ON EVALUATING EVALUATIONS

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Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Evaluation Inputs, Process, and Outcomes</td>
<td>3</td>
</tr>
<tr>
<td>Evaluation Inputs</td>
<td>5</td>
</tr>
<tr>
<td>Evaluation Process</td>
<td>7</td>
</tr>
<tr>
<td>Evaluation Outcomes</td>
<td>12</td>
</tr>
<tr>
<td>Why Evaluate Evaluations?</td>
<td>16</td>
</tr>
<tr>
<td>Evaluation Documentation Requirements</td>
<td>19</td>
</tr>
<tr>
<td>Summary and Suggested Research</td>
<td>21</td>
</tr>
<tr>
<td>Notes</td>
<td>23</td>
</tr>
<tr>
<td>References</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 1. Evaluation Viewed as a System                      4

Table 1. Inputs to an Evaluation                             6

Table 2. Process Components of an Evaluation                 8

Table 3 Evaluation Outcomes                                 15
ABSTRACT

Researchers in the field of public program evaluation have recently been arguing for comprehensive evaluation of programs, evaluations that examine program inputs, processes, and outcomes. In this paper we propose that the same approach is useful for evaluating evaluations themselves. We identify tentative sets of evaluation inputs, processes, and outcomes and describe their utility in evaluating evaluations. Since evaluations are commissioned to produce information useful to decision makers, it is suggested that the only fundamental outcomes of an evaluation are decisions influenced by the evaluation. This fact precludes evaluating an evaluation solely from the final report of the evaluation, which is usually written before the relevant decisions are made. However, evaluators can and should document useful information about evaluation inputs and processes, and recommendations along these lines are included in this paper.
INTRODUCTION

Increased attention has been focused in recent years on the merit of various public programs. Legislators, citizens' groups, and others have been concerned with the extent to which programs meet their objectives. Program personnel want to know how to improve on-going programs. Researchers as well as legislators have been interested in programs as social experiments, in attempts to validate or refute various intervention theories which may later lead to new standardized (non-experimental) programs. All of this concern has pushed the burgeoning field of public program evaluation into the limelight. Evaluation offers many promises: accountability for public expenditures; improvement for on-going programs; identification of promising new theories leading to new programs; even generation of new research knowledge.

Yet evaluation to date has seemed to flounder. The quality of evaluation work has been spotty. Evaluation findings have had a disappointingly small impact. While considerable attention has been given to the evaluation of programs, it is somewhat ironic that relatively little attention has been devoted to evaluating the evaluations (and the evaluators). (Except Bernstein and Freeman, 1975; Cook and Gruder, 1978; GAO, 1978a and b; MSR, 1973; Cook, 1978; Stufflebeam, 1974). On what basis can an evaluation be said to be successful? Attempts to answer this question have often focused on one sub-element of the evaluation, namely the technical aspects of evaluation process—as reflected, say, by
the statistical methodology employed or the survey research methods used. This limited focus creates problems analogous to those which would occur if one conducted an evaluation of a program, exclusively examining some part of program process, while ignoring program inputs, outcomes and other aspects of process. Thus, in the same sense that evaluation of programs requires a comprehensive analysis of program inputs, process and outcome, so too evaluation of evaluations requires analysis of evaluation inputs, process, and outcome. One of the goals of this paper is to lay out the elements of such an approach.

In identifying the various components of an evaluation, particularly outcomes, we are guided by the fact that evaluations are commissioned by an individual or group to produce information which hopefully has some decision-consequential impact. More succinctly,

1. Evaluation is a process that produces information;
2. Information is useful only to the extent that it informs decisions;
3. A decision is an irrevocable allocation of resources;
4. Thus, evaluation is a process that produces information to assist in the allocation of resources.

The allocation of resources referred to here must be considered broadly. It can range from obvious programmatic changes (e.g. shifting staffing patterns or operating procedures), to a change in program budget level as determined by the funding agency, to a congressional authorization to spend more (or less) money on similar programs nationally, to a change in research efforts by one or more researchers who may want to devote more (or less) of their resources to that programmatic area. It can
even refer to decisions by members of a program's client group to increase (or decrease) participation (e.g. allocation of their time and energies) in the program. Much confusion, we believe, in the evaluation literature can be traced to a lack of attention to the identification of decision makers and decisions to be made (resources to be allocated) as a consequence of an evaluation. Our discussion of evaluation outcomes will be motivated by this decision-oriented point of view.

EVALUATION INPUTS, PROCESS, AND OUTCOMES

Any evaluation is a process, having inputs and yielding outcomes as illustrated in Figure 1. It is our contention that any comprehensive evaluation of an evaluation should examine all three of these evaluation components. An examination of process alone may, for instance, verify exemplary technique, but reveals nothing about evaluation impact. A review of evaluation outcomes alone is not sufficient for explaining the causal mechanisms linking evaluation input through process to those outcomes; indeed, one who analyzes only outcomes is often hard-pressed to attribute outcomes to the evaluation. An examination of inputs alone reveals little more than the collection of resources mustered to conduct the evaluation. In this section we present an initial listing of detailed elements comprising evaluation input, process, and outcome.
Figure 1: Evaluation Viewed as a System
Evaluation Inputs

The inputs to an evaluation may be considered to be an inventory of resources and methodologies brought to bear on the evaluation, and a description of the evaluation setting. Our proposed set of inputs is summarized in Table 1. Obvious inputs include evaluation budget (both in absolute terms and as a percentage of program budget), duration of the evaluation, timing of the evaluation with respect to the program being evaluated, and skills (and other attributes) of the evaluation personnel. Despite the indisputable importance of these items and despite the urgings of evaluators to consider program inputs during evaluations, few evaluators themselves document these rudimentary evaluation inputs. Any comprehensive evaluation of an evaluation is thwarted at an early stage if these inputs are not known.

Other necessary inputs also listed in Table 1 include attributes of the program being evaluated and its personnel (e.g. training and experience, determining their attitudes toward the evaluation), evaluation methodology and design, and audience or client group for the evaluation, and the purpose of the evaluation. Here, purpose of the evaluation refers to the resources which one or more client groups (decision makers) are likely to (re)allocate as a consequence of information provided by the evaluation. A description of evaluation methodology and design should include not only the statistical procedures to be used to analyze data, but also the entire plan for considering program inputs, process and outcomes. Moreover, it should indicate milestones along the way, points at which information may be fed back
Table 1

Inputs to an Evaluation

**Evaluation inputs:** An inventory of resources and methodologies brought to bear on the evaluation and a description of the evaluation setting.

(i) Budget of the evaluation (and other material resources available to the evaluators).

(ii) Duration of the evaluation.

(iii) Timing of the evaluation with respect to the program being evaluated.

(iv) Attributes of evaluation personnel (e.g., training, experience, "world view").

(v) Attributes of program personnel (e.g., experience, commitment, education).

(vi) Attributes of the program being evaluated (e.g., goals, substantive area of concern, client group).

(vii) Evaluation methodology and design.

(viii) Audience, or "client group", or decision makers for the evaluation and purposes of the evaluation.
to program staff for possible program modification, and other points at which information obtained so far may be used adaptively to change evaluation and/or program procedures; rules for such adaptive change, to the extent possible, should be stated explicitly a priori (i.e., such rules for adaptiveness are themselves evaluation inputs).

**Evaluation Process**

Evaluation inputs are utilized to develop information which leads to evaluation outcomes (i.e., decisions to be made). This utilization of inputs is evaluation process. Paralleling the idea of program process, *evaluation process is the actual conduct of the evaluation as compared with that planned in the evaluation design*. Our proposed components of evaluation process are given in Table 2. As the discussion will indicate, this list is meant to be illustrative, but by no means exhaustive. The first three elements of evaluation process relate to the interaction between the evaluators and the program being evaluated. Obviously important are (i) the types, intensity, and frequency of interactions between evaluators and program staff members. This, in turn may lead to (ii) (an inadvertent) response of program staff and client groups to the presence of the evaluators (e.g., "Hawthorne effect"). While this response may be difficult to detect and measure, it constitutes an important element of evaluation process, and attempts should be made to estimate and report it. The final element of evaluator/program interaction is (iii) the extent to which information acquired during the evaluation is fed back to program staff, perhaps modifying program procedures. This reflects deliberate transfer of information that may result in changes in program
Table 2

**Process Components of an Evaluation**

**Evaluation process:** Actual conduct of the evaluation compared with that planned in the evaluation design.

1. Types, intensity and frequency of interactions between evaluators and program staff members.
2. Response of program staff and client groups to the presence of evaluators.
3. Extent to which information acquired during the evaluation is fed back to program staff, perhaps modifying program procedures.
4. Extent to which information acquired during the evaluation is used to modify the allocation of evaluation resources.
5. Adaptiveness of evaluation design (i.e., capacity to respond to changes in the program) and history of adaptations.
6. Turnovers in personnel (e.g., evaluators, program staff, client groups of both program and evaluation).
7. Testing of hypotheses regarding the program.
8. Documentation of findings.
operation, in contrast to inadvertent interactions identified in (ii) which may also affect program operation. Item (iii) relates to the controversy in evaluation about whether or not the evaluators should "board the train" of the program or ride along in a different train on parallel tracks (Rossi and Wright, 1977). On the same train, they can provide information thought to be useful during the course of the evaluation, usually yielding changes in the program during the evaluation. The two-train model precludes such useful exchange of timely information. In our view, a reasonable way to tackle this question is to view the choice as being directly dependent on the intended audience or client of the evaluation. If, for example, the evaluation is being done primarily for the purposes of the program clients or program staff, then it appears that the evaluator(s) should "board the train." When, however, the evaluation is being done as part of an independent assessment for a funding agency, then to avoid possible conflicts of interest the "two train" approach seems more appropriate.

The next two items relate to the adaptability of the evaluation. First, one is interested in (iv) the extent to which information acquired during the evaluation is used to modify the allocation of evaluation resources. Is the evaluation in a "straight jacket" design, or do the evaluators modify the design in response to information obtained so far in the evaluation? Adaptability may be reflected in elements of process evaluation such as the allocation of participant observers and/or interviewers to various parts of the program. Or it could relate to the sequential adaptive generation and testing of alternative hypotheses.
regarding program operation. It is our conjecture that many evaluations in practice are adaptive, but, lacking rules and encouragement for adaptability, the evaluators in their reports are likely not to describe this element of their evaluation. A related issue is (v) the adaptiveness of the evaluation design in response to changes in the program being evaluated. For instance, during the operation of the program, an employee strike could occur, a new relevant law could be enacted, or a citizens' group could protest against some particular aspect of the program. To what extent is the evaluation jeopardized by such program changes and interruptions, and to what extent can it adapt to them? This concern stands in contrast to (i), in which the program was assumed fixed, but evaluative information about components of the program changed over time, perhaps resulting in changes in evaluation tactics. No evaluation design can stand impervious to all conceivable unforeseen changes in the program and its operating environment, but some are more robust than others. A chronological history of adaptations of the evaluation to changes in the program would seem to be an important part of evaluating evaluation process.

The next item is (v') turnover in personnel (e.g., evaluators, program staff, client groups of both the program and the evaluation). This is one of perhaps several internal unplanned changes in program or evaluation process. However, it appears to be a critical one, in that a change in one or more key persons in the evaluation or in the program can markedly affect the outcome of both. We are aware, for instance, of at least one evaluation that had three different directors during the course of its operation; one can speculate as to the quality and
impact of the final evaluation. A change in the client group of either the program or the evaluation is also important. For instance, a significant fraction of evaluations that have had little or no eventual decision impact appear to fall victim to the "vanishing advocate" syndrome, in which the person who originally commissioned the evaluation has moved to another professional position, only to be replaced by someone unsympathetic to the original purposes of the evaluation (Chaiken et al., 1975).

The seventh entry in Table 2, (vii) testing hypotheses regarding the program, is one of perhaps many elements of analysis of evaluation findings. We believe that all such analyses, both statistically and subjectively based, constitute a part of evaluation process, not outcome. It appears to be this element of evaluation process--evaluation technique and methodology as applied in practice—that has received most scrutiny by evaluators of evaluations. Perhaps this is because manipulation of numbers is one of the few elements of evaluation process that can be replicated and scrutinized by others after termination of the evaluation. And statistical procedure is one of the few components of evaluation process in which apparently universal "scientific" measures of accountability can be applied. But one should not fall prey to the trap of misplaced emphasis on statistical method. A statistically elegant evaluation may be seriously flawed in other respects; and statistical correctness by no means guarantees decision impact. On the other hand, a statistically flawed evaluation may indeed present imperfect information to decision makers. The imperfections may lead to decisions that would have been improved if more accurate information had been available.
the "costs" of such imperfect information can be considerable. Yet, when balanced with other components of evaluation process, it is quite possible that a statistically flawed evaluation can still present useful information to decision makers--where usefulness implies decisions being made that are in some sense "better" than those that would have been made in the total absence of the evaluation. In order to place in perspective the importance of statistical procedure and to estimate the cost of statistical error, we would argue strongly for a comprehensive evaluation of evaluation process, as reflected by the other elements in Table 2.

The eighth and final entry in the Table is (viii) documentation of findings, i.e., creation of the "final report." While the final report may represent a key product of the evaluation, we believe that it is related to evaluation process; it is not a fundamental evaluation outcome. Like several other entries in Table 2, this one also could be broadened, perhaps to "communication of final evaluation findings." Certainly the final report--its structure, content, level and style of presentation--is an important part of the communication process. But also important are oral presentations, use of teaching aids to convey the essential results, and other activities and devices for communication and dissemination of results. For instance, a methodologically flawless evaluation whose findings are unintelligible to decision makers will have at best marginal impact.

**Evaluation Outcomes**

For many public programs, the boundary separating process and outcome and their corresponding measures is indeed fuzzy. As one
example, "citizen and client satisfaction" with a particular program has been considered by evaluators both as a process measure and an outcome measure. However, improved citizen satisfaction as an outcome measure is problematic; its basis may be illusory (e.g., citizens may feel safer when true crime rates increase; students who "like" their teachers may in fact be learning less, etc.). Extending this example to our concern here, program staff satisfaction with an evaluation may be well founded if the evaluators--funded by the program in order to help improve the program--helped the staff people to discover ways of making their program more effective. On the other hand, such positive feelings toward the evaluators may be little more than self-serving if the evaluators--commissioned by the program's funding agency--find nothing to recommend discontinuance of the program. Again, a dilemma in evaluation is resolved in part by examining the primary client group of the evaluation.

Any attempt to demarcate the boundary between evaluation process and outcome and measures of their effects is done in the presence of ambiguity and controversy. Still, the inherent difficulties should not act to preclude discussion on this vital matter. In an attempt to provide one input to the debate, we take a relatively firm stand on evaluation outcome, motivated by our decision orientation: ultimate outcomes of an evaluation are the decisions (resource allocations) influenced by the evaluation. All other outcomes are process outcomes. Most evaluators discover the decision consequences of their evaluation only long after submission of the final evaluation report, if at all; because of this it
is inappropriate for those who evaluate evaluations to judge their impact only from reading the final report (Larson et al., 1979). The time period of the evaluation of an evaluation must extend beyond that of the original evaluation in order to assess its ultimate decision consequences.

As a first cut, we have identified the different types of decisions that may be affected by an evaluation as follows:

(i) "the funding agency's decision": decision by funding agency to fund, refund, modify or cancel the program;

(ii) "the program staff's operational decision": decision by program staff to modify any of the program procedures;

(iii) "the program client group's decision": decision by members of the program client group to increase, decrease or otherwise alter participation in the program (assuming they are informed of the evaluation to begin with);

(iv) "the research community's decision": decision by one or more members of the research community to study (or not to study) further the questions raised in the evaluation;

(v) "the decision of those involved in related programs": decision by one or more other funders and/or program personnel in other jurisdictions to initiate, modify or terminate similar programs.

Decision makers under (iv) and (v) above may be said to be "second-order decision makers," since they are not directly involved with the program being evaluated or the evaluation. The evaluation's ultimate impact on these decision makers will in many cases be very difficult to assess.
TABLE 3

Evaluation Outcomes

**Evaluation Outcomes:** A listing of decisions influenced by the evaluation.

(i) Decision by funding agency to fund, refund, modify or cancel program.

(ii) Decision by program staff to modify any of the program procedures.

(iii) Decision by members of the client group to alter participation patterns in the program.

(iv) Decision by one or more members of the research community to study further the questions/issues raised in the evaluation.

(v) Decision by one or more other funders and/or program personnel (in other jurisdictions) to initiate, modify, or terminate similar programs.
Recalling that retention of the status quo is also a decision (although occasionally it is mislabeled as "no decision"), then it is useful to note that each of the decisions cited above will be made whether or not the evaluation is conducted. (For convenience, the decisions above are summarized in Table 3.)

WHY EVALUATE EVALUATIONS?

Evaluations are performed to provide information about a program to decision makers. Thus, evaluations of evaluations are performed to provide information about an evaluation to a possibly different set of decision makers. For instance, an evaluation of an evaluation can provide an independent assessment for decision makers of the quality of the information presented in the evaluation. This would enhance the extent of "informedness" of the resulting decisions, but at a cost—the cost of the evaluation of the evaluation. Clearly if this cost exceeds some threshold, its marginal information value may not be adequate to justify its cost. In this context, the decision to evaluate an evaluation is also an allocation of resources which may or may not be justified at a particular point in time, given one's knowledge about the original evaluation, the program being evaluated, and the marginal cost and expected marginal information content of the evaluation of the evaluation.

In another application, a collection of evaluations of evaluations (and evaluators) could be used in the selection of an evaluator of a
program. The selection criterion would probably include a trade-off between evaluation quality and cost.

Clearly other reasons for evaluating evaluations abound. One, for instance, is to pool together in a "meta evaluation" framework the results of many different evaluations of similar programs to obtain synthesized research results. This and other examples of evaluating evaluations are discussed by Cook and Gruder (1978).

One perhaps not so apparent reason for evaluating evaluations relates to the evaluation enterprise itself. Suppose one or more sets of decision makers are concerned with examining evaluation per se, and are not concerned directly with the program being evaluated. For instance, a potential funding agency may be interested in evaluating a particular evaluator, or a researcher may be interested in evaluating a new experimental design procedure. Then, in what we have discussed so far, "program" becomes "evaluation," i.e., that set of activities having programmatic goals and objectives. Evaluating the evaluation is analogous to evaluating a program. Correspondently, there is a set of evaluation inputs, processes, and outcomes directly analogous to those listed in Tables 1, 2 and 3 for the evaluation of a program. As an example, it is instructive to consider the possible decisions that could be affected by information produced by the evaluation of an evaluation. The "funding agency's decision" could relate to supporting additional research related to the specific methodology employed in the (original) evaluation. The "program staff's operational decision" could refer to potential modifications of evaluation conduct by the (original) evaluators. The "program client group's decision" could relate to decisions by those awaiting
information from the (original) evaluation to utilize the information in different ways. The "research community's decision" would most likely be a decision by one or more members of the research community to study (or not to study) further issues related to that type of evaluation. The "decision of those involved in related programs" could be the decision by one or more evaluation funders and/or evaluation personnel in other areas to initiate, modify, or terminate similar types of evaluations. Thus, the comprehensive evaluation of evaluations has the potential to provide the full spectrum of information and decision consequences for evaluations that is expected of evaluations of programs for programs.

One final note of the utility of evaluating evaluations: any evaluator of evaluations--like any other evaluator--is imperfect, requiring then an evaluator to evaluate evaluators of evaluations. But this new third level evaluator is also imperfect, requiring yet another evaluator. This potentially infinite morass can be avoided by considering the expected marginal costs and informational utility of the concept of the expected value of perfect information; this is the expected improvement in the decision maker's outcome measure that can be attributed to obtaining perfect information (i.e., eliminating uncertainties) at the decision stage. No decision maker should support a hierarchical evaluation superstructure having an expected cost greater than the expected value of perfect information (Thompson, 1975).
EVALUATION DOCUMENTATION REQUIREMENTS

The framework described in the previous sections has implications for documentation of program evaluations. Given our definition of comprehensive evaluation and our listing of inputs, processes and outcomes, the information required to do a comprehensive evaluation of evaluations can become considerable. Whether or not an independent evaluation of an evaluation is to be performed, documentation in the final evaluation report of inputs, processes and outcomes (as far as possible) of the evaluation would seem to be essential.

As we discovered in an empirical study of criminal justice program evaluations (Larson et al., 1979), current evaluation documentation practice is uneven and sorely lacking. Of the roughly 200 studies in the sample, only 4 percent indicated the percentage of the program budget allocated for the evaluation, and only 2 percent indicated total evaluation budget. Thirty-one percent of the reports in the sample indicated the total duration of the evaluation, while 8 percent at least indicated (though not always explicitly) the timing of the evaluation with respect to the program being evaluated. None of the reports described the professional or other attributes of either program staff or evaluation personnel. Finally, while 90 percent of the reports made at least some reference to the context or purpose of the effort, actual potential users of the evaluations were rarely identified explicitly. Only 58 percent of the reports contained an analysis of program goals, and only 47 percent discussed the program's client group in any way.
Evaluation process components fared much worse than evaluation inputs in the sample of final reports. The constituent parts of evaluation process listed in Table 2 were rarely if ever included in the final reports. In our overall review of the evaluation research literature, we have found that elements of evaluation process do appear in the growing number of anecdotal reports on non-utilization (Weiss, 1977). But there appears to be little tradition of evaluators routinely reporting on their own evaluation process. Such lack of self-reporting reduces the ability of decision makers to assess the quality of information produced by the evaluation. And, information on evaluation process could only help to enhance evaluators' and program managers' awareness of evaluation limitations and pitfalls, thus leading to improvement of evaluation practice.

Evaluation outcomes in terms of decisions influenced by the evaluation are rarely documented in the final report, due in part to the timing of the final report with respect to decisions yet to be made. Even after decisions are made, it is often exceedingly difficult to estimate what influence (if any) the evaluation had on the decisions. Here, it seems, we need new methods for follow-up attribution and documentation.

Thus, at the current time, we can only make a plea for more complete self-reporting of evaluation inputs and process. Self-reporting is open to criticism on grounds of objectivity, particularly in the area of evaluation process. Yet even imperfect information in this area would be more valuable than the present state of nearly no information. Particularly for those second-order decision makers not directly
affiliated with the program being evaluated, it seems that at least rudimentary knowledge of evaluation inputs and process would be necessary to assess the possible relevance of the findings to them.

SUMMARY AND SUGGESTED RESEARCH

We have proposed that evaluation is a process producing information that can be evaluated on the basis of its relevance to decision makers. Paralleling program operation, an evaluation too can be characterized by inputs, process, and outcomes. We have provided a suggested list of each, arguing that the only ultimate outcomes of an evaluation are decisions influenced by the evaluation. Thus, however difficult to measure, the impact of an evaluation must be judged on the basis of resources (re)allocated as a consequence of evaluation information provided. Evaluations of evaluations per se have several potential purposes: to provide an independent assessment to decision makers of the quality of information contained in an evaluation; to provide guidance in selecting an evaluator; to assimilate "research knowledge" from a number of separate but similar programs; to provide a vehicle for examining the evaluation enterprise itself. Our concern for evaluation inputs, processes and outcomes extends to recommendations for improved evaluation documentation in these areas.

Evaluating an evaluation utilizing only inputs, or only process,
or only outcomes suffers drawbacks identical to similarly limited evaluations of programs. The need for comprehensiveness is apparent, but the means for bringing it about in practice is not.

Thus, further work is needed in attempting to devise methods for carrying out comprehensive evaluations of evaluations, within time and budget constraints that are acceptable to potential decision makers. Numerous important questions abound: Who should conduct evaluations of evaluations? When is self-reporting of evaluation inputs and process adequate? How do we measure the effect of evaluation information on a decision? How do we historically recreate a decision maker's state of (imperfect) knowledge at the time of decision? If a follow-on program is instituted to measure an evaluation's ultimate impact, who should fund it and who should do it? Each of these questions, and more, should provide fruitful areas for future research.
NOTES

1. This definition of decision is taken from Howard (1966). "'Irrevocable' does not imply 'for all time', but at least for the next short time interval that an allocation of at least one resource has been made. That is, a decision is not a 'decision to make a decision', but rather the concrete action implied by the decision. After any time interval, a decision may be replaced by another decision, perhaps based on updated information."

2. The small Roman numeral in parentheses identifies the particular point in Table 2.

3. We use the term "(original) evaluation" to indicate the evaluation being evaluated.
REFERENCES


