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REGULATORY POLICY-MAKING: TOWARD A FRAMEWORK OF ANALYSIS

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In a 1961 essay, Marver Bernstein complained that "policy-making processes in regulatory agencies have scarcely been studied, and the forces influencing policy-making have not been identified in specific regulatory programs."¹ Until the early 1960s, lawyers had concentrated on "judicializing" administrative procedures while economists had dwelt on the pernicious inefficiencies of governmental regulation.² Political scientists, and some lawyers, had focused on the relations between agencies and their constituencies and on the consequences of different forms of governmental organization, particularly the problems of the independent regulatory commissions.³ There were very few case studies of particular agencies, nor many efforts to synthesize the existing literature and provide a framework for future efforts.⁴

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1. Bernstein, *The Regulatory Process: A Framework for Analysis*, 26 L. & CONTEMP. PROB. 330 (1961).

2. See the sources cited in M. BERNSTEIN, *REGULATING BUSINESS BY INDEPENDENT COMMISSIONS* Chs. 6-7 (1955).

3. The most notable works on agency-constituency relations were A. LEISERSON, *ADMINISTRATIVE REGULATION* (1942); P. HERRING, *PUBLIC ADMINISTRATION AND THE PUBLIC INTEREST* (1936); and Long, *Power and Administration*, 9 PUB. AD. REV. 257 (1949). For the debate over the advisability of independent commissions vs. line departments, see M. BERNSTEIN, *supra* note 2, at chs. 3, 5; J. FESLER, *THE INDEPENDENCE OF STATE REGULATORY COMMISSIONS* (Pub. Ad. Publication No. 85, 1942); R. CUSHMAN, *THE INDEPENDENT REGULATORY COMMISSIONS* (1941); Jaffe, *The Independent Agency—A New Scapegoat*, 65 YALE L.J. 1067 (1956); and J. Landis, *Report on Regulatory Agencies to the President Elect*, Senate Judiciary Committee (1960). In his 1961 essay, however, Bernstein, *supra* note 1, at 334-35, 341-43, argued that the empirical grounds for much of the conventional wisdom was rather weak. Brief excerpts from much of this literature can be found in S. KRISLOV & L. MUSOLF, eds., *THE POLITICS OF REGULATION* (1964).

4. P. Herring, *supra* note 3, has chapters on the Federal Trade Commission (FTC), Interstate Commerce Commission (ICC), Federal Radio Commission, and the Food and Drug Administration (FDA). R. Cushman, *supra* note 3, has chapters on virtually all of the Federal commissions. For an extensive colloquy on the ICC, see Huntington, *The Marasmus of the ICC*, 61 YALE L.J. 467 (1952); Morgan, *A Critique of "The Marasmus of the ICC,"*

While the decade or so since Bernstein's essay has witnessed a continuation of previous areas of inquiry,⁵ there have also been numerous case studies of existing agencies. The literature is, however, still plagued by a number of problems. First, while many of the case studies have been relatively disinterested and theoretically informed,⁶ many others have been so preoccupied with criticizing alleged deficiencies in the agencies being examined and have been based upon such simplistic notions of the forces affecting agency

62 YALE L.J. 171 (1953); and Huntington, *The ICC Reexamined*, 63 YALE L.J. 44 (1953). For an analysis of the Civil Aeronautics Board (CAB) and Federal Communications Commission (FCC), see Jaffe, *The Effective Limits of the Administrative Process*, 67 HARV. L. REV. 1105. Finally, regulation of grazing on the public domain is discussed in P. FOSS, *POLITICS AND GRASS* (1960).

For rather discursive efforts to review the previous literature, see Fainsod, *Some Reflections on the Nature of the Regulatory Process*, PUB. POL'Y, ed. by C. Friedrich and E. Mason 297 (1940); Redford, *Perspectives for the Study of Government Regulation* 6 MIDWEST J. OF POL. SCI. 1 (1962).

5. For critiques by economists, see R. CAVES, AIR TRANSPORT AND ITS REGULATORS (1962); A. FRIEDLANDER, THE DILEMMA OF FREIGHT TRANSPORT REGULATION (1969); P. MACAVOY, THE CRISIS OF THE REGULATORY COMMISSIONS (1964); Posner, *The Social Costs of Monopoly and Regulation*, 83 J. OF POL. ECON. 807 (1975); and Levine, *Financial Implications of Regulatory Change in the Airline Industry*, 48 S. CAL. L. REV. 645 (1976). The debate over independent commissions has been continued in R. NOLL, REFORMING REGULATION (1971); Bernstein, *Independent Regulatory Agencies*, 400 ANNALS 14 (1972); and Cutler & Johnson, *Regulation and the Political Process*, 84 YALE L.J. 1385 (1975).

6. On the FCC, see E. KRASNOW & J. LONGLEY, THE POLITICS OF BROADCAST REGULATION (1973) and Gehring, *Comparing the Incomparable: The FCC Comparative Broadcast License Renewal Hearings*, 43 U. CHI. L. REV. 573 (1976). On the CAB, see E. REDFORD, THE REGULATORY PROCESS (1969) and Porter & Sagansky, *Information, Politics, and Economic Analysis*, 24 PUB. POL'Y 263 (1976). On the FTC, see A. FRITSCHLER, SMOKING AND POLITICS (1969); Stone, *The FTC and Advertising Regulation*, 11 PUB. POL'Y 203 (1973); Wellford, *The FTC's New Look: A Case Study of Regulatory Revival*, in CONSUMER HEALTH AND PRODUCT HAZARDS 324 (S. Epstein & R. Grundy eds. 1974); and Posner, *The Federal Trade Commission*, 37 U. CHI. L. REV. 47 (1969). On the Atomic Energy Commission (AEC), see Brady & Althoff, *The Politics of Regulation: AEC*, 1 AM. POL. Q. 361 (1973). On consumer protection agencies, see Cornell, Noll, & Weingast, *Safety Regulation*, in SETTING NATIONAL PRIORITIES: THE NEXT TEN YEARS (C. Schultz ed. 1976); D. AKER & G. DAY, CONSUMERISM (1971); and Kelman, *Regulation by the Numbers—A Report on the Consumer Product Safety Commission*, 36 PUBLIC INTEREST 83 (1974). For studies of state and local pollution control agencies, see G. HAGEVIK, DECISION-MAKING IN AIR POLLUTION CONTROL (1970); E. HASKELL & V. PRICE, STATE ENVIRONMENTAL MANAGEMENT (1973); E. SCHACTER, ENFORCING AIR POLLUTION CONTROLS: THE CASE OF NEW YORK CITY (1974); and C. JONES, CLEAN AIR (1975). There are a number of studies of regulatory agencies in the issue on *The Government as Regulator*, 400 ANNALS (1972). See also H. CORTNER & H. INGRAM, ARIZONA CORPORATION COMMISSION AND ELECTRICAL ENERGY POLICY (1976); Davis & Rueter, *A Simulation of Municipal Zoning Decisions*, 19 MANAGEMENT SCI. 39 (1972); and Gordon, *Shipping Regulation and the Federal Maritime Commission*, 37 U. CHI. L. REV. 90 (1969). Finally, studies of nine Federal regulatory agencies have recently been published by the Subcommittee on Oversight and Investigations, House Committee on Interstate and Foreign Commerce, *Federal Regulation and Regulatory Reform*, 94th Cong., 2d Sess. (Oct. 1976).

behavior that both the accuracy of their portraits and the utility of their prescriptions for reform should be greeted with considerable skepticism.⁷ Secondly, most of the case studies have examined a few decisions within a single agency. This, of course, renders the generalizability of their conclusions—both within the population of that agency's decisions and to those of other agencies, exceedingly problematic. Thirdly, the efforts to synthesize the existing literature⁸ have generally been rather discursive in tone and have made few efforts to: a) develop a typology of policy outputs across agencies, b) provide a reasonably comprehensive list of variables which both directly and indirectly affect agency policy, and c) explore the interrelationships among variables, with particular attention to the boundary conditions under which specific relationships are hypothesized. In short, much of our existing knowledge is rather tentative, and we are still lacking a reasonably comprehensive, empirically oriented

7. Many of them can be attributed, either directly or indirectly, to Ralph Nader; *See* R. NADER, *UNSAFE AT ANY SPEED* (1965); R. ESPOSITO, *VANISHING AIR* (1970); R. FELLMETH, *THE INTERSTATE COMMERCE COMMISSION* (1970); J. TURNER, *THE CHEMICAL FEAST* (1970); and E. ZWICK & M. BENSTOCK, *WATER WASTELAND* (1971). Other examples of the muckraking tradition include M. MINTZ, *BY PRESCRIPTION ONLY* (1967) and several studies of the AEC, including S. NOVICK, *THE CARELESS ATOM* (1967) and R. CURTIS & E. HOGAN, *PERILS OF THE PEACEFUL ATOM* (1969). Finally, *NAT'L J. REP.* in 1974-75 published a series of articles—many of them quite good—on virtually all of the Federal regulatory agencies.

A good example of both the contributions and the liabilities of this literature can be found in Esposito's study of pre-1970 Federal air pollution policy. The report was written by a task force composed primarily of law students and headed by a recent graduate of Harvard Law School; not a single political scientist (or economist) was included. While the report represents the greatest single compilation of evidence on hesitant Federal efforts to control emissions from both mobile and stationary sources, it also has a number of serious deficiencies. First, it simply identifies the "public interest" with virtually zero emission levels, without seriously examining the potentially adverse effects on consumer prices and economic dislocations. Secondly, it is extremely critical of both the Congress and the National Air Pollution Control Administration without ever acknowledging that there was virtually no constituency support for more aggressive regulation. In short, it assumed that public officials should be knights in shining armor irrespective of the consequences for their organization and/or their careers. In contrast, other studies of Federal policy indicate that both NAPCA officials and Sen. Muskie were willing to adopt an aggressive policy after they had first made extensive efforts to mobilize a supportive constituency; *see*, Sabatier, *Social Movements and Regulatory Agencies*, 6 *POL'Y SCI.* 301 (1975) and H. Ingram, *The Political Rationality of Innovation* (unpublished paper, U. ARIZ. (1976).

8. W. CARY, *POLITICS AND THE REGULATORY AGENCIES* (1967); L. KOHLMEIER, *THE REGULATORS* (1969); Lazarus, *Halfway Up from Liberalism*, in *CORPORATE POWER IN AMERICA* 215 (R. Nader & M. Green eds. 1973); M. NADEL, *THE POLITICS OF CONSUMER PROTECTION* (1971); and Wilson, *The Dead Hand of Regulation*, *PUBLIC INTEREST* 39 (1971). The best synthesis to date is R. Noll, *Government Administrative Behavior and Private Sector Response: A Multidisciplinary Survey*, in *Handbook of Organization* (W. Starbuck ed. 1977). Noll's approach, however, is basically that of rational actor theory and (thus) he generally ignores what will be termed "situational variables."

framework which both synthesizes that knowledge and serves as a guide to future studies.

This essay proposes to take the first step toward the development of such a framework. It will first suggest a typology of regulatory policies, with appropriate indicators as a means of both focusing attention on this neglected area of inquiry and of facilitating comparison of agencies in different functional areas. The bulk of the paper then discusses the principal variables affecting agency policy-making, as well as some of the more important hypotheses concerning each variable. Its distinguishing features are a detailed examination of legal resources, an area generally slighted by political scientists, and explicit concern with the variables indirectly affecting agency policy, which have been ignored by most authors. Inattention to indirect variables carries the risk that the hypothesized effects of direct variables such as constituency groups and agency expertise on agency decisions may, in fact, be spurious. Finally, the concluding section will synthesize the variable list into a flow diagram to focus attention on the manifold interrelationships among variables and the consequent need to carefully delineate the boundary conditions under which any posited relationship is deemed to exist.

Before beginning the substantive elaboration of such a framework, it would be well to delimit the scope of our discussion. "Regulatory" policy refers to that which is primarily intended and/or authorized to regulate individual or corporate behavior rather than to provide goods or services.⁹ It comprises both policing and managerial policies and agencies. Policing refers to programs in which A's behavior is regulated to benefit B, while the managerial concept deals with cases in which a group of functionally similar individuals or corporations agree to collectively regulate their own behavior, generally for their collective benefit.¹⁰ In either case, however, we are only concerned with policies in which all relevant parties are pursuing goals which are generally deemed legitimate, thereby excluding the entire criminal justice system. In short, we shall be dealing with policies regulating the behavior of economic producers and of people who provide services to consumers. This framework thus applies to the traditional federal and state regulatory agencies dealing with common carriers, public airwaves, securities, consumer protection, and utilities; to

9. For the distinction between regulatory and distributive policies, see Sabatier, *supra* note 7, at 307, and Lowi, *Four Systems of Policy, Politics, and Choice*, 32 PUB. AD. REV. 314 (1970).

10. For this distinction, see J. LANDIS, *THE ADMINISTRATIVE PROCESS* 16 (1938); Jaffe, *supra* note 3; and Lazarus, *supra* note 8.

pollution control agencies; to state and local agencies regulating land development; and to licensing boards.

It is also possible that a portion of the framework, particularly the variable list and the flow diagram, is applicable to all administrative agencies dealing with substantive policy, whether distributive, redistributive, or regulatory. While the variables may well be the same, it has been argued that the nature of Congressional policy-making and the importance of constituency groups vary among different arenas of policy.¹¹ Moreover, it is quite certain that the typology of agency outputs presented in this framework applies only to regulatory policies. For the moment, then, the scope of the framework remains limited to policy-making in regulatory agencies. It is hoped, however, that it will ultimately contribute to a comprehensive theory of policy-making in administrative agencies.

A TYPOLOGY OF POLICY OUTPUTS FOR REGULATORY AGENCIES

Systems analyses of administrative agencies commonly distinguish 1) the inputs into agency decision-making, 2) the policy outputs of the agency, and 3) the impacts of those policies on the agency's external environment.¹² In the case of an air pollution control agency, for example, its inputs would include its statute, constituency pressure, etc.; its policies would involve its regulations and adjudicative decisions; and its impacts would deal with the effects of those policies on air quality, employment, etc. This section will first discuss three different forms, or components, of policy outputs and then aggregate them along a substantive continuum from "self-regulatory" to "aggressive" policies. The objective is, first, to promote comparisons among regulatory agencies with different functions (e.g., public utility commissions vs. pollution control agencies)¹³ and, secondly, to provide a common vocabulary for the subsequent discussion of policy inputs. Our objective is ultimately to indicate the effect of certain inputs, such as legal resources, on regulatory policies, a virtually impossible task unless one has first characterized those policies along some substantive continuum.

The policy outputs of regulatory agencies can be divided into at least three components: A.) the general transitive goals pursued,¹⁴

11. Lowi, *American Business, Public Policy, Case Studies, and Political Theory*, 16 WORLD POL. 677 (1964); Lowi, *supra* note 9; and Sabatier, *supra* note 7, at 306.

12. I. SHARKANSKY, *PUBLIC ADMINISTRATION* (1975); Ripley, Moreland & Sinnreich, *Policy Making: A Conceptual Scheme*, 1 AM. POL. Q. 3 (1973).

13. For a counter-argument doubting the feasibility of crossfunctional comparisons, see Bernstein, *supra* note 1, at 336.

14. A transitive goal refers to the intended impact of the organization upon its environment, as distinguished from its reflexive goals, i.e. survival, Mohr, *The Concept of Organizational Goal*, 67 AM. POL. SCI. REV. 470 (1973).

B.) the regulations promulgated, and C.) the adjudicative decisions made in specific cases.

A. The general goals pursued can be conceptualized as points on a continuum ranging from minimum interference with market induced producer behavior to an optimization of the welfare of those adversely affected by the behavior of regulated groups, such as the consumers of unsafe products or those suffering from the effects of pollution. These general goals can be taken from the policy statements of agency officials before legislative committees, in annual reports, or in the introductory portions of regulations. These goals thus represent the stated intentions of agency officials or the general goals provided in the statute.

B. A more specific and enforceable type of policy output consists of the regulations officially promulgated by the agency. For the purposes of developing a substantive typology of agency policies, there are several aspects of the regulations which merit brief discussion: (1) The initiative taken by the agency in adopting regulations. This can range from extreme reluctance, often manifested by an exclusive reliance on case by case adjudication, to a willingness to adopt regulations in controversial areas entirely on its own initiative, without prodding from its legislative, executive, or judicial sovereigns. (2) The comprehensiveness of the regulations. Do the regulations cover only those areas explicitly mandated by statute or do they involve virtually all areas under the agency's jurisdiction? In pollution control regulation, for example, what is the range of pollutants covered by regulation? Comprehensiveness would also involve the agency's willingness to experiment with new techniques. The U.S. Environmental Protection Agency (EPA), for example, has attempted to supplement the traditional emission regulations with land use controls to regulate so-called "secondary sources," e.g., shopping centers which encourage the use of the automobile and thus indirectly increase automotive emissions.¹⁵ (3) The stringency of the regulations. This can range from only what is acceptable to the regulated groups through requiring what most informed people agree is economically and technologically feasible to regulations requiring the regulated to develop new technologies. An example of the most stringent form of regulation would be the provision in Sec. 202 of the 1970 Clean Air Amendments which set 1975 emission standards at levels sufficiently low to require the development of new technologies.¹⁶

15. U.S. E.P.A., *Air Programs: Approval of Transportation and/or Land Use Controls*, 308 Fed. Reg. 16,550 (1973).

16. Bonnie, *The Evolution of Technology-Forcing in the Clean Air Act*, 6 ENVIRONMENT REP. (Monograph No. 21, 1975).

C. Regulations, however, must be applied to specific cases. This final form of agency policy output generally involves at least three aspects: (1) The granting of permits or licenses. For example, is the application normally approved as submitted or it is frequently subjected to conditions or even denied? (2) The granting of exceptions or variances to the regulation. Is this done frequently and on the basis of inadequate demonstration of hardship to the regulated or are variances granted infrequently and with the burden of proof definitely on the petitioner? (3) The treatment of recalcitrants; the willingness to resort to legal coercion to enforce regulations. This ranges from endless attempts at conciliation to a ready resort to coercion, even at the risk of extended court cases.

For analytical purposes, the goals, regulations, and adjudications can be aggregated into several modes or ideal types of regulatory policies. Table 1 presents three such modes ranged along a continuum depending upon the intended and/or authorized desire to change A's behavior in order to benefit B. At one end is "*de facto* self-regulation," in which minimal efforts are made to induce the regulated clientele of an agency, such as industrial polluters, to modify their behavior and incur costs in order to benefit people with respiratory diseases who are harmed by industrial emissions. At the other end are "aggressive" policies which seek sufficient change in A's behavior so that B is no longer harmed. In the middle are balancing policies in which some modifications in A's behavior are sought but in which no attempt is made to optimize B's welfare. As the three modes are arranged along a continuum, intermediate categories, such as "clientele-oriented balancing"¹⁷ and "aggressive balancing," can also be posited.

While the three components of stated goals, regulations, and adjudication embodied in an agency's policy need not covary in the fashion indicated, it is my impression that they do tend to cluster into the modes described in the table. But that, of course, is an empirical proposition which merits investigation. At any rate, the three modes constitute "ideal types" in the classic Weberian sense.¹⁸ They assume that the three components of policy will be consistent with each other and thus offer a coherent method of characterizing policy outputs in the aggregate. The ideal types will prove analytically useful even if the consistency assumption proves in fact to be false, for they will have led to recognition of internal inconsistencies

17. For the purposes of this paper, "clientele" always refers to the individuals or organizations being regulated. This comprises only one of several constituencies of an agency—a "constituency" being any group whose concern with agency policy is either latent or manifest.

18. M. WEBER, ON THE METHODOLOGY OF THE SOCIAL SCIENCES (1949).

TABLE 1
MODES OF REGULATORY POLICY

<i>Defining Characteristic</i>	<i>De-Facto Self-Regulation ("Captured" Agency)</i>	<i>Balancing Policy (Cautious)</i>	<i>Optimize Behavioral Change (Aggressive)</i>
(1) Nature of goals	Behavioral change consonant with minimum disruption to economic welfare of regulated; burden of proof on those desiring regulation.	Some improvement annually in behavior of regulated, but not so as to cause much economic disruption. Explicit balancing of those two goals.	Seek to optimize behavioral improvement even risking some economic disruption.
(2) Regulations			
(a) Adoption (initiative)	Adopted slowly, don't take initiative in adopting new ones; often rely entirely on case by case adjudication without developing clear policies over time.	Adopted rather slowly; reluctant to take initiative.	Adopt regulations on own initiative as quickly as possible.
(b) Comprehensiveness	Minimal regs; only what required by statute or sovereign(s)	Cautious in going beyond what is required.	Regs. cover all areas, and may take new approaches not mandated by statute.
(c) Stringency	Lenient; only what is acceptable to regulated.	Require only what all agree is economically and technologically feasible.	Stringent; willing to push companies to develop or experiment with new technologies.
(3) Adjudication			
(a) Granting of permits/licenses	As requested by the applicant, virtually without exception	Conditions sometimes imposed, but denials extremely infrequent.	Agency frequently imposes conditions or denies application.
(b) Granting of exceptions (variances)	Frequent and on basis of inadequate demonstration of hardship to regulated.	Rather frequent; burden of proof on both agency and petitioner (regulated).	Infrequent; definite burden of proof on regulated; may entail posting of performance bond.
(c) Treatment of recalcitrants	Endless attempts at conciliation; coercion very infrequent and, if used, very light penalties.	Clear preference for bargaining rather than coercion—especially against large firms.	Ready resort to coercion—even if risks long court cases.

in policy outputs, e.g., stringent regulations which are vitiated in practice through the granting of extensive variances.

This conceptualization of a range of regulatory policies with empirically verifiable indicators is clearly crucial to the development of an analytical framework of regulatory policy-making. An adequate theory of the factors affecting regulatory policy is obviously contingent upon the development as a means of empirically measuring change in the dependent variable. For example, Bernstein's theory of the cycle of decay of regulatory agencies involves the transformation of aggressive policies into self-regulatory policies over time as the result of the influence of those being regulated.¹⁹ Without a means of substantively characterizing the policy outputs, such a statement would be impossible. While the typology proposed here is certainly not sacrosanct, it at least represents one of the requisites of theory development.

Given this qualitative framework for identifying and conceptualizing the policy outputs of regulatory agencies, we must next identify the casual factors which affect those policies.

SOURCES OF VARIATION IN REGULATORY POLICY

In this section, we shall distinguish two sets of causal factors responsible for variation in regulatory policy. The first consists of those attitudes and resources which operate directly on agency policy, while the second involves variables in the agency's socio-political environment which can affect its policies indirectly, i.e., *via* the attitudinal and resource variables. The variables outlined in Table 2 are derived from an attempt to synthesize the literatures in administrative policy-making, organization theory, case studies of particular agencies, and public policy. The emphasis is on comprehensiveness rather than theoretical parsimony.

A. Resource and Attitudinal Variables Directly Affecting Agency Policy

These variables can basically be divided into two categories: the legal and administrative resources (or constraints) of an agency and the constraints (or resources) emanating from external factors. The former include (1) statutory resources, (2) technical and monetary resources, and (3) the attitudes of agency officials, while the latter refer to the attitudes and resources of (4) its sovereigns, (5) its constituencies, and (6) other agencies.

19. BERNSTEIN, *supra* note 2, at 74; for a critique, see Sabatier, *supra* note 7, at 302.

TABLE 2
 VARIABLES AFFECTING POLICY-MAKING IN REGULATORY AGENCIES

- A. Resource and Attitudinal Variables Directly Affecting Agency Policy
 - 1. Legal Resources
 - a. Nature and Clarity of Policy Directives
 - b. Geographic and Substantive Rule-Making Authority
 - c. Adequacy of Sanctions
 - d. Administrative Structure
 - e. Opportunities for Citizen Participation
 - 2. Technical, Monetary, and Personal Resources
 - 3. Leadership Ability within Organizational Constraints
 - 4. Agency Sovereigns
 - 5. Constituency Groups
 - 6. Other Agencies
 - B. Situational Variables Indirectly Affecting Agency Policy
 - 1. Socio-Economic Factors
 - 2. Political Culture
 - 3. Technology
 - 4. Public Opinion and the Mass Media
 - 5. Actual Conditions and Perceived Problems
-

(1) Legal Resources

The first, and in many instances the most important, set of variables affecting agency policy is the statute(s), court decisions, and executive orders which constitute its legal resources and constraints. Because administrative officials share only indirectly in democratic legitimacy, in any system which professes allegiance to the rule of law they must be able to justify their actions in terms of the legal authority conferred upon them by their legislative, executive, and judicial sovereigns.²⁰ Partially for this reason, regulatory officials often make a considerable effort to influence the legal resources provided by their legislative and executive sovereigns.²¹ Whatever their origins, however, following are some of the more important legal attributes which affect agency policy.

(a) The nature and clarity of policy directives. The policy directives contained in the declaration of intent and in more specific provisions of statutes can provide a legal justification for one mode of regulatory policy rather than another. For example, the declared

20. M. WEBER, *THE THEORY OF SOCIAL AND ECONOMIC ORGANIZATION* 328 (1947). A "Sovereign" refers to an institution which has the legal authority to determine an agency's budget and/or its statutory authority. In the case of the FDA, for example, these would include the Secretary of HEW, the Congress, the President, and the Federal courts. The term is taken from A. DOWNS, *INSIDE BUREAUCRACY* 44 (1967).

21. Sapp, *Executive Assistance in the Legislative Process*, 6 PUB. AD. REV. 10 (1946); White, *Administrative Agencies and Statute Lawmaking*, 2 PUB. AD. REV. 116 (1942); A. FRITSCHLER, *supra* note 6, at 140.

purpose of the 1963 Illinois Air Pollution Control Act was "to maintain the purity of the air resources of the State consistent with the protection of the normal health, general welfare, and physical property of the people, maximum employment and the full industrial development of the state."²² By contrast, the 1970 Illinois Environmental Protection Act declared that "it is the purpose of this Act . . . to restore, protect, and enhance the quality of the environment, and to assure that adverse effects upon the environment are fully considered and borne by those who cause them."²³ The former calls for the agency to balance a set of conflicting objectives, with some bias toward economic development, while the latter clearly accords environmental protection preeminent status. Not surprisingly, these statutory directives were substantially reflected in the much more aggressive and stringent air pollution policies pursued by Illinois officials after 1970.²⁴ In the same vein, several authors have suggested that many of the federal regulatory commissions, including the ICC, CAB, FCC, and AEC, were directed by Congress to be basically self-regulatory agencies; there has thus been no cycle of decay because the agencies were intended by their legal sovereigns to be "captured."²⁵

In addition to the substantive direction of the policy directives, their clarity or specificity can have three important repercussions for agency policy-making. First, the more ambiguous the directives, the more the hard policy choices are displaced from the legislature to the agency. This is likely to produce a similar transfer of constituency pressures. As Judge Henry Friendly has observed:

Lack of definite standards creates a void into which attempts to influence are bound to rush; legal vacuums are quite like physical ones in that respect. Although pressure produces diffuse decisions, it is likewise true that diffuse decisions produce pressure.²⁶

Thus, the greater the legislatures unwillingness and/or inability to make clear policy choices, the more important the balance of constituency support becomes in affecting agency policy. Secondly, Roger Noll has persuasively argued that ambiguous mandates and the absence of market performance criteria leave agency officials with

22. ILL. REV. STAT. 1968, Ch. 111½, § 5.

23. ILL. REV. STAT. 1969, Ch. 111½ § 2.

24. P. Sabatier, *Social Movements and Regulatory Agencies: The NAPCA-EPA Citizen Participation Program* (unpublished Ph.D. dissertation, U. Chi. 1974).

25. Jaffe, *supra* note 4; Jaffe, *supra* note 3; E. KRASNOW & J. LONGLEY, *supra* note 6; J. LANDIS, *supra* note 10; and Stone, *supra* note 6.

26. H. FRIENDLEY, *THE FEDERAL ADMINISTRATIVE AGENCIES* 22 (1962). See also Long, *supra* note 3; Brady & Althoff, *supra* note 6, at 361, 379 (1973).

few positive guidelines as to whether they are acting in the public interest and thus make them very attentive to cues from their legislative sovereigns and the courts.²⁷ As these cues are in turn dependent upon the ability of various constituency groups to muster the resources to bring suits and to influence legislators, the importance of organized constituencies is further enhanced. If, as is usually the case, producer groups are much better organized than their consumer or environmental counterparts, agency policy makers will have strong incentives to similarly skew their policy outputs; to do otherwise would be to risk retribution at the hands of sovereigns sympathetic to producer preferences.²⁸ Finally, a vague mandate can imperil the legitimacy of an agency's decisions by creating conflict over its proper goals and by eliminating justification of its policies in terms of clear decisions previously made by democratically-accountable legislatures.²⁹ In short, ambiguous mandates contribute to both "clientele capture" and to the current crisis in confidence in public bureaucracies.

(b) The geographic and substantive rule-making authority accorded the agency. The scope of an agency's authority involves a number of different aspects. First, is the matter of whether it has rule making authority at all or must instead proceed entirely on a case by case basis. The Federal Trade Commission, for example, did not initiate any rule making proceedings until 1962, 48 years after its establishment, in part because of doubts concerning its legal authority to do so.³⁰ The substantive scope of an agency's authority is also obviously important. The FTC, for example, did not have authority over deceptive advertising practices until 1938.³¹ Then there is the geographic scope of an agency's authority. State and local air and water pollution control agencies, for example, have been hampered

27. Noll, *supra* note 8, at 37.

28. M. OLSON, *THE LOGIC OF COLLECTIVE ACTION* (1965); M. NADEL, *supra* note 8, at 235; Sabtier, *supra* note 7, at 307. In their study of the FTC, for example, E. KRASNOW & V. LONGLEY (*supra* note 6, at 16) attribute much of the agency's historic deference to commercial broadcasters to the vague Congressional mandate to regulate the public airwaves in "the public convenience and necessity." For similar argument with respect to the FTC, see P. HERRING, *supra* note 3, at 111.

29. T. LOWI, *THE END OF LIBERALISM* (1969). This was illustrated by the difficulties of the Grazing Service in administering the Taylor Grazing Act of 1934. The Act's vague provision for "reasonable fees" led to considerable antagonism toward the service on the part of both stockmen, who argued that fees should be based entirely upon administrative costs and who resented the expanding bureaucracy they were being asked to support, and economy-minded Congressmen and conservationists, who felt fees should be based upon the value of the land leased for grazing. The result was a 50% reduction in the Service's appropriation for FY 1946 and its incorporation soon thereafter into the Bureau of Land Management. See P. FOSS, *supra* note 4, at 171.

30. A. FRITSCHLER, *supra* note 6, at 56.

31. *Id.* at 63.

by their inability to control sources outside their jurisdiction. This has impeded effective regulation because of pollutant transport and, more importantly, because officials fear that stringent policies will gradually result in the loss of tax dollars and employment opportunities to more lenient jurisdictions. It is in part because of limitations in the geographic authority of state and local institutions, both to control externalities and to promote coordination, that there has been a substantial transfer of authority in the area to regional or Federal agencies.^{3 2}

In general, limitations on an agency's authority render aggressive regulation more difficult if not impossible. The exception occurs in instances in which an agency is given such sweeping authority that meaningful guidelines become more difficult to determine. An example often cited is the effect of the Transportation Act of 1920 and the Motor Carrier Act of 1935 on the ICC. Whereas the agency was originally given the rather limited and precise role of protecting shippers from the monopolistic practices of the railroads, the expansion of its authority to virtually all modes of surface transportation transformed it from a policer of specific abuses to a manager preoccupied with the economic welfare of a crucial segment of the economy.^{3 3} In this respect, Lazarus has argued quite persuasively that managerial agencies are potentially far more detrimental to consumers than are those with policing functions. The latter, if "captured," are unlikely to produce more social harm than if they had never been created. Managerial agencies, however, because of their exclusive control over price and entry, can give producers more power than they possessed prior to the agency's establishment.^{3 4}

(c) The adequacy and application of sanctions. Regulations, if they are to affect behavior, must be enforced. While any agency has to rely primarily upon voluntary compliance, the absence of effective legal sanctions is likely to make an aggressive regulatory policy all but impossible. For such a policy, by definition, seeks to substantially modify the behavior of the regulated, often at substantial cost to them. Such changes are likely to be effectively resisted unless the agency can produce sufficient disincentives to convince the regulated that the costs of noncompliance outweigh those of resistance.

Experience, albeit somewhat impressionistic, suggests that the

32. M. DERTHICK, *BETWEEN STATE AND NATION* (1974); Grad, Rathgens & Rosenthal, *Intergovernmental Aspects of Environmental Controls*, in *ENVIRONMENTAL CONTROL: PRIORITIES, POLICIES, AND LAW* 47 (1971); and Sabatier, *State and Local Environmental Policy*, in *ENVIRONMENTAL POLITICS*, 160 (S. Nagel ed. 1974).

33. T. LOWI, *supra* note 3, at 130; P. WOLL, *AMERICAN BUREAUCRACY* 40 (1963).

34. Lazarus, *supra* note 8, at 232.

effectiveness of sanctions is contingent upon at least three factors. First, the agency should have the authority to impose sanctions for future, as well as past, misconduct. That is, performance bonds as well as fines. Fines as a sanction suffer the disadvantage of forcing the agency to engage in prolonged litigation which, if not accompanied by an injunction, allows the alleged violation to continue during the legal proceedings.³⁵ Secondly, the agency should have at its disposal a wide range of sanctions conforming to the severity of the violation. One of the major problems in enforcing the automotive emission standards of the 1970 Clean Air Act, for example, has been the absence of any sanctions short of the "nuclear deterrent" of closing the auto companies.³⁶ On the whole, however, the problem has been that the money penalties available to regulatory agencies have been insufficient to deter large corporations from malfeasance.³⁷ Finally, the effectiveness of the sanctions probably depends upon the speed, certainty, and directness with which they are applied. Most regulatory agencies must rely upon the uncertain and often time consuming intermediary of the courts to impose civil penalties. In contrast, the experience of the Illinois Pollution Control Board, which has the authority to impose penalties subject only to review by the appellate courts, suggests that there is a much more effective means of legal coercion. The exercise of such authority does require that the agency, in order to assure due process, have rather formalized adjudicatory proceedings and possibly that it be headed by a multi-member commission.

(d) Administrative structure. This variable incorporates the organizational structure and procedures of the agency which are mandated by its sovereign through its organic statute, budgetary stipulations, executive orders, or court decisions on due process. Important structural aspects include the visibility of the agency, its independence from executive control, its placement within the administrative hierarchy, the composition of its policy board, and the degree of formal centralization.

The visibility of an agency, its ability to resist being buried in large line departments, probably affects the amount of media coverage.

35. The experience of the Illinois Pollution Control Board suggests the conditioning of installation and operating permits upon the posting of performance bonds of as much as several million dollars represents a very effective disincentive against procrastination. Such performance bonds are also often required by the Forest Service on timber permits and by local planning commissions of subdivision conditions.

36. SENATE SUBCOMMITTEE ON AIR AND WATER POLLUTION, THE IMPACT OF AUTO EMISSION STANDARDS: A STAFF REPORT, Doc. No. 11, 93d Cong., 1st Sess. vii (1973).

37. P. HERRING, *supra* note 3, at 226; Stone, *supra* note 6, at 222.

Exposure, in turn, facilitates both monitoring by groups without extensive resources and the agency's own ability to mobilize diffuse public support.

Despite the long standing dispute in the field of public administration concerning the advisability of independent commissions versus line departments, there is little evidence that this aspect of organizational structure has significant policy implications.³⁸ As indicated above, however, the courts are unlikely to permit an agency headed by a single official responsible only to the chief executive to levy money penalties; this is one of the major advantages of a multi-membered commission with staggered terms. On the other hand, Lazarus has argued that line departments responsible to a political executive will perhaps be more responsive, at least momentarily, to consumer reform movements.³⁹

The location of an agency within the administrative structure is potentially important because it affects the nature of the agency's executive sovereigns. Environmental groups, for example, have long supported the transfer of the Forest Service from the Department of Agriculture to the Department of the Interior because of the alleged bias of the former to commercial production rather than to preservation or recreation. It is my impression, however, that the empirical evidence underlying such reorganization proposals is rather weak, in part because the heads of megadepartments often have only very limited capacity to review the decisions of regulatory sub-units.⁴⁰

The composition of the policy-making board, if there is one, can obviously have an important effect on agency policy. If, as was the case with many of the early state air and water pollution control agencies, the enabling statute provides extensive formal representation from regulated interests, then an aggressive policy is extremely unlikely. This has been confirmed by Wenner's study of state water

38. R. NOLL, *supra* note 5; Cornell, Noll & Weingast, *supra* note 6.

39. Lazarus, *supra* note 8, at 224.

40. In private correspondence Paul Culhave has argued that changing the departmental sovereign of the Forest Service would probably be counterproductive for two reasons. First, the Department of Interior has not had a notably "preservationist" track record with respect to grazing (BLM), water resource projects (Reclamation), or offshore oil regulation. Secondly, the almost complete lack of congruence between agriculture's dominant clientele and the Forest Service's forest products industry clientele has had the effect—along some other things like professionalism—of making the Service virtually an independent bureau within USDA. There is also evidence that the Food and Drug Administration is highly independent of the Secretary of HEW, as the latter virtually never reviews its decisions. [SENATE COMM. ON GOVERNMENT OPERATIONS, HEARINGS ON IMPROVING CONGRESSIONAL OVERSIGHT OF REGULATORY AGENCIES, 94th Cong., 2d Sess. 55 (1976)]. For discussion of reorganizations, see F. MOSHER, *GOVERNMENT REORGANIZATIONS* (1967), and Mansfield, *Reorganizing the Federal Executive Branch*, 35 L. & CONTEMP. PROB. 461 (1970).

pollution control agencies, at least with respect to the stringency of regulations.^{4 1}

The degree of legally mandated centralization within an agency can also have policy implications. A decentralized agency normally permits considerably more inter-regional policy variation than does a centralized one. Moreover, there is some evidence, although by no means overwhelming, that decentralized federal agencies are generally more responsive to producer interests because of the greater influence of producers at the state level than at the federal level.^{4 2}

(e) The last legal attribute to be discussed involves the opportunities provided by an agency's statute for citizen participation. This is important because it regulates the participation of "outsiders," actors who are neither agency officials nor the parties directly being regulated, but who nevertheless may be interested in, or affected by, the agency's decisions. As Joseph Sax has observed, provision for citizen participation is at least implicitly based upon the assumption that "the public interest" is more likely to emerge from adversary proceedings than from faith that agency officials are really Platonic philosopher-kings.^{4 3} Indeed, one of the major changes in regulatory policy-making during the 1960s and early 1970s involved more liberal provisions for the participation of third parties both in agency decisions and in the appeals of those decisions to the courts. This trend has been reversed somewhat by recent restrictions on class action suits.^{4 4}

41. L. Wenner, *Enforcement of Water Pollution Control Laws* (Paper presented at the 1972 Ann. Meeting Am. Pol. Sci. A., Wash., D.C., Sept. 1972).

42. P. FOSS, *supra* note 4; G. MCCONNELL, PRIVATE POWER AND AMERICAN DEMOCRACY (1966); and H. MARSHALL & B. ZISK, THE FEDERAL-STATE STRUGGLE FOR OFFSHORE OIL (Inter-University Case Program No. 98, 1966).

43. J. SAX, DEFENDING THE ENVIRONMENT (1971). As Chief Justice Warren Burger, then sitting on the Court of Appeals for the District of Columbia, argued in the case of *Office of Communication of United Church of Christ v. FCC*, 359 F.2d 994 (D.C. Cir. 1966):

The theory that the Commission can always effectively represent the listener interests in a renewal proceeding without the aid and participation of legitimate listener representatives fulfilling the role of private attorneys general is one of those assumptions we collectively try to work with so long as they are reasonably adequate. When it becomes clear, as it does to us now, that it is no longer a valid assumption which stands up under the realities of actual experience, neither we nor the Commission can continue to rely on it.

This assumes, on the other hand, that the truth and/or the public interest is most likely to emerge from a system in which competing interests are able to state their case. See Shor, *Administration of the Under-Represented* (Paper Presented at the 1972 Ann. Meeting Am. Pol. Sci. A., Wash. D.C., 1972); Auerbach, *Pluralism and the Administrative Process* 400 ANNALS 1 (1972); and George, *The Case for Multiple Advocacy in Making Foreign Policy*, 66 AM. POL. SCI. REV. 751 (1972).

44. Leone, *Public Interest Advocacy and the Regulatory Process* 400 ANNALS 46 (1972); Davis, *The Liberalized Law of Standing*, 37 U. CHI. REV. 450 (1970); and Orren, *Standing to Sue* 70 AM. POL. SCI. REV. 723 (1976).

As Sax has argued quite persuasively, it makes a great deal of difference whether the citizen participates as a suppliant or as a formal party with legal rights. One of the traditional avenues for such participation in agency policy-making has been the public hearing. There is a world of difference between the advisory hearing, where agency officials are free to ignore the advice proffered, and more formal hearings, where third parties are granted status as formal interveners, possibly having the authority to veto arguments between the agency and the regulated party.^{4 5} Therefore, the form of the advisory hearing will determine, in part, the effectiveness of public participation.

In general, however, citizens achieve their most formal legal status in appeals of agency decisions to the courts. In addition to more liberal judicial interpretations of standing in the past fifteen years, many regulatory statutes now contain explicit provisions for citizen suits. One such statute is the 1970 Michigan Environmental Protection Act, which grants standing to virtually anyone to challenge almost any agency decision. Examples are the most recent Federal air and water pollution control statutes, which in effect grant citizens the right to bring mandamus actions, requiring agency officials to comply with non-discretionary statutory requirements.^{4 6}

What is implied, in short, is that the probability of the "capture" of regulatory agencies by their regulated clientele is inversely proportional to the formal provision for third party participation, particularly in court suits. For, while the consumer reform movement may well wane, its interests may be partially protected by public interest law firms and even by individual plaintiffs. It is important, however, that citizen participation provisions be mandated by statute rather than left to the discretion of agency officials, as there is some evi-

45. The distinction between "formal" and "advisory" hearings is taken from Reich, *The Law of the Planned Society* 75 YALE L.J. 1227 (1969). For discussions of these and other means of participation, e.g. advisory boards, see (in addition to Reich) W. BOYER, *BUREAUCRACY ON TRIAL* 68 (1964) and A. LEISERSON, *supra* note 3, at 54. The importance of formal status was vividly demonstrated in several cases involving a local air pollution group and the Chicago Environmental Appeals Board in which the group actually vetoed agreements between the Department of Environmental Control and local industries, thereby forcing the parties to negotiate more stringent control measures (Sabatier, *supra* note 7, at 322).

46. For the text and rationale of the Michigan statute, see J. SAX, *supra* note 43. For some excellent data on its implementation, see Sax & Conner, *Michigan Environmental Protection Act: A Progress Report* 70 MICH. L. REV. 1003 (1972) and Sax & Dimento, *Environmental Citizen Suits* 4 ECOL. L.Q. 1 (1974). Other citizen suit provisions are contained in Sec. 304 of the Clean Air Amendments of 1970 Pub. L. No. 91-604 and Sec. 505 of the Federal Water Pollution Control Act Amendments of 1972 Pub. L. No. 92-500. An example of the successful invocation of the citizen suit provisions occurred when a public interest law firm forced the EPA to promulgate rather draconian regulations sufficient to attain the oxidant ambient air standards in the Los Angeles Basin.

dence that officials will ignore participation programs which do not result in increased support for the agency's programs.⁴⁷

These aspects of an agency's legal resources are tentatively summarized and aggregated in Table 3. Each of the component resources of an agency are rated on a 5-point ordinal scale, with the highest ratings presumably indicating those resources most conducive to pursuit of an aggressive regulatory policy. These separate scales can then be aggregated into a "legal resources" rating suitable for use in quantitative multi-variate analysis.

This completes our discussion of the statutory and other legal resources which affect agency policy. It has been rather detailed, first, to illustrate the type of analysis which is necessary and, second, to counteract the neglect of such variables among many contemporary political scientists.⁴⁸ We must now turn, albeit in briefer fashion, to the other factors which directly affect the policy outputs of regulatory agencies.

(2) Technical, monetary, and personnel resources

Most of a regulatory agency's monetary and personnel resources are used in the development of its technical expertise, in part because its technical superiority over legislative bodies is its primary *raison d'etre*, in part because it lacks of democratic legitimacy, particularly in cases of ambiguous legislative directives, means that it must rely upon its expertise for much of its legitimacy.⁴⁹

47. Mazmanian, *Participatory Democracy in a Federal Agency*, in WATER POLLUTION AND PUBLIC INVOLVEMENT 201 (J. Pierce & H. Doerksen ed. 1976).

48. Much of the responsibility for the neglect of legal variables can probably be traced to Lindblom's emphasis on "incremental bargaining" and "partisan mutual adjustment" [C. LINDBLOM, *THE POLICY-MAKING PROCESS* (1968), as well as his earlier writings]. For studies of bureaucratic policy-making within this tradition, see M. HOLDEN, *POLLUTION CONTROLS AS A BARGAINING PROCESS* (1966) and F. ROURKE, *BUREAUCRACY, POLITICS, AND PUBLIC POLICY* (1969). This paradigm of "interest group liberalism" has been strongly criticized, see T. Lowi, *supra* note 29.

49. F. ROURKE, *BUREAUCRACY, POLITICS, AND PUBLIC POLICY* 13 (2d ed., 1976); WOLL, *supra* note 33, at 31; and Kelman, *supra* note 6, at 91. To give a rough idea of the proportion of funds and personnel budgeted to essentially technical—rather than management—tasks, following are the budget and personnel breakdown for the Environmental Protection Agency in FY 1974:

	<u>Budget</u>		<u>End of Year Employment</u>
Research and Development	\$168,916,000	} 89%	1,902
Abatement and Control	256,093,900		3,671
Enforcement	46,781,000		1,557
Management	55,073,111		1,859
Miscellaneous	2,015,000		214
Total	<u>\$528,879,011</u>		<u>9,203</u>

Excluded are the \$4,000,000,000 in construction grants administered by the agency. Un-

The technical resources available to an agency can substantially affect the stringency of its regulations and the feasibility of various enforcement strategies. Because the regulation of business so often involves the use and/or assessment of new technologies, the feasibility of stack gas desulfurization in air pollution control and the safety of emergency core cooling systems of nuclear power plants being two examples, the agency's capacity to develop expertise sufficient to prove its case in the face of counter claims by the regulated industry and other groups will often be an important factor in determining the stringency of its regulations.⁵⁰ Similarly, aggressive enforcement and a resort to legal coercion are contingent upon a credible threat to successfully prosecute violators. This in turn requires a staff of sufficient size to systematically monitor compliance and of sufficient expertise to be able to prove its case in court. The absence of such a staff has certainly been one of the principal reasons why most state and local pollution control agencies have been virtually forced to rely upon voluntary compliance—on conference and conciliation—rather than risk the devastating effects of losing a court case, thereby throwing their entire programs into question.⁵¹

For these reasons, one of the most serious problems confronting many regulatory agencies has been the control over vital technical information exercised by the regulated interests. The result has been that many agencies, including the FCC, the agencies in the Interior Department regulating oil companies, and insurance commissions, have been obliged to either hire people temporarily from the regulated industry and/or to submit their proposed regulations to technical advisory panels composed largely of industry personnel. Although private employees in their public roles may well take a broader review of the public good than before, such arrangements have seldom resulted in policies strongly opposed by the regulated parties.⁵² University faculties would supposedly comprise an alterna-

fortunately, figures were not presented on the proportion of personnel within the essentially technical functional areas who were non-technical, e.g. clerical. Source: *Hearings on Agricultural-Environment and Consumer Protection Appropriations Before Senate Appropriations Committee* 93d Cong., 2d Sess. 1387 (1974).

50. For the debate over stack gas desulfurization, see de Nevers, *Enforcing the Clean Air Act of 1970*, 228 SCI. AM. 14 (1973); Enghahl, *A Critical Review of Regulations for the Control of Sulfur Oxide Emissions*, 23. J. AIR POLLUTION CONT. A. 364 (1973); and *Hearings on Coal Policy Issues Before Senate Committee on Interior and Insular Affairs*, 93d Cong., 1st Sess. 180 (1973).

51. Sabatier, *supra* note 24, at ch. 8; NAT'L ACAD. OF SCI., *WASTE MANAGEMENT AND CONTROL* 203 (1966); and R. SCHACHTER, *supra* note 6.

52. W. BOYER, *supra* note 45, at 59; R. ENGLER, *THE POLITICS OF OIL* (1960), Chs. 10-12; BERNSTEIN, *supra* note 2, at Ch. 4; FESSLER, *supra* note 3, at 70; J. Steck, *Power and the Policy Process: Advisory Committees in the Federal Government* (Paper presented

TABLE 3
LEGAL RESOURCES SCALE

Component Resources	Rating				
	1	2	3	4	5
1) Direction and clarity of policy directives	Clearly managerial/self-regulatory		Balancing		Clearly Aggressive
2) Substantive scope of authority	Encourage deference to industry trade conferences	Limited to case-by-case adjudication	Rule-making in a narrow area		Rule-making authority over all practices within a generic area, e.g. consumer fraud
3) Geographic scope of authority	Only local	Regional (multi-county)	State	Regional	All entities within a (national) economy
4) Sanctions					
a) Enforcing institution	None	District courts			Agency itself; limited appeal to appeals court
b) Range of sanctions	None	Retrospective cease and desist orders	Small penalties and/or bonds	Moderate penalties and/or bonds	Substantial penalties and bonds; also injunctions

5) Administrative structure					
a) Visibility	Minor office or section within large agency	Small bureau within cabinet level dept.	Small indep. agency or comm.	Large bureau within a cabinet-level dept.	Prominent indep. commission or agency
b) Composition of policy-making bd. (if one)	Entirely of officials from regulated groups	Some representation from regulated groups	Balanced representation or no mention	All regulated officials excluded	Entirely of representatives from consumer environmental groups
c) Functions	Managerial only		Managerial and policing		Policing
6) Citizen participation					
a) Hearings	None required	Advisory hearings only	Formal hearings	Informal hearings with agency assistance to all participants	Formal hearings with agency assistance to all participants
b) Judicial review	Limited to those with a direct and substantial financial interest; require substantial bond	Same as #1, but with no bond	Limited to those who can demonstrate a "special concern"	Standing to any "aggrieved" party on non-discretionary decisions	Standing to any "aggrieved" party on any agency decision

tive source of expertise. However, while there have been some notable exceptions such as Herbert Denenberg, formerly the Pennsylvania insurance commissioner, the academic reward structure and the lucrative consulting contracts available from regulated industries have generally limited the availability of academics to staff stringent regulatory programs for any extended period of time.^{5 3}

A related problem has been that even those agencies with competent staff free from conflicts of interest have often had to rely upon information furnished by the industry because only the industry has had the funds and/or legal authority to conduct the necessary research. The fruits of the research naturally become proprietary information, jealously guarded from competitors and supervising agencies alike. An often cited example involves the control of the oil industry over both geologic and production data.^{5 4} Without such supporting technical information, stringent regulation of the industry is difficult to justify; thus, there is a strong tendency toward cautious regulatory policies which do not offend the regulated interests.

While monetary and personnel resources are important primarily for their impact on the agency's capacity to acquire expertise independent of regulated interests, there are a couple of other points worth mentioning. First, insofar as the civil service system impedes the replacement of mediocre personnel, it impairs an agency's efficiency and thus its capacity to implement aggressive policies. Second, there is an accumulating body of evidence indicating that the presence of slack resources is one of the most important variables affecting an agency's capacity to respond to a changing political environment.^{5 5} Such unencumbered resources can, for example, affect an agency's capacity to respond to an upsurge in support for

at the 1972 Ann. Meeting Am. Pol. Sci. A., Washington, D.C., Sept. 1972); *but see* Kelman, *supra* note 6, at 86, 102.

53. Deneberg, formerly a professor of business at the University of Pennsylvania, has been portrayed as an unusually aggressive regulator of the insurance industry, *Hearings on Independent Consumer Protection Agency, Before Senate Commerce Committee*, 93d Cong. 1st sess. 15 (1973). For the problems of finding university faculty to testify in environmental cases, *see* S. EBBEN & R. KASPER, *CITIZENS GROUPS AND THE NUCLEAR POWER CONTROVERSY* 178 (1974). Moreover, when the Illinois Pollution Control Board was being staffed in 1970, a number of prominent academics from Chicago refused to be considered for appointment because of the full-time nature of the job. And even the one who accepted the chairmanship, David Currie, returned to his position as a law professor after less than two years. (Sabatier, *supra* note 24, at Chs. 5-6).

54. *Hearings on Energy Information Act, Before Senate Interior Committee*, 93d Cong., 2d sess. (1974); also E. HERRING, *supra* note 3, at 179.

55. H. KAUFMAN, *THE LIMITS OF ORGANIZATIONAL CHANGE* 23 (1971); H. CORTNER & H. INGRAM, *supra* note 6, at 76; and J. Nienabler, H. Ingram, D. McCool, *The Rich Get Richer Phenomenon* (Paper presented at the 1976 Ann. Meeting Midwest Pol. Sci. A., Chicago, April 1976).

consumer and/or environmental protection by initiating more aggressive policies, such as more court actions, new regulations, and requests for additional statutory authority.

(3) Personal preferences and leadership ability within organizational constraints

Herbert Simon and a number of other organization theorists have argued that decision making in virtually any organization gradually evolves until it is characterized by what he terms "bounded rationality" that is: by developing specialized sub-units, by choosing a course of action which is "good enough" rather than optimal, by emphasizing short run feedback rather than long term planning, and by the development of standardized search procedures and programs for dealing with recurring situations.^{5 6} In addition, the desire of outsiders to control agency misbehavior and of hierarchial inferiors to control their subordinates result in still more internal rules and regulations and the consequent departure of innovative, free wheeling individuals.^{5 7} In turn, this panoply of programmed behavior, the need for negotiation among specialized sub-units, the emphasis on short term, sub-optimal goals, and the gradual accumulation of officials comfortable with such a constrained environment and with a general policy orientation tend to discourage innovative, high risk policies, thereby furnishing another clue to the paucity of aggressive regulatory programs.^{5 8}

Notwithstanding the constraints placed on agency officials by law, by technical resources, and by the nature of organizational decision-making, there is a realm of discretion in which the officials' personal preferences and leadership ability are important. At the most aggregate level, this involves the choice of institutional mission and role. As indicated by Selznick, "the leader must specify and recast the general aims of his organization so as to adapt them without serious corruption, to the requirements of institutional survival."^{5 9}

56. J. MARCH & H. SIMON, *ORGANIZATIONS* (1958). For an excellent summary of this literature, see G. ALLISON, *ESSENCE OF DECISION* Ch. 3 (1971).

57. See, for example, A. DOWNS, *supra* note 20, at Ch. 12-13; H. KAUFMAN, *supra* note 55, at 31.

58. There are, however, a number of internal factors which affect the agency's willingness to be innovative and to take risks. These include (i) the age of the agency, (ii) the age distribution, turnover rate, recruitment patterns, and promotion patterns of its employees, (iii) the degree of hierarchial control of subunit decisions and processes, (iv) the openness of communication channels, both within the agency and to the external world, and as noted previously (v) the pressure of slack resources. See H. KAUFMAN, *supra* note 55, at ch. 2; A. DOWNS, *supra* note 20 at Chs. 9-10; and Ripley, Moreland & Sinnreich, *supra* note 12, at 10.

59. P. SELZNICK, *LEADERSHIP IN ADMINISTRATION* 66 (1957). See also H. Wolman, *Organization Theory and Community Action Agencies*, 32 *PUB. AD. REV.* 33 (1972).

This involves, among other things, the choice of strategies for implementing the chosen perceived goals and the search for a role among the organizations which carry on related activities.⁶⁰ Decisions on these very basic matters, as well as on more routine substantive policy decisions, will be affected by several factors, among the most important of which are the official's policy predisposition (e.g. on a self-regulatory/aggressive scale) and his basic role orientation.

The normative preferences of agency officials on a self-regulatory/aggressive scale obviously affect their discretionary decisions. An excellent example was provided in Illinois after the passage of the Environmental Protection Act of 1970. The long time administrator of state air and water pollution control programs, Clarence Klassen, viewed the statute and the new policy board as threats to the very cautious policies he had been pursuing rather than as resources to allow pursuit of more aggressive policies. After six months of obstruction and bitter wrangling, he was asked to retire, to be replaced by someone more attuned to the new mandate.⁶¹

TABLE 4
ROLE ORIENTATIONS OF REGULATORY OFFICIALS

	<i>Trustee^a</i>	<i>Delegate^a</i>	<i>Legal-rationalist^b</i>
Passive	Quietly acts on his/her conception of public goods, perhaps derived from professional norms ^c	Receptive to preferences of one or more constituencies	Views oneself as simply an administrator of statutes and other legal rules
Active	Solicits support for such a conception	Solicits constituency preferences	Seeks guidance from sovereigns when uncertain

a. The term "trustee" and "delegate" are borrowed from the literature on legislative role orientations and have been applied to administrative officials by Friedman and his colleagues [J. WAHLKE et al., *THE LEGISLATIVE SYSTEM* (1962); R. Friedman et al., "Administrative Agencies and the Public they Service," 26 *PUB. ADM. REV.* 192 (1966)].

b. The "legal-rationalist" conception is taken, hopefully without unwarranted confusion, from Weber's conception of the bureaucrat [*THE THEORY OF SOCIAL AND ECONOMIC ORGANIZATION* 329 (1947)].

c. For a review of the effect of professional norms on policy predispositions see R. FRIEDMAN, *PROFESSIONALISM: EXPERTISE AND POLICY MAKING* (1971) and P. MOYNIHAM, *MAXIMUM FEASIBLE MISUNDERSTANDING* (1970), Chapt. 2.

60. P. SELZNICK, *supra* note 59, at 82; A. McFARLAND, *POWER AND LEADERSHIP IN PLURALIST SYSTEMS* Ch. 8-9 (1969); and D. KATZ & R. KAHN, *THE SOCIAL PSYCHOLOGY OF ORGANIZATIONS* Ch. 11 (1966).

61. Sabatier, *supra* note 24, at Ch. 6. For another example, see P. HERRING, *supra* note 3, at 147.

In addition to an official's basic preferences about how aggressive a policy the agency should pursue, the origin of those preferences is obviously important because it indicates which reference groups are likely to have an impact on the official's policy predisposition. The columns in Table 4 indicate three potential reference groups for seeking guidance within the realm of discretion and the accompanying role orientation: 1) one's conscience or the norms of one's profession ("trustee"), 2) one or more constituency groups ("delegate"), and/or 3) the legal sovereigns ("legal-rationalist"). For example, an official could pursue a self-regulatory policy either out of deference to perceived legislative intent (legal-rationalist) or because he felt that the interests of regulated parties ought to be safeguarded (delegate from regulated); attempts to change his attitudes would obviously involve quite different strategies in the two cases, with the latter being far more resistant to change.

The rows in Table 4 simply indicate that an official's orientation toward these reference groups can vary from passively noting their expressed preferences to actively soliciting their input. The degree of activism is particularly important for delegates, who can range from passive receptacles of interest group pressures through solicitors of group preferences to those who actually go out and organize latent constituency groups.⁶² The most extreme form of activism, while rare, can make an enormous difference in regulatory programs, as consumer and/or environmental interests are normally very diffuse and poorly organized, and thus their interests will often go unarticulated unless agency officials make a concerted effort to solicit them.

Unfortunately, very little is known about the factors which affect either an official's choice of reference groups or his degree of activism in soliciting their preferences. At times, of course, the reference group is more or less stipulated by statute, as when specific members of air pollution control boards were designated as the representatives of labor, farmers, or industry. There has also been a fair amount of theorizing and/or speculation concerning the impact of officials' career patterns on their behavior while with the agency. It has been argued, for example, that officials who come from the regulated industry and/or leave the agency to seek employment with the industry or a corporate law firm will view themselves as delegates from that interest and/or pursue essentially self-regulatory policies to

62. For example, the National Air Pollution Control Administration (NAPCA) organized air pollution groups in local communities throughout the country in 1969-72 (Sabatier, *supra* note 7, at 310). The possible strategy of mobilizing support from latent groups has been ignored by virtually all students of regulatory agencies with the exception for Fainsod, *supra* note 4, at 320 and ROURKE, *supra* note 48, at 14.

enhance their employment potential.⁶³ But there has yet been no studies indicating that officials with this career pattern vote differently from academics or former legislators.

As well as differing in their policy and role orientations, individual agency officials can vary tremendously in their leadership ability, i.e. their ability to maintain a balance of political support, to implement difficult or unpopular programs, to maintain agency morale, etc. In addition, the abilities of the same person can produce markedly different results in different situations, as illustrated by Sargent Shriver's contrasting performances in the Peace Corps and in the Office of Economic Opportunity.⁶⁴

(4) The attitudes and resources of agency sovereigns

Another rather obvious set of factors affecting agency policy is the attitudes and resources of the agency's sovereigns; those officials (or institutions) who control the agency's legal and/or budgetary resources. For a local pollution control agency these include the mayor, the city council, the courts, the state pollution control agency (and indirectly probably the governor and legislature), and the Federal EPA. The sovereigns of the EPA in turn include the Congress, the President, and the Federal courts.

Influence by the sovereigns over agency policy is both prospective, in the form of authorizing statutes and budgetary appropriations, and retrospective, in the form of investigations, audits, and vetoes of particular actions.

Because of multiple sovereigns and generally weak party systems, regulatory agencies in the U.S. are seldom, if ever, "controlled" by any single sovereign. Instead, they generally "stand in a feudal relation in which to a degree they fend for themselves and acquire support peculiarly their own."⁶⁵ In addition, the very multitude and technical nature of regulatory actions pose a significant barrier to comprehensive review by the sovereigns, all of which have staffs much smaller than the agencies themselves. As a result, review is generally limited to broad policy decisions and to a few specific actions which happen, for one reason or another, to be brought to the attention of one or more sovereigns. But this is not to deny that the sovereigns have considerable means to influence agency policy nor that collectively they represent probably the most important direct influence.

63. For an excellent discussion, see Noll, *supra* note 8. For data on career patterns in two agencies, see H. CORTNER & H. INGRAM, *supra* note 6, at 22, and Posner, *supra* note 6, at 84.

64. ROURKE, *supra* note 48, at 76.

65. Long, *supra* note 3, at 257-58.

The mechanisms available to chief executives include the appointment of top agency officials, review of the agency's proposed budget, control of its legislative program, the promulgation of executive orders, and, in some cases, review of proposed regulations.⁶⁶ These supposedly have less effect on independent agencies like the ICC than on line departments such as the FDA, although this is by no means certain.⁶⁷ For example, the independent California Public Utilities Commission approved utility rate increases of \$1,157 million in 1968-73 when a conservative Republican was Governor, in contrast to a \$33 million decrease during the 1962-66 period of his liberal Democratic predecessor. While other factors were probably operating, this is at least *prima facie* evidence of the effects of gubernatorial preferences on a supposedly independent commission.⁶⁸

The mechanisms available to legislative sovereigns, particularly to the relevant policy committees and appropriation subcommittees, include control over the agency's statutory authority and budget, confirmation of some officials, investigation, audit by the General Accounting Office, oversight hearings, and, in some instances, vetoes of specific regulations.⁶⁹ Harris has concluded that legislative "control" tends to be more through authorizing legislation than through oversight.⁷⁰ There are, however, several examples of successful Congressional efforts to convince a regulatory agency to rescind or modify proposed regulations. These include the FTC's proposed ban on cigarette advertising and EPA's proposed regulations concerning

66. ROURKE, *supra* note 48, at 31. The capacity of the President to influence the bureaucracy increased considerably with the formation of the Bureau of the Budget in 1921. Its successor, the Office of Management and Budget, has not hesitated to take an active role in reviewing proposed regulations. This was illustrated in its revisions of the guidelines for air pollution implementation plans originally proposed by EPA; Miller, *Air Pollution*, in NIXON AND THE ENVIRONMENT 9 (J. Rothlesberger ed. 1972). See also, E. KRASNOW & L. LONGLEY, *supra* note 6, at 44 and L. KOHLMEIER, THE REGULATORS Ch. 4 (1969).

67. Probably the most important mechanism for "assuring" the independence of regulatory commissions from executive control is the staggered terms of commissioners. But this has certainly not prevented rather dramatic reversals in policy via a few new appointments; for examples on the FPC and FCC, respectively, see P. HERRING, *supra* note 3, at 122, and E. KRASNOW & L. LONGLEY, *supra* note 6, at 107. For more general discussions, see W. CARY, *supra* note 8, and R. NOLL, *supra* note 5, at 45.

68. California Planning and Conservation League, *The Power Behind the Power* 2 CAL. TODAY 1 (1974).

69. J. HARRIS, CONGRESSIONAL CONTROL OF ADMINISTRATION (1964); E. KRASNOW & L. LONGLEY, *supra* note 6, at Ch. 3; Scher, *Congressional Committee Members as Independent Agency Overseers*, 54 AMER. POL. SCI. REV. 911 (1960); *Hearings on Improving Congressional Oversight of Federal Regulatory Agencies, Before Senate Government Operations Committee*, 94th Cong., 2d Sess. (1976); and A. WILDAVASKY, THE POLITICS OF THE BUDGETARY PROCESS (2d ed. 1974).

70. J. HARRIS, *supra* note 69, at 310, 318.

the construction of parking facilities.⁷¹ Oversight is often a neglected function, in part because of the multiple demands on a legislator's time, in part because of its perceived marginal effect on the legislator's career. Exceptions include agencies important in obtaining reelection such as the FCC, those which, for one reason or another, command media attention, or those which are salient to important constituents.⁷²

Court review of agency decisions is generally limited to cases in which the agency has either expressly violated a statute or has acted arbitrarily and capriciously.⁷³ Limitations concerning both the scope of review and the standing of potential litigants can, however, be considerably modified by statute.

Finally, local and/or state agencies may be influenced by their intergovernmental superiors, either through conditions attached to grants-in-aid or through formal review granted by statute. While these mechanisms have generally been more effective in convincing subordinate units to establish programs than in influencing their content, the potential is certainly there. Recent Federal air and water pollution control acts, for example, give the EPA authority to directly administer permit programs, and thus to effectively supplant the local and state agencies, if it is dissatisfied with their programs.⁷⁴

Through such mechanisms the sovereigns, both individually and collectively, constitute a major factor directly influencing agency policy. In addition, they represent access points to which constituency groups and others interested in the agency can appeal when dissatisfied. It is to these actors that we must now turn.

71. A. FRITSCHLER, *supra* note 6, at Ch. 7; *EPA Stretches Air Pollution Law to Avoid Ordering Traffic Controls*, Nat'l. J. 915 (1972). In addition there appears to be a great deal of informal oversight by committee chairmen, but this is very difficult to monitor, A. WILDAVSKY, *supra* note 69, at 74.

72. The House Ways and Means Committee, for example, has not conducted oversight hearings on either the U.S. tax code or on the Social Security Administration for over 20 years. The exceptions include the FCC's license renewal hearings, E. KRASNOW & L. LONGLEY, *supra* note 6, at Ch. 8; the FDA, which is closely covered by Morton Mintz of The Washington Post; and CAB, which is in some respects a "pork barrel" regulatory agency, E. REDFORD, *supra* note 6, at Ch. 3. For an excellent overview of oversight, see M. OGULS, *CONGRESS OVERSEES THE BUREAUCRACY* (1976).

73. L. JAFFE, *JUDICIAL CONTROL OF ADMINISTRATIVE ACTION*, Chs. 14-15 (1965); J. SAX, *supra* note 43, at 125; and White, *Allocating Power Between Agencies and Courts*, DUKE L.J. 195 (1974).

74. Clean Air Amendments of 1970, § 113, and Water Pollution Control Amendments, of 1972, Title IV. On the whole, however, Federal regulatory agencies have probably had rather little influence over their state and local counterparts. For many of the reasons, see H. KAUFMAN, *POLITICS AND POLICIES IN STATE AND LOCAL GOVERNMENTS*, Ch. 1 (1963); H. Ingram, *Impacts of Environmental Policy: An Evaluation of Federal Grants in Aid* (Paper presented at the 1974 Ann. Meeting Western Pol. Sci. A., Denver, 1974); and M. REAGAN, *THE NEW FEDERALISM* (1972).

(5) Constituency groups

The constituencies of an agency are those private actors who, either actually or potentially, seek to influence its policies, generally because they perceive themselves to be affected by them. It is useful to distinguish between a) organized interest groups, b) unorganized individuals who nevertheless take an interest in the agency and occasionally attempt to influence its policies, and c) individuals who do not realize that they are affected by an agency's policies.⁷⁵ The last are important because, once made aware of their interests, they may significantly alter the agency's external political environment. Regulatory agencies normally have a number of functionally distinct constituencies, including 1) the people being regulated (the "clientele"), 2) the consumers of the products being regulated (who will generally suffer from price increases under stringent regulation), 3) the beneficiaries of the regulation (those living in polluted areas), 4) the employees of the regulated firms, and 5) the taxpayers (who generally bear the administrative costs of regulation). In practice, of course, there may be considerable overlap among these groups; car owners, for example, are the product consumers, the taxpayers, and (if living in polluted areas) the beneficiaries of regulatory controls on automotive emissions.

Constituency groups are important both for their attempts to directly influence agency policy and for their ability when dissatisfied to appeal to the agency's sovereigns. They can, for example, augment the agency's own technical resources. In fact, a large portion of industry's influence over regulatory agencies can be attributed to its expertise, particularly if the resources of the agency itself are very limited.⁷⁶ The members of constituency groups can also directly influence policy by attempting to convince the agency that they have the support of a majority of the attentive public and/or that a desired policy would be in the public interest. In a more subtle fashion, constituency pressure for a more aggressive policy can be used by agency officials as a bargaining tool in seeking changes in the behavior of regulated groups.⁷⁷

Dissatisfied constituency groups can indirectly influence agency policy by appealing to the various sovereigns. This can involve ap-

75. For an extensive discussion of these distinctions—and the variables affecting the movement from one stage to the next—see Sabatier, *supra* note 24, at Ch. 3; also Balbus, *The Concept of Interest in Pluralist and Marxian Analysis*, 1 POL. & SOC'Y 151 (1971).

76. There are, however, instances of environmental groups which have provided technical assistance to regulatory agencies. For example, a Chicago air pollution group substantially assisted the local agency in finding low-sulfur coal, a key step in the reduction of SO₂ emissions in the city; see Sabatier, *supra* note 7, at 322.

77. M. HOLDEN, *supra* note 48, at 26.

peals on specific agency decisions, e.g., the tobacco industry's successful effort to have Congress overturn the FTC's prohibition of cigarette advertising or court suits brought by environmental groups against AEC siting decisions.⁷⁸ It can also take the more general form of an appeal to the legislative and/or executive sovereigns to change an agency's personnel and/or its legal authority. Examples would include the oil industry's effort to prevent the reappointment of Leland Olds to the FPC and the attempts of the auto companies to delay, if not emasculate, the stringent emission standards in the 1970 Clean Air Amendments.⁷⁹

It is no accident that most of the examples cited of successful appeals by constituency groups have involved what might generically be termed producers rather than consumers. For it has long been observed that consumer and environmental groups generally lack both continuity and expertise, in large part because few individuals have sufficient ideological or material incentives to bear the enormous costs of organizing large numbers of people.⁸⁰ By contrast, individual producers have the resources and the incentives to attempt to forestall government regulation and have, moreover, benefited from extensive governmental efforts during wartime to organize trade associations.⁸¹ Recent years have, however, witnessed the emergence of numerous environmental groups and "public interest" law firms, and there is some evidence that a few agencies including the FCC, are being effectively monitored.⁸² But the effective long term representation of consumer and environmental interests remains problematic, as it probably requires organizations with virtually full time staff, access to most areas of expertise relevant to the agency, and fairly large memberships.⁸³

78. A. FRITSCHLER, *supra* note 6, at Ch. 7; EBBIN & R. KASPER, *CITIZEN GROUPS AND THE NUCLEAR POWER CONTROVERSY* (1974).

79. *Hearings on the Suspension of the Auto Emission Standards, Before Senate Subcommittee on Air and Water Pollution*, 93d Cong., 1st Sess. (1973).

80. P. HERRING, *supra* note 3, at 249; Fainsod, *supra* note 4, at 308; M. NADEL, *supra* note 8, at Chs. 5-6; Downs, *Up and Down with Ecology—The Issue-Attention Cycle*, *PUB. INTEREST* 38 (1972); M. OLSON, *supra* note 28; J. WILSON, *POLITICAL ORGANIZATIONS*, Chs. 3, 16; Sabatier, *supra* note 7, at 302; and White, *Rational Theories of Participation*, 20 *J. OF CONFLICT RESOLUTION* 255 (1976).

81. G. MCCONNELL, *PRIVATE POWER AND AMERICAN DEMOCRACY* 66, 256 (1966); Steck, *Advisory Committees in the Federal Government* 19 (Paper presented at 1972 Ann. Meeting Am. Pol. Sci. A., Washington); R. ENGLER, *supra* note 52, at ch. 10.

82. E. KRASNOW & L. LONGLEY, *supra* note 6, at ch. 8; Sabatier, *supra* note 7, at 310; EBBIN & KASPER, *CITIZEN GROUPS AND THE NUCLEAR POWER CONTROVERSY* (1974); Shor, *supra* note 43; Leone, *supra* note 44; and J. Berry, *Citizens Approach Government: The Strategies of Public Interest Groups* (Paper presented at 1974 Ann. Meeting Midwest Pol. Sci. A., Chicago).

83. Sabatier, *supra* note 7, at 317.

The balance of constituency group support is only one of several factors which directly influence the policies of regulatory agencies. Constituencies can, however, also influence virtually all of the other factors including statutory resources, technical information, the attitude(s) of the sovereign(s), and the attitudes of the agency officials. For this reason, it has been argued that the presence of an organized constituency supportive of aggressive regulation which is capable of monitoring the agency and of mobilizing in its defense is a necessary and, within certain broad limits, even a sufficient condition for forestalling self-regulatory and perhaps even clientele oriented balancing policies for any extended period of time.⁸⁴

(6) Other agencies

While any agency has its own distinctive realm where it is authorized to make legally binding decisions, it also seeks to influence other agencies through direct testimony and through appeals to that agency's sovereigns. In its role as "partisan," it is thus similar to any constituency group.⁸⁵ In fact, an agency will normally coordinate its efforts with its supporters in an effort to affect the policies of another agency. This can continue, albeit in a more covert fashion, even after their common sovereign has supposedly decided the issue.⁸⁶ This is the case not only with peer agencies, such as the Environmental Protection Agency and the Corps of Engineers, but also with agencies which are supposedly in a quasi-hierarchical relationship. For example, it is not at all unusual for a local pollution control agency displeased with EPA policy to seek assistance from local congressmen in reversing that policy.⁸⁷

This brings us to the division of authority among agencies, where a

84. "Extended should be interpreted as 2-3 years; a constituency with the requisite resources should be able to prevent self-regulatory policies for any longer period of time. In general, the boundary conditions include the continuation of a reasonably healthy economy (e.g. unemployment rates under 8%) and continued diffuse support for consumer (and/or environmental) protection; the latter is indicated by public opinion surveys ranking these issue(s) among the top 10 responses when asked to name the two or three most important issues facing the country. *Id.* at 320.

85. The distinction between "partisan" and "authority" is taken from W. GAMSON, *POWER AND DISCONTENT* 28 (1968). In much the same fashion, all partisans—whether they be other agencies or constituency groups—are sometimes aggregated into what have been termed "satellite groups." W. SAYRE & H. KAUFMAN, *GOVERNING NEW YORK CITY* 710 (1960).

86. See, e.g., O. STRATTON & P. SIROTKIN, *THE ECHO PARK CONTROVERSY* (1959); G. ALLISON, *ESSENCE OF DECISION*, ch. 5 (1971); and A. MAASS, *THE KINGS RIVER PROJECT* (1952).

87. This was frequently the case with local and state agencies in Indiana which were upset with the numerous enforcement actions of EPA, Region V, after 1971. Sabatier, *supra* note 7, at ch. 8.

couple of points are worth making. First of all, it is often assumed that agencies are constantly seeking to expand the domain in which they are authorities rather than partisans. But there are certainly counter examples, including the Public Health Service's adamant resistance to Congressional efforts in the early 1960s to expand its role in air pollution control.⁸⁸ Instead, it makes much more sense to treat agencies as rational actors who weigh the net benefits of any change in authority in terms of its relationships with its sovereigns and the net impact of the change on the agency's constituency support.⁸⁹

It is also often assumed that overlapping authority among agencies is undesirable because of the inefficient duplication of effort and the possibility that conflicting regulations will engender uncertainty in those being regulated. On the other hand, overlap has its advantages.⁹⁰ First, as agencies are often the major repositories of expertise, a sovereign aware of agency biases who wishes to make sure that several sides of an issue are presented will look upon overlap with favor, thereby pitting two agencies, for example the EPA and ERDA on nuclear safety issues, in an adversary position with the sovereign as the ultimate arbiter. Secondly, overlapping jurisdiction is almost certainly conducive to stringent regulation: the more authorities involved in an area, the greater the probability that one of them will pursue an aggressive policy and that the regulated interests will be forced to go along, albeit with vigorous complaints about the inequity of conflicting regulations. Finally, Roger Noll has argued that efforts to consolidate the agencies involved in transportation management, the ICC for surface transport and the CAB for air transport, will effectively abolish the last vestiges of competition in that industry, probably to the detriment of consumers.⁹¹ In short, clear demarcations of functional and geographic authority among agencies, while perhaps desirable from some standpoints, are also probably not conducive to aggressive regulation.

The discussion thus far has dealt with those factors which directly affect the policies of regulatory agencies. There are, however, also several situational (environmental) variables which, by influencing attitudes and resources, indirectly affect agency policy.

88. Ripley, *Congress and Clean Air*, in CONGRESS AND URBAN PROBLEMS 239 (H. Cleaveland ed. 1969).

89. Holden, *Imperialism in Bureaucracy*, 60 AM. POL. SCI. REV. 943 (1966); A. DOWNS, *supra* note 20, at ch. 17.

90. Most of these ideas can also be found in Landau, *Redundancy, Rationality, and the Problem of Duplication and Overlap*, 29 PUB. AD. REV. 346 (1969).

91. R. NOLL, *supra* note 5, at 106.

B. *Situational Variables Indirectly Affecting Agency Policy*

As here employed, "situational" refers to variables external to governmental institutions and their constituencies which affect attitudes toward public policy and/or the resources available to the actors immediately concerned with agency policy. As Emmette Redford has observed, "understanding of the governmental aspects of regulation is possible only by analysis of the whole complex of forces in which political structures operate."⁹² These include (1) socio-economic variables, (2) political culture, (3) the state of technological development, (4) public opinion, and (5) the perceived nature of the problem calling for regulation.

Although the importance of these factors would not normally be disputed by any competent political scientist, these situational variables have, with few exceptions, been dealt with only impressionistically, if at all, in most studies of regulatory agencies.⁹³ Such treatment ignores the extent to which the effects of the resource and attitudinal variables on regulatory policy may be explained largely, if not entirely, by variation in situational factors.⁹⁴ For example, it is conceivable that inter-state differences in the strength of environmental constituencies and in support of sovereigns for aggressive air pollution policy can largely be attributed to variations in socio-economic conditions and actual pollution levels. It is for this reason that these indirect influences on regulatory policy are explicitly discussed in this paper, although in somewhat less detail than the first-order variables.

92. Redford, *supra* note 4, at 1, 3.

93. In their study of the FCC, E. Krasnow & J. Longley, *supra* note 6, systematically examine six "determiners" of agency policy: the FCC staff and commissioners, the broadcasting industry, citizens groups, the courts, the White House, and Congress. Although they occasionally discuss one of our situational variables, e.g. changing technology, the treatment is neither systematic nor a part of their analytical scheme. Similarly, the study by Fritschler, *supra* note 6, of the FTC's attempts at the regulation of cigarette advertising focused on the agency's relations with Congress, the tobacco companies and the Public Health Service. Although the Surgeon General's Report on cigarettes was, of course, discussed, it was not explicitly treated as a variable affecting perceptions of "the problem" and, therefore, actor behavior. Even the study of state water pollution control agencies by L. Wenner, *supra* note 41, ignored situational variables, save for the nature of the problem (water quality). Finally, the literature reviews by M. BERNSTEIN, *supra* notes 1 & 2, L. KOHLMEIER, *supra* note 66, and W. CARY, *supra* note 8, focused on legal-constitutional questions and the agencies' relations with constituency groups and sovereigns.

94. See, e.g., the extensive literature on the importance of socio-economic variables in determining interstate variation in expenditures and, to a lesser extent, policy outputs of many agencies—most of them distributive rather than regulatory. T. DYE, UNDERSTANDING PUBLIC POLICY, ch. 11 (1972); I. SHARKANSKY, POLICY ANALYSIS IN POLITICAL SCIENCE (1970); and R. HOFFERHERT, THE STUDY OF PUBLIC POLICY, chs. 4-6 (1974).

(1) Socio-economic factors

Social and economic variables are important because they affect the attitudes of private and governmental actors toward regulation, as well as establishing limits on the resources available to private actors and to the agency for tackling a perceived problem.

For example, attitudes toward air pollution control and environmental protection in general have been independently correlated with income, education, age, and urbanization.⁹⁵ In addition, there is historical and survey evidence that unemployment rates and the level of industrialization have affected general attitudes toward regulation of industry.⁹⁶ It seems highly probable, for example, that high unemployment rates during the Depression and the desire for industrial development during and after World War II were instrumental in the apparently pervasive attitude that a belching smokestack meant jobs and material prosperity.

Demands for industry to bear nonproductive costs in order to benefit consumers are somewhat contingent upon the economic health of the industry in question. A healthy industry is perceived as being capable of bearing nonproductive costs; in depressed industries or those subject to "boom and bust" cycles, on the other hand, there are strong pressures for loans, subsidies, and a general effort by the government to maintain and promote the welfare of the industry and its employees, thereby resulting in what we have termed "self-regulation."⁹⁷

In addition to the economic health of the actors subject to regulation, more general economic conditions obviously affect regulatory policy. High interest rates, for example, are an impediment to stringent pollution control regulation because of their effects on the capital markets; in part because of this, several states have created revolving loan funds at low interest rates for such expenditures. On the other hand, high interest rates and inflation in general facilitate more stringent regulation of land development by depressing construction demand. Finally, there is fairly substantial empirical evidence that mean personal income is strongly correlated with total

95. McEvoy, *The American Public's Concern with the Environment*, in ENVIRONMENTAL QUALITY AND WATER DEVELOPMENT 135 (C. Goldman et al. ed. 1974); Springer & Costantini, *Public Opinion and the Environment*, in ENVIRONMENTAL POLITICS 195 (S. Nagel ed. 1974); and J. Viladas, *The American People and Their Environment—1973* (Unpublished report, EPA, 1973).

96. M. NADEL, *supra* note 6, at chs. 1-2; W. ROSENBAUM, *THE POLITICS OF ENVIRONMENTAL CONCERN*, ch. 3 (1973); Rankin, *Air Pollution Control and Public Apathy*, 19 J. AIR POLLUTION CONTROL A. 565 (1968); and Erskine, *The Polls: Pollution and Industry*, 36 PUB. OPINION Q. 277 (1972).

97. Fainsod, *supra* note 4, at 303; J. DAVIS, *ENERGY POLITICS* 49 (1974).

government expenditures in a given jurisdiction; its association with the distribution of those expenditures among various agencies and between state and local government is, however, much weaker.⁹⁸

(2) Political culture

Political culture refers to relatively stable attitudes toward the range of legitimate issues, the proper role of government, the range of political participants, and the legitimate means of expressing political demands.⁹⁹ These general attitudes are grounded in long term socio-economic conditions and migration patterns, as well as important historical events, such as the Civil War.¹⁰⁰ Political culture is, however, a rather amorphous concept, encompassing a number of different facets and/or conceptual typologies, at least two of which are relevant to regulatory policy-making.

Daniel Elazar has developed a typology of cultures based primarily upon whether the political order is viewed as an association of self-interested individuals or whether it is perceived as a commonwealth in which all have certain common interests.¹⁰¹ An "individualistic" political culture views the society as a marketplace; it places a premium upon limiting community intervention into private activities and holds politics to be just another means by which individuals may improve themselves socially and economically. By contrast, in a "moralistic" culture politics is devoted to the advancement of the public good; government is perceived as a positive instrument with which to promote the general welfare, and the notion of public office as a realm for private enrichment is rejected. Finally, "traditionalistic" political cultures are rooted in an ambivalent attitude toward the marketplace, coupled with a paternalistic and elitist conception of the commonwealth; they are conservative and found only in societies which retain some of the organic characteristics of the preindustrial social order.

98. T. DYE, *supra* note 94, at ch. 11; I. SHARKANSKY, *supra* note 94, at chs. 4, 6, 10.

99. D. EASTON, *A SYSTEMS ANALYSIS OF POLITICAL LIFE*, ch. 12 (1965); G. ALMOND & S. VERBA, *CIVIC CULTURE* (1963).

100. I. SHARKANSKY, *supra* note 94, at ch. 10; D. ELAZAR, *AMERICAN FEDERALISM: A VIEW FROM THE STATES*, ch. 4 (1966); and D. ELAZAR, *CITIES OF THE PRAIRIE* (1970).

101. Elazar's typology in *AMERICAN FEDERALISM* 85 (1966) bears many resemblances to the distinction made by Banfield and Wilson between "public-regarding" and "private-regarding" political cultures. While serious doubts have been raised about their efforts to associate political cultures with immigration patterns and with demographic variables, the potential utility of the concepts themselves in explaining policy variations remains. Wilson & Banfield, *Public Regardingness as a Value Premise in Voting Behavior*, 58 *AM. POL. SCI. REV.* 876 (1964); Wilson & Banfield, *Political Ethos Revisited*, 65 *AM. POL. SCI. REV.* 1048 (1972); Miller & Bennett, *Communications*, 67 *AM. POL. SCI. REV.* 1265 (1974).

Elazar's typology is relevant to our inquiry primarily because of its implications for the role orientations of both regulatory officials and their elected sovereigns. Because an individualistic culture conceives of government as an arbiter among legitimate private interests rather than as an aggressive proponent of the collective good, officials are likely to view themselves as passive delegates.¹⁰² Such a culture places a premium upon the resources available to organized interest groups. But, as we have seen, the consumer and environmental proponents of aggressive regulatory policies are generally diffuse and poorly organized. Because an individualistic political culture does not encourage its officials to fill the vacuum by actively representing diffuse, collective interests, it is thus less likely to promote aggressive policies than its moralistic counterparts.¹⁰³ While the propositions thus far are essentially unverified hypotheses, there is some survey evidence that, within any jurisdiction, citizens with a "collectivist" orientation are more likely than "individualists" to support pollution control activities.¹⁰⁴

The second, and more direct, effect of political culture on regulatory policy concerns the prevailing attitude toward governmental regulation of business and of private economic behavior in general. For at least the past 30 to 40 years laissez-faire attitudes have in turn been associated with political conservatives and, to a lesser extent, with Republicans.¹⁰⁵ Thus one would expect more aggressive regulatory policies to be pursued when liberals and, outside the South, Democrats are strong. This is a proposition for which there exists a fair amount of empirical support, both in attitudinal surveys and in legislative roll calls.¹⁰⁶

These variations in attitudes toward the governmental regulation

102. T. LOWI, *supra* note 29, at chs. 2-3; E. BANFIELD, *POLITICAL INFLUENCE* 270 (1961); R. WOLFF, *THE POVERTY OF LIBERALISM* 148 (1968).

103. R. WOLFF, *supra* note 102, at 158; M. CRENSON, *THE UN-POLITICS OF AIR POLLUTION* 83, 133 (1971).

104. Merrill & Springer, *Economic Growth and Environmental Preservation* (Paper presented at 1975 Ann. Meeting W. Pol. Sci. A., Seattle, 1975). Portions of Elazar's theory have been tested, but, unfortunately, not the implications relevant to regulatory policy-making. Johnson, *Political Culture in the American States: Elazar's Formulation Examined*, 20 AM. J. POL. SCI. 491 (1976).

105. R. ERIKSON & N. LUTTBEG, *AMERICAN PUBLIC OPINION*, ch. 3 (1973).

106. With respect to legislative roll-calls, Nadel has shown that a pro-consumer orientation in the 89th and 90th Congresses (1965-68) was particularly strong among Northern Democrats and liberals. M. NADEL, *supra* note 8, at 101. A similar trend was found in the 1971 Congress on environmental issues, with gammas of .26 on partisanship and .88 on liberalism. Ritt & Ostheimer, *Congressional Voting and Ecological Issues*, 29 W. POL. Q. 384 (1976). The correlation between environmental concern and liberalism was weaker among the general public in 1972, but present nevertheless. Springer & Costantini, *supra* note 95, at 210.

of business notwithstanding, the political culture of any capitalist system places limits on such intervention. Since any such system puts many of the basic economic decisions in the hands of private parties, particularly large corporations and banks, businessmen in a system with a strong laissez-faire tradition must maintain a satisfactory level of autonomy if the system is to function efficiently. As John Maynard Keynes wrote with respect to the 1937 impasse between President Roosevelt and the business community:¹⁰⁷

I think the President is playing with fire if he does not now do something to encourage the business world, or at any rate refrain from frightening them further. If one is purporting to run a capitalist system, and not something quite different, there are concessions that have to be made. The worst of all conceivable systems is a capitalist one kept on purpose by authority in a state of panic and lack of confidence.

While the amount of governmental regulation has certainly increased over time, the need to maintain the confidence of the business community strongly influences the pace at which it can proceed.¹⁰⁸

(3) Technology

Earlier in this paper the technical expertise available to an agency was cited as one of the principal factors directly affecting agency policy, particularly with respect to the stringency and enforcement of regulations. But that expertise will in turn partially be a function of the technological state of the art.

An agency cannot require the installation of safety devices or emission control equipment which do not exist. But an aggressive agency or a stringent statute can promulgate regulations which require the development of new technologies over a given period of time. The 1970 Clean Air Amendments, for example, stipulated a 90 percent reduction in auto emissions by 1975 on the basis of predictions by the auto companies that, while the technology to achieve such reductions did not then exist, it could be developed by 1980.¹⁰⁹ Such a strategy is probably feasible when the agency has the funds to conduct, and/or contract for, a substantial portion of the research as well as the funds and authority to develop the prototypes, etc.

In the American capitalist system, however, industry normally controls the state of technological development (a) because only

107. Quoted in J. LASH, *ELEANOR AND FRANKLIN* 468 (1971).

108. A. SHONFIELD, *MODERN CAPITALISM*, chs. 1, 6, 13 (1969).

109. *The Impact of Auto Emission Standards: A Staff Report, Sen. Subcomm. on Air and Water Pollution*, 93d Cong., 1st Sess. 3 (1973); Bonine, *supra* note 16, at 11.

industry has the funds to develop expensive new non-productive technologies such as auto emission controls and stack gas desulfurization and (b) because of the quite strict political and legal norms against the operation of an industrial enterprise, the ultimate control over the development of new technologies, by a public agency.¹¹⁰

The control of technological development by the regulated industries can produce considerable frustration, as is indicated by an October 1973 staff report of the Senate Subcommittee on Air and Water Pollution:¹¹¹

In the early years the [auto] industry effectively suppressed the development of emission control systems, largely by concentrating all its development efforts on "improving" the standard internal combustion engine. Subsequent to enactment of Federal regulatory authority in 1965, little was done to press the development of alternative technologies. Even after the enactment of the 1970 Act, the industry's response was far less than adequate.

The report goes on to cite several instances of industry resistance after the 1970 Amendments and to bemoan the undesirable side-effects, especially decreased performance and fuel economy, of the technology chosen by an oligopolistic industry. Federal air pollution officials have encountered similar problems over the past ten or twelve years in trying to convince the coal companies and electrical utilities to develop feasible stack gas desulfurization technologies.¹¹² Despite EPA insistence that the two technologies do exist, vigorous industrial demurrers and the absence of any sanctions short of the nuclear deterrents of, in effect, closing down major corporations have induced Congress to postpone the deadline for the achievement of the relevant air quality and emission standards by two to four years.¹¹³ In short, industrial control of the pace of technological

110. See, e.g., A. SHONFIELD, *AMERICAN CAPITALISM* 298 (1968); M. HOLDEN, *supra* note 48, at 18, 31; and Fainsod, *supra* note 4, at 300. For a discussion of the oil industry's successful efforts to prevent government *production* of synthetic fuels and rubber prior to WW II—despite having borne sizable research costs—see ENGLER, *THE POLITICS OF OIL* 96 (1960).

To give some idea of the capacity of a regulatory agency to develop an expensive new technology, EPA's total research and development budget for air pollution in FY 1973 was \$70,712,000, of which roughly \$19,000,000 and \$15,000,000 were authorized for the development of control technology for sulfur oxides and mobile sources, respectively. By contrast, the three auto companies spent approximately \$725,000,000 in 1973 on emission controls, or a sum equivalent to about 22 percent of 1972 profits. Senate Subcomm., *supra* note 109, at viii.

111. *Id.*, at vi.

112. Engdahl, *supra* note 50, at 364; Senate Interior Committee, *supra* note 50, at 180.

113. The Energy Supply and Environmental Coordination Act of 1974 (a) authorized the suspension until January 1979 of sulfur emission standards for power plants in areas where the primary air quality standards are not exceeded and (b) delayed the date for a 90

development can place substantial limitations on the stringency and/or enforceability of regulations.

The pace of technological change can also create sufficient instability in an industry that demands arise for extensive formal supervision by governmental agencies. This situation often results in a basically self-regulatory policy. Emmette Redford argues, for example, that a "burgeoning technology" in air transportation was one of the principal factors in the creation of the CAB, and the Federal Radio Commission was created in the 1920s to manage the allocation of an essential resource in a new industry.¹¹⁴

(4) Public opinion and the mass media

In contrast to the rather stable character of the attitudes delimited by "political culture," public opinion as here employed refers to the generally transient attitudes of the population on the major items which are, or should be, on the governmental agenda(s). Public opinion polls reveal that the priority issues of the general public are subject to constant change, with an issue generally commanding extensive public attention for only a couple of years.¹¹⁵

While a sharp increase in public concern with a particular issue can directly affect agency policy, it is probable that the major effects are basically indirect, being funneled through the constituencies, the sovereigns, and changes in the agency's legal authority. In fact, the basic influence of such an upsurge in public opinion, the crest of a social movement, will be a function of its capacity to induce changes in the agency's budget and legal authority and to leave an "organizational residue" (i.e. an organized interest group) to monitor those changes over an extended period of time.¹¹⁶

Public concern calling for regulation of new activities and/or changes in present regulatory policies is dependent upon some variables which have already been discussed, notably socio-economic conditions and various aspects of political culture. It is also a function of perception of harmful conditions which can be related to the behavior of economic producers, a topic to which we shall shortly

percent reduction in auto emissions from 1975 to 1977 (carbon monoxide and hydrocarbons) and 1978 (nitrogen oxides). *Conference Report on H.R. 14368, U.S. House, 93d Cong., 2d Sess. 29 (1974).*

114. Redford, *supra* note 4, at 6; E. KRASNOW & J. LONGLEY, *supra* note 6, at 9.

115. We are here referring to the rather transient priority lists which emerge from open-ended questions of the nature, "What do you feel are the two or three most important issues/problems in the country?" It does not refer to the rather stable responses to structured questions on specific issues/problems, e.g., integration. *See, e.g.,* R. ERIKSON & N. LUTTBEG, *supra* note 105, at 57.

116. Downs, *supra* note 80, at 41; Fainsod, *supra* note 4, at 308; and Sabatier, *supra* note 7, at 325.

turn. Before doing so, however, it would be well to briefly discuss an important intervening variable, namely, the media of mass communications.

While fairly obvious, it is still worth noting that the mass media play an important role in moulding public opinion, particularly in determining issue priorities and in setting the political agenda. Because most people are heavily dependent upon the media for information on current political affairs and because each editor must select those items which he deems newsworthy, there is insight in a journalist's exaggerated contention that "news is what we make it."¹¹⁷ Several studies have, for example, indicated a fairly strong correlation between media coverage of environmental topics and public concern with those issues.¹¹⁸

Fortunately for the proponents of aggressive regulation, there is some evidence that the media in general, or at least newspapers, often view themselves as having a special responsibility for the protection of large, diffuse interests like consumer and environmental protection.¹¹⁹ In fact, Nadel has argued that the media play a more important role in consumer protection than organized consumer groups.¹²⁰ But this argument, while plausible, emerged from a study which focused on Congressional behavior and on the regulatory agency, the FDA, which is probably most adequately monitored by the media and specifically, by Morton Mintz of *The Washington Post*. In general, however, the media seldom (a) show a continuing concern with a specific issue over an extended period of time, (b) demonstrate a capacity for acquiring and transmitting the type of dull and technical information which is often at the core of regulatory policy-making, and (c) possess the mechanisms to elicit a response, for example, protest letters from the general public to the agency on a specific matter before the agency.¹²¹ In short, while the media undoubtedly play an important role in the generation of reform movements, they tend to share the movements' defects of episodic and "amateurish" concern—rather than the continuous, expert mon-

117. K. STEWART, *NEWS IS WHAT WE MAKE IT* (1943); L. DEXTER & D. WHITE, *PEOPLE, SOCIETY, AND COMMUNICATIONS*, Part III (1964).

118. For example, a study of 50 cities revealed a strong correlation ($p = .53$, significant at the .05 level) between environmental concern and coverage by the local press. J. Sacco, *Community Leadership and Air Quality Improvement* (unpublished paper, U.S.C., 1972). See also Murch, *Public Concern for Environmental Pollution* 35 *PUB. OPINION Q.* 100 (1971).

119. E. BANFIELD & J. WILSON, *CITY POLITICS* 317 (1963).

120. M. NADEL, *supra* note 6, at 212. See also Wagner, *Pressure Groups and Political Entrepreneurs*, in *PAPERS ON NON-MARKET DECISION-MAKING* (G. Tullock ed. 1966).

121. Downs, *supra* note 80, at 40; Sabatier, *supra* note 7, at 326. There are, however, some exceptions, e.g. Casey Buckro of the Chicago Tribune.

itoring which is essential for the maintenance of a reasonably aggressive policy.

(5) Actual conditions and perceived problems

For purposes of analysis, a distinction can be made between objective conditions and the perceived problems—with information being the crucial intervening variable. The objective nature of the problem refers to a situation inimical to the welfare of some people attributable to someone's behavior. For example, it is logically possible and analytically useful to say that noxious ambient air levels, misleading advertising, and unsafe products are problems irrespective of anyone's perception of those situations at the time.

Important attributes of the problem include the priority accorded the affected value, the number and political resources of those adversely affected, and the nature of the sources. For example, ambient air levels which adversely affect public health are deemed more serious than simply dirty air. A situation which affects 5000 people in a community is different from one which affects fifty. Polluted air which adversely affects the wealthy and the well-educated is more likely to result in demands for regulatory controls than that which harms only the poor.^{1 2 2} And a problem which can be traced to a few large corporations is quite different from one for which many small and economically-marginal sources are responsible.

But, from the standpoint of public policy, it is the perceived rather than the objective nature of the problem which is important. And perceptions depend upon the information available.^{1 2 3}

Insofar as the problem is amenable to direct sensory experience and its implications are fairly straightforward, awareness of the problem is rather unproblematical. An example would be visible particulate emissions from a steel mill. On the other hand, insofar as the problem is remote from the senses and/or requires considerable sophistication in determining the implications and sources, institutions specifically responsible for the generation and dissemination of information become more important. Sulfur dioxide (SO₂) poses more obstacles than particulate matter because it is invisible and because an assessment of its impact on public health requires considerable medical research. Similarly, photochemical smog in Los Angeles remained an intractable problem for a number of years because it was not until the mid-1950s that researchers identified the basic source as the automobile rather than petroleum refineries, utilities,

122. S. VARBA & N. NIE, PARTICIPATION IN AMERICA, ch. 8 (1972); R. LANE, POLITICAL LIFE 224 (1959); Sabatier, *supra* note 7, at chs. 5-8.

123. J. DAVIES, SETTING THE NATIONAL AGENDA, ch. 2 (1976).

and apartment houses as had been long believed.¹²⁴ In short, the costs of obtaining information about some problems are much greater than for others.

In addition, the presence of actors willing and able to bear these costs strongly affects the generation and dissemination of information. Anthony Downs has argued quite persuasively that information costs are unlikely to be borne by those adversely affected insofar as they are numerous and have only a relatively nonsalient interest at stake.¹²⁵ This is precisely the case on most environmental and consumer issues. In such situations, the responsibility for generating and disseminating the requisite information falls heavily on (a) universities and other research institutes, (b) governmental agencies, and (c) the mass media. For example, a comparative study of Chicago and Indianapolis air pollution policy revealed far greater public concern in the former, only partially because of the more degraded ambient air levels; other factors included the presence of university researchers who had conducted epidemiological studies in the local area, the greater capacity and willingness of the Chicago agency to monitor and disseminate information on air quality levels, and the greater willingness of the Chicago media to demand that such information be provided.¹²⁶

The perceived nature of the problem and of alternative regulatory policies thus constitutes one of the factors obviously affecting the policy preferences of the general public, the agency's sovereigns, and various satellite groups. It is likely, therefore, to have a substantial, albeit indirect, affect on policy outputs.

III. THE DETERMINANTS OF AGENCY POLICY: A SUMMARY

This paper has identified six sets of resource and/or attitudinal variables which directly affect the policy pursued by a regulatory agency, as well as five other situational variables which, because of their effects on the former set, indirectly affect agency policy. The flow diagram in Figure 1 should bring some coherence to this variable list by indicating some of the important relationships among variables.

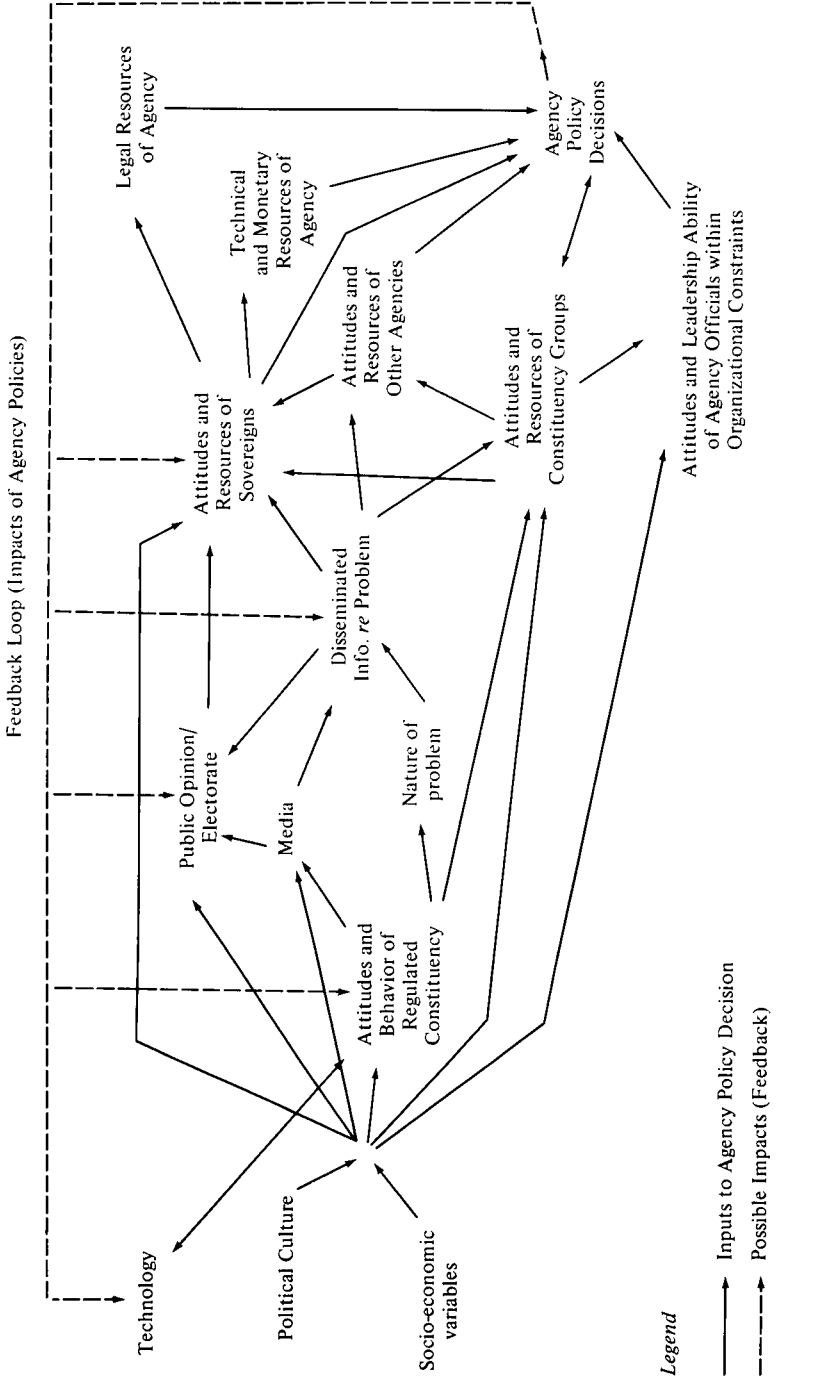
While the diagram should be relatively self-explanatory, there are a few clarifying points which need to be made. First, the temporal sequence is from left to right, with political culture and most socio-economic variables conceived as relatively stable in the short term

124. G. HAGEVIK, *DECISION-MAKING IN AIR POLLUTION CONTROL* 81 (1970).

125. A. DOWNS, *AN ECONOMIC THEORY OF DEMOCRACY* 238 (1957).

126. Sabatier, *supra* note 7, at chs. 5-8.

FIGURE 1
FLOW DIAGRAM OF THE DETERMINANTS OF AGENCY POLICY



(1-2 yrs.) and agency policy decisions as the dependent variable. The arrows depict the *dominant* short term direction of a relationship, with two way flows avoided as essentially unenlightening; the major exceptions are reciprocal relationships between an agency and its constituencies and the relationship between technology and the regulated industry (as the "state of the art" certainly affects the behavior of regulated groups, while the regulated have a substantial impact on the rate of technological development). Secondly, "agency policy" refers to the general policy guidelines, the regulations, and the adjudicatory decisions of the agency. It is to be distinguished from the impacts of those decisions on actors external to the agency depicted by a feedback loop indicated by a dashed line. Thirdly, the flow chart achieves greater comprehensiveness as one approaches the dependent variable; one could, for example, add an idiosyncratic preference component to virtually all of the variables, but that would unnecessarily clutter the diagram.

The flow diagram is *not* intended to serve as an operational model suitable for quantitative, multi-variable analysis. For one thing, many of the variables, including capitalism and Elazar's typology as components of "political culture," are really variable sets. In addition, it is rather doubtful that quantitative indicators can be found for several of the variables, although ordinal scales comparable to that suggested for legal resources in Table 3 could conceivably be developed for other variables, such as technical resources. Thirdly, there are just too many variables to permit statistical manipulation unless one dealt with a large number of cases in the dependent variable, in which case measurement error would almost certainly increase. Finally, there are so many gaps in our knowledge of the interrelationship among variables that such a model does not at present seem very practical.

Instead, the flow diagram basically represents a qualitative framework designed to integrate the existing literature (a) by presenting a reasonably comprehensive variable list and (b) by postulating some of the basic relationships. Although representing an interim strategy, it should facilitate cumulative research in several ways.

First, the variable list itself should assure that important variables directly affecting agency policy, notably legal resources, are no longer slighted by behaviorally oriented political scientists. Conversely, it suggests that probably far too much attention has been paid to agency structure; witness the long standing debate concerning the merits of independent commissions versus line agencies, as well as President Carter's concern with reorganization. This is only one of five important aspects of legal resources, which in turn is only one of six variables directly affecting agency policy.

Secondly, the discussion of the situational variables indirectly affecting agency policy should make researchers more conscious of the need to address the question of whether the alleged impacts of one or more first-order variables on agency policy may be largely explained by variation in situational variables. Suppose, for example, that investigation showed that the policies of most environmental and consumer protection agencies moved from clientele-oriented balancing to somewhat more aggressive policies [supra, Table 1] during the 1960s and early 1970s. One would first attribute this to changes in their legal and technical resources, personnel changeover, and the emergence of viable consumer and environmental constituencies during this period. But to what extent are these, in turn, caused by long term changes in technology and various socio-economic conditions? A sophisticated multi-variate analysis would, I suspect, indicate that at least half of the variance in agency policy attributed initially to the first-order variables would turn out to be the result of changes in the situational variables.

Thirdly, the flow diagram should assist researchers in identifying the boundary conditions under which propositions hold.¹²⁷ For example, any study of the effects of constituency groups on agency policy should posit a range of values for the other variables directly influencing policy and for the situational variables affecting constituency groups such as public opinion and perhaps socio-economic conditions, under which the proposition is asserted to hold.¹²⁸ Similarly, comparative case studies should be designed so as to hold constant as many other variables as possible; these would then constitute the boundary conditions limiting the generalizability of the conclusions.

Finally, the diagram should be helpful to those wishing to develop quantitative path models of agency decisions for those aspects of the

127. A scientific generalization is of the form, "Given a, b, and c, if x, y, then z." A, b, and c constitute the boundary conditions within which the relationship of x, y, and z is asserted to hold.

128. For example, I have argued elsewhere that, because constituency groups can influence all of the other variables directly affecting agency policy, an environmental or consumer constituency with full-time staff, expertise in most of the relevant policy areas, and a fairly large membership (i.e. 0.1% of the voting population in the relevant jurisdiction) can—under certain conditions—prevent an agency from adopting a self-regulatory policy for any extended period of time (i.e. over 2 years). Those boundary conditions include the following: 1) the continuation of a reasonably healthy economy, i.e. unemployment rates under 8%; 2) the absence of a major national crisis, e.g. a major war or depression; and 3) the continuation of diffuse public support for consumer and/or environmental protection (as indicated by public opinion surveys ranking such issues among the top 10). Sabatier, *supra* note 7, at 320.

system where quantification is feasible.^{1 2 9} Provided that the boundary conditions are carefully specified, such models should permit more precise estimates of the relative impacts of a series of independent variables. These models may also permit the elimination of some paths altogether, such as the direct effect of political culture on public opinion unmediated by the media, or the addition of more paths, including the direct one from the media to agency policy.

The conclusions thus far have all concerned the utility of looking at agency policy from a systems framework. On a more substantive level, I would hypothesize that, if both the legal and technical resources of the agency (including explicit policy directives, broad substantive authority, and the authority to levy a wide range of penalties) are high and if both a viable reform constituency and agency officials support a fairly aggressive policy, then the pursuit of such a policy for a year or two is relatively unproblematic. Conversely, if legal and technical resources provide only ambiguous directives, the agency will be in a rather precarious position and thus sensitive at all times to the preferences of its sovereigns and constituency groups. Over a 5 to 10 year time span, the balance of constituency groups, and ultimately changes in socio-economic and technological conditions, become crucial. These conclusions are, however, extremely tentative, as the sophisticated multi-variate analysis necessary to get beyond our rudimentary understanding of the variables affecting regulatory policy-making remains to be done.

129. For discussions of path analysis, see Duncan, *Path Analysis*, 72 AM. J. SOC. 1 (1966); Stokes, *Compound Paths*, 18 AM. J. POL. SCI. 191 (1974).