend an opportunity for interested groups and individuals to submit views and advice on educational needs and priorities and on ways that the Regional Educational Laboratories can be most responsive to these needs. These views are being sought by OERI to assist planning for the forthcoming recompetition of existing awards to operate laboratories. OERI seeks the individual views of the presenters for the organizations they represent at these meetings, not a consensus of the participants who are here today.

As indicated in the Federal Register notice, OERI

is especially interested in seeking views and advice from the public on the following issues: What activities conducted by the Regional Educational Laboratories have been most valuable in the past two to three years? How can Regional Laboratories contribute to improving performance of our educational system? What are the key issues and problems that they should address in the future? What kinds of laboratory activities and strategies, for example, syntheses and other research and development products, direct technical assistance, training and capacity building, and the like, would be most beneficial in the future? Fourth, what form of relationships between laboratories and organizations or other persons seeking improvement in schools would be most effective?

I will Chair this meeting this morning. Persons wishing to make a statement at these meetings have been assigned ten minute blocks of time. I request that each presenter here identify him or herself, and if appropriate, your organization or group which you are representing at the start of your statement. You are also asked to leave a written copy of your statement with me before leaving the meeting. A verbatim transcript will be made of presentations at this meeting, also of presentations at the other two meetings being held this

week, which are, incidentally, in Kansas City, Missouri today, and in San Francisco on Friday. The Reporter, Rita Shepard, to my right at the head table here, is present for this purpose.

OERI will make the transcripts publicly available to anyone interested in the recompetition. Other papers and reports related to the recompetition are also available to the public. An order form for these documents is in the back of the room, and, indeed, the papers and the documents themselves are there, if you would like. As I indicated before, if you don't want to carry them and would like us to ship them to you, there is an order form. So please leave it with one of us and we'll do that for you.

Persons in attendance, but not presenting today, plus others in the public, may also submit written statements directly to OERI on the issues stated previously. Such statements should be sent to OERI at the address on the Federal Register notice, to be mailed by July 21st. Are there any questions about today's meeting?

We have a schedule of people to start at 9:20. We are scheduled at ten minute periods, continuously, until 10:10, when one of the persons who was to make a statement has called in ill and said she will not be able to come. There will then be a break -- actually the next

person who was going to complete the morning also called in ill, although, she said her statement could be read into the record, and we may do that. So we do have some flexibility here this morning.

The meeting is scheduled to go on this afternoon. It was an open invitation, and at this time, to my knowledge, there is one person scheduled to make a statement at 1:20, otherwise we will be here if members of public wish to come and make a statement. So I would request this morning that you try and keep within the ten-minute limit out of consideration for folks who may have schedules and things to do beyond the time they are assigned; however, I'm not going to ring a gong, at least right away. If you're concerned about that, please let me know when you start, and if you need to say something further, perhaps we can arrange it in a free space of time later. But let's try and keep within the time limit.

Our first speaker who has requested to speak is Denise Alston of the Children's Defense Fund. Denise I suggest you come up here and use the podium, if you like, and feel free to talk to the group here.

MS. ALSTON: Good morning. I'd like to thank the Department of Education for giving me and the Children's Defense Fund an opportunity to share our thoughts on the Regional Educational Laboratories. My name is Dr. Denise

Alston, and I'm the Senior Education Associate at the Children's Defense Fund here in Washington.

The Children's Defense Fund is a national advocacy organization for the children of America who can neither vote, lobby, nor speak for themselves. We pay particular attention to the needs of poor, minority and handicapped students. Our goal is to educate the country about the needs of children and encourage preventive investment in children before they get sick, drop out of school, or get into trouble. Our staff includes specialists in health, child welfare, mental health, child development, adolescent pregnancy prevention, youth employment, and education.

Our education agenda is focused on poor and minority children who live in isolated pockets of poverty, who attend the poorest schools, whose communities have the least social and economic resources. We are focusing on this group because we believe that these youngsters are most likely to have been overlooked or inadequately served by recent education reform efforts; and we are encouraging researchers, practitioners, and policymakers to focus their efforts over the next decade on these youngsters.

Evidence shows that poor and minority youngsters in isolated rural and urban areas are not benefitting sufficiently from education reform. For example, we know

that black children continue to be placed in educable mentally retarded classes at a three to one rate over white children, despite the current research on the benefits of least restrictive environments and the provision of regular education. Black children continue to be suspended three times more often than white students even in light of advances in classroom management techniques. And seventeen-year old black and Hispanic students are three to four years behind white students in reading, math, and science proficiency despite Chapter 1 programs and dropout prevention initiatives.

These and other indicators suggest that there is much more to be learned, experimented with, and instituted in the way of successful practices for students who are at risk of schools failing them and there is much research to be analyzed and disseminated about what works for these youngsters.

I have here an array of -- an impressive array of activities and reports and programs which I gathered at the May 10th seminar on At-Risk Students, sponsored by the the Regional Labs. These materials represent what the Labs have done to further the education of students at risk of school failure, and I commend the Labs on their efforts to sift through the research, pilot projects, and other activities to identify and help implement those

approaches that work to improve the learning of students who have been put at risk of school failure.

My mission here today is to charge the Labs to do more and to integrate what they do for at-risk students with what they do for all children.

In the interest of time, I'll simply read through a list of recommmendations for activities which I have determined to either be lacking in the Labs' current efforts or deserve greater attention. That greater attention might include staff development for a broader range of teachers and administrators; more extensive implementation, that is, moving successful practices from small pilots within a few schools to broader demonstrations affecting a larger number of students, ultimately leading to full implementation throughout a school system; or wider dissemination of results, such that, for example, effetive practices with limited English proficient students in the Southwest are adapted for implementation in the Northeast and Mid Central regions where there are also growing populations of youngsters with first languages other than English.

My specific recommendations are for the Regional Educational Laboratories to develop alternatives to grouping and tracking which will result in success for all students; alternatives to grade retention for students who

fall behind, focusing on regular assessment and quick intervention when a student's progress first begins to lag; practices which encourage and enable teachers to minimize labeling students as learning disabled, behavior disordered, or educable mentally retarded; practices which enable teachers to keep students who are so labelled in the regular classroom receiving regular instruction; approaches that ensure limited English proficient students will receive the common core of basic and higher order skills while learning English; culturally sensitive curriculum that appeals to the diversity of students and their communities; and school restructuring plans which open school boundaries to coordination with social and health services.

I acknowledge that some of the Regional Labs have taken on some of these issues. Yet, more must be done by more Labs. We are all aware of the changing demographics of urban and rural schools. We see more and more youngsters who are poor, ethnic or racial minorities, living in single parent homes, surrounded by distressed communities, but yet these youngsters still must be educated to become contributors to our society, these youngsters must be educated. The Regional Labs must place these youngsters at the center of their activities in order to make a significant impact on school improvement

and to help raise national achievement levels.

It is a big challenge, but the Labs' previous work and talented staffs are up to it if they truly believe that all children can and must learn. Thank you.

MR. STALFORD: Thank you very much, Denise. The next speaker is Mary Beth Jorgensen, Federal Liaison with the Maryland State Department of Education.

MS. JORGENSEN: Good Morning. We in Maryland are active participants in our Regional Mid-Atlantic Laboratory, Research for Better Schools. We have received superb services and benefits. We support its model as a national one for all Regional Laboratories because it works extremely well. We are pleased to comment on each area in which you seek views.

In terms of past activities, over the past 10 to 15 Years, the Mid-Atlantic Laboratory has provided the Maryland State Department of Education with research and background information, training and technical assistance, and process and summary research on all of Maryland's educational initiatives established by the State Board of Education and the Maryland legislature. These initiatives include competency-based education, adult literacy programs, pre-kindergarten education, school effectiveness programs, graduation requirements, MSDE staff development, special education, training of superintendents, principals

and supervisors, middle school education, students at risk of school failure, Chaptert 1 programs for disadvantaged students; and rural education.

Key issues and problems for the future. Our strategic planning process for education has a five-year cycle. In the fall we begin identifying key issues and problems facing the state during 1991 through 1996. The Regional Laboratory will be an active participant in the twenty-step planning process, which also involves input from the general public, to identify Maryland's major educational goals and focus on the State Department of Education's resources.

During the first two years of this planning cycle, the Department's action plan calls for the following; review the statewide minimum competencies; restructure vocational technical education; expand programs for homeless youths; incorporate technology into education -- computers, VCRs, interactive television; expand minority staff recruitment; develop parental involvement program components; participate in national longitudinal studies; implement students-at-risk programs, rural school plans, retraining programs for experienced teachers, school based acountability procedures, and early and middle years' education policies and procedures. Many of these are continuous programs involving the support and

expertise of the Regional Laboratory.

Laboratory activities and strategies for the future can include -- our Regional Laboratory staff is involved with us in planning, implementing, and evaluating State programs and projects. Activities include research, product development, synthesis of current literature, process observation, capacity building of State Department and local school system personnel, and technical assistance.

In addition, because we work regionally, the five states, the District of Columbia included, share in conferences, training of new State Department personnel, and visitation projects.

Today while this meeting is taking place, four staff members of the Regional Laboratory are working with forty Maryland State Department of Education staff members in a workshop with two purposes. One, to share successful projects that we might use from other states; and two, to synthesize and enable us to use the research on the national topic of restructuring schools. These activities and strategies give you examples of specific Regional Laboratory activies. We have attached to our testimony a copy of the most recent Maryland fact sheet prepared by RBS summarizing activities from January 1st through June 30, 1989.

In the future, our issues and problems will change as we try to meet new educational and societal needs. The activities and strategies will remain similar as we train new staff members to respond to and resolve new problems. Our laboratory staff provide us with current skills which enable us to make changes. The laboratory staff is our best resource and partner. They have a primary mission, and they do it. They work one-to-one, collectively as a region, and nationally to network us with others who can assist us. We see no other federal assistance that is so responsive.

Relationships with others. We know from experience that decisions made by those closest to the issue produce the best results. That is the philosophy of block grants and other federal programs. We believe it is and should continue to be true of the Regional Laboratories.

Currently, the Lab is our only vehicle to serve regional needs that have been identified by the several states. The laboratories' Boards of Directors, representing state and local superintendents of schools and members of the community within the region, collectively focus on unique problems and issues.

Once a key issues for the future is identified on a regional and state basis, we recommend that the Labs and

states form coalitions with appropriate associations and organizations to assist in seeking and actually implementing solutions. We believe that the Labs should be mandated to form such relationships with such associations and organizations willing to commit time, staff, and resources.

MR. STALFORD: Thank you, Mary Beth. The next speaker is Reuben Pierce, who we have listed as Principal of Ballou High School. I believe Rueben is actually Acting Administrator of Ballou High School where he was a principal earlier. He is, otherwise, Assistant Superintendent in the District of Columbia Public Schools.

MR. PIERCE: Thank you, Mr. Stalford. I appreciate this opportunity to speak to you and to the members of the OERI staff who are present about the recompetition of the Regional Educational Laboratories.

For three-and-a-half years in the past, and on a temporary basis in the present, I did serve as the Principal of Ballou Senior High School, which is located in one of the poorest sections of the District of Columbia. I also served as an Assistant Superintendent in the District of Columbia Public Schools for another 12 years. I have worked extensively with Research for Better Schools on the improvement of secondary education, and my testimony is based on that experience.

I will comment on all four questions on which you are seeking advice. But the bulk of my testimony will be directed toward the question which asks about the value of Regional Laboratory activities.

Valuable Regional Educational Laboratory activities. Part of my experience with RBS occurred within the framework of the Mid-Atlantic Metropolitan Council, which is composed of the five largest public school districts in the Mid-Atlantic region. This Council was created by RBS to enable the superintendents and others from the central office staffs of the Baltimore, Newark, Philadelphia, Pittsburgh, and Washington, D.C. school districts to join together to work on problems of common concern.

Improving secondary education was the first problem area identified by the Council. I might add that it was in this context, in the context of our creating a new Division of Secondary School Improvement in Washington that I became most intimately involved with RBS.

Along with that, RBS conducted a major study of ten high schools, two in each of the five school districts, which has been very helpful. The study found that commitment to the learning enterprise on the part of teachers, principals, and students is vital to the successful operation of effective secondary schools.

The results of this study have been used for staff development purposes in several of the Metropolitan Mid-Atlantic school districts. Other districts are using them to guide the development of their long-range plans for improving secondary education. Following the commitment study, the RBS staff worked with all five districts to improve the teaching of critical thinking skills. Individualized projects were started in each of the districts and are continuing today. RBS staff are providing information, models, and training on how to incorporate thinking skills into the curriculum.

Also as part of the project, RBS arranged for teachers and administrators to visit the schools with thinking skills projects in other districts, most recent of which was a visit to the Newark Public School District. These visits supplemented other demonstrations which took place at the semi-annual meetings of the Council which rotated from one of the five school districts to another, such as a visit we made to the Schenley High School Teacher Training Center in Pittsburgh.

Another example of RBS' work involved a number of high school academies we were operating in different career areas. This program was being offered in conjunction with some active public and private partnerships. We arranged for RBS to evaluate this

program. The evaluation was conducted in a very professional manner, and the program manager and staff were provided precisely the information they needed in order to improve the program still further.

Based on my personal experiences in working with RBS, then, I would say that they have provided the following valuable services: their work in convening and organizing the five largest school districts in the Mid-Atlantic region into a council was valuable because it greatly increased the interaction among the professional staffs of these districts. Some of the superintendents had not met one another prior to the formation of the Council, and this was also true of most of the central office counterparts.

As a result of our meeting in one anothers' districts, we saw programs at all levels which sparked our interest, enthusiasm, and sense of what was possible. It is probably worth noting at this point that no other agency in the region has the assignment to convene school district personnel in this way; it is a function that is unique to the Regional Laboratories, and as this illustration shows, it is a valuable function, indeed.

The research RBS conducted in the commitment study was valuable to us in that it provided concepts and recommendations which were incorporated into our inservice

programs and our planning of future improvements in secondary education. The results of the research have also been disseminated by RBS beyond the region to the rest of the country. As part of the thinking skills activity, RBS provided training to teachers who went on to train other trainers in our districts. They also provided us information on models and promising practices elsewhere which were useful in expanding our ideas about directions we could go and objectives we could achieve.

In conducting the evaluation of the Public Private Partnerships Program, RBS staff provided the detailed, person-specific information the program manager and staff needed in order to improve their program, even though that kind of information is not often found in an evaluation report.

All these activities were valuable, and I recommend that all of the functions be continued in the next Laboratory Competition.

I shall now go on to address, briefly, the three other questions on which you are seeking public advice. With contributions to improved performance, Regional Laboratories can best contribute to the improved performance of our educational systems in the future by concentrating a significant portion of their resources on a few large-scale, long-term, major efforts to improve the

performance of students, particularly students who are at risk of failure. They should continue to provide the kind of valuable services I've described above, but have great potential for improving the education of poor and at-risk students.

These projects can revolve around a variety of topics, such as governance, instructional approaches, parental involvement, or community partnerships, but they should always be of sufficient scope and magnitude to have the potential for very significant change and improvement.

Here is another place where the services of a laboratory are particularly valuable. When a laboratory can commit its support to a project on a long-term basis, those who are planning the project are encouraged to reach a little farther and dare a little more than they would otherwise, thus producing the potential for even greater improvement than would be attempted if the practitioners had to do it all on their own. It is very reassuring to have a partner who can be counted on for the long haul.

As for further activities and strategies, as I've already indicated, I think laboratories should continue to do many of the same things they are doing now, but also concentrate some of their resources so that they can assist with some school-level efforts to achieve dramatic change. In terms of strategies, this would mean that they

should continue to work with and through other agencies and associations to some extent but should also be given the opportunity to provide direct services to a few selected schools in order to bring about significant change in those sites.

I would add one point here that I didn't complete in the written statement. That is, perhaps, one of the most significant contributions that I think that the Labs could contribute is the empowerment of those districts to do those things on their own by providing the training, models, and research data to enable them to carry forth those programs independently because there is no bottomless wealth to support this kind of activity.

The relationship of the Lab to other organizations is a matter which can best be determined by each Lab's Board of Directors. They are selected to represent the region and are in the best position to decide what should be done, where, with whom, and under what conditions.

Mr. Stalford, I appreciate this opportunity to advise you about the the future of the Regional Laboratory Program from my point of view. I commend you for opening up the recompetition process in this way. And I hope that the ideas and suggestions that you receive in these hearings will lead to a more valuable Regional Laboratory

Program in the next five years. Thank you.

MR. STALFORD: Thank you, Dr. Pierce. May I ask you a short question, please? It was not our intent to engage in a question and answer period, but on a specific issue, do you literally mean to work with individual schools as opposed to school districts?

MR. PIERCE: School districts. I think in certain instances in working with school districts, there may be -- well for example, in our secondary school improvement efforts, we actually would need assistance from people from RBS to work with specific schools. And in part of that, or an out-growth of that was the training of people in our district to carry forward the kinds of things that RBS would demonstrate using specific schools.

MR. STALFORD: Thank you very much. Next speaker is Geraldine Rodgers, teacher, former teacher and researcher.

MS. RODGERS: Good morning, I'm Geraldine Rodgers. I'm here to speak about the Regional Educational Laboratories.

The primary educational problem in America is funtional illiteracy. Any research which establishes its cause and its cure should get the highest priority when the Federal Government underwrites future educational research. Yet, to judge from past history, it is most

unlikely future applicants will plan effective literacy research. It is therefore the responsibility of the Federal Government to insure such research by requesting bids on specific work which clearly promises to clarify the problem.

Bids should be sought on four items which I shall describe. I ask you not to shirk your resposibility to see that tax dollars for research are spent wisely and that you request bids on all four items. Tens of thousands of reading comprehension studies have been done since such tests first appeared about 1914. Bizarrely, only about a dozen oral reading accuracy studies have been done. Yet the worthlessness of reading comprehension tests instead of oral reading accuracy tests to test reading ability was made clear as early as 1908, when two master psychologists in France found reading comprehension to be a function of intelligence, not reading skill.

Dr. Theophile Simon wrote the following in his 1924 book, "Pedagogie Experimentale", on his work with Alfred Binet on the original intelligence tests, when children were required to show how much they comprehended of what they read orally. Quote: "We have observed many times this curious thing. It happens that some children read very incorrectly, so incorrectly that their reading aloud is, for those who listen, very nearly

incomprehensible, and then, if one asks them what they have read, they say it almost correctly. There is, therefore, less correlation than one could believe possible between the understanding and the correctness of reading."

Almost correctly, of course, is not good enough. But it is this curious thing Binet and Simon observed in Paris in 1908 which explains the current American method of teaching reading by psycholinguistic guessing. English has perhaps half a million words. Yet only about 300 of them compose about three-quarters of the words in simple materials. Children who know about 300 high-frequency sight words and who have been drilled in guessing from the context as American children constantly are drilled, can give the illusion of reading and pass lower level comprehension tests, just as Binet's subjects did. Their real reading failure will not show until more difficult material, exactly where we are hearing that our reading problem is now, above fourth grade level. The only thing new about teaching reading by psycholinguistic guessing is the name. The same approach appeared in the watershed readers of 1930, W.S. Gray's Scott, Foresman, "Dick and Jane" readers, and A.I. Gates' MacMillan readers.

For the record, both Gates and Gray had been graduate students and friends of the master American

psychologist, E.L. Thorndike, and associates, like Thorndike, of two other master psychologists, John Dewey and James McKeen Cattell.

The Gates/Gray readers used a context-guessing approach for unknown words, which were carefully embedded in texts of memorized sight words. They did not teach children to decode unknown new words by true phonics because the 1930 Gates/Gray reading method is actually an ancient approach used to teach deaf-mutes language. On page 17 of Gates' 1930 book, "Interest and Ability in Reading" he indirectly admitted that connection. "Becoming a Nation of Readers," the government-funded 1985 report, adopts a definition for reading on page 11 which implies that conscious attention, or guessing, is required in the indentification of even a single word. The use of conscious attention in reading rules out automaticity.

Yet the highly qualified Dr. Hilde Mosse, the psychiatrist/pediatrician who wrote "The Complete Handbook of Reading Disorders" in 1982, considered the reading act to be an automatic conditioned reflex. She considered a lack of automaticity in reading to be a disability. Her landmark work is not cited in "Becoming a Nation of Readers." Instead, this report implicitly contradicts her and implicitly denies the possibility of automaticity in reading.

Gates said in his 1925 article, "Problems in Beginning Reading, an Analysis of 21 Courses," that heavy phonics was taught then in almost all American first grades. For reliable illiteracy data, we must compare today's psycholinguistic reading results with results from heavy phonics before 1926.

The First Test: Gates' word lists reported in his 1924 article, "A Test of Ability in the Pronunciation of Words," should be retested. In mid-year 1923-24, Gates tested individually 1,700 pupils of grades one through six in schools mainly in New York, New Jersey, Pennsylvania and Delaware. On Gates' lists of progressively more difficult words, the average score at sixth grade was 95.5 percent and for 14 year-olds 90.9 percent. Children for whom the age was given were obviously left-backs, since children had to stay in school by law to those ages. Statistically speaking, 100 percent of the children at sixth grade, or old enough to be in sixth grade, pronounced over 90 percent of the list.

If we could obtain a score like that today, we would have no illiteracy problem. Yet the newer Gates/McKillop 1963 test results on the same word lists seem to imply we do get results like that. The Gates/McKillop median score, at the 50th percentile, is about the same as the 1924 average of over 90 percent.

This is a classic case to prove that median and average scores are not equivalent. Very likely the 1963 score shows that only 50 percent of the children average now what 100 percent of the children averaged in 1924. Gates' oral test must be run and marked to show the average and not the median just as in 1923-24, in order to get hard data on the drop in reading accuracy in grades one through six.

The Second Test: The correlation between spelling accuracy and reading accuracy is very high. Leonard P. Ayres', "A Measuring Scale for Ability in Spelling," should be retested exactly as done in 1914-1915, when he tested 70,000 children in grades two through eight in 84 American cities. These new norms should be compared to the 1915 ones to show the degree of retardation. Children were normally not permitted to drop out of school in those cities before about 14 years of age or older. Ayres showed elsewhere children then were almost never more than two years below grade level. Therefore, 1915 fifth grade scores represented virtually 100 percent of city children in that age group, and showed clearly virtually 100 percent were literate, including Blacks and foreign born.

If World War I Army illiteracy statistics should be cited in an attempt to discount Ayres' data, the

unreliability of these statistics should be made clear. The 1917 program was run by American psychologists. In most Army camps, psychologists marked soldiers illiterate if they had not reached a specific grade level. It varied from camp to camp, from fourth to eighth grade. Abe Lincoln, who only reached second grade, would have been marked illiterate by the World War I psycholgists. In a minority of camps, a so-called reading test was given. Draftees who were undoubtedly nervous and distracted were scored as illiterate if they could not answer enough comprehension questions on a news article they had read. Their oral reading accuracy was not tested so the test was meaningless.

The Third Test: Eye regression movement, means to go back to look again at print already seen. Such movements can be recorded statistically with laboratory methods, as shown in Educational Development Laboratories. Research Information Bulletin 3, 1960. Another kind of test called oral reading error studies has shown that even at first grade, phonically trained first graders make far fewer regressions. They are obviously reading sound, and not going back to check meaningful conscious guesses.

Since most American schools keep a reading record on each pupil showing reading tests used from first to sixth grade, and since records follow the pupil to a new

school when he moves, it should be simple to break sixth grades into two groups, those who learned with true phonics in first grade and those who learned with context guessing phony phonics plus sight words in first grade. Labeling of programs for this test should follow the guidelines in Dr. Rudolf Flesch's carefully researched 1981 book, "Why Johnny STILL Can't Read." As Dr. Flesch pointed out, about, perhaps, 85 percent of American first grades use textbooks he labeled, "The Dismal Dozen," which teach only context-guessing phony phonics.

With the sixth graders identified on first grade methods, an eye movement study like that of Educational Development Laboratories should be carried out to compare the two methods. Fewer regressions would indicate greater automaticity, and numerous regressions a lack of automaticity.

The Fourth Test: Methods are available to tell if a reader is using his left or his right brain memory bank to read print. See, for instance, an article by Daniel Goleman in the May 12, 1985, New York Times Magazine on experiments in which words were read by either one or the other side of the brain. Again, it should be possible to arrange tests between two groups, sixth graders phonically trained in first grade, and sixth graders with context-guessing phony phonics plus sight

words in first grade.

The left side of the brain is normally the language side, so phonically trained sixth graders should test like the classical aphasic patients in William James' 1980 psychology text, "Capable of Reading only with the Left Side of the Brain." This should suggest true dominance and the formation of an automatic conditioned reflex.

The right side of the brain is known to be used for reading of Chinese characters. Since sight words are taught as wholes or globally like Chinese characters, and since context-guessing phony phonics teaches partial phonics, children taught with these two associated approaches should demonstrate they are reading with both sides of the brain. Reading with both sides of the brain suggests mixed dominance with possible impairment of automaticity.

Please inform me if you will or will not request these four tests, and, if not, why not, so that your response will become a matter of public record. Thank you.

MR. STALFORD: Thank you. It is not our position here this morning to answer questions about what we're going to do in the recompetition.

MS. RODGERS: I don't mean now. I mean at the

time of the tests, you know.

MR. STALFORD: We will consider your views seriously. Pamela Buckley, Co-Director at the Commonwealth Center for the Education of Teachers at James Madison University.

MS. BUCKLEY: Good morning. I'm Co-Director of the Commonwealth Center for the Education of Teachers which is an unusual function because we function as a joint project between two universities, James Madison University and the University of Virginia. Our purpose is to enhance teacher preparation in the state of Virginia, the Commonwealth of Virginia. I work with the 37 state-approved Teacher Education Programs in the Commonwealth, and I'm here to speak today as a member of the Appalachia Educational Laboratory Board of Directors.

Shortly after I came to the Commonwealth Center last July, I was asked to represent the Virginia Association of Colleges for Teacher Education on the Appalachia Board of Directors, and I have been very active in the workshops and the research activities in the state of Virginia connected to AEL. And I would like very much to support the activities and recommend that they continue.

The AEL Board of Directors is very interesting because it is a microcosm of all of the different

educational groups in the Commonwealth and in the region. We represent the region of Tennessee, Virginia, West Virginia, and Kentucky. Each of the states has seven Board members. The Board members include the Chief State School Officer, a representative from the State Education Association, a representative from the State School Administration Association, a representative from the state's Professional Preparation Program, and there are three elected members who are at-large representatives. The Board serves as a corporate governing body but it is also unusual in that it participates in activities sponsored by the Lab.

We participate in state board groups called Caucuses. As the elected leader of the Virginia State Caucus, I will be conducting a meeting the weekend in conjunction of the Board of Director's meeting. One of the things that we will be doing is looking at a statement reported in 1985 on the status quo of education in Virginia, and we will be updating that from the different perspectives of the educational groups.

We also serve as members of the Regional Lab's Project Advisory Committe, and I work with the Professional Preparation and Research Committee which directs a study group in Virginia. Each of the states in the region has an advisory group which focuses on some

aspect of research. The Professional Research Group in Virginia is focusing on at-risk students right now. One of the activities that they are in the process of doing is developing training modules to prepare student teachers to work with at-risk students. We are hoping these modules will be ready at the end of this year and anticipate that they will be taken over and pilot-tested by all four states who participate in AEL's region.

Our region is very grateful to AEL because it serves as a vehicle for bringing all of the major interest groups in education, and it involves all of the members in a carefully coordinated agenda of research, development and training, and technical assistance activities which impact the region.

AEL's research and development activities have direct application to school improvement. In my own experience with the Virginia Association of Colleges for Teacher Education, our participants, of course, are developing preservice training modules to help at-risk students. A Virginia study group, in preparing these modules, conducted a literature review. They surveyed all 37 of the Teacher Preparation Institutions in the Commonwealth. They surveyed practitioners, and now they are putting together the training modules, which, as I mentioned, should be ready by the end of this year.

There are two other AEL programs which sponsor study groups, and that is the Classroom Instruction Program and the School Governance and Administration Program and is one example of a major impact. One of the states had set up a regulation to try to increase the amount of reading instruction in primary grades, and as a result of the study groups looking into this action, they determined that the regulation would actually have the opposite affect, that it would decrease the amount of time spent in primary reading instruction. So the state regulation was withdrawn.

There has been a lot of training with the Classroom Instruction Program and the State Governance Program since 1986. Sixteen packages for Training-the-Trainer modules have been developed, and AEL has collaborated with the State Professional Association to provide these Training-the-Trainer Programs throughout the region. Virginia has had 12 professional association organizations involved in selecting and putting on these Training-the-Trainer workshop packages. It has been a very cost-effective method of preparing trainers who can work around the state.

The State Governance and Administration Program has collaborated with Virginia's LEAD project in the last series of statewide training events via satellite. So

we've had a major impact there in reaching a lot of groups.

The State Governance and Administration Group has also collaborated with the Kentucky LEAD project to obtain a grant to develop Targets-for-Trainers. Last month in Charleston, West Virginia, they held the first Targets-for-Trainers event which was to prepare instructional leaders in the region to train other trainers. I understand that this training package will be offered in other regions later on in the year.

Also at that time in Charleston, when we had the Targets-for-Trainers Project, we also had Potpourri '89, which was a showcase of Training-the-Trainer modules, and there were 16 different packages which were presented to educational leaders throughout the region for selection by state organizations at a later point to be put on.

Other training efforts of AEL include a Regional Liaison Center for Urban Educators, and the Rural, Small Schools Program which is now in the development stage. It is focusing on providing on-site technical assistance.

In terms of technical assistance, most of the region which is served by AEL is characterized by isolation in rural areas and poverty. Most of the schools in the region we found out were using help from three sources. They were having to use Appalachia Educational

Laboratory, they were coming to local colleges and universities, and they were looking to the State Department of Education for technical assistance.

AEL has worked out a number of long-distance strategies to assist in technical assistance, and one of the major areas which they have offered is a School Services Center which lends reference materials, which provides instructional packages, and which offers advice to school practitioners. There is a toll-free number which any educator in the region can call the number and borrow the material or receive advice on it.

AEL also has a Regioanl Liaison Center which works with nonadvantaged people who reside in urban areas. The focus with the Liaison Center is to help parents help their children. In the Rural, Small Schools Program, the focus is on working to implement a School-Community Improvement Process. Basically there are four rural demonstration sites, at which 25 percent of the residents live in poverty.

So the staff is working to develop a cadre of school community leaders and help plan and implement a change. During the first year in Virginia, for example, the community passed a school bond issue to build a new school. This was the first time a community had been able to pass the bond issue in years.

Another activity which the AEL provides is a newsletter which is called, "The Link." It is sent out to 8,000 people, and through surveys we've determined that approximately eight to ten educators as colleagues share it with one another.

There are many examples of how AEL's projects and strategies have made the Lab an integral part of our Region's educational infrastructure. For example, the Policy and Planning Center's 1986 symposium on technology has led to a whole array of new state and interstate initiatives now being documented in a tracer-case study by the Lab's third-party evaluator.

Also AEL's Minigrants Competition has instituted and stimulated a lot of institutional research and development.

In conclusion I would like to stress one final point, and that is the importance of long-term stability to a Regional Laboratory. And AEL has served our area since 1966. It continues to provide a lot of long-term effects which have made a major impact on our instruction in four different regions and has lead to a tremendous increase in school improvement, and it has motivated a lot of collaboration amongst different regions and educational groups.

I'd like to thank you all very much for giving us

an opportunity to make comments today.

MR. STALFORD: As I mentioned before, two people who were scheduled to speak this morning have called in ill. Judy Conrad, representing the Council for Exceptional Children was to speak, and she has indicated she will mail in her statement. And at eleven o'clock, Myrna Cooper, who is Director of the New York City Teachers Center is scheduled to speak, and she has called in ill. We had thought earlier in the morning that she would facsimile her testimony to us. But apparently, as of a minute ago, it has not been recieved, and we are not able to say when that might be received.

So our next scheduled speaker, that is the person who has called in advance and requested to speak, is Thomas Schultz from the National Association of State Boards of Education. We have made this opportunity available publicly throughout the day from 9:00 to 12:00 and from 1:00 to 4:00 p.m. Tom asked to speak at 1:20, so we will listen to his statement at that time.

There are no other scheduled speakers at this moment. May I ask if there is anyone here who did not request to speak in advance, but who is here and would like to make a statement this morning? If not, what we will do is recess. I believe that is the appropriate term at this meeting. We will maintain a staff presence here

and a reporter, and if someone comes in, we will listen to their statement. Mr. Schultz will be here at 1:20 this afternoon. Thank you.

(Whereupon, at 10:20, a recess was taken to reconvene at 1:10 p.m.)

MR. STALFORD: My name is Charles Stalford. At 1:10 p.m. we are going to reconvene this meeting. I have a statement by Myrna Cooper, Director of the New York City Teacher Centers Consortium, which she had planned to present at this meeting today. However, illness prevented her from coming. She has sent the statement by facsimile. I have it, and I'm going to have it read into the record at this time.

New York City Teacher Centers Consortium. Statement presented by Myrna Cooper, New York City Teacher Centers Consortium. Before an open meeting on the recompetition of Regional Educational Laboratories. July 19, 1989, Washington D.C.

I'm Myrna Cooper, Director of the New York City Teacher Centers Consortium. The Consortium is a collaborative effort of the United Federation of Teachers, the New York City Board of Education, participating community school districts, and area institutions of higher education. Our mission is to serve and support teachers as they seek to achieve educational improvements

for students. Each year we serve tens of thousands of teachers as they meet the needs of New York City's nearly one million students. The Regional Laboratory for Educational Improvements of the Northeast and Islands (Northeast/Islands Laboratory) plays an essential role in our work, particularly through our Restructuring Schools Program.

My testimony today will come primarily from the perspective of a user of laboratory services. I also consider the mission and work of the Lab to be so important that it is worth an investment of my own time. I therefore serve as a member of the governing Board of the Overseers and Executive Committee of the Northeast/Islands Laboratory. Until recently, I also served on the Board of one of OERI's R & D Centers, the Center for Teacher Education.

I come before you, then, as an educator and service provider with working knowledge and experience of the services, operation, and governance of at least one Laboratory -- the one serving the Northeast, Puerto Rico, and the Virgin Islands -- and of the overall research and development system funded by OERI.

I'm pleased to have the opportunity to share my ideas with OERI about the Regional Educational Laboratory Program in this public hearing.

Although I have had prior experience with a number of Laboratories across the country, my immediate experience -- and what I'll speak to today -- is with the Regional Laboratory for Educational Improvement of the Northeast and Islands. The Northeast/Islands Laboratory serves New York, New England, Puerto Rico, and the Virgin Islands. The region covers nearly 120,000 square miles, spans a distance of over 2,000 miles from the northern Maine to the Virgin Islands, and includes over 33 million people, of whom nearly six million are of school age.

Unlike many of the other Laboratories across the country, the Northeast Islands Laboratory is still in its infancy, having first been funded during the 1985 OERI Laboratory Competition. Until that time, our region was under-served by a laboratory. The last "laboratory-like" institution that served any significant portion of the current region prior to the Northeast/Islands Laboratory was the Center for Urban Education in New York City, which closed in 1973. For organizations such as mine, and for the teachers we serve, and in turn the students they teach, this gap in school improvement and R & D services was a significant problem. Happily, I'm here today to report that with the funding of the Northeast/Islands Regional Laboratory the situation has changed and we are now able to take advantage of high quality Lab services,

which are already beginning to make a difference throughout the region.

I have watched with great satisfaction the development of a vital new education resource in the region. In an amazingly short period of time, three and one-half years, we have gone from having no Lab to having a service organization that provides us with one of the best sources of high quality R & D assistance across the entire country. As a Board member, I say this with pride because I had a hand in ensuring that the Lab rapidly rose to meet the challenges of the region. But as a client I say this with even more sincerity and pressure because it is as a user that I truly experience the fruits of the Laboratory and know what a difference it can make in helping schools ensure that the students of today can meet the challenges of tomorrow.

The addition of the Northeast/Islands Laboratory to the region has radically changed access educators have to research and technical assistance. Over time, the Northeast, often thought of as resource rich, has seen a decline in sources of such assistance. We are a region rich in institutions that conduct high-quality, basic research. But as a service organization, the Consortium needs to be able to find support and assistance that reflects an understanding of our day-to-day realities and

aimed at a more practice-oriented level. We have found such support from the Northeast/Islands Laboratory and in filling this void within the region, the Laboratory has already made a real difference.

Our Consortium, in partnership with the United Federation of Teachers, is designing the first teacher-initiated restructuring initiative in the nation. It is with this effort that the assistance of the Laboratory has been truly invaluable, although we have benefited from the Labs' work through a wide range of other activities as well.

Teachers are key to the transformation of schools into learning communities. They must model leadership in active learning if we expect youngsters to be active learners. They must take a major role in restructuring curriculum and instruction and in rethinking school organization and procedures. To do so requires that teachers -- and administrators -- develop new skills, engage in new activities, and assume new roles. This is an enormous challenge; one that we could not have faced without the assistance of the Northeast/Islands Laboratory.

Given the limitations of time, I will not provide you with an extensive description of all the benefits we have received from the collaborating with the Lab.

However, let me highlight a few to give you a picture of our experience.

The Laboratory first and foremost provides us with ready access to the latest and best available research and development from across the country, and in many instances, from abroad as well. Educators are, unfortunately, notorious about their limited use of R & D, often because it is not easily accessible nor is it generally understandable, relevant, or usable when it is available. The Lab has radically changed this situation for the Consortium. With staff who understand the needs of our teachers and who can readily step back and forth from the research world to the world of practice, the Lab has made the use of research a common component of our work, valued by our teachers. This is invaluable to the success of the Consortium's efforts. With dollars in such short supply, we cannot afford to duplicate the costly mistakes of the past, nor can we afford to overlook what is already known about what works.

One excellent example of the Labs' efforts in this area is their monthly publication, "The Cutting Edge." It provides digestible abstracts of the latest R & D from across the country in an easy-to-read form. This publication not only provides the Consortium with easy access to research, but also encourages us to reprint the

information and share it with others -- through newsletters, papers, letters, routine mailings -- and we do. As a Board member of the Lab, I'm aware of the positive evaluations the Lab receives on this publication and that the typical reader passes along information from it to an average of 12 other colleagues -- a real tribute to its worth.

Related to this service, the Lab serves as our way of plugging into the larger R & D network across the country. Rather than calling each OERI-funded R & D Center, for example, we need only contact the Lab. This gives us ready access not only to the resources located on the Lab premises, but to those throughout the entire network. Staff are knowledgeable about the work of their colleagues and have always been eager to respond to our requests for additional information, materials, and referrals to other experts. Access to this type of expertise and "connectedness" to the R & D world has provided critical to us, particularly as we have pursued a task as enourmous and overwhelming as restructuring the New York City Public Schools.

Access to this network also allows the Lab to anticipate what issues and problems lie ahead for us and to help us avoid, or at least prepare, for them. Having access to an organization that is always forward looking,

and that can place what they are seeing within the context of available research is a real asset to us and to the rest of the region.

The Labs' role is not simply to provide us with access to R & D, however. Staff serve as active translators of this information so that our teachers can actually apply it to their efforts. Sometimes this requires synthesizing the information that is available; other times it has resulted in developing new materials or more practice-oriented tools; and at other times it has been necessary to provide direct consultations or workshops to demonstrate why the research actually makes a difference. Researchers often forget that teachers are oriented toward "doing." Reflecting on what they are doing and why and how it relates to previous research comes late in the process, if at all.

In their work with the Consortium, Lab staff have been sensitive to the realities of schooling and have developed effective strategies to help our teachers break this pattern by translating research into action-oriented materials and tools that are seen as facilitators and benefits rather than interference and barriers.

I cannot stress strongly enough the benefit of a Lab that uses a mix of strategies, technical assistance, research, evaluation, dissemination, product development,

in approaching the kinds of complex problems we are facing in the Consortium. It has been invaluable to us to be able to draw upon this expertise. Equally invaluable is having a staff that bridges the gap between research and practice, staff who are comfortable, knowledgeable, and credible in both worlds. Too often researchers do not value or even understand the realities confronting teachers; unfortunately, this can render their research superficial and appearingly irrelvant to the needs of practitioners. With "translators" who can glean the wisdom embedded in some of this work, we are much further ahead in our efforts than if we found it expedient to continue to disregard this research.

I do not wish to dwell too heavily on this aspect of the Lab since there are others that have been equally beneficial. But I do want to stress the importance of the character of the Lab in this respect. From my long history in education, I have found no other institutions that systematically play this role at all -- let alone ones that play it so well and with such benefits to educators.

But let me turn to another aspect of the Lab that we have found particularly beneficial. I hesitate to provide testimony that focuses on "process," since I know from experience how difficult it is to convey the benefits

of process. Tangibles are always much easier to grasp. But I feel compelled to emphasize the important role the Lab plays in convening people who generally do not come together to address and solve shared problems. Even within the Consortium, we found this incredibly useful. Lab staff provided a safe, nurturing environment for discussing difficult issues and for developing shared solutions. They assisted us in developing the necessary teacher ownership in the Consortium's efforts while simultaneously also providing teachers with new skills and in modeling the types of behaviors they, in turn, will need to use in their schools and classrooms.

Please do not underestimate the importance of this process until you have experienced it. I continuously hear from colleagues from across the region who have participated in these sessions that they are invaluable and that particularly in instances that bridge constituents or state lines, only a neutral organization such as the Lab can provide such a "safe" environment. Few people will take risks without some type of "safety net" and without risk takers, our educational system will never improve in the ways that are necessary.

In addition to all of these benefits, Lab staff have provided us with workshops, they have planned and led retreats, they have ensured that we knew about relevant

conferences and activities that we might participate in, they have developed materials and papers, they have helped us identify and access additional resources, they have assisted us in maintaining our enthusiasm in the face of mounting challenges, and most importantly, they have been and continue to be, there to engage in joint problem solving whenever we call. Knowing that someone with a proven track record is available to talk makes an enormous difference.

A few examples of additional Laboratory work might be illustrative of other benefits to us and the region. One particularly successful effort of the Lab is the assistance they have provided us in the area of the discouraged learner. While we have many teachers with ideas about how to motivate these particular students, we needed help in conceptualizing the problem we were facing and we needed someone knowledgeable who could synthesize and help us understand and apply the latest research. We found this in the Lab, and the teachers loved it.

Using a very different set of strategies, the Lab is developing a shared decision-making model as part of a project it is conducting in New York State. The Lab is able to take what we are doing in the Consortium and apply it to this broader development effort. One of the strengths of the Lab is to take local, discrete activities

and transport them to other groups or jurisdictions with similar needs or interests. Lab staff have the capacity to tailor information to meet unique needs, and they know who in the region is experiencing these needs.

An additional benefit of the Lab to the region, one which is often overlooked, is to Board members themselves and, in turn, to their constituents. Given the breadth and depth of Board member expertise and experience, Board meetings individually and collectively broaden one's perspective on a wide range of issues. The kinds of exchanges we have on Lab issues are enlightening and help create a more global view of educational issues and problems. This is of great value to me personally. But it is equally valuable to my constituents as I apply these new understandings to my work.

To put it bluntly, I am a client who is not only satisfied but enthusiastic about the Lab in my region and the overall Laboratory concept. There are no other organizations across the country, at least none that I am aware of, that provide the range of services that Labs do, that share a common school improvement mission coupled with an emphasis on R & D, and that so successfully bridge the gap between research and practice. I know that the Northeast/Islands Laboratory can make, and has made, a difference in the quality of education in our region.

Often this is a "behind the scenes" success that others don't see unless people such as myself come forward to articulate the benefits of the Lab program.

But what, you might ask, does this say about the upcoming Lab competition? Clearly, as an advocate of Laboratories, I am concerned about the Labs of the future. My interest is in strengthening those characteristics that I think contribute to the success of the Labs. Let me highlight some of those aspects.

Governing Boards. One of the key and critical features of Labs is that they have independent, representative governing Boards. I consider both the independent and representative nature of these Boards to be crucial. To be effective, Labs cannot be governed by boards that have other allegiances. They must be independent so that they can provide a neutral forum for addressing issues. As a Board, they must be able to transcend constituency, organizational, and state boundaries, unhampered by other loyalties and demands. This is a tall order but I have seen it work exceedingly well in the Northeast/Islands Laboratory.

I also want to stress the importance of representation of the Boards -- both in terms of constituents and jurisdictions. As we in education move forward to restructure schools, we need to remember that

one of the essential ingredients of the success of these efforts is that all the key actors are involved. The major constituency groups, including the chief state school officers and representatives of teachers, administrators, professional associations, higher educaticn, state and local policy makers, business, and others, must feel that they have a role to play in the governance of the Labs if they are to develop the kind of ownership that we need to confront the problems facing education.

Mix of strategies. To be effective, Laboratories must have the flexibility to use a range of strategies to meet the needs of their diverse regions. For the Consortium, it has been essential that the Lab have expertise in a broad array of areas, from research to evaluation to technical assistance to product development and dissemination. One-stop shopping is a major asset for educators and can make all the difference between using and ignoring available resources. Equally important is the ability to modify the mix of strategies as new needs and issues emerge.

One of the characteristics of the Northeast/Islands Laboratory is that it constantly looks forward and anticipates what will be needed while simultaneously responding to the immediate needs of

constituents. This requires flexibility in both the what and how of the Lab. I would strongly urge OERI to maintain this flexibility rather than imposing specific strategies and/or content areas. To be responsive to the region necessitates such flexibility.

Stability. Change takes time. It will take time for us to restructure the New York City Public Schools even partially. It takes time for a Laboratory to develop a full roster of services and products and to develop the necessary trust to work collaboratively with educators and policy makers throughout its region. I would hope that OERI recognizes the importance of stability and continuity -- in terms of regions, a concept I soundly support as cost effective and appropriate, mission, structure, etc. Providing stable institutional support to the Labs is a sound federal investment.

Again, I appreciate the opportunity to share these thoughts with you and encourage OERI to continue to fully support the excellent work of the Laboratory program.

MR. STALFORD: Our next speaker is Mr. Thomas Schultz with the National Association of State Boards of Education. Welcome, Tom.

MR. SCHULTZ: Thank you. I'm pleased to be at a non-invitational meeting, and what I would like to talk

about is the potential of Regional Laboratories to address these areas of child education.

What I'd like to argue briefly about is that the area of child care and early childhood services is one where Lab services would be appropriately needed to talk about some types of issues that I think are relevant in terms of needs of public school clients, and then talk briefly about some possible stategies that I think would be appropriate and useful for Laboratories.

I think, briefly, the market or the need for applied R & D, technical assistance, in the area of early childhood is based on growing funding, and policy attention. We have on the federal level a continuation of programs through Chapter 1, Head Start which are often housed in public schools. But in recent years we've had an expansion of funding to address the needs of preschool children, and we now have data on a possible child-care initiative.

Along with the federal level, we have over 30 states that are now funding a variety of child-care, parent education, preschool programs offered to other schools, and also, records of many local initiatives to use parent fees and local school dollars to serve younger kids.

I think these policy and funding initiatives

reflect a variety of factors of needs on the part of families and children. And I'll just mention three of them quickly.

I think we have the benefit of a solid knowledge-base on the benefits of high-quality, early childhood services, particularly for at-risk kids. I think we have clear evidence of the trends in the work force participation of parents that support a need to provide child-care for smaller children. I think we have qualities of a strong program for younger children. So I think we have both a need and a kind of knowledge-base to apply to planning in this program.

In terms of talking about particular issues that I would see as needs of public school and possible areas for activity on the part of Laboratories, I would hit on three various things of initial need of public schools. The first is guidance in the planning implementation of these programs as funding comes down the pike or as legislative initiatives are being crafted at the state level. I think that Laboratories and other agents can provide a helpful role in applying the knowledge based on what constitutes high-quality services so that we have standards, staff development, funding, equipment, materials, appropriate attention in parent involvement, and a sound basis in terms of curriculum as schools move

in to serve new kids.

I think a second area that tends to, perhaps, not be defined as early childhood on the part of many people, that I think is a growing concern in the early childhood profession, is looking at the need for improved assesment and instruction in kindergarten and primary grades. I think there is a great concern on the part of parents and early childhood educators regarding trends to increase the use of readiness tests and other forms of assesment increasing rates of retaining children in kindergarten programs or extra-year programs. Accompanying those problems is a
sense that the expectations in terms of academic instruction in kindergarten are leading to pressures for kindergarten teachers to adopt a form or method of instruction that is not in the best interest of young kids, and it is not, in the long-run, the best way to promote their happines and growth.

So I think there is a great need to look at ways to take advantage of effective programs like cooperative learning, like language instruction, reading and writing, hands-on approaches to science instruction, and find ways to make the early experiences that kids have in public schools successful and intellectually stimulating.
I think this is very much a part of my view of the agenda

of early childhood education.

The third area, I'll mention quickly, is the need to help schools in building relationships without community agencies that serve young children. I think that in both planning and mounting new programs, we're finding many instances of competition between public schools and new dollars and existing Head-Start, for-profit, church-based programs that are hiring staff away from these educational programs. I think there is a need to build bridges between public schools and agencies. I think another argument for that is the need to provide greater continuity for children and parents as kids move from early childhood systems into the public schools. Continuity is an issue in their daily routine, if they're involved several different early childhood sessions.

Let me move to some examples of activities I think the Regional Labs could carry out. I think there has been a great investment in research and models of technical assistance. I think what we need is essentially the Labs to provide support on a kind of steady sensible basis. I think the need is not to kind of invent creative breakthroughs or to invest in basic research, but rather take the knowledge that we've got and to put it in against the people who are making decisions in the program. I'll give three quick examples of what I think they could do.

First I think they could serve as a clearinghouse for information on existing programs and policies in their regions across the country so that people are aware of how other states and other localities solve problems like funding, staff qualifications, program standards. I think a second in the category of possible Lab services would be to provide better descriptive studies of innovative programs that address new challenges on the early childhood services. Some examples of issues like this would be how different public schools, early childhood programs, put together staff teams that blend people with different types of training responsibility and compensation, how early childhood programs address the needs of multicultural children and their families, how we can approve assessment of young children coming into the public schools.

Finally it seems to me that Labs could provide some process help in the area particularly of planning and collaboration because they are either seen as neutral or kind of mysterious partners in the present enterprise based on their structure and governance. I think they could help bring together folks at the state level that represent different agencies or different interest groups and also facilitate that kind of a collaboration at the local level.

It seems to me a final example of a possible Lab role would be to support networks of people in similar roles across their region such as early childhood specialists, State Department of Education people who manage early childhood services in big city school districts, and people who deal with staff development for teachers with young children.

I'm not sure what to suggest in particular regarding adoption of this as a priority in the RFP or whether should be mandated across all Labs. But it seems to me it's an issue that ought to be considered by Labs as they plan and consult with groups in their region. Thank you.

MR. STALFORD: Tom, I had mentioned this morning that it is not our intention to engage in any dialog in the format of this meeting. But I did ask one question to clarify something, and if I could ask you? You mentioned the Labs being a mysterious partner in this enterprise. Can you elaborate a bit, do you mean an enterprise of early childhood education?

MR. SCHULTZ: What I mean is that I think as the states are making funding decisions about early childhood programs, there are turf battles and rivalries between human service folks, education folks, Head Start folks, and I think while Labs are clearly mandated to serve as a

resource to the public education system, I don't think they have the same sense of self-interest or identification with the public schools as other agencies may.

So I think they might be able to come in as a neutral third party or as a party that is not invested particularly in the outcomes of policy debates or decisions at a local level and bring people together, or serve as a facilitator or some of that kind of process work.

I would imagine that most people in their early childhood communities are not familiar with the Labs. But I'm not saying that to kind of denigrate that they haven't made necessary efforts in the past. I think it's a positive to me that they could help to bring groups together because of their special institutions.

MR. STALFORD: They have an interest in public schools, public education, but not in this area or in the education of the early childhood area?

MR. SCHULTZ: That is what I would say.

MR. STALFORD: Okay, thank you very much. This meeting is open formally until 4:00 p.m., if other members of the public wish to come and speak. If there be no members at the moment, we'll recess.

(Later, at 4:00 p.m., the meeting was concluded.)

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE ASSISTANT SECRETARY

FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

OPEN MEETING ON RECOMPETITION

OF REGIONAL EDUCATIONAL LABORATORIES

FRIDAY, JULY 21, 1989

AIRPORT HILTON HOTEL

SAN FRANCISCO, CALIFORNIA

REPORTED BY: MARY SPROUL

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FRIDAY, JULY 21, 1989

P R O C E E D I N G S

---oOo---

MR. JOHN EGERMEIER: Good morning. My name is John Egermeier of OERI, the Office of Educational Research and Improvement, U.S. Department of Education.

This is one of three open meetings at which the public may make suggestions to OERI about the future of the Regional Educational Laboratory Program in connection with the forthcoming recompetition of the existing awards to operate laboratories.

A fact sheet about these meetings is available in this room plus copies of the notice about the meetings printed in the Federal Register on June 23, 1989.

The purpose of these meetings is to extend an opportunity for interested groups and individuals to submit views and advice on educational needs and priorities and on ways that the regional educational laboratories can be most responsive to those needs.

These views are being sought by OERI to assist planning for the forthcoming competition of existing awards to operate the laboratories.

OERI seeks the individual views of the presenter for the organizations they represent at these meetings, not a consensus of the participants.

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As indicated in the Federal Register notice, OERI is especially interested in seeking views and advice from the public on the following issues:

(1) What activities conducted by the regional educational laboratories have been most valuable in the past two to three years?

(2) How can regional laboratories contribute to improving performance of our educational systems -- that is, what are the key issues and problems they should address in the future?

(3) What kinds of laboratory activities and strategies, for example, syntheses and other research and development products, direct technical assistance, training and capacity building, et cetera, would be most beneficial in the future?

(4) What form of relationships between laboratories and other organizations or persons seeking improvement in schools would be most effective?

I will chair the meeting. Persons wishing to make a statement at these meetings have been assigned blocks of time.

I request that each presenter identify herself or himself and if appropriate the organization or group they are representing before making their statement.

Presenters are also asked to leave a copy of their

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statement with me before leaving the meeting, if possible.

A verbatim transcript will be made of the presentations at this meeting and also presentations that were made at the other two meetings held this week. The reporter at the head table here is present for this purpose.

OERI will make the transcript publically available to anyone interested in the recompetition. Other papers and reports related to the recompetition are also available to the public. An order form for these documents is in the room for those who are interested.

Persons in attendance but not presenting today plus others in the public may also submit written statements directly to OERI on the issues previously stated.

Such statements should be sent to OERI at the address in the fact sheet and be mailed by July 24 if you are attending today and wish to make a statement based on presentations you've heard at this meeting.

Are there any questions about today's meeting on the record?

If there are no further questions we will proceed. And our first speaker will be Ms. Sherlyn Franklin.

PRESENTATION

BY MS. SHERLYN FRANKLIN:

Aloha and good morning. I am Sherlyn Franklin,

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Assistant to the President of the Kamehameha Schools, Bernice Pauahi Bishop Estate and located in Honolulu, Hawaii. Since 1887 we have provided educational services to native Hawaiians.

Thank you for this opportunity to share a few thoughts regarding educational laboratories in general, the Pacific Laboratory in particular, and the intended recompetition for educational laboratories in 1990.

As a professional at the Kamehameha Schools, as a Pacific Islander, and as a person of Hawaiian ancestry, I wish to underscore the inherent need for and value of educational laboratories, particularly in the changing and developing Pacific basin. With your indulgence, I would like to briefly elaborate.

I am pleased that a tenth region is being added to serve the geographic region encompassing the Pacific basin. It is critical that there be a comprehensive, functional educational laboratory serving its needs.

The Northwest Regional Educational Laboratory over the past four years has ably fulfilled its charge and it's commitment to develop a Pacific lab. In place is an impressive regional agenda setting mechanism.

This was accomplished through the Northwest Center for the Advancement of Pacific Education referred to as "CAPE."

In turn, CAPE clearly demonstrates characteristics of

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a viable educational laboratory, speaking well to the future success of a Pacific laboratory and to the questions raised in the Federal Register announcement for this meeting.

The first characteristic is a regional agenda setting body, the CAPE Program Policy Board consisting of the key Pacific educational leaders and policy makers.

This laboratory activity has been extremely successful. Issues of ownership, responsiveness, and relevance have been ensured through this important body, and I urge the regional agency setting mechanism to be continued in the next cycle of regional laboratories.

Second, training and technical assistance functions have developed well beyond all expectation. Through school local -- excuse me -- through local school improvement teams, training and technical assistance have focused on priorities established in response to local needs. A "working with" rather than "doing for" approach has paid enormous dividends.

Issues of continuing focus, local relevance, ownership, potential impact, and long-term results have been admirably addressed through a "trainer of trainers" mode.

While training trainers is a popular approach to school improvement, all too often the people trained never conduct any training themselves. The impact is obviously diluted, if not lost entirely.

In the Pacific, trainers actually train their peers

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within and across departments of education. Independence from outside resources is nurtured and, in turn, releases laboratory resources for further work.

This approach has worked well in the Pacific because of the commitment of educational leaders to the entire process from planning to implementation.

Their support in identifying training needs, appropriate trainers and trainees, and subsequent commitment to systematic implementation has made this approach work.

I believe this thorough and systematic approach is important to future laboratory activities.

And third, CAPE has engaged a regional cadre of qualified Pacific educators to conduct applied research aimed at locally and regionally identified school improvement priorities.

This version of "with and through" has yielded superb results and merits consideration for regional laboratories in general.

Strategies that foster local capacity and independence are most critical to regional laboratories and their contribution to the ongoing improvement of education and our educational system.

This is particularly true given the increasing demand by communities for control of schools and of the education of their children.

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The characteristics of CAPE mentioned above illustrate how continuing issues in American education are addressed in the Pacific, and perhaps these characteristics warrant consideration for the other nine laboratories.

Pacific applied research activities have targeted three essential areas thus far: (1) improving the information base in this large geographic area from which educational leaders make decisions through two documents, A Profile of Pacific Schools and A Profile of Pacific Higher Education; (2) sharing successful practices through a compendium entitled Promising Practices for Pacific Education; and (3)conducting locally based research through R&D Cadre members.

The result of these R&D activities is a set of products that are extremely functional, making connections with ongoing school improvement training and technical assistance activities. These types of activities will be very beneficial in the future as well.

Laboratory relationships with other organizations and persons clearly need to be based upon a common agenda; however, diversity of perspective must be ensured, thus maintaining a dynamic organization responsive to OERI as well as the constituency it serves.

The laboratory's governing body establishes an important and primary relationship with other organizations

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and persons.

Without question, however, as the primary focus is educational improvement, proper representation by educators is imperative.

At the implementation level, I urge a broader relationship that targets on schools, classrooms, principals, and teachers. This is where education is delivered and, in turn, where laboratories must have the greatest impact.

Also, I encourage an increased emphasis on the involvement of parents and the community. These persons can effectively facilitate improvement in schools. A proactive stance in this regard is both warranted and needed.

In closing, I must underscore the critical need for regional educational laboratories and the valuable contribution they make to school improvement. In the Pacific, we look forward to our laboratory and to working with the national network of labs.

Thank you again very much for this opportunity to share my thoughts with you this morning.

MR. EGERMEIER: Thank you, Sherlyn. Dale Lambert will be our next presenter.

PRESENTATION

BY MR. DALE LAMBERT:

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Dale Lambert. I'm a Social Studies High School teacher at Eastmont High School in East Wenatchee, Washington.

It is my personal and professional privilege to directly participate in this open meeting organized and conducted by the Office of Educational Research and Improvement concerning the 1990 recompetition of regional educational laboratories.

As a professional educator who has been actively involved with local, state, regional, national, and international aspects of education, I have been impressed by the excellent quality of services offered by the nine regional educational laboratories in the United States.

The frequency of communications, the diversity of activities, the overwhelming willingness of lab personnel to help upon request, and the overall effectiveness of technical assistance and professional training programs reflect this excellence.

In addition, it is most encouraging and gratifying to realize the continued ideological and financial support of the regional laboratories by the Congress of the United States, the Department of Education, and the Office of Educational Research and Improvement.

Since I have had only occasional and limited experience with those eight regional laboratories outside the

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Pacific Northwest, I shall restrict my observations to the work of the Northwest Regional Educational Laboratory located in Portland, Oregon.

For the past 23 consecutive years, the Northwest Regional Educational Laboratory has positively impacted the educational systems serving the residents of Alaska, Hawaii, Idaho, Montana, Oregon, and Washington; as well as the trusts and territorial possessions of the United States in the Pacific Basin.

Being the largest geographic region and the most culturally and ethnically diverse of the nine, the Northwest Regional Educational Laboratory has understood the complexity of its task and performed with unusual effectiveness.

Extremely high quality workmanship and professionalism over this extended time period has secured their reputation for excellence, a well deserved national acclaim, and mutual respect by its colleagues. The Northwest Regional Educational Laboratory has evolved as an outstanding role model for other labs to emulate.

The keys to the Northwest Regional Educational Laboratory 's sustained success are its stability, the genuine quality of its staff, and the effectiveness of its futuristic leadership.

This lab has developed programs, established policies, and designed processes enabling change to take place smoothly

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and efficiently as its regional needs have been assessed, identified, discussed, evaluated and prioritized by its constituency. The Lab implemented these changes after thorough study.

During the past three years, the Northwest Regional Educational Laboratory has been especially active: (1) providing technical assistance in response to requests from individuals or organizations; (2) conducting educational research; (3) publishing new education related products for distribution and utilization by the education community; (4) organizing, sponsoring, coordinating, and conducting numerous workshops, conferences, and inservice training sessions to enhance professional development and improve instruction; (5) identifying and announcing effective practices as well as exemplary programs and individuals; and (6) facilitating and forming new partnerships between education and business, government agencies, and community organizations, thereby improving the direct lines of communication between educators and the public.

Even considering the aforementioned activities, there are several exemplary activities that warrant special attention.

These include: (1) the elaborate effort by the Lab in establishing a broad based input system for its annual needs assessment process involving direct input by state-level

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chief school officers meetings, state-level school improvement organization meetings, advisory committee input, needs identification requests, client follow-up surveys, and the Northwest Regional Laboratory Planning and Senior Program staff.

The second outstanding activity of the Lab is the Western Center for Drug Free Schools and Communities, a three-year project to help students and educators address the ramifications of drug and alcohol abuse in our society and its educational systems.

A third major activity is a Rural, Small Schools Initiative which provides funding for meeting the unique needs of rural areas. New and existing programs have been funded resulting in the identification of effective programs and the identification of effective practices throughout the region such as its distance education projects and a program, "Successful Schools," an innovative program of consensus building by involving all community members of four small, rural schools.

Fourth, the significant commitment by the Lab and its staff to meet the educational challenges of youth at risk, or disconnected or dysfunctional youth in our society.

Our educational system and society are faced with many complex issues and perplexing problems. The Northwest Staff annually assesses the needs of the region via several

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different input mechanisms.

After careful study and review, the most clearly defined trends are identified, then processes, policies, and programs are developed to meet these needs.

The following represents some of those pressing issues faced by the educational establishment and the Northwest Lab: (A) forging new partnerships; (B) increasing accountability; (C) providing strategic, long term planning; (D) using the knowledge base for effective schooling practices; (E) enhancing the education profession by attracting, training, and retaining teachers and administrators; (F) emerging concern about the "rising underclass" of at-risk youth.

The Northwest Regional Laboratory and the other regional laboratories can and must focus their efforts on regional issues that evolve from local and state issues. Their role must be to identify and understand the "big picture" on at least the regional basis.

In addition, the labs can coordinate their own efforts, as well as those of local, state, and federal agencies and organizations.

Besides networking, the Lab should continue the development of effective and accurate assessment tools; secondly, conduct meaningful research on effective practices involving rural, small schools; third, research the effectiveness of distance educational programs involving the

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use of telecommunications and advanced technology; fourth, continue product development, publication and distribution of materials concerning contemporary research, teaching strategies, effective educational practices, model curricular programs, and recognition awards; fifth, provide additional technical assistance, so as to improve instruction; and sixth, broaden the participation by educators in inservice, workshops, conferences, and the like.

Direct involvement with classroom teachers may be more effective as an impact mode, rather than working indirectly through cadre teams and administrators.

The Northwest Regional Educational Laboratory must play an active role in the educational process of developing our youth.

All labs must work in conjunction with local, state, regional, and federal organizations. The regional lab is a vital intermediary in determining national policies.

Simultaneously the labs must listen to the concerns of local and state agencies, then communicate those concerns to the federal government.

As a facilitator, the lab interprets and implements local concerns and national policies.

As a synthesizer of information and a source of knowledge, ideas, and technical assistance the lab reflects its constituencies.

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Education and society have their problems, but the Northwest Regional Educational Laboratory is not one of those problems.

One would be hard pressed to find any organization more efficiently organized or more effectively utilizing each dollar available.

In fact, additional funding allowing continued expansion of Northwest Regional Educational Laboratory programs and other labs would make a substantial impact immediately upon solving such serious issues as substance abuse, At-Risk youth, rural education, outcome based education, research, professional development, and improving the declining performance levels of our students and educators alike.

The Lab has and will continue to make an outstanding contribution to education. Thank you.

MR. EGERMEIER: Eugene Paslov.

MR. PASLOV: I assume this is the proper order.

MR. EGERMEIER: Right. Thank you.

PRESENTATION

BY MR. EUGENE PASLOV:

Thank you and good morning. I'm not quite as gracious and poetic as our colleague from Hawaii but good morning,

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none the less.

My name is Eugene Paslov. That's P-A-S-L-O-V. I'm the state superintendent of Public Instruction for Nevada and I'm also the chairman of the board of directors of the Far West Laboratory for Educational Research and Development located here in San Francisco.

My statement today is co-authored by Paul Houston, superintendent of the Tucson Unified School District in Arizona and chairman of the board of the Southwest Regional Laboratory which is in Los Alamitos, California.

As you know, these two regional laboratories date back to 1966 when public education agencies exercised Joint Power agreements under California law to form them.

Their mission is to serve educational needs in the Western region's four states, Arizona, California, Utah and Nevada.

In 1985 regional laboratory competition, the two laboratories were forced to vie with each other for OERI funding.

Far West Lab won the competition but SWRL, SWRL's board and the staff have been able to continually secure other funding to maintain a program of work with schools and educational agencies throughout the region.

Far West and Southwest Laboratories have chosen to cooperate rather than compete in meeting regional needs.

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Proudly, we work together on a number of school improvement ventures. Because we have a shared understanding of the Western region's educational needs and opportunities, we've decided to make a joint statement today in which we will explain those challenges and tell you why we think laboratories plan an indispensable role in helping the educational community respond to them.

In announcing this meeting, you raised four issues that you wanted addressed.

(1) What laboratory activities have been most valuable in the past two or three years?

(2) How can laboratories contribute to improving education?

(3) What kinds of lab activities and strategies would be most beneficial in the future? And

(4) What should be the relationship between labs and others seeking improvements in the schools?

Before I begin answering these questions, let me first outline some key characteristics and needs of the Western region.

In that context, I'll be better able to describe the laboratories' roles.

The Western region's four states, Arizona, California, Nevada, and Utah provide K-12 education for more than six million students and over 9,000 public schools and 5,000

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private schools.

This is a place of enormous contrasts. For instance, California has approximately 80 percent of the region's students while just three percent live in my own state, Nevada.

In these four states you'll find remarkable diversity. Some of the nation's largest urban centers are here and some of its smallest rural communities.

There is an astonishing ethnic, linguistic and cultural mix. And state to state, this mix shows up differently.

In California, the schools' minority population has swelled to more than 50 percent. In Utah, by contrast, only seven percent of the students are minorities.

Each state also differs in such things as the way its schools are organized, state versus local funding and control, and school-improvement philosophy and policy ventures.

These differences mean that the program design of regional laboratories must be elastic.

And here I want to commend the Department of Education and OERI for allowing the Boards of the laboratories substantial flexibility to set priorities and allocate funds according to each region's own needs and opportunities.

We strongly urge you to maintain this policy of

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flexibility.

We educators in the Western region share some very clear priorities. We are dealing with rapidly expanding enrollments.

California's overall population is growing at a rate more than double the national average and Nevada and Arizona are growing even faster.

We are also looking at rapidly growing proportion of ethnic and racial minorities, chiefly because of immigration into Arizona and California. This is dramatically raising the numbers of students with limited English proficiency.

Like educators around the nation, we are faced with meeting rising expectations for improved educational performance.

Schools are now expected to be more accountable and efficient. At the same time they must expand what they do. Good schools -- good schools now teach computer literacy and improved thinking skills. They also offer programs designed to prevent drug abuse and teen pregnancy.

We have an urgent need for more and better-trained school personnel. California alone will require 85,000 new teachers in the next six years.

Utah, Arizona and Nevada are also projecting shortfalls. Thus a key, long-term issue is the recruitment and retention of top-quality younger educators.

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Our need for expanded school financing is chronic. Local funding has generally not been able to offset the effects of cutbacks in state and federal funding. Many of our districts have been forced to cut staff, programs, and services even as enrollments and special needs markedly increase.

And so as the region's complexity increases, the need for long-term, multi-organizational planning and cooperation becomes acute.

Now let's talk about the vital role that the laboratories play in serving educators. And here I can begin to answer the questions you raised originally.

One, you asked what laboratory activities have been most valuable in the last two or three years. I would say three things.

First, laboratories have given teachers, administrators, and policymakers information they critically need to do their job.

Labs are uniquely able to distill and synthesize current research, stay on top of the best thinking, and make those insights available to classroom educators and to policymakers.

Newsletters, brochures, policy briefs, research summaries, directories, all of these are used by labs to disseminate practical information.

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Second, laboratories act as a catalysts, brokers and coordinators. Laboratories bring people together at meetings, forums, conferences, roundtables to help them get a better fix on their common problems. This brokering role is a crucial means of helping educators get the most out of scarce resources and funds.

Third, laboratories provide direct services. Labs give educators hands-on help that enables them to convert information into change.

Let me provide some examples from the Far West Lab. In Nevada, Far West helped us assist our rural schools in meeting newly adopted graduation requirements in Arts and Humanities.

We were able to create a consortium made up of the humanities committee, our State Department of Education, the University of Nevada at Reno, several school districts and the lab. This consortium prepared teachers all over the state to teach an interdisciplinary course that fulfilled this new requirement.

In Utah, Far West Lab has an on-going partnership with the directors of the state's four regional service centers and the Utah State Office of Education to help the centers take a more active role in initiating and sustaining school reforms.

In California, Far West works with the State

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Department of Education's County-State Steering Committee to help staff in the 58 county offices find ways of implementing one of the state's latest priorities: middle school reform.

In Arizona, under a memorandum of understanding with state school superintendent Diane Bishop, Far West helped the Department of Education launch a four-year pilot program aimed at helping kids in grades K-3 who are at risk.

All of these efforts show how the laboratory performs its essential function as catalyst. Again, bringing people together is one of the critical ways to stretch resources, time, people and money.

Far West Laboratory's direct service work involves, for starters, supporting a range of State Department of Education initiatives. There are many fine examples, but I've limited time so I'll give you one from my own state.

The laboratory conducted a follow-up study of 10 schools that participated in a first year of the Nevada School Improvement Project. That report gave us the documentation we needed to convince our legislature and local school districts to expand its School Improvement Grant Fund.

It also helped my department's staff identify strategies for sustaining each school's improvement activities beyond the start-up year.

I might add that we have from that 10-school start-up now we have over 60 schools involved in that particular

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project and a good deal of that expansion has been the work of the Far West Lab.

The labs local collaborations are equally important and sometimes lead to unexpected kinds of successes.

Again, to choose one example, when the lab recently helped the Los Angeles Unified School District develop training materials for its 900 mentor teachers, the work evolved into two nationally-circulated, pioneering casebook publications written by and for teachers.

In The Mentor Teacher Casebook, published in 1987 by the Far West and ERIC Clearinghouse on Educational Management, mentor teachers shared powerful first-person accounts of successes and failures.

In The Intern Teacher Casebook, published in 1988, novice teachers detailed the fears and frustrations they faced during their first shaky moments in the classroom.

These books are groundbreaking additions to the growing body of case literature that is transforming the nation's teacher preservice and inservice training.

In all of its assistance, the laboratory aims to design strategies that will enable educators to sustain improvements on their own.

A good example of this is the Peer Assisted Leadership Program, or PAL, which works with school principals, 171 of them in 1988 alone.

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PAL teaches techniques such as "shadowing" another principal for a day. That helped principals reflect on what they do and share ideas with each other.

PAL's strategy is to train teachers who then go on to conduct future inservice workshops.

In this way, the program reaches a wide audience and builds support capabilities within the region.

Let's move on with your questions. As I read them, it seems to me that numbers 2 and 3 are highly related, so I'll respond to them together.

No. 2, how can laboratories contribute to improving education and, No. 3, what kinds of lab activities and strategies would be most beneficial in the future?

Well, certainly the four types of contributions that I've just cited are excellent example of those to these questions.

To reiterate , laboratories can engage in long-term, statewide collaborations in which they work with state departments of education and other key educational agencies in each state on high priority improvement initiatives.

Laboratories can continue to offer focused, state-level support that enhances the capability of state departments of education to lead and to help sustain school improvements.

Laboratories can expand their local, high-leverage,

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developmental collaborations with large urban school districts.

And laboratories can continue to help improve the capacity for professional development of educators.

And let me now briefly touch on other promising strategies.

Laboratories could do even more than they do now to bring educators together to develop a future-oriented vision of educational excellence, and then to find practical, usable ways of reaching that vision.

The laboratories must maintain and strengthen their capacity to do region-specific R&D and policy studies.

I can personally attest to the great need for this work and also to severe limitations in state resources and funding to do it.

This gap can be filled by the labs. During the past several years, Far West Laboratory, Southwest Regional Laboratory have documented or evaluated a number of highly promising programs and practices and done several outstanding policy evaluation studies and needs assessments, some of these in Nevada.

The labs have also developed valuable models and resource materials. I've already mentioned Far West Lab's Peer Assisted Leadership and teacher casebooks.

Now, to your last question, what should be the

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relationship between the labs and others seeking improvement in the schools, in a word, collaborative.

Sometimes this collaboration is highly visible. At other times laboratories function more like "go-fers" or stage-hand, nearly anonymous.

But in each case, Far West Laboratory has been active, opportunistic, and persistent in developing long- and short-term relationships, more than 100 agencies in 1988 alone.

These include all four state departments of education, a state legislature, two state boards of education, 38 county offices of education in California, all four of Utah's regional service centers and a range of other agencies, associations, and districts of all sizes.

With the help of OERI and other federal, state and local foundation funders, the laboratory has contributed personnel and other resources to these collaborations.

In some cases, costs have been shared. In others, the cooperating agency has funded most of the work.

In this regard, I will note that state and local agencies must follow competitive procurement requirements.

In other words, the laboratory often bids against other competitors for agency funds. Here the guidance and oversight of the independent board of directors which broadly represents major stakeholders in the region is particularly useful.

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The board helps the laboratory find the right balance between entrepreneurial enterprise and wise stewardship of the region's best educational interests.

I think that emphasizing the importance of an independent governing board is an appropriate way for me to close.

I've already spoken of the value of flexibility. An independent, regionally representative board keeps the flexibility honest by helping the laboratory set priorities and make choices in an equitable, far-sighted way.

Labs also need credibility, and that too is ensured when decisionmakers and collaborators know that the Board isn't just advisory, but has the legal clout to make wise regional decisions and act on them.

In short, our Joint Power signatories and our board members themselves believe it is vital to keep the requirement of an independent governance structure for laboratories.

We appreciate OERI's interest in collecting opinions from across the county in preparation for the recompetition of the regional education laboratories.

Thank you for the opportunity to make this statement.

MR. EGERMEIER: Thank you very much for staying. Are there any others present who would like to make a statement

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before this group for the record?

If there are no others, we will take a recess until we hear from others who wish to make a statement.

(Whereupon, the proceeding concluded at this time.)

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