REFLECTIONS ON EVALUATION COSTS: DIRECT AND INDIRECT

Marvin C. Alkin
Joan A. Ruskus

CSE Report No. 239
1984

CENTER FOR THE STUDY OF EVALUATION
Graduate School of Education
University of California, Los Angeles

The project presented or reported herein was performed pursuant to a grant from the National Institute of Education, Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

Acknowledgements

The authors wish to thank James S. Catterall for his review of this manuscript. His insight regarding the delineation of direct and indirect costs was most helpful. Special thanks are also due to Andrea S. Larson for her exceptional word-processing skills.

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The Evaluation Productivity Project, scheduled to run through November 1985, was initially intended to explore the relationship between costs and the extent of utilization of evaluation. The original plan called for the development of a set of case scenarios during FY 1984, to be used in the empirical research of FY 1985. Each of these scenarios was to be "costed" in terms of its direct and indirect costs. Subsequently, the plan was altered to give greater emphasis in FY 1985 to additional synthesis and dissemination of the project's longstanding research on evaluation utilization. This change in emphasis, along with the decision not to undertake new empirical research, rendered the planned costing exercise pointless. Nonetheless, it seems appropriate to set down here some of the reflections on evaluation costs that emerged during the initial stages of work. (See also Alkin & Solmon, The Costs of Evaluation, 1983.)

This paper, then, summarizes our views on the costs of evaluation and, in particular, our hunches about the kinds of costs associated with factors known to affect utilization. The first section deals with general issues involved in identifying and valuing cost components. We will then discuss the appropriate costs of evaluation and consider costs in relation to

benefits. The final section spells out the cost implications of high-utilization factors.

Identifying and Valuing Evaluation Costs

Before we consider how the costs of evaluation can be identified and valued, a distinction must be made between direct and indirect costs. "Direct costs" are simply the direct cash outlays necessary for initiating and implementing the evaluation. Examples include salaries, travel expenses, and the cost of test booklets and data processing. Because direct costs are easy to identify, they are often regarded as synonymous with the costs of evaluation.

Like other educational program activities, however, evaluations involve indirect as well as direct costs. While our discussion of costing focuses on the direct costs of evaluation, some consideration of the definition of indirect costs, and of general issues related to their identification and inclusion in the overall "cost" package, seems warranted.

Most authorities (Alkin & Stecher, 1983; Catterall, 1983; Haggart, 1983; Morell & Weirich, 1983; Sanders, 1983; Solmon, 1983) recognize the importance of these less obvious costs. But there is confusion in the literature over exactly how indirect costs should be defined. As a result of both this ambiguity and also their tendency to be less visible, indirect costs are often overlooked or underestimated when the costs of evaluation are computed.

"Indirect costs" can be defined in one of three ways. According to one point of view (Morell & Weirich, 1983), indirect costs are those dollar costs not specifically incurred by the evaluation project but shared across projects within the larger organizational structure: clerical time, facilities, communication, and even, in some instances, the salaries of project staff. This definition is probably the most straightforward. Indirect costs of this type are often calculated as a percentage of the direct costs of the evaluation and are included as a separate line item in the overall budget.

According to a second point of view (Catterall, 1983), indirect costs are the opportunity costs of the evaluation: the use of equipment that could be used in other ways; volunteer time that could be spent on other projects; pupil time that could be spent in learning instead of testing; and the time the state agency spends in legislating, developing, and monitoring the evaluation. Almost every party involved in an evaluation could be engaging in other, possibly more valuable, activities. Thus, the opportunity cost is the best alternative use of a resource used in the evaluation. Interpreted in this way, indirect costs can be included in the cost package as the dollar equivalent of alternative uses of evaluation resources, though Catterall suggests that these indirect costs are often better presented in their natural units (for instance, as the number of hours students could spend learning) rather than their dollar equivalents.

Yet a third point of view (Solmon, 1983) holds that indirect costs are the side effects of the evaluation. For example, when a project concentrates on achieving immediately observable objectives in anticipation of an evaluation, certain long-term project goals may be slighted or even sacrificed altogether. Thus, the evaluation can be said to entail indirect costs. (It should be noted that Solmon considers opportunity costs separately from indirect costs.)

As mentioned above, indirect costs in the first sense -- shared costs of projects within an organization -- are relatively easy to calculate, since they represent dollar costs for materials, personnel, and so forth. Calculating indirect costs in the second sense -- opportunity costs -- is somewhat more difficult, since one must determine alternative uses of resources and their corresponding values. It is indirect costs in the third sense -- as side effects -- that are most difficult to calculate; and we are not aware of systematic attempts to include such indirect costs as part of a total evaluation cost package.

Several authors (Catterall, 1983; Haggart, 1983; Levin, 1983) have outlined the procedures necessary to identify the costs associated with an evaluation. According to Haggart, the process begins with a definition of the scope of the evaluation. The scope depends on the extent of the education intervention, the level of decision-making involved (the higher the level, the greater the scope of the evaluation), the purpose of the evaluation, and the complexity of the evaluation design. These aspects of the evaluation provide the context within which

appropriate cost categories may be identified.

Most authorities agree on the specific cost categories to be employed. For example, the cost category systems presented by Alkin and Stecher (1983), Morell and Weirich (1983), and Sanders (1983) are highly similar, differing only in detail. Drawing on the input of a large sample of professional evaluators, Alkin and Stecher (1983) delineate seven typical cost categories: professional staff, clerical staff, external consultants, materials/supplies/telephone, data processing, facilities, and travel. Similarly, Morell and Weirich (1983) break down evaluation costs into the following categories: personnel (evaluation staff, consultants, program staff, and subjects), technological capabilities (data processing, telephone services, and duplication) travel, office space and furnishings, supplies, and dissemination of findings (graphic artists, printers, and audiovisual specialists). The most detailed listing of cost categories is that provided by Sanders (1983): evaluation staff salary and benefits, consultants, travel and per diem, communication, printing and duplication, data processing, printed materials, office supplies, subcontracts (outside of consulting), and overhead. Sanders expands on the types of costs frequently involved in data processing: systems design, data coding and checking, data storage and retrieval, computer programming, computer use for manipulating or analyzing data, and computer-based bibliographic searches.

After the cost categories have been identified, the next step is to determine values for each of these categories. One

method for valuing "ingredients" is described by Levin (1983), who offers the following hints about costing:

Personnel

Salaries and fringe benefits (percentage of salaries): Value determined by marketplace prices. When personnel costs cannot easily be ascertained, use estimates of market value for similar services.

Facilities

Rented/leased facilities: Value determined by annual cost of expenditure.

Owned facilities: Value determined by cost for similar space or annual cost (taking depreciation and interest on remaining undepreciated value into account).

Equipment

Purchased: Value determined in the same way as for facilities, depending on whether leased or owned.

Donated/Borrowed: Value determined as cost of leasing or renting similar equipment.

Supplies

Value determined by adding estimated expenditures to estimated value of contributed supplies.

Client Inputs

Service: Value determined by total expense associated with service or by market price of service provided.

Note that these valuing procedures can be adapted to any of the cost-category frameworks described above.

Using a variation of Levin's ingredients approach, Catterall (1983) offers an analysis of the costs of testing that can be generalized to evaluation. The first step is to do a cost inventory. Again, the cost-category frameworks described above constitute alternative ways of completing the cost inventory. The second step is to total the costs, which involves determining the actual monetary figure for each of the cost categories. (Levin's procedures outlined above provide a methodology for this step.) The last step in Catterall's process is to locate the cost: that is, to decide who will pay for a particular component -- the sponsor, a government agency, private party, the clients or subjects. An examination of Catterall's variation of the Levin Ingredient Chart (Levin, 1975; see Figure 1) provides insights into the distributed features of evaluation costs. This chart is particularly informative with respect to indirect costs. Note, for example, that most of the cost-associated columns (particularly columns four, five, and six) will usually list indirect costs, although there may be some direct costs related to contributed private inputs. The last row in the chart, client time and other client inputs, presents a set of costs, all of which are likely to be indirect. In addition, many facilities and equipment costs would be considered indirect if accounted for in the costs of conducting evaluations.

Entity Bearing Costs

(1) Ingredients	(2) Total Cost	(3) Cost to Sponsor	(4) Cost to Other Levels Government or Agencies	(5) Contributed Private Inputs	(6) Imposed Student & Family Costs
Personnel					
Facilities					
Material & Equipment					
Other (Specify)					
Client Time & Other Client Inputs					

TOTAL: $_____

Source: Adapted from Levin, 1975; p. 101.

Figure 1. Illustrative Framework for Cost Accounting in Educational Programs.

Appropriate Costs of Evaluation

Clearly, evaluations carry both direct and indirect costs, and both can be calculated. But just what costs are "appropriate" (i.e., what level of resources should be devoted to asking and answering questions about how well programs work or what they achieve)? This question can be approached in two ways. At a macro level, one can compare the cost of evaluation with the cost of other program elements. That is, one can ask what the total costs of an evaluation should be relative to the

entity being evaluated. At a micro level, one can look at the way in which direct costs are allocated among the various budget categories and at the nature of the indirect costs associated with the conduct of the evaluation. Here we might ask what particular sorts of costs are worth incurring, given the nature of our evaluative interest.

As noted in The Costs of Evaluation (Alkin & Solmon, 1983), the literature provides very few guidelines with respect to the macro level. Rusnell (1979) indicates that the evaluation cost should amount to 10 percent of program cost, a figure that had been recommended during the early years of the federal Title VII programs under the Elementary and Secondary Education Act (ESEA). More specifically, in the operation of these bilingual/bicultural programs during the early 1970s, it was suggested that funds for evaluation activities should constitute 8 percent and funds for audit activities should constitute 2 percent of programs costs. More recently, Drezek and his associates (1982) surveyed 55 LEAs and 14 SEAs and reported the proportions of funds allocated for evaluation in the various program proposals of those agencies. As expected, the percentages varied substantially from one program to another; the median low was 1.5 percent and the median high was 5.5 percent. In addition, respondents to the survey recommended a 4-8 percent range as desireable.

Guidelines at the micro level are even more scarce. In a study designed to gather data on the direct costs of the typical evaluation, Alkin and Stecher (1983) asked a nationwide group of

evaluators to consider the costs associated with two types of evaluation (process/implementation and outcome/summative) and with three budget levels ($25,000, $10,000, and $4,000). Further constraints were imposed on the hypothetical examples, to insure that the cost estimates would be comparable. Overall (that is, for both types of evaluation and at all three budget levels), the average shares recommended for each category were these:

Professional staff	70%
Clerical/secretarial staff	16%
External consultants	2%
Materials, supplies, telephone	5%
Data processing	3%
Facilities	0%
Travel	3%

The specific recommended cost breakdowns varied widely, depending in part on evaluation type and on total budget level. Many of these differences are easily explained. For example, the percentage of direct costs allocated for travel was four to five times higher in implementation/process evaluations than in outcome/summative evaluations. Process evaluations typically require more site visits and more consultation with people in the field than do summative evaluations.

Total budget level made a difference with respect to three of the seven cost categories. The first was data processing: "Data processing expenditures rose dramatically as the total evaluation budget increased from $4,000 to $10,000 and continued to rise in dollars (but not as a percentage of the total budget) when the total budget increased to $25,000" (Alkin & Stecher, 1983, p. 7). One would expect data-processing costs to be low in a total evaluation budget of $4,000, since most of the analytic

work connected with such a low-cost evaluation would probably be done on a hand calculator. Moreover, the percentage of the budget allocated to data processing would probably not increase beyond a certain level, due to economies of scale: The initial outlay is high, but incremental costs for added units are relatively low.

The second cost category where the proportionate allocation increased with the size of the total budget was travel: 0 percent of the $4,000 budget, 2-3 percent of the $10,000 budget, and 5-8 percent of the $25,000 budget. Similarly, the proportion allocated for the third cost category -- clerical and secretarial staff -- rose as the size of the budget increased, from only 5 percent at the $4,000 level to 20 percent at the $25,000 level. These systematic differences make clear the extent to which indirect dollar costs are likely to be present in various evaluation budgets. The amount of data preparation, reporting, and just plain bureaucratic red tape seems to grow as the scope of the evaluation grows. Thus, a greater proportion of secretarial time is required at higher budget levels. Another potential explanation -- and one that may be more relevant -- is that, at small budget (or direct cost) levels, secretaries and clerical personnel are not easily divisible into arbitrary smaller budgeting units. Thus, these services are often provided by other projects or even by the school district itself. As a result, the secretarial costs of small evaluation projects tend to be disregarded when costs of evaluations are contemplated. They actually represent an indirect cost which may, on the basis

of our findings, be fairly substantial in small-scale evaluations.

Our research on the costs of evaluation has convinced us that it is difficult, if not impossible, to generalize about the direct or indirect costs associated with evaluations of different types. Idiosyncratic features affect the costs of evaluation and the extent of direct and indirect costs. These features can be grouped into four categories which, though occasionally overlapping, offer a convenient schema for purposes of discussion: context, administrative organization, support services and facilities, and administrative expectations and predispositions.

One example that immediately comes to mind with respect to context is choosing between an internal and an external evaluator. The selection of an internal evaluator may impose indirect cost burdens on other units within the organization. Conversely, if an external evaluator is chosen, many more of the costs will be direct because of the necessity for a contract.

The administrative organization of the school district may impose different constraints upon the evaluation and thus affect its cost. If a complicated variety of approvals (for instruments, testing schedules, and so forth) and other administrative procedures are required, not only will the evaluator have to spend more time on the evaluation (a direct cost) but also other people in the organization will have to

spend more of their time processing requests and making approvals (an indirect cost).

Likewise, the nature of the support services and facilities available within a school district may have cost implications. For instance, the availability of computer services converts what would otherwise be a direct cost into an indirect cost. Similarly, if the evaluator has access to unused or underutilized facilities within the district, then the direct cost of renting office space will be saved.

Finally, the expectations of program administrators -- and especially their predisposition to evaluation use -- can affect both the direct and the indirect costs of an evaluation. Clearly, if the administrators who are the potential users of evaluation findings are hostile toward the evaluation and inclined to dismiss its findings, the evaluator will have to spend more time and energy trying to modify these predispositions, thus increasing both direct and indirect costs. (This issue is discussed further in the next section.)

Costs in Relation to Benefits

Most authorities agree that the real issue is neither the absolute dollar cost of an evaluation nor the cost of the evaluation relative to the cost of the program being evaluated. The real issue is the relationship between the costs incurred by and the benefits that accrue from the evaluation. For example, Scriven (1974) notes that evaluations should be "cost free,"

implying that they should at least pay for themselves in the benefits they provide. Clearly, Scriven is advocating that costs and benefits should be compared by subtracting costs from benefits (B-C). Similarly, in Standards for Evaluations of Educational Programs, Projects, and Materials (1981), the Joint Committee on Standards for Educational Evaluation says that "the evaluation should produce information of sufficient value to justify the resources expended" (p. 60; emphasis added). The Joint Committee's guidelines further indicate that one should thoroughly investigate the costs and benefits of an evaluation before deciding to undertake it, adding that the evaluator should "conduct evaluations as economically as possible" (p. 61).

If one accepts this point of view, a critical question becomes: How can the benefits deriving from an evaluation be determined? In other words, what constitutes an appropriate measure of benefits? Both Scriven and the Joint Committee would probably say that the dollar savings produced by the evaluation is the most appropriate measure. If the evaluation has resulted in recommendations as to how the program can be conducted in a less costly manner (with no reduction in the quantity or quality of educational outputs), and if the cost savings exceed the costs of the evaluation, then the cost of the evaluation is justified.

This simple notion has been successfully practiced by Steven Frankel, Director of the Montgomery County (Maryland) Department of Education Accountability. In essence, by selecting for evaluation only those projects and services which are readily amenable to the demonstration of cost savings (primarily business

service activities), his Department has dramatically increased its total budget for evaluation and has freed up resources for conducting evaluations in which cost savings are not involved.

The simple dollar-savings criterion is obviously inadequate in those instances where cost economies cannot be demonstrated but where the evaluation still confers benefits, though of a less monetary nature. For example, an evaluation may result in recommendations on ways to increase instructional effectiveness which, if implemented, will lead to an increase in student achievement. Such an evaluation may well be considered worth the dollar cost. Several issues arise here. The first is cost effectiveness: the dollar cost of the evaluation relative to the resulting increase in instructional effectiveness (and hence in student achievement). The second issue relates to the economist's concern with indirect costs in the second sense of the term: opportunity costs. Granted that the benefits of an evaluation -- in terms of increased student achievement -- exceed the costs of the evaluation, it is nonetheless possible that alternative uses of the evaluation funds might have led to even greater benefits (i.e., higher student achievement).

The third issue is more complicated: The recommendations of an evaluation are not always implemented, so one cannot always determine whether they produce benefits. Some authorities would take the position that, in such instances, one should consider the potential benefits that would have accrued, had the recommendations been implemented, and use those as a basis for judging the appropriateness of the costs. Other authorities

would maintain that, if the evaluation was not persuasive enough to convince decision-makers that its recommendations should be implemented, then the evaluation has failed and cannot be regarded as having produced benefits. The question comes down to this: Should one look at potential or at actual benefits? Is evaluation only a type of research, whose benefits are to be judged by the nature of the research findings? Or is evaluation a decision-oriented interactive process, whose benefits are to be judged not so much by the recommendations it makes but by the extent to which it beneficially informs the decision process? Obviously, the answers one gives to these questions will determine, in large part, just how one calculates the cost-benefit equation.

Cost Implications of High-Utilization Factors

The Evaluation Productivity Project has, over a period of years, been concerned with identifying those factors associated with instances of high evaluation utilization (see, for example, Alkin, Daillak, & White, 1979; Daillak, 1980; Stecher, Alkin, & Flesher, 1981). During the current fiscal year, we have completed a handbook for evaluation decision-makers that includes a factor framework (Alkin, Jacobson, Burry, Ruskus, White, & Kent, in press).

One conclusion to emerge from our years of research is that the way in which the evaluation is conducted affects the extent to which its findings are utilized. As mentioned in the previous section, the real issue in judging the appropriateness of an

evaluation's cost is the extent to which the benefits exceed the cost. If the findings of an evaluation are not utilized at any level, then it is questionable whether even the most minimal evaluation costs are justified. At the same time, one must recognize that the very aspects of the evaluation most likely to increase its use are also likely to involve high costs in terms of both dollars and also the time and energy of almost everyone involved.

The results of our studies have not been surprising. We have found that the dedicated evaluator -- the one who takes the time to understand the political complexities of the evaluation situation, to consider the needs and interests of potential users, and to involve them in the planning and conduct of the evaluation -- stands a better chance of seeing the findings of the evaluation utilized. But at the same time, this approach incurs some heavy costs, at least in terms of the evaluator's time and the time of program staff. Similarly, evaluation utilization increases when the potential user -- the program administrator who commissioned the evaluation -- is interested in the evaluation, is involved in the evaluation process, and is committed to integrating the evaluation findings into the decision process. Obviously, this degree of involvement on the part of potential users entails substantial indirect costs in the form of forgone opportunities to use their time in other, possibly more productive, ways.

Let us look more closely at some of the factors just mentioned, starting with the political sensitivity of the

evaluator. The politically sensitive evaluator must be particularly attentive to the people within the organization, their place in the administrative structure, their special interests, and so forth. Such attentiveness may require a considerable outlay of the evaluator's time in becoming familiar and dealing with the situation. Moreover, if sensitivity to multiple constituencies adds to what must be known, there may be additional costs associated with extended data collection and data processing. In addition to these direct costs, there are indirect costs: for instance, the time which program personnel spend interacting with the evaluator, the time which clients or pupils spend taking tests.

The evaluator's credibility is another factor that affects utilization. Credibility depends in part upon the evaluator's credentials (e.g., academic or professional degrees, prestige or reputation, institutional affiliations, experience). Obviously, a highly credentialed evaluator costs more than a relatively uncredentialed evaluator: in consultant fees for external evaluators and in salaries for evaluators internal to the organization. Our research shows, however, that credibility is a function not only of the evaluator's credentials at the outset of the evaluation but of the evaluator's actions during the course of the evaluation: "As evaluators engage in their activities, they may come to be viewed as credible on a wider range of topics or credible to new audiences." (Alkin et al., 1979, p. 247). In short, an evaluator can build credibility, but this process is time-consuming and involves both direct and indirect costs.

As indicated earlier, the potential user is also a key figure in evaluation utilization. The more the potential user is concerned about the evaluation, involved in its conduct, and interested in its results, the greater the likelihood that the findings of the evaluation will be utilized. Obviously, this kind of user involvement has cost implications, especially in terms of indirect costs. And the larger the number of potential users, the higher the costs.

Not only evaluator and user characteristics but also certain project characteristics have cost implications. One example is the particular requirements that the organization imposes upon the evaluation. To the extent that these contractual obligations or written requirements are not directly relevant to the central concerns of the evaluation or the interests of the potential users, they may entail high costs -- in terms of the time and research spent by the evaluator and the time spent by program personnel in interacting with the evaluator -- and yet have no accompanying payoff in high utilization.

The evaluation procedures, including design and methodology, obviously have cost implications. To the extent that these procedures are tailored to the particular needs of the program being evaluated and are applied rigorously, their costs may be high. These costs include outlays for materials, data processing, and so forth; the time and effort of the evaluation staff and program personnel; and client time spent in testing. Nonetheless, appropriate procedures are essential to high utilization, insofar as the way in which the evaluation is

conducted influences potential users' perceptions of the evaluator's credibility and of the quality of the evaluation.

Finally, evaluation reporting, which is strongly related to utilization, has cost implications. To prepare a report that can be easily understood by all potential audiences and to disseminate it in a timely manner requires considerable effort on the part of the evaluator, and thus considerable cost. Similarly, follow-up procedures -- designed to assure that users understand the report and its recommendations -- call for extra time and effort and therefore carry extra costs. Our research shows that simply preparing and distributing a report of the evaluation is not enough, if high utilization is desired. Evaluators should regard evaluation as a process, not a product. They should view evaluation reporting as an almost-continuous set of activities designed to sensitize potential users to the information being developed, to prepare them for the findings that will emerge from the evaluation, and to encourage them to implement the recommendations. Without question, such activities entail high costs, both direct and indirect. Nonetheless, they are essential to attaining high levels of evaluation use.

Summary

These reflections on the costs of evaluation represent a brief summary of the work we have completed in this area and of the implications that can be drawn from it. In synthesizing our reflections, we have drawn heavily on The Costs of Evaluation (Alkin & Solmon, 1983). Many authors contributed chapters to

this volume, and some of their ideas are incorporated into this piece. Our perspectives on the costs associated with various utilization factors grew out of our previous effort in developing the utilization framework. Thus, the paper provides a synopsis of our work relative to the costs of evaluation, particularly evaluation which has a high potential for utilization.

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