

# Implementing New Ideas in Criminal Justice

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with Michael Caggiano and Sandra Polin

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## PREFACE

This report was supported by the National Institute of Justice, U.S. Department of Justice, under Grant No. 79-NI-AX-0085. It analyzes results from a series of case studies conducted during the summer of 1981 that were intended to:

- Identify major factors associated with successfully implementing innovations in criminal justice;
- Assess whether features of the local system constrain the choice of implementation strategies;
- Assess how, if at all, fiscal retrenchment affects the innovation process and its results; and
- Suggest guidelines for improving the translation of new ideas into local criminal justice practices.

This report should be of interest to local and federal policymakers, as well as criminal justice planners, who must decide which innovations merit continued financial support, and devise promising strategies for improving criminal justice practice. Researchers interested in studying program implementation should also find the methodology employed in this study interesting.

U.S. Department of Justice  
National Institute of Justice

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## SUMMARY

Policymakers have increasingly become aware that external seed money can stimulate the local adoption of innovations, but not necessarily their sustained use. This report suggests ways in which federal, state, and local officials might increase the likelihood that new ideas in criminal justice will actually be used at the local level. Based on case studies of 37 innovations in five states and eight counties, it addresses the following questions:

- What characteristics distinguish successful from unsuccessful innovations?
- Do features of the local criminal justice system constrain the choice of strategies for success?
- How, if at all, does fiscal retrenchment affect the innovation process and its results?
- What strategies might promote the translation of new ideas into local criminal justice practice?

## PRINCIPAL FINDINGS

We defined successful innovations as those that altered organizational behavior and attitudes and made some progress toward achieving the innovation's original goals. While this definition implies a partial assessment of the innovation's final outcome (for example, success or failure at improving officer safety or increasing the proportion of career criminals who receive lengthy prison sentences), it places primary emphasis on *implementation* success, actually altering local criminal justice practice and attitudes, as a prerequisite for improving public service delivery.

Using this definition, we identified the following characteristics as key correlates of success:

- Sincere motivation at adoption;
- Support from top leadership combined with director and staff commitment and, where appropriate, external cooperation;
- Staff competence;
- A benefit/cost surplus;
- Clarity of the innovation's goals and procedures; and
- Clear lines of authority.

With the exception of the first, each of these characteristics may change during implementation. For this reason, the implementation process also figures as a crucial factor. We identified the following strategies for producing the six correlates of success:

- Producing multiple payoffs;
- Ensuring key actor participation in planning and problem-solving over time; and
- Building in a flexible problem-solving process.

The first is particularly important because so many criminal justice innovations depend on the concerted action of people from several organizational environments. However, success requires fusing all three strategies together with four corollary features: an evolutionary approach that builds on prior achievement, craft-learning that enhances staff competence, ongoing planning, and regular communication.

This approach applies during periods of fiscal prosperity and restraint. Under fiscal retrenchment, a successful strategy for survival would follow the same ground rules. The main difference is that fiscal stress heightens the crucial role of cooperation based on a multiple incentive system. Fiscal retrenchment is not all bad; it has forced local criminal justice agencies to make tradeoffs they might otherwise have postponed, and their decisions on which innovations to save and which to drop have typically reflected judicious distinctions between effective and ineffective projects.

However, less positive outcomes have also occurred—outcomes that are particularly likely to surface when retrenchment is prolonged:

- The tendency to impose incremental cuts on successful innovations that cannot absorb them without suffering a severe decline in performance;
- Impediments to full implementation that stem from resource shortages unrelated to the innovation's own funding and staffing requirements (negative spillover effects); and
- The temptation to telescope the grace period allotted to adolescent projects for learning and experimentation.

## POLICY IMPLICATIONS

These findings suggest several implications for managers of criminal justice innovations and for local, state, or federal officials who must decide whether to fund new innovations or maintain existing ones.

First of all, managers of criminal justice innovations can increase the likelihood that they will improve local practice by following the strategies for success listed above. Second, they should avoid three pitfalls: *open-ended and symbolic participation* (prolonged discussions unaccompanied by clear operational targets; soliciting but then ignoring inputs from key actors), *split authority* (formally dividing major responsibilities among two or more agencies), and *a compartmentalized and inflexible planning process* (one that produces a too-detailed and inflexible guide for operations, and then ends as implementation begins).

To cope with fiscal retrenchment, they need to distinguish between successful innovations that can absorb budget cuts and those that cannot; and target risk capital to the most promising adolescent innovations while withdrawing support from the less promising.

Finally, we noted that one project did not fit our model of how to achieve success, because it exhibited all the characteristics of success *at adoption*. That experience suggests the possibility of two different innovation models: one that depends on how the implementation process proceeds, and one that does not. Policymakers who must choose among candidate innovations for funding support need to distinguish between the two types and understand what characteristics help predict success for each. We have suggested some initial guidelines for doing this; further research is needed to verify their utility.

## ACKNOWLEDGMENTS

Our sincere appreciation goes to the dozens of persons throughout the country who were willing to involve themselves in this study. We received extensive cooperation from key actors, project directors, and program participants in all of the study sites. They responded candidly about their successes and failures in project implementation. Without their willingness to share this information, this study could not have been undertaken.

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## I. INTRODUCTION

During the 1970s, federal efforts to stimulate innovative programs and practice at the local governmental level achieved hitherto unsurpassed heights of fiscal support, but were followed by disenchantment with their results. Efforts to improve educational practice floundered in a morass of uncertainties about how children learn and how institutions change (Mann, 1978; McLaughlin, 1975); the "new towns" in town programs never got off the ground (Derthick, 1972); and attempts to create jobs in the cities yielded only marginal results (Pressman and Wildavsky, 1973; Van Horn, 1978). Successfully introducing new ideas into local agencies was more difficult than it looked at first blush; how, if at all, those ideas were carried out largely determined their effectiveness.

Innovation in the local criminal justice system was no exception. Created in 1968, the Law Enforcement Assistance Administration's (LEAA) primary mission was to act "as a catalyst for the introduction of innovative ideas and techniques." It provided over \$7 billion to support more than 100,000 projects during its tenure.<sup>1</sup> But LEAA died amidst criticism that its mission had failed—that the agency's money had not fostered improved practice; that innovations that worked in one locality floundered in another; that funded projects never got off the ground or dropped out of sight once federal funds were withdrawn. (Feeley and Sarat, 1980; U.S. Comptroller General, 1978; U.S. House of Representatives, 1976.)

These events taught us that the ideas embodied in innovative social programs are rarely self-executing. Although many innovations are adopted by local systems, fewer affect organizational practice, and fewer still become incorporated into the agency's routines (Berman and McLaughlin, 1978; Yin, 1978). Implementing new ideas turns out to be a complex process that rarely culminates with the adoption of a new idea, program, or material artifact. Instead of assuming that an idea's adoption quickly leads to its "use," we now realize that adoption is typically no more than a first step.

This lesson is all the more important in a period of fiscal retrenchment. The demise of LEAA, coupled with inflation, formal fiscal limits, and sluggish economic growth, means that local criminal justice

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<sup>1</sup>LEAA was established in the Department of Justice under the Omnibus Crime Control and Safe Streets Act of 1968. For a description of its mission, see Caplan (1973), Rogovin (1973), Allison (1979), and U.S. House of Representatives (1976).

agencies have less money for adopting further innovations or sustaining old ones. Now, more than ever, insights are needed that will enable targeting of scarce resources on innovations that are likely to succeed.

Recognizing these problems, the National Institute of Justice (NIJ) sponsored a program of research aimed at improving the use of knowledge in the criminal justice system. Accordingly, this study seeks to:

- Identify major factors associated with the successful and unsuccessful implementation of local criminal justice innovations;
- Assess whether features of the local criminal justice system (LCJS) constrain the choice of implementation strategies;
- Assess how, if at all, fiscal retrenchment affects the innovation process and its results; and
- Suggest guidelines for improving the translation of new ideas into local criminal justice practices.

## CONCEPTUAL APPROACH

By innovation we mean an idea, practice, or material artifact that is new to the adopting agency—regardless of how many other agencies have adopted it.<sup>2</sup> We thus distinguish innovation from invention: Innovation does not require that the knowledge it embodies be “new,” only that the adopting agency perceive it as new.

Research on factors that promote or impede successful innovation has been dominated by two distinct perspectives: of adoption and of implementation. The former, which emerged out of the research and development model of knowledge use, views innovation as a problem in developing and disseminating new ideas. It implicitly assumes that “good” ideas, e.g., those that have been scientifically developed and tested, are self-executing: Once information about them has been broadly disseminated, they will become widely used as a matter of course. Thus it views potential adopters as relatively passive users who, if they know about a good idea and judge it attractive, will adopt it and put it into place with minimal effort. What happens after adoption is largely irrelevant to the study of innovations, since adoption and implementation are viewed as nearly simultaneous events. (Glaser, 1973, 1976; Havelock, 1968, 1969; Havelock and Lingwood, 1973; HIRI/NIMH, 1976; Perrin and Johnson, 1972; Rogers, 1962.)

<sup>2</sup>See Rogers and Shoemaker (1971); Walker (1969); and Zaltman (1979) for similar definitions of innovation.

From this perspective, the most reasonable determinants of successful innovation are the information diffusion process and the characteristics of the innovations themselves. How quickly information becomes disseminated should affect the pace and timing of adoption; features of the innovation that make it attractive to the potential user should promote both adoption *and* its successful conversion into practice.

Research on characteristics that increase or decrease the likelihood of adoption has in fact yielded a plethora of such factors. (Rogers, 1962, 1967; Glaser and Wrenn, 1966; Glaser, 1973; Havelock, 1968, 1969, 1974; Zaltman et al., 1973.) Despite varying nomenclature, those most frequently identified are:

- *Implied benefits*: The innovation yields economic or social benefits to the user and improves on the current situation (advantage).
- *Clarity*: Both the innovation's goals and the operations required to use it are easily understood and easy to learn (comprehensibility, complexity).
- *Compatibility*: The innovation resembles what it replaces, or supplements or is consistent with user values, practices, and needs.
- *Implied cost*: The resources required for adoption and implementation are “affordable,” e.g., within the adopting organization's fiscal and manpower capacity (capability).
- *Scope*: The innovation's initial requirements for change are limited, e.g., it affects the behavior of a subset of individuals within the adopting organization, or can be introduced in stages or parts rather than requiring change across all tasks and organizational units (pervasiveness, divisibility).

While such features undoubtedly enhance the likelihood of adoption, another body of research has questioned their utility as predictors of *implementation* success (whether the innovation is actually put into place and used). As the federal government increased its support of new programs and practices in local service delivery, students of those programs identified numerous failures (and some successes) that appeared to be more closely associated with characteristics of the adopting organization and its implementation strategies than with the innovation itself (Berman and McLaughlin, 1975, 1977, and 1978; Ellickson, 1978; Fullan and Pomfret, 1977; Jolly, Creighton, and George, 1978; Mann, 1978; Van Horn, 1978; Pressman and Wildavsky, 1973).

They pointed out several empirical difficulties with the adoption perspective:

1. That the characteristics of social innovations frequently change over time, thereby obfuscating, if not eliminating, their utility as predictors of ultimate outcomes (Chaiken, 1978; McLaughlin, 1975; Rice and Rogers, 1980; and Weimer, 1980);
2. That the "same" innovation often produces widely varying outcomes in different institutional environments, thereby suggesting the importance of the context to successful innovation (Berman and McLaughlin, 1974, 1975; Chelimsky and Dahmann, 1980; Goodlad et al., 1970; Nelson and Winter, 1977; Regan et al., 1979; Sherman, 1978); and
3. That rather than being passive consumers of new ideas, users typically have a substantial effect on what an innovation looks like in practice, thereby suggesting the relevance of examining their motivations and capacities to convert it from intent to reality (Ellickson, 1978; Hargrove, 1975; Yin, Heald, and Vogel, 1977).

These studies gave rise to the *implementation perspective* on innovation—an approach that views post-adoption events as crucial, and focuses on the actions and strategies of those who convert it into practice as the key to success or failure. Implementation theorists stress the importance of establishing that the innovation has in fact been implemented (albeit modified over time) and of understanding the process by which conversion of the idea into practice occurs (Van Meter and Van Horn, 1975; Palumbo and Sharp, 1980; Radnor and Hoffer, 1979; Fullan, 1980). They implicitly assume that those who convert the idea into practice do not share identical rationales or capacities for implementation and that an effective implementation process hinges crucially on the adopting organization's capacity to mobilize and build participant support, cooperation, and competence.

Thus, implementation analysts have uncovered a different set of factors that enhance the likelihood of success. These factors, not surprisingly, emphasize organizational and participant motivations, capacities, and strategies for accomplishing change (Bardach, 1977; Berman and McLaughlin, 1974, 1975, 1976, 1978; Eveland and Rogers, 1980; Ellickson, 1978, 1979; Chelimsky and Sasfy, 1978; Dahmann et al., 1980; Rosenblum and Louis, 1979; Wasserman et al., 1973; Larsen and Agarwala-Rogers, 1977; Emrick and Peterson, 1978; Herriot and Gross, 1979; Baer et al., 1976; Gross et al., 1971). Among those most frequently cited are:

- *Reason for adoption:* Innovations adopted because they address a pressing need or problem are more likely to succeed than those adopted opportunistically (to obtain outside funding or enhance the adopter's prestige).

- *Support of key actors:* Success typically requires the support of several key actors or groups: the adopting organization's leadership, a project director or "entrepreneur" who guides the implementation process, and those individuals who convert it into practice (variously called users, practitioners, or participants).
- *Organizational resources:* Translating an idea into practice cannot succeed without adequate resources—particularly money and expertise. However, because most implementation analysts have studied federally funded innovations that were launched with generous fiscal resources, they have downplayed the importance of money. Expertise has typically been subsumed under the category of staff commitment.
- *Adaptability and frequent communication:* Adaptability refers to a planning process that continues *throughout* the period of implementation and typically involves modifications in both the innovation and the organization (e.g., the organizational context undergoes changes to accommodate the innovation, and the innovation itself is modified to meet local needs and requirements). Frequent communication is a corollary feature of an adaptive implementation strategy.
- *Participation of key actors:* Involving key actors in planning, development, and problem-solving typically increases the likelihood of success; frequent communication is also a by-product of this strategy.
- *Staff training:* Effective staff training typically involves a sustained in-service effort that helps to combine and integrate on-the-job learning and fosters regular interaction among practitioners and resource personnel. Such training, along with local development of training materials and methods, has frequently been associated with successful innovation.

#### APPLYING PRIOR RESEARCH TO CRIMINAL JUSTICE INNOVATIONS

Because of evidence that adoption of an innovation does not guarantee its conversion into practice, our research design focuses on what happens *after* the decision to adopt an innovation has been made. We know that federal seed money can stimulate the adoption of new programs or material artifacts, but we also know that criminal justice

innovations often fail to achieve sustained use, improved practice, or replicability across sites (Chelimsky and Dahmann, 1980; Chelimsky and Sasfy, 1978; Comptroller General, 1975; Regan et al., 1979; Sherman, 1978; Wasserman, 1973; Weimer, 1980). Thus the implementation approach appears to be the most fruitful for identifying successful strategies.

From this perspective, knowledge-use has not occurred unless the ideas embodied in an innovation are translated into practice. Levels of innovation success then rest on the degree of change achieved in the implementing organization(s) and its staff as well as the degree of progress toward the innovation's goals and objectives. To assess an innovation's effectiveness and the factors associated with it requires identifying:

- Whether and how an innovation becomes a reality in practice;
- Whether it brings about changes in the adopting organization;
- Whether those changes promote or obstruct the innovation's goals; and
- What features characterize innovations that achieve both narrowly defined objectives of implementation (changed practice or attitudes) and its broader, result-oriented goals.

While we consider the implementation approach the most suitable framework for our research, we also believe that applying it to criminal justice innovations requires adapting the general perspective to account for the context and situation in which these innovations operate. This adaptation includes:

- Paying attention to systemic relationships within the local criminal justice system;
- Asking how, if at all, fiscal retrenchment affects the innovation process and its outcomes;
- Incorporating characteristics of the innovation itself into our list of factors that affect outcomes; and
- Including progress toward the innovation's goals as well as organizational change as a criterion of success.

### **Systemic Relationships in the Criminal Justice Arena**

The local criminal justice system (LCJS) is notable for the fragmented but interrelated nature of its functions and the agencies that perform them. Instead of a single overarching criminal justice agency that arrests, prosecutes, sentences, and imprisons offenders, different

organizations have primary responsibility for different stages of the process. Moreover, each agency has its own organizational imperatives and views of what the system should accomplish. The police are typically rewarded for clearing arrests, not for performing thorough investigations that facilitate prosecution. Prosecutors are rewarded for selecting "winnable" cases rather than filing charges on all cases that the police view as worthy. Judges are frequently evaluated on their efficiency in moving cases through the system and do not necessarily share the prosecutor's desire for obtaining a severe sentence. None of these groups necessarily places a high priority on what happens to a defendant after sentencing. The result is a "fragmented and often hostile amalgamation of criminal justice agencies," each of which thinks its own mission is undercut by the "cross-purposes, frailties or malfunctions of others" (Freed, 1969).

Nonetheless, the LCJS and its components are highly interrelated. The thoroughness of police investigation affects the probability of conviction. The willingness of prosecutors to file charges, press a case to trial, or settle it affects police attitudes about the utility of good investigations as well as the degree of court congestion and prison overcrowding. Consequently, innovations targeted at one agency frequently require the active cooperation or at least neutrality of other local agencies or decisionmakers, or affect the operations and institutional arrangements of other components (spillover effects).

This interdependence multiplies the number of actors whose cooperation is a precondition for effective implementation; but differences among agencies' organizational perspectives decrease the likelihood that they will all agree on the innovation's need for their support. We therefore suspect that mobilizing support for an innovation is a greater challenge in the criminal justice arena than in most other local service delivery systems. By examining how this is done, we hope to identify strategies that are particularly useful in criminal justice.

### **Fiscal Constraints on Successful Innovation**

Most implementation studies have downplayed the importance of money as a determinant of whether an innovative idea becomes a reality, but most of them examined federally funded innovations that were launched during an era of fiscal expansion. Even in these cases, budgetary concerns often surfaced when local agencies were faced with the termination of federal seed monies (Berman and McLaughlin, 1978; Dahmann et al., 1980).

When we began this research, local governments nationwide were experiencing fiscal constraints attributable to formal limits on their revenues, to inflation, or to sluggish economies; and all federally funded criminal justice innovations were facing another fiscal constraint: the imminent loss of federal assistance caused by the demise of LEAA.

Innovations implemented in a tight fiscal environment probably suffer more severe resource constraints than those implemented in fiscally healthy environments. Agencies in a fiscal squeeze may experience a decline in morale and job satisfaction that dampens enthusiasm for a new endeavor. Or they may suffer abrupt losses of personnel or other shortages that deplete the resources available for implementation (Levine, 1979; Pascal et al., 1979). Similarly, local decisions to terminate or continue innovations formerly supplied with external funding may depend on the severity of communities' need for fiscal retrenchment.<sup>3</sup> For these reasons, we have incorporated the fiscal environment of the local community into our research design. In particular, we have asked how, if at all, fiscal retrenchment affects the resources available for implementation and the survival of criminal justice innovations.

### Candidate Correlates of Success

The abovementioned adoption perspective assumes that innovations with the "right" characteristics have a higher probability of both adoption *and* successful implementation. Indeed, this perspective typically views an innovation's conversion into practice as a foregone conclusion: If the innovation is meritorious, it will be implemented. While much of the implementation research questions this assumption, that research has also concentrated on analyzing complex social innovations that have broad goals and unclear relationships between treatment and outcomes, and only tangentially, if at all, require the use of new technologies or material artifacts. Perhaps technological innovations (those based on new computer techniques, advances in laboratory analysis, improved radio communication, etc.) share important characteristics that minimize potential barriers to successful implementation and thus reduce the importance of this stage in the innovation process.

<sup>3</sup>Although the scant literature to date offers competing hypotheses about what those decisions might look like (expedient crisis-oriented decisions that emphasize short-term payoffs or careful analyses of the innovation's "fit" with organizational realities), most observers agree that they will not correspond to survival decisions made under conditions of fiscal largess (Levine, 1979; Pascal et al., 1979; Walker et al., 1980).

Because of ~~THIS~~ possibility, we think it important to include the innovation's initial characteristics as potential correlates of its success or failure. Moreover, many criminal justice innovations initiated in the 1970s have been based on computer technology: Integrated Criminal Apprehension Programs (ICAP) typically introduce or improve upon the use of computers in crime analysis and patrol allocation; many police departments have replaced manual checks of suspects or property located in the field with computer-assisted identification; prosecutors' offices use computers for tracking cases. Thus we included ten computer-assisted applications in our sample of 37 innovations.<sup>4</sup> For this group in particular, we have asked whether initial characteristics of the innovation itself affect its success.

Table 1 divides our list of potentially important factors into broad categories: characteristics of the innovation, characteristics of the adopting organization and its choice of implementing strategies, and characteristics of the external environment. These factors parallel those most frequently found important by both adoption and implementation analysts. They also include characteristics pertaining to the LCJS and its fiscal environment that we suspect may be particularly relevant within the criminal justice context.

### Defining Successful Innovation

The adoption perspective treats adoption as the relevant test of successful innovation; the implementation perspective focuses instead on whether the innovation becomes a reality in practice *and* brings about a concomitant change in behavior. However, because the latter approach frequently documents ways in which the innovation itself changes over time, e.g., is adapted to the local environment, questions arise about just what constitutes conversion into practice. If an innovation varies from one institutional setting to another, how does one decide whether it has indeed been used, ignored, or altered beyond recognition?

Our approach is to use multiple outcome measures that reflect the complexity and subtlety of the innovation process. We focus on organizational change as a prerequisite for achieving criminal justice goals, assuming that an innovation cannot yield improvements in public service delivery unless it first produces change in behavior or attitudes. But we also think it important to ask whether the innovation has, in fact, yielded progress toward its goals. Achieving change in behavior

<sup>4</sup>These include four ICAP programs; three regional information systems that integrate the records of several police departments or other local criminal justice agencies; and three computer systems designed to aid investigation, dispatching, or timely response to field inquiries.

Table 1

## POTENTIAL FACTORS AFFECTING AN INNOVATION'S SUCCESS

*Innovation characteristics*

Clarity of goals and procedures  
 Implied benefits  
 Implied costs  
 Scope of change  
   Internal  
   External

*Organizational characteristics*

Reason for adoption  
 Leadership support  
 Practitioner commitment  
 Resources (financial, authority, expertise)

*Organizational strategies*

Frequent and regular communication  
 Adaptive planning  
 Key actor participation in planning and decisionmaking  
 Staff training

*External factors*

Local government fiscal context  
 External support

and attitudes cannot suffice as the ultimate test of an innovation's success, simply because it is always possible that the original specification of *how* to achieve a desired objective was incorrect. Vertical prosecution (a single prosecutor following a case from filing through disposition) may not be a route to higher conviction rates, but merely a satisfactory way of providing a more congenial working environment for a few career criminal prosecutors. Thus our measure of successful innovation is a composite of three indices: changing organizational behavior, modifying the attitudes of those who must use the innovation, and realizing the innovation's goals (see Table 2).

**Changes in Behavior.** The first indicator of success taps the degree to which activities required by the innovation were actually put into place. If no changes in activities take place, the innovation has been adopted in name only, e.g., efforts to convert it into practice either failed to materialize or were overcome by institutional obstacles.

Table 2

## DEFINITION OF SUCCESSFUL INNOVATION

## COMPOSITE INDEX OF SUCCESS

- 5 = Exemplary: achievements exceeded initial aims (highest score on all three indices)
- 4 = Very Good: attained all or most goals; implemented all activities and modified attitudes of all or most relevant participants (scores of 4 on goals and activities, 3 or 4 on attitude change)
- 3 = Moderate: partial goal attainment, most activities implemented, some attitude change (scores of 3 on goals and activities, 2 on attitude change)
- 2 = Poor: very few goals attained, some activities implemented, some or no attitude change (scores of 2 on goals and activities, 1 or 2 on attitude change)
- 1 = Failure: goals not achieved, very few or no activities implemented, no attitude change (lowest score on two or more indices)

## SUBINDICES

*Index of Behavior Change*

- 5 = All requisite activities implemented and more added  
 4 = All requisite activities implemented  
 3 = Most requisite activities implemented  
 2 = Some requisite activities implemented  
 1 = Very few requisite activities implemented

*Index of Attitude Change*

- 4 = All relevant groups or staff modified attitudes  
 3 = Most relevant groups or staff modified attitudes  
 2 = Some relevant groups or staff modified attitudes  
 1 = No relevant groups or staff modified attitudes

*Index of Progress in Meeting Goals*

- 5 = All original goals met; additional goals added  
 4 = All or most original goals met  
 3 = Some original goals met  
 2 = Very few original goals met  
 1 = No original goals met

For example, innovative career criminal projects typically require defining what a career criminal is; implementing methods for screening cases and identifying career criminals; instituting early, more thorough investigations for career criminal cases; and carrying out vertical prosecution. Such projects may vary in their specifics (e.g., criteria, screening methods, thoroughness of investigation), but they usually specify that some form of the above activities must be implemented. Some projects may also specify other modifications in behavior, such as early contacts with victims and witnesses, or access to a court set aside for career criminal cases.

To measure changes in behavior, we ranked each project on the degree to which it succeeded in instituting the changes implied by the project's initial statements of implementation objectives. This procedure allowed us to take into account the differing objectives and implementation requirements of the various types of innovations studied.

**Changes in Attitudes.** All of the innovations we studied also required changes in attitudes among those who put it into place. For example, both career criminal attorneys and police personnel have to believe that cooperation in identifying and investigating the cases has payoffs. Programs that offer community service work to offenders have to convince judges, staff, offenders, and the agency directors where offenders are placed that this alternative is worthwhile. Even such a simple innovation as tapping into a computerized information system for answering officer queries about stolen property or wanted persons requires convincing radio dispatchers and officers that the system is more efficient than its manual predecessor. Thus our second indicator of effective knowledge-use gauges success in changing the attitudes of those who must use the innovation or convert it into practice. We have ranked innovations on whether they are associated with attitude change on the part of all, most, some, or none of the relevant groups and staff associated with its implementation.

**Progress Toward Meeting Goals.** Measuring the attainment of goals poses several methodological difficulties. First of all, it is simply not possible to establish links between a single innovation and very broad goals, such as lowering crime rates or increasing public confidence in the criminal justice system. Criminal justice agencies constitute only one of the complex set of societal factors that affect criminal behavior or public perceptions of the system.

Moreover, accurately measuring progress toward more moderate goals, such as increasing conviction rates for career criminals or improving officer efficiency, necessitates the analysis of before/after data that were rarely available to us. For example, while all of the career criminal programs we studied could provide information on conviction

rates for offenders they prosecuted, only one could provide comparisons with a comparable group of career criminals who were prosecuted routinely.

Therefore, we have relied on a cruder approximation of progress. Where articulated goals include both broad societal objectives and more moderate aims, we have ignored the former. To assess progress toward the latter, we have integrated information from two sources: those who know the most about an innovation—the project initiators and practitioners who put it into place; and statistical records and written judgments included in either external or internal evaluations. Neither source yields the accuracy of a well-designed evaluation; nevertheless, they allow us to rule out the possibility that an innovation has produced significant, but counterproductive, change. They also permit a crude ranking of progress based on whether most, some, very few, or none of the original objectives were met, and whether more objectives were added over time and also achieved.<sup>5</sup>

**Composite Success Index.** These three indices were combined to form a composite ranking of success where:

- 5 = Exemplary (score equals the highest attainable on all three indices);
- 4 = Very Good (score equals 4 on goals and activities, 3 or 4 on attitude change);
- 3 = Moderate (score equals 3 on goals and activities, 2 on attitude change);
- 2 = Poor (score equals 2 on goals and activities, 1 or 2 on attitude change);
- 1 = Failure (score equals the lowest attainable on two or more of the three indices).

We emphasize that this index stresses *implementation outcomes* (the innovation's success in altering local criminal justice practice and attitudes), and only crudely taps the degree to which the innovation's broader goals were achieved.

Throughout the report, we generally present a collapsed three-category version of the composite index: 1. High (scores of 4 or 5); 2. Moderate (score of 3); and 3. Low (score of 1 or 2). However, because innovations with scores of 5 and 1 highlight sharp contrasts between exemplary projects and failures, we occasionally present the more detailed outcome measure.<sup>6</sup>

<sup>5</sup>Note that innovations starting off with unrealistic goals are penalized under this classification system.

<sup>6</sup>When implementation has proceeded over a long period, it may be appropriate to ask whether the innovation has been institutionalized. Institutionalization, represents enduring change: It may be partially indexed by a transition to local funds, the estab-

## RESEARCH METHODS AND PROCEDURES

Uncertainty about how fiscal retrenchment affects innovation in the criminal justice arena argues for a study approach that is exploratory and qualitative, i.e., seeks to develop hypotheses rooted in an empirical understanding of the innovation process in criminal justice rather than proceeding immediately to a quantitative test of hypotheses borrowed from other local service delivery systems.

We have chosen the case study approach for this research because it has several features that facilitate exploration of a process that may change over time and has no clear end-point. Case studies allow one to analyze events that occur over a long period of time, to gather data on the perspectives of multiple participants, and to develop an understanding of agency contexts and historical backgrounds that may influence an innovation's development. Case studies also allow the integration of information from agency documents, news reports, and other written sources with data collected from interviews. In contrast, cross-sectional analyses of survey data or official records do not yield appropriate contextual data or information covering a series of events over time.

### Selection of Study Sites and Projects

The data base consists of 37 case studies conducted in eight counties and five states—Alabama, Arizona, California, Connecticut, and Missouri. Several analytic requirements influenced our selection of this mix; we wanted to be able to:

- Study criminal justice innovations in all four regions of the United States—Northeast, North Central, South, and West;
- Compare similar innovations across different locations;
- Analyze a broad range of innovations affecting different agencies and stages of the local criminal justice process;
- Take into account potential effects of the local criminal justice system on implementation;
- Compare innovations that were locally initiated and funded with those that began with external seed money; and

lishment of personnel classifications and job descriptions that specifically include the tasks required by the innovation, and the ability of the innovation to survive turnover in leadership or staff (Yin, 1978). We have not incorporated a measure of institutionalization into our index. An obvious indicator of a project's long-term continuation is whether or not it survived the withdrawal of external funding. However, since one of our objectives was to ask how fiscal retrenchment affects implementation and survival, we did not want to prejudge the issue by assuming a correlation between success on the other three indices and survival in a period of fiscal strain.

- Compare existing innovations with those that had been terminated.

The first four requirements aim at expanding the richness and generalizability of our findings; the next two enable us to ask how fiscal retrenchment and the demise of LEAA have affected the implementation and survival of criminal justice innovations.

To ensure coverage of a broad range of innovations affecting different agencies and stages of the criminal justice process, we specified four innovation categories for analysis. These categories were derived from an analysis of LEAA-funded projects in 25 states and 100 counties between 1977 and 1981. They include: (1) programs aimed at the arrest or prosecution of specific offenders, typically Career Criminal Programs (CCPs) run by the prosecuting attorney, or targeted apprehension programs lodged in police departments or sheriffs' offices; (2) computer-assisted information processing innovations directed at improving the efficiency of local criminal justice agencies; (3) victim and witness assistance programs variously run by prosecuting attorneys, police or probation departments, private agencies, or some combination of the above; and (4) offender-oriented programs designed to provide nontraditional alternatives to criminal justice defendants, such as pretrial release, community service or financial restitution, and work release. The latter could be run by private agencies, probation, police or sheriffs' departments, the courts, or some combination of the above. These four categories cover a sufficiently broad array of innovations to ensure that our findings will be applicable across different criminal justice functions and agencies.

Selection of the final eight study sites and 37 innovations encompassed several steps. Using a combination of statistical techniques, we selected a representative sample of 100 counties in 25 states.<sup>7</sup> We then collected LEAA profile data on projects funded between 1977 and 1981 in each of the 100 counties.<sup>8</sup> Using this information, we developed a preliminary classification system for LEAA-funded

<sup>7</sup>Originally we planned a quantitative follow-on analysis in 25 states and 100 counties. To choose that combination of states and counties, we used sequentially controlled Markovian Random Sampling (SCOMAR) to select "families" of counties in each of the 50 states. This algorithm allowed us to vary the selection probability with county population size, producing an even distribution of county population sizes from each state. The second step involved gathering additional data on each state and county (geographic region, state population, rate of serious crime in the county, county per capita income, and ethnicity). We then used the Finite Selection Model to select a representative sample of states and counties based on these characteristics.

<sup>8</sup>The Profile system is a computer record of all LEAA-funded projects that includes such information as name and address of grantee, size of grant, grant dates, and a brief description of the project.

projects and selected the four substantive program areas described above.

We then narrowed the potential case-study sites down to 10 states and 20 counties with potential candidates for study in at least three of the four designated categories. At this point, each region was represented by two states. This step ensured our capacity to compare similar innovations across regions while also allowing us to analyze several projects in one county, thereby gaining a more grounded understanding of local criminal justice system effects on the innovative process.

We had yet, however, to identify innovations that had been either locally funded at adoption or terminated after initiation. This process involved locating and calling informants in each potential site who could provide such information (criminal justice reporters, local officials, staff at state or regional criminal justice planning agencies). We based our selection of the final sample of 37 projects in eight counties on the requirement that each county have at least one locally funded or one terminated innovation.

### Basic Project Characteristics

Table 3 shows the distribution of case study projects by category and agency involved in implementation. Among the 37 projects are nine victim/witness programs, ten computer-assisted applications, eight targeted programs, and ten offender-oriented innovations. In each county, we studied one or more innovations from at least three of the four substantive areas and at least one locally funded or terminated project. Nine of the total (24 percent) were locally funded at commencement and eight (22 percent) were terminated one or more years after they began.

Project duration at the time we interviewed participants or, if terminated, when ended, ranged from less than six months to fifteen years; the modal age was between three and five (see Table 4). All but one of the terminated projects ended within a year prior to the interviews, although one had ceased to function slightly more than two years before. The recency of these terminations reflects our inability to locate and interview key actors associated with projects that had disappeared earlier. Project age at time of termination ranged from one and a half to seven years; two of the eight terminated projects operated for less than two years; four lasted for three to four years; and two survived five years or more.

At the time we studied them, most of the innovations had operating budgets ranging between \$20,000 and \$300,000. One computer-assisted program was funded at approximately \$10,000 and one offend-

Table 3  
STUDY INNOVATIONS BY CATEGORY AND AGENCY

Project	Innovation Category				Agency							
	Victim/ Witness	Offender Oriented	Targeted Programs	Computer Assisted	DA <sup>a</sup>	Sheriff	Police	Courts	Private	Multiple PDs	Probation	Other <sup>b</sup>
1	X											
2	X						2					
3	X						1				1,2	
4	X						2				2	
5	X				1		2				1,2	
6	X				1		2				2	
7	X				1		2				2	
8	X				1		2				2	
9	X				1		2				2	
10					1		1				2	
11		X						2				
12		X						2			1,2	
13		X						2			2	
14		X						2			2	
15		X			1		2	2			2	
16		X						2			2	
17		X						2			2	
18		X				2	2	2			1	
19		X			2	1		2			2	
20			X			1		2			2	
21			X		1		2	2			2	
22			X		1		2	2			2	
23			X		1		2	2			2	
24			X		1		2	2			2	
25			X		1		2	2			2	
26			X			1						
27			X			1					1	
28			X								1	
29				X				1				
30				X				1				
31				X				1				
32				X	2		1					
33				X								
34				X							1	
35				X			1				1	
36				X			1					
37				X	2	1	2		2			2

NOTE: 1 = Operating agency(ies)  
2 = Other participating agency(ies)  
<sup>a</sup>The term "District Attorney" is used throughout the report to refer to the chief prosecuting agency for a city or county.  
<sup>b</sup>Includes city or county data processing centers, the jail, and the highway patrol.

er-oriented program spent slightly over \$600,000 annually. Within the four categories, victim/witness innovations tended more toward the lower end of the distribution (under \$100,000), while the great majority of the targeted programs had annual budgets over \$200,000. Sixty percent of the computer-assisted applications fell in the middle of the distribution (between \$100,000 and \$200,000), and 80 percent of the offender-oriented innovations had budgets of \$200,000 or less (see Table 4).

### Study Site Characteristics: Fiscal Context

Of the five states included in the sample—California, Missouri, Arizona, Connecticut, and Alabama—four have enacted limitations

Table 4

## INNOVATION CATEGORIES BY AGE AND ANNUAL BUDGET

Category	Age <sup>a</sup>					Annual Budget (\$1000) <sup>a</sup>		
	<2	2<3	3<5	5<8	8+	<100	101-200	>200
Victim/witness	1	2	2	3	1	5	2	2
Targeted	2	--	6	--	--	1	2	5
Offender oriented	2	--	2	3	3	4	4	2
Computer assisted	1	1	4	2	2	3	6	1
Total	6	3	14	8	6	13	14	10

<sup>a</sup>At time of interviews (summer 1981) or when terminated.

on local government revenues or expenditures in the past few years; the fifth, Connecticut, has not.

California's Proposition 13, approved by the voters in 1978, is the most restrictive of the four. It limited property taxes to 1 percent of the full market value, rolled back assessed values to those shown on the 1975/1976 tax bill, and limited increases in assessment to 2 percent annually (except for newly sold or constructed property).

Arizona enacted an annual growth limit of 6 percent on local expenditures in 1978 (later amended in 1980 and 1981).<sup>9</sup> Less restrictive than California's Proposition 13, the Arizona law nevertheless caps the resources available for coping with community growth in a period of inflation and rising municipal populations. In 1979, Missouri passed an act requiring that local government property-tax collections remain substantially the same after any general reassessment. This act has forced local governments to rely more heavily on sales tax revenues, which also are declining. Finally, Alabama's voters ratified a 1978 constitutional amendment decreeing that "all taxable property shall be forever taxed at the same rate"; coupled with an earlier limitation on total property taxes collected,<sup>10</sup> this amendment means

<sup>9</sup>Since 1921, however, Arizona has had a property-tax-levy limitation that precludes budget or levy increases of more than 10 percent above the prior year's amounts. However, because Arizonian localities have adapted to this limit over a 60-year period, by itself it does not present a new fiscal restraint nor one that requires modification of the prevailing budget calculus.

<sup>10</sup>Total property taxes in Alabama may not exceed 2 percent of fair market value for utilities, 1 percent for agricultural and owner-occupied residences, 1.25 percent for private cars and trucks, and 1.5 percent for all property not otherwise classified.

that property-tax collections may rise only as the assessed value of Alabama property rises. Alabama's amendment is thus the least restrictive of the four.

While Connecticut has no overall restrictions on local property-tax levies or state revenues, it is currently experiencing fiscal restraints linked to the state's declining economy and its dependence on sales taxes and federal assistance as its primary revenue sources. Connecticut has no income tax and its sales tax revenues have not kept pace with inflation; as transfers from the federal government have also declined, the legislature has had to cut the overall budget. This fiscal squeeze directly affects criminal justice innovations in Connecticut because most criminal justice functions (with the exception of police and youth services) are funded at the state level.

### Data Collection and Analysis

Data collection activities were conducted during the summer of 1981. About three days were spent arranging interviews in each county prior to the field work; the interviewing process itself averaged four days per site. For each case study, we interviewed at least three persons associated with the innovation's initiation or implementation; in all, we talked to 186 persons, an average of five per project.

Because we expected individuals playing distinct roles with respect to initiation and implementation to have different perspectives and information, we interviewed people occupying the following statuses for each innovation: (1) head of the operating agency, (2) project leader (if different from agency head), and (3) at least two members of the staff engaged in translating the innovation idea into practice. Most interviews were arranged prior to our arrival in a site, but we set aside enough unscheduled time to allow for interviews with additional persons whom we identified on-site as key informants.

The interviews followed a schedule of largely open-ended questions covering the following topics:

- Project initiation and reasons for adoption;
- Goals and components;
- Planning and implementation activities and problems;
- Project resources (funding, authority; leadership and staff size, background, commitment, and expertise; external cooperation; and facilities);
- Changes in goals, activities, or resources over time;
- Current and future project status;

- Project outcomes (actual changes in practice and attitudes; perceived project success and factors accounting for it; comparisons with similar projects).

Although structured by topic area and question, the interview guides were flexible enough to accommodate differences in the type of innovation, the local context, and the perspectives of informants. Schedules for project leaders and staff were similar but adapted to their different roles. An additional interview schedule (usually administered to the head of the operating agency) covered the agency's fiscal context, past and current priorities, relationships with other criminal justice agencies, planning and research capability, and decisionmaking process vis-a-vis new policies and practices (see Appendix for interview guides).

For each innovation, interviewers also collected written documents. These typically included initial grant applications (where relevant), internal or external evaluations, annual reports, brochures, and forms used for conducting daily work or collecting statistics.

All of these materials were used to rank innovations on the analytic variables. An important part of this process involved two separate validity checks designed to correct for any perceptual bias on the part of project participants: (1) cross-checking the information and perceptions supplied by interviewees holding different positions (head of operating agency, project leaders, implementing staff, and external actors whose cooperation was required for successful implementation); and (2) cross-checking information collected during interviews with that contained in written documentation.

### STUDY LIMITATIONS

The study objectives required an intensive examination of criminal justice innovations in a few counties. Our sample was deliberately constructed to allow us to compare existing with terminated innovations, as well as those that were locally funded at commencement with those that began with external seed money. However, there is no data set from which one could construct a sampling universe of criminal justice innovations in these categories. We chose instead to begin with a list of LEAA-funded innovations between 1977 and 1981 (in 25 states); to narrow that list down to 10 states and 20 counties with candidate projects in three out of four substantive areas; and to base final sample selection on our ability to identify at least one terminated or locally funded innovation in each county. Our sample is there-

fore too small and too narrowly drawn to represent the nation as a whole.

Nevertheless, our primary objectives were to illuminate the characteristics of successful criminal justice innovations and to identify implementation strategies that enhance the likelihood that they will improve actual practice. Moreover, we have studied widely different innovations affecting different agencies and stages of the criminal justice process. It would be misleading to suggest that tabulations of project success or survival rates represent an accurate distribution of outcomes for criminal justice innovations in general, but we believe we have identified common characteristics and strategies that promote successful implementation. The degree to which our findings support the results of studies in such diverse fields as education, energy, and housing reinforce this belief.

### ORGANIZATION OF THE REPORT

Section II identifies six key characteristics of successful innovations, while Sec. III discusses strategies for obtaining them. Section IV treats the effects of fiscal retrenchment on both the implementation and survival of criminal justice innovations, and Sec. V examines the policy implications of our findings.

## II. CORRELATES OF SUCCESSFUL INNOVATIONS

Over half of the 37 innovations we studied qualified as highly successful; 11 of these (30 percent) achieved exemplary status and 10 (27 percent) ranked as very good. The other 43 percent were less successful; 19 percent achieved only moderate success, and 24 percent fell into the poor or failed categories.

As Table 5 shows, no single type of innovation had a corner on success or failure. Projects that qualified as highly successful (scores of 4 or 5) are fairly equally distributed across the four categories, as are those that had little or no success (scores of 2 or 1). This finding suggests that the substantive features of an innovation—whether it is a victim/witness project or a career criminal program—have little to tell us about its ultimate results.

Table 5

### SUCCESS BY TYPE OF INNOVATION

Degree of Success	Innovation Type							
	Computer Assisted		Offender Oriented		Targeted		Victim/Witness	
	No.	%	No.	%	No.	%	No.	%
High	5	50.0	6	60.0	4	50.0	6	66.6
Moderate	3	30.0	1	10.0	2	25.0	1	11.1
Low	2	20.0	3	30.0	2	25.0	2	22.2
Total	10	100.0	10	100.0	8	100.0	9	99.9

What, then, are the key ingredients of success? Our analysis indicates that they are the following:

- Sincere motivation at initiation;
- Support from top leadership and each group whose cooperation is required for implementation and use;

- Staff competence;
- A benefit/cost surplus;
- Clarity of goals and procedures; and
- Clear lines of authority.

Within this group are three factors that tend to reflect preexisting characteristics of the environment into which the innovation is introduced: motivation at initiation, top leadership support, and project director commitment. These attributes act as indicators of an innovation's likely success *at adoption*. Thus, they also provide relevant clues for judging which innovations might profit most from external seed money. The remaining characteristics reflect features of the innovation or its implementation that typically change over time. These, then, constitute manipulatable attributes, features that local criminal justice officials can strive to achieve through adopting and carrying out appropriate implementation strategies.

Before discussing these characteristics in detail, we emphasize that there are no simple cause-and-effect relationships. The relationship between a single attribute and an innovation's success may in fact reflect the effects of another attribute on *both*. For example, a positive benefit-cost ratio may be associated with success indirectly, e.g., because participants are more cooperative when they perceive the innovation as benefiting themselves. Moreover, support that manifests itself in actual implementation efforts closely resembles one of our three measures of success—achieving behavioral change among those who must use or implement the innovation. Although expending effort, time, and energy does not necessarily ensure implementation of an innovation's requisite procedures, the distinction is a subtle one. We emphasize, therefore, that these characteristics qualify as concomitants of successful innovation, but not necessarily as prior determinants.

Finally, the vulnerability of several key factors to mutation over time makes them particularly sensitive to the chronological period during which they were measured. Thus we have classified each characteristic that tended to change at its most recent level, also indicating any changes in value over time. In the following tables, the numbers and arrows in parentheses represent the number of innovations in each cell that shifted from a lower to a higher level of the variable after initiation, or vice versa.

### SINCERE MOTIVATION AT INITIATION

Several studies suggest that innovations adopted to solve a pressing need or problem typically produce more successful implementation

outcomes than those adopted opportunistically (Berman and McLaughlin, 1978; Chelimsky and Sasfy, 1978; Wasserman et al., 1973). To tap sincerity of motivation, we looked at who initially sought to adopt the innovation, why they did so, and who provided start-up funding.

Among the 37 innovations studied, 9 were both initiated and funded at the local level, while the rest started with external (usually federal) seed money. We label the first group as *locally initiated and locally funded* and have treated that initiation pattern as representing the "purest" type of motivation at adoption. In the remaining group, several patterns of initiation emerged: (1) *Local Initiation*. Local identification of a problem or opportunity that could be met by the innovation preceded the availability of external funding and local officials took the initiative in seeking outside fiscal assistance; (2) *Joint Initiation*. Federal or other external officials sought an appropriate site for funding the innovation and initiated contact with local actors, but the local agency had a prior interest in the innovation; (3) *Reluctant or Acquiescent Initiation*. Federal or other external officials sought an appropriate site for funding and initiated contact with local officials who either passively acquiesced or reluctantly agreed to adoption; (4) *Opportunistic Initiation*. Local officials took the initiative in seeking external funding, but their predominant motivation was unrelated to the innovation itself (the desire for extra funds, a hidden agenda that they hoped to pursue, but which was not delineated in the grant application).

Table 6 depicts the relationship between reason for initiation and project success. The first three categories reflect sincere motivations for adopting the innovation, with locally funded and initiated innovations representing the greatest degree of sincerity and jointly initiated innovations representing the least. The last two categories reflect mixed motivations at best and opportunistic ones at worst.

As we expected, innovations adopted to solve locally identified problems fared better than those adopted in response to external pressure or opportunistic motives. As Table 6 shows, 89 percent that were locally initiated and funded and 71 percent that were locally initiated but externally funded achieved high success ratings. Only one of the reluctantly adopted and none of the opportunistically initiated innovations did so.

Neither sincere motivation nor the lack of it is an infallible indicator, however. One Career Criminal Program that was initiated by outside officials and only passively agreed to by the District Attorney has since generated his and the staff's active support and a highly successful record. In contrast, a community-service program that began with local funds and enthusiasm lost both fiscal and psychological support because it was implemented poorly.

Table 6

## DEGREE OF SUCCESS BY REASON FOR INITIATION

Degree of Success	Locally Funded and Initiated		Externally Funded							
			Local Initiation		Joint Initiation		Reluctant Initiation		Opportunistic Initiation	
	No.	%	No.	%	No.	%	No.	%	No.	%
High	8	88.9	10	71.4	2	40.0	1	20.0	--	--
Moderate	--	--	3	21.4	2	40.0	2	40.0	--	--
Low	1	11.1	1	7.1	1	20.0	2	40.0	4	100.0
Total	9	100.0	14	99.9	5	100.0	5	100.0	4	100.0

Among innovations that were jointly initiated, the pattern is less clear-cut. In this group, 40 percent achieved a highly successful rating, but the remainder attained only moderate or limited success. In these situations, federal or state officials initiated negotiations for external funding, but looked for prior local interest in the idea when seeking an appropriate site. All three of the less successful innovations in this group are ICAP projects. Because of the complexity of the changes being introduced and the number of police officers involved, these projects typically undergo a prolonged period of adolescence before attaining full implementation or maturity. Two of these look like promising candidates for eventually moving into the high-success category; one does not. Thus, external funders who press an innovation on a reluctant or apathetic agency appear to foster only moderate success or worse; but those who combine promotion with careful screening of local motives may achieve more favorable outcomes.

## KEY ACTOR SUPPORT

In Sec. I, we noted that successful implementation typically requires the support of several key actors or groups: top leadership, a project director who champions the innovation and guides its day-to-day operations, and those practitioners or users who convert it into

practice. We also noted that many criminal justice innovations require the cooperation of people in several organizations.<sup>1</sup>

This distinctive LCJS feature complicates the task of identifying just who those key actors are and makes that identification a major prerequisite for success. As we see below, innovations fail when they do not satisfy this prerequisite. When they meet the prerequisite but fail the next step—mobilization of key actor support—they achieve mediocre results.

Below we discuss the kind of support that is required from each of four central participant groups: (1) top leadership, (2) the project director, (3) practitioners or users within the core operating agency, and (4) practitioners or users from external agencies whose cooperation or resistance affects the innovation's operation.

### Top Leadership Support

Among the 37 innovations studied, all but five were primarily lodged within one agency. For this group, we define top leadership as the head of the core implementing agency (e.g., the police chief, the sheriff, the DA, the head of a probation department or private agency, the chief administrative judge or his equivalent). The other five were operated jointly by two or more agencies.<sup>2</sup> For these projects, top leadership consists of the individual agency heads or members of the regional board.

We identified four top leadership roles: active, supportive, neutral or mixed, and detrimental. *Active* leaders spearheaded project initiation and then continued to make key policy or staffing decisions or fought for funding whenever its availability became problematic. *Supportive* leaders did not initiate the innovation and typically delegated key policy and staffing decisions to a project director; they did, however, uphold such decisions and support funding requests when their cooperation was solicited. *Neutral* leaders typically ignored the project but did not speak out against it, while *mixed* leadership represents a division of roles among two or more leaders—at least one be-

<sup>1</sup>Victim/witness projects may require cooperation among police, prosecutors, and members of social service agencies, while career criminal programs often bring police, judges, and prosecutors into the implementation process. Community service innovations typically necessitate involvement by judges, attorneys, probation officers, community agencies, and volunteer centers. Even computer-assisted applications designed solely for prosecutor or police use may need the assistance of city or county data processing centers.

<sup>2</sup>One victim/witness project had joint police and district attorney sponsorship. One computerized record system, two targeted programs, and one victim services unit functioned under the aegis of a regional policymaking board (of police chiefs in the first four instances and representatives of the police, a private agency, the county supervisors, and the community in the latter).

ing active or supportive and one being neutral. *Detrimental* leadership occurred when anyone in the top leadership group attempted to undermine or terminate the innovation.

Active leadership at initiation clearly facilitates success. As Table 7 shows, highly successful innovations are much more likely to have been the agency head's "baby," that is, a project that the head both desired and brought into being. Of the projects in which top leadership played the lead role in project initiation, 80 percent were highly successful, as opposed to 25 and 40 percent of those where the agency head(s) merely supported or refrained from opposing the initiatives of others.<sup>3</sup>

Once the decision to adopt has been made, however, an effective innovation can get along almost equally well with an active or supportive leader. Indeed, the movement from active to supportive leadership may well be one indicator of an innovation's routinization—indicating its ability to survive changes at the top and to operate smoothly without continual high-level direction. But negativism on the part of the relevant agency head(s) or board after adoption signals both limited success and the innovation's subsequent demise. As Table 7 shows, all seven innovations in this category no longer exist.

The subtle role of top leadership support or the lack of it is illustrated by a comparison of two innovations lodged in one prosecutor's office. The first, a victim/witness project, was the DA's special project: Well known for his concern about victims, he initiated the project and hand-picked its director, directing him to conduct a citizen survey that would facilitate designing a program tailored to victim concerns. Over time, he successfully supported state legislation facilitating more efficient property return and encouraged the program's expansion to include counselling and referral services for special groups. His successor, an attorney who had served under him for more than a decade, has continued to accord the program high priority.

In contrast, the same DA was pressured by state officials to start a Career Criminal Program (with external funding) to which he reluctantly agreed. While he hand-picked this program's director as well, he did not actively encourage its expansion nor ensure staff continuity. After two years, the *entire* staff and its director were replaced by a

<sup>3</sup>Note that we observed no innovations that began under agency heads who were actively opposed to their adoption. However, lower-level staff can succeed in initiating new practices when a single agency head is supportive or neutral at adoption—or when multiple top leaders are split between neutral and supportive postures. This kind of initiation from below is particularly likely when the innovation starts out with external seed money: All of the innovations that started under supportive or neutral top leadership began with federal or state funding.

Table 7

## DEGREE OF SUCCESS BY EARLY AND LATER TOP LEADERSHIP SUPPORT

Degree of Success	Nature of Support							
	Active		Supportive		Neutral/ Mixed		Detrimental	
	No.	%	No.	%	No.	%	No.	%
<i>At Adoption</i>								
High	15	78.9	2	25.0	4	40.0	--	--
Moderate	2	10.5	4	50.0	1	10.0	--	--
Low	2	10.5	2	25.0	5	50.0	--	--
Total	19	99.9	8	100.0	10	100.0	--	--
<i>Post-Adoption</i>								
High	11	91.7	10	76.9	-- <sup>a</sup>	--	-- <sup>b</sup>	--
Moderate	1	8.3	2	15.4	3 <sup>a</sup>	60.0	1 <sup>b</sup>	14.3
Low	--	--	1	7.7	2	40.0	6 <sup>b</sup>	85.7
Total	12	100.0	13	100.0	5	100.0	7	100.0

NOTE: Later top leadership support was measured at time of fieldwork or, if project had been terminated, just prior to termination.

<sup>a</sup>One of these projects was terminated.

<sup>b</sup>Projects have been terminated.

new team, a major turnover that presaged a drop in staff commitment and expertise plus a corresponding decline in both the quality and the quantity of implementation activities. This program is now only moderately effective, a situation that the new DA, who shares his predecessor's less than enthusiastic view of the program, is unlikely to change.<sup>4</sup>

<sup>4</sup>A similar comparison can be made between two of the alternatives to incarceration programs we examined. In the successful (and continuing) program, the agency head refers to it as one of his top priorities. He feels the project exemplifies probation services at their best—screening offenders according to risk, actively pursuing employment for

As we can see by comparing early and later support, leadership response to an innovation frequently changes over time. The seven innovations that ended because agency heads were opposed to continuation nonetheless began under more positive auspices—mixed (5), supportive (1), or active (1) leadership. Moreover, of the five that experienced neutral or mixed support post-adoption, only one started out at that level. The other four originally received more enthusiastic leadership support but lost it over time.

In part, shifts in top leadership support reflect changes in who heads the implementing agency or policymaking board. Indeed, the majority (57 percent) of innovations in our sample experienced top leadership turnover between initiation and the time we studied them. Nevertheless, turnover did not automatically lead to change in top leadership attitudes, much less to a downturn. Of 21 innovations that experienced turnover, 38 percent maintained the level of leadership support they started with, 10 percent garnered stronger support, and 33 percent experienced erosion.<sup>5</sup>

Thus, maintaining supportive leadership at the top is an important ingredient that leadership turnover does not necessarily erode. Moreover, it was our perception that the task of convincing a new agency head that the innovation is worthwhile and deserves backing typically rests with the project director and staff—and that depends on how energetically and capably they carry out implementation activities.

### Project Director Commitment

Committed project directors enthusiastically endorse the innovation and energetically guide the conversion into practice. They typically produce successful innovations. Among the 21 most effective projects, 19 (or 90 percent) had highly committed project directors; of 22 projects with highly committed directors, 86 percent also ranked as highly successful. (See Table 8.) Low commitment is most frequently associated with low success, whereas moderate commitment appears to produce a relatively equal distribution across the success continuum.

those who can remain in the community, and providing a broad array of backup services. Additionally, he sees the program as beneficial in terms of reducing the costs associated with overcrowded jails. In another county, the agency head sees a similar program as clearly tangential to probation services. He has repeatedly reduced the staff associated with the program, so that the program exists at a bare-bones level. His staff are similarly uncommitted to the program, and anticipate that it will be terminated within the next year.

<sup>5</sup>Nineteen percent shifted from active to supportive leadership, but, as we have seen, either is consistent with successful innovation after adoption.

Table 8

## DEGREE OF SUCCESS BY PROJECT DIRECTOR COMMITMENT

Degree of Success	Degree of Project Director Commitment								
	High			Moderate			Low		
	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed
High	19	86.4	(3+)	2	25.0	--	--	--	--
Moderate	2	9.1	(2+)	3	37.5	(1+, 1+)	2	28.6	(2+)
Low	1	4.5	--	3	37.5	(2+)	5	71.4	(5+)
Total	22	100.0	(5)	8	100.0	(4)	7	100.0	(7)

NOTE: Director commitment was measured at the time of fieldwork or, if project had been terminated, just prior to termination. Numbers in parentheses represent the number of projects that started under different commitment conditions and the direction of the change after implementation commenced.

The difference between committed and apathetic project leadership shows up in the contrasting experience of two Career Criminal Projects. One CCP director truly believes in "putting these bad guys away;" he puts in considerable overtime necessary to carry out his administrative duties, keeps in constant touch with the police who screen and investigate cases and the judge who assigns them to specific courtrooms, always knows the status of the team's cases, and continually looks for ways to improve the team's effectiveness. His dedication inspires the other CCP staff members. In contrast, his uncommitted counterpart in another county thinks the program is "a good idea," but expects to rotate out of it eventually. He lets the administrative work slide, believes police screening of cases "is more trouble than it's worth," and has dropped several procedures instituted by his predecessor because of the extra effort they require, rather than an objective assessment of their effectiveness. His staff is similarly uncommitted to the program.

While enthusiasm and energy are hallmarks of the committed project leader, both can quickly fade when top leadership support is lacking for an extended period of time. For example, one victim/witness project lodged in a DA's office experienced a shift in its funding source and is now answerable to both the DA and the state board that

finances it. While the DA continues to be supportive, the board now requires the director to seek renewal of fiscal support every six months; in this uncertain environment, his concerns about the stability of his job have understandably dampened the energy he formerly devoted to implementation.

In our sample, all but one project characterized by mixed, neutral, or negative top-leadership support lacked a highly committed project director. And the more frequent "causal" sequence involves a decline in the director's enthusiasm *following* ambiguous or hostile behavior on the part of the top leadership. In one case, however, the precipitating behavior came from the project leader, whose ineffectual and apathetic direction lost the agency head's confidence.<sup>6</sup>

Moreover, while top leadership can shift from active to supportive without jeopardizing success, stability in project director commitment appears to improve the chances of success. Among the highly successful innovations, 16 (or 76 percent) began operating with enthusiastic project leaders whose commitment remained stable over time. Among the 9 less successful innovations, all but 2 also experienced a decline in leader morale and activity.

Successfully overcoming a crisis in project leader morale is not unheard of, but its occurrence is rare and typically associated with a change in who occupies the role. Thus, one highly successful regional police records project suffered a period of turbulence when its survival was in grave doubt. Its director, who was hampered by lack of authority and inability to cope with the different demands of multiple police departments, had lost all confidence in his capacity to get the system implemented. The staff was equally demoralized. Only when a new project director was brought in (and the split authority system changed to a more integrated structure) did the staff acquire a renewed sense of purpose, the police departments begin resolving their differences, and implementation get under way.

This example underlines the key role of the project director in developing and maintaining staff commitment. As the project leader's commitment is bolstered by top leadership support, staff commitment typically reflects the project leader's posture. When he exhibits high enthusiasm and effort, the staff usually does so as well. But when the

<sup>6</sup>It is also true that a committed project director and staff can stave off the potential loss of support implicit in a change at the top leadership level and, in some cases, convert an initially mixed or neutral stance on the part of the new agency head or board to a more active or supportive posture. Nevertheless, whatever the causal relationship between director and top leadership support, the combination of an apathetic project director with a wavering or hostile agency head typically precludes successful innovation.

director's commitment wavers, a decline in staff effort and morale typically follows.

### Staff Commitment and Competence

By project staff, we mean all those within the core operating agency whose cooperation is required for translating the innovative idea into practice and, in the case of computer-based information systems, operating the system and using its products. Although we discuss staff and director support separately, the reader should keep in mind that staff commitment frequently includes an assessment of director commitment as well—particularly when the director undertakes many of the activities also carried out by other staff without that title.

Support at the operating level manifests itself in attitudinal and behavioral commitment—acceptance of the innovation *and* correspondingly active efforts to make the innovation “work.” As Table 9 shows, without practitioner commitment the innovation process breaks down. Not one innovation implemented in an uncooperative or apathetic agency environment (low commitment) achieved high success, whereas 90 percent of those generating high commitment did so.

As Table 9 also indicates, high levels of practitioner commitment do not typically characterize criminal justice innovations at the outset. Fully 17 of the 19 projects that achieved high commitment over time

Table 9

DEGREE OF SUCCESS BY STAFF COMMITMENT

Degree of Success	Degree of Staff Commitment								
	High			Moderate			Low		
	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed
High	17	89.5	(15+)	4	36.4	--	--	--	--
Moderate	2	10.5	(2+)	3	27.2	(1+, 1+)	2	28.6	(2+)
Low	--	--	--	4	36.4	(2+)	5	71.4	(4+)
Total	19	100.0	(17)	11	100.0	(4)	7	100.0	(6)

NOTE: Staff commitment was measured at time of fieldwork or, if project had been terminated, just prior to termination. Numbers in parentheses represent the number of projects that started under different commitment conditions and the direction of the change after implementation commenced.

started out at moderate or low levels. Commitment can also be lost over time: Of the 7 innovations manifesting low commitment, 6 suffered a decline in both morale and effort during the implementation process, a decline that signalled reductions in both the quality and quantity of implementation activities.

Two exemplary community service programs illustrate high commitment. In both, considerable emphasis is placed on ensuring the project's credibility and effectiveness by the project director and core implementing staff who screen, place, and monitor participating offenders. They have learned and adapted to the varying requirements and biases of different judges and prosecuting attorneys and they take into account agency restrictions on “acceptable” placements, carefully screening their clients and placing them in positions where both the clients and the receiving agency will feel comfortable. Moreover, they check on and counsel clients who miss their workdays or do not perform to the agency's satisfaction. In the process, they continually expand their job skills, identify weak links in the implementation chain, and institute new or modified procedures that promote smooth operations.

This example also shows the close relationship between staff commitment and *competence*—the ability to mobilize support, clarify what it takes to implement the innovation, and resolve problems. Theoretically, commitment without skill could produce misdirected or ineffectual activity; in our fieldwork, however, the two invariably went together. If they lacked it at initiation, committed staff developed competence over time—learning how to provide payoffs to other actors and reduce the costs of cooperation, clarifying goals and procedures, and identifying and resolving implementation problems. Uncommitted staff displayed lower levels of competence even if they “looked good” on paper; they typically overlooked or ignored procedural or motivational problems and failed to clarify ambiguous goals and authority.

Unraveling which comes first, commitment or competence, is not an easy matter. Our observations in the field suggest that the two interact. Once they have agreed to participate, competent professionals are frequently committed to making a project work. And all the exemplary innovations in our sample recruited staff with relevant experience (though not necessarily higher educational degrees or knowledge of the criminal justice process). Nevertheless, we noted several instances where competent staff lost motivation and subsequently downgraded the quality of their work. These cases typically followed the loss of an enthusiastic project director or a decline in his motivation that was attributable to top leadership vacillation or hostility.

We also noted cases where the inability to diagnose project difficulties and resolve them took its toll on staff morale. For example, one community work program began with a staff that believed in the program, but utterly failed to translate that belief into appropriate action. Having no sense of the need to build support among the agencies in which offenders were placed, they failed to implement screening criteria, monitor offender performance, or respond to agency complaints. Not surprisingly, the project soon ran out of agencies willing to accept offenders. Both leadership support and staff morale plummeted and the project was ultimately terminated.

Staff competence is clearly an important correlate of success. Moreover, in successful innovations, staff capacity to mobilize support and identify and resolve implementation problems builds over time. It does so because criminal justice innovations typically encounter constraints and opportunities that are peculiar to the local environment in which they are implemented—specific cases of resistance from external agencies, procedural modifications needed to overcome institutional obstacles, new opportunities to expand the core innovation. While one can anticipate these challenges in the abstract, knowing how to respond to concrete examples comes from doing it and then learning from one's mistakes and successes.

Staff competence and commitment are linked, then, and also facilitate the achievement of another key ingredient of success—external cooperation.

### External Cooperation

By external cooperation, we mean the cooperation of individuals who are outside the core implementing agency but whose active participation is a requisite for putting the innovation into place. Only four innovations in our sample could be implemented by members of a single criminal justice agency. These included three of the four ICAP projects (those that had no connection with a prosecuting attorney's career criminal component and/or relied on their own, as opposed to city or county, data processing facilities) and one computerized investigative record system.<sup>7</sup>

<sup>7</sup>The remaining computer-based innovations either included two or more criminal justice agencies or required the services of a city or county data processing department. Each offender-oriented program brought judges and at least one other criminal justice agency into the implementation process. Among the targeted programs, career criminal projects depended on cooperation between the DA and the police plus timely access to the courts, while the others involved two or more police departments. Finally, each victim/witness project relied on being able to refer clients to public or private social service agencies and some involved the joint cooperation of police, attorneys, and private groups.

External cooperation is crucial, then, but may suffer from the strains between agencies that have their own organizational imperatives and distinct views of what the criminal justice system should accomplish. Not surprisingly, innovations that require but do not obtain cooperation across different organizations typically attain only low or moderate levels of effectiveness; those that achieve high levels of external support are much more likely to realize their full potential (see Table 10).

Only one innovation combined a high level of external cooperation with low achievement. This was an ICAP program with a highly effective career criminal component linked into the DA's office, a component that was, however, peripheral to its primary and unrealized objective of enhancing the patrol officer's investigative function. A more typical pattern among ineffective innovations was the experience of a narcotics task force that constantly battled each department's individual and counterproductive concerns about "turf," e.g., that "busts" made by a regional task force in another jurisdiction would not redound to that department's credit.

However, as Table 10 shows, innovations that achieved high external cooperation almost never began with it. Persuading police departments to set up an efficient screening system for career criminal referrals, enlisting agencies or firms willing to accept criminal justice defendants as workers, persuading the police to refer victims for assistance or set up a more streamlined system of property return—all of these achievements took time and effort on the part of the director and staff of the core implementing agency. Only one of the 20 projects that garnered high external support achieved it effortlessly, that being a computer system for answering officer field queries that was adopted by a sheriff's department. This system originated in the highway patrol office that later helped the sheriff install it. In that case, incentives for cooperation on the part of the highway department predated the sheriff's project.

More typically, as we see below, the key to obtaining external support rested on the staff's ability to demonstrate that cooperation promised greater benefits than costs.

### BENEFIT-COST SURPLUS

The joint product of supportive leadership, motivated staff, and cooperative external agencies is a receptive climate for change, in which initial implementation problems are more easily resolved and obstacles overcome. Sincere motivations at adoption foster this cli-

Table 10

DEGREE OF SUCCESS BY EXTERNAL COOPERATION

Degree of Success	Degree of External Cooperation										
	High			Moderate			Low			Not Applicable	
	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed	No.	%
High	18	90.0	(18↑)	2	28.6	--	--	--	--	1	25.0
Moderate	1	5.0	(1↑)	2	28.6	(2↓)	1	16.7	(1↓)	3	75.0
Low	1	5.0	--	3	42.8	(1↑,1↓)	5	83.3	(2↓)	--	--
Total	20	100.0	(19)	7	100.0	(4)	6	100.0	(3)	4	100.0

NOTE: External cooperation was measured at time of fieldwork or, if project had been terminated, just prior to termination. Numbers in parentheses represent the number of projects that started under different levels of external cooperation and the direction of the change after implementation commenced.

mate and, as Table 11 shows, so do perceptions among all project participants that the benefits of cooperation outweigh the costs.

Innovations with a very high benefit-cost ratio all achieved exemplary status; e.g., they exceeded their initial goals, implemented activities beyond those initially prescribed, and modified the attitudes of participating groups and staff. Those with a positive ratio were also highly successful—they met all or most of their goals, modified attitudes among most relevant groups and staff, and implemented the requisite activities. Those with a cost-benefit deficit ended as failures, while those that offered a benefit surplus to some participants but not others (mixed benefit-cost ratio) ended up with a success ranking of moderate, poor, or failed.

Table 11 does not show, however, the subtle nature of the incentives that yield a benefit-cost surplus. Notably, monetary payoffs typically contributed little to the calculus. Instead, participants usually responded to more intangible incentives, including:

- The belief that the innovation was worthwhile;
- The challenge of making it work;
- The feeling of personal investment in the problem-solving process;
- The satisfaction of having their own concerns addressed;
- The satisfaction of furthering agency objectives or doing the job well; and
- The enjoyment of good working relationships or higher status.

For example, the attorneys in one exemplary career criminal project all believed they were making a worthwhile contribution to society by getting repeat offenders off the streets for lengthy periods of time. Each also gained a sense of personal investment from contributing to a continual process of refining and improving the program as well as resolving existing problems. Moreover, they experienced considerable comradery and support in their working relationships as well as deriving satisfaction from their individual and group achievements.

In contrast, many of the judges involved in a now defunct restitution program initially opposed the program's objectives, while the probation officers disliked taking on the extra burden of calculating restitution payments. These disincentives were never counterbalanced by efforts to reconcile opposing viewpoints or to develop a process whereby the participants could air grievances and devise solutions to problems.

As these examples suggest, innovations that work provide participants with a stake in their success. Contributing time and energy to the innovation is a cost of implementation; so is changing one's behav-

Table 11  
DEGREE OF SUCCESS BY BENEFIT-COST RATIO

Degree of Success	Benefit-Cost Ratio											
	Very High			Positive			Mixed			Negative		
	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed
Exemplary	11	100.0	(11↑)	--	--	--	--	--	--	--	--	--
Very good	--	--	--	10	100.0	(9↑)	--	--	--	--	--	--
Moderate	--	--	--	--	--	--	7	58.3	(4↓)	--	--	--
Poor	--	--	--	--	--	--	4	33.3	(2↓)	--	--	--
Failed	--	--	--	--	--	--	1	8.3	(1↓)	4	100.0	(4↓)
Total	11	100.0	(11)	10	100.0	(9)	12	99.9	(7)	4	100.0	(4)

NOTE: The benefit-cost ratio was measured at time of fieldwork or, if project had been terminated, just prior to termination. Numbers in parentheses represent the number of projects that started under different payoff conditions and the direction of the change after implementation commenced.

ior. Successful innovations reward those who do so, increasing their sense of involvement in the innovation's outcomes.

Nevertheless, most successful criminal justice innovations do not begin operations with a ready-made benefit-cost surplus, but instead build it up during implementation. For example, the police who referred and investigated cases for the CCP discussed above initially questioned the prosecutors' sincerity and the likely payoffs of extra effort on their part. However, the prosecutors reduced the police burden associated with referral by streamlining the process. They also provided officers additional benefits in the form of investigative training and warrant assistance. Over time, the police came to believe in the program's objectives and to derive personal satisfaction from their contributions to its success.

Section III, which discusses the innovation process in greater detail, lays out specific strategies for successfully generating a surplus of benefits over costs.

### CLARITY OF GOALS AND PROCEDURES

Both adoption and implementation analysts have singled out clarity of goals and procedures as an important correlate of success. By this they mean that the innovation's goals and the specific operations required to put it into place are easily understood and easy to learn. But the analysts differ in when they expect clarity to be achieved. Adoption analysts see it as an inherent characteristic of the innovation that predates its adoption and does not change over time; implementation analysts merely stress the importance of achieving clarity during implementation.

Successful criminal justice innovations also exhibit clarity of goals and procedures, but they do not typically possess it at adoption (see Table 12). Moreover, lack of clarity may arise out of several sources, including vague or conflicting goals and uncertainty about the relative feasibility and effectiveness of various methods for achieving them.

For example, ICAP programs typically promulgate broad goals such as improving all facets of policing or increasing the police department's efficiency and effectiveness. Clearly, such vague goals can be furthered by any number of activities and, not surprisingly, ICAP programs typically face a confused rank-and-file response at their inception. Over time, however, successful programs evolve more specific objectives (e.g., increasing the sophistication and use of crime-analysis data) that narrow the range of potentially effective procedures still

Table 12

## DEGREE OF SUCCESS BY CLARITY OF GOALS AND PROCEDURES

Degree of Success	Clarity								
	High			Moderate			Low		
	No.	%	No. that Changed	No.	%	No. that Changed	No.	%	No. that Changed
High	20	90.9	(18↑)	1	14.3	(1↑)	—	—	—
Moderate	2	9.1	(2↑)	4	57.1	(2+2↑)	1	12.5	(1↑)
Low	—	—	—	2	28.6	(1↑)	7	87.5	(3↓)
Total	22	100.0	(20)	7	100.0	(6)	8	100.0	(4)

NOTE: Clarity of goal and procedures was measured at time of fieldwork or, if project had been terminated, just prior to termination. Numbers in parentheses represent the number of projects that started under different conditions of clarity and the direction of change after implementation commenced.

further. Then within this context, each department clarifies finer points of implementation—whether they will develop their own crime analysis programs or rely on software developed by others, how they will encourage patrol officers and sergeants to use the information, in what form and detail crime-analysis data will be presented, etc.

Similarly, conflicts among the innovation's goals impede successful outcomes, but only when they remain unresolved. Competing views of the innovation's purpose hindered implementation for 8 of 21 successful innovations early in their history, but were subsequently reconciled and no longer presented a barrier. In contrast, 7 of the 9 least successful innovations also experienced goal conflicts and failed to resolve them.

Victim/witness projects located in prosecutors' offices are particularly vulnerable to such conflicts. These take the form of different interpretations of the priority that should be given to "helping" versus efficiency objectives. Overemphasizing counseling and crisis-intervention services for victims—particularly for those cases in which a defendant has not been arrested—may take resources away from activities designed to increase witness cooperation (property return, notification of court dates and disposition, information about the court process). While staff usually applaud this implicit emphasis on victim assistance (particularly staff with counseling experience), prosecutors

tend to deplore its deleterious effects on the objective of improving witness cooperation. In one of the four cases where such conflicts arose, crisis intervention eclipsed witness-oriented activities and damaged the project's contribution to core prosecutorial goals. This project achieved only moderate success and was subsequently terminated. In the remaining cases, the conflict was resolved by a policy decision to pursue both goals, subject to the requirement that the "helping" activities not interfere with or downgrade prosecutorial requirements. These projects all merited highly successful ratings.

Even when goals are clear, the "best" procedures or methods required to achieve them may not be. Career criminal programs illustrate this point. They typically start with highly specific and easily understood objectives: identifying repeat offenders, prosecuting them quickly, and sending them to prison with lengthy sentences. Nevertheless, each program tried out and modified different procedures during implementation. For example, two programs in the same state solicited police cooperation in identifying repeat offenders. One initially developed forms for the departments to fill out, but soon recognized that police resistance to this task negated its effectiveness. This program switched to notification by telephone. The other followed the first program's model and experienced the same problems. It now relies primarily on its own staff for repeat offender identification and uses police logs as a backup check.

This trial-and-error process typifies the implementation of successful innovations. Understanding which procedures are both feasible and effective rarely occurs at the outset. It requires experimenting with different methods, learning which ones work, and adapting them to the capacities and motivations of those who carry them out. This learning-by-doing process suggests that one strategy for success should stress adaptive planning and implementation. We explore this approach in Sec. III.

### CLEAR LINES OF AUTHORITY

Converting an innovative idea into practice typically requires making sure someone is in charge. However, several innovations in our study suffered from ambiguous authority, which restricted the capacity to make and carry out essential decisions (see Table 13). We identified three types of authority problems: those stemming from the formal designation of two or more agencies as the core implementing organization, and those associated with a lack of internal legitimacy within the core agency or external legitimacy with cooperating agencies.

Table 13

## DEGREE OF SUCCESS BY STATUS OF AUTHORITY STRUCTURE

Degree of Success	Current Status of Authority					
	Clear, Never Any Problems		Formerly Unclear, Now Resolved		Currently Unclear Unresolved	
	No.	%	No.	%	No.	%
High	15	75	6	85.7	--	--
Moderate	4	20	1	14.3	2	20
Low	1	5	--	--	8	80
Total	20	100	7	100.0	10	100

The first type, *split authority*, leads to a contest in which each organization seeks to establish hegemony over the other. For example, one computer-assisted project that aimed at improving police dispatching shared two heads, one from the city data processing department and one from the police department. "Turf" disputes between the two hampered progress until authority became centralized in the police department. Similarly, a regional computerized records system initially suffered from designating a director who was accountable to two organizations and relied on a staff whose performance was evaluated by the head of a third department. He was unable to satisfy the organizational concerns of either department, to make consistent decisions, or to mobilize his staff into an effective team. These problems were solved by designating a new director who was accountable only to the central city police department and was accorded the power to hire and fire his staff.

*Lack of or inadequate internal authority* may stem from insufficient or ambiguous top leadership support, or inadequate placement within the organizational structure. For example, the director of one work-restitution project lacked the confidence of the agency head, who believed neither in the program nor in the director's ability to carry it out. The agency head's lack of confidence further undermined the director's authority vis-a-vis both staff and external agencies. Similarly, the civilian director of an ICAP project encountered resistance to his authority at all levels of the police department, a resistance that hardened under the chief's alternating support and neglect. Another

ICAP director found himself positioned lower in the organizational hierarchy than his responsibilities indicated. Until corrected, this placement conveyed a misleading impression of both his authority and the project's priority, thereby lowering staff incentives to cooperate.

*Inadequate external legitimacy* is typically associated with the inability to persuade outside actors that their participation is worthwhile. Here the project director's formal authority has little relevance; the issue is whether the director and staff have or can establish informal influence. One privately run victim-assistance unit nearly collapsed because the police actively disavowed the unit's legitimacy; a restitution project failed in part because its legitimacy and that of its director were constantly challenged by outside actors with different views of the project's objectives and the director's responsibilities.

Such authority problems frequently, but not always, coincided with conflicts over goals. Pure "turf" disputes may arise even when the key actors agree on overall objectives—as was the case in a community service restitution project whose director and screening staff found their prerogatives to monitor placement activities disputed by the private agency responsible for carrying them out. Similarly, goal conflicts may exist without creating authority problems. This happened in two victim/witness projects whose directors successfully resolved questions about whether the program should emphasize victim or witness assistance and thereby consolidated their authority instead of losing it.

As Table 13 indicates, authority problems tend to be associated with moderate or low success, but only if they remain unresolved. Indeed, 80 percent of the innovations that suffered a crisis of legitimacy and failed to overcome it fall in the lowest category of success. But innovations can weather an interlude of ambiguous or uncertain authority: 6 of the 21 most effective innovations (28.5 percent) underwent a period of indecisive authority but subsequently clarified the issue of "who's in charge" and legitimized leadership responsibility. As a result, organizational capacity to make and carry out decisions vis-a-vis the specific innovations was consolidated and strengthened. Where such resolutions did not occur, however, that capacity was seriously weakened and implementation activities were compromised.

## SUMMARY

Contrary to the expectations of adoption theory, *initial* characteristics of the innovation itself rarely provide useful information about

its eventual success. This is because most criminal justice innovations change over time as they are adapted to their institutional environment. Implied benefits and costs at adoption may or may not be realized during implementation. Similarly, clarity of goals and procedures typically develops over time as participants settle questions about priorities, define more specific objectives, and learn which methods work.

For criminal justice innovations, resources such as absolute expenditure levels, information about similar projects, and outside technical assistance are less important to success.<sup>8</sup> Innovations that spent less than \$100,000 annually are fairly equally distributed among the best and the worst. Moreover, several of the successful and more generously funded projects started out at significantly lower levels, suggesting that success led to more ample funding instead of the opposite.<sup>9</sup>

Innovations that started without access to written information about relevant research results or similar projects fared no better or worse than those initiated with such knowledge. However, 80 percent of those innovations that ultimately became successful did have access to relevant written materials or knowledgeable individuals. Moreover, those few that obtained information through face-to-face contacts (site visits, meetings, workshops) were more likely to be effectively implemented, probably because going to workshops or meetings reflects a greater investment by the participant. Outside technical assistance had a moderately positive association with success, but only 10 innovations used it. Over half of the innovations that obtained no such aid also ranked as highly effective.<sup>10</sup>

Among the features that characterize effective innovations, only three qualify as potential predictors of success at (or near) the point of adoption. These are sincere motivation at initiation, early top leadership support, and project director commitment. These predictors are

<sup>8</sup>See App. A for tables presenting the relationship between success and each of these variables.

<sup>9</sup>In fact, fiscal resources play a more subtle role in successful innovation than can be isolated by absolute funding measures. See Sec. IV for an elaboration of this point.

<sup>10</sup>Nevertheless, outside technical assistance tends to be particularly appropriate for computer-based innovations. Six of the 10 innovations that received such help fell in this category; of the four computer-based innovations that made no use of outside consultants, three suffered unnecessary delays in software development and implementation. Because implementation of computer-based innovations requires skills that a criminal justice agency may lack (or have in short supply), external assistance in hardware selection and system design can help avoid unnecessary and expensive errors and delays. But such assistance must be closely linked to the specific information needs and organizational requirements of the potential users. The smaller police departments that imported "ready-made" computer software packages found they needed considerable additional assistance in adapting the programs to their own operations.

not infallible, however, because both agency heads and project directors can become more or less supportive over time.

The remaining characteristics (staff commitment and competence, external cooperation, a benefit-cost surplus, clarity of goals and procedures, and clear lines of authority) tend to change substantially over time. Goals and procedures may become more or less clear to the key actors; benefits and costs may rise or fall; resources such as authority and the individual commitment and competence needed to put the innovation into practice may disintegrate or coalesce. The dynamic nature of the process thus provides an opportunity and a challenge to local criminal justice officials to devise implementation strategies for increasing the likelihood of achieving these key features of successful innovation. The following section describes such strategies.

### III. STRATEGIES FOR SUCCESS

At initiation, the typical criminal justice innovation embodies a set of hypotheses yet to be tested: about whose support is required for implementation and whether they will cooperate; about what the innovation is intended to accomplish and how; and about the linkage between objectives, procedures, resources, and ultimate results. During implementation, these hypotheses come up against the realities of the local institutional context. The key actors and organizations involved in translating ideas into practice may have different perceptions of the innovation's goals and how to achieve them, as well as different incentives, disincentives, and abilities.

Of the six features characterizing successful innovations, only the motivation to adopt both precedes implementation and remains invariant over time. Thus, converting an innovation into practice typically requires developing strategies to accomplish the following tasks:

- Maintaining or enhancing top leadership or director support;
- Building external cooperation;
- Developing staff commitment and competence;
- Generating a benefit-cost surplus;
- Clarifying goals and procedures; and
- Resolving authority problems.

Our study has identified three such strategies: providing multiple payoffs, ensuring key actor participation in project planning and decisionmaking, and building in a flexible problem-solving process. As the experience of one exemplary career criminal program illustrates, each strategy contributes toward the realization of more than one correlate of success.

This project's design required considerable police cooperation—particularly in identifying and referring an appropriate pool of career criminal cases and conducting investigations. From the District Attorney's perspective, the program's objectives were clear. Moreover, his commitment and that of his hand-picked director and staff were not in doubt. But several questions remained, among them: (1) Would the police cooperate? (2) What referral procedures would best facilitate the speedy identification of repeat offenders? and (3) Would police investigative work satisfy the DA's criteria for prosecution?

Initial efforts to obtain police cooperation involved meetings with the chiefs of the several police departments in the county, during which screening and referral procedures were developed. But referral

delays soon emerged, particularly in the outlying departments. Moreover, police investigation fell far below the DA's requirements. On their own initiative, the CCP staff set about resolving these problems. Learning that the more rural departments felt overburdened by "excessive" paperwork requirements, they compromised on a less burdensome system of biweekly phone checks suggested by the police. They also instituted a series of formal and informal training sessions in investigative techniques, and provided warrant assistance to police whether or not they had specific career criminal responsibilities.

As a result, the CCP staff reduced the costs of police involvement, generated additional rewards for cooperation, and ensured police support. They also clarified referral and investigative procedures, reinforced their own commitment to the program, and acquired new skills in problem identification and resolution. They did this by:

- Providing multiple payoffs for cooperation (the satisfaction of being listened to, improved investigative skills, warrant assistance);
- Involving police in the design and modification of the referral process; and
- Flexibly adapting procedures to accommodate local resistance and rectify inefficiencies.

#### PROVIDING MULTIPLE PAYOFFS

Because so many criminal justice innovations cut across agency boundaries, providing multiple payoffs takes on added importance. Cross-cutting innovations need to generate a benefit-cost surplus that will ensure the cooperation of people from several organizational environments. But each agency has its own organizational imperatives and uses its own incentives to motivate its members. Hence the need for a varied menu of rewards.

Community service programs offer a graphic example of this proposition. Those that succeed offer something different to everyone—a feeling of challenge, personal investment, and worthwhile activity to the director and core implementing staff, savings in time to probation officers who might otherwise have the offender in their caseload, extra help with their own work for agencies that accept offender placement, and to judges the satisfaction of offering "deserving" offenders an alternative to jail or a fine. Programs that do not work offer disincentives—additional burdens to the employing agencies of undoing or making up for sloppy work, staff frustration at poor results, and judicial dissatisfaction with low completion rates.

Even innovations wholly encompassed within a single agency must generate multiple payoffs if they are to succeed. In these situations, the need for diverse incentives arises out of the different organizational positions and perspectives held by those within the agency. Thus, successful ICAP programs provide several benefits: Patrol officers get the chance to do more investigation, analysts the chance to put crime analysis into action, and detectives the chance to allocate more time to important cases.

Providing multiple payoffs works because it helps create allies who have a stake in the innovation's success. What distinguishes innovations that succeed in generating multiple incentives from those that do not is, primarily, the director and core staff's sensitivity to the need to overcome resistance and give key actors reasons for cooperating.

The staff of the career criminal program described above exemplified this sensitivity. So did the staff of the best community service programs. They continually responded to the varying requirements of judges and prosecuting attorneys, took into account both agency and offender desires about placement and facilitated positive performance by careful monitoring and counseling of laggard offenders. Moreover, they did so in a manner that reflected wholehearted commitment and enthusiasm. In contrast, staff who engaged in opportunistic or calculated attempts to provide acceptable payoffs tended to alienate the very people whose cooperation they were trying to obtain.

Strategies designed to ensure key actor participation in project decisionmaking and a flexible problem-solving process also generate incentives for cooperation. We consider each approach in more detail below.

### ENSURING KEY ACTOR PARTICIPATION

Bringing key actors into the planning and problem-solving process has three important by-products: It helps generate additional rewards for cooperation, mobilize participant support, and identify problems that need attention. Such participation has been identified as a key feature of successful implementation processes in such diverse fields as energy, education, and health (Ellickson, 1978, 1979; Baer et al., 1976; Berman and McLaughlin, 1978; and Larsen and Agarwala-Rogers, 1977). It is no less significant in criminal justice. But its realization may be more problematic because so many criminal justice innovations require cooperation across agency boundaries, thereby complicating the tasks of identifying who those key actors might be and including them in decisionmaking.

Four participation patterns emerged out of our analysis:

- *Proactive* participation involved actively soliciting inputs from all relevant actors and groups;
- *Reactive* participation occurred when inputs from relevant groups were solicited only after they were identified as resistant or insufficiently cooperative;
- *Inconsistent* participation showed up in projects that intermittently ignored a key individual or group; and
- *An isolating pattern* occurred when a key group was systematically isolated, ignored, or alienated by the core implementing staff.

Either proactive or reactive patterns can produce success, but the others cannot. Among the 21 highly successful innovations, 66 percent actively solicited inputs from all relevant actors and groups and the rest brought key actors in as needed (see Table 14). Put another way, 82 percent of the proactive and 87 percent of the reactive projects became highly successful; among those with inconsistent participation styles, half were moderately successful and half fell into the least successful category. All of the projects that isolated or ignored key groups were failures.

Table 14

DEGREE OF SUCCESS BY STYLE OF PARTICIPATION

Degree of Success	Style of Participation							
	Proactive		Reactive		Inconsistent		Isolating	
	No.	%	No.	%	No.	%	No.	%
High	14	82.4	7	87.5	--	--	--	--
Moderate	2	11.8	1	12.5	4	50.0	--	--
Low	1	5.9	--	--	4	50.0	4	100.0

One victim assistance project that successfully switched from alienating key actors to actively involving them illustrates the two extremes of proactive participation and isolation. Originally set up by volunteers who believed that female victims of assault received insufficient counseling *and* were maltreated by the police, the project aimed to provide victim services and change how the police treated

these victims. However, its staff alienated law enforcement officers through ridicule and insults. They also "put off" both police and potential sources of financial support in the community by dressing in a style that offended more conservative sensibilities. Moreover, they failed to solicit client advice and thereby remained ignorant of client reluctance to expose parents and friends to the center's radical atmosphere.

Faced with the imminent loss of funding, the center staff sharply altered their style. Today, the unit is proactively linked with all the key actors in the community. It operates under a board of community leaders who decide on major policy changes. Its staff offers police recruit training and in-service seminars, and solicits both police and client advice. Acting on that advice, they changed their style of dress and added services: a children's assault unit, and counseling for male relatives or friends of the victim.

Clearly, including key actors in planning and problem-solving helps mobilize their support, while excluding them fosters indifference or hostility. But why does this happen? Participation "works" because it offers payoffs to the actors, and helps provide early warning of potential problems. Involvement in decisionmaking increases the participant's sense of personal involvement and, therefore, his or her commitment to helping it succeed.<sup>1</sup> Because they help formulate the victim assistance center's policy, the community leaders on the board have greater incentive to provide or lobby for funds that ensure its survival. Because their complaints motivated change in staff behavior and the provision of useful training, the police have greater incentive both to refer victims to the center and to modify the way they themselves react to assault victims.

However, if the process fails to achieve results or is fraught with conflict, "participation" can backfire. Soliciting inputs with no intention of incorporating them into operations merely alienates the ignored group. As one ICAP program discovered, asking officers to provide feedback on a new patrol allocation scheme and then ignoring their complaints exacerbated rank and file resistance to the change. Open-ended participation—a process that delays rather than facilitates problem resolution—also diminishes project support. In Table 14, one innovation classified as proactive ranks among the least effective. This project's manager recognized that the staff might implement new reporting procedures more readily if they helped design the

<sup>1</sup>Involvement in planning and problem-solving has other payoffs as well—the feeling of efficacy or challenge associated with successfully resolving a problem, the pleasure of being part of a congenial or productive group, and the opportunity to develop new problem-solving or personal interaction skills.

forms. Accordingly, he set in motion an iterative process of soliciting inputs, drafting forms, soliciting more inputs, revising the forms, etc. Unfortunately, this process continued over many months without closure, delaying implementation and also producing frustration over unrealized expectations.

Police departments that have traditionally operated on hierarchical principles are most likely to succumb to the subtle dangers of symbolic or open-ended participation. An organization that typically issues orders from the top down through a highly articulated chain of command may experience difficulty establishing an atmosphere in which officers feel comfortable giving their opinions. Or top-level management may doubt the wisdom of altering a highly structured system of authority relationships and, as a consequence, ignore the suggestions of lower-level staff (symbolic participation). Finally, pure lack of experience may produce an overemphasis on the process of soliciting staff inputs without a corresponding emphasis on achieving closure (open-ended participation). Among the four ICAP projects we observed, three proactively sought inputs from everyone in the department whose routines would be affected by proposed changes. Only one of those three avoided the dangers of symbolic or open-ended participation; the fourth implemented an inconsistent pattern that involved technical personnel but frequently ignored the rank and file.

Surprisingly, innovations that cut across organizational boundaries had fewer problems with symbolic or open-ended participation. All the exemplary innovations in our sample required cooperation from one or more external groups and all obtained that cooperation by proactively seeking their advice. The ten innovations in the next highest success category also followed effective participation strategies. None in either group treated the concerns of external agencies symbolically or yielded to the delayed decisionmaking syndrome.

Nevertheless, eight of the nine innovations with a low success rating also cut across organizational boundaries and none of that group developed successful styles of participation. Theirs was a failure of motivation rather than of capacity to carry through. They simply did not attempt to bring relevant groups into the process, or alternated between ignoring them and seeking their advice.

## BUILDING IN A FLEXIBLE PROBLEM-SOLVING PROCESS

To capture the essence of a flexible problem-solving process, we examined how criminal justice innovations coped with implementation

problems and opportunities. The data yielded four different approaches:

- *Proactive* strategies included efforts on two fronts: (1) identifying and resolving implementation problems; and (2) seeking out and meeting new challenges and opportunities.
- *Adaptive* strategies focused on problem identification and resolution but typically omitted efforts geared to identifying new challenges.
- *Mixed strategies* yielded sporadic problem-solving efforts, but none geared to new challenges; they produced attempts to identify and overcome some problems while neglecting others.
- *Limited* strategies failed to identify, much less resolve, crucial problems.

As Table 15 shows, proactive and adaptive patterns of implementation promote successful innovation, while mixed and limited strategies yield correspondingly lower levels of success. All of the proactive and 82 percent of the adaptive projects ranked as highly effective; none of those exhibiting mixed or limited flexibility did so. Moreover, strong relationships show up at the extremes of innovation success: 80 percent of the projects that proactively adjusted to their environment achieved exemplary status and 80 percent of those exhibiting only limited adaptability ranked as failures.

What do these extremes of flexibility look like in concrete terms? The career criminal project discussed above illustrates a proactive approach to problem-solving because it sought new challenges (expand-

Table 15

DEGREE OF SUCCESS BY IMPLEMENTATION FLEXIBILITY

Degree of Success	Proactive		Adaptive		Mixed		Limited	
	No.	%	No.	%	No.	%	No.	%
High	12	100.0	9	81.8	—	—	—	—
Moderate	—	—	2	18.2	5	55.6	—	—
Low	—	—	—	—	4	44.4	5	100.0
Total	12	100.0	11	100.0	9	100.0	5	100.0

ed its activities to include the prosecution of repeat offenders who technically qualified for lower court handling of their cases), and identified and resolved problems that impeded efficient implementation (worked out compromise procedures to improve access to the courts, enhance investigation, and streamline police referrals).

In contrast, a work-release project exhibited limited flexibility. Its staff failed to clarify objectives (whether the primary objective was to help misdemeanants perform productive work while in jail or to provide additional bedspace). Consequently, they never developed specific procedures for selecting participants or clarified lines of decisionmaking responsibility. They also failed to recognize the burdensome costs of renovating and operating a separate facility for participant inmates.

A flexible approach to problem-solving produces clarity of goals, procedures, and authority, incentives that enhance key actor support, and improved competence. As they identify and resolve problems, participants develop clear lines of responsibility, understand goals better, and learn what procedures work. In the process, they add to their problem-solving skills and experience the satisfaction of meeting new challenges and doing the job well.

Thus, a flexible implementation process inevitably produces change in the innovation itself. For example, career criminal programs, which typically begin with relatively clear goals and procedures, nevertheless refine and expand them over time. Most start with a specific definition of repeat offenders, but in time discover that the initial criteria yield an offender pool that is either too large or small. One program expanded its objectives to include some misdemeanants while others decided to focus only on felons who had committed robberies or burglaries. The successful programs also modified procedures to improve efficiency—accommodating police resistance to particular referral or investigative techniques and expanding their activities to include appeals, bond arguments, or memoranda in aid of sentencing.<sup>2</sup>

These changes mean that innovations with similar names vary from one locality to another, taking on subtly different characteristics as they adapt to local institutional constraints and priorities. Earlier

<sup>2</sup>Another example of a project that was able to survive and even expand, partly due to its flexibility, was a correctional volunteer center. The center originally began with a group of volunteers who wanted to assist criminal justice agencies in routine clerical tasks. When they saw their local jails becoming overcrowded, they applied for and received federal funds to study ways of alleviating the problem, then applying to their local governing body for funds to implement the study recommendations. They continued to expand their operations by providing services to inmates released in the community. This group, which has grown from 15 to over 100, exemplifies the need for flexibility and capitalizing on locally felt priorities.

studies concluded that education and mental health innovations rarely foster significant change in local practice unless the original idea itself becomes transformed over time. They labeled this two-way process of change "mutual adaptation" (Berman and McLaughlin, 1978) or "reinvention" (Larsen and Agarwala-Rogers, 1977). Criminal justice innovations are no exception. Those that substantially change local practice also change in form and substance. Those that cause minor or no changes in practitioner activities remain static themselves.

### COROLLARY FEATURES OF A SUCCESSFUL STRATEGY

Project managers and staff who fostered participation and followed a flexible problem-solving approach displayed four additional strengths:

- Rather than starting out with a full-fledged program, they followed an evolutionary path that rested on the prior achievement of "credibility milestones";
- They generated craft knowledge about how to make the innovation work in the local context;
- They treated planning as an ongoing activity; and
- They encouraged frequent communication.

### Linking Implementation Stages with Credibility Milestones

For example, the director of a successful community service program built credibility as follows: He initially spent considerable time meeting with each judge who could assign defendants to the program and explaining the program to the heads of a core group of community agencies where they hoped to place offenders. To gain a concrete sense of potential problems and implementation requisites, he and his staff actually "assigned" themselves to work in a local agency. Only after the initial procedures had been tested and a credible track record achieved did they venture to increase the number of program participants (judges, agencies, and the offenders themselves). Moreover, this iterative process continued over time. To cope with unusual requirements for short-term work, they developed a variety of weekend work opportunities; and to obtain input from the employing agencies, they added staff visits to the more routine mode of telephone communication. Now that the program has built a solid reputation, they are pre-

paring to further extend its reach, again concentrating first on obtaining judicial cooperation.

### Generating Craft Knowledge

Throughout that program's life, the director and staff have continued to build a solid core of craft knowledge: about how to generate support and obtain cooperation from diverse actors in the criminal justice community, about effective and ineffective screening and monitoring procedures, about pitfalls to avoid, and about fostering both offender and agency responsibility. Much of this knowledge is specific to the institutional environment in which the program operates; indeed, part of the *raison d'être* for developing craft knowledge lies in the inescapable need to adapt the general features of a community service program to the local environment.

Thus, successful innovation entails considerable knowledge *creation*. We label this "new" information "craft knowledge" because it arises out of actual experience. When a criminal justice innovation is adopted, the stage is set for this creative process to begin; as the idea unfolds in practice, its likely success can be gauged by the degree to which the participants learn from experience and apply their newly developed knowledge to their tasks. If they do not, the implementation process stultifies and little change in behavior or attitudes results. Significant craft learning characterized all eleven exemplary innovations; little or no craft learning characterized all nine that failed or achieved only limited success.

### Ongoing Planning

Closely linked to craft learning and an evolutionary approach, ongoing planning represents the third corollary of building in key actor participation and flexible problem-solving. The community service program just described did not segment planning from implementation: After it started operating, program participants continued to adjust procedures, adapt to problems as they arose, and identify new challenges. They not only devoted time to planning what the program would do *prior* to implementation, but also remained open to modifications as they encountered new problems. For example, during implementation they perceived the need for and instituted face-to-face visits with participating service agencies, short-term weekend work opportunities, one-on-one meetings with the participating judges, and streamlined paperwork.

In contrast, two ICAP programs took planning so seriously that they spent between one and three years designing forms and procedures prior to implementation. However, lengthy planning that precedes implementation can erode the morale of staff who begin to think the promised change is a chimera, and encourages a tendency to become locked into a design that is difficult to modify because of the energy already invested in it. In one ICAP program, the director and staff have taken steps to counter these dangers. They decided to test a scaled-down version of a new departmental information system and see what modifications may be required. The other is locked into a plan that leaves little room for flexibility; modifying it would now require jettisoning much of the design.

### Regular Communication

Regular communication (among all actors whose cooperation is required for success) is the fourth by-product of flexible problem-solving and participation. It allows conflicts and problems to surface, promotes their resolution, and is the channel for feedback on modifications. All but one of the exemplary innovations held frequent meetings with key actors during initiation and early implementation. And this communication *continued* over time, although its form and frequency changed as implementation problems decreased in number and intensity. Phone contacts replaced some of the face-to-face meetings, and personal contacts with external agencies became fewer. However, core staff meetings remained weekly events. The one exemplary project that neglected to develop formal and informal communication channels in its infancy flirted with disaster until the gap was rectified.

Thus, an effective innovation process integrates the three major strategies for success with the four corollary tactics described above. As Table 16 summarizes, each strategy promotes the characteristics of success that we identified in Sec. II. Moreover, each strategy is inextricably linked with the others. Effective key actor participation requires a flexible approach to problem-solving; providing multiple payoffs is facilitated by emphasizing participation and flexibility. Together they promote both the realization of change and progress toward the innovation's goals.

### THE EXCEPTION TO THE RULE

Among the 37 innovations studied, one success story does not fit our model of how to produce successful innovations. This is a computer-

Table 16

### CONTRIBUTIONS OF SUCCESSFUL INNOVATION STRATEGIES

Implementation Strategy	Characteristics of Successful Innovations				
	Innovation Features		Organizational Features		
	Clarity of Goals and Procedures	Benefit/Cost Surplus	Clear Lines of Authority	Key Actor Support	Staff Competence
Provide multiple payoffs	---	x	---	x	---
Ensure key actor participation	✓	x	✓	x	✓
Build in flexible problem-solving	x	✓	x	✓	x

NOTE: x = primary contribution; ✓ = secondary contribution.

based information system that supplanted earlier methods for answering officer queries from the field. Prior to the installation of computer terminals linked to a state and nationwide information network, officers called the station when they stopped a suspicious person and the radio dispatcher manually checked local files or called other local or state agencies for a vehicle or person check. With the terminals, the local radio dispatcher can read the information off the screen and answer the query more quickly.

Like the other successful projects, this innovation also exhibited the six correlates of success. Its goals were clear and specific (increasing officer safety in the field through decreasing response time to field inquiries); it had been on the local agenda long before federal funding made its installation possible; and installation was not hampered by any authority conflicts. Moreover, the sheriff and his deputies believed that the system's benefits outweighed its costs, were committed to its implementation from the beginning, and clearly understood how to install and use it.

The key difference was that those characteristics were present *at adoption*. Consequently, there was no need to develop effective strategies for achieving them. As the adoption perspective suggests, this innovation was nearly self-executing: Once adopted, it was both quickly and routinely converted into practice. Only minor modifications were necessary, and the state department that originally set up

the information retrieval system carried them out. Thus the implementation process was highly telescoped and rudimentary. In both substance and form, it bore little resemblance to the model we have pictured above.

This exception is important because it suggests the likelihood of at least two different innovation models: one that depends on *how* the implementation process proceeds and one that does not. In the latter case, initial characteristics of the innovation itself may actually provide useful gauges of success. Such attributes as initial clarity of goals and procedures and implied benefits and costs are not likely to change because of *how* the innovation is implemented when that process itself is rudimentary.

But how does one tell which model applies? We suggest that the implied scope of change constitutes the primary distinguishing characteristic. Innovations that require only a few people to make minor alterations in their routines impose limited costs on the participants and encounter little or no resistance. The field inquiry system required no behavior change by most deputies in the sheriff's office. They simply continued to call into the central office for relevant information. Only a few dispatchers had to learn anything new, and that was relatively costless and simple (how to get the appropriate information on the terminal screen). Because its advantages to the users clearly outweighed its costs at adoption, it did not arouse resistance or the need to mobilize support.

A secondary characteristic may be clarity of goals and procedures. In the field inquiry case, both were clear and learned at the outset. Because the system already existed at the state level, no decisions regarding information content or form were necessary. Thus, translating the system into practice meant putting together a minimal set of components and necessitated only a few steps in the causal sequence of events, e.g., buying terminals and teaching the dispatchers how to access the information on the screen. This clarity also minimized the amount of change required by the system and the difficulty of producing it.

We would also argue that only a few criminal justice innovations fit this second model. They are most likely to be drawn from the subset that entail using a material object, but only those that require minimal departures from previous practice—for example, two-way radios or bulletproof vests. Computer-based applications would seem to fit this category but we suspect that the majority do not. All the other computer-assisted applications in our study required considerable change in behavior among those who translated them into practice and used the information products. And all of them also required (al-

though they did not always receive) substantial efforts to mobilize cooperation, build a benefit-cost surplus, and reduce uncertainty about the innovation's goals and how to carry them out or about the implementing organization's authority structure.<sup>3</sup>

Distinguishing between innovations whose success hinges on the implementation process and those that do not requires additional research. It also requires being open to the merits of both the adoption and implementation perspectives. Each has been in conflict for some time—the former singling out initial characteristics of the innovation itself as predictors of success, the latter arguing that their vulnerability to change during implementation obviates their predictive value. Yet implementation analysts also seek to identify factors whose early presence facilitates success. The difference is that they place greater emphasis on the adopting organization's characteristics and strategies.

Our research suggests that resolving the conflict between these two traditions does *not* point toward replacing one theory with the other. Instead we need a more sophisticated understanding of the conditions under which the two approaches apply. Developing that understanding will require further efforts to (a) delineate the conditions under which the implementation *process* plays a preeminent or backseat role in successful innovation, and (b) identify those innovation *and* organizational characteristics whose presence at adoption obviates the need for devising implementation strategies.

<sup>3</sup>For example, one regionalized records system involved replacing the different case-incident report forms of several police departments with a standard form. That required developing a system of interdepartmental communication and monitoring, obtaining consensus on the form's content (and thus the system's objectives), providing training assistance to the officers who fill out the forms and the clerks who feed the information into the machine, and generating incentives for each department to use the information produced. Another system involved a computer file on sexual assaults to be both generated and used by the five or six detectives in the Sex Crimes Unit. Despite the small number of participants, this innovation was predicated upon considerable change in their routine. Hence they spent several months working with computer analysts to decide what information should be logged into the system and how it should be formatted and coded. This process both generated support for using the system and reduced uncertainties about precisely what the file would contain and what it would allow them to do more effectively.

#### IV. INNOVATION, FISCAL RETRENCHMENT, AND THE LOCAL CRIMINAL JUSTICE SYSTEM

In all but one of the eight study sites, local criminal justice officials repeatedly emphasized the strained fiscal environment in which they operated. The root causes of that strain varied in emphasis. While all the sites have suffered from nationwide inflation, those in Connecticut have also witnessed more severe economic stagnation. Those in California and, more recently, Arizona and Missouri, have experienced more restrictive formal limits than those in Alabama or Connecticut (see Sec. I). Some localities had also relied more heavily on LEAA funds for starting new criminal justice programs, and therefore viewed LEAA's demise with trepidation. Others had carefully avoided becoming dependent upon federal funds.

Within localities, the degree of fiscal stress varied from one agency to another, depending on how an agency had traditionally been financed and its political muscle in the annual budgetary competition. In one community, the municipally supported police department had shrunk by 16 percent over the past two years, while the state-funded District Attorney's office had added to its professional staff. In another, all segments of the criminal justice community had experienced staff cutbacks, but none quite so severely as the probation department.

These variations allowed us to ask how a fiscally strained environment affects the survival and implementation of criminal justice innovations, and to develop some hypotheses about the fiscal retrenchment process.

##### THE BRIGHT SIDE OF FISCAL RETRENCHMENT

Of the innovations in our sample, 8 (22 percent) no longer exist, 7 of which were terminated partly because local officials had to deal with a shrinking budget. The one exception was terminated without reference to the fiscal status of its core operating agency. The question is whether local officials jettisoned effective innovations while maintaining less successful ones.

##### Fiscal Retrenchment and Termination: Success Makes a Difference

The simple answer is no. None of the 8 disbanded innovations achieved a high success rating; 2 fell into the moderate and 6 into the low-success categories. We classified 9 innovations in the lowest success category (see Table 5); by our criteria, all 9 ranked as prime candidates for termination and, indeed, 6 of them no longer exist. Among the remaining 3, one has not yet faced the transition from external to local funding (and thus the need for local reevaluation of its worth). Another survives on a tenuous six-month funding schedule, and the third has been scaled down to a minimal operating level. Local criminal justice agencies appear to spot clearly ineffective innovations with relative ease and to cut off or decrease financial support when a fiscal squeeze forces them to do so.

Local decisions vis-a-vis the more problematic category of moderately effective innovations also appear rational. The two terminated innovations in this group lost out in the budgetary game because their objectives no longer satisfied organizational priorities. In one career criminal case, fiscal pressures and a changing crime profile forced the DA to redefine office priorities. The new focus on upgrading staff professionalism and prosecuting violent crimes resulting in victim injury did not mesh with either the small size of the career criminal unit or its targeted crimes. In the second case, a young victim/witness assistance unit had not yet resolved the problems of serving two organizational masters. In meeting police objectives, it neglected the DA's goals and vice versa. Although steps were being taken to remedy these problems, the project was clearly in transition when federal funding ended.

Among the five moderately successful survivors, three have not yet faced the transition to local funds. Of these, two show promise of eventually moving into the highly successful category and are likely to be continued with local funds; the third has outlived its usefulness and would have been dropped, but the availability of state funding has skewed the local decisionmaking process.<sup>1</sup> Of the two locally funded survivors in this group, one costs less than \$12,000 a year and was only a couple of months away from full implementation when federal funding ended. The other has demonstrated effectiveness in all but one sphere and has been put on notice that its continued survival hinges on overcoming that gap.

<sup>1</sup>In other words, this project has a low priority within its core implementing agency. If the agency were to receive additional funds that covered the innovation's costs *but* were not specifically tied to that project, it would be dropped. Its continued survival rests on the fact that state funding is tied to the specific innovation and unavailable otherwise.

These decisions about the fate of ineffective and marginal innovations suggest that fiscal pressures force local criminal justice agencies to make trade-offs they might otherwise postpone. Six of the eight terminated projects had outlived their usefulness considerably before fiscal pressures forced reevaluation of their worth. Five of the six began under less than auspicious circumstances and never overcame the disadvantages of reluctant or opportunistic adoption. The sixth started with local support but was haphazardly implemented. In these cases, fiscal scarcity forced local actors to reassess their priorities and seriously reevaluate each innovation's goals and results.

In contrast, fiscal abundance provides a climate in which organizations can afford to maintain the status quo and avoid either/or decisions. Indeed, one of the moderately effective innovations in our sample still exists *only* because it continues to get external funds that also help support other office functions. Lacking the bottom-line criterion of profitability by which to judge their actions, public agencies tend to follow the imperatives of organizational maintenance (Pincus, 1974; Wilson, 1973). When the fiscal pie is increasing, these imperatives militate against cancelling whole programs or projects and in favor of prolonging the survival of mediocre innovations. When the fiscal pie shrinks, the same organizational imperatives appear to prod local officials to eliminate some projects. Our analysis suggests that they make these survival/death decisions by sacrificing the less worthy and saving the more effective innovations.

Fiscal pressures also appear to foster careful consideration of the value of individual project components. While retrenchment stimulated local decisionmakers to drop most of the unsuccessful and some of the moderately effective innovations, it did not always lead to their complete elimination.

Notwithstanding his decision to focus on an overall program of office reorganization, the DA who dropped a career criminal unit also extended several of its features throughout the office—including a slightly modified version of vertical prosecution for serious cases, the use of experienced attorneys for major felony prosecution, and restricted plea bargaining. Similarly, the demise of the victim/witness unit in another site did not signal the end of all its activities. Witness notification procedures that served the DA's emphasis on effective prosecution still endure as do police referrals of victims to local service agencies.<sup>2</sup> Both of these programs *had* been well implemented,

<sup>2</sup>Another example is a work release program that was originally adopted largely to get funds for a separate jail facility. When federal funding ended, the facility closed down. Nevertheless, the advantages of the work release program itself led to continuation of a scaled-down version operating out of the regular jail.

although wavering commitment to their objectives eroded staff morale and caused implementation quality to decline during the last few months. While effective implementation did not guarantee survival when fiscal pressure forced a reconsideration of organizational priorities, it did foster retention of those components that could be refashioned to support the new agenda.

### Survival Under Fiscal Retrenchment: A Cooperative Game

The prevailing image of fiscal retrenchment politics is one of heightened conflict and division in which competition for one's share of a smaller pie takes on the attributes of a zero-sum game (Levine, 1979): "If you win, I lose; therefore, I will fight to get my share at your expense." When local governments and agencies make trade-offs among competing objectives and programs, the process does resemble a zero-sum game. But that is not the whole story.

We found that those innovations that survive do so precisely because they operate cooperatively. Whether they started with local or federal funds, the criminal justice innovations that have been continued with local support are those that offer payoffs and minimize costs to the agencies or actors with which they interact. As actors see that their cooperation yields benefits, they also tend to perceive the innovation's goals as more central to their own institutional priorities. Consequently, they are more likely to press for its continuation when fiscal concerns give rise to questions about the innovation's relative contributions and costs.

That happened with two exemplary community service projects. Both get their funds under the local probation department's budget and, in both cases, the department itself has suffered budget and staff downturns. Nevertheless, because they provide benefits to everyone involved in the program, they have many allies with a stake in their survival. Strong judicial and community agency support, combined with each probation department's belief that community service reduces its caseload, saved both programs from extinction.

The projects that died lacked this support. For example, another community work program generated disincentives rather than payoffs. It alienated community agencies who found themselves faced with sloppy work or frequent no-shows, frustrated the presiding judge, who repeatedly saw offenders return to the court, and annoyed other probation staff who viewed the program's poor image as likely to tar-

nish their own reputations. In deciding its future, the department head deliberately separated it from a companion restitution project that provided benefits to the judiciary, the community, and the probation department. The multiple-payoff innovation survived; the multiple-cost program did not.

Because innovations that cut cross several organizations cannot function in the absence of multi-agency action, they most clearly demonstrate the link between cooperation and survival. But agency-specific innovations also require a cooperative style of management that recognizes the need to accommodate the concerns of different actors within the organization and generate incentives to which they will respond. The cooperative imperatives of survival cannot be ignored by either agency-specific or cross-cutting innovations.

These findings belie the conventional wisdom that local governmental agencies respond to fiscal pressures by making hasty crisis-oriented decisions or none at all. Nevertheless, this reassuring picture of the effects of fiscal retrenchment does not tell the whole story. On the darker side, we have also seen signs that fiscal pressures may jeopardize the continued success of mature innovations and stunt the development of otherwise promising innovations. Moreover, fiscal retrenchment itself may proceed in stages; passage from moderate to severe fiscal stress may exacerbate its negative effects.

## THE DARK SIDE OF FISCAL RETRENCHMENT

When we examine the *recent* experiences of innovations that have survived the budgetary axe, the other face of fiscal retrenchment comes into view. Although clear-cut decisions about what stays and what goes reveal a promising shift to strategic decisionmaking, decisions about the resources allocated to the survivors reflect more incremental patterns. Local agencies also appear less aware of or less able to handle the ways in which strained resources can stunt an innovation's developmental process.

### Constraints on Mature Performance

Within the funding parameters we observed, the amount of money allocated to an innovation did not substantially affect its outcome. Innovations with large budgets at initiation became highly successful, but so did those with small budgets. Moreover, shrinking local resources have not spurred the termination of successful innovations.

But we have seen signs that their continued success can be jeopard-

dized by fiscal retrenchment. For example, two exemplary community service projects have recently experienced staff reductions that reflect their "share" of budget cuts inflicted on the sponsoring agency. However, the demand for their services has not dropped. Instead, the number of clients referred to the programs has increased. Consequently, both have experienced rising caseloads and have been unable to keep up with incoming cases or to continue the community agency visits that they deem essential to continued smooth operations. Both have also experienced a slight decline in staff morale.

When we visited these projects, these difficulties had not yet produced clear evidence of diminished performance. Over time, however, preventing such results will require a counterbalancing infusion of staff resources or restriction of the number of clients admitted to the program. In the absence of one of those events, both could lose the capacity to provide differentiated payoffs and satisfy the demands of their multiple organizational clients.

Successful innovations that are already operating on shoestring budgets may not be able to survive incremental cuts without restricting their objectives or lowering their level of performance. Such modifications could in turn erode their ability to provide multiple payoffs and thereby sustain the support required for survival.

Among the 21 innovations that we have classified as highly successful, 8 have experienced such incremental cuts while the rest have maintained or increased their former funding base; 4 of the 8 have suffered corresponding staffing cutbacks that one might expect to produce declining performance. But only in the cases just described did we observe serious strains. In one of the other two cases, the project no longer required the full complement of computer programmers needed for earlier design stages; in the other, the loss of two paid staff members was counterbalanced by the acquisition of additional volunteer assistance.

Because the community service projects faced cutbacks at a time when demands for their services were increasing, finding ways to diminish or negate their negative effects has been more difficult. The clear implication is that local criminal justice agencies faced with declining resources should avoid the joint occurrence of incremental cuts and rising demand.

### Stunted Development

Fiscal retrenchment may also impede the development of adolescent innovations, those that have not yet reached the mature growth associated with full implementation. We identified two sources of

stunted development in this study, one stemming from resource shortages unrelated to the innovation's own funding and staffing requirements, the other arising out of pressures to cut short the grace period allotted for experimentation and learning. The logical third possibility, arrested development associated with insufficient innovation funds or staff, did not emerge in our sample.

**External Fiscal Fallout.** Two innovations fell short of full implementation because of resource shortage spillovers. One recently implemented career criminal unit sought to decrease case-processing time from arrest to disposition. In this particular county, however, severe courtroom and judge shortages inhibited timely access to the court docket. Alleviating those resource constraints would require budgetary action by legislative and executive actors, action that the career criminal unit itself cannot control. Faced with this situation, the unit has in fact downplayed the specific objective of reducing case-processing time, emphasizing instead the twin goals of obtaining high conviction rates and lengthy sentences.

In contrast, its more mature counterpart in another county negotiated a compromise solution with the presiding judge that assures career criminal access to at least one of the criminal courts at all times. An objectively more severe court shortage, coupled with the insecurity of an adolescent program struggling to secure stable funding, appears to have stunted the younger unit's capacity and motivation to achieve at least one of its objectives.<sup>3</sup>

Another example of stunted growth surfaced in an ICAP program being implemented in a police department that has recently lost 16 percent of its sworn personnel. Like many of its counterparts, this program seeks to implement a directed patrol program informed by analysis of local crime patterns. But constraints on patrol officer availability and the department's continued emphasis on first responding to traditional calls for service have severely eroded its capacity to man deterrent patrol operations. In effect, scheduled assignments have been frequently called off for lack of available manpower.

In the career criminal and ICAP examples, the impediments to full implementation stemmed from external or internal resource shortages—a court shortage and an overall manpower shrinkage—that have little to do with either innovation's individual staff or funding requirements. While decisions to reduce funds or staff directly allotted

<sup>3</sup>Career criminal programs in general have had limited success in reducing case-processing time, and this unit's performance is not atypical. The combination of external resource shortages and development immaturity appear to have stunted the search for solutions that might otherwise have occurred in a less fiscally constrained environment.

to the innovation could have the same general results, they are also more easily reversed by counterinjections of money or personnel.

Unanticipated spillover effects stunt development in ways that require more complex countermeasures. Relieving a shortage of courtrooms or judges does not fall within the typical District Attorney's decisionmaking power. Counteracting an overall manpower shortage in a police department requires either persuading the local body that authorizes the budget to add funds for more staff, renegotiating salaries with the police union or, failing those options, instituting internal measures that make more efficient use of civilian and sworn personnel. None of these strategies is easily implemented. None confines its effects to the innovation alone.

Thus, curtailed development that arises out of spillover effects linked to fiscal scarcity constitutes a particularly insidious feature of retrenchment. It illustrates Levine's (1979) "paradox of irreducible wholes," whereby cutbacks in one part of the system impinge on the operation of other components. It also points out a danger to which criminal justice innovations are particularly susceptible: fiscal fallout from other agencies whose performance affects the innovation's implementation and results. While resource shortage spillovers do not confine themselves to cross-cutting innovations, the likelihood of their occurrence directly increases as the number of agencies whose cooperation is a requisite for full implementation expands.

**Telescoped Development.** Fiscal retrenchment also poses a more direct threat to infant or adolescent innovations: the temptation to shorten the grace period allotted to fledgling projects for experimentation and learning. Two innovations in our study—one a sexual assault assistance project, the other a computer-assisted information system for several police departments—were on the verge of falling apart well into their third or fourth implementation year. The first had developed no clear lines of authority and also antagonized important groups whose resultant noncooperation jeopardized future progress. The second suffered from split authority, low staff morale, lack of computer expertise, and police department resistance to standardization.

However, because they were initiated when fiscal resources were relatively plentiful, each received sufficient risk capital and time to resolve their implementation problems. Both have since generated benefits to the participating agencies and thus mobilized the support required for survival. In a more stringent fiscal environment, they might easily have been cut off during their turbulent, but growth-producing, adolescence.

Another innovation in our study, a victim/witness project that lasted for only a year and a half, did not receive that risk capital and

time. The project, one of two moderately effective innovations that were terminated, had sufficient time to implement most of its components but not to resolve the fundamental split in organizational authority caused by its joint accountability to two different agencies—the DA and the police department. During its early operations, the project concentrated heavily on crisis intervention activities that benefited the police department. As the end of federal funding came closer, it became clear that the project's future rested with the DA's office. Accordingly, the DA began shifting its focus to witness oriented tasks, a shift that no doubt diminished the already low probability of fiscal support from the police. Given time, the project's clearly transitional status might have stabilized, thereby strengthening the case for allocating additional funds to the DA's office. However, fiscal scarcity forced a judgment before it had overcome the dual accountability problem and established a clear identity.

Considerable research has documented the implementation problems that face innovations in the public sphere; that research also concludes that many of the most successful innovations undergo a period of turbulence in which they look like poor candidates for survival. Indeed, such turbulence frequently signals a process of essential growth and learning that fosters improved performance. The other face of fiscal retrenchment also presents the dark prospect of diminished risk capital and time available for nurturing promising innovations through this development stage.

### RECONCILING THE TWO FACES OF FISCAL RETRENCHMENT

With respect to criminal justice innovations, fiscal retrenchment has two faces. The reassuring face shows up when we look at local decisions to terminate or save existing innovations. These clear-cut decision points suggest that fiscal pressure:

- Forces local criminal justice agencies to reevaluate their priorities and make tradeoffs they might otherwise postpone;
- Prods them to discard clearly ineffective and some marginal innovations;
- Fosters retention of components that mesh with a reevaluated or redesigned organizational agenda; and
- Places a survival premium on innovations that exemplify cooperative management.

However, the recent implementation history of the survivors reveals more ominous effects. We have observed signs that a strained fiscal environment:

- Leads to incremental cutbacks that can jeopardize the continual effectiveness of successful innovations;
- Causes resource shortages that impede the full implementation of adolescent innovations; and
- Shortens the grace period allotted to fledgling projects for learning and experimentation.

Specific features of the local criminal justice system—its fragmentation and interdependence—combine with fiscal scarcity to reinforce both positive and negative outcomes. They enhance the likelihood that innovations will cross agency boundaries, thereby reinforcing the link between cooperation and survival. But they also enhance the likelihood of negative spillover effects associated with resource shortages experienced by participating agencies. In a resource-short world, fragmented interdependence is a two-edged sword.

How do we reconcile these conflicting findings? Local decisions about what stays and what goes suggest a promising shift to strategic decisionmaking. This pattern is characterized by judicious reexamination of agency priorities, a willingness to make choices among different programs and projects, and the capacity to distinguish between effective and ineffective innovations and cast out the latter. Local actions with regard to the care and treatment of the survivors suggest a tendency to rely on incremental cuts that could jeopardize continued success, and an inability to recognize and cope with spillover effects that threaten to impede maturation.

The clue may lie in the developmental history of fiscal retrenchment itself. Just as innovations undergo periods of infancy and adolescence, fiscal retrenchment appears to proceed by stages. Initial revenue shortages (or declines in the rate of local revenue growth) following a period of fiscal abundance appear to pose less difficult choices than those necessitated by a sustained period of retrenchment. Indeed, a limited degree of fiscal stress may provide the justification that allows administrators to identify and eliminate clearly ineffective innovations. Six of the eight terminated projects fit such a paradigm. They had never been or, by virtue of ineptitude, had lost any semblance of being, central to the participating agencies' goals, and their existence had been prolonged by the lack of any necessity to conserve fiscal resources.

However, once the obviously unsuccessful innovations have been purged, continued fiscal stress calls for more difficult tradeoffs. Both

of the moderately successful projects that failed to survive fit this category. The abandoned career criminal project had once meshed with the DA's priorities but its targeted crimes no longer fit a changed community crime profile. Moreover, fiscal cutbacks had already caused a ten-percent reduction in staff. When the fiscal squeeze continued, the DA had to choose between upgrading the entire office or maintaining the CCP as a small bastion of professionalism.

The purged victim/witness project represented a more onerous tradeoff as well. This innovation had seesawed back and forth between the demands of two organizational masters and was just beginning to establish priorities and a clear identity when federal funding ended. The DA had no leeway within an already reduced budget to sustain the project and his efforts to secure private or state funding failed. Consequently, a potentially promising innovation did not get the risk capital it needed to prove itself.

Finally, resource shortage spillovers that indirectly impede full implementation, and incremental cuts that endanger successful innovations, appear to be products of sustained fiscal retrenchment. In the CCP example, the external court shortage that inhibited full implementation existed before the project began. Similarly, the departmental gap in manpower that interfered with the ICAP program's deterrent patrol schedules had built up over a four-year period. And the two probation departments that reduced their community service programs had previously absorbed staffing reductions.

The negative effects of fiscal retrenchment cropped up in only a handful of the innovations we studied. But the context in which they appeared implies that such outcomes will become more frequent under conditions of sustained fiscal stress. Moreover, sustained retrenchment will likely produce more severe spillover effects and force ever more difficult tradeoffs on local criminal justice officials. Managing fiscal stress thus requires recognition of its developmental nature and the design of strategies adapted to different stages of retrenchment.

## V. POLICY IMPLICATIONS

Our findings suggest several policy implications for managers of criminal justice innovations and those local, state, or federal officials who must decide whether to fund new innovations and/or maintain existing ones. We have considered them below under four headings: successful implementation strategies, dangers to avoid during implementation, specific issues associated with managing innovations under fiscal retrenchment, and choosing among candidate innovations for external funding.

### SUCCESSFUL IMPLEMENTATION STRATEGIES

Embedded within our analysis of criminal justice innovations lie several precepts of a successful innovation strategy—what outcomes one should strive for and how to get them. These findings indicate that managers who want to increase an innovation's chances of success should endeavor to achieve those characteristics identified in Sec. II: clarity of goals and procedures, key actor support, staff competence, a benefit-cost surplus, and clear lines of authority.

Achieving those characteristics rests in turn on integrating the following strategies into a single overall approach to implementation:

- Providing multiple payoffs,
- Ensuring key actor participation in planning and problem-solving, and
- Building in a flexible problem-solving process.

It also entails realizing four corollary strategies: phased implementation linked to the achievement of prior credibility milestones, the production of substantial craft knowledge, ongoing planning, and regular communication. All the exemplary innovations in our study followed these implementation precepts; all eventually produced the correlates of success listed above.

### DANGERS TO AVOID

Nevertheless, several innovations pursued these guidelines with little success, revealing the subtle ways in which well-intentioned ap-

proaches can be undermined. We describe the more common of these implementation pitfalls below.

### Open-ended and Symbolic Participation

Implementing a participatory innovation process does not come easily in many organizational environments. It is particularly difficult for police departments whose customary organizational style is hierarchical and highly structured. Most of the following examples of "pitfalls to avoid" come from police departments. Some of them represent errors that have since been corrected.

Including key actors in the planning and problem-solving process should not lead to *open-ended participation*—prolonged planning unaccompanied by clear operational targets and its corollary, abdication of responsibility at the top. One department that seriously took the participatory prescription to heart committed both of these mistakes. Having been burned earlier by the backlash ensuing from a highhanded neglect of rank and file concerns, ICAP managers went overboard the second time around. They brought everyone likely to be affected into the process of designing new incident reporting forms. But this is precisely the kind of effort we have singled out as central to developing a sense of personal investment in organizational change. What went wrong?

In subtle ways, the *process* began to dominate and then to supersede the objective. The iterative series of meetings, revisions, and more meetings continued for more than two years, thereby calling into question the rank and file's belief that anything would ever happen. Moreover, it culminated in a complex four-page reporting form backed up by several appendices, and a sixty-page manual that appeared to complicate rather than streamline patrol officer duties. Open-ended participation delayed and complicated the realization of operational performance.

All but one of the ICAP departments we studied manifested some form of open-ended participation. But this disorder is not irreversible, nor does it necessarily produce permanent damage. In small departments, officer complaints fairly quickly alerted ICAP managers to the dangers of raising expectations only to convert them into frustration through prolonged participatory planning. In larger departments, the feedback system took longer to work and the consequent delays and drop in morale were more serious.

A participatory process also does not mean soliciting inputs from key actors only to ignore their concerns. *Symbolic participation* of this sort represents the opposite end of the unintegrated spectrum. We observed these tendencies in police departments as well. In one de-

partment, the project head alternated between telling the men that the program could only work with their ideas, and issuing abrupt orders and threats. The officers soon decided that their involvement was pro forma only. In another, meetings were held with the police departments participating in a regional computer system. However, it was clear that the director had neither the motivation nor the authority to carry out any of their recommendations. Again, the "participants" caught on quickly to the empty nature of the process.

Such symbolic or pro forma participation produces frustration based on a feeling of betrayed trust, and is more difficult to overcome than frustration associated with unrealized expectations. Erasing it may require a change at the director or top leadership level—precisely what happened in both cases.

Avoiding the temptation to engage in an open-ended or symbolic participatory process also avoids their consequences: delays, frustration, lowered morale and, possibly, hardened resistance to the innovation. A greater awareness of what these pitfalls look like in reality may help well-intentioned but unsophisticated managers to avoid stumbling over them.

### Split Authority

Although there are several wrong paths to take in developing clear lines of responsibility, we identified one that invariably has negative consequences *and* is easily avoided: setting up a formalized system of split authority. We can illustrate the dangers of split authority by comparing two similar victim/witness projects.

Both were labeled as integrated prosecutor/police programs but had different lines of accountability. In one, the staff was hired by the DA's office and was accountable to him; under the director hired by the DA, they worked closely with the police in setting up objectives and procedures for carrying them out. In the other, authority was formally split: the DA had primary responsibility for policy and daily operations; the director, who was a member of the police department and physically located there, focused on management/administrative issues; and the staff were hired by the city and thus were not directly accountable to either the DA or the police department. Not surprisingly, the first program faced fewer jurisdictional conflicts and an easier implementation process than the second—which alternated between satisfying police and DA objectives and, in the process, damaged staff morale.

Formally dividing authority between two or more agencies exacerbates the inherent differences in organizational priorities that sup-

port different interpretations of the innovation's objectives. It also promotes a situation in which one organization ends up the winner and the other feels short-changed. In contrast, when authority is formally placed in one agency, participants expect that agency to have final responsibility for deciding priorities. The task of building cooperation then becomes one of satisfying external agency agendas without necessarily making them predominant.

In effect, the core implementing agency's job is to ensure that peripheral organizations receive benefits from cooperating that outweigh their contributions of time, money, or effort. When two or more agencies share formal authority for an innovation, no one plays this role. Thus the split-authority victim/witness project seesawed back and forth between satisfying the DA and the police. Similarly, a law enforcement task force working under several police departments had no mechanism for determining when the staff wore regional as opposed to departmental hats.

Because formal and informal authority systems frequently lack a one-to-one correspondence, establishing a single center of formal authority does not necessarily obviate these problems. However, it does avoid the extra distortion of incentives associated with formally dividing authority among several organizations—the emphasis on establishing one's agency as "first among equals" coupled with a deemphasis on soliciting the cooperation of others.

### Premature Certainty

The projects we identified as exemplary were constantly growing; their staff both sought new challenges and adapted to problems as they arose. In so doing, they avoided becoming locked into a too ambitious (or too circumscribed) agenda or mindlessly following ineffective procedures.

Premature certainty represents the opposite of an adaptive and evolutionary innovation process. It also constitutes another subtle danger to avoid. In our study, an overemphasis on planning *prior* to implementation was its most common precursor. This does not mean one should plunge into implementation without prior planning. But it does mean that managers of innovations need to be alert to the subtle ways in which traditional planning processes can be distorted.

In two cases, we observed overly lengthy planning periods devoted to identifying and resolving problems that could have been more easily spotted through a trial and error process. In one case, management realized its error and pulled back from the too-detailed blueprint the planning group had produced, trying out a more limited version that

allowed them to make needed adaptations. Lengthy planning delayed implementation but did not preclude it. In the other, a protracted planning process produced a rigid agenda that no one has yet been able to implement, in part because the blueprint cannot easily be broken down into pieces that can be tried out separately or, alternatively, adapted to smaller groups within the organization.

In contrast, several exemplary projects did undergo planning periods in which initial objectives and operations were clarified, but the process was viewed as one that would continue during implementation. For example, one victim/witness project fielded a citizen survey to determine its initial priorities. After the first implementation year, however, the staff proceeded to add components and modify old ones. Clearly, they did not view the original plan as immutable.

A successful planning process does not end when implementation begins, nor should it produce an unchangeable set of objectives and procedures. Both projects that sought premature certainty prolonged the initial planning period in a vain attempt to resolve more questions than could reasonably be addressed in the absence of actual implementation. Both acted as though planning constituted a clearly defined activity with sharply delineated beginning and end points—boundaries that were, moreover, confined to the period preceding implementation. Consequently, they laid a heavier agenda on pre-implementation planning than was either necessary or wise. In one case, the main negative consequence amounted to delay; in the other, delay was compounded by the production of a rigid agenda that resisted later modification.

Thus innovation managers need to avoid the twin dangers of compartmentalizing the planning process and protracting the pre-implementation planning period. They also need to recognize the need for flexible blueprints that can be added to, modified or taken away from. Viewing planning as a continual, rather than compartmentalized, process helps ensure this flexibility and avoid the pitfalls of producing unnecessary delays and planning "products" that defy implementation.

### MANAGING FISCAL RETRENCHMENT

When fiscal pressures impinged on them, local criminal justice officials exhibited a laudable capacity to identify and terminate less successful innovations. However, they appear to have more difficulty coping with the continuing problems that fiscal retrenchment poses for the survivors. These problems fall into two categories: preserving

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the high performance of successful innovations and identifying and bolstering promising but adolescent innovations.

### Preserving Successful Innovations

For several reasons, organizations undergoing a fiscal squeeze prefer to make across-the-board rather than selective cuts in the budgets allotted different programs. Making everyone share a ten-percent reduction avoids the necessity of carefully weighing the virtues and faults of different organizational components; it also preserves a sense of equity in the face of hard times. While avoiding hard choices does not constitute a valid justification for incremental cuts, preserving equity has more to recommend it. Maintaining morale is crucial to an organization's ability to weather a fiscal crisis; to the extent that preserving an equity of misfortune prevents a severe erosion in morale, following the "easy" path of across-the-board cuts has more merit than appears at first glance.

Nevertheless, "equitable" across-the-board cuts can also have inequitable results. Some programs or units may have been operating closer to the bone than others; a ten-percent cut may merely eliminate waste in program A but entail a twenty-percent reduction in performance for program B. The same principle holds for innovations. As we have seen, those that are already on a shoestring budget may suffer severe performance declines when forced to absorb their "share" of an across-the-board cut. Those that are entering a less labor-intensive period of development, have alternative sources of unpaid or less expensive labor, or have been operating under a "fat" budget may suffer no negative performance effects.

The issue then involves how one defines equity—equity in sharing budget cutbacks or equity in sharing the performance constraints that cutbacks may entail. Making decisions based on the latter criterion is considerably more difficult than making decisions based on the former. Instead of applying a simple decision rule such as that implied by incremental reductions across the board, decisions based on performance equity necessitate making sensitive distinctions, taking into account past performance and input levels, future directions of the innovation *and* the organization, and the relationship between all these factors.

Such distinctions are difficult but not impossible. We observed local criminal justice agencies engaged in strategic decisionmaking when deciding which innovations to save and which to drop. Applying performance equity criteria to budget decisions that reduce but do not eliminate fiscal support represents the strategic decisionmaking ana-

log for the survivors. Successful management of fiscal retrenchment requires using more sensitive scalpels when applying budget cuts to mature innovations, carefully separating those that can absorb reductions from those that cannot. It also requires a shift in decisionmaking strategy from an incremental style of decisionmaking that seeks to maintain equity in sharing cutbacks to a strategic style that seeks to maintain equity in performance.

### Bolstering Promising Innovations

Shifting to a strategic decisionmaking mode based on performance equity criteria would help prevent unintended damage to mature, successful innovations. But what about adolescent innovations? Many may not be able to absorb budget cuts at all; some may actually need additional capital and time to grow to maturity. How is a manager to separate the promising adolescent innovations from the unpromising? To assess the performance of an innovation that has not yet achieved full implementation?

Fiscal retrenchment poses the substantial threat that promising innovations undergoing an adolescent stage of turbulence and growth will never reach full bloom. What local officials need is a developmental strategy that allows them to target risk-capital to the most promising candidates, while cutting others off at the knees.

This is no easy task; moreover, there are no guidelines for developing or carrying out such an approach. Little, if anything, is known about how to identify which adolescent innovations will profit from risk-capital injections and which will not.

We can, however, derive some useful hints gleaned from the experience of the innovations we studied. First of all, it may be helpful to distinguish innovations that suffer from resource problems afflicting external participating agencies. If the innovation requires access to the courts (as in the case of community service and career criminal projects) but that access is severely limited because of space or judge shortages, managers should ask serious questions about the degree to which these external impediments limit potential performance and reduce the innovation's value. Because they may impede full implementation in ways beyond the control of the innovation's managers, such spillover effects provide a basis for questioning whether fiscal support should be continued.

Resource shortage spillovers within the core implementing agency raise similar questions. The difference between external and internal spillover problems is that the latter *may* be amenable to ameliorative action on the part of the innovation's managers or, more likely, the

organization's top leadership. For example, if general manpower shortages threaten a police department's capacity to implement deterrent patrol, one of two options should be considered: eliminating deterrent patrol or finding a way to overcome the manpower problem.

Other problems faced by adolescent innovations call for different decision criteria. As we have seen, inadequate director or staff commitment, ambiguous goals, insufficient payoffs, or confused authority can all be overcome *provided* the organization's top leadership stands behind the innovation, recognizes its weaknesses, and is prepared to take steps to remedy them. However, without top leadership support, director/staff efforts to move beyond an adolescent crisis have a low probability of success. Thus when these problems emerge, assessing the likelihood that additional risk capital or time, or both, will yield worthwhile payoffs requires a detailed assessment of the innovation's unique organizational environment.

#### Understanding the Effects of Sustained Retrenchment

Finally, the distinct possibility that fiscal retrenchment itself proceeds through developmental stages underscores the importance of further research on its effects. This study postulates the likelihood that sustained retrenchment will force increasingly difficult tradeoffs on local criminal justice decisionmakers. We surveyed survival-or-death decisions in a context in which local officials had the option of terminating ineffective or marginally successful innovations. But we have had little to say about the decisionmaking process when survival-or-death tradeoffs have to be made among successful innovations.

Moreover, the survival decision depended largely on the initiative of officials heading public criminal justice agencies. While they clearly had their eye on the likely reactions of local or state bodies, it was up to the implementing agencies to decide whether to continue funding an innovation within the allocated budget or to seek additional public or private support for its continuation. Nevertheless, a decision to solicit additional *public* funds subtly altered decisionmaking, bringing the influence and concerns of elected bodies into the decision calculus. For example, continuing two career criminal programs necessitated lobbying the state legislature for funds. Ultimately, legislative calculations that involved weighing the arguments of the prosecutor's office against those of other contenders for pieces of the budget determined their survival. In contrast, another victim/witness program that was terminated failed to convince elected officials of its worth. Similarly, the agency head responsible for dropping an in-

effective community service program had a strong sense that the city council would not countenance its survival.

To the extent that locally elected officials determine the criminal justice budget, one might expect that sustained retrenchment will heighten their influence on what may formerly have been internal agency decisions. Such a development could, in turn, force local criminal justice officials to deal more explicitly with fiscal tradeoffs *among* the various criminal justice agencies in a jurisdiction and *between* criminal justice and other local services. Such tradeoffs are considerably more difficult to make when the fiscal pie is decreasing; moreover, they pose issues with which officials accustomed to fiscal prosperity have had little experience.

We have already suggested that local criminal justice officials have difficulty moving to a strategic decisionmaking mode when it comes to the treatment of surviving innovations, a sign that local capacity to deal with sustained fiscal retrenchment is limited. We suspect that they are even less equipped to cope with an enlarged decisionmaking arena in which fiscal scarcity forces explicit tradeoffs among criminal justice agencies and between criminal justice and other local agencies. There is a clear need for further research on how sustained retrenchment affects criminal justice agencies within the context of both the LCJS *and* the political jurisdiction within which it operates.

#### CHOOSING AMONG CANDIDATE INNOVATIONS FOR EXTERNAL FUNDING

We have singled out change as the hallmark of successful criminal justice innovations. Moreover, we have suggested that innovations fall into two categories: the few that have, and the many that do not have, initial characteristics that provide evidence on which to base predictions of success. This puts federal, state, and local policymakers into a quandary. If they cannot distinguish between the two kinds of innovations, how are they to develop criteria for choosing which ones to fund?

We postulated that innovations in the first category—those that proceed automatically from adoption to implementation—require little change on the part of the people who put them into place. We also suggested that they change the behavior of only a few organizational members and that their goals and procedures are clear and easy to learn *at adoption*. However, these clues to distinguishing the two innovation types represent hypotheses supported by evidence from only one case in our sample. More research is needed to help us distinguish

when initial characteristics of the innovation help predict eventual success, and when they do, what characteristics are most useful.

But policymakers must use other criteria to decide which innovations to fund among the majority whose success rests on *how* they are implemented. Because they are subject to substantial change after adoption, the initial characteristics of implementation-dependent innovations provide little useful data. Our research does not provide definitive funding guidelines for this group of innovations. It does, however, suggest a strategy for choosing among them—a strategy that places greater emphasis on locating appropriate organizational environments than on promoting the extensive adoption of particular innovation types.

The clearest early signals that an innovation might succeed in a particular organizational context rest with the motivations for adoption and the posture of top leadership. If local officials seek external seed money opportunistically, e.g., solely to take advantage of the availability of funds or to fulfill an agenda only loosely related to the innovation, the innovation is unlikely to succeed. If they reluctantly or apathetically accede to external pressures for adoption, a similar prognosis is justified. On the other hand, when local officials have already diagnosed a problem or opportunity particularly suited to the innovation's substantive features, the innovation is considerably more likely to find a receptive climate in which the factors that promote success can be generated.

Because the idea for adopting an innovation may come from middle management or lower levels of the hierarchy, the presence or absence of top leadership support at initiation constitutes another important indicator of potential success. Without such support, the most enthusiastic staff will have difficulty mobilizing cooperation from those who must provide assistance to translate the idea into reality, and resolve problems associated with resistance to change, insufficient incentives, vague or conflicting procedures, or confused authority.

Sincere motivations for adoption and top leadership support signal a receptive climate for the innovation to take root. While neither assures success, both together make it more likely. But how does a funding agent distinguish opportunism, reluctance, or apathy from sincerity? How does one see through an opportunistic agency head's assurance that this innovation has been on the local agenda for years but unrealized only because of lack of funds?

A plausible route to acquiring a sensitive sense of organizational climate involves face-to-face contact with those who will be responsible for implementation. By talking to potential participants, one can gain a sense of their sincerity as well as their understanding of the process involved in changing people's behavior and attitudes. When

appropriate, one can also look for innovation precursors—efforts to implement some components or related features that require only limited expenditures or staff time. While face-to-face contact of this kind will not guarantee the selection of organizations in which an innovation is likely to succeed, it will certainly raise the probability of success.<sup>1</sup>

Clearly, carrying out this funding strategy entails a greater expense the more geographically removed the funding agency is from the potential recipient. Local funding agencies have less distance to travel and more local contacts through which the information can be obtained than state or federal agencies. Nevertheless, the recent constriction of funds available for local criminal justice innovations places greater weight on avoiding decisions that are biased against success from the beginning. As the availability of seed monies shrinks, it may justify greater up-front expenditures to ensure that the available resources are wisely allocated.

<sup>1</sup>We should note that the general strategy we are recommending applies also to criminal justice innovations that do not fit the *process* model we have identified as crucial to success. Even innovations that can be implemented with minimal change in behavior still need to exhibit the six correlates of success discussed in Sec. II. Nevertheless, evaluating motivations to adopt and top leadership support should be easier in cases where implementation resistance is unlikely and initial innovation characteristics are subject to little or no change. In such cases, information based on written sources and phone calls may suffice.

**Appendix A**  
**SUPPLEMENTARY TABLES**

Table A.1

SUCCESS BY LEVEL OF EXPENDITURE

Degree of Success	Latest Expenditure Level (\$1000)					
	<100		100 to 200		>200	
	No.	%	No.	%	No.	%
High	5	38.5	9	64.3	7	70.0
Moderate	2	15.4	2	14.3	3	30.0
Low	6	46.1	3	21.4	0	--
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>

Table A.2

## SUCCESS BY AWARENESS OF OUTSIDE INFORMATION AT ADOPTION

Degree of Success	Awareness of Outside Information at Adoption					
	None		Some <sup>a</sup>		A Great Deal <sup>b</sup>	
	No.	%	No.	%	No.	%
High	4	57.1	10	50.0	7	70.0
Moderate	--	--	5	25.0	2	20.0
Low	3	42.8	5	25.0	1	10.0
Total	7	99.9	20	100.0	10	100.0

<sup>a</sup>Outside information known to project initiators and/or staff was confined to written materials (research, brochures, evaluations of similar projects, etc.).

<sup>b</sup>Outside information known to project initiators and/or staff came from face-to-face contacts as well as written sources (meetings, workshops, conferences, site visits, etc.).

Table A.3

## SUCCESS BY USE OF TECHNICAL ASSISTANCE

Degree of Success	Use of External Technical Assistance			
	No		Yes	
	No.	%	No.	%
High	14	51.9	7	70.0
Moderate	6	22.2	2	10.0
Low	7	25.9	1	20.0
Total	27	100.0	10	100.0

## Appendix B

## INTERVIEW GUIDES

PROJECT QUESTIONS FOR PROJECT DIRECTOR, HEAD OF AGENCY

1. First of all, how long have you been involved with the ( ) project?

Project Initiation

2. How did it get started? IF NOT KNOWN ALREADY: When?
  - Where did the original idea come from? (PROBE: Who initiated it? Where did they hear about it?)
  - Why did the department/office decide to undertake this program? (e.g. funding was available; status, prestige; specific local problems)
3. IF SUPPORTED BY LEAA FUNDS: Was it started with LEAA funds? Do you think it would have been undertaken if LEAA funding had not been available? (PROBE: Why is that?)

Components, Goals

4. Could you briefly describe the ( ) project? For example:
  - What activities or tasks does it involve?
  - How would you characterize the various project components--what parts would you say are new to (you/the people participating in it), and what parts constitute things (you/they) have done before?
  - Who is involved in carrying it out? (PROBE: within the department, outside)
  - How does this project compare with other (Name of Project) in (State)?
5. What were the project's original goals? (What was it originally intended to accomplish?)
  - How specific do you think the project's goals were at its inception--very specific, moderately specific, not at all specific?
  - How close do you think the project's goals are to this (department's/office's) major criminal justice objectives?

6. IF NOT KNOWN ALREADY: What is the project's yearly budget and staffing level?

Project Planning, Mobilization of Support

7. What activities went into getting the project underway?
- For example, what kind of planning, if any, occurred? (PROBE: Who was involved?)
  - How about training--were there any training activities for those involved in carrying the project out? IF YES: What kind of training took place? (PROBE for substance, duration)
8. Whose support or cooperation did you need to get the project underway?
- FOR EACH GROUP (PERSON) NAMED: What was the role of ( ) in the beginning?
  - Do you feel the project got adequate support from (person(s) named)? (PROBE: Why or why not?)
9. Did anyone assess the project's likely effect on other criminal justice agencies? IF YES: What did they conclude?
10. Is there anything you think should have been done differently at the beginning of the project? IF YES: What kind of things? Why?

Project Implementation

11. How difficult would you say this project has been to implement--very difficult, moderately difficult, not at all difficult?
- Why is that?
  - What kind of problems did you encounter? How were they resolved?
12. Would you say this project has changed at all over time--either in its original goals or in the kinds of activities and people involved?
- What specific changes have taken place?
  - FOR EACH CHANGE MENTIONED: What led to (specific change)? (e.g. complaints from staff, realization that procedure wouldn't work, etc.)

13. When changes were made in the project, how did they get decided?
- Who participated in decisions concerning modifications in the project?
  - How did you learn about problems?
  - Were there project meetings or training sessions once the project got underway? What were they designed to accomplish?
14. Did you feel you had enough authority to make necessary changes? IF NOT: Why or why not?
15. Do you feel you had sufficient resources to implement the project effectively? IF NO: What kind of resources did you need?
16. How would you rate the staff's commitment to the project at the beginning--would you say they were generally enthusiastic, neutral, or opposed? Why was that?
- How do you think they feel now?
  - What accounts for the (difference/lack of change/continued enthusiasm)?
17. How would you characterize the (project director's/head of agency's) support for the project?
- Did he/she take an active interest in it? Why or why not?
  - Has his/her support changed over time? IF YES: In what ways?
18. IF PROJECT REQUIRES COOPERATION FROM OTHER AGENCIES: What about other criminal agencies? Has it been difficult or easy to get their cooperation? (PROBE: Why is that? Have any other agencies actively opposed the project? Why?)
- 18a. IF PROJECT DOESN'T REQUIRE COOPERATION FROM OTHER AGENCIES: What about other criminal justice agencies: Have any other agencies actively supported or opposed the project? (PROBE: What accounts for their attitudes?)
19. What impact, if any, have citizen groups had on the project?

Project Outcomes

20. Overall, when you take into account the goals the project started with and the resources it had, how successful would you say it has been in meeting its goals--very successful, moderately successful, not at all successful?
- What factors do you think have contributed to its success/failure?
  - How would you compare it with (other similar projects) in (State)?

21. Specifically, what do you think the project (achieved/has achieved)?
- What is the department/office doing now that it would not have been doing in the absence of this project?
  - ASK IF NECESSARY: What changes has it brought about in criminal justice practice?
  - ASK IF NECESSARY: Has it altered practitioner attitudes in any way?
22. As far as you know, have there been any spin-off projects from this one? IF YES: What are they? How did they hear about your project?
23. Have there been any changes made in other agencies or jurisdictions because of this project? IF YES: What sort of changes?
24. What impact, if any, has this project had on the capacity of your office to use new ideas? to carry out innovative programs?
25. IF FUNDED BY LEAA: After termination of federal funds, do you expect this project will be continued at the present level, cut back, or not continued at all? (PROBE: Why is that?)
- What elements will be maintained? Why?
  - When did planning for the eventual withdrawal of federal funds start?
- OR:
- 25a. IF ALREADY TERMINATED: Why did this project end?
- If federal funds had been available, do you think it would have been continued? Why or why not?
- OR:
- 25b. IF LOCALLY FUNDED: Do you expect this project will be continued at the present level, cut back, or not continued at all in the next fiscal year?
- Why is that?
  - What elements, if any, will be maintained? Why?
26. What advice would you give to another (department/office) planning to start a (name of project)?

PROJECT QUESTIONS FOR PROJECT PARTICIPANTS

1. First of all, how long have you been involved with the ( ) project?

Project Initiation

2. How did it get started? IF NOT KNOWN ALREADY: When?
- Where did the original idea come from? (PROBE: Who initiated it? Where did they hear about it?)
  - Why did the department/office decide to undertake this program? (e.g. funding was available; status, prestige; specific local problems)
3. IF SUPPORTED BY LEAA FUNDS: Was it started with LEAA funds? Do you think it would have been undertaken if LEAA funding had not been available? (PROBE: Why is that?)

Components, Goals

4. Could you briefly describe the ( ) project? For example:
- What activities or tasks does it involve?
  - How would you characterize the various project components--what parts would you say are new to (you/the people participating in it), and what parts constitute things (you/they) have done before?
  - Who is involved in carrying it out? (PROBE: within the department, outside)
  - How does this project compare with other (Name of Project) in (State)?
5. What were the project's original goals? (What was it originally intended to accomplish?)
- How well do you think the project's staff understood its goals at the beginning? (PROBE: What sort of things were unclear?)
  - How specific do you think the project's goals were at its inception--very specific, moderately specific, not at all specific?
  - How close do you think the project's goals are to this (department's/office's) major criminal justice objectives?

6. IF NOT KNOWN ALREADY: What is the project's yearly budget and staffing level?

Project Planning, Mobilization of Support

7. What activities went into getting the project underway?
- For example, what kind of planning, if any, occurred? (PROBE: Who was involved?)
  - How about training--were there any training activities for those involved in carrying the project out? IF YES: What kind of training took place? (PROBE for substance, duration)
8. Whose support or cooperation was needed to get the project underway?
- FOR EACH GROUP (PERSON) NAMED: What was the role of ( ) in the beginning?
  - Do you feel the project got adequate support from (person(s) named)? (PROBE: Why or why not?)
9. Were there any initial uncertainties about what the (name of project) required you to do? IF YES: Did things become clearer over time? How did that happen?
10. Is there anything you think should have been done differently at the beginning of the project? IF YES: What kind of things? Why?

Project Implementation

11. How difficult would you say this project has been to implement--very difficult, moderately difficult, not at all difficult?
- Why is that?
  - What kind of problems did you encounter? How were they resolved?
12. Would you say this project has changed at all over time--either in its original goals or in the kinds of activities and people involved?
- What specific changes have taken place?
  - FOR EACH CHANGE MENTIONED: What led to (specific change)? (e.g. complaints from staff, realization that procedure wouldn't work, etc.)

13. When changes were made in the project, how did they get decided?
- Who participated in decisions concerning modifications in the project?
  - How did you learn about problems?
  - Were there project meetings or training sessions once the project got underway? What were they designed to accomplish?
14. Did you feel the staff had sufficient influence on making necessary changes? IF NOT: Why not? What things should have been done that weren't?
15. Do you feel you had sufficient resources to implement the project effectively? IF NO: What kind of resources did you need?
16. What do you like about the project? Dislike?
17. How would you rate the staff's commitment to the project at the beginning--would you say they were generally enthusiastic, neutral, or opposed? Why was that?
- How do you think they feel now?
  - What accounts for the (difference/lack of change/continued enthusiasm)?
18. How would you characterize the (head of agency's) support for the project?
- Did he/she take an active interest in it? Why or why not?
  - Has his/her support changed over time? IF YES: In what ways?
19. How would you characterize the (head of agency's) relationship with his staff? (e.g. tends to make decisions with little or no staff participation; delegates most authority; open, friendly; informal)
20. How effective has the project director been? (PROBE: Has he/she been able to keep the project on track? Why or why not?)
21. IF PROJECT REQUIRES COOPERATION FROM OTHER AGENCIES: What about other criminal agencies? Has it been difficult or easy to get their cooperation? (PROBE: Why is that? Have any other agencies actively opposed the project? Why?)
- 21a. IF PROJECT DOESN'T REQUIRE COOPERATION FROM OTHER AGENCIES: What about other criminal justice agencies? Have any other agencies actively supported or opposed the project? (PROBE: What accounts for their attitudes?)

22. What impact, if any, have citizen groups had on the project?

Project Outcomes

23. Overall, when you take into account the goals the project started with and the resources it had, how successful would you say it has been in meeting its goals--very successful, moderately successful, not at all successful?

- What factors do you think have contributed to its success/failure?
- How would you compare it with (other similar projects) in (State)?

24. Specifically, what do you think the project (achieved/has achieved)?

- What changes has it brought about in what you do?
- Has it altered your (or other participants') attitudes in any way?
- ASK IF NECESSARY: What is the department/office doing now that it would not have been doing in the absence of this project?

25. As far as you know, have there been any spin-off projects from this one? IF YES: What are they? How did they hear about your project?

26. Have there been any changes made in other agencies or jurisdictions because of this project? IF YES: What sort of changes?

27. What impact, if any, has this project had on the capacity of your office to use new ideas? to carry out innovative programs?

28. IF FUNDED BY LEAA: After termination of federal funds, do you expect this project will be continued at the present level, cut back, or not continued at all? (PROBE: Why is that?)

- What elements will be maintained? Why?
- When did planning for the eventual withdrawal of federal funds start?

OR:

28a. IF ALREADY TERMINATED: Why did this project end?

- If federal funds had been available, do you think it would have been continued? Why or why not?

OR:

28b. IF LOCALLY FUNDED: Do you expect this project will be continued at the present level, cut back, or not continued at all in the next fiscal year?

- Why is that?
- What elements, if any, will be maintained? Why?

29. What advice would you give to another (department/office) planning to start a (name of project)?

GENERAL QUESTIONS FOR HEAD OF AGENCY, CJ REPORTERSFiscal Context

1. How would you characterize the present fiscal situation in (City/County)?
  - How has this situation affected your(department/office)?
2. What is your department's current staffing level? Its total operating budget?
3. How do you think the loss of LEAA funds (will affect/has affected) your (department/office)?

Priorities

4. What are the current criminal justice priorities in your (department/office)?
5. Why have these particular issues become priorities?
  - e.g. pressures from local elected officials, pressures from citizen groups, legislative or judicial mandates, specific local problems, federal program priorities.
6. Do you think your (department's/office's) priorities have changed much over the past three years? IF YES: In what ways?

Relationships with Other Agencies

7. How would you characterize relationships among criminal justice agencies in (County/City)?
8. In your opinion, is there much coordination across the different sectors--law enforcement, the courts and prosecution, corrections? PROBE: Why is that?
9. What specific incentives or obstacles are there for:
  - coordinating activities?
  - sharing information?
  - working together on a specific project?
10. How would you characterize relationships between your (office/department) and (City/County) elected officials? PROBE: What role do they play in your (department's/office's) decisionmaking?

Planning, Research Capability

11. What kind of planning resources does your (office/department) have available to it? (e.g. planning staff, outside consultants, computer information, etc.)
12. How useful do you find these resources in your own decisionmaking?

Innovativeness, Structure

13. How would you rank your department's posture toward trying criminal justice innovations or experiments--is it more or less likely to try innovations than other departments in (State)?
  - What do you think accounts for this difference?
14. Who generally decides on new policies or practices within your (office/department)?
15. Could you describe the typical decisionmaking process for deciding upon and implementing new policies or practices?
  - Who is involved?
  - How are decisions made and communicated?
  - How do you learn about any problems that arise during implementation?

Now I'd like to ask you a number of questions about the ( ) project.

## BIBLIOGRAPHY

- Allison, Richard, "LEAA's Impact on Criminal Justice: A Review of the Literature," in *Criminal Justice Abstracts*, December 1979.
- Aoki, Ted T., and Associates, *British Columbia Social Studies Assessment*, Vols. 1-3, British Columbia Ministry of Education, Victoria, 1977.
- Baer, W. S., L. L. Johnson, and E. Merrow, *Analysis of Federally Funded Demonstration Projects: Final Report*, The Rand Corporation, R-1926-DOC, April 1976.
- Bardach, E., *The Implementation Game*, MIT Press, Cambridge, Mass., 1977.
- Beck, Mary Ann, "Effecting the Research to Action Linkage: The Research Utilization Program of NILECJ," unpublished paper, NILECJ, September 1978.
- Bennis, Warren G., Kenneth D. Benne, and Robert Chin (eds.), *The Planning of Change*, 2d ed., Holt, Rinehart and Winston, Inc., New York, 1969.
- Berman, Paul, and M. W. McLaughlin, *Federal Programs Supporting Educational Change*, Vol. I: *A Model of Educational Change*, The Rand Corporation, R-1589/1-HEW, 1974.
- Berman, Paul, and E. Pauly, *Federal Programs Supporting Educational Change*, Vol. II: *Factors Affecting Change Agent Projects*, The Rand Corporation, R-1589/2-HEW, April 1975.
- Berman, Paul, et al., *Federal Programs Supporting Educational Change*, Vol. VII: *Factors Affecting Implementation and Continuation*, The Rand Corporation, R-1589/7-HEW, April 1977.
- Berman, Paul, and M. W. McLaughlin, *Federal Programs Supporting Educational Change*, Vol. VIII: *Implementing and Sustaining Innovations*, The Rand Corporation, R-1589/8-HEW, May 1978.
- Bingham, Richard D., *The Adoption of Innovation by Local Government*, Lexington Books, Lexington, Mass., 1976.
- Caplan, Gerald, "Reflections on the Nationalization of Crime, 1964-68," in *Law and Social Order*, Vol. 2, 1973.
- Caplan, Nathan, et al., *The Use of Social Science Knowledge in Policy Decisions at the National Level*, Institute for Social Research, University of Michigan, Ann Arbor, 1975.
- Chaiken, Jan M., "Transfer of Emergency Service Deployment Models to Operating Agencies," *Management Science*, Vol. 24, No. 7, March 1978, pp. 719-731.

- , *Two Patrol Car Deployment Models: History of Use 1975-1979*, The Rand Corporation, P-6458, March 1980.
- Charters, W. W., and Roland Pellegrin, "Barriers to the Innovation Process: Four Case Studies of Differentiated Staffing," *Educational Administrative Quarterly*, Vol. 9, 1973, pp. 3-14.
- Chelimsky, Eleanor, *High Impact Anti-Crime Program: National Level Evaluation Final Report: Executive Summary*, The MITRE Corporation, January 1976.
- Chelimsky, Eleanor, and Judith Dahmann, *Final Report of the Career Criminal Program National Evaluation*, The MITRE Corporation, June 1980.
- Chelimsky, Eleanor, and Joseph Sasfy, *Improving the Criminal Processing of Misdemeanants, The Improved Lower Court Case Handling Program; Cross-Jurisdictional Analysis, National Evaluation: Final Report*, The MITRE Corporation, January 1978.
- Coch, Lester, and John R. P. French, Jr., "Overcoming Resistance to Change," in Harold Proshansky and Bernard Seidenberg (eds.), *Basic Studies in Social Psychology*, Holt, Rinehart, and Winston, Inc., New York, 1965.
- Cohen, L. H., "Factors Affecting the Utilization of Mental Health Evaluation Research Findings," *Professional Psychology*, Vol. 8, 1977, pp. 526-534.
- Colton, Kent W., "Routine Computer Technology: Implementation and Impact," Chap. 3 in Kent W. Colton (ed.), *Police Computer Technology*, Lexington Books, Lexington, Mass., 1978.
- Comptroller General of the United States, *The Pilot Cities Program: Phaseout Needed Due to Limited National Benefits*, Law Enforcement Assistance Administration, Department of Justice, Washington, D.C., 1975.
- Congressional Budget Office, *The Law Enforcement Assistance Administration: Options for Reauthorization*, U.S. Government Printing Office, Washington, D.C., May 1979.
- Cushman, Robert C., "LEAA's 'Pilot Cities'—A Model for Criminal Justice Research and Demonstration," *San Diego Law Review*, Vol. 9, June 1972.
- Dahmann, Judith, et al., *Local Criminal Justice Planning: A Study of the Institutionalization Process*, The MITRE Corporation, May 1980 (draft).
- Danziger, James N., and William H. Dutton, *Technological Innovation in Local Government: The Case of Computers in U.S. Cities and Counties*, Urban Information Systems Research Group, University of California, Irvine, July 1976.
- Derthick, Martha, *New Towns In-Town*, The Urban Institute, Washington, D.C., 1972.

- Domestic Technology Transfer: Issues and Options*, U.S. House of Representatives, Committee on Science and Technology, 95th Cong., 2d sess., November 1978.
- Downs, Anthony, *Inside Bureaucracy*, Little, Brown, and Company, Boston, Mass., 1967.
- Eisenstein, James, *Politics and the Legal Process*, Harper and Row, New York, 1973.
- Ellickson, Phyllis, *Balancing Energy and the Environment: The Case of Geothermal Development*, The Rand Corporation, R-2774-DOE, July 1978.
- , *The Fiscal Limitation Movement: Present Context and Outlook*, The Rand Corporation, N-1160-FF, May 1979.
- Ellickson, Phyllis, and Edward Merrow, *Resolving Environmental Issues in Energy Development: Roles for DOE and Its Field Offices*, The Rand Corporation, R-2335-DOE, January 1979.
- Elmore, Richard F., "Organizational Models of Social Program Implementation," *Public Policy*, Vol. 26, No. 2, Spring 1978, pp. 185-225.
- Emrick, John A., and Susan M. Peterson, *A Synthesis of Findings Across Five Recent Studies in Educational Dissemination and Change*, Far West Laboratory, San Francisco, California, 1978.
- Eveland, J. D., and E. M. Rogers, *Measuring the Innovation Process in Public Organizations*, unpublished manuscript, National Science Foundation, Washington, D.C., December 20, 1980.
- Ewing, Blair G., "Research into Action: The Approach of the National Institute of Law Enforcement and Criminal Justice," paper presented at the Annual American Society of Criminology Meeting, Dallas, Texas, November 1975.
- Feeley, Malcolm M., et al., "Implementation of the Safe Streets Act: The Role of State Planning in the Development of Criminal Justice Federalism," paper presented to the Midwest Political Science Association, Chicago, Illinois, May 1976.
- Feeley, Malcolm M., and Austin D. Sarat, *The Policy Dilemma*, University of Minnesota Press, Minneapolis, 1980.
- Feldman, Martha S., and James G. March, "Information in Organizations as Signal and Symbol," paper presented at the Western Political Science Association Meetings, San Francisco, March 27-29, 1980.
- Feller, Irwin, and Donald C. Menzel, "Diffusion Milieus as a Focus of Research on Innovation in the Public Sector," *Policy Sciences*, Vol. 5, 1977, pp. 49-68.
- Feller, Irwin, Donald C. Menzel, and Lee Ann Kozak, *Diffusion of Innovations in Municipal Governments*, Institute for Research on

- Human Resources, Pennsylvania State University, University Park, June 1976.
- Freed, Daniel J., "The Nonsystem of Criminal Justice," in J. S. Campbell et al. (eds.), *Law and Order Reconsidered*, Report of the Task Force on Law and Law Enforcement to the National Commission on the Causes and Prevention of Violence, 1969.
- Fullan, Michael, "Research on the Implementation of Educational Change," in R. Corwin (ed.), *Research in Organizational Issues in Education*, JAI Press Inc., Greenwich, Connecticut, 1980.
- , *School Focused In-Service Education in Canada*, prepared for CERI (Centre for Educational Research and Innovation), OECD Project on In-Service Education for Teachers (INSET), Toronto, 1979.
- Fullan, Michael, and Alan Pomfret, "Research on Curriculum and Instruction Implementation," *Review of Educational Research*, Vol. 47, No. 1, Winter 1977, pp. 335-397.
- Gay, William G., et al., *Issues in Team Policing: A Review of the Literature*, NILECJ, LEAA, U.S. Department of Justice, September 1977.
- Glaser, E. M., "Knowledge Transfer and Institutional Change," *Professional Psychology*, Vol. 4, 1973, pp. 434-444.
- Glaser, E. M., and C. G. Wrenn, *Putting Research, Experimental, and Demonstration Findings to Use*, Office of Manpower Policy, Evaluation and Research, U.S. Department of Labor, Washington, D.C., 1966.
- Goodlad, John I., and M. Frances Klein and Associates, *Behind the Classroom Door*, Charles A. Jones Publishing Company, Worthington, Ohio, 1970.
- Gordon, Gerald, and G. Lawrence French (eds.), *The Diffusion of Medical Technology*, Ballinger, Cambridge, Mass., 1975.
- Gross, Neal C., Joseph Giacuinta, and Marilyn Bernstein, *Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change*, Basic Books, Inc., New York, 1971.
- Hall, G. E., and S. F. Loucks, "Innovation Configurations: Analyzing the Adaptations of Innovations," paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.
- Hargrove, Erwin C., *The Missing Link: The Study of the Implementation of Social Policy*, The Urban Institute, Washington, D.C., 1975.
- Havelock, R. G., "New Developments in Translating Theory and Research into Practice," paper presented at the 96th Annual Meeting of the American Public Health Association, Detroit, Michigan, November 1968.

- , *Planning for Innovation*, Institute for Social Research, University of Michigan, Ann Arbor, July 1969.
- , *The Change Agent's Guide to Innovation in Education*, Educational Technology Publications, Englewood Cliffs, New Jersey, 1973.
- , *Ideal Systems for Research Utilization: Four Alternatives*, Social Rehabilitation Service, DHEW, Washington, D.C., 1974.
- Havelock, R. G., and D. A. Lingwood, *R&D Utilization Strategies and Functions: An Analytical Comparison of Four Systems*, Institute for Social Research, University of Michigan, Ann Arbor, 1973.
- Havelock, R. G., and R. C. Mann, *Research and Development Laboratory Management Knowledge Utilization Study*, Final Report on Contract No. AF49(638)1732, Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, Ann Arbor, 1968.
- Herriot, Robert E., and Neal Gross, *The Dynamics of Planned Educational Change: Case Studies and Analyses*, McCutchan Publishing Corporation, Berkeley, California, 1979.
- Horst, Pamela, et al., *A Case Study of LEAA's Implementation of the Managing Criminal Investigation Demonstration: Toward an Evaluation Methodology*, The Urban Institute, Washington, D.C., June 1977.
- Human Interaction Research Institute and the National Institute for Mental Health, *Putting Knowledge to Use: A Distillation of the Literature Regarding Knowledge Transfer and Change*, National Institute of Mental Health, Rockville, Maryland, 1976.
- Ingram, Helen, "Policy Implementation Through Bargaining: The Case of Federal Grants-in-Aid," *Public Policy*, Fall 1977, Vol. 25, No. 4, pp. 499-526.
- Jolly, J. A., J. W. Creighton, and P. A. George, *Technology Transfer Process Model and Annotated Bibliography*, Naval Postgraduate School, Monterey, California, 1978.
- Keeny, J. K., et al., "Reformulation of the Role(s) and Operations of a Big City Police Department's Sex Crimes Unit: A Process of Change from Within," paper presented at Academy of Criminal Justice Sciences, Oklahoma City, Oklahoma, March 1980.
- Kiesler, C. A., B. E. Collins, and N. Miller, *Attitude Change: A Critical Analysis of Theoretical Approaches*, John Wiley and Sons, New York, 1969.
- Klein, Malcolm W., and Katherine S. Teilman, *The Handbook of Criminal Justice Evaluation*, Sage Publications, Beverly Hills, California, 1980.
- Knott, Jack, and Aaron Wildavsky, "If Dissemination Is the Solution,

- What Is the Problem?" *Knowledge: Creation, Diffusion, Utilization*, Vol. 1, No. 4, June 1980, pp. 537-578.
- Larsen, Judith K., "Knowledge Utilization: What Is It?" *Knowledge: Creation, Diffusion, Utilization*, Vol. 1, No. 3, March 1980, pp. 421-442.
- Larsen, Judith K., and Rekha Agarwala-Rogers, "Re-invention of Innovative Ideas: Modified? Adopted? None of the Above?" *Evaluation*, Vol. 4, 1977, pp. 136-140.
- Levine, Charles H., "More on Cutback Management: Hard Questions for Hard Times," *Public Administration Review*, Vol. 39, No. 2, March-April 1979, pp. 179-183.
- , "Organizational Recline and Cutback Management," *Public Administration Review*, Vol. 38, No. 4, July/August 1978, pp. 316-325.
- Lindblom, Charles E., and David K. Cohen, *Usable Knowledge: Social Science and Social Problem Solving*, Yale University Press, New Haven, 1979.
- Louis, Karen Seashore, "The Role of External Agents in Knowledge Utilization, Problem Solving and Implementation of New Programs in Local School Contexts," unpublished paper, n.d.
- Lukas, C., and C. Wohlleb, *Implementation of Head Start Planned Variation: 1970-71, Part 1 and 2*, Huron Institute, Cambridge, Mass., 1973.
- Mann, Dale, *Making Change Happen*, Teachers College Press, New York, 1978.
- March, James G., and Herbert Simon, *Organizations*, John Wiley and Sons, New York, 1958.
- McLaughlin, Milbrey W., *Evaluation and Reform: ESEA, Title I*, Ballinger, Cambridge, Mass., 1975.
- McLaughlin, Milbrey W., and David D. Marsh, "Staff Development and School Change," *Teachers College Record*, Vol. 70, No. 1, 1978.
- Miles, M. B., *Westgate Schools: A Case Study of Two Open-Space Elementary Schools, Part III*, Project on Social Architecture in Education, Center for Policy Research, New York, 1978.
- Miles, M. B., et al., *Final Report, Part IV: Conclusions—Reflections on the Case Studies and Implications*, Project on Social Architecture in Education, Center for Policy Research, New York, 1978.
- Milio, Nancy, "Health Care Organizations and Innovation," *Journal of Health and Social Behavior*, Vol. 12, June 1971, pp. 163-178.
- Milton, Catherine, "Demonstration Projects as a Strategy for Change," in Institute of Criminal Justice and Criminology, University of Maryland, *Innovation in Law Enforcement*, Department of Justice, Washington, D.C., 1973, pp. 15-133.

- Moore, Mark H., et al., "The Case of the Fourth Platoon," *Journal of Urban Analysis*, Vol. 3, 1974, pp. 207-258.
- Murray, Charles A., and R. E. Krug, *The National Evaluation of the Pilot Cities Program*, American Institute for Research, Washington, D.C., November 1975.
- National Advisory Committee on Criminal Justice Standards and Goals, *Criminal Justice Research and Development*, Report of the Task Force on Criminal Justice Research and Development, U.S. Government Printing Office, Washington, D.C., 1976.
- National Institute of Law Enforcement and Criminal Justice, *Innovation in Law Enforcement*, U.S. Government Printing Office, Washington, D.C., June 1973.
- National Institute of Mental Health, *A Manual for Research Utilization*, U.S. Government Printing Office, Washington, D.C., 1971.
- Nelson, Margaret, and Sam Sieber, "Innovations in Urban Secondary Schools," *School Review*, Vol. 84, February 1976, pp. 213-231.
- Nelson, R. N., and Sidney G. Winter, "In Search of Useful Theory of Innovation," *Research Policy*, Vol. 6, 1977, pp. 36-76.
- Ohlin, Lloyd E., A. E. Miller, and R. B. Coates, *Juvenile Correctional Reform in Massachusetts*, Law Enforcement Assistance Administration, U.S. Department of Justice, Washington, D.C., 1977.
- Palumbo, Dennis, and Elaine Sharp, "Process Versus Impact Evaluations of Community Corrections," in David Nachmias (ed.) *The Practice of Policy Evaluation*, St. Martins Press, New York, 1980, pp. 288-304.
- Pascal, A. H., et al., *Fiscal Containment of Local and State Government*, The Rand Corporation, R-2494-FF/RC, September 1979.
- Patton, M. Q., et al., "In Search of Impact: An Analysis of the Utilization of Federal Health Evaluation Research," in C. H. Weiss (ed.), *Using Social Research in Public Policy Making*, D. C. Heath, Lexington, Mass., 1977, pp. 141-163.
- Pelz, Donald C., "Some Expanded Perspectives on the Use of Social Science in Public Policy," in J. M. Yinger and S. J. Cutler (eds.), *Major Social Issues: A Multidisciplinary View*, The Free Press, New York, 1978.
- Perrin, J. R., and C. A. Johnson, *Active Technology Transfer*, American Institute of Aeronautics and Astronautics, Technical Information Service, New York, 1972.
- Pincus, John, "Incentives for Innovation in the Public Schools," *Review of Educational Research*, Vol. 44, Winter 1974, pp. 113-144.
- Planning for Creative Change in Mental Health Services: A Manual on Research Utilization*, National Institute of Mental Health, DHEW Publication No. (HSM) 73-9147, Washington, D.C., 1971.

- Pressman, Jeffrey L., and Aaron Wildavsky, *Implementation*, University of California Press, Berkeley, California, 1973.
- Radnor, Michael, *Studies and Action Programs on the Law Enforcement Equipment R&D System*, Graduate School of Management, Northwestern University, Evanston, Illinois, January 1975.
- Radnor, Michael, and H. D. Hofler, "Beyond Measurement to Appropriateness and Learning: Evaluating LEAA Experimental Programs," in Robert Rich (ed.), *Translating Evaluation into Policy*, Sage Publications, Beverly Hills, California, 1979.
- Regan, Katryna J., et al., *Managing Criminal Investigations: A Summary Report*, The Urban Institute, Washington, D.C., March 1979.
- Rice, R. E., and E. M. Rogers, "Reinvention in the Innovation Process," *Knowledge: Creation, Diffusion, Utilization*, Vol 1, No. 4, 1980, pp. 499-514.
- Rich, R. F., "Uses of Social Science Information by Federal Bureaucrats: Knowledge for Action Versus Knowledge for Understanding," in C. H. Weiss (ed.), *Using Social Research in Public Policy Making*, D. C. Heath, Lexington, Mass., 1977.
- Roessner, J. David, "Incentives to Innovate in Public and Private Organizations," *Administration and Society*, Vol. 9, No. 3, November 1977, pp. 341-365.
- Rogers, Everett M., *Diffusion of Innovations*, The Free Press, New York, 1962.
- , "Communication of Vocational Rehabilitation Innovations," *Communication, Dissemination, and Utilization of Rehabilitation Research Information*, Joint Liaison Committee of the Council of State Administrators of Vocational Rehabilitation and the Rehabilitation Counselor Educators, Studies in Rehabilitation Counselor Training, No. 5, Department of Health, Education and Welfare, Washington, D.C., 1967.
- Rogers, Everett M., and F. Shoemaker, *Communication of Innovations*, The Free Press, New York, 1971.
- Rogovin, C., "Law Enforcement Assistance Administration: A Symposium on Its Operation and Impact," *Columbia Human Rights Law Review*, Vol. 5, 1973.
- Rosenblum, Sheila, and Karen Seashore Louis, *Stability and Change: Innovation in an Educational Context*, Abt Associates, Cambridge, Mass., 1979.
- Ruth, Henry S., Jr., *Research Priorities for Crime Reduction Efforts*, The Urban Institute, Washington, D.C., January 1977.
- Sasfy, Joseph H., *An Examination of Intensive Supervision as a Treatment Strategy for Probationers*, The MITRE Corporation, November 1975.
- Sherman, Lawrence W., "The Case of Neighborhood Team Policing," in R. N. Nelson and D. Yates (eds.), *Innovation and Implementation in Public Organizations*, D. C. Heath, Lexington, Mass., 1978.
- Territo, Leonard, "Planning and Implementing Organizational Change," *Journal of Police Science and Administration*, Vol. 8, No. 4, 1980, pp. 390-398.
- Tien, James J., et al., *An Alternative Approach in Police Patrol: The Wilmington Split-Force Experiment*, Public Systems Evaluation, Inc., Cambridge, Mass., March 1977.
- U.S. Comptroller General, *Evaluation Needs of Crime Control Planners, Decisionmakers and Policymakers Are Not Being Met*, Washington, D.C., 1979.
- U.S. House of Representatives, *The Block Grant Programs of LEAA*, U.S. Government Printing Office, Washington, D.C., 1976.
- Van Horn, Carl, "Implementing CETA: The Federal Role," *Policy Analysis*, Vol. 4, Spring 1978, pp. 154-183.
- Van Meter, Donald S., and Carl E. Van Horn, "The Policy Implementation Process: A Conceptual Framework," *Administration and Society*, Vol. 6, No. 4, February 1975, pp. 445-488.
- Walker, Jack L., "The Diffusion of Innovations Among the American States," *American Political Science Review*, Vol. 63, September 1969, pp. 880-899.
- Walker, W. E., et al., *The Impact of Proposition 13 on Local Criminal Justice Agencies: Emerging Patterns*, The Rand Corporation, N-1521-DOJ, June 1980.
- Warner, David C., "The New York City Health and Hospitals Corporation," in R. N. Nelson and D. Yates (eds.), *Innovation and Implementation in Public Organizations*, D. C. Heath, Lexington, Mass., 1978.
- Warner, Kenneth E., "The Need for Some Innovative Concepts of Innovation," *Policy Sciences*, Vol. 5, No. 4, December 1974, pp. 435-451.
- Wasserman, Robert, Michael Paul Gardner, and Alana S. Cohen, *Improving Police Community Relations*, LEAA, Washington, D.C., June 1973.
- Weatherly, Richard, and Michael Lipsky, "Street-Level Bureaucrats and Institutional Innovation: Implementing Special Education Reform," *Harvard Educational Review*, Vol. 47, No. 2, May 1977, pp. 171-197.
- Weimer, David L., "Federal Intervention in the Process of Innovation in Local Public Agencies: A Focus on Organizational Incentives," *Public Policy*, Vol. 28, No. 1, Winter 1980, pp. 93-116.
- , "The Inducement and Implementation of Innovations for Prose-

- cution Management," unpublished dissertation, University of California, Berkeley, 1978.
- Weiss, Carol H., "Knowledge Creep and Decision Accretion," *Knowledge: Creation, Diffusion, Utilization*, Vol. 7, No. 3, March 1980, pp. 381-404.
- Weiss, Carol H., and Michael J. Bucuvalas, "The Challenge of Social Research to Decisionmaking," in Carol H. Weiss (ed.), *Using Social Research in Public Policymaking*, D. C. Heath, Lexington, Mass., 1977.
- , "Truth Tests and Utility Tests: Decisionmakers' Frames of Reference for Social Science Research," *American Sociological Review*, Vol. 45, April 1980, pp. 302-313.
- White, Thomas, et al., *Evaluation of LEAA's Full Service Neighborhood Team Policing Demonstration: A Summary Report*, The Urban Institute, Washington, D.C., December 1977.
- Williams, Walter, "Implementation Analysis and Assessment," *Policy Analysis*, Vol. 1, No. 3, Summer 1975, pp. 531-566.
- Williams, Walter, and Richard Elmore (eds.), *Social Program Implementation*, Academic Press, New York, 1976.
- Wilson, James Q., "Innovation in Organization: Notes Toward a Theory," in James D. Thompson (ed.), *Approaches to Organizational Design*, University of Pittsburgh Press, Pittsburgh, Pennsylvania, 1966.
- , *Political Organizations*, Basic Books, New York, 1973.
- Wycoff, Mary Ann, and George L. Kelling, *The Dallas Experience: Organizational Reform*, The Police Foundation, Washington, D.C. 1978.
- Yin, Robert K., "Contemporary Issues in Domestic Technology Transfer," in *Domestic Technology Transfer: Issues and Options*, U.S. House of Representatives, Committee on Science and Technology, 95th Cong., 2d sess., November 1978.
- Yin, Robert K., et al., *Changing Urban Bureaucracies: How New Practices Become Institutionalized*, The Rand Corporation, R-2277-NSF, March 1978.
- Yin, Robert K., Karen A. Heald, and Mary E. Vogel, *Tinkering With the System*, Lexington Books, Lexington, Mass., 1977.
- Zaltman, Gerald, "Knowledge Utilization as Planned Social Change," *Knowledge*, Vol. 7, No. 1, September 1979, pp. 82-105.
- Zaltman, Gerald, et al., *Innovations and Organizations*, John Wiley and Sons, New York, 1973.

**END**