PART ONE / METHODS

Rationalist Models (or rationalist problem-solving process) is a process for approaching policy problems in which some decision leads to implementation. However, the term policy analysis is also commonly used to refer to the process of outcome of the analytical process. This could be a bound, illustrated report, but more often it is a memo, position paper, or draft legislation. The analysis process and conclusions drawn from the report might also be presented orally and visually. Together, the process and product is oral and written persuasion through which the analyst seeks to inform others about the insights gained during examination of the policy problem. The primary emphasis of this book is on the policy analysis process—how the analysis is formulated and conducted, and the methods used in the analysis. However, the product and its presentation are discussed at several points because their quality can be as important as the analysis they describe. A good presentation improves a good product.

We do not intend to elaborate the definition of policy analysis, since the term, like the field, continues to evolve. The term policy analysis was probably first used in 1958 by Charles E. Lindblom. Lindblom was referring to a type of quantitative analysis involving incremental comparisons in which nonquantitative methods are included in recognition of the interaction of values and policy.

Over the years policy analysis has also been defined as:

types of policy analysis

Policy analysis can be done before or after the policy has been implemented. An analysis can be conducted to anticipate the results of alternative policies in order to choose among them or it can be conducted to describe the consequences of a policy. Descriptive policy analysis refers to either the historical analysis of past policies or the evaluation of a new policy which is unimplemented. Descriptive policy analysis may also be termed "ex-ante," "post hoc," "prospective," or "retrospective." Policy analysis of the latter time frame can be further broken down into two types:

9. Lilburn, American Public Policy, p. 86.

retrospective and evaluative, with retrospective analysis referring to the description and interpretation of past policies (What happened?) and evaluative policy analysis referring to program evaluation (Were the purposes of the policy met?). For example, a study of past student-loan default rates among students of different majors would be a retrospective study. A study of default rates among students with particular characteristics to see if they matched those that had been anticipated when the program was set up would be an evaluative policy analysis.

Policy analysis that focuses on the possible outcomes of proposed policies has been called "ex-ante," "pre hoc," "anticipatory," or "prospective." Policy analysis is the analysis prior to the implementation of policies can be subdivided into predictive and prescriptive policy analysis. Predictive policy analysis refers to the projection of future states resulting from adopting particular alternatives, while prescriptive policy analysis refers to analysis which recommends actions because they will bring about a particular result. Thus, prescriptive policy analysis involves displaying the results of analysis and making a recommendation. The assumption here is that the analyst understands the client's values, goals, and objectives and that the client expects or will at least tolerate a recommendation rather than a list of options.

A study forecasting the impact of changing the student-loan interest rate on the savings behavior of borrowers and their parents would be a predictive policy analysis. A study to recommend what interest rate should be charged on student loans to cause potential borrowers to use family resources before borrowing would be a prescriptive analysis.

descriptive analysis is often incorporated into prescriptive policy analysis. In order to design and evaluate new policies, the rationale for and the impact of past policies must be understood. Implanted policies must be modified and evaluated in order to determine whether to continue or modify them and to generate information that will be useful when similar policies are proposed in the future. In the student-loan example, descriptive analysis about past borrower behavior would be an important ingredient of an analysis of possible revisions to loan policies. However, the process and methods described in this book are intended primarily for use in predictive and prescriptive policy analysis, to help analysts examine the probable consequences of implementing new policies.

The principal tasks in prospective policy analysis include the identification and verification of complex problems, the quantitative and qualitative comparison of alternative ways to address problems, and the assembling of information into a format that policy makers can use when making decisions. Policy analysis is thus a systematic evaluation of the technical and economic feasibility and
political acceptability of alternative policies (or plans or programs),
strategies for implementation, and the consequences of policy adoption. A good policy analysis integrates quantitative and qualitative information, approaches the problem from various perspectives, and uses appropriate methods to test the feasibility of proposed options.

Methods and technical tools such as decision analysis, disaggregating, and modeling play an important role in policy analysis. However, policy analysis is more than the technical tools used to help decision makers. It is also the process that guides the selection and use of methods and tools, that recognizes the goals and values of the client, affected individuals, citizen groups, politicians, and units of government; and provides a clear explanation of the issue being debated. It also involves explicitly stating the criteria that will be used to evaluate possible policies, the means for generating and evaluating alternative policies, specific ways to implement these policies, and how to assess the results of the analysis.

THE ROLE OF THE ANALYST

Policy analysis can be found at all levels of government. They work for state planning and budget bureaus, governors offices, and legislative committees. They work for city managers, planning and development agencies, boards of education, finance departments, and federal departments and agencies. Most often these analysts are staff assistants, and their assignments usually vary from day-to-day or week-to-week. They typically work on remedial specific problems for immediate application. People become policy analysts because they want to work on interesting problems, to apply their technical knowledge, to be useful, to make an impact, to make a decent income doing something they find enjoyable, and to be near power or possibly to have power. Duncan MacRae and James Wilde believe that informed citizens can be their own policy analysts.

Arnold Meltsner has classified policy analysis into three types: the technician, the politician, and the entrepreneur. The technician is a researcher with excellent analytical skills but few political skills who would rather be right than on time. The politician is the analyst-turned-bureaucrat striving for personal advancement who is more attuned to politics than analysis. The entrepreneur, highly skilled both analytically and politically, knows how to work with numbers and people...does not let his immediate client constrain him...sees the policy event as his client...has strong normative views of the scope of government activity...is concerned about distribution as well as efficiency...is much more aware than other analysts that his preference guides the selection and exclusion of analytical problems.

Most analysts know, and the students we teach, view themselves as, or would like to become, entrepreneurs. They seek to exercise both technical and political skills. Becoming an entrepreneur rather than a bureaucrat is not easy. Meltsner has found that analysts in bureaucracies are susceptible to bureaucratic influences because (1) they are members of an emerging profession without enforceable standards and sanctions; (2) they lack an adequate base of knowledge and associated theoretical paradigms; (3) they have tenuous communication networks; and (4) they are low-status, low-status political actors. With a lack of social and political support from outside the bureaucracy, they succeed in bureaucratic forms, folklore, and incentives. Because it is important to combine technical and political skills early in a career, both types of methods are included in this book to help the beginning analyst become the type of analyst who can work with numbers and people.

Although policy analysts may sometimes become advocates for a particular policy, they more often remain analysts, striving to provide their employer or client an evaluation of alternatives that can be used as one of perhaps several inputs to formulating a decision. The policy analyst may be asked for advice, but most often the decision is reserved for the agency director, the legislative committee, the governor, or the mayor. The analyst who does not understand the relationship with the client, especially the analyst responsible to an elected official, is likely to be frustrated and disappointed. Often political factors will prevent a technically superior alternative from being selected. Robert Lipset's provides the caution: "It does not stretch a point too much to say that politicians usually listen more carefully to voters than to analysts, whereas the opposite is true of experts. In essence, the question is whether a policy should be adopted because a expert prefers it or because it is the rational thing to do." Occasional the two positions are synonymous, but the analyst must also expect instances when they are not.

That the decision usually falls to others does not necessarily negate the influence of the analyst who will be involved in the interpretation of problems, the establishment of a fact base, and the identification and evaluation of

16 Directions can be made among the words plan, program, and policy, but there is little agreement in the literature. The following distinctions may be helpful to readers not familiar with the literature. A plan is a general scheme of action or a procedure to achieve a desired end. A policy is a specific course of action to be followed by a government body or institution. A program is the specific steps that must be taken to achieve or implement a policy. A plan can include policies and programs. A policy may include programs. We will not distinguish the differences in this text. The words will be considered synonymous.
18 Duncan MacRae, Jr., and James A. Wilde, Policy Analysis for Public Decision (North Scituate MA: Duxbury Press, 1975), pp. 4-5.
21 Meltsner. Policy Analysis, pp. 11-12.
22 Lipset. American Public Policy, p. 33.
alternatives. The way the analysis is packaged or presented can influence decisions. Moreover, basic assumptions may introduce biases into the analysis. Thus to maintain credibility, the analyst must identify underlying assumptions, keep accurate records, use multiple sources of information, and employ replicable methods and models.

In real life most policy analysis topics are identified by top officials, politicians, and agency officials who seek to understand the costs and benefits of policy decisions they must make. These problems may be assigned to staff for analysis, or staff may provide data for the decision maker’s analysis. In either case, but especially when assigned the task of conducting the study, the analyst has a right to expect some guidance from the executive or client, including the following, which we derive from our experience and suggestions from the Urban Institute. The client or manager should:

1. Assure in the identification of problems and issues.
2. Delegate responsibility and authority for the study to a specific individual or group.
3. Provide adequate staff and fiscal resources.
4. Indicate a time frame for completing the analysis.
5. Review the objectives, evaluation criteria, alternatives, and constraints, included in the political environment.
6. Periodically check on progress.
7. Review results and use the relevant findings.

Not all managers will meet all these obligations. If you feel clients or superiors have neglected these responsibilities to the point where you either cannot stand behind the analysis or believe that important findings are being ignored or concealed, you should determine whether you can maintain an ethical and satisfying working relationship. If the answer is no, you should seriously consider terminating your relationship.

THE ANALYTIC PROCESS

How is a policy analysis conducted? There is no single, agreed-upon way. A number of practitioners, researchers, and teachers have described policy analysis models. Some of these processes have been criticized because they follow the ideal, rational-model approach—a method, some argue, that cannot be followed. We will return to this argument, but first what have these experts said about the process of policy analysis?

Policy analysis has been characterized as an art, craft, and comprehensive activities that depend to a large extent on the skill, judgment, and intuition of the analyst. Beginning analysts have to develop these skills by doing analysis, and a framework can help. Keep the following summaries of the policy analysis process in mind when we describe the steps in that process in later chapters.

E. S. Quade identifies five important elements in the policy analysis process as problem formulation, searching for alternatives, forecasting the future environment, modeling the impacts of alternatives, and evaluating (comparing and ranking) the alternatives. He points out that policy analysis is an iterative process in which the problem is reformulated as objectives are clarified, alternatives are designed and evaluated, and better models are developed. He suggests that the process continues until time is up or money runs out.

In writing for the citizen as a potential analyst, MacRae and Wilde argue that each analysis of a policy choice involves a set of common elements: definition of the problem, determining the criteria for making a choice among alternatives, generating a range of alternative policies, choosing a course of action that will cause the policy option to be implemented, and evaluating the policy after it is in effect.

In their primer on quantitative methods for policy analysis, Suckey and Zeckhauser suggest a five-step process as a starting point: defining the underlying problem and objectives to be pursued, listing possible alternative courses of action, predict the consequences of each alternative, determine the criteria for measuring the achievement of alternatives, and indicate the preferred choice of action. The authors recognize that the analysis may not move in an orderly manner from one step to another and may have to work back and forth among the steps, but they hold that all five areas must be present in any analysis.

A similar process is described by the Urban Institute for state and local program analysis: define the problem, identify relevant objectives, select evaluation criteria, specify the client group, identify alternatives, estimate the costs of each alternative, determine the effectiveness of each alternative, and present findings. This process breaks apart some of the steps identified by other authors. In other formulations, problem definition includes the identification of objectives and client groups, and the evaluation of alternatives includes cost-effectiveness and other measures.

These and other policy analysis approaches closely resemble the ideal, rational decision-making process found in many fields. For example, the process defined in a multidisciplinary textbook on decision making includes the following:

25 Quade, Analysis for Public Decision, pp. 41-42.
26 MacRae and Wilde, Policy Analysis, pp. 75-72.
28 Hesse, Blair, Fish, and Kornell, Program Analysis, pp. 1-7.
ing steps: define the problem, identify the alternatives, quantify the alternatives, apply decision aids, choose an alternative, and implement the decision. Like other formulations of the decision process, this one includes the iteration of steps when a given step cannot be completed because of a lack of information. Moving back and forth among steps can lead to more precise problem statements and the identification of additional alternatives.

The rational model is also prescribed for solving strategic problems in business. It, in turn, includes the familiar steps: diagnose the problem, define objectives, generate alternatives, assess consequences, select the "best" alternative, pre-implement the "best" solution (identify side effects or unintended consequences), and implement the "best" solution. Similar rational problem-solving approaches have been prescribed for many fields over the decades, including economic development, design, urban and regional planning, and public administration.

Can anyone, especially a fledgling analyst, follow these processes? They require a clear statement of goals and objectives (which is often difficult to obtain from an individual, much less from an organization or public body), an identification of the full range of alternatives that could be used to achieve the goals (how do we know when all options have been considered?), and the computation of the costs and benefits of these options (how can we ever compute such values for hundreds of possible options?). The ideal process is not only mentally demanding, but time consuming and costly as well. By the time the analyst cycles through the process, the problem may have been resolved by other means, or may have disappeared, or may have become too big to deal with. Furthermore, organizations cannot usually afford to conduct complete analyses. In the day-to-day world of policy making, the need for quick, rough estimates requires that compromises be made with the rational model. Herbert Simon argues that good or acceptable options, not necessarily the best, are selected because the cost of the search will outweigh the benefits. Charles Lindblom.

BASIC POLICY ANALYSIS IN SIX STEPS

We have incorporated ideas from a number of overlapping descriptions of policy analysis with our own experiences to create the six-step process shown in Figure 2-1: problem definition, determination of evaluation criteria, identification of alternatives, evaluation of alternatives, comparison of alternatives, and assessment of outcomes. These are the major steps in the process, but each step could be broken into smaller components. The basic methods that can be used at each step are presented in Chapters 3 through 9.

Analysis may take various routes through the policy analysis process because of differences in training, the time available for analysis, the complexity of problems, and the nature of the decision making context. For many situations, a single method can be effective, whereas for other situations, several methods may be necessary. The choice of methods depends on the nature of the decision, the amount of time available for analysis, and the decision maker's own preferences. The six-step process provides a framework for organizing the analysis and for evaluating the methods used. It is not a prescription for how to analyze a particular policy, but rather a guide for structuring the analysis.
the problem, resource availability, and organizational affiliation. Most analysts first approach a problem by using the methods and outlook of their discipline. Economists often first see the problem in terms of economic costs and benefits, persons trained in sociology may first look at the differential impact on groups of citizens, and attorneys may first look at the legal aspects of the problem. The test available is that steps in the process will be collapsed or skipped. Complex problems may seem to require the delegation of tasks and the use of specialists, but if resources are short, the work will be done in-house. Analysts in large organizations will likely have access to consultants, technical support staff, and specialized equipment and may often deal with only part of the problem; those in small organizations are less likely to have such support and are more likely to conduct most of the analysis themselves.

Step One: Verify, Define, and Detail the Problem

When faced with problems in our personal lives, we are often frustrated by the many angles that have to be considered and the conflicting nature of possible solutions. The more people we consult about a problem, the greater the number of factors that are brought to our attention. The more we delve into the problem, the more aspects we find that need evaluation. The same dilemma arises in policy analysis. Don't accept the initial problem statement without question. It may be only the tip of the iceberg, a part of a larger problem, or one that cannot be influenced by the client or decision maker.

Since conditions change, the policy analyst must continually ask whether the problem that precipitated the analysis still exists. Often the analyst has to redefine the problem during analysis as it changes form or takes on new dimensions. Students of policy analysis are told to define problems so they can be resolved. This process has been dubbed "backward problem solving." Analyze the best available data about the issue, settle on the criteria that will be used to evaluate alternative policies, think up possible alternatives, and then redefine the problem so that it can be reduced, controlled, perhaps resolved; with the information and resources on hand. Such an approach is often demanded by the immediacy of problems and the short period during which the analysis must be conducted.

Problem definition is often difficult because the objectives of the client are not clear or stated objectives appear to be in conflict. Sometimes client and analyst may not understand each another because of differences in terminology or jargon. But often organizations cannot or will not make clear statements of objectives. This is a special problem for public organizations, which may have multiple missions, serve many clientele, and attempt to respond to changing or conflicting public sentiments. Furthermore, power, including the power to determine organizational objectives, is diffused in large organizations and sought after by competing factions. An apparently simple contemporary problem may illustrate some of the difficulties inherent in problem definition.

In Illinois, a driver's license can be obtained at age 18. If a person has successfully completed a driver education course a license may be obtained at age 18. Illinois teen-agers have the highest accident rate of any group of drivers in the state. A political candidate has called for "reducing the carnage on our highways." (See Figure 2-2.) What is the problem? Note that the answer depends on who's talking. You and your client may want to consider the perspectives of some constituencies and not others, but it pays to think about all possible viewpoints as you start out and narrow them down quickly, using a defensible rationale.

Is the problem one of excessive accident rate among teen-age drivers? Or is it more specifically the deaths and injuries that occur as a result of some of these accidents? A variety of factors may contribute to the problem: driver education programs that do not adequately prepare teens for unsupervised driving, a license examination that does not distinguish prepared from unprepared teens, unsafe second-hand and third-hand vehicles driven by teen-agers, and teen-agers driving while intoxicated. School districts might define the problem as the high cost of driver education. Parents of teen-age motorists

Edgar Says Keep Driver Ed, Don’t Up Driving Age

By BOB SPRINGER
Associated Press Writer

SPRINGFIELD—Raising the driving age in Illinois to 17 and abolishing mandatory driver education is the wrong way to solve the problem of accidents among inexperienced young motorists, says Secretary of State Jim Edgar.

Driver education programs should continue in the schools, Edgar said Monday. And instead of raising the driving age, he said teen-agers under 18 should be given "provisional" licenses that can be yanked if they violate traffic laws.

Edgar, in news conferences at the Illinois Statehouse and Chicago, responded to comments made last week by the Democratic candidate for governor, Adall Stevenson.

Stevenson said the driving age should be raised to 17 or 18 as a way of "reducing the carnage on our highways.

Teen-agers have the highest accident rate of any group of drivers and Edgar said there were about 207,000 16- and 17-year-olds with drivers’ licenses in Illinois in 1981.

Stevenson also said the state should do away with mandatory driver education programs, but Edgar also disagreed with that.

"Raising the driving age to 17 or 18 discriminates against responsible, mature young drivers who need to drive to school or work," Edgar said.

Edgar’s opponent in November, Democratic state Treasurer Jerry Cosentino, essentially agrees with Edgar’s position and disagrees with that of Stevenson, an aide to Cosentino said.

Of licensed 16- and 17-year-olds in 1981, Edgar said about 31,500 had one moving violation against them, and another 10,400 had collected two tickets.

Under Edgar’s provisional license idea, a young-ster’s driving privilege would be suspended for three months after his first ticket. A second ticket within a year for someone under 18 would mean the loss of a driver’s license for a year.

Edgar has been studying the provisional license plan since last spring with the Illinois Motor Vehicle Laws Commission. Neither he nor the commission has yet introduced any formal proposal in the form of specific legislation.

Driver education is a valuable tool in teaching young people how to drive, Edgar said.

Many school districts across Illinois complain that the state is cutting back on reimbursing them for the actual costs of driver education. Illinois will transfer the program this fiscal year with $16 million, Edgar said.

The money comes from a combination of portions of the fees for drivers’ licenses, instructional permits for 16- and 17-year-olds enrolled in drivers’ education and a surcharge on fines for conviction of traffic offenses.

Edgar said insufficient state financing would be an inadequate excuse to abolish mandatory driver education courses. Young people who do not complete classroom and behind-the-wheel drivers’ education must be 18 to obtain an Illinois driver’s license.


might define the problem as the high cost of insuring their safe teen-age motorists because insurance rates have been pushed up by unsafe teen-age drivers.

Facing such a range of possibilities, the analyst must verify, define, and detail the problem, making sure that it can be addressed by policies over which the relevant decision maker (often the client) has control.

Assuming that a problem exists, the analyst will try to determine its magnitude and extent. For example, how many teen-age auto fatalities per mile driven are there each year? How does this compare with other age groups? How long has the difference, if any, existed? How does this compare with other states?

Quick, rough calculations, sometimes referred to as back-of-the-envelope calculations, can set boundaries on the problem. Search for similar analyses by others. Use both documents and people. Contact the people who prepared the reports and seek additional material from them. The analyst can also use basic decision analysis (described in Chapter 4) to estimate possible economic and political impacts of changing existing policies.

Part of the problem definition is understanding the positions and influence of various individuals and groups. So the analyst asks: Who is concerned about the problem? Why? What are their stakes in the issue? What power do they have to affect a policy decision? These groups are often surprisingly many and diverse.

In the teen-age accidents case, the affected and interested parties could include the physician who initiated the discussion of the problem and who saw it as a possible campaign issue, driver education instructors who might lose their jobs if driver education courses were dropped, school districts that must bear the cost of driver education, the police who enforce traffic laws and investigate accidents, parents who are concerned about the safety of their children, and of course, the teen-age drivers themselves, who are concerned about their driving privileges.

The list of attentive groups might also include motor clubs concerned about the health and lives of teen-age drivers and the cost of driver education, and body shops that repair teen-age inflicted damage. Insurance companies that are concerned about risk taking, the farm lobby that values farm teen labor mobility, and, of course, society that has made an investment in the education of teen-age drivers.

Finally, the analyst needs to know whether enough information is available to conduct an analysis and whether there would be benefit in collecting more data. Approximately how much effort would be required to answer the basic questions, and what would a more in-depth study require?

The challenge at this stage of policy analysis is to state the problem meaningfully, to eliminate irrelevant material, to focus on the central, critical factors, and to define the problem in a way that eliminates ambiguity. After this effort (which must be done quickly to make the best use of money, talent, and time), the analyst should know whether a problem exists which can possibly be resolved by the client, should be able to provide the first detailed statement of the problem, and should be able to estimate the time and resources the analysis would require. Later, as alternatives are generated and analyzed, other aspects of the problem may be identified that will call for a redefinition of the problem.

Step Two: Establish Evaluation Criteria

How will the analyst know when the problem is solved or when an appropriate or acceptable policy is identified? How will possible policies be compared? Any proposed policy will have a variety of impacts and may affect various groups differently. Not only will policies that are acceptable to one group possibly be
unacceptable or harmful to another group, but a policy that appears acceptable when judged on the basis of cost for example, may become unacceptable when its environmental impacts are considered.

In order to compare, measure, and select among alternatives, relevant evaluation criteria must be established. Some commonly used measures include cost, ethical acceptability. For example, one alternative may cost less than the other, but it may also suffer from budget constraints. One alternative may yield a greater net economic benefit than another. One may be the least expensive way to obtain a particular objective or less than other options. Some of the alternatives are more likely to involve the public, while others are less likely to be involved. The political dimensions of the problem that affect a solution must be identified, as the alternatives vary in political acceptability.

Where does the analyst obtain the decision criteria? Sometimes the client provides them, either directly as measures, or indirectly through a statement of specific goals or objectives. In the former case it is the analyst’s job to make the criteria to deduce criteria and confirm them with the client. In the latter case we have often found that the decision maker will not or cannot identify goals, objectives, or criteria. Consequently the analyst will have to infer what they are. The analyst may become involved in the problem in the future, and for opposing interests, criteria are all equal, so the analyst must indicate those that are most relevant to the parties involved. When the alternatives are evaluated, the criteria are used. Various individuals and groups involved are satisfied by the alternative policies.

The relative importance of the decision criteria then becomes central to the analysis.

What would be possible evaluation criteria in the minimum age for drivers problem? To enumerate possible criteria, it may be helpful to think about this problem from the perspective of the possible goals involved.

From the viewpoint of society at large: (1) the public interest, the teen-age age accident rate (annual number of accidents per thousand teens/age or number of such criteria at the teen-age auto fatality rate and the driving while intoxicated for insure a teen-age driver in addition to accident, death, and driving while intoxicated rate. Other criteria may attempt to measure parental convenience (cost of teen-age drivers), Criteria important to school districts (cost of teen-age drivers). Criteria important to school districts (cost of school district management). Teen-
6. Revising driver education offerings.
7. Making the driver's license examination more stringent for teenagers.
8. Raising the minimum age for drinking alcoholic beverages.
9. Maintaining the status quo.

Variations and combinations of these alternatives are also possible, and the details of each option would have to be specified. For example, driver education might be continued and only provisional licenses be issued to teenagers. Or the minimum age for obtaining a driver's permit might be raised, driver education might be dropped, and the driver's license examination might be made more stringent. Another combination might be gaining driver education and issuing restricted licenses to teenagers who successfully complete a driver education course. Details to specify would include whether to raise the minimum age to 16.5, 17.0, 17.5, or higher, whether to restrict driving by time (daylight hours only), purpose (work or school), or both time and purpose, the type and number of laws violated that would result in the suspension of a provisional license, the length of suspension, and so on.

Generating and combining alternatives may reveal aspects of the problem not identified earlier. Examining alternatives used by others in analogous situations may provide additional insights. It may be necessary to redefine the problem because of new information, and the formulated problem statement may lead to a revision or addition of evaluation criteria. The challenge at this step in the analytic process is to avoid selecting prematurely on a limited number of options.

Thinking hard may be the most profitable way to identify alternatives, especially when time is short. Alternatives can also be identified by searching past research, by brainstorming, and by reviewing scenarios. Typologies describing the various groups that might be affected may reveal alternatives specific to particular groups. Seemingly unconventional alternatives should not be overlooked. What may have been unacceptable in the past may be more acceptable today. Testing these extremes may also provide data about the acceptability of less drastic measures and about how basic policies might be modified. Since values and assumptions of participants change over time, yesterday's unacceptable options cannot simply be discarded today without analysis.

Step Four: Evaluate Alternative Policies

The linchpin in the policy analysis process is the evaluation of alternative policies and the packaging of policies into strategies and programs. What are the expected impacts of each policy? To what extent does each policy satisfy the evaluation criteria?

The nature of the problem and the types of evaluation criteria will suggest the methods that can be used to evaluate the policies. Avoid the tool-box approach of attacking every evaluation with your favorite method, whether that be decision analysis, linear programming, or cost-benefit analysis. It has been said that when the only tool an analyst has is a hammer, then all problems will look like nails. Some problems will call for qualitative analysis. Others will require quantitative analysis. Most problems will require both. In the teen-age traffic accident problem, a cost-effectiveness study could be conducted to estimate the least expensive way to cut in half the teen-age auto accident rate, or a cost-benefit analysis could be used to determine whether there would be a net economic benefit from raising the minimum age to 18.5 years, by comparing possible savings on such items as auto operation, maintenance, repair, insurance, and traffic enforcement with such costs as in income lost to teen-agers who can no longer drive, the value of time that will be spent by parents chauffeuring, and the value of teen-age mobility and status. But for such a problem, the alternatives may also have to be evaluated for equity. Will farm and small-town teen-agers and families bear a greater burden because of less access to mass transportation? Options will also have to be examined from a political perspective. Would citizens, through their representatives, support an increase in the minimum driving age? Given sufficient time, research methods such as a citizen survey might be used to gauge support for various options. When time is not available for such undertakings, we must use simple predictions and forecasting techniques and elementary models to illustrate the effects of the options, sensitivity analysis to estimate the impact of changes in basic assumptions and parameters, and quick decision analysis to provide probability estimates of the outcomes of various sequences of decisions.

This evaluation step may reveal alternatives that satisfy most of the major criteria, and it may reveal others that can be discarded with little additional analysis. Some alternatives will call for further examination. Additional data may have to be collected. During this stage it is important for the analyst to recognize the difference between economically or politically feasible and politically acceptable alternatives. Policy formulation—the designing and evaluation of alternatives or policy options—is aimed at defining the problem appropriately and ferreting out feasible and effective solutions. Whether any of these solutions can be implemented is essentially a political question. In the teen-age driver example, if eliminating driver education and increasing the minimum age for obtaining a license was found to be the most cost-effective life-saving alternative, would the policy change be supported by the parents of teen-age drivers, school administrators, teachers, unions, farm groups, and so on? Such information must be brought into the policy evaluation stage, since policies should not be compared without reference to prospects for implementation.

The policy evaluation step is also a point in the analysis where we may discover that the problem no longer exists as we defined it or as it was defined for us. Information discovered during the identification and evaluation of policies may reveal new aspects of the problem which may in turn call for additional or different evaluation criteria. Although it may be disheartening to discover new
angles to the problem at this stage, it is essential to recycle through the analysis. The prospect of finding, during the evaluation step, that the problem has been incompletely or inaccurately defined reaffirms the suggestion that a first-cut analysis be conducted quickly during the problem-definition phase. Several fast iterations through the policy analysis process may well be more efficient than a single, more detailed one.

Step Five: Display and Select among Alternative Policies

Depending upon the analyst-client relationship, the results of the evaluation might be presented as a list of alternatives, an enumeration of criteria, and a report of the degree to which the criteria are met by each alternative. This is not to suggest that the numerical results can or should speak for themselves. Even in this somewhat neutral presentation format, the order of criteria, the sequence of alternatives, and the space given to various options can influence decisions.

The results of the evaluation might be displayed in a number of other ways. We will show later how matrices can be used as a format for comparison, to provide a quick visual means of highlighting pros and cons. When criteria can be expressed in quantitative terms, value-comparison schemes might be used to summarize the advantages and drawbacks of the alternatives. Evaluation results can also be presented as scenarios. In order-quantity methods, qualitative analyses, and complex political considerations can be melded. Such scenarios describe the alternatives, report the costs of the options, identify who wins and who loses under each alternative, and play out the economic, political, legal, and administrative ramifications of each option.

For a problem that involves quantitative information such as the teen-age accident problem, it is unlikely that the results of the analysis can be presented as a numerical summary. Furthermore, there may be no agreement on the relative importance of criteria. In such a case, a comparative matrix could be used to summarize the analysis. Along one axis would be listed the dollars where appropriate, number of lives saved, change in the teen-age auto accident rate, and so on. Such a format permits the decision maker or client to assess the options and to use the analysis to make a policy choice. In those cases where the client or decision maker has clearly stated objectives (or when the analyst has obtained agreement on objectives), ranking or weighing schemes may be appropriate, but the analyst has to be aware that personal biases can easily enter such summation schemes.

Some clients prefer that the analyst present a strong argument for the superior option, and in some instances the analyst may feel that a particular option has such overwhelming merit that a special case must be made for it. In these cases scenario writing may be the preferred tool, since it allows the analysis to be placed in a larger context, can give life to a dull analysis, can excite, can anger, or can move a person to action. As the analyst develops experience and gains the confidence of superiors and clients (moves toward becoming an entrepreneur), this phase of analysis may involve more advocacy and contain an explicit ranking of alternatives.

Keep in mind the difference between a technically superior alternative and a politically viable one. Sometimes the preferred alternative, in a technical sense, is known, and the task is to deal with political opposition. Use political feasibility analysis to display the pros and cons of alternatives and to answer such questions as: Do the relevant decision makers have the interest and influence to implement the policy? Would a less comprehensive (suboptimal) policy that addressed part of the problem and could be carried out by fewer participants have a better chance of success? What will the client have to give up or promise in order to have the policies implemented? Will new administrative mechanisms be required? Since policy is not made or implemented in a vacuum, others may have to be persuaded to make related decisions. Several units of government may need to cooperate.

Rarely will there be only one acceptable or appropriate alternative. Not only will different options appeal to various interested parties, but two or more alternatives may bring roughly similar results. None of the alternatives is likely to be perfect, as problems are rarely solved. More often their severity is reduced, the burden is more evenly distributed, or they are replaced by less severe problems.

Policy analysts work under time constraints. As a result, they take shortcuts. They estimate. They overlook alternatives and variables. Most policy analyses are incomplete. Because analysts make recommendations under conditions of uncertainty, these uncertainties must be reported and possible side effects must be identified. Will the proposed policy cause problems worse than those it addresses? It has been said that ‘every solution breeds new problems.’ If so, is the client willing to accept them? Are there ways to mitigate such unintended consequences? If raising the age for a driver’s permit causes more teens to ride buses and the subway, will this increase fear among older riders? Will the transit systems and local governments be able to alleviate these fears? If the preferred alternative is cracking down on teens who violate traffic laws, will the court system be able to process the cases? A worst-case scenario or worst-case worksheet can be prepared to lay out what could go wrong with the implementation of each option.

Having learned a great deal about the issues and alternatives by this point in the process, the analyst must ask whether the correct problem was identified, whether important components of the problem have been ignored, and whether real alternatives have been evaluated. Have conditions changed that might call for revising the assessment of alternatives? Are new options available? Have better data become available? Should portions of the analysis be redone using these data? Accuracy checks should be conducted.
Supporting technical studies may be needed that did not seem necessary earlier. It is unlikely that an analysis will reach this point without peer review, but if it has, and if the project is not top secret, others (nonprofessionals as well as experts) ought to be asked to criticize the analysis for logical inconsistencies, math errors, general blunders, and political feasibility.

Finally, what remains to be done to implement the preferred policy? Tasks and responsibilities must be assigned; plans for monitoring and evaluating the implemented policy should be made.

**Step Six: Monitor Policy Outcomes**

Even after a policy has been implemented, there may be some doubt whether the problem was resolved appropriately and even whether the selected policy is being implemented properly. These concerns require that policies and programs be monitored and evaluated during implementation to assure that they do not change their original intention, to measure the impact they are having, to determine whether they are having the impact intended, and to decide whether they should be continued, modified, or terminated.

Although we have chosen to focus on preprogram aspects of policy analysis, postprogram evaluation is also important. Preprogram analysis should be conducted with an understanding of how policies or programs might fail. Designing the proper monitoring and evaluation program in advance may forestall some of these failures.

It is important for the analyst to realize that policies can fail either because the program could not be implemented as designed or because the program was not implemented as designed. An example of failure because of the former is that the underlying theory was incorrect; policy or program evaluation has tested to look primarily at theory failure, but we must not dismiss the possibility that a program could not be implemented as designed. In the teen-age driver problem, evaluation activities would have to consider whether the policy was actually implemented. If the option selected was to restrict teen-agers to daytime driving, is it being enforced? If it was to raise the drinking age, is this law being adhered to? If the decision was to issue provisional licenses, are they being revoked after violations?

If we find that the policies are being implemented properly, then we can conduct an evaluation to determine what the policy is having no impact on the teen-age driver accident or death rate. Possible evaluation designs would include comparison of relevant rates before and after implementation of the policy and comparing rates in a "test" state with a "control" state. Because establishing a control or comparison group may be impossible, the evaluation might instead take the form of a time-series analysis from a year before the change in policy through at least a year of the policy. In this way, the case area is its own control group.

Although postprogram evaluation is typically characterized as "researched"
analysis," policy analysts are often called on to conduct such evaluations quickly and to reconstruct the evaluation data after the programs have been operating for some time. Such assignments require that the analyst call upon many of the basic, quick methods of preprogram policy analysis.

SUMMARY

This chapter was meant to provide a framework for thinking about policy analysis and a process for conducting policy analyses. The quality of the analysis depends greatly upon the identification of an important, precisely stated problem formulated so that relevant data can be collected. The policy analysis process consists of six basic steps: (1) definition of the problem, (2) establishment of evaluation criteria, (3) identification of alternative policies, (4) evaluation of alternative policies, (5) displaying and selecting among policies, and (6) monitoring policy outcomes.

Subsequent chapters present basic methods for analyzing policies. We describe crosscutting methods appropriate at various steps in the policy analysis process as well as methods most often used in specific steps in Chapters 3 through 9 (Figure 2-5). We organize the methods according to the steps in the process because we believe that policy analysis is more than methods and techniques. It is a way of thinking about problems, of organizing data, and of presenting findings. Policy analysis involves craft and creativity, and policy analysts develop their own styles and their personalized ways of orchestrating information. However, we believe beginning analysts can develop a set of basic skills and a general approach that will provide a foundation for analytical development. We encourage you to solve the practice problems and to use the case studies to apply the methods discussed in the chapters that follow.

GLOSSARY

Anticipatory Policy Analysis: see prospective policy analysis.
Descriptive Policy Analysis: analysis after the fact. Also called "ex post" and "post hoc."
Evaluative Policy Analysis: a subcategory of descriptive policy analysis, which answers the question, "Were the purposes of the policy met?"
Ex Ante: see prospective policy analysis.
Ex Post: see descriptive policy analysis.
Plan: a general scheme of action or a procedure to obtain a desired end. Often used as a synonym for policy and program.
Policy: a settled course of action to be followed by a government body or institution. Often used as a synonym for plan and program.
Post Hoc: see descriptive policy analysis.

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Introduction

POLICY ANALYSIS is a social and political activity. True, you take personal moral and intellectual responsibility for the quality of your policy-analytic work. But policy analysis goes beyond personal decision making. First, the subject matter concerns the lives and well-being of large numbers of our fellow citizens. Second, the process and results of policy analysis usually involve other professionals and interested parties: it is often done in teams or office-wide settings; the immediate consumer is a "client" of some sort like a hierarchical superior; and the ultimate audience will include diverse subgroups of politically attuned supporters and opponents of your work. All of these facts condition the nature of policy-analytic work and have a bearing on the nature of what is meant by quality work.

A policy analyst can work in any number of positions. Once upon a time, the term implied someone rather wonkish who worked in a large government bureaucracy serving up very technical projections of possible policy impacts for one or more policy alternatives to some undersecretary of planning. No longer. Policy analysts help in planning, budgeting, program evaluation, program design, program management, public relations, and other functions. They work alone, in teams, and in loose networks that cut across organizations. They work in the public, nonprofit, and for-profit spheres. Although their work is ideally distinguished by transparency of method and interpretation, the analysts themselves might explicitly bring to their jobs the values and passions of advocacy groups as well of "neutral" civil servants. The professional networks in which they work might contain—in most cases, do contain—professionals drawn from law, engineering, accounting, and so on, and in those settings the policy-analytic point of view has to struggle for the right to counter—or better yet, synthesize—the viewpoints of the other professionals. Although policy-analytic work products typically involve written reports, they may also include briefings, slide presentations, magazine articles, and TV interviews. The recipients of these products may be broad and diffuse audiences as well as narrowly construed paying clients or employers. The advice in this handbook is directed both to policy analysts in
practice and to students and others who, for whatever reasons, are attempting to look at the world through the eyes of a practitioner.

**Policy Analysis: More Art than Science**

Policy analysis is more art than science. It draws on intuition as much as method. Nevertheless, given the choice between advice that imposes too much structure on the problem-solving process or too little, most beginning practitioners quite reasonably prefer too much. I have therefore developed an approach I call the Eightfold Path. The primary utility of this structured approach is that it reminds you of important tasks and choices that otherwise might slip your mind; its primary drawback is that, taken by itself, it can be mechanistic.

**The Eightfold Path**

- Define the Problem
- Assemble Some Evidence
- Construct the Alternatives
- Select the Criteria
- Project the Outcomes
- Confront the Trade-Offs
- Decide!
- Tell Your Story

These steps are not necessarily taken in precisely this order, nor are all of them necessarily significant in every problem. However, an effort to define the problem is usually the right starting place, and telling the story is almost inevitably the ending point. Constructing alternatives and selecting criteria for evaluating them must surely come toward the beginning of the process. Assembling some evidence is actually a step that recurs throughout the entire process, and it applies particularly to efforts to define the problem and to project the outcomes of the alternatives being considered.

**Iteration Is Continual**

The problem-solving process—being a process of trial and error—is iterative, so that you usually must repeat each of these steps, sometimes more than once.

The spirit in which you take any one of these steps, especially in the earliest phases of your project, should be highly tentative. As you move through the problem-solving process, you will probably keep changing your problem definition, your menu of alternatives, your set of evaluative criteria, your sense of what evidence bears on the problem, and so on. With each successive iteration you will become a bit more confident that you are on the right track, that you are focusing on the right question, and so on. This can be a frustrating process, but it can also be rewarding—provided you can learn to enjoy the challenge of search, discovery, and invention.

**Some of the Guidelines Are Practical, but Most Are Conceptual**

Most of the concepts used will seem obvious. However, there are exceptions. First, technical terms are sometimes employed. Second, some commonsense terms may be used in a special way that strips them of certain connotations and perhaps imports others. For the most part, all these concepts will become intelligible through experience and practice.

**The Concepts Come Embedded in Concrete Particulars**

In real life, policy problems appear as a confusing welter of details: personalities, interest groups, rhetorical demands, budget figures, legal rules and interpretations, bureaucratic routines, citizen attitudes, and so on. Yet the concepts described in this handbook are formulated in the abstract. You therefore need to learn to “see” the analytic concepts in the concrete manifestations of everyday life.

**Your Final Product**

So what will your final product look like? Here is a very rough sketch of a typical written policy-analytic report: In a coherent narrative style you will describe some problem that needs to be mitigated or solved. You will lay out a few alternative courses of action that might be taken. To each course of action you will attach a set of projected outcomes that you think your client or audience would care about, suggesting the evidentiary grounds for your projections. If no alternative dominates all other alternatives with respect to all the evaluative criteria of interest, you will indicate the nature and magnitude of the trade-offs implicit in different policy choices. Depending on the client’s expectations, you might state your own recommendation as to which alternative should be chosen.
The Spirit of the Eightfold Path

The spirit of the Eightfold Path is, I hope, an economizing and uplifting spirit. Analyzing public policy problems is a complex activity. It is easy to get lost, waste a lot of time, become demoralized. Other manuals and textbooks in policy analysis are very concerned that you get the analysis “right,” in some sense. I hope this one will help in that respect too. But, even more, I hope that this one will help you get it done with reasonable efficiency as well.