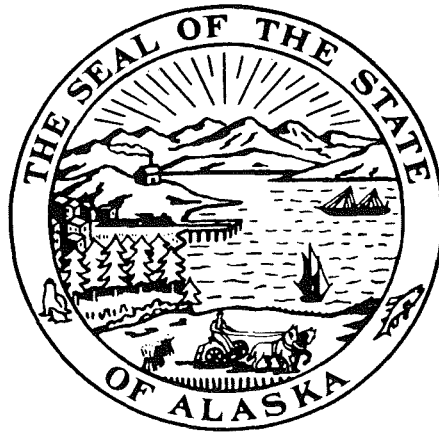


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Guidelines for Regulatory Analysis



Published by
Regulatory Reform Program
Office of the Governor
Pouch A, Juneau, Alaska 99811

With the Assistance of
Institute of Social and Economic Research
University of Alaska
Anchorage, Alaska

October, 1982

Table of Contents

Introduction	1
Step 1: State the Problem	3
Step 2: Identify Other Agency Regulations and/or Jurisdictions	3
Step 3: Identify Alternatives	4
Step 4: Screen Alternatives	5
Step 5: Evaluate the Effects of Selected Alternatives	5
Step 6: Identify the Least-Cost Alternative	6
Step 7: Prepare an Evaluation Plan	7
Recommended Reading	8
Appendix: Alternative Regulatory Approaches: An Overview	9
Marketable Rights	17
Performance Standards	19
Monetary Incentives	21
Information Disclosure	23
Tiering	25
Annotated Bibliography	27

Introduction

This booklet discusses regulatory analysis — the formal, systematic scrutiny by agency staff of all aspects of a rule before it is proposed publicly for adoption. This material is being made available in hopes that it may be of value as a supplement to existing internal procedures for the drafting and review of regulatory proposals. Agency staff and program administrators are encouraged to review the steps of regulatory analysis and adapt them to their own administrative operation as they see fit. In some cases, the steps outlined in this booklet may be useful in refining an existing analytical process; in other cases they may provide a basis for adopting a structured procedure that will routinely ensure that a regulatory proposal has been adequately studied before it is published in draft form. Also, some of the material might be useful in reviewing existing regulations to evaluate the need for change or repeal.

Regulatory analysis is a reform measure initiated in recent years at the federal level. It is essentially a structured, formal, and rigorous assessment of all the possible effects of a proposed regulation. The analysis makes explicit and systematic a process that is now largely implicit and unstructured in state agencies. Written analysis of proposed regulations tends to result in more carefully crafted regulations and a wider range of regulatory alternatives. Regulatory analysis gives those involved a broader understanding of the problem at hand and the preferred solution. This understanding greatly facilitates the agency presentation of its proposal at public hearings and in other public discussions. Federal studies show that regulatory analysis is a valuable decision-making tool if applied conscientiously by agency staff.

The process of regulatory analysis is described in this booklet on the presumption that a decision to promulgate a regulation has been made. This decision is, of course, key to any process of adopting regulations. Every department is assumed to have a very strict standard of necessity for regulatory action. It should be clear why government is promulgating a regulation before agency staff begin to pursue the best regulatory alternative. Some of the analytical steps in this booklet may help administrators reach a threshold decision about whether to adopt a regulatory solution to the problem at hand, but the over-all process of regulatory analysis is presented on the assumption that a decision has been made and a regulation is fully justified.

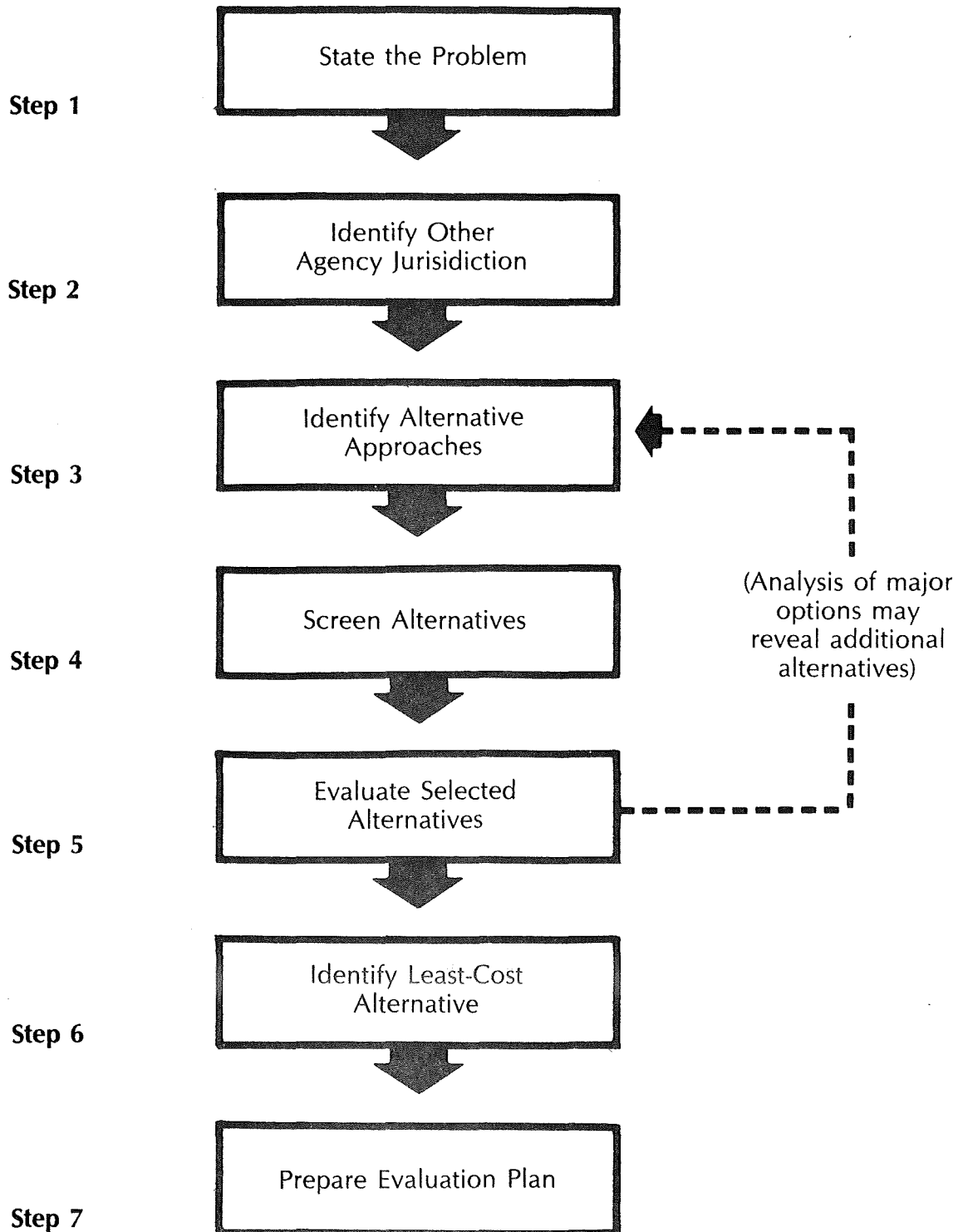
Also, it should be noted that a formal regulatory analysis is appropriate only when the effects of the proposed regulation promise to be significant. Many regulations do not have enough impact on either the public or the agency's own operations to warrant a detailed analysis. Agencies that use a formal analytical procedure like the one presented in this booklet should establish their own criteria for when the treatment is necessary.

This booklet identifies seven basic steps of regulatory analysis. These steps are general because of the wide variety of regulatory problems faced by state agencies. Initially, the analysts should clearly delineate the problem that the regulation attempts to solve, whether it is a problem identified explicitly by statute or only implicitly (Step 1). Next, the analysts should determine if other state, local, or federal agencies regulate or have jurisdiction over the same activity (Step 2). Then agency analysts should identify alternative regulatory approaches to the problem (Step 3); screen the alternatives to find those that appear most workable and realistic in the situation, though not necessarily the most conventional approaches (Step 4); and then conduct a more thorough analysis of the comparative effects of the most promising alternatives (Step 5). (A close analysis of the major options is likely to reveal additional alternatives.) If possible, the costs and benefits of each alternative should be compared in quantitative terms to find the alternative that achieves the essential

regulatory objectives at the least cost (Step 6). Finally, the analysts should investigate the feasibility of preparing an evaluation plan so the effectiveness of the regulation can be reviewed in the future (Step 7).

An explanation of the seven steps of regulatory analysis is presented on the following pages in the left-hand column. A quick checklist of questions for that step is presented in the right-hand column. The over-all process is summarized in Figure 1.

Figure 1



Step 1: State the Problem

Explanation

A good set of regulations begins with a clear understanding of the problem (or potential problem) that the regulations attempt to solve. Surprisingly, agencies often proceed with rule-making on the basis of only a vague and intuitive sense of the underlying problem. The purpose of looking closely at the problem is to design precise and effective regulatory measures; it should not be done merely to rationalize an agency's decision to intervene. Typically, the legislature has established that a problem exists by passing a law, but the statutory statement of the problem is likely to be very general.

A clear statement of the problem requires agencies to identify its causes and symptoms, the magnitude of the problem, who it affects and how it affects them, how long it has been a problem, and whether it is becoming more or less serious over time. A problem that has several causes may offer several approaches to a solution. For example, the problem of public litter of food containers may result from industry packaging practices, public attitudes, lack of litter barrels, lax enforcement, and other factors. Each cause suggests a different regulatory response.

Checklist of Questions

1. What is the problem the regulations attempt to solve?
2. What evidence is there that the problem exists? (What are the symptoms of the problem?)
3. Who else thinks the problem exists?
4. How serious is the problem?
5. Has the seriousness changed over time, and is it changing now?
6. What are the causes of the problem?

Step 2: Identify Other Agency Regulations And/Or Jurisdictions

Explanation

It is important to know if other governmental agencies, state, local or federal, currently regulate the activity covered by the potential regulation, or if they have jurisdiction over the activity that would permit them to regulate it. This knowledge is important for two reasons: one, it will minimize overlapping and inconsistent regulations among various agencies; and two, it may allow an agency to achieve its purpose by encouraging another, more appropriate agency to adopt new or different regulations, or enforce existing regulations.

The AAC index in the back of volume III may be helpful in determining if there are related regulations in existence. The Attorney General's Office maintains a record of all proposed regulations and may be contacted for assistance in determining any duplication or overlapping of proposed regulations.

Checklist of Questions

1. Does any other agency of state, federal or local government regulate this activity or have jurisdiction over some aspect of the matter?
2. Is there active regulation by other agencies or only potential regulation?
3. Is the regulation by other agencies adequate and effective?
4. What are the existing regulations and how would the contemplated action affect those regulations and the compliance requirements of regulated groups?

Step 3: Identify Alternatives

Explanation

The heart of regulatory analysis is the identification and comparison of alternative regulatory solutions. The process by which options get articulated, evaluated, discarded or refined, and then fully analyzed and composed is a complex one. A certain amount of impact analysis is required to identify realistic alternatives, and more detailed impact analyses of a proposal will typically lead the analyst to additional alternatives. As described in the introduction, the suggested approach is for the agency to take a broad view of the problem and identify major alternatives (Step 3); screen these alternatives on the basis of a general assessment of their likely impacts and relative effectiveness (Step 4); and then conduct a more rigorous analysis of the most promising alternatives (Step 5); and finally select the option that achieves the regulatory objective at the least cost to the public and state government (Step 6). Agencies may well modify this analytical sequence to suit their own needs. It is important, however, that realistic alternatives be identified early in the process, and that agencies not focus on one predetermined approach and then contrive alternatives that make that approach seem attractive.

It may even be helpful to identify potential solutions to the regulatory problem that are outside the jurisdiction of the agency. These solutions might include regulation by other state agencies or by agencies of local or federal government, or even a new law. If any of these approaches offer a manifestly superior solution to the problem, the agency may well consider concentrating its efforts on convincing others to act.

Among options available to the agency are marginal variations of the key elements of the most obvious feasible approach. These might include alternative standards or levels of protection, alternative effective dates, alternative requirements for target groups of different size or other characteristics (so-called "tiering"), and so on. Different conceptual approaches to the problem should also be considered, including the possible application of market-oriented techniques such as performance standards, monetary incentives, information disclosure, and marketable rights. (See the appendix for a discussion of these approaches.)

Checklist of Questions

1. Do the various causes of the problem suggest different solutions?
2. Is there an obviously superior solution, even if it is not within the jurisdiction or powers of the agency to impose?
3. Can another authority with the necessary power be convinced to seek a solution to the problem?
4. Is there an innovative approach to the problem that relies on market forces (for example, requiring disclosure of information so the consumer can make an informed choice)?
5. Should a scale or range of standards be set to account for important differences among those who are regulated?
6. Is the effective date of the regulation a factor in the relative ease and expense of compliance?
7. What key variables in the solution can be manipulated to produce significantly different options for the agency to consider?
8. Should the agency contact the public for suggestions about dealing with the problem? (Is it appropriate to do so?)

Step 4: Screen Alternatives

Explanation

It is not necessary or possible to analyze in detail all of the options identified in Step 3. A preliminary evaluation of them will indicate which are not reasonable, feasible or desirable, and which offer the most promise as a workable solution to the problem at hand. Progressively more analysis may be required to identify the two, three or four options that appear to be most realistic and appropriate. These will be scrutinized more carefully in the next step.

Checklist of Questions

1. On the basis of what is known now, are some options impractical or unrealistic? Which and why?
2. Should preliminary policy analysis begin on some options which may be feasible but which are poorly understood now (such as a system of marketable permits or other market-based alternative)?
3. Which options seem the most reasonable and workable, after preliminary analysis of all realistic possibilities?
4. If the alternatives are implemented by different agencies, which of the agencies is best equipped to do so?

Step 5: Evaluate the Effects of Selected Alternatives

Explanation

A thorough analysis of the costs and benefits of the major alternatives should be made after the full array of options has been screened. Since this analysis will reveal the elements of the proposals that have the most significant impact, new alternatives which modify these key elements may become apparent in the course of the analysis. The benefits of the proposed regulation should be readily recognizable, since they are the reason for the regulation. Identifying who benefits and the general nature of the benefits should be a straightforward task (although specifying the exact magnitude and form of the benefits may be speculative).

Analyzing the costs of a regulatory proposal — that is, the negative effects, the burdens, the expense, the problems which are caused in the effort to secure the benefits of the regulation — is often a quite complicated and uncertain task. This is because there is seldom sufficient agency resources to develop the necessary data, and much vital information may not be available because it is proprietary or simply unknowable at the time.

Despite these difficulties, an evaluation of the effects of the regulation is important, especially to compare competing alternatives. The evaluation must identify who is adversely affected and how so. The analyst should consider those who must administer the regulation, those who must enforce it, those who must comply with it, those who are affected by this compliance, and other agencies that must modify their own regulations or procedures as a result of the regulation.

(Explanation: continued next page)

Checklist of Questions

1. Who benefits from the regulation?
2. What is the nature of those benefits?
3. Who incurs costs as a result of the regulation?
 - a. Who administers the regulation?
 - b. Who enforces it?
 - c. Who must comply with the terms of the regulation?
 - d. What groups are affected in turn by this compliance?
 - e. Are other government agencies or operations affected by the regulation?
4. What is the nature of the costs imposed?
 - a. What is required to administer the regulation (staff, equipment, etc.)?
 - b. What is required to enforce and monitor the regulation (staff, equipment, etc.)?
 - c. What is required of those who must comply (administration, capital costs, production/operating costs, finance charges, maintenance costs, etc.)?
 - d. How are other groups indirectly affected (reduced variety of goods, fewer suppliers of services, less competition, higher prices, loss of employment, etc.)?
 - e. How are other government agencies affected, and with what consequence?
5. Should the agency discuss its preliminary proposals with the public to help assess the nature and magnitude of impacts?

Step 5: Evaluate the Effects of Selected Alternatives (Explanation: continued)

The analyst should also determine if significant differences exist within the groups affected. Compliance may be much more burdensome on some subgroups than others because of their different resources or other characteristics. For example, small businesses may find compliance very difficult, and the primary source of the problem may be larger firms.

Adverse effects may be broadly economic and/or social in nature. Economic impacts may be direct monetary costs to government (the expense of administration and enforcement, for example), businesses (capital, operating, administrative or maintenance costs), or the general public (higher prices). There may be

economic costs of a more intangible nature (reduced competition, less employment, less innovation, etc.). Adverse social impacts may be associated with these economic effects. For example, stringent licensing requirements for day care centers and nursing homes may reduce competition and increase prices (economic impact), and also preclude family day care homes from providing these services, leaving only large institutions in the market (social impact).

An agency may want to hold hearings or otherwise solicit public comment on its draft proposals at this stage in order to help assess the range and severity of potential impacts.

Step 6: Identify the Least-Cost Alternative

Explanation

If the proposed regulations create significant costs for society, the previous evaluation should be extended from a qualitative discussion of these costs to a quantitative comparison. Because alternative proposals typically involve different levels of benefits, it may also be necessary to quantify the benefits to the extent this is possible. Very often, of course, the benefits of a regulation cannot be quantified, but quantifiable measures of benefits may be devised nevertheless. (For example, anti-litter regulations are designed to benefit our aesthetic sensibilities, yet it is possible to evaluate various proposals in the volume of different types of litter that would be reduced).

Note that we are not suggesting that agency staffs undertake full-fledged benefit-cost analyses designed to compare the over-all costs of a regulatory proposal with its benefits. This type of analysis is very difficult to do, and in any case we presume that the benefit-cost ratio is positive (in most cases the legislature has made this determination explicit by passing a specific law). Rather, the purpose of quantifying the costs and benefits to the extent feasible is to compare **alternative** proposals. In this comparison it is helpful to work with numbers.

Analysis in Step 5 identified the groups upon which costs are imposed and the nature of those costs (administrative, enforcement, capital costs, etc). It has also identified the groups that benefit and the nature of those benefits. In the present exercise it is necessary to determine which of the general costs can be quantified.

(Explanation: continued next page)

Checklist of Questions

1. Is there a quantitative measure of the benefits identified in Step 5?
2. What elements of the costs identified in Step 5 can be quantified? in dollars? in non-dollar terms?
3. What benefit and cost elements cannot be expressed in quantitative terms, because of their inherent nature or a lack of information?
4. When and for how long are the costs imposed?
5. Is it necessary to discount future costs and benefits into a present value?
6. Does one option offer greater benefits and impose identical costs as competing proposals?
7. Does one option offer comparatively fewer costs and create identical benefits as competing proposals?
8. If different benefits and costs are created by the options compared, what are the trade-offs which each involves?
9. Overall, which option creates the fewest costs and provides an acceptable level of public protection?

Step 6: Identify the Least-Cost Alternative (Explanation: continued)

Most costs can be broken down into component parts and quantified in some form of measurement. For example, agency administration costs may require staff time (hours), new office space (ft²), new equipment (typewriters, cabinets), monitoring and metering equipment, etc. Businesses that must comply with the regulation may have data collection and reporting requirements that require staff time, office equipment, etc. They may also have the direct costs of meeting the new requirement (new equipment or utilization of more expensive methods and materials).

There may be intangible costs of regulation that may be quantified for purposes of comparing the effects of alternative proposals (e.g., hours of delay). Some intangible costs cannot be readily quantified, however (such as reduced long-term competition), and the alternatives should merely be noted to have more or less of this particular effect.

Some costs, notably price increases for goods or services, are very difficult to quantify because of uncertainty and the lack of proprietary information. Whether a producer will raise prices to offset the cost of complying with a new regulation depends on such factors as the firm's ability to absorb the costs, the price elasticity of demand for the product, and other factors. If alternatives are likely to have different price effects, these are probably best noted in qualitative terms.

If alternatives impose costs at different times, these differences could be significant. An alternative that creates continuous costs has greater economic impact than one that creates the same level of costs for a short period. But what about an alternative that creates high costs for a short period in contrast to one that creates low costs for a long period? A detailed accounting of these costs may be required. This accounting may be more difficult than it appears, however, because a given amount of money has greater value in the present than in the future. Therefore it may be necessary to discount all future costs of each alternative to their present value, a technique that may require outside expertise.

Selecting the least-cost alternative is a simple matter if each alternative carries different costs but the same level of benefits. The selection is also a simple one if the alternatives involve identical costs but different levels of benefits. Typically, however, the costs and benefits of alternatives differ. Selection of the best alternative requires an evaluation of the trade-offs between the disadvantage of fewer benefits (a lower level of protection, fewer people protected, etc.) and the advantage of less costly compliance and enforcement.

Step 7: Prepare An Evaluation Plan

Explanation

A potentially useful step in the rulemaking process is the preparation of a plan to evaluate the effectiveness of the regulation. Preparation of the plan may contribute to refining the objectives and language of the proposal. This is because effective evaluation demands that the objectives of the regulation be formulated in specific, concrete terms that lend themselves to measurement. An evaluation plan will enable the agency to monitor the actual impact of the regulation. Generally speaking, agencies do not have much experience with the evaluation of regulations. This may be due in part to a lack of resources, but it may also be due in large part to the fact that agencies do not routinely consider the requirements for an effective evaluation program, particularly at the time the regulation is promulgated when baseline data is available.

An evaluation program may not be feasible if the changes expected from the regulation will be obscured by social change caused by other factors.

Checklist of Questions

1. How can it be determined if the regulation is working?
2. What is the present situation without the regulation?
3. Should data be gathered now to define the "baseline" against which change can be measured?
4. What data needs to be collected in the future to determine the effects of the regulation?
5. Will it be possible to distinguish changes caused by the regulation from changes caused by other factors.
6. Is an evaluation effort technically feasible and within the resources of the agency?

Recommended Reading

* Project on Alternative Regulatory Approaches, "Guidebook Series on Alternative Regulatory Approaches," September 1981 — a series of guidebooks for regulators on market-oriented regulatory techniques. Series is comprised of:

- | | |
|--------------------------|---------------------------|
| 1. Overview | 4. Monetary Incentives |
| 2. Marketable Rights | 5. Information Disclosure |
| 3. Performance Standards | 6. Tiering |

** U.S. Regulatory Council, "Innovative Techniques in Theory and Practice: Proceedings of a Regulatory Council Conference," Washington, D.C., January 1981.

* U.S. Regulatory Council, "A Survey of Ten Agencies' Experience with Regulatory Analysis," Washington, D.C., May 1981.

** U.S. Regulatory Council, "Making Inspection Work: Three Case Studies," Washington, D.C., May 1981.

Center for the Study of American Business, "Benefit-Cost Analysis of Government Regulation," Washington University — St. Louis, February 1981.

Center for the Study of American Business, "Costs of Regulation and Benefits of Reform," Washington University — St. Louis, November 1980.

Center for the Study of American Business, "Small Business Performance in the Regulated Economy," Washington University — St. Louis, February 1980.

** Office of the Assistant Secretary for Policy and International Affairs, "Guidance for Regulatory Evaluations, A Handbook for DOT Benefit-Cost Analysis," Washington, D.C., April 15, 1982.

** U.S. Department of Transportation, Federal Aviation Administration, "Economic Analysis of Investment and Regulatory Decisions — A Guide," Washington, D.C., January 1982.

** U.S. General Accounting Office, "A Technical Guide to Assessing and Preparing Economic Impact Analysis of Regulatory Legislation," GAO, PAD-81-03, Washington, D.C., 1980.

American Enterprise Institute for Public Policy Research, *Regulation*, AEI Journal on Government and Society, Washington, D.C., published bimonthly.

Peter H. Rossi and Howard E. Freeman, *Evaluation, A Systematic Approach*, 2nd ed., Sage Publications, Beverly Hills, Calif., 1982.

James Q. Wilson, *The Politics of Regulation*, Basic Books, Inc., New York, N.Y., 1980.

Frederick R. Anderson, Allen V. Kneese, Phillip D. Reed, Russell B. Stevenson, Serge Taylor, *Environmental Improvement Through Economic Incentives*, The Johns Hopkins University Press, Baltimore, Md., 1977.

Eugene Bardach and Robert A. Kagan, *Going by the Book, The Problem of Regulatory Unreasonableness*. Temple University Press, Philadelphia, Pa., 1982.

Benjamin Shimberg, *Occupational Licensing: A Public Perspective*, Educational Testing Service, Washington, D.C., 1982.

Lester B. Lave, *The Strategy of Social Regulation: Decision Frameworks for Policy*, The Brookings Institution, Washington, D.C., 1981.

Robert W. Crandall and Lester B. Lave, *The Scientific Basis of Health and Safety Regulation*, The Brookings Institution, Washington, D.C., 1981.

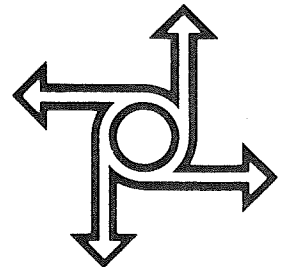
* Copies have been forwarded to each department library, law library, state library, and the lieutenant governor's office.

** Copies are available at state library.

APPENDIX

Alternative Regulatory Approaches: AN OVERVIEW

October 1982



Project on Alternative Regulatory Approaches

ALTERNATIVE REGULATORY APPROACHES

"Alternative Regulatory Approaches: An Overview" is the first in a series of six guidebooks on Alternative Regulatory Approaches. Each guidebook summarizes the advantages and limitations of specific alternatives and provides examples of how agencies use them. These alternatives include marketable rights, performance standards, monetary incentives, information disclosure, and tiering.

Why Are Alternative Regulatory Approaches Important?

One of the significant (although not the best-noted) products of the recent campaigns for regulatory reform has been the growth of a sense of self-consciousness about regulatory decisionmaking.

By and large, regulators now agree that their decisions can and should be a deliberate choice among competing alternatives, and should result from a systematic comparison of the relative costs and benefits among the array of choices. A more thorough analysis of such alternatives will be increasingly important during the reviews by the Office of Management and Budget of major new rules under E.O. 12291 and in light of pending legislation advocating agency use of alternative approaches. Policymaking is becoming a conscious matter of choosing the "right" tool for the job at hand.

One class of regulatory tools that is of particular interest includes those that bring the least disruption to private decisionmaking in the regulated firms and use market forces to reduce the overall direct and indirect costs of regulation. These market-oriented techniques -- alternative regulatory approaches -- stand in contrast to the traditional "command-and-control" form of regulation, which involves a detailed specification of private compliance requirements and formal sanctions against those who violate them. In general, alternative regulatory approaches can have these relative advantages over command-and-control regulation:

- They provide more flexibility and more incentive for regulated firms to devise least-cost ways to comply.
- They impose fewer indirect costs (e.g., red tape, inspections).
- They are results-oriented, rather than means-oriented.

- They reward private innovation.
- They impinge less on private choice and encourage market competition.
- They avoid the pitfalls of centralized, discretionary decisionmaking.

These alternative techniques are not new inventions -- some regulators have been using them for years. However, as a class they are not yet well understood, and they are still more often a subject of rhetorical debate than serious policy discussions. This tendency has caused some agency skepticism about their practicality. These guidebooks attempt to show that market-compatible techniques are more than interesting ideas -- they are interesting ideas that work to solve real governmental problems.

We do not presume that market-oriented solutions will fit every regulatory problem. Only those who know particular programs in detail can determine how appropriate an alternative regulatory approach is in a specific case. Thus, these guidebooks are intended as introductions to the techniques rather than as "how-to-do-it" manuals. We have relied extensively on actual examples of past and present agency use. We hope that a realistic summary of both the merits and drawbacks of these approaches will encourage regulators to begin to count them among the alternative tools at their disposal.

Who Are the Guidebooks For?

This guidebook series is designed to help those who are responsible for developing new regulations and reviewing old ones and those who monitor regulations inside and outside of government to improve their practical appreciation of alternative regulatory approaches.

How Are the Guidebooks Organized?

Each guidebook contains three parts:

Part I answers basic questions about the alternatives that agencies frequently raise. The answers reflect actual experience of Federal, State, and local agencies.

Part II gives detailed descriptions of applications that are currently in place or under consideration, or that have been considered in the past. The examples are for illustrative purposes only; no attempt has been made to evaluate the merit of each action.

Part III contains an annotated bibliography that refers the reader to additional sources of information.

Where Is More Information Available?

The Project on Alternative Regulatory Approaches, begun under the U.S. Regulatory Council, completed its work in September 1981. The Administrative Conference of the United States now maintains the Project's resource files and publications.

Additional copies of the guidebooks and other project publications (see page 24) may be requested from:

Administrative Conference of the United States
2120 L Street, N.W.
Suite 500
Washington, D.C. 20037
(202) 254-7020

For answers to specific or technical questions about alternative regulatory approaches, the Project's contractor may be able to provide assistance. The contractor provided general support to the Project and implemented measures to train agency personnel in the use of alternative approaches. Contact Trudy Speciner:

Regulatory Analysis and Management Program
SRI International
1611 North Kent St.
Arlington, VA
(703) 524-2053

**ALTERNATIVE REGULATORY APPROACHES:
GUIDEBOOK SUMMARIES**

MARKETABLE RIGHTS

Marketable rights are government-issued permits that can be bought and sold. Making permits tradeable creates an important new incentive, in contrast to "command-and-control" regulations. Distributing a limited number of rights to scarce resources that private parties can then buy, sell, or trade as market needs dictate can remove the government from difficult, contentious, and lengthy decisions about who can "best" use the limited resources.

Advantages

The main advantage of a marketable rights approach is that it reduces overall costs to the economy. It also can encourage innovation and competition, reduce agency burdens, and provide greater policy flexibility.

Example

A Rand study estimates that the compliance costs of a system of marketable rights for non-aerosol freon (chlorofluorocarbons) would be 42 percent less costly to society to implement than a command-and-control system of discretionary curtailments.

Applications

Applications described in this guidebook show that marketable rights apply to a wide range of regulatory programs at the Federal, State, and local level:

- Federal Communications Commission considers marketable permits system for allocating spectrum.
- Federal Aviation Administration considers market system to allocate landing slots at major airports.
- Environmental Protection Agency explores marketable permit strategy to control chlorofluorocarbons and to reduce air pollution.
- New York City and Puerto Rico control growth through transferable development rights.
- Lake Tahoe implements transferable building permits system via random selection to control development.
- Western States use system of marketable permits for trading water rights.

How A Marketable Rights System Works

Preconditions

To be a candidate for marketable rights, a regulatory program must be:

- suited to a permit system;
- relatively indifferent to the identity of the user of the controlled rights; and
- free of major structural defects, including monopoly and thinness of the permit market.

Elements of a Permits Market

Major design features of a permit market include:

- the permit, which may be either permanent or temporary, either unitary or stratified by priority or class of ownership;
- the initial allocation scheme, which may be auction, lottery, "grandfathered" distribution, or a hybrid scheme; and
- facilitating features, such as public education, brokers, and agency gatekeeping functions.

Practical Issues in Permits Markets

Factors that can complicate the design of an acceptable marketable permit scheme include:

- 1) Market defects, including uncertainty perceived by participants, concentration of permit ownership, and market thinness.
- 2) Institutional barriers, including dispute over initial allocations, investment in the status quo, and controversy over the "correct" number of permits.
- 3) Legal constraints, including statutory constraints, rules on the use and disposition of permit revenues, and tax treatment of property rights.

Practical ways have been found to solve these problems in many cases.

PERFORMANCE STANDARDS

Performance standards replace regulations that specify the exact means of compliance (usually detailed design standards) with general targets that the regulated firms can decide how to meet. Performance standards can reduce compliance costs and provide regulated firms more flexibility and discretion to discover new and more efficient methods of compliance.

Example

The Occupational Safety and Health Administration performance standards for "fall hazards and walkways" allow employers to devise various methods to prevent injuries from falls at work sites. This allows employers to develop effective alternative fall-prevention techniques rather than having to adhere to a specific guardrail design that may not be practical in certain work environments.

Applications

A particularly interesting form of performance standard is "averaging," as illustrated in EPA's "bubble policy" for air pollution.

Example

In place of mandated point-by-point air pollution controls, the Environmental Protection Agency (EPA) instituted a "bubble policy," which allows plant managers to control whatever emission points they care to, as long as they can show that overall pollutants generated under an imaginary plant-wide "bubble" will not increase. This "bubble policy" has resulted in dramatic cost savings for industry; Dupont expects to save more than \$12 million (60 percent of capital expenditures) at a New Jersey chemical complex.

There is, in most cases, a spectrum of regulatory options available to regulators, ranging from pure design standards to pure performance standard. A central idea -- and problem -- in moving toward the performance end of this spectrum is that of determining if the alternative strategy will yield equivalent results.

Advantages of Performance Standards

Performance standards leave firms free to choose - or invent - least-cost solutions to given regulatory objectives. They foster innovation, impede competition less, and can produce more flexible, results-oriented policy than design standards.

Example

The Department of Health and Human Services' new performance approach to hospital fire safety may save one-half of the costs of compliance. In one case a Boston hospital saved over \$5 million -- about 70 percent of previous compliance costs -- to meet equivalent levels of fire safety.

Applications described in this guidebook show that performance standards apply to a broad range of regulatory programs.

- Department of Transportation uses time averaging for fuel economy standards.
- Consumer Products Safety Commission adopts performance tests for children's toys and product packaging.
- Civil Aeronautics Board employs performance standards in its "bumping procedures" for airlines.
- Center for Disease Control considers establishing performance standards for the evaluation of clinical laboratories.

Practical Issues

In some cases, performance standards pose special difficulties for agencies.

- They may, in some cases, be harder to write when performance is difficult to capture in an objective measure.
- They may, in some cases, be harder to administer, particularly with respect to ease of inspection and enforcement.
- They may be perceived to give competitive advantages to larger or more sophisticated firms.

The guidebook describes these issues and ways to mitigate them.

MONETARY INCENTIVES

Monetary incentive systems comprise five market-oriented approaches for achieving regulatory goals that present promising alternatives to direct command-and-control regulation. These monetary inducements may come directly from the regulatory agencies in a variety of forms, including: direct payments, fees, penalties, various forms of tax incentives, and various schemes to internalize costs -- e.g., required insurance or warranties. Monetary incentives can be used directly to further regulatory goals or can be used as part of a system of enforcing regulatory requirements. Thus, a system of monetary incentives can be used both in conjunction with command-and-control regulation, and as an alternative.

Using fees or subsidies (rather than government-enforced standards) encourages private sector achievement of regulatory goals. This approach removes the government from having to eliminate or directly restrict the unwanted activity, but creates an incentive for the private sector to limit the activity itself.

Example

Monetary incentive schemes have been used or proposed in many regulatory sectors; emissions fees for pollution, grants for the construction of sewage treatment facilities, subsidies to air carriers for providing service on otherwise unprofitable routes, tax incentives for hiring disadvantaged workers, nonconformance penalties for vehicle pollution standards, and assignment of liability for offshore oil spills.

Advantages

The main advantage of a monetary incentive approach to regulation is that it has the potential to greatly reduce the overall costs to the economy of achieving a particular regulatory goal. A monetary incentive scheme can lower costs to businesses and consumers and can be less costly to administer for both the regulatory agency and the regulatory entity. It also can encourage innovation and competition, reduce agency burdens, and provide greater policy flexibility.

Example

The Postal Rate Commission (PRC) provides monetary incentives for bulk mailers to presort their mail by offering lower postage rates for mailers that presort. The alternative of requiring that all mailers presort would impose large costs on firms that do not have the capability to presort. Savings of \$2.2 billion per year can be realized.

Applications

There are five major types of monetary incentive schemes represented in this guidebook. Applications come from a wide variety of regulatory programs.

- 1) Fees - Some sewage treatment facilities charge users according to the volume of effluents discharged. This provides an incentive for firms to reduce their effluent discharges through alternative production techniques when such reductions cost less than the direct sewage treatment fee.
- 2) Monetary Penalties - The Mine Safety and Health Administration (MSHA) uses monetary penalties to enforce health and safety standards in mines. The penalty amount depends on the gravity of the violation, and thus provides a more efficient incentive for operators to maintain safe mines.
- 3) Tax Incentives - The IRS has established an excise tax on the sale of "gas guzzler" passenger cars, pursuant to the requirements of the Energy Tax Act of 1978 that is intended to discourage the manufacture and purchase of such cars.
- 4) Warranties, Bonds, and Insurance - EPA requires vehicle manufacturers to provide an Emissions Performance Warranty which requires the manufacturer to repair free of charge any emission control device that fails an EPA-approved test; MSHA requires firms engaged in strip mining to post performance bonds to guarantee that they will have the financial resources to pay for reclaiming the land after the mining is completed; States may require mandatory automobile liability insurance to ensure that drivers will be able to provide monetary compensation when they cause damages.
- 5) Grants, Subsidies and Payments - EPA sewage treatment grants reimburse qualifying communities 75% of the costs for regular construction and 85% for the use of alternative technologies; the CAB has developed a subsidy scheme ensuring "essential" air transportation to small communities that may lose service as a result of airline deregulation.

Practical Issues

Monetary incentive systems may require more precise monitoring than traditional, detailed regulation. It is often difficult to determine the appropriate magnitude of the incentive that is necessary to ensure that the regulatory goals are met. An incentive scheme may be impeded by political and institutional barriers and legal constraints.

INFORMATION DISCLOSURE

Information disclosure is a regulatory alternative which provides users of a product or service with relevant information about the consequences of using it. When applicable, disclosure can replace centralized government decisions with informed freedom of choice among many users, and can stimulate competition among suppliers for improved performance. Ideally, normal market forces govern how producers disclose information about their products. But "market failures" can result in poor information flow. These failures can occur when:

- the effects of poor product choices are ambiguous or hidden; and/or
- no firm has a sufficient incentive to disclose information.

Under such conditions, government regulators can intervene to strengthen the flow of information from producer to consumer. A disclosure scheme can either substitute for or supplement, a mandatory regulation.

Example

People encounter information disclosure almost daily when they see the EPA estimated gas mileage ratings in automobile advertising, the Surgeon's General's health warning on cigarette packages and advertising and in motion picture advisory ratings on the suitability of films for young people.

There are two basic types of information disclosure: 1) private, in which the producer discloses the information; and 2) governmental, in which the government regulator takes the initiative. The degree of government intrusion into the information disclosure process varies with the method used.

Advantages

Information disclosure can be 1) less paternalistic, 2) less costly, and 3) less coercive to manufacturers than mandatory rules. Also, it can enhance competition and encourage innovation and high quality goods, services, and practices.

Example

The FTC has established standard test procedures for tar and nicotine ratings in cigarettes. Tobacco companies now use these ratings extensively in

their marketing, which reinforces buyer awareness of tobacco health issues and has led to the introduction of newer, ultra-low tar cigarettes.

Applications

The guidebook describes applications in a wide range of regulatory programs.

- The National Highway Traffic Safety Administration requires grading and labeling of all new tires.
- The Federal Trade Commission requires appliance energy efficiency labels.
- The Commodity Futures Trading Commission uses a consumer information system to inform consumers and receive complaints.
- The Department of Agriculture uses food grading to categorize agricultural products into different levels of quality.
- The Food and Drug Administration has considered requiring patient package inserts for prescription drugs to provide consumers with important information about the drugs.

Practical Issues

Practical issues in designing a disclosure strategy include the adequacy of the content of the disclosed information, the form of the disclosure, and implementation issues. It is the choice among options, not the attributes of a particular product or service, that is the real focus of a disclosure effort. There are a number of problems that can make disclosed information inadequate for this purpose, including incomplete or imbalanced comparative information, overly technical information or information that contains too much jargon, and test measures that produce unintended incentives. Experience shows that the form of the disclosure is also of crucial importance in informing consumer choice. A key implementation issue is predicated on whether seller incentives are to make the disclosure a part of their meeting strategy or not.

TIERING

Tiering is the tailoring of regulatory requirements to fit the particular circumstances surrounding regulated entities. These diverse circumstances make an across-the-board requirement inappropriate. Treating all regulated entities -- businesses, organizations, and governmental jurisdictions -- in an equal manner places unnecessary burdens on entities that do not contribute significantly to the problem a regulation is designed to address.

Example

Taxpayers comply with the requirements of the Internal Revenue Service each year by filling out Form 1040 or the shorter Form 1040A depending primarily on their level of income.

Advantages

Through tiering an agency can: 1) ensure that its regulatory solutions are apportioned according to the nature of the problem; 2) alleviate disproportionate impacts and unnecessary or inequitable demands that across-the-board regulations may place on certain classes of entities and; 3) make more efficient use of its own resources.

Example

To make better use of its limited enforcement resources to where significant problems occur, the Occupational Safety and Health Administration targets its scheduled inspections toward those industries or firms that pose higher risks to worker health and safety or for which OSHA has received specific worker complaints.

Applications

Tiering can be used in each of the three major components of a regulatory program.

- 1) The substantive requirements imposed by the regulation.

Example

The Department of the Treasury's Bureau of Alcohol, Tobacco, and Firearms believes its current method of setting bond requirements (for tax collection) for users of denatured alcohol has an anticompetitive

effect because it requires small users to buy a proportionately higher bond than large users. ATF, therefore, is proposing to amend its bonding requirements to make it easier for new businesses to begin operations and for small businesses to obtain bonds.

2) Reporting and recordkeeping requirements.

Example

The Civil Aeronautics Board tiers the frequency and scope of reporting and recordkeeping requirements for airlines by both the amount of gross revenues and the size of aircraft. For certificated aircraft, the CAB has established three classes based on revenue; and air taxi operators, who are uncertified and use only small aircraft, and who have even fewer reporting and virtually no recordkeeping requirements.

3) Enforcement and compliance-monitoring efforts.

Example

In assessing civil penalties under the Federal Insecticide, Fungicide, and Rodenticide Act, the Environmental Protection Agency tiers the fines according to gross sales volume. These entities also are tiered according to the relative gravity of the violation, with as many as five levels used for some types of violations.

Tiering Variables

Traditionally, tiering according to various size measures has been the most prominent use of tiering. However, differentiating by other indicators is also possible.

<u>Size</u>	<u>Non-size</u>
- Number of employees	- Degree of risk
- Operating revenues	- Ability to comply
- Assets	- Geographic location
- Market share	- Level of Federal funding

Practical Issues

Possible drawbacks to be avoided in tiering include increased complexity for agency programs; potential adverse impact on competition; delay in the rulemaking process; reduced incentives for more fundamental reform; and legal constraints such as statutory conflict or questions of constitutionality.

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PROJECT ON ALTERNATIVE REGULATORY APPROACHES

The Project on Alternative Regulatory Approaches was a 2-year project initiated by the former U.S. Regulatory Council and completed in September 1981. The Project promoted alternative, market-oriented regulatory strategies. Alternative regulatory approaches are departures from traditional "command-and-control" regulation, which involves strictly specified and formal government sanctions for failure to comply.

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 - 3) Performance Standards
 - 4) Monetary Incentives
 - 5) Information Disclosure
 - 6) Tiering
- Minutes from the Project colloquium series for regulators, September 1981 -- Summaries of ten presentations by leading regulatory scholars, including Robert Crandall of the Brookings Institution, Marvin Kosters of the American Enterprise Institute, and Roger Noll of the California Institute of Technology.
- Bibliography, September 1981 -- A listing of about 100 publications covering alternative regulatory approaches.
- Resource Center File Listings, September 1981 -- A list of approximately 300 Federal applications of alternative regulatory approaches for which there are files currently available for agency and public review.
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