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ABSTRACT

One of the missions of the Research on Evaluation Program for 1983, is to increase the capacity of the Northwest Regional Educational Laboratory (NWREL) to provide regional services in the areas of evaluation, policy analysis, and especially cost analysis. To provide this service, the program needed specific information on regional service needs and the existing skills and support needs of NWREL staff. Three major sources of information were used in assessing these needs. The first was a recently completed program study of the regional effects of the Education Consolidation and Improvement Act on evaluation practice at the state and local levels. The second source of information was a needs sensing survey conducted by the NWREL Training Center, which included a study of local education agency superintendents' needs regarding inservice practices/interests. The third source of information focused on NWREL staff perceptions of their own needs in the area of cost methods based on the types of service they have provided, or anticipate providing, to clients. The results of these needs assessment activities and their implications for training and technical assistance in the areas of cost analysis, policy analysis, and other evaluation methods are the focus of this report. (PN)

No. 81 NEEDS ASSESSMENT SUMMARY:
COST ANALYSIS, POLICY ANALYSIS,
AND OTHER EVALUATION METHODS

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March 1983

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PREFACE

The Research on Evaluation Program is a Northwest Regional Educational Laboratory project of research, development, testing, and training designed to create new evaluation methodologies for use in education. This document is one of a series of papers and reports produced by program staff, visiting scholars, adjunct scholars, and project collaborators--all members of a cooperative network of colleagues working on the development of new methodologies.

How can the Research on Evaluation Program improve Laboratory capacity to provide increased regional services in the areas of cost analysis, policy analysis, and other evaluation methods? What regional needs in these areas can be anticipated and what do Laboratory staff need in order to improve their field service? This report discusses several sources of information gathered by the program to shape its capacity building efforts for 1983.

Nick L. Smith, Editor
Paper and Report Series

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NEEDS ASSESSMENT SUMMARY: COST ANALYSIS, POLICY ANALYSIS, AND OTHER EVALUATION METHODS

One of the missions of the Research on Evaluation Program (ROEP) for 1983, is to increase the capacity of the Northwest Regional Educational Laboratory (NWREL) to provide regional services in the areas of evaluation, policy analysis, and especially cost analysis. Since the ROEP is a research rather than service focused program and because it does not have a sufficiently large staff to provide field services in these areas, the program is working collaboratively to aid other NWREL programs in developing this field service capacity.

In order to provide this capacity building support, the program needed specific information on regional service needs and the existing skills and support needs of NWREL staff. Three major sources of information were used in assessing these needs. The first was a recently completed program study of the regional effects of the Education Consolidation and Improvement Act (ECIA) on evaluation practice at the state and local levels. The second source of information was a needs sensing survey conducted by the NWREL Training Center, which included a study of local education agency (LEA) superintendents' needs regarding inservice practices/interests. The third source of information focused on NWREL staff perceptions of their own needs in the area of cost methods based on the types of service they have provided, or anticipate providing, to clients.

The results of these needs assessment activities and their implications for ROEP support of training and technical assistance in the areas of cost analysis, policy analysis, and other evaluation methods is the focus of this report.

ECIA Study

The ECIA study was a ten-month longitudinal study of the effects of the Education Consolidation and Improvement Act of 1981 (ECIA) on evaluators in five western state departments of education and five large school districts. The study is Report No. 79 of the ROEP Paper and Report Series.

A semi-structured interview instrument was developed and revised on the basis of pilot trials. The form was modified as necessary to reflect changing field conditions. However, the same basic questions were retained throughout the study, and they formed the basis of the results presented here. Respondents were interviewed periodically between January 1982 and November 1982 to chart changing responses to the new legislation.

Over 30 professional educators in five western states (California, Montana, Oregon, Utah, and Washington) were interviewed during the course of the study. In November the final interview respondents numbered 24 and were classified as follows:

5 SEA evaluation directors
5 LEA evaluation directors
5 SEA Chapter 2 evaluators
5 LEA Chapter 1 evaluators
4 LEA Chapter 2 sources

Overview of Findings

ECIA has two major parts. One is Chapter 1, which is primarily a reiteration of Title I of the Elementary and Secondary Education Act (ESEA). Chapter 1 deals with compensatory education of economically and educationally disadvantaged children. The second part of ECIA is a block grant which consolidates 30-40 previously categorical programs. These include basic skills education and gifted education programs, as well as library and instructional materials and equipment grants. In light of these two major parts of the legislation, the findings of the ECIA study are grouped under two categories, Chapter 1 and Chapter 2.

Summary of Preliminary Chapter 1 Findings. Both state education agency (SEA) and local education agency (LEA) evaluators reported that Title I paperwork was not seen as burdensome and unnecessary, nor was any major change in this regard reported at the local level relative to Chapter 1 paperwork. In addition, overall, state and local Chapter 1 directors reported little perceived change in administrative or evaluation flexibility, decentralization of responsibility, or administrative burden regarding rules and regulations. A major reason for the perceived continuity in administrative practice is that the formal Title I Evaluation and Reporting System (TIERS) is being retained in all states represented in this study. The changes that have occurred concern dropping the collection of certain types of data (e.g., ethnic data, parent council data, staff training data, and project data), a point specifically addressed in the new legislation.

LEA Chapter 1 directors did, however, report a perceived relaxation in the testing and reporting requirements of Chapter 1. For example, one district is contemplating using a criterion referenced testing program. Previously, such programs were not encouraged since it is difficult to generate student pre- and post-test data which can be relied upon to give as accurate a picture of growth as scores from standardized, norm-referenced tests. In another district, it was said that percentile scores would be emphasized instead of the Normal Curve Equivalent (NCE) scores favored by TIERS. Both of these changes were perceived by local directors as efforts to make testing and test results more meaningful to local audiences.

An increased emphasis on sustained effects studies was reported at both the state and local levels, consistent with the emphasis on such studies in the legislation. Sustained effects studies trace the impact of a program over time. The impact may be defined in terms of student achievement or some other program characteristic of interest. Such studies can be very useful in monitoring program quality, planning program improvement, and reporting program impact. Sustained effects studies represent

another way of making evaluations relevant to local audiences since they focus on questions of interest to local decision makers, including administrators, teachers, parents, and students.

Parent involvement in Chapter 1 programs is taking on new forms consistent with the change in emphasis in the legislation. For example, in one school district "willingness to work" was being valued over "representativeness" in forming the school parent councils. In another district the new Chapter 2 advisory council will include parents from the Chapter 1 council resulting in more efficient administration of the two programs.

A clear message regarding Chapter 1 came from our respondents. As a continuation of a well institutionalized program, Chapter 1/ Title I evaluators will experience few immediate changes. However, some of the testing and administrative changes could accumulate to produce an impact in the future, possibly resulting in less nationwide data available for Congress to examine the overall effects of Chapter 1.

Chapter 1 budget reductions have had a more dramatic impact on the local level than the new legislation, resulting in cuts in instructional staff, and consequently, a reduction in the number of students served. In discussing the impact of losing almost one million dollars of Chapter 1 monies, a school district evaluator noted,

> The real change has come about because of decreased funding, which has severely crippled our program. I was at a school this morning that had five aides and a teacher last year; this year it has one aide and a half-time teacher. That's a big difference in numbers of kids they can serve, etc. They've reduced their math services to working with 10 kids as opposed to 40. That resulted because of budgetary cuts, not Chapter 1 regulation.

This district budget reduction had lowered by 1000 the number of children served. As the respondent noted, "when you go to individual schools you really see what that means."

The most notable immediate change regarding Chapter 1, then, is in regard to the level of service being offered. The reduction in staff, in the number of students served, and perhaps

in the quality of that service, will have long range effects on Chapter 1 impact and on the overall effectiveness of compensatory education.

Summary of Preliminary Chapter 2 Findings. Most states reported that their Chapter 2 evaluations will consist of monitoring Chapter 2 expenditures for materials using simple cost accounting procedures. At least initially, these states will evaluate expenditures for programs in terms of the number of students served and staff involved. This concern with the numbers involved in programs is to a great extent a reflection of the fact that, typically, 80 percent or more of Chapter 2 funds will go for instructional materials and equipment (mostly microcomputer hardware). The existing categorical programs are likely to take the remaining Chapter 2 funds.

SEA respondents were well aware of the legislative mandate to conduct Chapter 2 evaluation studies beginning in fiscal year 1984, and are communicating this to local administrators. Some LEA evaluation directors are considering innovative research and evaluation activities under Chapter 2 including:

- the study of school practices and learning using ethnographic approaches,
- the study of teaching behaviors and outcomes using causal modeling methods,
- the adaptation of the evaluation components of previous categorical programs,
- the development of locally run mini-grant programs.

Similar non-traditional efforts may emerge in other districts.

Most large school districts in our study reported a reduction in funds under Chapter 2, in comparison with the funds they received under the previous categorical aid programs. As a result, large school district respondents reported the need to find ways to select among programs competing for reduced funds. Some small school districts have had modest increases in funding as a result of Chapter 2 allocations, typically increases of $800

to $2500 per district, and are seeking ways to join with other districts to get the most from their increases.

Almost all the SEA and LEA Chapter 2 respondents reported increased flexibility and decentralization at the local level as a result of the Chapter 2 legislation. They had mixed feelings about possible reductions in administrative burden, however. There is also considerable uncertainty about future evaluation activities at the local level under Chapter 2. Once programming decisions have been made and the first round of materials and microcomputer equipment purchases completed, it is expected that evaluators will move from monitoring expenditures to assessing the quality and impact of Chapter 2 programs.

Inservice Survey*

A survey designed to gather information about inservice programs throughout the region was mailed to half of the region's superintendents during June 1982. A total of 112 surveys were returned. A summary of the responses is presented here. In most categories, the responses total more than 100 percent because respondents checked more than one response.

Organization of Inservice Programs

- Forty-six percent (46%) of the survey respondents indicated tnat their district had a district-wide inservice program.
- Twenty-nine percent (29%) said there were inservice courses available from the district.
- Forty-seven percent (47%) said the district will contract for inservice courses at the request of the building staff.

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* The information in this section was provided by Judy Bridges, Division of Planning and Service Coordination, NWREL, in a memorandum dated August 23, 1982.

- Thirty percent (30%) said building principals are responsible for conducting inservice.

- One-half (50%) of the districts responding required inservice for all staff, while forty-seven percent 47% of the districts make inservice available but not required.

Comments regarding the organization of district inservice programs focused on using intermediate agencies to provide inservice.

Funding of District Inservice Programs

There was clear consensus on this question. Eighty-three percent (83%) of the respondents said that funding is set at the district level.

Of the remaining answers, 14 percent said funds were allocated at the building level, 7 percent said the amount was specified on a per-teacher basis.

Optimum Inservice Training Setting

Overall, 74 percent of the respondents indicated they would support their staff attending training sessions at NWREL. There was no clear preference for the best time. Forty-eight percent (48%) said during school time was best, while 36 percent (36%) said Saturdays, and twenty-eight percent (28%) said evenings. This totals more than 100 percent because people selected more than one answer.

In general, the majority of respondents felt full-day or multiple sessions were the optimum length. Many indicated it depended on the type of session and the content. A total of sixty-nine percent (69%) wanted inservice sessions to carry university credit and fifty-three percent (53%) wanted release time for teachers.

Overall, the answers to the survey questions were diverse. No clear portrait of regional inservice programs emerged. However, a prioritized listing of topics of interest to those

responding will serve staff well in meeting the needs of the region. That list follows:

Computer Literacy for Administrators
How to Increase Learning Time
Program Evaluation for Busy Administrators
Evaluation Microcomputer Software
Instuctional Management
Teacher Performance Evaluation for Staff Development
Diagnosing Instructional Needs
Instructional Leadership Training
Effective Schooling
Using Writing Assessment to Teach Writing Skills
Developing an Action Plan for School/Community Relations
Teamwork and Teambuilding for Administrators and Management Team
How to Plan and Conduct a Needs Assessment
Parent Involvement
Community Involvement
Assessing Vocational Education Effectiveness at the Secondary Level
Conflict Resolution Workshop
Assessing Communication Skills
School Finance for School Administrators
Interpersonal Communications
Working with Community Advisory Committees
Functional Level Testing
Developing Bid Specs for Hardware and Software
Diagnosing Your Classroom's Multicultural Needs
Test Planning
Intercultural Communications Skills
Guidelines for Producing Films and Video
Anti-Discrimination Law
The Teacher, The Classroom and Multicultural Education

In summary, if we consider the top five topics on the above list, we see microcomputers appearing twice. They are first in the topic of general literacy which should include an introduction to policy issues and to hardware selection. Second, they appear as part of the topic regarding software evaluation. In addition, another of the five top topics concerns evaluation, namely, Program Evaluation for Busy Administrators. This topic may well be related to administrators' concerns over evaluating the new Chapter 2 programs, and over general issues of accountability. In any case, the results from this survey have direct implications for ROEP support of training and technical assistance.

Cost Analysis Survey

On February 8, 1983, Dr. Randall Eberts from the University of Oregon Economics department led a workshop on cost analysis for the staff of the Northwest Regional Educational Laboratory (NWREL). To prepare for that workshop, and to get a clear idea of the needs of NWREL staff regarding cost analysis, a needs assessment instrument was administered to those staff members who had been doing cost studies and/or were interested in attending Dr. Eberts' workshop. (A copy of the needs assessment instrument and a summary of the results from Dr. Eberts' perspective are included as Appendix A of this report.)

There were 20 respondents to the needs assessment questionnaire. Those who completed it represented four NWREL divisions. Over 80 percent of the respondents were from the Evaluation and Assessment Division. There was one person from each of the following divisions: Multicultural Education, Instructional Improvement, and Planning and Service Coordination.

To understand the kinds of cost-related problems that NWREL staff deal with, respondents were asked to describe the cost studies they had worked on or anticipated working on, up to a maximum of three studies. Fifty percent of the respondents reported one study. Thirty percent reported two or three studies, and only four out of the twenty (20 percent) did not report any studies.

Summary of Results: Kinds of Studies

The results of the needs assessment survey reveal four different groups of cost-related studies. The cost-analysis problems most frequently confronting NWREL staff involve comparing the costs of such entities as:

- four-day versus five-day school week,
- alternative early childhood, reading, Chapter 1, and other educational programs,
- use of published, personally developed, or performance tests for measuring student growth,

- alternative instructional materials,
- various instructional settings for children of low income families,
- alternative vocational education centers.

Studies of such comparisons tend to focus only on costs and not the relative outcomes of alternatives.

Another set of studies deals with cost feasibility. They focus on such topics as:

- student activity programs in seven different schools,
- ownership versus contracting, or a combination, for bus service,
- test item banking alternatives,
- competing curricula.

While the first two groups of topics relate to school district issues, a third group of studies is aimed at answering questions relevant to NWREL. These include:

- the costs of establishing Technical Assistance Center field offices,
- the costs of storing computer literacy test item banks,
- the cost of buying computer time versus purchasing a computer.

A final set of studies involves cost questions not specifically related to NWREL or school districts; for example:

- a four-site study of the costs related to various teacher preparation program configurations,
- the development of a model for assessing the cost effectiveness of adult functional literacy training programs,
- a cost-benefit analysis for the Philippine Ministry of Education and Culture regarding a new national English curriculum,
- the development of a statewide resource allocation procedure.

Clearly, NWREL staff are confronted with a wide range of cost-related problems.

Summary of Results: Strength and Needs

The needs assessment questionnaire also contained five questions designed to elicit staff members' perceptions of strengths and needs in regard to cost-analysis studies. The

first question asked, "What are the typical cost-analysis related policy, practice, and/or outcome questions which you encounter or anticipate encountering in your work?" When content areas are ignored, the responses to this question were very consistent. The most frequent response was that cost analysis was usually encountered as part of normally conducted program evaluations (n = 7), and more specifically, when comparing two programs or alternatives (n = 7). Four individuals reported that their most frequent task was simply to identify costs related to programs, and one person identified budgeting issues. Finally, four others reported that cost analysis was frequently encountered as a result of cutbacks which necessitated financial justification for program continuation.

The second question asked, "What problems have you experienced, or do you anticipate experiencing, in relation to these (cost-analysis) questions?" For most respondents, the predominant problems seemed to result from lack of experience and/or knowledge about cost analysis methodologies. Three people commented very directly that dealing with cost-analysis at any level is a problem for them. Four people reported that their inexperience with the analyses makes it difficult for them to know which cost methodology is appropriate in any given situation. Others, however, were more articulate in identifying their problem areas. Identifying inputs or costs (n = 5) and assigning values to program outputs (n = 5) were reportedly difficult. Two individuals wanted more understanding about the differences between hidden and opportunity costs and three others did not know how to value costs in terms of present versus future values. Other problem areas included unfamiliarity with the literature in the area (n = 1), budgeting concerns (n = 1), and the client's inability to express cost needs (n = 1). Finally, two people expressed frustration at the inequities of political pressures versus cost analysis data in influencing final administrative decisions.

In order to better understand the level of sophistication of the workshop audience, the question was asked: "What specific knowledge, skills, and experience do you bring to bear on a cost-analysis question?" As might be expected, the most frequently reported strength was in terms of research and evaluation training and experience (n = 10). Four individuals cited the prior cost-analysis workshop sponsored by the Research on Evaluation Program as their primary experience with cost analysis. Three others claimed to possess an elementary understanding of the various cost analyses (e.g., cost-benefit versus cost-feasibility), and two said that their exposure had been through "reading". Only two individuals said that they had had prior "hands-on" experience with cost analysis. This is interesting, given that 23 cases were described by individuals when asked about past, present, or future cost study experiences. Evidently, the majority of the project descriptions were "anticipated". Six individuals identified more specialized or technical backgrounds which they felt may facilitate their ability to conduct cost studies. Two of these individuals reported accounting backgrounds; two, economics backgrounds; one, computer analysis background; and one, an industrial engineering background. Finally, three respondents said they had no skills, knowledge, or experience with cost analysis.

Respondents were also asked to indicate "What knowledge and skills would you like to develop in regard to the topic of cost analysis?" The most frequent response could be categorized as "I want to learn how and when to conduct a cost analysis" (n = 11). However, this simplistic response was often qualified by a more defined need, such as learning how to identify costs associated with one or more programs (n = 5), how to identify indirect, direct, and opportunity costs (n = 2), and how to communicate cost-related information (n = 5). This latter response category included being able to discuss the possibility of cost analysis with clients, or with consultants hired to help conduct the analysis; it also included how to communicate cost-analysis results in an understandable manner. Finally, assistance in

learning how to control for intervening variables (n = 1), how to identify program outcomes (n = 1), and how to operationalize alternatives (n = 1) was requested.

The last question asked, "What kind of support would you need in order to confidently pursue cost-analysis questions?" Many people stated clearly that they wanted an available consultant who could critique and/or direct cost analysis studies (n = 8). Six individuals felt that they needed additional training in the area, and five wanted information on relevant readings in the area of cost analysis. Finally, one person said that s/he wanted more time in a day in order to be able to learn about cost analysis and complete the day's work, and two said they did not know how to answer the question.

To summarize, respondents saw cost analysis as a necessary component of their program evaluation activities. The ability to provide data about program cost-effectiveness to decision makers was seen as particularly important in light of the present trend toward program cutbacks. In terms of actually conducting a cost analysis, there were few individuals who seemed to feel comfortable with the prospect of such a task, and even fewer who had actually worked on a cost analysis. However, this overall lack of knowledge, skill, and experience, coupled with the perceived importance of cost analysis, contributed to a general readiness for learning. Respondents clearly wanted to learn whatever was necessary to do cost analysis themselves. Finally, perhaps in the event that they did not learn quite enough, the need for a consultant to assist in cost analysis studies was reported.

Implications for Training and Technical Assistance

Each of the three studies just reported contains a number of findings. We believe that the kinds of training and technical assistance support and service most consistent with previous ROEP development can be grouped under three categories: cost analysis, policy analysis, and other evaluation methods. The following discussions focus on (1) these three areas and their importance vis a vis the three studies, and (2) the nature of potential ROEP support.

Cost Analysis

The one constant theme from study to study, state to state, and SEA to LEA, was concern over reduced budgets and the subsequent effect on staffing and program quality. During a period of reductions, cost factors become especially important. In this regard, local and state evaluators will need training and technical assistance in the following cost-analysis skills: (1) determining the true costs of educational programs, (2) identifying the quantifiable effects of programs, (3) placing subjective utility, or where possible, objective benefit values, on program outcomes, and (4) selecting among various alternatives based on their cost implications.

It is evident from all three studies that state and local educators are faced with making choices among instructional options. These instructional options include, for example, differentiated staffing with aides representing a significant proportion of the staff, the establishment of a microcomputer-assisted instructional laboratory, and typical teacher-centered instruction. These choices involve costs as well as other considerations (e.g., policy, evaluation methods). In regard to cost issues, much has been said about the need to identify high-outcome/low-cost Chapter 1 programs. However, without

training and technical assistance in the four cost-analysis skills noted above, it is unlikely that evaluators will be able to make such identification.

Most large districts experienced an overall decrease in Chapter 2 funds relative to the amount of money available for the previous categorical grants. It has been reported that a good deal of that money is going toward the purchase of instructional materials and equipment (i.e., microcomputers). Competition for the money remaining after materials and equipment allocations are made is especially intense. Previously existing programs, which have an established staff and institutional and political support, are in the best position to secure continued funding. However, previous levels cannot typically be maintained, and new projects will continue to vie for resources.

Cost-analysis methods are one source of information for making resource allocation decisions. Large district evaluators may pursue cost-related questions, such as whether one program is more cost feasible than another. Smaller districts may want to determine the feasibility of sharing resources with neighboring districts. Knowing when and how to do such studies will take considerable training on the part of evaluators.

As indicated in the Inservice Survey, the development of "Bid Specs for (microcomputer) Hardware and Software" is a cost-related question of interest to the region's superintendents. ROEP can provide support and training for NWREL staff who work with clients on cost problems, and can provide a limited amount of direct technical assistance to SEA and LEA clients.

Cost issues and the analysis of costs are not the only considerations in determining the overall pattern of programs to be funded at the state or local level. Policy analysis is a way to integrate cost concerns with the whole constellation of issues which revolve around major programming and other major decisions.

Policy Analysis

Policy analysis, or the systematic consideration of issues and formulation of guidelines, has the potential for assisting state and local evaluators respond to the complex change issues confronting them. That is, consideration of such topics as increasing learning time; teacher performance evaluation, parent/community involvement, effective schooling, and vocational education effectiveness can be facilitated by the use of policy analysis. Many of the Inservice Survey topics would benefit from the application of policy analysis procedures.

Chapter 1 policy issues, for example, concern such diverse topics as (1) flexibility in evaluation design, data collection, and reporting; (2) the reduction of administrative paperwork and the general burden of administering programs; and (3) the staffing of programs relative to various instructional options (e.g., differentiated staffing, microcomputer laboratory, traditional teacher-centered instruction). Flexibility in evaluation design, data collection, and reporting can raise concerns about the quality of data and its eventual aggregation at state and national levels.

Changes in paperwork and general administrative burden, especially if the changes involve reductions, have considerable short-term appeal. However, such changes raise issues of long-term accountability. For example, program auditors need a paper trail to verify proper conduct over a considerable period of time. In addition, lessening administrative burden can result in decreased supervision and control of program activities. This has the potential for enhancing creativity and flexibility. But it may also result in a lack of consistent direction and a subsequent decrease of overall program quality. Policy analysis can facilitate the process whereby the trade-offs inherent in such actions are considered and a thoughtful solution is formulated.

Decisions regarding staffing and, more basically, the funding of programs, can affect people inside school districts (administrators, teachers, students, support staff) and outside

(parents and other constituents). The policy-setting process used to guide such decisions must include mechanisms for including the opinions of these diverse interest groups. A systematic process of policy formulation which begins with problem clarification and ends with the development of policy guidelines should include parent/community involvement at some point or other. As the Inservice Survey shows, these are topics of interest to some superintendents.

There are also some important equity issues regarding the allocation of funds for microcomputers. For example, there is growing concern over the equal access to microcomputers by girls vs. boys, black and other minority students vs. white students, and children in less wealthy schools vs. those in more wealthy schools. NWREL staff could support school administrators through training and technical assistance to help them unravel the policy issues regarding microcomputer usage and to help them formulate coherent policy statements. A microcomputer policy formulation guidebook is a potential NWREL product which could be of assistance to state and local decision makers.

Policy issues pertain to both the allocation of funds and subsequent assessment of impact of the money spent. For example, while there are no specific regulations for evaluating Chapter 2 programs, there is a requirement for an annual evaluation of the effects of programs assisted under this chapter, beginning with fiscal year 1984. The general guideline for such evaluations may be set through the policy analysis process, but their design and implementation must rely on evaluators having the ability to select appropriate methods for given evaluation problems.

Evaluation Methodology

The changes reported in the ECIA study regarding Chapter 1 evaluation suggest that there will be more independence and, hence, responsibility on the part of local evaluators in designing both yearly evaluations and sustained effects studies. The changes involved in conducting yearly evaluations may present problems for state and local evaluators in that they often do not

have the skills necessary for selecting appropriate tests and interpreting test results. Local evaluators may also have to set up internal monitoring systems to document aspects of their programs that were previously handled by state monitors. State evaluators may have to rethink the statewide process of aggregating data if many districts decide to use non-norm-referenced tests and report scores other than norm curve equivalents.

Increased emphasis on sustained effects studies may also cause problems for state and local evaluators. For example, when developing an evaluation plan, a local evaluator may need assistance in identifying key program characteristics and in selecting those areas of potential impact most worthy of evaluation. In addition, depending on the characteristic(s) chosen and evaluation questions posed, special assistance may be needed in selecting and/or designing an appropriate evaluation strategy. In essence, local Chapter 1 evaluators need to become more self-sufficient in selecting and interpreting tests, and in designing evaluation studies which meet local needs.

In some school districts, mini-grants are being funded with Chapter 2 money. These grants are distributed to teachers based on an application process which, in many cases, requires an evaluation plan. These mini-grants and other Chapter 2 programs cover a great variety of programs. Therefore, evaluation plans are likely to be diverse.

Setting up evaluations which are responsive to these plans will necessitate a broad perspective on evaluation, and a mixed repertoire of data collection analysis and reporting strategies. Therefore, awareness of the range of evaluation methods available and guidance in their appropriate selection and application will be of paramount importance as evaluators plan for the evaluation of Chapter 2 programs in 1984-1985. As "busy administrators," the superintendents expressed their interest in evaluation methods in response to the Inservice Survey.

Given the amount of money being spent on microcomputers, the evaluation of educational courseware is one area in which state and local evaluators may need training and technical assistance.

The involvement of teachers and students is a critical element in courseware selection. By helping administrators become more computer literate as suggested by the Inservice Survey, we can enhance their ability to provide leadership in this area. However, it is likely that evaluators will need assistance in organizing and conducting such evaluations.

Microcomputers also offer a variety of very powerful tools to evaluators. Application programs such as word processing, data base management, statistical analysis, electronic spreadsheets, graphics, and communication packages can greatly enhance the efficiency and quality of an evaluation. However, evaluators will need training in using these tools.

Clearly, with the added emphasis on Chapter 1 sustained effects studies, the diversity of Chapter 2 evaluation concerns, and the introduction of new microcomputer related areas of study and technology, evaluators will have to broaden their repertoire of evalution methodologies.

Based on the results of the ECIA study, the Cost Analysis Survey, and the Inservice Survey, it appears that the areas of cost analysis, policy analysis, new evaluation methods, and microcomputer evaluation are some of the primary areas of need on the part of both state and local evaluators. The Research on Evaluation Program has over the last several years been developing capabilities in these areas. The challenge is to tailor the development of support mechanisms for increasing NWREL staff capability in providing training and technical assistance to meet evaluators' needs.

APPENDIX A:

COST ANALYSIS INSTRUMENT
AND
SUMMARY

Research on Evaluation Program
Cost-Analysis Needs Assessment

1. Cost-analysis Questions

Please briefly state your answers to the following questions:

a. What are the typical cost-analysis related policy, practice, and/or outcome questions which you encounter or anticipate encountering in your work?

b. What problems have you experienced, or do you anticipate experiencing, in relation to these questions?

c. What specific knowledge, skills, and experience do you bring to bear on a cost-analysis question?

d. What knowledge and skills would you like to develop in regard to the topic of cost-analysis?

e. What kind of support would you need in order to confidently pursue cost-analysis questions?

2. Cost-analysis Information

Please briefly describe one to three cost-analysis cases you have worked on or anticipate working on.

a. Topic:

b. Setting:

c. People involved:

d. Process:

e. Actual/anticipated outcome:

- -

a. Topic:

b. Setting:

c. People involved:

d. Process:

e. Actual/anticipated outcome:

a. Topic:

b. Setting:

c. People involved:

d. Process:

e. Actual/anticipated outcome:

Thank you.

PJG:eg
1/17/83

To: Nick Smith, Director
Research on Evaluation Program

From: Randall W. Eberts

Re: Summary of Needs Assessment for Cost Analysis Workshop

As consultant for the Cost Analysis Workshop at the Lab, I have performed two separate duties. The first was to assess the needs of the staff who are or will be involved in cost/benefit analysis. The second duty was to conduct a seminar which outlines the basic concepts of cost analysis and which provides insight into the steps required in performing an actual cost/benefit study. This memo reports on the first of the two duties. It summarizes the responses made by staff members to the needs assessment questionaire and offers some insights I have gained as to the best way to promote this function at the Lab.

Staff members responded to five basic questions concerning their involvement with Cost/Benefit analysis.

1) What are the typical cost-analysis related policy, practice, and/or outcome questions which you encounter or anticipate encountering in your work?

2) What problems have you experienced, or do you anticipate experiencing, in relation to these questions?

3) What specific knowledge, skills, and experience do you bring to bear on a cost-analysis question?

4) What knowledge and skills would you like to develop in regard to the topic of cost-analysis?

5) What kind of support would you need in order to confidently pursue cost-analysis questions?

In addition, those staff members who have been involved in cost-analysis in the past briefly described the nature of the work that they had performed.

I will consider the responses to each question separately.

A. Typical cost-analysis related issues.

From the responses to this question, it appears that staff members have dealt with a wide range of issues. They reported working on issues related to Chapter I programs, district financial problems, industrial training programs, performance tests, per pupil costs of various instructional settings and vocational education centers. Although these diverse issues illustrate the utility of cost-analysis, it makes it difficult to find ground that is common to all concerned. Responses to the next questions reflect this problem.

B. Problems experienced or anticipated with cost-analysis.

Six basic problems encountered or anticipated with cost-analysis were identified by the respondents. First, concern was expressed about the basic methodology. What are the steps required to perform a cost study? Second, along the same lines as the first concern, respondents were interested in sources of studies which addressed issues similar to the ones they encountered. The third concern was related to comparing cost alternatives. Two issues were expressed: should the consultant suggest alternatives or merely cost out the alternatives suggested by the client; how detailed must one be in capturing all of the costs associated with each alternative. The fourth and most frequently cited concern was related to outcomes, not costs. Respondents expressed difficulty identifying outcomes such as industrial training programs or vocational education centers. Related to the problem of identifying outcomes was the task of linking

costs to outcomes. Both of these issues illustrate the need for a well-developed model of the inputs and outputs of the process under study. Finally, there was some concern that since decisions seem to be motivated more by political forces than by economic forces, cost analysis may not be a suitable framework of analysis.

C. Skills.

A broad background of skills were represented by the respondents. The most frequently cited skill, however, was related to general evaluation of education achievement. The rest included experience in cost analysis, experimental design, accounting, econometrics, and educational research training. Since most of the work in co[illegible]sis involves some form of evaluating educational progress, it appears that many of the staff members who will be conducting these analyses are well-equipped. The fact that very few staff members have had much background in cost analysis and statistics, on the other hand, presents a fruitful area for further skill development.

D. Development of Skills.

The respondents' assessment of the skills required for performing cost analysis reflects in many ways a collectively keen intuition about the important ingredients of a cost study. Those individuals who were unfamiliar with cost analysis asked for a broad overview of the topic. However, for those staff members who have had some exposure to cost analysis, more specific areas of skill development were identified. For example, four respondents wanted "hands-on" experience identifying outcomes and breaking

costs. Others were concerned about recognizing when cost analysis is feasible. One interesting aspect of the skills required to perform cost analysis was related to educating clients. One respondent expressed the need to communicate the analysis in a meaningful way to clients; another felt that it is important to help practicioners develop cost analysis skills at a rudimentary level. Development of both of these skills will heighten the effectiveness of this technique.

E. Support to pursue Cost Analysis.

When asked "what support would you need to confidently pursue cost analysis," the two overwhelming responses were (1) readings with lots of examples and (2) a consultant available to discuss sample applications. Both of these suggestions have been implemented by the Research on Evaluation Program. The workshop, which I conducted on February 8, provided participants with a number of cost studies relating to education. The case studies included evaluation of vocational training, the use of aides in the classroom, the cost-effectiveness of federal programs, and a cost analysis of alternative instructional modes. In addition to the workshop, I have been available as on on-site consultant to staff members at the Lab who are presently engaged in cost analysis. A schedule of these consultations appears at the end of this report.

F. Overview and Comments.

Cost analysis is a complex and difficult task. It is made even more difficult when applied to a process like education in which the outcomes are difficult to identify and quantify, and in which it is difficult in certain

cases to link inputs to outcomes. Within any setting, however, cost analysis requires a combination of three basic skills: knowledge of the process under study; the techniques necessary to evaluate outcomes and cost inputs; and the intuition and judgement necessary to balance the recognition of actual costs with the costs that are feasible to include in the study. Only under very special circumstances, in which an identical process is studied repeatedly, can precise steps be specified for everyone to follow. Since staff members at the Lab are currently engaged in cost studies of various sorts, each study will contain different aspects and complications. Therefore, the best way to train staff members to perform cost analysis is to train them in the basic ingredients that comprise a cost study. Many staff members already have two important skills: they understand the educational process, and they are well-versed in evaluation techniques. Thus, in general, only two skills are lacking: knowledge of the techniques of costing inputs, and the judgement of deciding when the process has been specified sufficiently and the costs of the inputs have been accounted for properly. Both of these skills are required to provide an accurate but feasible analysis. The first can come through workshops and readings; the second must come through "hands-on" experience and exposure to actual case studies under the guidance of someone with experience.

Log of Consultations with
Staff Members
January 18, 1983

1:00-1:25	Dean Nafziger (Division Director)
1:30-1:55	Gary Estes (Program Director) Bill Savard Steve Nelson Randy Demaline
2:00-2:25	Steve Murray (Associate Program Director) Roy Gabriel
2:30-2:55	Larry Picus