Research on Policy Implementation: Assessment and Prospects

Laurence J. O'Toole Jr.
University of Georgia

ABSTRACT

While policy implementation no longer frames the core question of public management and public policy, some scholars have debated appropriate steps for revitalization. And the practical world stands just as much in need now of valid knowledge about policy implementation as ever. Where has all the policy implementation gone? Or at least all the scholarly signs of it? And why? What has the field accomplished? Should a resurgence of attention to the subject be exhorted? And if so, in what directions?

This article considers these questions as foci of an assessment of the state of the field, and the argument reaches somewhat unconventional conclusions: There is more here than meets the eye. While modest to moderate progress can be noted on a number of fronts, an initial assessment is likely to understate the extent of work underway on matters quite close to the implementation theme. Research on policy implementation-like questions has partially transmogrified. One has to look, sometimes, in unusual places and be informed by a broader logic of intellectual development to make sense of the relevant scholarship. Policy implementation work, in short, continues to bear relevance for important themes of policy and management. But some of the discourse has shifted, the questions have broadened, and the agenda has become complicated. Research on implementation, under whatever currently fashionable labels, is alive and lively.

A version of this article was presented at the fifth national Conference on Public Management, Texas A&M University, College Station, Texas, December 2-4, 1999. Thanks are due to Peter deLeon, Kenneth J. Meier, Beryl Radin, and especially Ann Chih Lin for helpful comments on the earlier draft. Responsibility, of course, remains with the author.

J-PART 10(2000):2:263-288

The explicit study of policy implementation has swung in and out of fashion during the past quarter century. Beginning with Pressman and Wildavsky's classic investigation (1984 [1973]) of an Economic Development Administration project gone sour in Oakland, California, the subject quickly gained cachet during the Great Society postmortem and the subsequent years of welfare state and budgetary crises.

Pressman and Wildavsky exaggerated mightily in asserting that, until their efforts, virtually no one had addressed the subject (1984 [1973], xxi). But the claim was based in a real, and consequential, point: For all the attention to administration over the years, the nitty-gritty of implementation had been largely a background issue. Their work and the work of hundreds of others over the next several years (see O'Toole 1986) ensured that the theme would be important for the foreseeable future. From nowhere, policy implementation moved to a position of prominence, perhaps even overemphasis (see Linder and Peters 1987). The proliferation of studies brought, in turn, an explosion in types of research designs, varieties of models, and—especially—proposals for adding a bewildering array of variables as part of the explanation for the implementation process and its products. The cornucopia of investigations catalyzed, in turn, a set of sectarian disputes: qualitative and small-*n* versus quantitative, large-*n* investigations; top-down versus bottom-up frameworks; policy-design versus policy-implementation emphasis, and so forth. Implementation was even seen by some worried students of traditional public administration as a theme posing a hegemonic threat to the field (Kettl 1990 and 1993).

It was no accident that the interest in policy implementation surged following the rise of and disappointment in the initiatives of the 1960s and 1970s. But many years of lowered expectations, incremental program adjustments, budget crunches, and, in the last few years, Republican congressional control have had dampening effects. Implementation issues tended to recede from the headlines, as the policy agenda became preoccupied with cutbacks, devolution, and holding the line.

Since 1990, the spate of scholarly research aimed explicitly at the implementation theme has abated. (There are exceptions, of course, including many studies referenced below.) Lynn has commented, in particular, on the ascendency and diminishment of implementation research conducted in the nation's premier policy schools (Lynn 1996, 47). Others have argued that research interest in the subject has declined overall (deLeon 1999a and 1999b).

It is hardly as though the scholarly community has declared victory and moved on to other challenges, however. In fact, assessments at earlier stages generally emphasized the slow pace of progress, the seemingly intractable or at least interminable scholarly disputes remaining, and the need for bigger and better empirical investigations. (Samples include O'Toole 1986; Goggin et al. 1990.)

Research on Policy Implementation

In recent times, a number of prominent scholars of public policy and administration have commented hopefully, pessimistically, caustically, and pragmatically regarding the likelihood and utility of a large-scale resurgence of implementation research (see Lester and Goggin 1998; in response see deLeon 1999a; Meier 1999; Schneider 1999; Winter 1999). Some attribute the shift of interest to other policy questions to better frameworks and a sharpened sense of appropriately productive research questions.[1] But few aside from Lester and Goggin have called for a wholesale renaissance of the subject—in the sense, at least, of an infusion of research effort to make this topic the high-visibility core of public management and public policy scholarship that it was a few years ago (Lynn 1996, 57).

Similarly, even as the researchers seem not to have solved the implementation puzzle, practitioners continue to find themselves enmeshed in the vexing challenges of converting policy intent into efficacious action. Policy failures continue to be prominent, and evidence of implementers' desires to be informed in appropriate ways by the research community suggests that many implementation conundrums remain salient in the world of action. Lester and Goggin (1998, 3-4) have sketched a set of additional reasons the study of implementation today should be compelling; these have to do with the emerging experience in many policy sectors during the past twenty years, the development of several shifts in intergovernmental relations, and the movement of much policy responsibility to the states in recent years. It seems clear, at the least, that the practical world is now just as much in need of valid knowledge about policy implementation as it ever has been.

If scholarship has not simply solved the problem, and if practice continues to require attention to the issue, what has happened? Where has all the policy implementation gone? Or at least all the scholarly signs of it? And why? What has the field accomplished? Should a resurgence of attention to the subject be exhorted? And if so, in what directions?

This article considers these questions as foci of an assessment of the state of the field,[2] and the argument reaches somewhat unconventional conclusions: There is more here than meets the eye. While modest to moderate progress can be noted on a number of fronts, an initial assessment is likely to understate the extent of work underway on matters quite close to the implementation theme. A considerable quantity of provocative, well-conceived, and well-executed recent scholarship bears quite directly on salient issues of policy implementation, even if not explicitly and obviously framed in such terms. The second major

[1] A well-known example is Sabatier's suggestion that investigators abandon the so-called stages heuristic that places implementation per se into prominence as a research subject, in favor of approaches that emphasize policy change, policy-oriented learning, and the influence of policy coalitions over time. (See Sabatier 1991; Sabatier and Jenkins-Smith 1993.)

[2] Inevitably, some related topics must be neglected. One important example is the scholarship on policy design, which bears on issues of implementation—and vice versa. The integration of design and implementation considerations is a theme implicitly suggested by some of the recent work on governance, a topic treated later in this article. But research on policy design itself cannot be addressed within the constraints of the present analysis.

section of the article sketches selected lines of research that have advanced some of the themes of implementation research in non-obvious but notable ways. The article concludes with a brief review of prospects.

WHAT HAS HAPPENED TO IMPLEMENTATION RESEARCH?

Policy implementation is what develops between the establishment of an apparent intention on the part of government to do something, or to stop doing something, and the ultimate impact in the world of action. Some scholars include here both the assembly of policy actors and action, on the one hand, and the cause-effect relationship between their efforts and ultimate outcomes, on the other (for instance, Mazmanian and Sabatier 1989). Others, including myself, have emphasized the importance of making a conceptual distinction between implementation (action on behalf of the policy) and ultimate impact on the policy problem (for initial statements, see Montjoy and O'Toole 1979; O'Toole and Montjoy 1984). Implementation research concerns the development of systematic knowledge regarding what emerges, or is induced, as actors deal with a policy problem.

Aside from relatively trivial circumstances (one-shot implementation efforts, self-implementing policies, and small-scale implementation), an understanding of implementation requires recognition of the multiactor character of policy action (O'Toole 1996b). While intraorganizational cases can sometimes be treated in terms of the tools and theories that have been developed to understand the management of public organizations (see, for instance, Montjoy and O'Toole 1979), even these instances exhibit multiactor features—particularly when clients, political support, and other external influences are taken into account. Clients (or more generally, targets) of policy, for instance, must be more than passive recipients of publicly initiated effort; they are among the parties who have to be active toward implementation, through coproduction or in some other less direct fashion. Even more obviously, interorganizational implementation requires additional approaches. Here analysts and practitioners must confront a world of multiple institutional actors—more than one government, agency, or sector—whose cooperation and perhaps coordination are needed for implementation success.

Clearly, a multiactor approach to understanding implementation offers a shift from the standard world presented in conventional organization theory. The former presents the pressing issue of how to concert action in the absence of operational authority and across institutional lines. The theoretical and practical issues

involved go considerably beyond the standard single-agency perspective.

Even if one were to ignore for purposes of analysis the involvement of clients and other interested parties, the world of multiactor implementation is far from a trivial set. In larger-*n* research, it has been demonstrated that a substantial segment of the large set of U.S. national cases is multiactor (O'Toole and Montjoy 1984). Numerous researchers have argued that this cluster of instances is important, even dominant (for instance, see Hjern 1982; Hjern and Porter 1981). A recent content analysis of federal statutes shows that multiactor cases constitute the great majority of new or substantively revised federal programs, and this phenomenon can also be documented in the work of a Congress from a generation ago (Hall and O'Toole 2000). Others might argue that the number and strength of causal forces pressing governments to organize their implementation efforts in more networked forms have been growing in recent years (see the coverage in O'Toole 1997b). But the main point is that this set of cases is a large and significant segment, and it has been the focus of the bulk of implementation research over the years (for a critique of this emphasis, see Kettl 1993). The key challenges to explanation, prediction, and performance arise here.

In 1986, I reviewed virtually the entire scope of multiactor policy implementation research and concluded:

> The field is complex, without much cumulation or convergence. Few well-developed recommendations have been put forward by researchers, and a number of proposals are contradictory. Almost no evidence or analysis of utilization in this field has been produced. Two reasons for the lack of development are analyzed: normative disagreements and the state of the field's empirical theory. Yet there remain numerous possibilities for increasing the quality of the latter. Efforts in this direction are a necessary condition of further practical advance (1986, 181).

What, then, can be said by way of progress in the succeeding years? The explicit evidence is mixed. Virtually all analysts have moved past the rather sterile top-down/bottom-up dispute, and some helpful proposals for synthetic or contingent perspectives have been offered. But consensus is not close at hand, and there has been relatively little emphasis on parsimonious explanation. The dominance of the case-study approach has receded, and a number of thoughtful larger-*n* empirical studies have been conducted—a point often missed by critics. But significantly more are needed; more importantly, the recent empirical work raises a question about appropriate modeling strategies and specifications. The context-dependent (and primarily American) feature of much earlier work has been exposed and theoretical efforts have

become more self-consciously general, but solid cross-national investigations are still rare. A so-called third-generation approach to implementation research has been suggested, but relatively little such research has been stimulated by this call. As I will show, there are some sensible reasons for this state of affairs. Finally, and perhaps most importantly, the implementation problem has been reconceptualized in somewhat different fashions, and work has proceeded along a number of parallel, overlapping, and highly relevant lines of research. These promise to expand knowledge about converting policy into action, even as they diffuse attention away from implementation in the narrow. Far from signaling a failure of the research enterprise, this last development provides evidence of impact and advance.

Efforts at Synthesis

Attempts to stimulate synthesis in theory have appeared during the past decade. An important dispute between advocates of the so-called top-down perspective and those identified as bottom-uppers raged for a number of years, to some limited overall impact. Most scholars would now agree on a few important points in this regard. First, *normative* top-down and bottom-up differences regarding where leverage is most appropriately placed in the implementation system continue to be important in practical terms, but heated empirical arguments have quieted. Second, variables located at the top or center can be important, as can contextual or field variables. Sufficient evidence has accumulated to validate partially both top-down and bottom-up arguments (Bressers and Ringeling 1989; Mazmanian and Sabatier 1989, 302-04; Goggin et al. 1990; Stoker 1991; Matland 1995; Ryan 1996).

What has not happened, however, is a careful winnowing of the mass of potential explanatory variables toward parsimonious explanation. Indeed, and this is a third point of general agreement, a multitude of candidate variables continue to float through the research literature. In my earlier analysis, I found plenty and documented their published sources (1986). Most continue to remain active candidates. Meier has commented recently on this point with a caustic suggestion: "I often characterize the theory as 'forty-seven variables that completely explain five case studies'. . . . I propose . . . [a]ny policy implementation scholar who adds a new variable or a new interaction should be required to eliminate two existing variables" (1999, 5-6). While this characterization does too little justice to some extant efforts, particularly some larger-*n* inquiries, the main point remains valid. One attraction of some early efforts at formal theory building in this field (see below) is that it avoids this problem.

Methodological Developments

The field of implementation research was taken to task some time ago for its overreliance on case-study research (Goggin 1986). What has happened in the interim? First, it should be noted, some implementation analysts have developed smaller-*n* studies of an exceedingly high standard and demonstrated that there are multiple routes to understanding. In particular, it seems clear that research performed in ignorance of the understanding that implementation actors themselves have about their circumstances is likely to miss important parts of the explanation for what happens (see especially Lin 2000; also Brodkin 1997; Glaser and MacDonald 1998; Lin 1998; Sandfort 1997; see deLeon 1999b for a general brief for qualitative approaches). Second, some empirical studies have taken advantage of careful design to allow for statistical inference despite relatively limited numbers of cases (O'Toole 1989).

Third, a number of larger-*n* multivariate investigations have been completed in recent years, and these in general have demonstrated the importance of both centrally controlled and contextual variables in explaining implementation results, however operationalized. (A sample includes Lester and Bowman 1989; McFarlane 1989; Scheirer and Griffith 1990; Meier and McFarlane 1995; Meier and Keiser 1996; Gerstein et al. 1997; Berry, Berry, and Foster 1998; Brown, O'Toole, and Brudney 1998; Jennings and Ewalt 1998 and 2000; Heinrich and Lynn 1999). The claim that empirical implementation research is nothing but case studies is no longer valid.

Yet—fourth—the move to multivariate explanation and large numbers of cases exposes the specialty to new or renewed challenges, which have yet to be addressed fully. These are partially methodological and partially theoretical, and they are not restricted narrowly to questions of implementation alone. Three issues in particular are worthy of note.

The first is not strictly new, but it is a more prominent issue now: larger-*n* investigations remain almost exclusively cross sectional. A thorough understanding of implementation, indeed of policy action more generally, requires longitudinal designs, preferably over extended periods. Executing such research is typically difficult, for all the usual reasons, but this remains a significant challenge for the field.

The second has to do with the whole point behind implementation analysis and the link between theory and practice.

Meier, with coauthors, has suggested a set of refinements in the use of statistical inference to take into account the interest, among specialists in policy and public management, in improving performance rather than merely documenting and explaining it. The general approach is dubbed *substantively weighted analytical techniques*, or SWAT (see Meier and Gill forthcoming). The initial publication in the project applied a version of SWAT to a cross-state analysis of policy implementation for one kind of program (Meier and Keiser 1996). The main contribution was to argue for the desirability, under some circumstances, of examining outlier cases distinctively in multivariate modeling in order to see what they might reveal about unusual combinations of production factors in high- and low-performing instances. It is also noteworthy that this piece is framed as an implementation study. The implications of such innovations for larger-*n* implementation research portend increased possibilities to offer guidance both in the selection of cases for intensive examination and as a tool to guide policy designers and implementation practitioners in improving performance. SWAT may help to make sense out of puzzling multivariate findings (for an inviting candidate, see Scheirer and Griffith 1990). And the possibilities of employing SWAT for implementation research and practice have only recently been seen. For instance, this approach can be read as implying that serious consideration ought to be accorded interpretivist treatments of implementation, wherein the context-specific meanings of implementers' words are important to an understanding of why action transpires as it does. And SWAT could be combined with interpretive research as one tool in case selection. The links and implications across both epistemological and methodological perspectives have scarcely been considered.

The third point of interest has been, if anything, less visible to most implementation researchers: opportunities for innovation in modeling. Multilevel program arrays, especially those that exhibit site-specific variations that seem to matter, can be approached by altering conventional regression analysis and framing the model in hierarchical terms, to allow for interaction across the levels of the hierarchical model. In this fashion, administrative and policy influences can be separated from client characteristics, state-level determinants can be distinguished from site-specific features, and models can offer both greater explanatory power and more sensible specifications for interpreting policy action.

Hierarchical linear modeling offers promise in explaining aspects of performance (see, for instance, Heinrich and Lynn 1999 and 2000; Roderick 2000). The technique has not been much used thus far to advance work on policy implementation.

Two caveats might be entered. First, its success is highly dependent on the availability of very large data sets, ideally with individual-level client or target information included; thus empirical studies will be restricted. Second, hierarchical models are obviously meant to fit hierarchically structured contexts. To the extent that program implementation arrangements are more fluid or multicentered, this form of modeling would be inappropriate.

Research beyond the United States

Most implementation research has been conducted in and regarding the United States, albeit with the goal of truly general understanding. Even in earlier years, however, contributions in Western Europe were an important part of theory building and testing (for instance, Hull with Hjern 1987). Solid cross-national comparative work has been especially lacking (for a significant exception, see Knoepfel and Weidner 1982). This problem persists, although it is surely not unique to implementation research. Public management more generally is sorely in need of such investigations.

Some empirical studies have been conducted outside the United States and Western Europe (see Grindle 1980; Ross 1984; Chan et al. 1995; Brinkerhoff 1999). Investigation suggests that the approaches developed in Western liberal contexts may have limited utility in other settings (see O'Toole 1994 and 1997a), but this subject remains primarily a frontier for further investigation.

Interestingly, one of the topics on which cross-national comparative implementation research can bear fruit, and has done so to some extent already, is on the execution of international agreements, especially multilateral ones. The typical circumstance is a common policy and a number of signatory countries. Hundreds of such agreements now present important empirical circumstances for systematic study. Early scholarship offers some cross-national comparisons (see Weiss and Jacobson 1998; Victor, Raustiala, and Skolnikoff 1998), but additional investigations are clearly needed.

Third-Generation Research: Progeny?

Goggin et al. (1990, 17-18) proposed that implementation research take seriously the need for advancing the field scientifically:

> The principal aim of third-generation research is to shed new light on implementation behavior by explaining why that behavior varies across time, policies, and units of government. . . . Third generation research is

designed to overcome the conceptual and methodological problems that many scholars agree have impeded progress in this field. In a word, the aim of third-generation research is simply to be more *scientific* than the previous two in its approach to the study of implementation.

To that end, Goggin et al. offer details of a set of hypotheses derived from a candidate framework and ideas about the essential issues of measurement. The third-generation argument also endorses the use of multiple measures and multiple methods.

As a coauthor of that study, I am hardly distanced from its argument and I continue to endorse the general theme. But one point of reflection can be noted. In advocating for a third-generation perspective, we sought to catalyze sustained empirical investigation of this type. Some such studies have been attempted (see, for instance, Orth 1997; Berry, Berry, and Foster 1998; Jennings and Ewalt 2000), but there has been no sustained interest.

Why not? Other frameworks, of course, may be more appropriate (in this regard, see Cline forthcoming). Beyond this obvious point, it is useful to recognize that a potentially intimidating standard was designed into this vision of third-generation research.

Goggin et al. (1990) indicate that the best kind of implementation study, at least for intergovernmental programs, consists of investigations that involve numerous variables and variable clusters (and multiple measures for these) across policy types (three types are included in the volume), across the fifty states, and over at least ten years (with annual observations). The argument implies a design ideal of large-*n* studies involving 3 (policies) x 50 (state) x 10 (years), or 1500 observations for every variable. And the measurements are best taken via a combination of content analyses, expert panels, elite survey responses, and expert reassessment of the data from questionnaires and interviews. A reasonable response to this proposal would be that it outlines a career's worth of work, perhaps more.

Absent feasibility constraints, such a project would be of great help in advancing the understanding of policy implementation, particularly in the United States and for intergovernmental programs. But proceeding directly in this fashion could impose an unrealistic set of requirements for the advancement of empirical research. Needless to say, executing the agenda in partial fashions, for instance by testing parts of the framework in individual efforts, is a more feasible objective.

Viewing the Half-Full Glass

The sketch offered thus far indicates a number of developments that carry significance for the systematic study of policy implementation, but it also indicates that much remains to be accomplished. And for every important study that has been completed in recent years, many studies yet remain to be done. Still, this picture alone would suggest too limited a view of the state of the field. Scholarship that bears directly on the core question of implementation—what happens between the establishment of policy and its impact in the world of action?—has arisen in many ways that would not be immediately noticeable if one were to observe merely those investigations with a self-proclaimed focus on implementation. In fact, much has been developing that should be of interest to those studying the implementation issue, particularly with regard to theoretical foci and themes. Most of these lines of effort contribute overtly to other forms of scholarship, but they carry import more broadly and should be considered in a complete assessment.

Analysts have noted that a considerable amount of effort has been devoted recently to implementation-like questions, under other rubrics. As Winter has said, "[i]f defined in terms of the problems analyzed, the 'field' of implementation research would be considered much more robust than simply by counting research under the label of implementation" (1999, 2). And Meier, in particular, has been pointed in this regard:

> My biased survey of literature suggest[s] that a wide range of journals publish articles that inform the study of policy implementation—the mainstream sociology journals, most of the public administration journals, the professions journals (public health, social work, sometimes law or medicine), many of the economics journals, and on rare occasion a political science journal. Much of this literature is not intended to directly answer questions of policy implementation, but it addresses concerns that are central to policy implementation (1999, 6-7).

Where has useful work on the subject—or, more accurately, work that is of potential benefit in elucidating the subject—been taking place? What are the promising lines of development? What do these suggest about research for understanding policy implementation?

INDIRECT CONTRIBUTIONS TO IMPLEMENTATION RESEARCH

Numerous kinds of scholarly inquiry that have been developed in recent years offer promise for those interested in explicating policy implementation, particularly the multiactor variant.

This section offers a sampling, with some links to the main theme. It should be recognized, nonetheless, that these kinds of contributions reach considerably beyond the implementation problem; indeed, Frederickson (1999) has argued that several of these kinds of scholarship (he emphasizes the first three covered in this section) have infused the subject of public administration more generally and indicate a revitalization of that field. The treatment here focuses on implementation per se, with the recognition that this limitation is somewhat arbitrary.

Institutional Analysis

Implementation research is, in important respects, heavily reliant on institutional scholarship. Virtually all policies and programs depend on institutional action, and the institutional forms now increasingly common for policy implementation embrace characteristics that extend far beyond the traditional focus on bureaucracy or market. A few examples illustrate the importance of this line of research for policy implementation.

Institutional Analysis and Development. The pathbreaking scholarship of Elinor Ostrom and colleagues (Ostrom, Gardner, and Walker 1994; Ostrom 1999) has reshaped a great deal of policy research. Ostrom and others have sketched an approach to institutional analysis that is largely based in a rational-choice perspective and a goal of understanding the emergence and impact of variegated institutional forms.

This rule-based perspective makes it possible to sketch institutional details with precision and clarity. Some might argue that the multidimensional distinctions allowed in this approach create overwhelming complexity that ultimately hinders parsimonious explanation. But the approach—institutional analysis and development (IAD)—provides not only conceptual detail but an analytical approach to develop and extend empirical theory. A number of promising investigations have been completed; these focus particularly on how stable, long-term solutions to problems of common-pool resource management can emerge and be sustained (Blomquist 1992; Ostrom, Gardner, and Walker 1994; Schlager, Blomquist, and Tang 1994). There are indications that the approach can be extended to other settings (Cowie 1999).

IAD is by no means a relabeled version of implementation research. But the route that Ostrom and colleagues have taken promises to offer benefit for the ultimate elucidation of implementation action. In particular, the perspective can comprehend and analyze institutional forms of all sorts, including multiactor arrays that vary in several ways from each other, and public-

private-nonprofit combinations with subtle but potentially important institutional features. Of special advantage is the IAD's approach of explicitly incorporating a logic of multileveled action (Kiser and Ostrom 1982).

IAD takes analysts well beyond limiting top-down/bottom-up debates, at least in principle. And it does not succumb to the atheoretical tendencies observable in some bottom-up approaches that begin with the functioning pattern of implementation and tend to regard virtually *any* set of operating relations as necessary, perhaps even optimal (as in Hjern and Hull 1983). Adding a theoretical engine creates opportunity, as well, for generating testable propositions about implementation behavior and results in institutions of widely varying forms (for an illustration see O'Toole 1996a).

Still, there are drawbacks. Most important is the almost exclusive attention thus far to self-organizing systems. The exclusion of official governmental programs, especially those that incorporate regulatory or other formally authoritative approaches, constitutes an important lacuna. In particular, studies of the comparative performance of different institutional arrangements for dealing with policy issues are matters of high priority (see Tang 1991). The study of multiactor policy implementation needs a theoretical approach that combines the self-organizing potential of combinations of actors (including corporate actors) with the mandated character of certain interunit links, the latter quite typical of at least some portions of government programs (O'Toole 1993). An adjustment of IAD to include both self-organizing and mandated elements could provide considerable enlightenment for analysts of implementation.

Actor-centered Institutionalism. With Renate Mayntz, Fritz Scharpf has initiated a promising line of institution-based theorizing about policy (Mayntz and Scharpf 1995; Scharpf 1997). Via "actor-centered institutionalism," Scharpf has combined insights from game theory, welfare economics, and institutional analysis to suggest an approach to modeling policy-relevant settings of many types. While mostly ignoring implementation per se in this recent scholarship, Scharpf offers a logic and set of conceptual tools that may be able to elucidate a number of implementation circumstances. This is particularly the case since, like Ostrom, he explicitly models multiactor settings in which institutional forms are complex and do not readily fit the simple market-or-hierarchy designation.

A depiction of Scharpf's full approach would take this exposition afield. But it is worth noting that he explores the

potential for game-theoretic logic, along with the linked-game elaboration of the basic approach, to make sense of institutional settings in which hierarchical authority lines do not array fully the relevant actors. Consider as an example moves by European actors enmeshed in complex settings involving both country-level (domestic political) and European-level (for instance, European Union) patterns of interdependence. Scharpf's focus on policy settings involving governmental actions differentiates this approach from the main emphasis thus far in IAD. He sketches possibilities that allow for numerous modeling opportunities. It remains to be seen to what extent this basic perspective will catalyze significant work.

These two approaches are a mere sampling of the relevant research, but they suggest some of the achievement and potential from institutional analysis. Theory building and testing along these lines is certain to inform the understanding of policy implementation.

The Study of Governance

Rather than concentrate narrowly on implementation to the exclusion of other forms of action and other levels of influence on the ultimate performance of public programs, some analysts have sought to consider the more comprehensive subject of how systems of governance deliver policy-relevant impacts. This broader conceptualization is not antithetical to implementation research; it is designed to incorporate a more complete understanding of the multiple levels of action and kinds of variables that can be expected to influence performance.

The theme and perspective of governance are difficult to denote with precision. The topic is meant to refer, nonetheless, to several related dimensions of the contemporary policy world. One is the multivariate character of policy action: Not only do many factors influence results, but these factors are of very different types and are too often examined in isolated fashion to the relative neglect of other parts of the explanation. Another is the commitment to treat *governance* as something considerably broader than *government* itself: to take account, and consider the design and operation, of structures and processes of policy action, wherever they might be. In this sense, the governance theme is quite complementary to the emphasis on institutions. Third, a governance approach emphasizes the multi-layered structural context of rule-governed understandings, along with the role of multiple social actors in arrays of negotiation, implementation, and service delivery. Addressing governance requires attending to social partners and ideas about how to concert action among

them. It should be clear, therefore, that while governance is not an old-wine-in-new-bottles version of implementation, interest in the governance theme indicates the continued vitality of the concerns that have flourished under the implementation rubric since the first critiques of simplistic top-down approaches.

Some versions of policy research aimed at the theme of governance are explicitly connected with the study of policy implementation. An example is the insightful work of Stoker (1991), who has adapted the regimes framework of Stone (1989) to intergovernmental implementation and has applied a nontechnical form of game theory to distinguish different implementation circumstances—especially those that involve more or less intractable forms of conflict among interdependent actors. Stoker's work suggests not only that it may be possible to combine top-down and bottom-up insights in a coherent regime-based approach, but also that practical—and in some cases counter-intuitive—injunctions can follow from such an analysis. Importantly, Stoker's implementation research is explicitly integrated into a perspective that sees implementation questions as an aspect of the broader governance theme.

Another instance, less exclusively focused on implementation per se, is the recent scholarship of Edward Weber (1998). Weber too uses an implicitly game-theoretic analytical framework[3] and explores the requisites for cooperative approaches to environmental problem solving. While he is appropriately restrained about the prospects for sustained collaboration, Weber explicates the institutional and other preconditions for this approach to policy action—in effect, thereby, suggesting the dimensions of a relatively untested but potentially promising regime form for decision making and implementation in the United States.[4] Weber's work is an example of current, theoretically informed, policy-focused work, which has roots in the theme of governance and direct implications for the study and practice of policy implementation. It also links directly to other significant topics that are prominent in the best current work, including a combination of top-down and bottom-up insights, the use of analytical tools with the potential to explicate multiactor settings, and an effort to include relevant variables that reach beyond the scope of earlier policy investigations.

Others also are pursuing this theme in ways that are relevant to questions of implementation, even when they do not explicitly trumpet the latter in fashions that may have caught widespread attention. An important instance of this form of governance research is the work of Lynn and colleagues (Lynn, Heinrich, and Hill 1999 and 2000). In broad outline, their project

[3]In his published work, Weber has not fully explicated the framework on which his investigations rely. But in his book-length study of innovative approaches to regulatory challenges in environmental policy, the instances he explored and the model he used reference Prisoners' Dilemma circumstances. The approach—although not the specific injunctions—can probably be generalized to a more comprehensive set of multiactor circumstances.

[4]Corporatist nations have had substantial experience with the kinds of games Weber examines, but these forms of action—"pluralism by the rules," as he dubs them—are relative rareties thus far in the United States.

constitutes an effort to synthesize influences on policy performance of several sorts, and from several levels, by taking account of the standard concerns of implementation researchers and integrating these with other kinds of related analyses.

Their conceptualization treats programs as units of analysis and suggests that outputs be considered a function of an array of factors (elements of the environment, treatments or program technologies, client or target characteristics, structure, and management), some of which have received treatment in implementation research over the years. Lynn, Heinrich, and Hill expand upon standard implementation research, furthermore, by incorporating additional considerations (for instance, from institutional analysis and from public management) in their conceptualization of what drives program performance. They offer a rather comprehensive assessment of many relevant literatures—including an assessment of which studies explore which sets of these variables, how they are measured, and what the findings have been. Of particular note, in connection with the governance theme and the study of policy implementation, is that these researchers focus especially on studies that offer investigations of two or more of these types of variables and thus suggest a more complex array of models for explaining public program performance. They also identify some particularly interesting lines of analysis for further development.

Lynn and colleagues have not organized an agenda for implementation research in the narrow. Instead, they have suggested ways to link such work with additional traditions of research to expand the overall understanding of what makes programs work. Some of the current work that is being developed on governance, therefore, offers the prospect of building on earlier implementation work in especially promising ways.

Other analyses could equally well be included—either here or as part of the elucidation of closely related topics, such as the treatment of networks (below). One instance is the recent contribution of Bardach (1998). Bardach, one of the influential early implementation analysts, continues to eschew general theory in favor of practice-oriented, metaphorical treatments of important issues (see Bardach 1977). In his recent work, he deals with collaboratives of two or more units and seeks to understand what aspects of the development of inter-institutional linkages make for successful joint effort. Once again, implementation per se has moved to the background, in favor of attention to concerted action across institutional boundaries on behalf of public purpose. But the practical management issues overlap with the management challenges that are evident in many implementation studies.

And some of the themes—like the importance of building trust for collaborative success—are also analyzed in some of the implementation research of recent years (for instance, O'Toole 1996b).

Additional recent research has emphasized *governance* rather than *management* in ways that are largely consistent with the foregoing exposition. Consider some of the contributions of Milward and Provan (especially 1999). As they put the issue, "governance . . . is concerned with creating the conditions for ordered rules and collective action, often including agents in the private and nonprofit sectors, as well as within the public sector. The essence of governance is its focus on governing mechanisms—grants, contracts, agreements—that do not rest solely on the authority and sanctions of government" (p. 3).

Milward and Provan bring into clear relief an uncomfortable point that remains a challenge for researchers on such questions, regardless of the explicit theme: There is a "paucity of empirical literature on the relationship between governance structure and outcomes" (p. 24). While they have been in the forefront of relating certain characteristics of governance forms to overall outcomes, however measured (1999, 24-25; Provan and Milward 1995), the variety of arrangements embraced by the governance notion defies parsimonious theory building. Thus this problem, which has bedeviled implementation research for much of the last fifteen years or so, is likely to reemerge under the governance rubric. (The same point can be made regarding research on networks, an overlapping topic to which Milward and Provan also contribute in important ways; see below.)

Networks and Network Management

The debate between top-downers and bottom-uppers centered in part on the question of the appropriate unit of analysis (for instance, implementing agency vs. program and interagency array). Behind these arguments is an important question about institutional arrangements: What are the forms through which most implementation action develops? Great variety is evident. But the emergence of increasingly complex structural forms, including multiactor networked patterns, has made especially salient the questions of research design, conceptualization, and theory building for networked policy action.

Partially as an independent intellectual effort, but partially as well in response to this debate within implementation research, the study of networks and network management has acquired considerable significance. Indeed, this subject has attracted growing

attention in a number of other countries as well (Hufen and Ringeling 1990; Marin and Mayntz 1991; Jordan and Schubert 1992; Marsh and Rhodes 1992; Scharpf 1993; Bressers, O'Toole, and Richardson 1995; Klijn 1996; Kickert, Klijn, and Koppenjan 1997; Bogason and Toonen 1998). Even in theoretical developments in the United States that overtly eschew an implementation focus, versions of network analysis have occupied an important role (see Sabatier and Jenkins-Smith 1993).

There are compelling reasons, both empirical and theoretical, for scholars to treat seriously the network theme (O'Toole 1997b). Some have argued that network approaches should be among the most important analytical heuristics to be applied in understanding and improving public management (Lynn 1996). Others have claimed that in the current era, shifts toward massive quantities of contracting have triggered the formation of a *hollow state*, with the management of public programs largely consisting of the monitoring and crafting of network forms (Milward 1996). Scholars in other countries place heavy emphasis on the networked character of policy implementation itself (Kickert, Klijn, and Koppenjan 1997), and cross-national comparative policy studies offer suggestive prospects (Bressers, O'Toole, and Richardson 1995).

Much of my recent work has been targeted at this set of themes—and this focus is a direct outgrowth of tackling implementation questions (O'Toole 1993; 1995; 1996a; 1997a). Thus, for instance, I have sought to provide some systematic information about the networked character of public programs enacted at the national level (Hall and O'Toole 2000) and in other countries (for instance, O'Toole 1998). Meier and I are at work modeling and testing for the impact of both management and structural context on the operations of public programs; we explicitly treat the extent of hierarchy or network as structural features amenable to analysis (for the initial effort see O'Toole and Meier 1999). Others have been busy along related lines. Agranoff and McGuire, for instance, have provided convincing evidence on the descriptive portion of the question, particularly as regards intergovernmental management (1998). And the emphasis by Provan and Milward on the link between network features and performance, as well as on a range of effectiveness criteria, speaks to the more complex agenda entailed in networked forms of policy action (1995; Milward and Provan 1999). Additional instances could be documented at length (see LaPorte 1996 for further exposition).

A great deal of this research is closely related to work on implementation. In important respects, the upsurge in network

studies represents a continuation of some of the same lines of research that became visible in some of the best implementation research a few years earlier. This is not to say that a theoretical consensus has emerged on how to conceptualize and model networked phenomena surrounding policy action. Indeed, different approaches compete for attention (see Milward and Provan 1999). And there is some disagreement about the potential applicability of formal approaches (O'Toole 1993), or even the general theory-building project itself (Bardach 1998).

The study of networks and public management, however, draws from promising theoretical streams with questions of implementation—performance via governance in the delivery of policy results—as significant as ever. Further, the network scholarship in public management also overlaps that on governance and on institutional analysis. The several emerging approaches promise considerable advance in the years ahead, even if not a clear theoretical synthesis or convergence.

Formal and Deductive Approaches

The implementation theory that developed in an explosion of research effort from the 1970s through the 1980s was almost exclusively inductive, and it was characterized by a profusion of variables. But some efforts have been initiated to frame a more clearly deductive and parsimonious approach.

Formal, rational-choice approaches like game theory cannot be reviewed here, even in a cursory fashion, but implementation researchers have seen both promising and limiting prospects. Heuristic applications have been offered by a number of scholars (Stoker 1991; Koremenos and Lynn 1996; Weber 1998). Such a line of inquiry can be useful, despite limitations, in exploring a set of persistently important implementation questions (O'Toole 1993). The limitations can, somewhat paradoxically, suggest practical options for public managers who are enmeshed in the midst of networks for implementation: Identifying limitations to modeling can expose points of leverage for implementation managers (O'Toole 1995).

Additional relevant theoretical developments, thus far insufficiently noted among implementation scholars in the United States, also have appeared. Some formal approaches have resulted in modeling that appears to be both plausible and amenable to testing (see especially Torenvlied 1996a and 1996b). A relatively parsimonious, deductive theory has been developed in the Netherlands, primarily by Hans Bressers and Pieter-Jan Klok. Dubbed—perhaps misleadingly—instrument theory, the approach

takes inspiration from top-down/ bottom-up synthesis and offers the prospect of a predictive model focused on the interactions among policy actors. Instrument theory builds on a core of a small number of variables to sketch an impressively varied range of possible implementation results. The theory, particularly in its later elaborations, has been extended to multiactor, networked settings with a range of target group possibilities (see Bressers and Klok 1988; Klok 1995; Bressers and O'Toole 1998). This approach is synthetic and suggestive in another fashion, since it aims to link the theory of policy design with that of implementation, thus addressing a key criticism directed at the field for a number of years (for instance, Linder and Peters 1987). Unfortunately, the most complete expositions of the approach remain available in the Dutch language only (Klok 1991), although some key parts are also published in English (Bressers and Klok 1988). The full utility of the approach remains to be tested widely.

PROSPECTS

There are those who would argue that for all the conceptual, theoretical, and methodological effort, the implementation research enterprise remains stuck in neutral, or is running in a circle. DeLeon's challenge (1999b) is perhaps the most reasonably framed in this regard (more so, for instance, than Fox 1990). And his critique is direct:

> First, implementation as currently structured is winning no conceptual converts. . . . And, second, its focus on the exceptional failure to the preclusion of the workaday successes have [sic] largely been ingrained, thus biasing the implementation research product. . . .
>
> The combination of a greater emphasis on a democratic orientation to implementation, buttressed by more of a post-positivist orientation and methodology and a realistic assessment of what implementation can deliver (as opposed to promise) will . . . give the policy community a much better handle on the linchpin stage that delivers the policy goods.

As should be clear, the present assessment is considerably more optimistic about the current state of the research enterprise. On the issue of converts, the situation is better than portrayed by deLeon: a number of promising scholars have contributed in recent years; and when one frames implementation questions broadly, to include research on complex institutional arrangements, networks, governance, and the like, some of the supposed defectors, like Bardach, can be seen as contributors. Second, the supposed bias of implementation research toward the cases of failure is an outdated generalization. Even decades ago scholars took pains to avoid such a bias toward failure in the selection of cases for investigation (Montjoy and O'Toole 1979; O'Toole and

Montjoy 1984). Cross-state larger-*n* studies have substantially reinforced this effort (for instance, Meier and McFarlane 1995), and the third-generation work of Goggin et al. (1990) was explicitly designed to avoid any trace of preoccupation with the "exceptional failure." Rather, the idea was to select multiple policies in multiple sites over extended time periods, to maximize within reasonable limits the amount of variance subject to explanation. Executing this full agenda has its difficulties, as has been explained, but such a perspective is clearly a far cry from the excerpted indictment.

Has a democratic orientation been absent from implementation studies until now? A reasonable case can be made that this is not so at all. Top-down and bottom-up investigations are animated, to be sure, by quite different notions of democracy—top-downers offer justification in conventional overhead-democratic tenets, bottom-uppers focus on more interactive processes, client involvement, and coproduction. Searching for an implementation approach built around a normative core of discursive democracy would generate a fascinating scholarly agenda, but it is not the case that an interest in democratic theory has simply been ignored until now.

More basically, the study of policy implementation is in many respects in a relatively mature stage of development. Weaknesses are apparent, issues remain, and some of the most interesting relevant work is taking place on the edges of the specialty or in related research fields. But these developments point to an appropriate broadening rather than a shrinking of the relevant research enterprise. It behooves scholars not to draw arbitrarily narrow jurisdictional lines, nor to expend energy on sectarian causes. Explaining—and ultimately improving—the way policy intention influences policy action is the research agenda, by whatever name. Prospects for grappling with this important subject are both multiple and engaging.

As for implementation research: the top-down/bottom-up debates are ended, superceded by general recognition of the strengths of each. Synthetic theoretical efforts have been numerous. Inductive approaches have been supplemented by the beginnings of deductive and formal analysis. Larger-*n* studies, while not plentiful, are considerably less rare than is typically portrayed. Certain tendentious measurement and methodological issues have been joined, indeed in some cases addressed. And, most significantly, a range of complementary research initiatives is now underway, and these initiatives offer prospects for shedding new light on the implementation question as they address related challenges.

Plenty of work remains. But the prospects for the scholarly study of—perhaps even the improvement of—policy performance are reasonably bright. The study of implementation cannot possibly provide the full set of relevant answers. But research on implementation, under whatever currently fashionable labels, is alive and lively.

REFERENCES

Agranoff, Robert, and McGuire, Michael.
1998 "Multinetwork Management: Collaboration and the Hollow State in Local Economic Policy." *Journal of Public Administration Research and Theory* 8:1:67-91.

Bardach, Eugene.
1977 *The Implementation Game*. Cambridge, Mass.: MIT Press.
1998 *Getting Agencies to Work Together*. Washington, D.C.: Brookings.

Berry, Frances Stokes; Berry, William D.; and Foster, Stephen K.
1998 "The Determinants of Success in Implementing an Expert System in State Government." *Public Administration Review* 58:4:293-305.

Blomquist, William.
1992 *Dividing the Waters: Governing Groundwater in Southern California*. San Francisco: Institute for Contemporary Studies Press.

Bogason, Peter, and Toonen, Theo A.J., eds.
1998 "Comparing Networks." Symposium in *Public Administration* 76:2:205-407.

Bressers, Hans, and Klok, Pieter-Jan.
1988 "Fundamentals for a Theory of Policy Instruments." *International Journal of Social Economics* 15:3/4:22-41.

Bressers, Hans Th.A., and O'Toole, Laurence J. Jr.
1998 "The Selection of Policy Instruments: A Network-Based Perspective." *Journal of Public Policy* 18:3:213-39.

Bressers, Hans; O'Toole, Laurence J. Jr.; and Richardson, Jeremy, eds.
1995 *Networks for Water Policy: A Comparative Perspective*. London: Frank Cass.

Bressers, J.Th.A., and Ringeling, Arthur B.
1989 "Beleidsinstrumenten in drie arena's." *Beleidswetenschap* 3:1:3-24.

Brinkerhoff, Derick W.
1999 "State-Civil Society Networks for Policy Implementation in Developing Countries." *Policy Studies Review* 16:1:123-47.

Brodkin, Evelyn.
1997 "Inside the Welfare Contract: Discretion and Accountability in State Welfare Administration." *Social Service Review* 71 (March):1-33.

Brown, Mary Maureen; O'Toole, Laurence J. Jr.; and Brudney, Jeffrey L.
1998 "Implementing Information Technology in Government: An Empirical Assessment of the Role of Local Partnerships." *Journal of Public Administration Research and Theory* 8:4:499-525.

Chan, Hon S.; Wong, Koon-kwai; Cheung, K.C.; and Lo, Jack Mankeung.
1995 "The Implementation Gap in Environmental Management in China: The Case of Guangzhou, Zhungshou, and Nanjing." *Public Administration Review* 55:4:333-40.

Cline, Kurt D.
forthcoming "Defining the Implementation Problem: Organizational Management versus Cooperation." *Journal of Public Administration Research and Theory*.

Cowie, Gail M.
1999 "Stakeholder Involvement and Institutional Change: Cases of Interstate River Basin Management." DPA diss. The University of Georgia, Athens.

deLeon, Peter.
1999a "Cold Comfort Indeed: A Rejoinder to Lester and Goggin." *Policy Currents* 8:4:6-8.
1999b "The Missing Link Revisited: Contemporary Implementation Research." *Policy Studies Review* 16:3/4:311-38.

Fox, Charles J.
1990 "Implementation Research: Why and How to Transcend Positivist Methodologies." In Dennis J. Palumbo and Donald J. Calista, eds. *Implementation and the Policy Process: Opening up the Black Box*, 199-212. Westport, Conn.: Greenwood.

Frederickson, H.-George.
1999 "The Repositioning of American Public Administration." Gaus Lecture, annual meeting of the American Political Science Association, Atlanta, September 3.

Gerstein, Dean R., and others.
1997 *Final Report: National Treatment Improvement Evaluation Study*. Washington, D.C.: U.S.

Department of Health and Human Services, March.

Glaser, Bonnie, and MacDonald, Karin.
1998 "On the Front Lines of Welfare Reform: Are Workers Implementing Policy Reform?" *Journal of Policy Analysis and Management* 17:1:1-22.

Goggin, Malcolm L.
1986 "The 'Too Few Cases/Too Many Variables' Problem in Implementation Research." *Western Political Quarterly* 38:328-47.

Goggin, Malcolm L.; Bowman, Ann O'M.; Lester, James P.; and O'Toole, Laurence J. Jr.
1990 *Implementation Theory and Practice: Toward a Third Generation*. Glenwood, Ill.: Scott Foresman/Little, Brown.

Grindle, Merilee S., ed.
1980 *Politics and Policy Implementation in the Third World*. Princeton, N.J.: Princeton University Press.

Hall, Thad E., and O'Toole, Laurence J. Jr.
2000 "Structures for Policy Implementation: An Analysis of National Legislation, 1965-66 and 1993-94." *Administration and Society* 31:6:667-86.

Heinrich, Carolyn J., and Lynn, Laurence E. Jr.
1999 "Means and Ends: A Comparative Study of Empirical Methods for Investigating Governance and Performance." Paper prepared for the Fifth National Public Management Research Conference, Texas A&M University, College Station, December 3-4.
2000 "Governance and Performance: The Influence of Program Structure and Management on Job Training Partnership Act (JTPA) Program Outcomes." In Lynn and Heinrich, eds. *Models and Methods in the Empirical Study of Governance*. Washington, D.C.: Georgetown University Press.

Hjern, Benny.
1982 "Implementation Research—The Link Gone Missing." *Journal of Public Policy* 2:301-08.

Hjern, Benny, and Hull, Chris.
1983 "Implementation Research as Empirical Constitutionalism." *European Journal of Political Research* 10:2:105-15.

Hjern, Benny, and Porter, David O.
1981 "Implementation Structures: A New Unit of Administrative Analysis." *Organization Studies* 2:3:211-27.

Hufen, Hans, and Ringeling, Arthur, eds.
1990 *Beleidsnetwerken: Overheids-, Semi-overheids-en Particuliere Organisaties in Wisselwerking*. The Hague: VUGA.

Hull, Chris, with Hjern, Benny.
1987 *Helping Small Firms Grow*. London: Croom Helm.

Jennings, Edward T. Jr., and Ewalt, Jo Ann G.
1998 "Interorganizational Coordination, Administrative Consolidation, and Policy Performance." *Public Administration Review* 58:5:417-26.
2000 "Driving Caseloads Down: Welfare Policy Choices and Administrative Action in the States." In Laurence E. Lynn, Jr., and Carolyn J. Heinrich, eds. *Models and Methods for the Empirical Study of Governance*. Washington, D.C.: Georgetown University Press.

Jordan, Grant, and Schubert, K.
1992 "A Preliminary Ordering of Policy Network Labels." *European Journal of Political Research* 21:1-2:7-27.

Kettl, Donald F.
1990 "The Perils—and Prospects—of Public Administration." *Public Administration Review* 50:4: 411-19.
1993 "Searching for Clues about Public Management: Slicing the Onion Different Ways." In Barry Bozeman, ed. *Public Management: The State of the Art*, 55-68. San Francisco: Jossey-Bass.

Kickert, Walter J.M.; Klijn, Erik-Hans; and Koppenjan, Joop F.M., eds.
1997 *Managing Complex Networks: Strategies for the Public Sector*. London: SAGE.

Kiser, Larry L., and Ostrom, Elinor.
1982 "The Three Worlds of Action: A Metatheoretical Synthesis of Institutional Approaches." In Elinor Ostrom, ed. *Strategies of Political Inquiry*, 179-222. Beverly Hills, Calif.: SAGE.

Klijn, Erik-Hans.
1996 "Analyzing and Managing Policy Processes in Complex Networks: A Theoretical Examination of the Concept Policy Network and Its Problems. *Administration and Society* 28:1:90-119.

Klok, Pieter-Jan.
1991 *Een instrumententheorie voor milieubeleid*. Enschede, The Netherlands: University of Twente Press.
1995 "A Classification of Instruments for Environmental Policy." In Bruno Dente, ed. *Environmental Policy in Search of New Instruments*, 21-36. Dordrecht, The Netherlands: Kluwer.

Knoepfel, Peter, and Weidner, Helmut.
1982 "Implementing Air Quality Control Programs in Europe." *Policy Studies Journal* 11 (Sept.):104-15.

Koremenos, Barbara, and Lynn, Laurence E. Jr.
1996 "Leadership of a State Agency." In Donald F. Kettl and H. Brinton Milward, eds. *The State of Public Management*, 213-40. Baltimore: Johns Hopkins University Press.

LaPorte, Todd R.
1996 "Shifting Vantage and Conceptual Puzzles in Understanding Public Organizational Networks." *Journal of Public*

Administration Research and Theory 6:1:49-74.

Lester, James P., and Bowman, Ann O'M.
1989 "Implementing Intergovernmental Policy: A Test of the Sabatier-Mazmanian Model." *Polity* 21:731-53.

Lester, James P., and Goggin, Malcolm L.
1998 "Back to the Future: The Rediscovery of Implementation Studies." *Policy Currents* 8:3:1-9.

Lin, Ann Chih.
1998 "Building Positivist and Interpretivist Approaches to Qualitative Methods." *Policy Studies Journal* 25:1:162-80.
2000 *Reform in the Making: The Implementation of Social Policy in Prison*. Princeton, N.J.: Princeton University Press.

Linder, Stephen H., and Peters, B. Guy.
1987 "A Design Perspective on Policy Implementation: The Fallacies of Misplaced Prescription." *Policy Studies Review* 6 (Feb.):459-75.

Lynn, Laurence E. Jr.
1996 *Public Management as Art, Science, and Profession*. Chatham, N.J.: Chatham House.

Lynn, Laurence E. Jr.; Heinrich, Carolyn J.; and Hill, Carolyn J.
1999 "The Empirical Study of Governance: Theories, Models, Methods." Presented at the Workshop on Models and Methods for the Empirical Study of Governance, University of Arizona, Tucson, April 29-May 1.
2000 *The Empirical Study of Governance: Theories, Models, and Methods*. Washington, D.C.: Georgetown University Press.

Marin, Bernd, and Mayntz, Renate, eds.
1991 *Policy Networks: Empirical Evidence and Theoretical Considerations*. Boulder, Colo.: Westview.

Marsh, D., and Rhodes, R.A.W., eds.
1992 *Policy Networks in British Government*. Oxford: Clarendon Press.

Matland, Richard E.
1995 "Synthesizing the Implementation Literature: The Ambiguity-Conflict Model of Policy Implementation." *Journal of Public Administration Research and Theory* 5:2:145-74.

Mayntz, Renate, and Scharpf, Fritz W.
1995 "Der Ansatz des akteurzentrierten Institutionalismus." In Mayntz and Scharpf, eds. *Steuerung und Selbstorganisation in staatsnahen Sektoren*, 39-72. Frankfurt am Main: Campus.

Mazmanian, Daniel A., and Sabatier, Paul A.
1989 *Implementation and Public Policy*, rev. ed., Lanham, Md.: University Press of America.

McFarlane, Deborah R.
1989 "Testing the Statutory Coherence Hypothesis: Implementation of Family Planning Policy in the States." *Administration and Society* 20:4:395-422.

Meier, Kenneth J.
1999 "Are We Sure Lasswell Did It This Way? Lester, Goggin and Implementation Research." *Policy Currents* 9:1:5-8.

Meier, Kenneth J., and Gill, Jeff.
forthcoming *Substantively Weighted Analytical Techniques: A New Approach to Program and Policy Analysis*. Boulder, Colo.: Westview.

Meier, Kenneth J., and Keiser, Lael R.
1996 "Public Administration as a Science of the Artificial: A Methodology for Prescription." *Public Administration Review* 56:459-66.

Meier, Kenneth J., and McFarlane, Deborah R.
1995 "Statutory Coherence and Policy Implementation: The Case of Family Planning." *Journal of Public Policy* 15:3:281-301.

Meyers, Marcia; Glaser, Bonnie; and MacDonald, Karin.
1998 "On the Front Lines of Welfare Reform: Are Workers Implementing Policy Reforms?" *Journal of Policy Analysis and Management* 17:1:1-22.

Milward, H. Brinton, ed.
1996 Symposium on "The Hollow State: Capacity, Control, and Performance in Interorganizational Settings." *Journal of Public Administration Research and Theory* 6:2:193-313.

Milward, H. Brinton, and Provan, Keith G.
1999 "How Networks Are Governed." Unpublished paper.

Montjoy, Robert S., and O'Toole, Laurence J. Jr.
1979 "Toward a Theory of Policy Implementation: An Organizational Perspective." *Public Administration Review* 39:5:465-76.

Orth, Caroline M.
1997 "State Implementation of Air and Water Pollution Control Policy: An Analysis of State Ecological Capacity." Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, April 10-12.

Ostrom, Elinor.
1999 "Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework." In Paul A. Sabatier, ed. *Theories of the Policy Process*, 35-71. Boulder, Colo.: Westview.

Ostrom, Elinor; Gardner, Roy; and Walker, James.
1994 *Rules, Games, and Common-Pool Resources*. Ann Arbor: University of Michigan Press.

O'Toole, Laurence J. Jr.
1986 "Policy Recommendations for Multi-Actor Implementation: An Assessment of the Field." *Journal of Public Policy* 6:2:181-210.

1989 "Alternative Mechanisms for Multiorganizational Implementation: The Case of Wastewater Management." *Administration and Society* 21:3:313-39.
1993 "Multiorganizational Policy Implementation: Some Limitations and Possibilities for Rational-Choice Contributions." In Scharpf, ed., 27-64.
1994 "Economic Transition, Constitutional Choice, and Public Administration: Implementing Privatization in Hungary." *Journal of Public Administration Research and Theory* 4:4:493-519.
1995 "Rational Choice and Policy Implementation." *American Review of Public Administration* 25:1:43-57.
1996a "Hollowing the Infrastructure: Revolving Loan Programs and Network Dynamics in the American States." *Journal of Public Administration Research and Theory* 6:2:225-42.
1996b "Implementing Public Programs." In James L. Perry, ed. *Handbook of Public Administration*, 2d ed., 150-62. San Francisco: Jossey-Bass.
1997a "Networking Requirements, Institutional Capacity, and Implementation Gaps in Transitional Regimes: The Case of Acidification Policy in Hungary." *Journal of European Public Policy* 4:1:1-17.
1997b Treating Networks Seriously: Practical and Research-Based Agendas in Public Administration." *Public Administration Review* 57:1:45-52.
1998 *Institutions, Policy, and Outputs for Acidification: The Case of Hungary*. Aldershot, UK: Ashgate.

O'Toole, Laurence J. Jr., and Meier, Kenneth J.
1999 "Modeling the Impact of Public Management: Implications of Structural Context." *Journal of Public Administration Research and Theory* 9:4:505-26.

O'Toole, Laurence J. Jr., and Montjoy, Robert S.
1984 "Interorganizational Policy Implementation: A Theoretical Perspective." *Public Administration Review* 44:6:491-503.

Pressman, Jeffrey L., and Wildavsky, Aaron.
1984 [1973] *Implementation*. Berkeley: University of California Press.

Provan, Keith G., and Milward, H. Brinton.
1995 "A Preliminary Theory of Network Effectiveness: A Comparative Study of Four Mental Health Systems." *Administrative Science Quarterly* 40:1:1-33.

Roderick, Melissa.
2000 "Evaluating Chicago's Efforts to End Social Promotion." In Laurence E. Lynn Jr. and Carolyn J. Heinrich, eds. *Models and Methods for the Empirical Study of Governance*. Washington, D.C.: Georgetown University Press.

Ross, Lester.
1984 "The Implementation of Environmental Policy in China: A Comparative Perspective." *Administration and Society* 15:4:489-516.

Ryan, N.
1996 "Some Advantages of an Integrated Approach to Implementation Analysis." *Public Administration* 74:737-53.

Sabatier, Paul A.
1991 "Toward Better Theories of the Policy Process." *PS* 24:2:147-56.

Sabatier, Paul A., and Jenkins-Smith, Hank C., eds.
1993 *Policy Change and Learning: An Advocacy Coalition Approach*. Boulder, Colo.: Westview.

Sandfort, Jodi.
1997 "Peering into the Black Box: A Study of the Front-Line Organizations Implementing Welfare Policy in Michigan." Ph.D. diss. University of Michigan.

Scharpf, Fritz W., ed.
1993 *Games in Hierarchies and Networks: Analytical and Empirical Approaches to the Study of Governmental Institutions*. Boulder, Colo.: Westview.
1997 *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*. Boulder, Colo.: Westview.

Scheirer, Mary Ann, and Griffith, James.
1990 "Studying the Dynamics of Public Policy Implementation: A Third-Generation Approach." In Dennis J. Palumbo and Donald J. Calista, eds. *Implementation and the Policy Process: Opening up the Black Box*, 163-179. New York: Greenwood.

Schlager, Edella; Blomquist, William; and Tang, Shui Yan.
1994 "Mobile Flows, Storage, and Self-Organized Institutions for Governing Common-Pool Resources." *Land Economics* 70:3:294-317.

Schneider, Anne L.
1999 "Terminator! Who, Me? Some Thoughts about the Study of Policy Implementation." *Policy Currents* 9:1:1-5.

Stoker, Robert P.
1991 *Reluctant Partners: Implementing Federal Policy*. Pittsburgh: University of Pittsburgh Press.

Stone, Clarence.
1989 *Regime Politics: Governing Atlanta 1946-1988*. Lawrence: University Press of Kansas.

Tang, Shui Yan.
1991 "Institutional Arrangements and the Management of Common-Pool Resources." *Public Administraton Review* 51:1:42-51.

Torenvlied, René.
1996a *Besluiten in uitvoering*. Groningen, The Netherlands: University of Groningen Press.

1996b "Political Control of Implementation Agencies: Effects of Political Consensus on Agency Compliance." *Rationality and Society* 8:1:25-56.

Victor, David; Raustiala, Kal; and Skolnikoff, Eugene B., eds.
1998. *The Implementation and Effectiveness of International Environmental Commitments*. Cambridge, Mass.: MIT Press.

Weber, Edward P.
1998 *Pluralism by the Rules: Conflict and Cooperation in Environmental Regulation*. Washington, D.C.: Georgetown University Press.

Weiss, Edith Brown, and Jacobson, Harold K., eds.
1998 *Engaging Countries: Strengthening Compliance with International Environmental Accords*. Cambridge, Mass.: MIT Press.

Winter, Søren.
1999 "New Directions for Implementation Research." *Policy Currents* 8:4:1-5.