

PUBLIC POLICY ANALYSIS:  
A PARTNERSHIP BETWEEN ANALYSTS AND POLICYMAKERS

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PUBLIC POLICY ANALYSIS:  
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\*This paper was prepared for presentation at a conference on "Modern Techniques of Political and Economic Analysis Applied to Decisionmaking Processes" sponsored by the International Relations Research Center of the University of Florence, held in Florence, Italy on February 18-19, 1977.



I understand that the audience at this conference is composed of both analysts and policymakers. It, therefore, presents an ideal forum for discussing the need to bring these two groups together in an effort to improve the process of making public policy decisions.

In speaking about analysts, I would like to specifically distinguish between operations researchers and policy analysts. Operations research deals with techniques for providing information to a policymaker that he can use in making his decisions. Policy analysis is systems analysis applied to public sector decisionmaking. It is not a set of techniques, but rather an approach to problem solving. It is, in fact, a philosophy for carrying out decision-oriented research; a perspective on the proper use of available tools.

#### Systems Analysis

Systems analysis is simply an organized, systematic approach to problem solving. It can be used to study the problems of almost any system: health systems, political systems, industrial systems, urban service systems, and so on. But wherever it is applied, it almost always involves performing the same set of logical steps. These steps are so logical that they are used by most people, usually intuitively or unconsciously, in making everyday decisions about such things as what car to buy or where to go for a vacation.

The steps, summarized in Figure 1, are:

- (1) Identify the problem. While systems analysis can be applied to a wide range of problems,\* it is astonishing how often an explicit statement of the problem is ignored. But for a serious study to be undertaken there must be a reasonably clear statement of a problem to be solved.

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\* A discussion of the types of public problems to which systems analysis can be usefully applied is given in Quade, E.S., Analysis for Public Decisions, American Elsevier Publishing Co., Inc. New York, 1975, pp. 14-20. Quade divides such problems into five categories: operational efficiency, resource allocation, program evaluation, planning and budgeting, and "strategic choice."

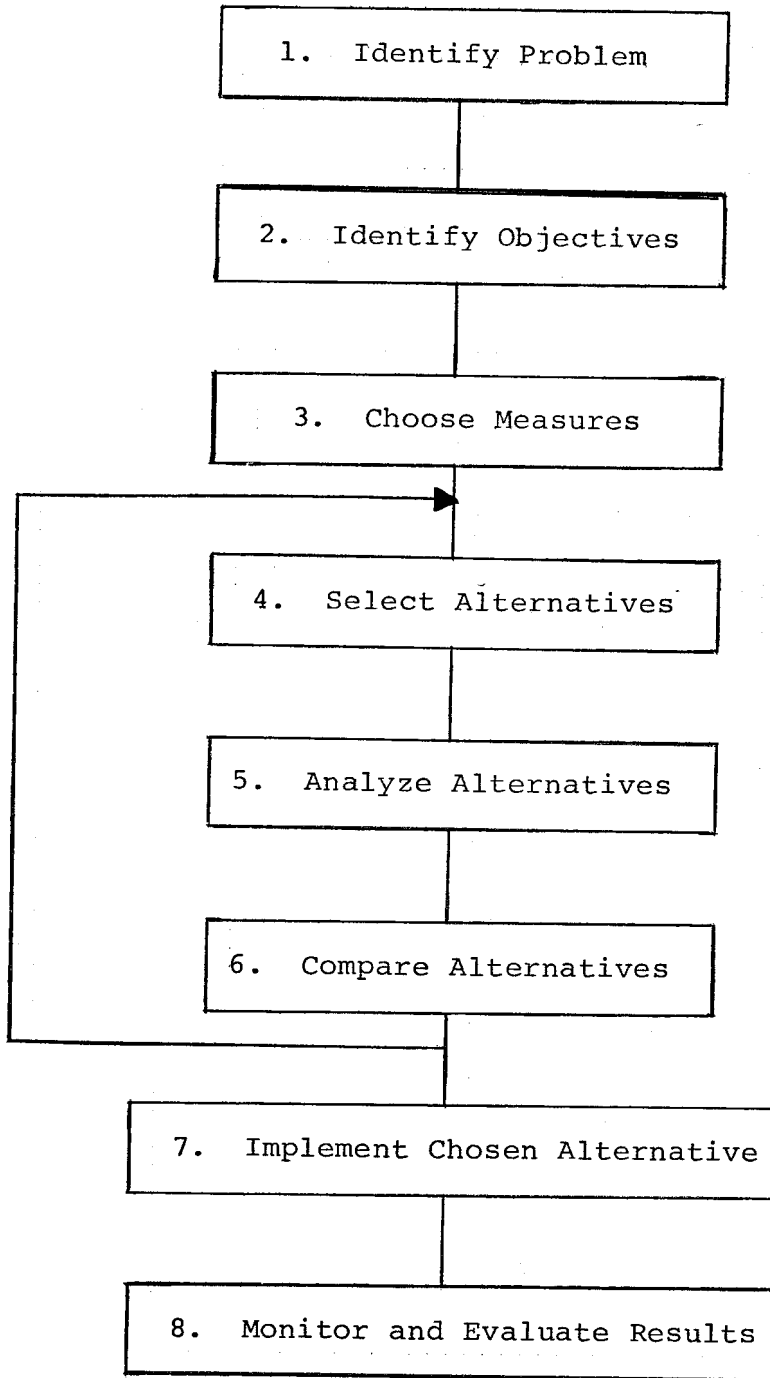


Figure 1. Steps in a systems analysis study.

- (2) Identify the objectives of the analysis. When a policymaker decides to undertake a study he or she should have an idea of what the policy or decision that results from the study should achieve. However, in public systems there are often multiple, conflicting, and unclear objectives. Thus, this step is rarely easy to perform.
- (3) Choose the measures. In order to evaluate alternative policies a way is needed to compare any two policies and decide which is better, where "better" means "comes closer to meeting the objectives of the analysis." For this purpose measures are defined (which are usually expressed as numbers). For example, if an ambulance service is trying to find the best locations for its ambulances (where "best" means "results in the fewest lives lost before the patients reach the hospital") the service's director might use response time to serious incidents as his performance measure for comparing policies.
- (4) Select alternative policies. In this step alternative policies are proposed for examination and evaluation. It is important to include a wide range of alternatives. If a policy is not specified as an alternative it cannot be evaluated. If it is not evaluated, there is no way of knowing how good--or bad--it might be. The set of alternative policies should include the current policy as a "base case." By comparing the effects of other policies to the base case it is possible to determine whether a new policy is better and to estimate how much of an improvement can be expected.
- (5) Analyze the alternatives. Once alternative policies are selected, each has to be examined to determine the values of the measures that would result if the policy were implemented. This is usually done with models. A model is an approximation of a real system, which can be manipulated and experimented with as if it were the real system without the real world costs or dangers. It is used to predict what would happen in the real world if a particular policy were implemented.

(6) Compare the alternatives and choose the policy to implement.

In this step the quantitative information produced by the models is combined with factors, such as political constraints, that are difficult to build into the models, and the best alternative is chosen. Models and mathematics are no substitute for common sense and good judgement. They are only aids to the policymaker, supplying him with understanding and insight into some aspects of the problem. It is up to the policymaker to use his expert judgment to choose the appropriate alternative to implement.

(7) Implement the chosen policy.

(8) Monitor and evaluate the results. The analysis does not end with the implementation of a new policy. Once a policy is implemented it is important to watch its behavior closely to make sure that the policy performs as it was expected to perform.

The Roles of the Policymaker and the Analyst

In most policy analysis studies performed to date, an analyst or consulting firm has usually:

- identified the problem (step 1)
- identified the objectives (step 2)
- chosen the measures (step 3)
- selected the alternative policies to test (step 4)
- analyzed the alternatives (step 5)
- compared the alternatives and recommended the policy to implement (step 6)

But, in most policy analysis studies performed to date, the recommended policy was never implemented. The studies may have been well-designed, the models elegant, and the reports produced impressive, but from a policy point of view, a study must be judged a failure if the recommendations are not carried out.

There are many reasons why the policies are not implemented. But one of the major reasons is probably that the policymaker did not



understand how the results were obtained, or did not agree with the way one or more of the steps were carried out.

This suggests that more attention should be paid to the process of performing a policy analysis study. There is much that could be said about organizing a study, collecting and analyzing data, building models, etc. All of these factors are important determinants of the success of a study. However, the single most important factor in determining whether or not the results of a study are implemented is the relationship between the analyst and the policymaker.

A policy analysis study should be a joint effort of the analyst and the policymaker--a partnership in the true sense of the word. In this partnership there should be a clear division of responsibility and differentiation of roles. The analyst should do the data analysis and the modeling, and should present information to the policymaker that will enable him to evaluate the alternative policies and choose the one to be implemented. The policymaker should define the objectives, identify the constraints on feasible solutions, choose the policy to be implemented, and support the implementation effort.

Let us examine the respective roles of the analyst and the policymaker in each of the eight steps of a policy analysis study.

- (1) Identify the problem. The policymaker and the analyst should jointly identify the problem to be studied and define its scope. The problem should be defined in such a way that there would be at least some hope of finding an implementable solution within the technological and political constraints of the situation, and within the policymaker's span of control.
- (2) Identify the objectives. The policymaker must identify the objectives of the analysis. In the public sector, objectives are rarely as clear as in the private sector. In the private sector "maximize profits" or "minimize costs" will often suffice. In the public sector the equity of a policy must be considered, as well as its efficiency. The presence of multiple objectives requires the policymaker to decide how much of one he is willing to give up in order to obtain more of another. The analyst can

help the policymaker to specify what it is that he wishes to achieve with a new policy.

- (3) Choose the measures. Once the policymaker has identified the objectives, an analyst can determine the measures to be used to see how close various alternatives come to meeting the objectives. However, just as it is harder to set objectives in the public sector than in the private sector, it is harder to measure the performance of a public system. For example, how does one measure the performance of a welfare system, a library system, a system of parks and recreation, etc.? The purpose of many of these systems, is to improve the "quality of life." But how is the quality of life to be measured? In practice "proxy" measures are used that are easier to measure and are expected to be positively correlated with the ultimate goals. For example, response time is often used to measure the performance of a fire department, although the department's mission is to minimize the loss of life and property due to fire. The relationship between response time and the resulting loss of life and property has not yet been determined, but it is clear that if a new policy results in shorter response times it will also result in fewer lives lost and less property damage.
- (4) Select alternative policies. Both the analyst and the policymaker should be involved in selecting alternatives to be tested. In fact, the best selections will most likely result from the informed judgement, experience, and intuition of the policymaker. He generally has a wealth of ideas for solving his problems. But he has no way of sorting out the good from the bad without implementing them in the real world. If he selected a bad one, the consequences could be disastrous. But models permit his ideas to be tested and evaluated before being implemented.

- (5) Analyze the alternatives. The analyst has primary responsibility for building and validating the model to be used for evaluating alternatives. But he should not cloak the model in mystery. To the maximum extent possible, he should tell the policymaker how the model works and what assumptions have been made in building it. The more a policymaker knows and understands about a model, the more likely he is to accept its results in evaluating policies.

In constructing a model the analyst should try to abide by the following three principles of policy analysis\*:

- *Fit the model to the problem, not the problem to the model.* The engineer, the political scientist, the operations researcher, the statistician, and the economist each has his own sets of tools and techniques that he is likely to want to apply to a problem. Sometimes these tools are appropriate, and sometimes they are not. It is not uncommon for an analyst to make assumptions that will fit the problem to the tool he wants to use, rather than to search for the appropriate tool (or develop a new one).
- *Use the simplest model that will do the job.* The analyst must keep in mind that he is going to have to explain his results and methodology to a policymaker who will generally not be familiar with advanced mathematics. The simpler the model the easier it will be to explain and the better the chance that the policymaker will understand the

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\*For a discussion of some of the common mistakes made by systems analysts see Kahn, H., and I. Mann, Ten Common Pitfalls, Report RM-1937, The Rand Corporation, Santa Monica, California, July 1957.

analysis. As Quade points out: "Complicated formulas, or relationships so involved that it is impractical to reduce them to a single expression, are likely to convey no meaning at all, while a simple relationship may be understood...The most convincing analysis is one that a nontechnician can think through."\*

- *A model is a means to an end, not the end in itself.* In the academic world, a scientist can improve his academic credentials by constructing elegant, sophisticated mathematical models that solve made-up "problems," and publishing the details in professional journals. He need not be particularly concerned about whether anyone in the real world has a problem that matches the assumptions and constraints of his model. There is usually no real "client" for the model. The policy analyst, however, must keep his work problem oriented, remembering that his primary job is to solve a problem, not build a model.

(6)-(7) Compare the alternatives, choose the policy to implement, and implement the policy. The models produce information for the policymaker to use in comparing policies. Clearly, the comparison of alternatives, the selection of the policy to implement, and the implementation of the chosen policy are the responsibility of the policymaker.

The actual implementation of a new policy is typically much more difficult in the public sector than in industry. It is rare for a policy to please everyone, and there are usually strong pressure groups that will try to prevent implementation of a new policy. The fact that a rational

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\* Quade, E.S., Analysis for Public Decisions, American Elsevier Publishing Company, Inc., New York, 1975, page 308.

process of analysis was used to choose the best policy to implement may make it easier to convince some groups, but it certainly does not guarantee an easy implementation.

- (8) Monitor and evaluate the results. This step is rarely included in policy studies at present. But a policy analysis study does not end with implementation. The models used to evaluate and compare the alternatives are only approximations to reality and provide only estimates of what would happen if a particular policy were implemented. Besides, the environment might change after the policy is implemented.

As part of the study, the analyst should set up a monitoring mechanism to make sure that the anticipated benefits actually occur and that the projected costs were realistic. If not, this fact should be recognized as soon as possible and the policy should be modified accordingly. The monitoring and evaluation function could and perhaps should be carried out by someone other than the policy analyst or the policymaker.

#### An Example of A Successful Partnership

Public policy analysis has not yet fulfilled the potential that many hoped it would have in public decisionmaking. I am convinced that part of the reason for this is that there is a basic deficiency in the way most policy studies have been conducted. They have generally been performed at universities or research centers that have no identifiable policymakers as clients.

I believe that the success of systems analysis in the public sector requires new institutional arrangements that will facilitate policymakers working jointly with analysts--partnerships between policy analysts and policymakers. Greenberger, Crenson, and Crissey, who make a similar suggestion in their recent book, indicate that partnerships of this type will "improve the relationship between the consumers and producers of models--reduce misunderstanding, facilitate

communication, and promote mutual acceptance and respect."<sup>\*</sup>

A model for such an institution was The New York City-Rand Institute, which performed policy analysis studies for New York City from 1969 through 1975. It was a partnership between a particular governmental unit (the City of New York) and a non-profit research organization (The Rand Corporation). The work of the Institute was tailored to address the policy problems and information needs of specific clients in City government.

The formal aims of the Institute were:

- (1) "to enlarge what is known about the City's problems and opportunities;"
- (2) "to devise timely and realizable recommendations based on that knowledge;" and
- (3) "to help improve the process through which City agencies routinely make decisions."<sup>\*\*</sup>

The Institute was designed to combine the advantages of an internal research group and an outside consulting firm without the deficiencies of either. It was not a group of City employees, so it could be critical of City policies and insulated from the day-to-day problems of the City. But it was close enough to the City to know its real problems and the political constraints on their solution, to have relatively easy access to data, and to devise recommendations that were timely, realistic, and useful.

An important element in the Institute's relationship to the City was the continuity of its efforts. It was not just a consulting group hired to study a particular problem, produce a report (destined to lie on the shelf) and disappear from the scene. Its continuing presence over almost seven years allowed it to work with the City's policymakers

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<sup>\*</sup> Greenberger, M., M.A. Crenson, and B.L. Crissey, Models in the Policy Process: Public Decision Making in the Computer Era, Russell Sage Foundation, New York, 1976, page 326.

<sup>\*\*</sup> The New York City-Rand Institute, First Annual Report, October 1970, page 2.

in all stages of the policy analysis process, from problem definition through implementation and evaluation. It also led the City to develop confidence in the Institute's analysts and in their work.

A brief history of The New York City-Rand Institute appears in the book by Greenberger, Crenson, and Crissey.\* They also examine what can be learned about performing policy analysis from the Institute's experience. The Institute proved quite successful in achieving its original aims. However, it did not succeed in establishing itself as an institution independent of the particular mayor in office at the time. The Institute was set up during the administration of Mayor John V. Lindsay. One year after Mayor Lindsay left office, the Institute was closed. The next mayor, Abraham Beame, did not understand the need for policy analysis or how useful an institution such as The New York City-Rand Institute could be to him in helping him guide the City through its financial crisis. The Institute had been associated too closely with Mayor Lindsay to survive.

In spite of the demise of the Institute, I am optimistic that a similar institution will soon become a reality again--to perform policy analysis for a city like New York, or for a state or a country. As Greenberger, Crenson, and Crissey also conclude:

"Although the Rand Institute was created to deal with the problems of New York City, it also represented an attempt to deal with the more general problem of introducing timely and usable research results into the process of public decision making. In effect it was an experiment--though not a controlled experiment--in policy research. The results suggest a need for more such experiments."\*\*

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\*Op. cit., Chapter 7.

\*\*Op. cit., page 317.





