

# A NATIONAL PROGRAM OF RESEARCH, DEVELOPMENT, TEST, AND EVALUATION ON LAW ENFORCEMENT AND CRIMINAL JUSTICE

THE FRANKLIN INSTITUTE RESEARCH LABORATORIES  
CRIMINAL JUSTICE CENTER

Alfred Blumstein  
*Study Director*

November 1968



INSTITUTE FOR DEFENSE ANALYSES  
ARLINGTON, VIRGINIA

Prepared for



Law Enforcement Assistance Administration  
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Alfred Blumstein, *Study Director*

Lynn Curtis

Janet Kiernan

Richard Larson

Joseph Navarro

Muriel Shankman

Jean Taylor

Eugene Webb

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**U.S. Department of Justice  
National Institute of Justice**

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## PREFACE

This report was prepared by the Institute for Defense Analyses under contract to the Office of Law Enforcement Assistance of the Department of Justice. The work was under the overall direction of Alfred Blumstein. Eugene Webb, Jean Taylor, Joseph Navarro, Lynn Curtis, Richard Larson, Muriel Shankman, and Janet Kiernan of the IDA research staff contributed to various sections of the report.

Central to the development of the research plan presented here was the advice and guidance received from the Steering Committee established by IDA to guide the project. The Steering Committee was composed of individuals representing all parts of the criminal justice system, research management, and various relevant research disciplines. The members of the Steering Committee are as follows:

Honorable Charles D. Breitel, Associate Justice  
State of New York Court of Appeals

Courtney Evans, Director  
Office of Law Enforcement Assistance

Dr. Eugene Fubini, Vice President  
International Business Machines, Inc.

Geoffrey C. Hazard, Jr., Administrator  
American Bar Foundation

Richard A. McGee, President  
Institute for the Study of Crime and Delinquency

Honorable Patrick V. Murphy, Director of Public Safety  
District of Columbia

Chief Thomas Reddin  
Los Angeles Police Department

Dr. David Z. Robinson, Vice President for Academic Affairs  
New York University

Dr. J.P. Ruina, Vice President for Special Laboratories  
Massachusetts Institute of Technology

Honorable Fred M. Vinson, Jr., Assistant Attorney General  
Department of Justice

Professor James Vorenberg, Law School  
Harvard University

Professor James Q. Wilson, Department of Government  
Harvard University

Professor Marvin E. Wolfgang, Director, Center for Studies  
in Criminology and Criminal Law, University of Pennsylvania

Valuable guidance from OLEA was received from Mr. Daniel Skoler,  
Deputy Director of OLEA, and Dr. Robert Emrich.

Important contributions to the report were received from Professor  
Herman Goldstein of the University of Wisconsin, Judge Richard F.C.  
Hayden of the Superior Court of California, Mr. Herbert Isaacs of  
Isaacs-Dobbs Systems, Inc., Dr. Charles Kingston of New York State  
Identification and Intelligence System, Professor E.K. Nelson of  
the University of Southern California, Professor Lloyd Ohlin of  
Harvard Law School, and Professor Franklin Zimring of the University  
of Chicago. Many other persons too numerous to list made important  
contributions in the formulation of the program described here.

The ultimate responsibility for the program, however, must fall  
on the authors of the report. Guidance given was not always re-  
ligiously followed.

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## I. SUMMARY

The Omnibus Crime Control and Safe Streets Act of 1968 (Public Law 90-351) creates a National Institute of Law Enforcement and Criminal Justice within the Justice Department and authorizes \$10 million in Fiscal 1969 for this function.

The Justice Department initiated planning for the Institute by contracting with the Institute for Defense Analyses (IDA) to structure a research, development, and test and evaluation (RDT&E) program to be undertaken by the Institute upon its creation. This report outlines that program.

The basic purpose of the total program is fostering successful innovation in all our efforts to control crime, especially those of the criminal justice system. A consequence of this program will be the introduction of new disciplines and professions into the criminal justice process. Hopefully, the new professionals will be a significant force for innovation.

A functional structure of mission and program areas is developed as an alternative to the traditional partition into police, courts, and corrections subsystems. Four Mission Areas are envisioned. Their common goal is the reduction of the total social cost associated with crime. Within the Mission Areas, 11 specific Program Areas are defined. The mission and program areas are as follows:

Mission Area I. Focuses on reducing the need and desire to commit crime, by:

Program Area 1. Reducing Causes of Crime

Program Area 2. Reducing Recidivism through Rehabilitation

Mission Area II. Focuses on increasing the risk and difficulty in committing crime, by:

Program Area 3. Directly Preventing Crime

Program Area 4. Apprehending and Convicting Offenders

Mission Area III. Focuses on improving the management of the criminal justice system, by:

Program Area 5. Improving Efficiency and Effectiveness

Program Area 6. Improving Criminal Justice System-Community Relations

Program Area 7. Improving Selection and Training of Personnel

Mission Area IV. Is designed to provide various kinds of technical support needed by the other three Mission Areas. This support includes:

Program Area 8. An Equipment Evaluation Center

Program Area 9. A Statistics and Crime Measurement Center

Program Area 10. A Major Private Research Center

Program Area 11. Program Management Support

The major current Federal RDT&E programs related to crime problems are reviewed in order to help identify where gaps currently exist and where priority for the proposed program should be assigned. This current work is broken into the proposed Program Area classifications.

The principal activity at present (80 percent of total work) is found to be directed at Program Areas 1 (social causes), 2 (rehabilitation), and 5 (system management), with Program Areas 1 and 2 accounting for 65 percent. There are clear gaps in Program Areas 3 (direct prevention), 4 (apprehension), and 6 (community relations), which together account for only 10 percent of the total current work. This allocation shows police to be receiving the smallest share of support, with 23 percent of the total.

Drawing on this review, a proposed program for the National Institute is developed, along with overall program and management strategies.

The strategic objectives for the first year are to:

- Demonstrate the Institute's value to operating agencies
- Create mechanisms for disseminating RDT&E results into operating agencies
- Establish informational bases on which future work can build
- Begin to create institutions addressing problems of crime control
- Train new cadres of specialists

The following tabulation presents a suggested allocation to the 11 Program Areas of a first-year \$10-million budget:

ALLOCATION OF \$10 MILLION BUDGET BY PROGRAM AREA

<u>Program Area</u>	<u>Apportionment of \$10-Million First-Year Budget (Thousands of \$)</u>
1. Reducing Causes	1000
2. Reducing Recidivism	1300
3. Direct Prevention	1000
4. Apprehension and Conviction	2100
5. Efficiency and Effectiveness	1400
6. CJS-Community Relations	800
7. Selection and Training of Personnel	400
8. Equipment Evaluation Center	300
9. Statistics and Crime Measurement	300
10. Major Private Research Center	1000
11. Program Management	400

Within each Program Area, allocation of funds are made to specific projects. The details of each project are discussed. Projects with the highest priority in light of the gaps in present research include the following:

<u>Program Area</u>	<u>Project</u>
3	Analysis and experimentation with preventive patrol strategies and techniques
4	Analysis of factors leading to apprehension of criminals

5	Development of model criminal justice information systems
5	Analysis of total criminal justice system operations
9	Development of a National Center for Criminal Justice Statistics
4	Design of improved command-and-control systems
3	Studies of factors operative in deterring crime
2	Development of improved techniques to predict future criminal patterns of convicted offenders
2	Development and evaluation of innovative treatment programs
5	Improving the allocation of criminal justice system resources by time, place, and function
4	Development of a new family of portable police radios

In order to manage the Institute's program, a functional organizational structure is recommended, consisting of three functional divisions reflecting the three principal mission areas as follows:

- Crime Prevention and Rehabilitation Division
- Crime Control Division
- Criminal Justice System Management Division

It is recommended that the staff of each division contain both individuals with significant experience in criminal justice operations and technical and research specialists.

The proposed research program will comprise three principal parts:

- An internal program conducted by the Institute Staff
- An external grant and contract program
- An institutional grant program designed to establish new institutions

The Institute must place major emphasis on assuring that the results of RDT&E projects find their way into improving operations. This can be fostered through:

- LEAA's technical assistance offices
- Widely distributed newsletters, journals, and magazine articles
- Guidance through the planning and action grant programs
- Workshops and meetings
- Personnel transfers

## II. A NATIONAL CRIMINAL JUSTICE RESEARCH, DEVELOPMENT, TEST AND EVALUATION PROGRAM

### A. BACKGROUND

In February 1967, the President's Commission on Law Enforcement and Administration of Justice submitted its comprehensive report\* examining the many problems of crime and its control, and the operation of the nation's highly fragmented, technologically primitive criminal justice system. Among the many needs of law enforcement and the administration of justice, the Commission pointed out that "the greatest need is the need to know."\*\* To fulfill this need the Commission recommended an integrated and diversified program including research, development, test and evaluation (RDT&E) projects at local and State levels, especially supporting those widely useful projects that no single agency could support alone; an effort to provide criminal justice agencies with the technical support they need to incorporate the results of these projects into their operations; a program establishing operations research groups in the larger criminal justice agencies; and a major science and technology program in a research institute.\*\*\* To create this research and development program, the Commission called for a major new Federal role of stimulation, coordination and financial assistance.

A dominant theme throughout the Commission's work was the need for reconsideration of what is now being done to control crime, and a search for new approaches. Because the cost of developing innovations, evaluating their consequences, and disseminating these results

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\*The Challenge of Crime in a Free Society, U.S. Government Printing Office, Washington, D.C., February 1967.

\*\* Ibid., p. 273.

\*\*\* Ibid., p. 270.

throughout the criminal justice community are often too great for any but the few largest agencies to bear, the Commission urged Federal support for these efforts. The Federal Government has a clear role in combining the interests of all the separate jurisdictions into a common RDT&E program. For these reasons, such a Federally supported Research and Development Program was incorporated into the President's Safe Streets and Crime Control Bill.\* The Act, after amendment, was signed into law on June 19, 1968, as the Omnibus Crime Control and Safe Streets Act of 1968 (Public Law 90-351).

Title I of the Act establishes a Law Enforcement Assistance Administration (LEAA) principally to support State and local government efforts in crime control. Parts B and C of Title I authorize grants for developing plans to improve crime control and for subsidizing the actions and innovations to carry out these plans. The grants are to be administered through an Office of Planning and Law Enforcement Grants. Part D of Title I creates a National Institute of Law Enforcement and Criminal Justice (referred to hereafter as the "Institute") within the Justice Department. The Act\*\* authorizes the Institute to perform the following functions:

- "1. To make grants to, or enter into contracts with, public agencies, institutions of higher education, or private organizations to conduct research, demonstrations, or special projects pertaining to the purposes described in this title, including the development of new or improved approaches, techniques, systems, equipment, and devices to improve and strengthen law enforcement;
- "2. To make continuing studies and undertake programs of research to develop new or improved approaches, techniques, systems, equipment, and devices to improve and strengthen law enforcement, including, but not limited to, the effectiveness of projects or programs carried out under this title;

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\* H.R 5037 and S. 917, submitted to Congress on February 6, 1967.

\*\* Section 402.

- "3. To carry out programs of behavioral research designed to provide more accurate information on the causes of crime and the effectiveness of various means of preventing crime, and to evaluate the success of correctional procedures;
- "4. To make recommendations for action which can be taken by Federal, State, and local governments and by private persons and organizations to improve and strengthen law enforcement;
- "5. To carry out programs of instructional assistance consisting of research fellowships for the programs provided under this section, and special workshops for the presentation and dissemination of information resulting from research, demonstrations, and special projects authorized by this title;
- "6. To carry out a program of collection and dissemination of information obtained by the Institute or other Federal agencies, public agencies, institutions of higher education, or private organizations engaged in projects under this title, including information relating to new or improved approaches, techniques, systems, equipment, and devices to improve and strengthen law enforcement; and
- "7. To establish a research center to carry out the programs described in this section."

The Act authorizes\* \$10 million for these functions in Fiscal Year 1969.

In anticipation of a crime control act with such a significant research and development program, the Office of Law Enforcement Assistance of the Justice Department initiated planning for the Institute. The Office, as a consequence of the Institute for Defense Analyses' Science and Technology Task Force studies, contracted with IDA to structure a research and development program for the National Institute to undertake upon its creation. This report, building on the total work of the National Crime Commission, outlines that program.

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\*Section 520.

## B. THE FEDERAL ROLE IN CRIMINAL JUSTICE RESEARCH, DEVELOPMENT, TEST AND EVALUATION

The RDT&E program must serve as a stimulus and a catalyst to foster innovation and change in the nation's efforts to reduce crime. It is clear from the growing public concern with crime that the actions being taken today are not considered adequate. The program is intended to find new ways of reducing and controlling crime, ascertain how much better they are, and see that the most effective approaches are applied widely and wisely.

In considering such changes, a fundamental assumption is that the principal responsibility for crime reduction and control will continue to rest with State and local agencies and officials. The Federal Government should support them by helping to do those things they are unable to do wholly on their own, especially when the benefits can be generalized and shared widely, and also by fostering dissemination of results developed by State and local agencies on their own.

In research and development, in particular, the Institute can perform a central role without infringing on the prerogatives or authority of local agencies. Many agencies share common problems. Results such as development of new correctional rehabilitation approaches, for determining optimum patrol patterns, design, development, and evaluation of new command-and-control systems, or research into the susceptibility of different population groups to deterrence can be developed in one place and then reasonably translated to others.

Furthermore, since many RDT&E projects are expensive, most jurisdictions, in the face of normal inertia or budget pressures, cannot or will not invest in them. To a large degree, this explains the technically backward state of our criminal justice system and the extremely poor state of our knowledge on how to reduce and control crime. Those few organizations that do undertake research and development projects even in the face of these pressures, normally have little incentive to see that the results are disseminated elsewhere.

In contrast, the Institute can serve this collective interest. It can find the police departments best suited to conduct experiments on patrol tactics. It can choose the departments that are willing to experiment and have access to specialists in experiment design and evaluation. The research need not be inhibited by the agency's own budget. The Institute and the Law Enforcement Assistance Administration would then see that the findings are widely tested and duplicated.

The Institute can also organize the market for collective criminal justice equipment needs. In many cases, especially in the development of simple devices, industry can undertake the developments on its own. Here the Institute's role is to assure industry of a market and to establish guidelines on the requirements to be met. The high cost of custom design for each individual operating agency (most of which lack the technical skills for participating in such a custom design process) should be avoided. The Institute and the Law Enforcement Assistance Administration can bring together the common interests and needs, organize the preparation of requirements for a standardized family of devices to meet the total need, and then stimulate or support the development by industry. In some cases, such as command and control systems where the development costs are high, the Institute can support the development directly. The Institute can also evaluate alternative devices and techniques to assure that protection is wisely bought by both criminal justice agencies and the general public.

#### C. OBJECTIVES OF THE RESEARCH, DEVELOPMENT, TEST AND EVALUATION PROGRAM

The RDT&E program has three principal objectives:

1. Research--a better description of the current crime situation and of the relationships between crime and the actions taken to reduce and control it.
2. Development--of new and improved approaches and means for solving problems of crime reduction and control.
3. Test and Evaluation--of alternative innovations.

A consequence of this entire program will be the introduction of new disciplines and professions into the criminal justice process. The professionals involved, many of them with a research orientation, will pose fresh approaches, ask searching questions, and examine problems analytically. Hopefully, these people will be significant forces for innovation.

## 1. Research

The research objective is to be directed at the important areas of ignorance. The list ranges from the causes of crime to the information content of a fingerprint, from the genetic correlates of violent behavior to the biography of offenders, and from the measurement of the amount of crime to the measurement of its seriousness.

The research studies are intended to provide a foundation of knowledge for action programs and especially to guide the second objective--the development of new approaches. For a system like the criminal justice system, which has been only lightly touched by the profound social and technological changes of the 20th century, the need for such innovation has become vital.

## 2. Development

a. Equipment Development. The process of equipment development for the criminal justice system will be appreciably different from such development for the Defense Department and NASA. In these latter cases, the agency sponsoring the equipment development and the ultimate user are normally in the same organization. There is a single, unique user to satisfy, and both the developer and the user report within a single chain of command. Because of this relationship, communication of user needs and development response to them involves a well-organized procedure with explicitly formulated "requirements." In the Institute's case, however, it must foster development for independent State and local users. The users and the developer are organizationally independent. Also, the individual users are independent of each other, and they may have different requirements, or at least different opinions on

their requirements. These problems, of course, are shared in the programs of HEW, HUD, and other Federal agencies addressing domestic problems through local agencies. Clearly, coordination among these efforts will be required.

New procedures will consequently have to be found to organize effective equipment development and procurement in this more complex case. The total set of user requirements will have to be collected, organized, mediated, and expressed by the Institute, undoubtedly working through a combination of technical study groups. These groups will cooperate with committees of user representatives and the industry group performing the development.

The role of the Institute in equipment development will depend on the nature of the innovations. These may be considered to be of three kinds:

1. Innovations based on existing technology.
2. Innovations for which all the technological components are available but must be combined in new ways into large, complex systems.
3. Innovations which are not now technologically available and require advancing the state of the art.

Most equipment needs will fall into the first class, where the needs are primarily for clever invention rather than technological advance. Examples of innovations might include new and improved burglar alarms, locks and shielding devices.

Development in this case can be conducted almost entirely by existing private industry, working closely with user agencies or committees. Here the Institute plays mainly a stimulating role to generate response to existing needs, and a coordinating role to assure that the needs are well represented. Little or no Federal subsidy for the development will be necessary, for the development risks and costs will be relatively small and the profit potential in the identified market is reasonable. Private firms in competition

will thus have adequate incentive to pursue such developments. The National Institute can then help in the evaluation of alternative developments to encourage wise purchasing.

In the development of complex systems such as police command and control systems and large information systems, greater Federal support will be needed, however. The Institute will have to bring together and support system development organizations and operating agencies for development of the first models. The problem of finding the best system design is technically difficult and can only be accomplished by a close linkage to actual operations. Federal support will be necessary for the extra development costs associated with the first few models of each kind of system. As the appropriate design and the design process become clear, the Federal participation can decline.

Advances of the technological art will be required in such areas as the development of fingerprint recognition systems and an effective but relatively harmless non-lethal weapon for use against fleeing suspects. In such cases, Federal assistance would go directly to the technical group conducting the development. Without Federal financial assistance, the development risks and costs would normally inhibit private investment. Direct support will hopefully restore the development incentive.

b. Non-Equipment Development. Most innovations will not require new equipment. Directly relevant here are such developments as new police procedures, new court management approaches, and new means for improving offender rehabilitation.

In these cases and the many other areas of operational development, cooperative experimentation will be needed between the operating agencies, which are acquainted with the day-to-day problems, and technical organizations, which can provide professional assistance for development and evaluation.

The Institute would provide the financial support to cover the extra costs associated with a new approach. In cases where sufficient background knowledge already exists, innovative development can

begin immediately. Unlike the equipment technology situation, however, all the background knowledge will usually not be available. Here, then, research and development must be more intimately related. Thus, for example, the development of innovative programs to improve police-community relations may well involve parallel attitude measurement research.

### 3. Test and Evaluation

Once an innovation is developed, it must be evaluated for its utility for adoption elsewhere. The evaluation must consider the degree to which the intended effects are achieved, but must also take into account any side effects that may be created. Thus, for example, establishing intensive police patrol in a neighborhood may in fact reduce the volume of certain crimes in that neighborhood (and it is important to know which crimes are thus deterred); but it may also result in a corresponding crime rate increase in adjacent neighborhoods or in the neighborhoods from which the additional resources have been drawn. As another illustration, the evaluation of a new kind of police car must take into account not only its vehicular performance, but also the way police officers use it and the community responds to it. The evaluation process must always continue after the initial introduction of an innovation in order to assess its performance in the operating context. In view of continually changing circumstances, it is important that the concept of continual evaluation become an integral part of criminal justice operations. Evaluation units must be built into the agencies and charged with developing and maintaining baseline data to facilitate the testing process.

The evaluation process must take into account both the innovator's strong motivation and an innovation's high visibility when it is initially introduced. The developer is strongly motivated to make the development succeed. The initial test group is highly subject to the classic Hawthorne effect, i.e., they are likely to perform better simply because they become aware of being observed in a special situation. Thus, in order to generalize the results

of the initial trial to other places and context, replication of the innovation in a more normal context under good experimental control will always be desirable.

There is a special need to evaluate innovations through careful field tests. Lack of sophistication in the past has resulted in generally poor evaluation procedures for many demonstration projects. "Evaluation" has usually meant either the subjective opinion of a program director or incomplete and uncontrolled testing.

Other evaluations will involve equipment. Some of these tests can be done completely in the laboratory; an example is the determination of weapon accuracy or burglar-alarm failure rates. Most equipment, however, will require both laboratory and field testing. After laboratory testing of an item's technical performance, its non-technical performance--essentially involving the behavioral interactions between the equipment and both its users and the community at large--will weigh heavily in its evaluation. For example, a new non-lethal weapon can be tested in the laboratory for its direct physiological consequences. However, the community response to the weapon and its misuse may well be the most important factor in deciding whether or not to adopt it and in establishing guidelines for its use if it is adopted. The experience of electric batons and the Chemical Mace has already clearly brought out the importance of these considerations. As in the case of non-equipment innovations, field evaluation procedures in the equipment case have been poor.

Wherever possible in the evaluation process, experimental controls will be required in the evaluation. Measurement in quantitative terms is also desirable wherever possible, though when it is not, impressionistic consequences identified as such will be necessary. Comparing the consequences of an innovation with its costs and side effects will then provide guidance to other jurisdictions on whether to incorporate the innovation into their own operations.

It is clear, in sum, that the evaluation of both operational and equipment innovations requires considerable sophistication in social experimentation and in the techniques of experiment design.

Because of the widespread inadequacies suggested and the unique opportunities in the criminal justice system for scientifically and socially careful experimentation, it seems a logical place to experiment with and develop the evaluation process for use in the future.

#### D. IMPLEMENTATION OF THE PROGRAM

Not only must the Institute develop innovations and determine which ones are desirable, but it must direct considerable attention to seeing that the desirable ones are implemented. Without a well-planned and administered strategy for implementation, much quality work is likely to accumulate dust on library shelves.

One component of an implementation strategy is finding means to sell innovations to criminal justice officials. The problem may be less severe in the case of new equipment; if a piece of hardware is physically superior and there are minimal behavioral and organizational constraints to adoption, its merit is easy to see, and it has a high probability of being accepted if the price is reasonable. Operational innovations, however, may present more difficulties. Here, the individuals operating the system might resist the change. Some judges, for example, might interpret new aids to sentencing decisions as infringements on their traditional discretionary powers, and some police officers might view improved patrol schedules as disruptive to a well-established routine.

These problems can be addressed not only by a commitment of staff to them, but also by directing a component of the research program at finding better means for implementation.

#### E. FUNCTIONAL STRUCTURE OF THE PROGRAM

The objectives of research, development, and test and evaluation discussed above provide one way of breaking down the Institute's program. Their utility is in distinguishing between different degrees of proximity to actual operational employment (research being most

remote and evaluation closest to operation). Another important breakdown is the functional one. Its value is that it distinguishes between the different operational missions to be performed. Such a structure provides a basis for applying priorities reflecting feasibility and utility. It also permits comparison with related efforts being conducted and sponsored elsewhere, and so helps to identify the important gaps.

Such a functional structure of mission and program areas is developed in the next section. The distribution of current effort, especially in the work supported by the Department of Justice and the Department of Health, Education, and Welfare is presented in Chapter IV. Chapter V then develops a proposed program for the Institute. Some technical issues affecting the management of the program are discussed in Chapter VI.

### III. MISSION AND PROGRAM AREAS

#### A. STRUCTURAL CONCEPTS

Partitioning the total problem of research, development, test and evaluation on crime reduction and control was first considered along the traditional subsystem lines of police, courts, and corrections. This partition was found undesirable for a variety of reasons. It is difficult to develop priorities rationally with such a structure. A large number of the important problems (e.g., total system planning) pertain to the entire criminal justice system, a second group (e.g., the technology of evidence) relates to the interactions among these component subsystems, certain others (e.g., the causes of crime) include considerations outside the criminal justice system, and still others (e.g., methodology for efficient allocations of resources) apply equally to each of these subsystems. Furthermore, there is considerable benefit to be gained by considering the problems of innovation in a non-traditional way. Consequently, it was decided to separate the problem along functional lines associated with the missions to be performed. This approach emphasizes the subsystem interactions, where the problems are most severe and most need attention. As in any partition, there will be ambiguity about where a particular problem properly belongs and about some issues which cut across partition boundaries. These problems, however, should be minimized with such a functional orientation.

The initial unifying concept used to create the major mission areas is the reduction of the total social cost associated with crime and of actions taken to control crime. This social cost has many components. It includes the costs of crime, which are lowered by reducing the level of crime. It also includes the costs of crime control,

which are lowered by reducing the disruption to normal activity by the crime control system, as well as by improving its efficiency. The complexity of these components of total social cost is illustrated by the categories in Table 1.

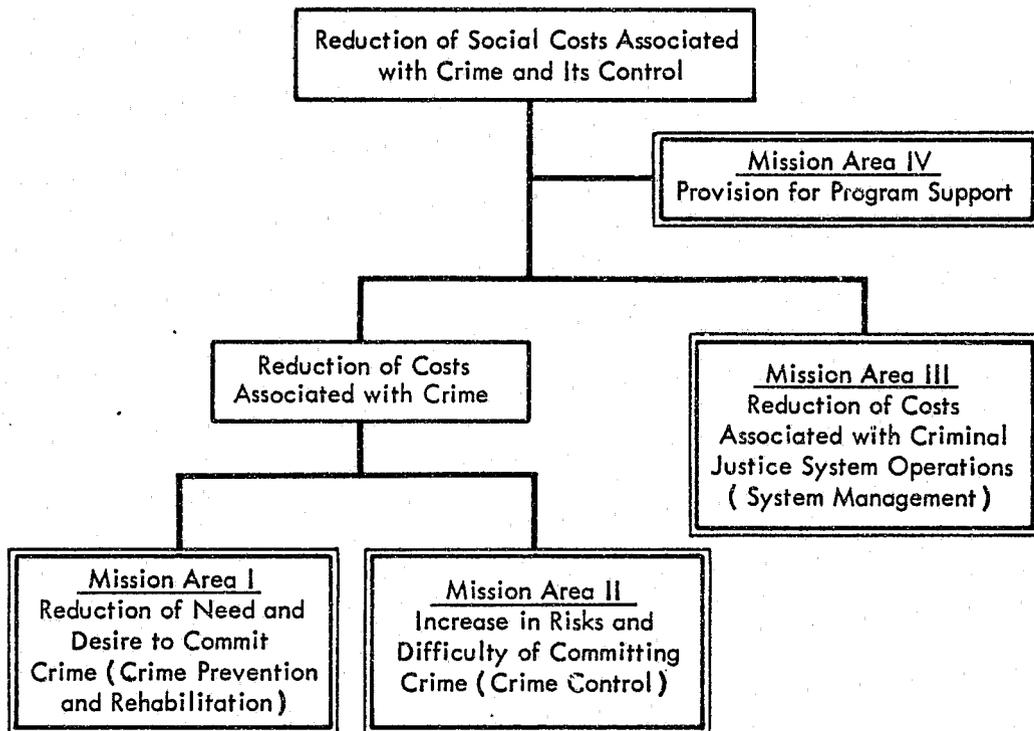
The concept of the total social cost associated with both crime and criminal justice system operations can more generally and analytically be broken down into four major mission areas, as shown in Fig. 1. With regard to reducing social costs associated with crime, Mission Area I focuses on reducing the need and desire to commit crime while Mission Area II focuses on increasing the risk in committing crime. Mission Area III focuses on reducing the social costs associated with the criminal justice crime system by improving system management. In addition, any RDT&E program will require various kinds of technical support (Mission Area IV), such as statistical collection and program management, which serve the more directly functional parts of the program.

The broad structure of Fig. 1 leads to a finer breakdown into "program areas" within each mission area, as shown in Table 2. Mission Area I divides into program areas focusing on ameliorating the causes of crime by means outside (Program Area 1) and inside (Program Area 2) the criminal justice system. The two program areas under Mission Area II deal with reduction of criminal opportunities or direct crime prevention (Program Area 3) and with improvement of the effectiveness of the criminal justice system in apprehending and convicting criminal offenders (Program Area 4). Mission Area III, concerned with criminal justice system operations has a principal focus on the efficiency and general effectiveness of that system (Program Area 5); closely related in a management context are its relations with the community (Program Area 6) and the selection and training of its personnel (Program Area 7).

Mission Area IV focuses on key institutional needs to support the operation of the RDT&E program. These institutions include an equipment evaluation laboratory (Program Area 8), a statistics and crime measurement center (Program Area 9), a basic research center (Program Area 10) and technical support for the program (Program Area 11).

TABLE 1. SOCIAL COSTS ASSOCIATED WITH CRIME

<u>Cost Categories</u>	<u>Examples</u>
1. Victimization	Lives cut short through murder. Deaths and injuries from snipers' bullets in a riot. Pregnancies and long-term trauma resulting from rapes. Pedestrians injured by muggers. Stockholders defrauded by manipulators. Property loss through arson and theft. Retail prices raised to compensate for shoplifting losses.
2. Fear of Victimization	Restriction on personal activities, e.g., walking in parks at night. Reluctance to work in areas with high crime rates.
3. Cost of Protecting Against Crime	Installation and maintenance of burglar alarms. Locks, safes, etc. Insurance.
4. Operation of the Criminal Justice System	Salaries of officials. Lost income and fees to jurors. Construction and operation of prisons.
5. Welfare for Offenders and Families	Welfare costs for families during incarceration. Reduced employment opportunities for offenders.
6. Invasion of Privacy	Wiretapping and bugging. Street surveillance. Maintenance of personal record files indefinitely.
7. Penalties Imposed Through Erroneous Decisions by the Criminal Justice System	False Arrest. Erroneous conviction. Excessive use of force. Injury to innocent bystanders during a riot.
8. Corruption of Social Institutions	Bribery of officials by organized crime. Disrespect for law resulting from preferential treatment of some offenders.
9. Alienation from Social Norm by Enforcement of Unaccepted Laws.	Student resentment of marijuana laws.



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FIGURE 1. Structure of the Overall Mission Areas

Each of the program areas, in turn, comprises a variety of substantive issues and research approaches. These topics of investigation are listed in Table 3 by program area.

#### B. PROGRAM AREA NEEDS

The structure of the program areas is intended to permit coverage of the entire field of research on the problems of crime and its reduction. Any relevant problem should be able to fit into one or another program area.

TABLE 2. PROGRAM AREA STRUCTURE IN THE RESEARCH PROGRAM OF THE INSTITUTE

- MISSION AREA I: Crime Prevention and Rehabilitation--Reduction in the need and desire to commit crime
- Program Area 1. Identification and reduction of causes of crime.
  - Program Area 2. Rehabilitation of offenders.
- MISSION AREA II: Crime Control--Increase in the risks and difficulty of committing crime
- Program Area 3. Direct crime prevention.
  - Program Area 4. Improvement in the probability of apprehension and conviction of offenders.
- MISSION AREA III: Criminal Justice System Management Improvement--Reduction of the cost of system operations
- Program Area 5. Improvement of the efficiency and effectiveness of Criminal Justice System management.
  - Program Area 6. Improvement of relations between the Criminal Justice System and the community.
  - Program Area 7. Improvement of the selection and training of personnel.
- MISSION AREA IV: Program Support
- Program Area 8. Establishment of equipment testing and evaluation laboratory.
  - Program Area 9. Establishment and operation of a statistics and crime measurement center.
  - Program Area 10. Establishment and operation of a major private research institute.
  - Program Area 11. Provision for program management technical support.

*Dissemination & Reference Service*

Mission Area I: Reduction of Fear

TABLE 3. PRINCIPAL AREAS OF INVESTIGATION IN THE RESEARCH PROGRAM OF THE INSTITUTE

MISSION AREA I

CRIME PREVENTION AND REHABILITATION--Reduction in the Need and Desire to Commit Crime

Program Area 1. IDENTIFICATION AND REDUCTION OF CAUSES OF CRIME

1. Measurement of factors related to crime, including social and economic factors, factors in physical and social organization of communities, and biochemical and genetic factors.
2. Basic research into the development of individual value systems through family, peer groups, mass media and institutions.
3. Evaluation of crime-reduction consequences of action programs undertaken for crime-control purposes (e.g., educational campaigns) or other purposes (e.g., unemployment reduction programs, welfare programs).
4. Development of methodology for social program evaluation.
5. Analysis of causation and development of civil disorders.

Program Area 2. REHABILITATION OF CRIMINAL OFFENDERS

1. Development of means for prediction of future criminal patterns of offenders, especially as affected by correctional treatment, and use of this to aid treatment decisions.
2. Development and evaluation of innovative treatment programs, including alternatives to adjudication and incarceration and expanded use of ex-offenders and sub-professionals.
3. Development and evaluation of new prisoner training techniques and vocational placement programs.
4. Design of model correctional institutions.
5. Analysis of characteristics of offenders.

MISSION AREA II

CRIME CONTROL--Increase in the Risks and Difficulty of Committing Crime

Program Area 3. DIRECT PREVENTION OF CRIME

1. Development of techniques for reducing the opportunities to commit crime, including hardening of targets (e.g., standards for automobile locks, building code requirements, credit card and check cashing requirements).
2. Development and testing of community surveillance and alarm systems.
3. Study of factors in deterrence, including differential deterrability of different population groups (e.g., juveniles, past offenders) by crime types; relationship of deterrence to apprehension probability and analysis and evaluation of means for evoking deterred behavior.
4. Analysis and experimentation with preventive patrol strategies and techniques.
5. Structural analysis and strategic attack upon organized crime, narcotics traffic, and other criminal systems.
6. Development and evaluation of plans, tactics, and techniques for early quenching of potential riot situations.

Program Area 4. IMPROVEMENT OF THE PROBABILITY OF APPREHENSION AND CONVICTION OF OFFENDERS

1. Analysis of factors leading to apprehension through studies of police operations.
2. Development of methods to increase community ability and willingness to report crimes.
3. Analysis of crime patterns.
4. Development of means for effective assignment of patrol resources.
5. Design of improved command and control systems.
6. Development of a laboratory for simulation of normal and emergency command and control.
7. Design of police radio networks.
8. Development of new family of portable police radios.
9. Establishment of standards for police radios.
10. Development and evaluation of forensic and other evidential techniques.
11. Development of modern fingerprint recognition techniques.

TABLE 3. (Continued)

12. Development of computer aids to detective investigation.
13. Development of experimental police vehicles.
14. Development and evaluation of non-lethal weapons.
15. Evaluation of the effects of past and present court decisions on apprehension and conviction probabilities.

MISSION AREA III

CRIMINAL JUSTICE SYSTEM MANAGEMENT IMPROVEMENT--Reduction of the Costs of System Operations

Program Area 5. IMPROVEMENT OF THE EFFICIENCY AND EFFECTIVENESS OF CRIMINAL JUSTICE SYSTEM MANAGEMENT

1. Analysis of total criminal justice system operations
2. Improvement of resources allocation by time, place, and function.
3. Study of the process of innovation and change in criminal justice agencies.
4. Development of model inter-agency and inter-jurisdiction criminal justice information systems (e.g., for a metropolitan area or for a total criminal justice system).
5. Evaluation of means to reduce court processing time.
6. Development of standard computer formats (e.g., for criminal records).
7. Development of widely useful computer programs (e.g., for patrol-force allocation).

Program Area 6. IMPROVEMENT OF RELATIONS BETWEEN THE CRIMINAL JUSTICE SYSTEM AND THE COMMUNITY

1. Measurement of attitudes and behavior of the community and of criminal justice system officials.
2. Evaluation of innovations in demonstration projects on community attitudes and behavior.
3. Assessment of effect on attitudes and behavior of criminal justice system operations.

Program Area 7. IMPROVEMENT OF SELECTION AND TRAINING OF PERSONNEL

1. Study of relation between required skills and jobs.
2. Development and evaluation of job tests.
3. Development of personnel standards and evaluation procedures.
4. Development of training materials and techniques.

MISSION AREA IV

PROGRAM SUPPORT

Program Area 8. ESTABLISHMENT OF EQUIPMENT TESTING AND EVALUATION LABORATORY

1. Establishment of equipment and materials standards.
2. Test and evaluation of new equipment and materials.
3. Quality control evaluation of new products.
4. Technical support for field investigations.

Program Area 9. ESTABLISHMENT AND OPERATION OF A STATISTICS AND CRIME MEASUREMENT CENTER

1. Collection, analysis, and publication of total criminal justice system statistics.
2. Conduct of special statistical surveys.
3. Conduct of victimization surveys to calibrate reported crime measurements.

Program Area 10. ESTABLISHMENT OF A MAJOR PRIVATE RESEARCH INSTITUTE

Program Area 11. PROVISION FOR PROGRAM MANAGEMENT TECHNICAL SUPPORT

1. Planning of future RDT&E program
2. Evaluation of program.
3. Evaluation of proposals.
4. Appraisal of projects.
5. Dissemination of results of program.

The listing in Table 3 is intended to provide a summary discussion of the highlights of each program area. Clearly, volumes could be written on the problems of any single program area, let alone on the combination of all of them. The discussion in this section attempts to highlight the critical research problems in the 11 program areas, and to indicate the kinds of projects which require high priority in the Institute's program. For some of the program areas, the discussion is elaborated further in a separate volume. In some cases, the project description is narrow and specific, as in the requirement for development of a portable police radio. Where the approach is well defined, the Institute could let a contract directly. In other cases, as in the requirement for evaluating new approaches to improving police-community relations, the possibilities are numerous and require much in the way of new approaches and ideas. Although some possibilities are discussed here, the discussion cannot be exhaustive. A principal effort of the Institute should therefore be to stimulate new ideas from the research and operating communities.

1. Program Area 1--Identification and Reduction of Causes of Crime

Because of such realities as the complexity and lack of present knowledge about crime causation, the extreme difficulty in determining "cause" in the absence of controlled experimentation, and the limited willingness to do so, the Institute cannot at present hope to make a major impact on identifying definitively the causes of crime. The problem is so important, however, that the Institute should take initial steps toward both conducting and supporting research on certain selected topics and integrating and helping to coordinate research supported by other sources.

The Institute's selection of research topics should focus on both developing more sophisticated methods of inquiry and moving toward greater understanding of causation.

Much of present criminological methodology is data collection without a theoretical interpretation, or theoretical formulation

without empirical validation. The Institute's research projects should reflect a much better balance than at present among data, theory, and experimentation. In addition, the approach should not rely only on simple cause-effect assumptions, but must reflect the many mechanisms of crime generation, transmission and amplification. For example, not only may socio-economic deprivation motivate or generate criminal behavior in a particular individual, but it may also create criminal values which are transmitted from person to person and from generation to generation within a ghetto or depressed area. Furthermore, efforts to control one kind of crime (e.g., narcotics) can give rise to other kinds of crime (e.g., more burglary to meet the increased cost of the narcotics), so that the interactions among kinds of crime must be considered. And, whatever the cause, once criminal behavior is generated in an individual, it may be amplified into more--or more serious--criminal behavior by consequences of labeling; thus, an individual may be driven to stealing as a result of his difficulty in obtaining employment because of an arrest record.

In addition to developing more sophisticated theory through application of more sophisticated methods, the Institute should inquire into many of the causation theories which have been and are being debated in the criminological literature. Examples are anomie interpretations, socio-economic explanations, the theory of culture conflict, the theory of differential association, and the opportunity theories focusing on legitimate versus illegitimate means to given ends. Each of these theories is undoubtedly valid in certain cases and invalid in others. The problem is to find the region of applicability of each. These hypotheses should be used as the basis of experiments which can rigorously evaluate the limits of their applicability. Perhaps this might lead to a more general theory of social deviance.

The Institute should also develop better means for evaluating the crime-reduction consequences of action programs. Once information

is found and hypotheses formulated about the causes of crime, demonstration projects are necessary to test whether implementation of this knowledge actually produces reduction of crime. Such evaluation is difficult, but is necessary for advancing society's ability to cope with its crime problems. The Institute should therefore develop generally applicable and rigorous testing procedures involving improved means of simulating experimental control. Because the criterion for program evaluation is essentially the change in the crime rate among the group affected, such development will also require more detailed and sophisticated statistics on delinquency and crime, especially in the test area.

The evaluation procedure should focus on the crime reduction consequences of the large number of social action programs currently being undertaken. These include programs with ostensible crime reduction purposes (e.g., "lock-your-car" educational campaigns or visits to schools by police officers) and those with other primary purposes, but having anticipated crime reduction effects (e.g., job training programs or the creation of community recreation facilities). The evaluation should cover the individuals affected by the program, individuals having contact with them, and control groups not exposed to the programs. It should also cover both the immediate effect of the program and the longer term consequences. The programs undertaken under the action grants of LEAA should be prime candidates for such evaluations so that the research results can provide useful guidance to the continuing formulation of the action-grant program.

The research on causation will follow two principal approaches: cross-sectional correlation studies and longitudinal cohort studies.

The cross-section studies will consider the wide range of possible crime-related variables such as family structure, employment, education, community organization and even biochemical and genetic factors. Some such studies (e.g., the effect of unemployment) could be based on available demographic data. Others (e.g., family structure) may require the collection of more finely grained statistics. Still others

(e.g., genetic factors such as the presence of the XYY chromosome distortion) will require new data on population samples from both the criminal and non-criminal groups. In all cases, research will build upon the existing relevant cross-sectional work, such as that motivated by the Chicago ecological tradition.

The cohort studies will require long-term funding and support of initial development of the cohort groups (e.g., first graders in slum schools) with provision for follow-ups on the factors affecting their criminal and treatment histories.

Similar research approaches are involved in more fundamental studies aimed at determining the means by which individual values are formed. Here, longitudinal or experimental studies on exposure to value influences (e.g., schools, mass media) and cross-sectional studies on value congruence between individuals (especially between juveniles and their parents, teachers, and peers) should be conducted.

Considerable research is also needed in the causation of civil disorders and the nature of their propagation, in terms of why and how individuals not involved initially become involved. The research would have to examine the underlying grievance mechanisms, the character of the precipitating events, and the propagation as well as the quenching mechanisms. Although it may be less productive to inquire into factors responsible for the development of unrest over long periods of time (such as poverty and discrimination), short-run precipitating causes (such as inefficient local government and breakdown of communication) may well identify immediate action consequences.

In addition to undertaking and supporting research, the Institute should also encourage, integrate and coordinate the research on crime etiology by others. A closer liaison will be needed between the Institute's own research efforts, the work by other Federal agencies such as HEW, and results from the private sector--composed mostly of university and foundation researchers. This liaison can be fostered, for example, by sponsoring occasional studies that pull together what has already been done in order to identify the most fruitful directions for future research.

## 2. Program Area 2--Rehabilitation of Criminal Offenders

The goal of Mission Area I is to reduce the need and desire to commit crime. In the first program area, the means to this end are changes outside the criminal justice system, while the emphasis in Program Area 2 is on changes within the system. A greater range of actions can, of course, be taken by the criminal justice system on individuals within it than outside of it. Because the Justice Department is primarily concerned with that system, its research will therefore normally give higher priority to actions taken in Program Area 2 than in Program Area 1, especially since the latter is a major interest of the HEW program.

An important basic need in this area, on which other research can build, is improving prediction methods--both in forecasting the likelihood of an offender recidivating and the kind of crime he is likely to commit if he does recidivate. Continued sophistication and greater use of the base expectancy tables are necessary for this purpose. The tables must continually be updated and evaluated on the basis of validity and reliability.

It is not sufficient merely to predict whether an individual is likely to recidivate. The prediction also must take account of the alternative treatments to which he may be subjected. Simple correlation studies here are not sufficient since there is an inherent risk-selection process in assignment to treatment. Thus, experimental controls are required to compensate for these effects. Furthermore, since treatment effectiveness depends on individual differences, paired comparisons will usually be required. Such kinds of experimental control are feasible in correctional situations, and they should be used in cases in which any of several alternative treatments might reasonably be selected.

Greater methodological rigor, too, is needed in the evaluation of current rehabilitation programs. Too often program developers have been interested merely in putting their own intuitive ideas into action, with little or no scientific testing. All current

rehabilitation efforts--such as counseling, group therapy, medical treatment and vocational training--need to be tested over a trial period and compared to control groups for changes in employment stability, rates of recidivism, and types of crime committed.

Measurement for effectiveness should similarly be made for proposed new rehabilitation programs. There is a need, for example, to develop and test such innovations as alternatives to adjudication. Such alternatives might include testing the effect of replacing the plea bargaining process by a defendant's commitment to avail himself of specified community social services. Many of the new programs can be expected to find greater use for sub-professionals and ex-offenders in the rehabilitation process; their effectiveness and costs must be evaluated. Another area of experimentation lies in finding the proper mix between various forms of community and institutional treatment and identifying the individuals most suited to each kind of program.

Other new rehabilitation innovations that need to be evaluated for their effectiveness include the development of more and improved addiction treatment techniques (such as use of the drug, methadone) and a greater attempt to integrate all the social welfare programs of the community into the rehabilitative effort, especially in the case of juveniles and the socio-economically disadvantaged. Perhaps most important in the area of new programs to be developed and evaluated is the need to provide offenders with the skills necessary to obtain steady employment. Such programs should identify the occupational specialties in greatest demand and develop training materials and techniques to qualify men to hold such jobs.

The development of treatment techniques need not be limited to only identified and convicted offenders. As the ability to predict children's future criminal behavior improves, it becomes important to develop early intervention techniques. Clearly, the techniques cannot be coercive and they must avoid the dangers of stigmatization. Because the techniques will often involve the

learning of non-criminal values and life patterns, they might be developed and evaluated in conjunction with a school system.

All present incarceration and rehabilitation methods can be interpreted as trying to control against future deviant behavior. Future technological advances, such as improved operant conditioning, the use of drugs, or perhaps even surgical changes, may be able to do so much more effectively. When these new techniques are developed, however, they will present serious ethical, social, and legal problems. For example, under what conditions can a court order brain surgery on a pathological assaulter if such surgery can remove his pathology without seriously affecting him otherwise? Until such techniques are perfected, what side effects might be tolerated with less perfect surgery?

The development of these techniques is likely to arise from other sources, oriented primarily to voluntary medical treatment. The Institute can begin now to conduct the studies that will allow more intelligent guidance on the use of such means of behavior control when they become operationally feasible. These studies will provide the background information needed for judging the ethical, social, and legal issues when they are brought to court.

In addition to the development and evaluation of short- and long-run rehabilitation programs, research and development are needed in several other areas. Better data are required on the characteristics of offenders, with regard to educational background, employment history, patterns of behavior, intelligence, demographic characteristics, and so forth. The resulting insights will hopefully suggest new treatment or prevention programs.

Another area, the physical design of correctional institutions, has been given relatively little attention in recent years. The Institute could support a project intended to design model penal institutions which combine security requirements with the facilities needed for effective training and rehabilitation.

### 3. Program Area 3--Direct Prevention of Crime

Whereas the previous two program areas focused on reducing the need and desire to commit crime, the interest here shifts to acknowledging the presence of need and desire but increasing the risk and difficulty of committing crime by manipulation of the environment. This includes reducing opportunities to commit crime by such means as hardening the targets of crime and making them less vulnerable to attack. It also includes actions to demonstrate visibly a high risk of apprehension, under the assumption that high risk deters some people from committing some crimes.

Where the targets of crime are private property, the Institute's principal function should be to stimulate appropriate technological development (with the development itself performed in the private sector), to evaluate the utility of alternative approaches, and at least to identify the requirements for new approaches. Requirements for more secure auto ignition locks, such as is possible with spring-loaded keys, might be one early project. Similar requirements are advisable for the hardening of checks and credit cards (such as requiring a color picture, signature, verifiable thumbprints, or even a magnetic recording of the owner's voice). In the area of identifying requirements, the Institute might undertake a study on building-code standards to minimize the criminal opportunities in hallways, elevators, and apartments.

Direct prevention also includes actions taken to raise the perceived risk of apprehension. Principal among these are various techniques designed to make detection of the criminal act more likely. These can include: better street lighting to make it easier to see a crime in preparation or progress; burglar alarms for the protection of unwatched premises; robbery alarms that would enable a victim to call for police help; store, building or street surveillance systems using closed-circuit television sensors; and such local surveillance devices as store cameras that record the signing of checks or television cameras to record bank robberies.

In all these cases, development requirements and guidelines as well as evaluations of effectiveness in terms of detection and false alarm rates are needed. In certain cases, especially those which relate to community systems (street surveillance systems, for example), the Institute might fund the development and evaluation of demonstration projects.

Underlying all of these approaches is the basic concept of deterrence--the assumption of rational decision-making in which an individual weighs the likelihood of gaining his objective against the likelihood of being caught and the possible consequences if he is caught. The importance of this basic concept in the operation of the criminal justice system, and the present lack of knowledge on what actions deter what individuals from committing what acts, make it a high-priority research area.

The critical problem in structuring an investigation of deterrence is the search for major variations in threat situations which account for the observed behavioral variations. One important set of variables related to the target audience: How do different people, especially juveniles and habitual offenders, react to a given threat situation? How do they act to avoid the threat? How is the threat communicated to each group of potential offenders? How can pre-conditioning be accomplished? What aspects of the threat are most relevant--apprehension, conviction, or punishment? What is the role of a police department's public relations? These can all be examined by experiments in the laboratory and in the field.

One principal means of demonstrating the deterrent threat is through police patrol--the "omnipresence of the police." What are the most effective means for presenting this police presence? Should police use marked or unmarked vehicles? How does deterrence change with intensity of patrol in a given area? What is the reaction time between a change in patrol patterns and an effect on the crime rate? Is it better to operate at a continuous level of patrol intensity or to make large increases at random times and places? These questions

are certainly amenable to experimental research. Furthermore, the cost of such research is low: because the patrol operation goes on continuously, it requires only the imposition of some form of experimental control and careful analysis of the results. The analysis would be in terms of crime rates by type of crime in the test area and in adjacent areas.

In the organized crime context, the counterpart to target hardening is the removal of profits from underworld operations. Here, criminal activity is organized in an extremely rational, businesslike way. By an economic analysis of that business and its sources of costs and profits, it should be possible to identify the economic vulnerabilities. An organizational analysis could help identify how the communication structure of the business can best be disrupted. Such studies could analyze how organized crime might be deprived of the existing "black market" demand for many of the goods and services it provides. That demand might be channeled into alternative markets, or competitive enterprises might be created.

Direct prevention methods, too, are important in the context of civil disorders. Even if actions are taken to alleviate short- and long-run causes of riots, they may still occur. Direct control methods will then be needed. The incipient riot period--after disorders have begun but before any conflicts have greatly accelerated--is an especially crucial time for control measures. Here the rapid introduction of sufficient visible force may be needed to quench the riot before it can gather momentum. The RDT&E effort should therefore include the development of riot prediction techniques (both long-term propensity and short-term imminence); the development of means for creating rapid mobilization, including particularly a communications and command-and-control capability; and an evaluation of the consequences of various techniques such as CN and CS gases, smokes, very loud public address systems, slippery materials, and rapidly deployed barricades. These consequences would be evaluated with regard to individual behavior, crowd behavior,

and police operations. Some of this research can be conducted as mock battles in specially instrumented test sites. Other evaluations will have to be made on the spot. Here the possibility of organizing teams of expert observers who could be deployed at short notice to analyze the measures taken in a troubled area should be considered. The Institute should provide for the centralized collection and evaluation of such analyses so that all communities can benefit from the accumulation of individual experience.

#### 4. Program Area 4--Improvement of the Probability of Apprehension and Conviction of Offenders

One major aspect of Program Area 3 is the search for means of increasing deterrence by increasing the perception of apprehension by the potential criminal. Program Area 4 focuses on improving apprehension per se, regardless of its perception. In addition, because it is an important part of the risk posed to a criminal, prosecution effectiveness is included in this program area. The prosecution problem includes both the conviction of the guilty and the protection of the innocent.

Aside from its deterrent effects, improvement in the apprehension and conviction processes can lead to rehabilitation of an individual who would otherwise remain deviant, remove for a time those who are a threat to society, and provide punishment for criminal offenders.

The police patrol and detective forces are primarily responsible for apprehension. Despite the considerable resources committed to apprehension operations, very little is known about what aspects of these operations lead to high apprehension probability. Preliminary studies conducted for the National Crime Commission indicated that response time was closely related to apprehension, but even that conclusion needs further verification. More careful studies in selected police departments should explore the aspect of patrol and detective operations that now are most productive of arrests. The study should also identify those activities that are inherently fruitless so that resources need not be wasted on them, or, alternatively,

so that their weak aspects can be bolstered. These studies would include examination of records as well as recording of police activities.

The role of the community itself should not be left unquestioned in the search for ways to increase crime solution. In addition to being protected by improved means for detecting crime, as discussed in Program Area 3, the community must be given better access to the police. Street call boxes that any citizen can use and simpler dialing procedures for ordinary phones (e.g., more widespread installation of the 911 number) would be a first step in the right direction. Even with improved access, however, it is another matter to actually increase community willingness to report detected crimes. Publicity campaigns and, more fundamentally, improvements in police-community relations (discussed in Program Area 6) provide possible approaches to solving this problem.

In taking actions against crime, a police force could also be helped significantly if better means were found for predicting where and when various kinds of crimes are likely to occur. Computer analysis of crime records, using various statistical techniques, should be explored beyond that currently being done.

With such information on the time and location of various forms of crime and the effect of various police operations, it should become possible to develop more effective assignments of patrol resources so that they are more likely to be pre-positioned in a way to minimize their travel time to a crime scene and to maximize their chances of detecting a crime in progress.

Central to all patrol operations is the command-and-control and communications capability. Command and control can be improved by simple changes in the organization and layout of the communications center. This improvement can be facilitated by a simulation laboratory in which various physical and operational configurations can be manipulated. The goals will be to increase the efficiency of operational procedures, improve the physical layout of the facility and the workplaces for the individual operators, and identify the

requisite personnel skills for performing the various functions. The laboratory should be especially concerned with the operation of the center during emergencies such as civil disorders; various operating modes for these critical events must be tested.

Computer-assisted command-and-control systems should be designed for the larger police departments. New York City, with its SPRINT system, is taking some of the pioneering steps in this direction. It would be important for the Institute to sponsor some developments which examine the basic aspects of patrol operations so that the improved systems capitalize on the major advances possible with new technology. Such investigations should also explore the potential contributions of such technical devices as automatic car locators, especially considering the multiple uses of such devices (e.g., car locators for bus and taxi monitoring or as alarm receivers). After sponsoring investigations of this nature in several cities, the Institute should be prepared to pay the incremental developmental costs for the city which develops the best preliminary system design in these definitional phases.

Closely associated with command and control is the radio communications system. It includes primarily the mobile and portable police radios and transmitters, but also the digital links such as teleprinter or cathode-ray-tube displays that might be incorporated into the system. It also includes the design of metropolitan or regional radio networks to make the most effective use of the available radio spectrum to meet the combined needs of all the users in the area. The Institute should sponsor studies leading to the design of model radio networks, especially favoring those studies that reflect an integration of a city's total public safety network or the development of an area-wide network.

The Institute should also organize an effort to develop a new, low-cost, lightweight family of portable police radios. This effort might include some preliminary design studies addressed to such questions as the optimum frequency for city transmission and for

building penetration. It should also develop the standards and specifications for such a family of radios, using a committee representing police users, radio engineers, and industry representatives. A procedure might then be developed for assuring that the radios become available. Guidance from industry representatives would be valuable in developing the plan and in reviewing options such as Federal sponsorship of the development, Federal guarantees for purchase of an initial production run, or simply identification of the potential market.

After a suspect is caught and in preparation of a case for trial, most jurisdictions lack ready access to an adequate crime laboratory. The potential techniques of laboratory analysis already available far exceed those which have already been incorporated into operating laboratories. Creation of regional laboratories by LEAA with action grants is one approach to disseminating this capability. Nevertheless, there remain many possibly useful new techniques--such as those for the analysis of blood and hair and for the computer coding and analysis of ballistic and handwriting signatures. In addition, data bases of drugs and common materials are required to provide standards to individual crime laboratories.

As new criminalistics techniques are introduced, it will become increasingly important to provide courts with better means to evaluate the information yielded by them. Tests, for example, should be conducted to indicate in quantitative terms the two kinds of error--failure to identify and false identification--associated with such techniques.

The fingerprint identification art is one of the most primitive in forensics. The system has changed little since the turn of the century, and can be significantly advanced through the use of modern optical readers and computer analysis of the signal. In addition, new means of taking fingerprints should be explored. Studies are currently being sponsored by the FBI and by NYSIIS in this area. The Institute might identify the critical issues not now being explored in these studies and pursue the relevant gaps. In view of

the on-going work, however, this cannot be viewed as a high-priority area for the Institute.

Computer-based pattern recognition techniques are also relevant to the identification of crime suspects through analysis of crime reports and "modus operandi" information associated with various repetitive criminals, especially professional burglars.

Police vehicles represent an important aspect of police operations, but little has been done to provide vehicles designed for the job. An experimental car should be designed, incorporating many of the possible new features, probably using a new body and interior on a standard chassis. Such a car would be an important source of ideas to police departments in modification of their standard vehicles. In addition, the experimental car could well lead to the adoption of a new standard police car. Other vehicles, especially helicopters and scooters, should also be designed specifically to help in the performance of police functions.

Non-lethal weapons represent an important area of new technology which provides police with valuable new tools, though new operational problems are, of course, also posed. The Institute should evaluate the effectiveness and toxicity of such weapons as CS, CN, smokes, foams, Chemical Mace, and dart guns. It should also establish model guidelines for their use, reflecting especially the problems of toxicity and of constraining excessively liberal use. Such evaluations would probably be conducted by the Institute's equipment laboratory, discussed under Program Area 8.

Court decisions on due process considerations can have an important impact on apprehension and conviction rates. It would be desirable to evaluate the possible consequences of potential court decisions. What, for example, are the effects on apprehension and conviction probabilities by type of crime of judicial constraints on search and confession procedures, wiretapping, required blood tests, etc.? With such information, the courts may be in a better position to weigh the protection of individual liberties against the utility of law enforcement evidence.

## 5. Program Area 5--Improvement of the Efficiency and Effectiveness of Criminal Justice System Management

The general need in Program Area 5 is to develop more efficient means of organizing and operating the criminal justice system. Criminal justice systems generally operate as three independent and often conflicting subsystems--the police, courts and corrections. A better understanding should be developed of how the overall system operates and how the significant subsystems interact. Means are needed to evaluate alternative actions and to find out how better to organize and operate the system.

Some preliminary steps toward the objective of better organization and operation were taken by the National Crime Commission in the development of a simulation model of the criminal justice system. This work provides a foundation upon which further research can be built and identifies data which must be collected in order to evaluate alternative actions in the total system context. Models should be developed for cost-effectiveness analyses to determine which of several alternative courses of action will provide maximum effectiveness for a given cost, or minimum cost for a given effectiveness. To accomplish such analyses, research must be undertaken to find ways of costing the system (in terms of direct and indirect operating system dollar costs) and measuring its effectiveness (via, for example, reduced rates of various crimes, reduced recidivism, etc.).

Much of the research necessary to develop the simulation tool and to identify data needs and effectiveness measures can be done at the Federal level. However, it is important that this work on systems models be undertaken in conjunction with specific regional, state, and metropolitan area and city agencies. The work should include further methodological development--such as determination through sensitivity analysis of how the sensitivity of results varies with

different input parameters, examination of different cost allocation procedures, examination of the interactions among system components (e.g., effect of improved police effectiveness on sentencing decisions), and validation of the model by comparison with actual program experience. The work on the model should be supported by a comprehensive program to collect data on the other relevant costs in addition to direct operating costs. Data are also needed on arrest rates as a function of factors like age, economic level, and previous treatment by the criminal justice system.

The resources available to the various criminal justice agencies, as with most other organizations, will always be limited. As a result, these agencies may find themselves "undermanned" to perform the activities assigned to them. Increasing their resources should help; however, proper allocation of their resources and efficient scheduling will also be required. A major component of any RDT&E program should be composed of studies, in all parts of the criminal justice system, directed at resource allocation.

In police operations, allocation issues include the determination of the number and types of police officers assigned to each police precinct, to patrols, to detective work, to the communications center and to other specialized activities. In courts, the allocation decision would include the distribution of judges, prosecutors or public defenders between local and superior courts and between civil and criminal parts. In corrections, the allocation decision might include the number of psychologists, social workers, etc., who are assigned to counseling in prison versus those assigned to counseling in conjunction with parole officers.

To address the problem of how to make best use of available resources, an analysis of the functions must be made and projections of future requirements performed. The level of manpower for each function can be determined--the problem then is how to allocate to achieve this level in a "best" way.

The scheduling problem begins where the allocation problem leaves off. If it is assumed that specified resources are available for performing the necessary functions, the question becomes how to use them over time to meet the anticipated uncertainties and variations in demand. For each area within the criminal justice system, scheduling procedures, based on proportional need as well as responsiveness to demands for service, must be developed and tested. Such procedures include, especially in police operations, real-time reallocation in which the performance of the functions and the demand for service are monitored and resources are switched from one point to another as the situation develops.

Innovative changes in an organization (e.g., the introduction of a computer to automate activities such as command and control or scheduling) will probably be accompanied by structural changes in the organization and in the response of key individuals to the innovation. The nature of these changes is not well understood and their full impact on the relationships between individuals and groups has not been measured. To realize the full potential of innovation and change in the criminal justice system, research on the organization before and after introduction of new equipment, methods, or procedures should be undertaken. This research should include analyses of work flow, usage level of the equipment, changes in levels of decision-making, personnel changes, attitudes toward the change, areas where difficulties arise, etc. In general, the results should have application to a wide range of similar organizations and assist in the most efficient and effective utilization of the innovations.

More complete and accurate information at the right place and the right time is required by many criminal justice agencies. The development of model inter-agency and inter-jurisdiction criminal justice information systems to provide such information can be of significant benefit for such functions as police patrol, crime investigation, police deployment, sentencing and correctional decisions, development of correctional programs, budgeting, research, etc. Modern information technology now permits an assault on these problems.

What is needed, however, is the development of a model criminal justice information system linking together agencies in both the same and in other jurisdictions. Given a uniform system, computer and communication technology will permit many users, each sitting in his own office, to have immediate remote access to large, computer-based central data banks with proper restrictions on who gets what information. This basic research approach will require the establishment of a uniform data base and the design of a system for collecting, processing and distributing information.

As computers come to be more widely used throughout the criminal justice system and as information is more widely shared, there will be increasing value in establishing standard, nationwide formats for storage and transmission of certain kinds of information such as criminal records or crime reports, thereby permitting computer-to-computer communication. The Institute could serve as the organizing force to bring together the users into committees to agree on such formats.

As individual criminal justice agencies purchase or lease their own computers, there will be a growing demand for the development of utility programs to perform the functions unique to criminal justice operations. These include planning for total criminal justice systems, resource allocation, courtroom scheduling, and parole officer assignment. The Institute should develop procedures and programs for addressing these problems, test them out and improve them in a few selected jurisdictions. The resulting programs can then be made widely available to other jurisdictions so that they can use the programs on their own computers with their own input data and parameters. The Institute could provide instruction manuals describing the techniques in their various operational forms and the way to use the utility programs provided.

#### 6. Program Area 6--Improvement of Relations Between the Criminal Justice System and the Community

The difficulties in relations between the police and the public are widely recognized, and, indeed, represent one of the most serious

problems in operating the criminal justice system. The problems, however, are not restricted to the police alone and include some important considerations for courts and corrections as well.

Many police departments already have community relations programs where new ideas are implemented. Although it has been sufficient in some cases to subjectively appraise the success of programs, a more rigorous approach to measuring and evaluating the effectiveness is often desirable.

Both the extent to which the police are satisfied with community cooperation and the degree to which the community approves of the way its felt needs are met by police should be measured. Because social-psychological measurement is still none too accurate, the kind and intensity of police and community grievances should be measured by attitude surveys as well as by behavioral indicators (e.g., tabulations of grievances reported to the police, participant observer data collection and ratios of official to non-official contacts reported by police on their tours of duty).

Measurements collected over time will hopefully indicate trends in attitudes and behavior and provide indices with which to evaluate the effectiveness of programs designed to improve relations. Programs which are highly successful in such limited tests could then be replicated and adopted more widely.

Perhaps the most useful research will be that intended to improve communication. A large proportion of ideas suggested for improving relations are in fact interpretable as working to reduce ignorance and increase the sharing of experience between the police and the community. These include: community education (e.g., instruction in St. Louis elementary and high schools on police problems and often by police officers; publicity campaigns); police education (e.g., role-playing exercises like those in Covina, California, where police trainees pose as derelicts and subject themselves to arrest; the teaching of minority group languages, customs, and motivations to officers); non-official interactions (e.g., police sponsored camps and

contests for children, as those created by the Operation FRIENDSHIP program in New York's 24th Precinct); grievance mechanisms (e.g., the citizen complaint sessions run by community relations officers in Atlanta); expansion of police-welfare service partnerships (e.g., community store-front service centers staffed by police and welfare workers and specializing in, among other things, the handling of marital disputes); expansion of police willingness to overlook certain ostensibly illegal acts (e.g., tacit permission to children for hydrant showers on blocked-off streets in the summer); joint police-community projects; encouragement of officers to live in or near their beat areas; citizen advisory committees; cadet and auxiliary police corps; and police-community patrols.

The evaluations of innovations suggested by such research must recognize the need to make trade-offs between actions to improve relations and those to control disorders in cases where they are in conflict.

The relations between the courts and defendants, jurors, and witnesses are all important determinants of the quality of justice meted out and the integrity of the judicial process. To better assess the state of relations, attitude and behavior measures might be developed for a determined set of grievances expressing dissatisfaction with court operations (such as bail procedures, witness and jury logistics, and treatment while in detention). Innovations can then be tested for adoption via representative demonstration projects. Many of these innovations are likely to be concerned as much with court operation reform as with improving relations.

In the case of corrections, an important aspect of community relations is the extent to which released inmates are given opportunities to reintegrate into the community. These opportunities can range from the employment provided by the community to its willingness to accept a halfway house. Research would be directed at surveying representative communities to ascertain the requirements they would impose on returning inmates or on local institutions. The effect of various

education campaigns or community-oriented programs on these attitudes might then be measured.

Public respect for the criminal justice system as a whole may well improve if components within the system develop better relationships with each other. It is difficult for the community to put faith in the system, for example, when there are deep antagonisms between the courts and police that often suggest they are working at cross-purposes. Research on intra-system relations, therefore, must concentrate on how to improve the understanding of subcomponents about the needs and constraints of the others. The improvement of human relationships within the system should be integral and complementary to the improvement of organizational and operational efficiency discussed in Program Area 5.

#### 7. Program Area 7--Improvement of Selection and Training of Personnel

The National Crime Commission has pointed out in all its chapters that the quality of police, prosecutors, defense attorneys, judges, and corrections personnel should be improved. Because personnel are the foundation of the criminal justice system, an RDT&E effort in selection and training complementary to the work in Program Areas 5 and 6 will be necessary to assure improvement in the overall efficiency and effectiveness of the the system. The industrial psychology technology in this area has become well developed in the past two decades in industrial and military applications.

An important basic need in this area is the determination of the required skills to perform the various jobs in the criminal justice agencies. A major RDT&E effort, therefore, is that of systematically studying the various jobs to be performed, identifying mental and physical skills and traits required, developing criteria and measures of performance (e.g., ratings, tests), and validating selection procedures. The traits required for the job may be personality characteristics, social characteristics, physical characteristics, interests, attitudes, abilities or aptitudes. Studies of job turnover should identify those individuals unable to function successfully over an

extended period. Job analyses are required to determine the characteristics which appear to be needed and the measurements that can be used as criteria of job success.

On the basis of the analysis, tests or other selection devices can be chosen or constructed which are intended to measure the traits which appear to be required by the job. These would be administered to present employees and their test scores compared with job success independently rated. Based on these results, devices can be revised, eliminated, and the process iterated. The devices should be combined into an integrated procedure for selection and placement. Final validation of the selection procedure could be achieved by administering the test battery to all new applicants, but not using the results for hiring. Instead, the results could be filed for future analysis in relation to the new applicants' job performance; based on these analyses a method of scoring could be worked out and a required score decided upon.

Training programs, designed to upgrade those presently in the system and to maintain their quality over time, should be designed and implemented. The several phases of training in each of the manpower areas (e.g., police technique, community relations, specialized investigation) require delineation. Training programs should be developed that cover the knowledge requirements for the job and utilize the most effective techniques for presenting the material. Each training program should incorporate evaluation techniques. There are a number of innovative training techniques that should be evaluated for their applicability. These could include T-group, programmed learning and management training games. There should be experimentation with these and various other training techniques.

A project that might be undertaken in police, courts, corrections, or all three is the application of programmed learning techniques and the development of the material content for courses using these techniques. Computerized and non-computerized programmed learning techniques have been established and are currently in wide use throughout industry and the academic world. The major research task involves

the development of course content material and method of presentation. These must be tested, evaluated and compared with alternative teaching techniques in terms of time, money and final levels of achievement attained. An important question that should be addressed when considering these techniques throughout the criminal justice system is the potential universality of such courses. How generally applicable, for example, would a police course in community relations be and how much supplemental material would have to be added for specific regional areas and population groups?

#### 8. Program Area 8--Establishment of Equipment Testing and Evaluation Laboratory

As criminal justice agencies are encouraged and aided by Federal support to share in the products of modern technology, it becomes increasingly important and necessary to help them use it effectively. The high cost of custom design for each operating agency must be avoided; guidelines on requirements for equipment to meet criminal justice agency needs must be established. Standardized families of devices to meet the needs of the total criminal justice system require testing and evaluation efforts similar to those performed by the National Bureau of Standards, Underwriters' Laboratories, and Consumers' Union.

To this end, there is a need for a centralized laboratory to establish technical standards for equipment (for radios, computers, etc.). Such a laboratory could organize committees of users, manufacturers, and private experts to agree on equipment and communications standards. It would also conduct laboratory evaluation of new equipment and serve as a central collection point for field evaluation reports. Finally, provision for quality control testing of new products and field technical support might be made.

This organization could be an adjunct to existing Federal agencies already technically strong and familiar with standardization problems (e.g., National Bureau of Standards), or it could be in a private profit or non-profit hardware-oriented RDT&E organization. The center's principal constraint would be that it could not have a financial interest

in any of the equipment it tests. It is envisioned as a center with growing competence in criminal justice equipment problems, and with a staff of scientists and engineers in the most relevant technologies--electronics, computer sciences, operations research, chemistry, etc. The organization would help criminal justice agencies draw on local technical resources--such as consultants, professional societies, and manufactureres--and would assist in the assessment of products the agencies receive.

9. Program Area 9--Establishment and Operation of a Statistics and Crime Measurement Center

A major recommendation of the National Crime Commission was the establishment of a National Criminal Justice Statistics Center in the Department of Justice. The need for such a center arises both from the demands of the research community, operating agencies and officials for data to guide their activities, as well as from the inadequacy of the present data collection system--which is at best highly fragmented and uncoordinated.

With a central criminal justice statistics center, data collection can go beyond the simple workload-oriented bookkeeping of separate operating agencies. Data for different jurisdictions can be collected in a common format that allows for cross-comparisons and makes it possible to begin addressing empirically such questions as the effect on crime of actions taken by the criminal justice system. Data can be more reliably analyzed by a non-operating organization which neither needs to prove that crime went down to show it did a good job nor to prove that crime went up to demonstrate a need for more funds.

It is also important to have the crime and arrest data collected in such a form that criminal careers can be studied. This requires measurement of virgin arrest probabilities, re-arrest probabilities, and crime switch matrix elements.

Crime classification schemes, in turn, should be reexamined for finding how they can better complement data needs.

Emphasis should be placed upon developing various classification schemes tailored to fit various areas of usage in the criminal justice system, keeping in mind that the schemes should be structured so that it is reasonably easy to transfer data based on one set of definitions to another set.

In addition, there should be an effort to calibrate local crime reporting rates from police data to actual crime rates in the locality by the use of such techniques as victim surveys and the analysis of insurance statistics. For non-victim offenses (e.g., curfew violations, under-age drinking, marijuana possession, etc.) field observations could be made to obtain estimates of rates.

The statistics center can coordinate this work by developing a close liaison with metropolitan police departments, state and Federal courts, state and Federal correctional institutions, and local or state criminal statistics centers when they exist. In addition, it should initiate some field work on its own to capture data which are needed but not presently recorded.

The present techniques for measuring the amount and seriousness of crime are quite inadequate for many of the purposes for which such estimates are used. It is difficult today to build an accurate picture of the magnitude of the crime problem--either in terms of the risk to specific groups of victims or in terms of the nature and extent of criminality in specific segments of the population; the trend as well as the level of these variables are important. Programs are also needed to measure the seriousness of crime. Surveys should be made of public attitudes and fear of victimization, and to compare their perceptions to the true risks. It would be of value to investigate possible relationships between the procedures used to report crimes and crime data to the public and these attitudes and fears.

The actual harm done by crimes needs more accurate measurement. The monetary loss, property damage, and personal injury due to the crime; the subjective perception of seriousness of the crime; the indirect costs such as lost manpower to the community; and the burden of incarceration on the family and welfare agencies should all be measured.

The necessity for research on improving the measurement of the amount and seriousness of crime is made all the more important by the great demands for meaningful data in decision-making throughout the criminal justice system. Measurements of the amount and seriousness of crime are needed by the police in preparing budgets, allocating manpower, and determining dispatching priorities. They are needed by the district attorney to help him determine how to allocate the efforts of prosecutors. The courts need estimates of amount of crime to program future workload; the judge considers seriousness when imposing sentence. Correctional authorities similarly use assessments of crime in determining workloads and selecting among treatment alternatives. Legislators use statistics on crime in the process of preparing and voting on bills relating to the criminal law.

A study should be conducted to investigate victimization and criminality rates in detail. The study would be valuable in two respects. First, it would provide a basis for analysis into the nature and effects of crime. Second, it would provide data which could then be employed in a model for the purpose of making projections of future crime rates.

#### 10. Program Area 10--Establishment of a Major Private Research Institute\*

One extremely important means of bringing about major change in the way crime is controlled would be the establishment of a major, prestigious private research institute with initial funding by the Institute. This organization could create interdisciplinary teams of mathematicians, computer scientists, electronics engineers, physicists, biologists, and other natural scientists; political scientists, psychologists, sociologists, economists, and lawyers would also be required on the teams. The institute and the program must be significant enough to attract the best people available. Because it would be difficult to attract such a staff into the Federal Government, the institute should be established by a university, a group of

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\* This discussion is based on that in the Crime Commission's Science and Technology Task Force Report, p. 82.

universities, or an independent non-profit organization and should be within a major metropolitan area. The institute would have to establish close ties with neighboring criminal justice agencies that would receive the benefit of serving as experimental laboratories for it. In fact, the proposal for the institute might be jointly submitted by the criminal justice agencies. The research program might require, in order to bring together the necessary "critical mass" of competent staff, an annual budget which might reach \$5 million, funded with at least a 3-yr lead time to assure continuity. Such a major research institute should be created and supported by the Institute.

This private research organization would differ from the Institute in that its sole function would be internal research, and it would have no responsibility for managing any programs other than its own. Because of its independence, the organization should be free to investigate the most basic questions regarding the criminal justice system. It should examine such questions as the basic limits of applicability of the criminal sanction and the inherent bounds on deterrence. It should question the most basic assumptions underlying the criminal justice system and measure the contributions of that system to crime as well as to crime control. It should be free to explore the entire area of the social and individual mechanisms of behavior control. It should provide basic facts and insights that will enable the Institute and the criminal justice system to evolve American justice in a more humane and effective way.

Research of this sort need not be organized in the traditional police, courts, and corrections divisions, but could cut across them according to a functional mission and program area approach if this proved more satisfactory. Only a major organization, devoted to research on basic problems of crime and its control, could assemble the multi-disciplinary teams with the competence needed to attack these problems on the scale they demand.

## 11. Program Area 11--Provision for Program Management Technical Support

The RDT&E program of the Institute must, by the very nature of the criminal justice system that it is dealing with, be broad both in scope and organization in order to encompass all of the law enforcement and administration of justice functions and agencies. Managing the program requires that it be continually evaluated to identify gaps and establish priorities. Requests for proposals must be prepared, the proposals evaluated, projects monitored, results of research disseminated, and implementation of results fostered. All of these activities have significant technical content. The capability to perform them must be provided either within the Institute or obtained from the technical, scientific and criminal justice community.

The skills needed for such evaluation will, of course, vary with the program area. Criminologists, for example, will probably be needed in Program Area 1 evaluations, while electrical engineers will be important in Program Area 4. Ideally, the Institute's staff, as outlined in Chapter VI, will have the range of experience to satisfy these diverse needs. It is unlikely, however--at least initially--that the quantity and quality of required skills will be present on the internal staff. Outside technical evaluation support will therefore probably be necessary. One or more advisory committees, comprising scientists and criminal justice officials, will be needed to review proposals in specific subject areas. In some cases, research organizations will be the best choice to manage a specific project (e.g., a project developing information systems, command-and-control systems, development of a portable radio, etc.). Non-profit or profit-making contractors, as used by the Department of Defense, might furnish broad technical guidance and conduct detailed technical studies.

Dissemination of research results should be an area of high priority. Although the research will be spread through many organizations and in many areas of the country, the results must be

communicated throughout the system to the many agencies in the 50 states in order to realize the ultimate objective of the program. This should be done through professional meetings, workshops and symposia, wide distribution of research reports, perhaps a newsletter and a journal.

#### IV. EVALUATION OF EXISTING PROGRAMS

A survey of major on-going programs addressed to crime and delinquency was undertaken in order to help identify existing gaps and consequently to aid in establishing priorities for the proposed Justice Department program. The individual projects in these programs were categorized on the basis of the functional program area structure developed in the previous chapter.

##### A. SOURCES AND DESCRIPTION OF DATA

No collection of research projects on the problems of crime control can reasonably be expected to be exhaustive in view of the many private, state, and local projects which remain unreported to any central information exchange. However, consistent with the Federal interest in the new program, a fairly comprehensive review of the Federal effort has been possible, and will be the main focus of this section.

The following sources of information were used:

1. Notices of Research Projects (NRP's), a compilation of individual on-going project descriptions submitted to the Science Information Exchange of the Smithsonian Institution by grantees from Federal, state, and local agencies; universities; and foundations;
2. Catalogs of grants and contract awards by agencies having RDT&E organizational components; and
3. Interviews with numerous individuals in agencies directly involved in research project management.

The individual project descriptions, which will be summarized in this chapter, are listed in Appendix A by sponsoring agency,

organized for each sponsor by program area, and individually classified by: objective (research, development, or test and evaluation) and current funding level. Also identified for each project is the criminal subsystem (police, administration of justice, corrections) most relevant to its point of view.

The criteria used for the selection of the projects examined here were the following:

1. Currency--Selection of only those projects operationally active at some time during the second half of Fiscal Year 1968 (January 1 to June 30, 1968).
2. Innovation--Selection of projects emphasizing research, development, test and evaluation, or demonstration (which emphasizes the innovative aspect). Those projects having no RDT&E component, such as projects which were exclusively training, technical assistance, or replication in new places of well-established approaches, were not included.

#### B. MAJOR SOURCES OF SUPPORT

The principal activity is centered in three Federal-assistance small-grant programs having an exclusive focus on the problem areas of crime and delinquency: The Office of Law Enforcement Assistance (OLEA), the National Institute of Mental Health (NIMH), and the Office of Juvenile Delinquency and Youth Development (OJDYD). The Office of Law Enforcement Assistance, within the Department of Justice, is responsible to the U.S. Attorney General. The NIMH and OJDYD programs are in the Department of Health, Education and Welfare (HEW).

These three agencies serve principally to support RDT&E activities. Other relevant research is sponsored by Federal agencies with primarily operational or service functions. Major examples are the Bureau of Prisons and the Federal Bureau of Investigation within the Department of Justice and the Children's Bureau of HEW. Other research efforts occur as part of general aid programs not primarily

concerned with crime and delinquency. Among those having a few projects related to crime and delinquency are the Vocational Rehabilitation Administration and the Office of Education in HEW, and the Community Action Programs (CAP) of the Office of Economic Opportunity (OEO). The last is primarily concerned with providing legal services for the indigent and disadvantaged.

#### 1. The Office of Law Enforcement Assistance

The Office of Law Enforcement Assistance administers its program under the Law Enforcement Assistance Act of 1965. In response to the President's Message on Crime in 1965, the Office was created to respond to the need for stimulation of new methods, techniques, and ideas in the law enforcement field, with important secondary emphasis on adult corrections and the agencies of courts and prosecution.

The first OLEA grant award was made in December 1965, just six weeks after approval of the Act's initial appropriation. Since that action (December 1965 through March 1968), support has been extended to over 330 separate projects aggregating over \$19 million in assistance awards. The average duration of grants and contracts has been 13 months and the average award amount is \$57,000.

According to the main substantive areas of OLEA program coverage, 66 percent of the funds allocated has gone to Law Enforcement (police), 8 percent to Criminal Justice (courts and prosecution), and 19 percent to Corrections (probation, parole, and correctional institutions). The remaining 11 percent of funds has gone to General Studies, Planning, and Crime Prevention.\*

Of the total number of OLEA-funded projects, approximately one-third were not included here because they had been scheduled for

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\* U.S. Department of Justice, Third Annual Report, Report No. 16-175, Washington, D.C., April 1, 1968.

completion by January 1, 1968. Approximately half of the remainder were not included because they were not considered to be "research and development."

## 2. The National Institute of Mental Health

The delinquency research program of the National Institute of Mental Health began in the early 1950's, reached a level of about \$1.5 million in 1960, and now expends approximately \$9 million annually. More than 350 separate projects have received support over the life of the program, most of which are in the area of delinquency and youth crime research, training, and treatment. The NIMH program has emphasized behavior perspectives and, consistent with its research focus, fixed on individual projects rather than broad-scale subsidies for particular types of training or action efforts. Data provided by the NIMH Center for the Study of Crime and Delinquency show that for Fiscal Year 1968, of a total budget of \$9.2 million, \$5 million was allocated to research and demonstration grants, while for Fiscal Year 1969 these grants have been allocated \$5.5 million of a projected total budget of \$9.7 million. (Other funding activities in the delinquency program have been grants for hospital improvement, manpower, and training.)

## 3. The Office of Juvenile Delinquency and Youth Development

The program of the Office of Juvenile Delinquency and Youth Development was established under the Juvenile Delinquency and Youth Offenses Control Act of 1961. In contrast to the mental health, behavioral focus of the NIMH delinquency program, the OJDYD effort addresses the social and environmental aspects of delinquency prevention and control. In addition to research, demonstration, and training projects, OJDYD has sponsored the development of a national network of university-based training centers and the development of innovative and model training materials and curricula for the delinquency focused disciplines (social work, law, police, etc.). More than \$33 million in grant assistance has been extended to 182 projects during the six-year life of the program. Approximately 35 projects are still operational.

#### 4. Other Federal Agencies

The Bureau of Prisons has general supervision over the operation of Federal correctional institutions and community treatment facilities, the commitment and management of Federal inmates, and the arrangement with local institutions for confinement and support of Federal prisoners. The Bureau's reporting of National Prisoner Statistics has provided an important statistical service to the correctional field. Its research has emphasized the establishment of the halfway house as a correctional technique and the study of prison populations, including the nature of violence and inmate typologies.

The Children's Bureau has provided a variety of services to juvenile correctional institutions, including the Bureau's National Juvenile Court Statistics. The Division of Juvenile Delinquency within the Bureau sponsors research in juvenile delinquency as part of its broad responsibility for the development, extension, and improvement of state and local programs in the juvenile delinquency field.

The Federal Bureau of Investigation, as part of its crime reporting functions, including the publication of the Uniform Crime Reports, conducts analyses of the criminal career records contained in the FBI files of offenders. The total cost of these statistical and analytical activities is about \$600,000 per year. In addition, the FBI supports two projects for fingerprint recognition techniques to increase the efficiency of its fingerprint processing operations.

#### C. SUMMARY OF THE CURRENT PROGRAMS

Tables 4,5, and 6 present summaries of the current programs.

Table 4 shows the total effort of eight agencies according to program area and objective. Table 5 presents the summary of the same data organized by sponsor and program area. Of a total expenditure of \$18.2 million, the principal activity (80 percent of the total program) is clearly directed at Program Areas 1 (social causes), 2 (rehabilitation), and 5 (system management), with Program Areas 1 and 2 accounting for 65 percent. There are clear gaps in Program Areas 3 (direct

prevention), 4 (apprehension), and 6 (community relations), which together account for only 10 percent of the total program.

Table 6 provides the distribution of the projects organized by sponsor and relevant criminal justice subsystem. This allocation shows police to be receiving the smallest share of support, with 23 percent of the total; courts and corrections with 28 percent and 33 percent, respectively. The remaining 16 percent was applicable to no specific subsystem (e.g., studies of crime as a social phenomenon.)

TABLE 4. THE CURRENT RDT&E EFFORT BY OBJECTIVES AND PROGRAM AREAS

	Program Areas											Total
	1	2	3	4	5	6	7	8	9	10	11	
<u>RESEARCH</u>												
No. of Projects	24	25	-	4	8	1	7	-	1	-	-	70
Amount Funded (\$000)	1,311	1,374	-	209	471	29	332	-	600	-	-	4,326
<u>DEVELOPMENT</u>												
No. of Projects	20	20	2	5	13	7	8	-	-	-	1	76
Amount Funded (\$000)	4,267	2,453	117	686	1,958	506	660	-	-	-	152	10,799
<u>T&amp;E</u>												
No. of Projects	12	22	1	2	2	2	1	-	-	-	-	42
Amount Funded (\$000)	1,025	1,335	159	92	319	56	110	-	-	-	-	3,096
<u>TOTAL</u>												
No. of Projects	56	67	3	11	23	10	16	-	1	-	1	188
Amount Funded (\$000)	6,603	5,162	276	987	2,748	591	1,102	-	600	-	152	18,221

TABLE 5. CURRENT RDT&E EFFORT BY PROGRAM AREA AND SPONSOR

	OLEA	NIMH	OJDYD	CHIL. BUREAU	BUREAU PRISONS	FBI	VRA	OEO(CAP)	TOTAL
<u>Program Area 1</u>									
No. of Projects	-	26	11	-	-	-	-	19	56
Amount Funded (\$000)	-	1,265	1,342	-	-	-	-	3,996	6,603
<u>Program Area 2</u>									
No. of Projects	13	22	8	1	5	-	16	2	67
Amount Funded (\$000)	1,549	1,420	759	105	67	-	756	506	5,162
<u>Program Area 3</u>									
No. of Projects	3	-	-	-	-	-	-	-	3
Amount Funded (\$000)	276	-	-	-	-	-	-	-	276
<u>Program Area 4</u>									
No. of Projects	6	3	-	1	-	1	-	-	11
Amount Funded (\$000)	578	182	-	27	-	200	-	-	987
<u>Program Area 5</u>									
No. of Projects	18	3	1	1	-	-	-	-	23
Amount Funded (\$000)	2,286	273	102	87	-	-	-	-	2,748
<u>Program Area 6</u>									
No. of Projects	7	1	2	-	-	-	-	-	10
Amount Funded (\$000)	270	41	280	-	-	-	-	-	591
<u>Program Area 7</u>									
No. of Projects	4	2	10	-	-	-	-	-	16
Amount Funded (\$000)	196	88	818	-	-	-	-	-	1,102
<u>Program Area 8</u>									
No. of Projects	-	-	-	-	-	-	-	-	-
Amount Funded (\$000)	-	-	-	-	-	-	-	-	-
<u>Program Area 9</u>									
No. of Projects	-	-	-	-	-	1	-	-	1
Amount Funded (\$000)	-	-	-	-	-	600	-	-	600
<u>Program Area 10</u>									
No. of Projects	-	-	-	-	-	-	-	-	-
Amount Funded (\$000)	-	-	-	-	-	-	-	-	-
<u>Program Area 11</u>									
No. of Projects	1	-	-	-	-	-	-	-	1
Amount Funded (\$000)	152	-	-	-	-	-	-	-	152
<u>TOTAL</u>									
No. of Projects	52	57	32	3	5	2	16	21	188
Amount Funded (\$000)	5,307	3,269	3,301	219	67	800	756	4,502	18,221

TABLE 6. CURRENT RDT&E EFFORT BY SPONSOR AND RELEVANT CRIMINAL JUSTICE SUBSYSTEM

	OLEA	NIMH	OJDYD	CHIL. BUREAU	BUREAU PRISONS	FBI	VRA	OEO(CAP)	TOTAL
<u>POLICE</u>									
No. of Projects	28	4	4	-	-	2	-	-	38
Amount Funded (\$000)	2,678	149	538	-	-	800	-	-	4,165
<u>AOJ</u>									
No. of Projects	3	4	4	2	-	-	-	19	32
Amount Funded (\$000)	281	288	449	114	-	-	-	3,996	6,042
<u>CORRECTIONS</u>									
No. of Projects	19	23	15	1	5	-	16	2	81
Amount Funded (\$000)	1,846	1,555	1,207	105	67	-	756	506	6,042
<u>NOT CLASSIFIED</u>									
No. of Projects	2	26	9	-	-	-	-	-	37
Amount Funded (\$000)	502	1,277	1,107	-	-	-	-	-	2,886
<u>TOTAL</u>									
No. of Projects	52	57	32	3	5	2	16	21	188
Amount Funded (\$000)	5,307	3,269	3,301	219	67	800	756	4,502	18,221

## V. PROPOSED RESEARCH, DEVELOPMENT, TEST AND EVALUATION PROGRAM FOR THE NATIONAL INSTITUTE

It is clear from the listing of problems in Chapter III and the large gaps in the current program discussed in Chapter IV that the potential demand for research, development, test and evaluation is far greater than can be met with available resources. Even more limiting than financial resources will be the supply of technically competent people and institutions. Also, certain problems cannot be attacked efficiently until the required information and plans become available through prior research and studies. Thus, priorities must be established and strategies developed.

### A. PROGRAM STRATEGY

#### 1. Strategic Objectives

The strategy for developing the Institute's initial program is directed toward a complex of objectives. In its first year, the Institute must:

- Demonstrate its value to operating agencies.
- Create mechanisms for feeding its results into day-to-day operations.
- Establish an informational base on which the future program can build.
- Begin to create institutions of growing competence in addressing the problems of crime control.
- Train a new cadre of specialists with both methodological talents and an understanding of the problems of law enforcement and administration of justice.

In an idealized world, the Institute might direct its initial efforts only at solving long-range problems and creating institutions for doing so. Such a policy, however, is neither practical nor desirable. The problems of crime are growing increasingly intense, and they cannot wait for the long-term solutions. Change is needed immediately to begin to grapple with these problems, even if it must be done by groping rather than with sure direction. It is also important for the Institute to demonstrate very early its potential contributions. Only by creating these credentials will it generate the support it needs in terms of gaining access to data, attracting highly qualified participants to Institute projects, and ensuring continued vitality and financial backing.

However good the Institute's results may be, they will not penetrate the traditional insularity of the criminal justice system unless new means are found for improving dissemination. The technical assistance and grant programs of the LEAA represent one important component of that process. Also, research on the process of innovative change in the criminal justice system will help identify which mechanisms have the best chance of being successful. These problems must be a primary concern of the Institute.

It is not sufficient nor is it the basic intent of the Institute to attack only the immediate problems and to provide only short-range solutions. Its more fundamental role must be one of creating new knowledge, new kinds of institutions, and new kinds of specialists to bring out the more fundamental, long-term reformation in the crime-control process so desperately needed. The new kinds of institutions which must be fostered include ones such as the following:

1. Organizations, both inside and related to operating criminal justice agencies, that will, in a continuing way, help the agencies innovate and experiment in their own operations. They will help the agencies benefit from the growing literature expected to arise from the Institute's overall program and see to it that these research results are translated

properly to meet the needs of the individual agencies. Such technical assistance groups would develop increasing familiarity with the operating problems and have the technical background to understand the developing research results. Their creation should be strongly encouraged by the action grant program.

2. Central sources of statistics, reports, and other information that will be collected from around the country and made widely available to potential users.
3. A large and cohesive inter-disciplinary research center that will examine critically many of the basic assumptions underlying the operation of the criminal justice system. For this reason, such a center must be related to but not under the direct control of operating agencies.

These different institutions vary in their closeness to daily operations and in their technical sophistications. All kinds of such organizations must be orchestrated by the Institute to create a productive flow from idea to project to implementation, and from one locale to the entire nation.

Many developments of both operations and equipment cannot proceed efficiently until an adequate data base is created, either for progressing with the development or for selecting among alternatives. Data base needs include, for example, better knowledge of the locus of crimes, in order to better understand causation; of the relationships between victims and offenders, in order to develop preventive approaches; and of radio usage requirements, in order to design radios and radio networks. Other, more generally needed data bases include common criminal justice statistics and well-constructed samples of criminal-career records. Much of the initial effort will have to be directed at providing such basic information on which later projects can build. Investment in these informational bases will be needed to strengthen the potential of the Institute in future years.

In addition to creating a base of institutions and information, the Institute must be concerned with creating a body of professionals trained to use and build on it. These include people to staff the research institute as well as members of operations research and technical support groups in operating agencies. The paucity of such professionals now affiliated with the criminal justice system is well recognized. Initially, people with the requisite methodological and technical skills will have to be recruited and develop an understanding of the substantive problems through direct participation. For the longer range, academic programs will have to be established, using LEAA's fellowship program as an incentive.

## 2. Assignment of Priorities

These strategic objectives provide guidelines to the ultimate development of a program. Specific choices still have to be made on which areas to stimulate proposals and conduct projects, either inside the Institute or elsewhere through a grant or contract. The development of such a program must necessarily be flexible. It must depend on the availability of good ideas and proposals in the areas identified or on the appearance of an important proposal in an area not identified.

In addition to the strategic considerations discussed in the previous sections, the assignment of priorities to specific projects must reflect a combination of many project-related considerations, such as:

- The anticipated time and cost required to bring the project to a successful conclusion.
- The likelihood of successful accomplishment of the project objectives, including the availability of the required background information and skilled professionals to conduct the project.
- The likelihood that the project results, even if successful, would be implemented.

- The operational utility or value of the project research results if the research is successful and implemented.
- The appropriateness of Federal and specifically Justice Department support for the projects, considering support being provided elsewhere in the Federal Government or by states, localities, foundations, universities, and private industry.

Were it possible to assign numbers to each of these probability and utility factors, one might develop a simple formula measuring the "expected marginal utility" of each possible project, and allocate funds to those projects with the highest value until the money ran out. The problem is clearly much more complicated. At best, these factors can be estimated only subjectively. They involve many value and judgmental considerations. To provide the IDA staff with guidance and direction in these assessments, the Project Steering Committee was asked to allocate hypothetical funds to each of the program areas. The procedure used to obtain those judgments is described in Appendix B. The resulting detailed program of resource allocation was subsequently reviewed by the Steering Committee and modified in accordance with their guidance. The responsibility for the details, however, remain with the IDA staff.

It should be recognized that any such program is limited by the biases and experience of those formulating it. Developments in coming months could well change the emphasis. The creation of the Institute and the appointment of its management and staff will bring a new set of biases into play. New ideas and approaches that appear or fail to appear will revise the priorities. Thus, the specifics of this program must be regarded as a first estimate, to be modified in the development of the Institute. Hopefully, the basic structure created will help in the evolution of the final program.

To aid in the evolution, it is recommended that the program proposed here be distributed widely to experts on the problems of crime control, from the viewpoint of both research and operations, and their

comments solicited. This can be done initially through the mail and then, to encourage interaction, in small working groups of about 15 to 30 people. There might be one such meeting for each mission area. The distribution of the report and the associated meetings will serve to stimulate appropriate research interests as well as to provide suggestions for the development of the Institute program.

## B. A PROPOSED FIRST-YEAR PROGRAM FOR THE INSTITUTE

A first estimate of the initial year's program for the Institute has been prepared within a budget constraint of \$10 million for the conduct of the research, development, and test and evaluation. This constraint reflects the amount authorized for the Institute in the enabling legislation\*.

In the discussion of the program, no distinction is made between projects conducted within the Institute or externally.

### 1. Allocation by Program Areas

Table 7 presents an allocation to the eleven program areas of a first-year \$10 million budget. The range of the proposed allocations is indicated in the fourth column to reflect the degree of agreement within the Steering Committee on the appropriate allocation. The range is greatest for Program Area 1, where a basic value disagreement prevails. Although there is general agreement on the importance of reducing causes of crime, the disagreement centers about the feasibility of research contributing to the alleviation of these causes and to the priority such issues should have within the Justice Department in view of the effort on these problems elsewhere (HEW, foundations, etc.) and the paucity of other work on the criminal justice system itself.

Table 7 also indicates some projections of the program area allocations into the future. The distribution of a hypothetical

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\* Actually, the authorization could be larger if the academic assistance program uses less than its authorized \$10 million.

TABLE 7. ALLOCATION BY PROGRAM AREA

Mission Area	Apportionment by Program Area of \$10 million 1st Year Budget (Thousands of \$)		1st Year Budget Range (Thousands of \$)	Apportionment of 5th Year \$50 million budget (Thousands of \$)	Form of Growth of Program Area
I--Prevention & Rehabilitation	1--Reducing Causes	1000	500-1500	3000	Rising slowly as methodology and knowledge develop
	2--Reducing Recidivism	1300	1000-1600	6000	Rising more rapidly as a base of researchers develops, and then maintaining a fairly constant level
II--Crime Control	3--Direct Prevention	1000	800-1200	5000	Rising more rapidly, limited primarily by funds and accumulation of knowledge
	4--Apprehension & Conviction	2100	1700-2500	10,000	Rising rapidly, limited largely by the availability of funds and the knowledge of how to use them wisely
III--System Management	5--Efficiency & Effectiveness	1400	1300-1700	5000	Rising rapidly at first, and then more slowly as major improvements are made
	6--CJS Community Relations	800	700-900	3000	Comparable to Program Area 1
	7--Selection & Training of Personnel	400	300-500	3000	Rising slowly as basic results become available, then more rapidly, and then more slowly
IV--Program Support	8--Equipment Evaluation Center	300	200-400	3000	Rising rapidly as funds become available, then to a fixed level
	9--Statistics & Crime Measurement Center	300	200-500	5000	Same as Program Area 8
	10--Major Research Center	1000	500-1500	5000	Rising more slowly as people become available, then reaching a fixed level
	11--Program Management	400	300-500	2000	Rising more slowly than the size of the program

\$50 million\* budget in the Institute's fifth year reflects the growth potential of each program area. Some will be limited by a slow accumulation of basic knowledge (e.g., Program Area 1) or by the rate of development of trained researchers (e.g., Program Area 2). Support for some areas (e.g., development of fingerprint recognition equipment) will grow rapidly as soon as some basic studies are conducted, and then will decline as the basic objectives are accomplished. Others (e.g., the statistics center) will build up slowly at first as basic planning and studies are conducted, and then grow to a large, fairly constant size over a period of a few years. These general trends are indicated by the comments in the table.

## 2. Allocation by Project

Translating these general allocations into project allocations requires judgments within each program area comparable to those made among program areas. Table 8 shows these project allocations by program area for the entire \$10 million budget. There is a total of 41 different types of projects. Because some types are replicated for different variables or for different parts of the criminal justice system, a total of 67 separate projects is indicated. For each project type, a brief description of the research objectives and an indication of possible research approaches are presented in Appendix C.

It should not be thought that the indicated budget distribution is the distribution. As reflected in the ranges shown in the program area allocation of Table 7, considerable flexibility should exist in expanding the identified projects, adding new ones, or eliminating those for which the state of the art is not yet ready. Furthermore, the actual budget available may well be less than \$10 million. Thus Table 8

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\*This amount is less than one-quarter the cost of an aircraft carrier and less than twice the cost of dental research supported by HEW. It is less than 1 percent of the operating cost of the criminal justice system and only 5 percent of an anticipated Federal crime control subsidy program of about \$1 billion in five years.

TABLE 8. STRUCTURE OF A \$10-MILLION FIRST-YEAR PROGRAM

Program Area	Project Title	Average Project Cost, \$	No. of Projects	Total Cost, \$	Principal Objective <sup>a</sup>	Principal CJS Component <sup>b</sup>	Type of Recipient <sup>c</sup>
MISSION AREA I - CRIME PREVENTION AND REHABILITATION							
1 Reducing Causes	1. Crime Factors	100,000	2	200,000	R	Com	U, R
	2. Evaluation of Programs	50,000	4	200,000	T&E	Com	Com + (U, R)
	3. Program Evaluation Methodology <sup>d</sup>	150,000	2	300,000	R	Com	U, R
	4. Causation of Civil Disorders	150,000	2	300,000	R	P, Com	U, R
2 Reducing Recidivism	1. Crime Prediction <sup>d</sup>	200,000	2	400,000	D	Cor	Cor + (U, R)
	2. Treatment Programs <sup>d</sup>	150,000	4	600,000	T&E, D	Cor	Cor + (U, R)
	3. Characteristics of Offenders	100,000	1	100,000	R	Cor	Cor + (U, R)
	4. Training Techniques and Materials	100,000	1	100,000	D	Cor	Cor + (Eq, R)
	5. Model Institution Design	100,000	1	100,000	D	Cor	(Cor + U, R), U, R
MISSION AREA II - CRIME CONTROL							
3 Direct Prevention	1. Building Code Requirements	50,000	1	50,000	D	Com, P	(U, R) + P
	2. Community Surveillance Systems	150,000 <sup>e</sup>	1	150,000	D, T&E	P	P + (R, Ind)
	3. Factors in Deterrence <sup>d</sup>	150,000	2	300,000	R	P, All	U, R
	4. Preventive Patrol Strategies <sup>d</sup>	100,000	2	200,000	D, T&E	P	P + R
	5. Organized Crime, Criminal Systems <sup>d</sup>	200,000	1	200,000	R, D	P, AOJ	U, R
	6. Quenching Riots	100,000	1	100,000	R, D	P	P + (U, R)
4 Apprehension & Conviction	1. Crime Patterns	150,000	1	150,000	R	P	P + (U, R)
	2. Factors in Apprehension <sup>d</sup>	100,000	1	100,000	R	P	P + (U, R)
	3. Allocation of Police Resources <sup>d</sup>	150,000	1	150,000	D	P	P + (U, R)
	4. Command and Control Systems <sup>d</sup>	150,000 <sup>e</sup>	2	300,000	D	P	P + R
	5. Simulation Laboratory	300,000 <sup>e</sup>	1	300,000	D, T&E	P	P + R
	6. Police Radio Networks	200,000	1	200,000	D	P	P + R
	7. Police Radios <sup>d</sup>	200,000	1	200,000	D	P	(Fed, R) + Eq
	8. Forensic Techniques	150,000	2	300,000	T&E, D	P, AOJ	P + (U, R)
	9. Fingerprint Recognition	200,000 <sup>e</sup>	1	200,000	D	P	Eq, R
	10. Experimental Police Vehicles	200,000	1	200,000	D	P	Eq, R
MISSION AREA III - CRIMINAL JUSTICE SYSTEM MANAGEMENT IMPROVEMENT							
5 Improving Efficiency and Effectiveness	1. Total CJS Operations <sup>d</sup>	200,000	2	400,000	R	All	All CJS
	2. Allocation of Resources <sup>d</sup>	100,000	3	300,000	D, R	All	All CJS
	3. Process of Innovation and Change	100,000	1	100,000	R	All	(U, R) + All
	4. Model Information Systems <sup>d</sup>	200,000	2	400,000	D	All	R + All CJS
	5. Standard Computer Formats	50,000	2	100,000	D	All	R + All CJS
	6. Computer Programs	50,000	2	100,000	D	All	R + All CJS
6 Improving CJS Community Relations	1. Attitudes and Behavior Measurement <sup>d</sup>	100,000	3	300,000	R	All	(U, R) + All CJS
	2. Evaluation of Programs	100,000	4	400,000	T&E	All	(U, R) + All CJS
	3. Effect of CJS Operations	100,000	1	100,000	R	All	(U, R) + All CJS
7 Personnel Selection & Training	1. Relating Skills to Jobs <sup>d</sup>	100,000	2	200,000	R	All	R + All CJS
	2. Job Tests	100,000	1	100,000	D	All	R + All CJS
	3. Training Materials and Techniques	100,000	1	100,000	D	All	R + All CJS
MISSION AREA IV - PROGRAM SUPPORT							
8	Equipment Testing and Evaluation Laboratory <sup>d</sup>	300,000	1	300,000	T&E	All, esp. P	Fed, R
9	Statistics and Crime Measurement Center <sup>d</sup>	300,000	1	300,000	R	All	Fed, R
10	Private Research Institute	1,000,000	1	1,000,000	R	All	R, U
11	Technical Support <sup>d</sup>	400,000	1	400,000	R, D, T&E	All	Fed, R
Totals	41 Titles		67	10,000,000			

<sup>a</sup>R = Research; D = Development; T&E = Test & Evaluation.

<sup>b</sup>Com = General Community; P = Police; AOJ = Courts and Prosecution (Administration of Justice); Cor = Corrections; All = All subsystems of the criminal justice system.

<sup>c</sup>Fed = Federal Government, including the Institute; Com = Community action group; P = Police Department or Sheriff's Office; Cor = Corrections agency; All CJS = Any operating criminal justice agency, including a planning agency; U = University; Eq = Equipment Manufacturing Company; R = Research or development organization; CJS = Joint criminal justice system, organization or commission.

<sup>d</sup>High-priority, first-year projects, if budget is reduced. Also, fewer of each type of project can be undertaken.

<sup>e</sup>First-year buildup cost of a much larger, continuing, longer term project.

should be viewed more as a starting point and a convenient structure for developing the program than as a final, definitive statement.

For each type of project, Table 8 summarizes certain basic information. The estimated average cost per project multiplied by the number of such projects provides the budget allocation to that project. The principal objective is indicated by the following code:

R = Research

D = Development

T&E = Test & Evaluation

The principal component of the criminal justice system or the community outside the criminal justice system to which the project applies is indicated by the following code:

Com = General Community

P = Police

AOJ = Courts and Prosecution (Administration of Justice)

Cor = Corrections

All = All subsystems of the criminal justice system

The organizations most likely to undertake the project are indicated by the following code:

Fed = Federal Government, including the Institute

Com = Community action group

P = Police Department or Sheriff's Office

Cor = Corrections agency

All CJS = Any operating criminal justice agency, including a planning agency

U = University

Eq = Equipment Manufacturing Company

R = Research or development organization. This could be a large or small profit or non-profit organization, a computer software company, or the Institute itself.

CJS = Joint criminal justice system, organization or commission

In the notation, a comma indicates alternative recipients and a plus (+) indicates a joint project between two or more recipients,

usually between an operating agency to provide the operational experience and opportunity and for implementation and a research group to provide the technical skills.

The money is distributed among the principal\* research objectives as follows:

Research	\$4,550,000
Development	\$3,650,000
Test & Evaluation	\$1,800,000

This reflects the emphasis on research in the early stages of this program. As the program matures, presumably there will be more emphasis on development and evaluation.

The money is distributed among the interests of criminal justice agencies as follows:

Community generally	\$750,000
Police	\$3,350,000
Corrections	\$1,300,000
All or any criminal justice agency	\$4,600,000

In addition to the heavy emphasis on police, this reflects the emphasis on the areas of common problems throughout the criminal justice system.

The distribution of the recipient organizations undertaking projects is rather more complex. The potential combinations presented are distributed as follows:

(U or R)	= \$2,300,000
(U or R) in conjunction with (Com)	= \$200,000
(U or R) in conjunction with (Police)	= \$850,000
(U or R) in conjunction with (Cor)	= \$1,200,000
(U or R) in conjunction with (All CJS)	= \$900,000

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\*Where two objectives are indicated in Table 8, only the first objective noted is used for this distribution.

(R) in conjunction with (Police)	= \$1,000,000
(R) in conjunction with (All CJS)	= \$1,700,000
(R or Eq)	= \$400,000
(R or Eq) in conjunction with (Cor)	= \$100,000
(R or Eq) in conjunction with (Police)	= \$150,000
(Fed or R)	= \$1,000,000
(Fed or R) in conjunction with (Eq)	= \$200,000

In all cases, a research organization is a potential recipient. Universities are possible recipients of \$5,450,000, equipment manufacturers of \$850,000, police departments of \$2 million, corrections agencies of \$1,350,000, and unspecified criminal justice agencies of \$2.2 million. The small amount allocated to equipment manufacturers reflects a policy of stimulating such developments without Federal support where practical; for those cases where significant development is to be supported, the first-year startup costs are relatively low, and can be expected to expand in future years. Furthermore, the research groups of many manufacturers are expected to participate in many of the other projects.

## VI. MANAGEMENT OF THE INSTITUTE PROGRAM

### A. ORGANIZATIONAL STRUCTURE

Management of a research, development, test and evaluation program is a significant departure for the Department of Justice from its traditional functions. The management of the RDT&E component of the Office of Law Enforcement Assistance has relied almost exclusively on the grant mechanism and has been limited to a total expenditure of about \$19 million over its three-year existence. The new Institute will have a significantly expanded program, will place much more emphasis on internal studies and contracts, and so will have to develop new management approaches and procedures. This chapter explores some of these issues of organization and staffing as they relate to the development, management, evaluation, monitoring, and implementation of the RDT&E program.

Many kinds of organizational structure are possible to enable the Institute to manage its RDT&E program. These might include the following:

- Divisions for each of the three mission areas of crime prevention, crime control, and criminal justice system, with staff units for program support.
- Divisions for police, courts, and corrections.
- Division along professional specialty lines, such as sociology, operations research, physics, electronics, economics, etc.
- Division by type of institution receiving support (e.g., universities, industry, criminal justice agencies).
- Division by administrative form of support (e.g., grant, contract, internal research).

An administratively based structure would create administrative convenience and homogeneity. The structure along the lines of recipient institutions would ease the problem of preparing proposals. The professional discipline structure would relate most closely to academic research. The criminal justice subsystem structure would lead to close ties to the operating agencies. None of these appear to share the virtues of a functional structure corresponding to mission areas. This would sacrifice administrative convenience to provide a mission orientation to the research program. As presented in Chapter III, that structure will consist of three principal functional divisions:

1. Crime Prevention and Rehabilitation Division.
2. Crime Control Division.
3. Criminal Justice System Management Division.

In such a structure there is some correlation between the professional disciplines and the criminal justice agencies being served. The Crime Prevention and Rehabilitation Division would be composed largely of social scientists and corrections officials. In addition, however, there should be police and legal participation. The Crime Control Division would look principally at the police apprehension and the prosecution functions and so would require heavy participation by lawyers, police officials, physical scientists, systems analysts, criminologists, etc. The System Management Division would be composed of public administration specialists, operations analysts, and specialists in all aspects of the criminal justice system.

An important organizational problem that must be faced within this functional structure is whether the Institute's internal research and external grant and contract programs (detailed below) should be integrated or separated activities.

The integration of activities means that the same staff members will be involved in both the progress of in-house investigations and the review of grant and contract proposals. This, it can be argued, will ensure that the individuals most familiar with research needs

and problems will be making the management decisions in the Institute and insuring that internal work is coordinated with external support. Furthermore, since the quality of the staff is central to the success of the Institute, a vital internal research program may be a valuable device for attracting such a staff to manage the external program part time. If the two functions were organizationally separate, then there may even be some question as to the desirability of having an internal research component, given the problems in attracting a quality technical staff into the government, especially in the face of the competition generated by the Institute's external program.

However, experience in other government laboratories (e.g., NIH) has shown that it is usually more effective to separate internal research from external program management. Conflict of interest often develops, for instance, when the same individual competes in research with the colleagues whose research he funds and evaluates. When time must be split between research and management, the time pressures usually require that management take priority, and so the research program usually suffers thereby. Some organizations (e.g., the National Science Foundation) address this problem by bringing in people who are normally engaged in research for a short tour (say, two years) of program management.

It may be prudent to postpone judgment on these organizational issues until the exact problems of staff recruitment for the Institute come more fully into perspective.

## B. STAFFING OF THE INSTITUTE

The Institute holds great promise for becoming a major force for social innovations in the United States. Success, however, depends critically on the quality and motivation of the professional staff that can be attracted. If the right people--truly the best in their fields--can be attracted, then the impact on the criminal justice system can be profound. If the Institute is not staffed by these top people, then it will surely become just another Federal bureaucracy, distributing its funds in an unimaginative and ineffectual manner.

The competition from industry, other governmental agencies, universities and research organizations for the kind of people needed will be great indeed. Almost everyone the Institute wants would come at a sacrifice in income. They can, however, be attracted by the opportunity to bring about significant social change. The Institute must dramatize this opportunity and should be ready to pay a considerable price in terms of organizational neatness, bureaucratic restraint, and management rigidity in order to create the environment that will attract and stimulate such a staff.

There will be many professional specialties required by the Institute. The staff of each division must contain two groups of people who will interact closely on a day-to-day basis. Insight into the problems will come from individuals with significant experience in criminal justice operations. The research direction and technical evaluation will be provided by technical and research specialists. Each project the Institute sponsors or conducts will require participation by both groups. The experienced officials will serve as consultants in the formulation of the research problems, and the research specialists will play a more direct role in the planning of the research. The criminal justice specialists would probably carry a relatively larger share of the administration of grants and contracts, especially those being conducted by operating agencies. It is important, however, that the research specialists contribute to the formulation, evaluation, and technical monitoring of these projects.

Illustrative specialties required for the Institute's three divisions are indicated in Table 9. Obviously, each division requires a broad range of skills. Furthermore, incremental hiring requirements will depend on the mix of experience and training available in an existing staff. The specialties available in one division will be made available to the others; thus, each division need not become completely self-sufficient, especially in those areas when they might need help only occasionally.

TABLE 9. ILLUSTRATIVE STAFF SPECIALTIES APPROPRIATE  
FOR THE INSTITUTE DIVISIONS

I. CRIME PREVENTION AND REHABILITATION DIVISION

- | A. <u>Research/Technical Staff</u> | B. <u>Criminal Justice Officials</u> |
|------------------------------------|--------------------------------------|
| 1. Social psychologists            | 1. Corrections officials             |
| 2. Experimental psychologists      | 2. Police officials                  |
| 3. Quantitative sociologists       | 3. Social workers                    |
| 4. Criminologists                  |                                      |
| 5. Economists                      |                                      |
| 6. City planners/architects        |                                      |

II. CRIME CONTROL DIVISION

- | A. <u>Research/Technical Staff</u>                 | B. <u>Criminal Justice Officials</u> |
|--|--------------------------------------|
| 1. Computer software specialists                   | 1. Police officials                  |
| 2. Computer system engineer                        | 2. Lawyers/prosecutors               |
| 3. Electronics communications engineer             |                                      |
| 4. Systems analyst                                 |                                      |
| 5. Mathematical statisticians/experiment designers |                                      |
| 6. Criminalists                                    |                                      |
| 7. Mechanical engineer                             |                                      |
| 8. Experimental sociologists                       |                                      |

III. SYSTEM MANAGEMENT DIVISION

- | A. <u>Research/Technical Staff</u>               | B. <u>Criminal Justice Officials</u> |
|--|--------------------------------------|
| 1. Systems analysts/operations research analysts | 1. Police managers                   |
| 2. Mathematical statistician                     | 2. Court administrators              |
| 3. Computer systems engineers                    | 3. Corrections officials             |
| 4. Industrial psychologists                      | 4. Public administrators             |
| 5. Social psychologists                          |                                      |
| 6. Economists                                    |                                      |
| 7. Public administration/management analysts     |                                      |

The need for specialists, however, can be overemphasized. The Institute, it has been repeatedly stressed, must direct considerable research energy to improving the criminal justice system as a functioning whole. Individuals who are conversant with police, court and correctional problems, and ones who can deal analytically with all subsystems and their interrelations at once, will therefore be in great demand.

Very few potential research staff members will have had extensive experience in or knowledge of criminal justice, but this is not an overriding problem. The most fundamental criteria for hiring should be an individual's general capability, mental flexibility, familiarity with the methods and problems of research, and potential for intellectual and technical growth. With these qualities, a person can acquire both a substantive understanding of the criminal justice system and an expertise in a number of specialties. The process of training new personnel should involve guidance by more experienced colleagues at the Institute as well as assignments to agencies throughout the system for first-hand experience with the problems that need to be solved.

### C. INTERNAL AND EXTERNAL COMPONENTS OF THE RESEARCH PROGRAM

The research program can be divided into three components:

1. An internal program conducted directly by the staff of the Institute.
2. An external grant and contract program. The grant program would be conducted primarily by criminal justice agencies and universities with relative freedom of exploration, usually involving the pursuit of a novel and innovative idea generated by the grantee. The contract program would involve a reasonably well-defined problem being pursued in detail by a research organization having the requisite technical skills and experience.
3. An institutional grant program designed to create and support broadly and continuously an institution developing increased competence in a specific area.

## 1. Internal Program

The Institute's internal research program will perform several functions:

- Providing intellectual stimulus and sustenance to the Institute's staff.
- Conducting preliminary research studies to lead to a better definition of a problem, which can then be followed by a formal Request for Proposals, leading to a contract for pursuing further details of the work.
- Conducting broad studies tying together various parts of the Institute's program.
- Conducting studies to provide guidance to the Office of Planning and Law Enforcement Grants.
- Pursuing in depth ideas generated by the Institute's staff which they might pursue under a grant if they were at a university or research organization.
- Reviewing, validating and pursuing in further detail studies that might warrant an Institute statement of policy.

Many of these studies will require experiments with operating criminal justice systems and so will have to be done in conjunction with state or local agencies. Initially, during the formative stages of the Institute, it will be necessary to contract for most of these studies.

## 2. Grants and Contracts

Projects will be conducted under the Institute's external program through grants and contracts. The principal distinction between the two is that a grantee would have considerable freedom to develop a study as he sees fit, while a contractee will be limited to the research scope within which he agrees to work. Grants to research or development organizations would be used for projects with considerable technical uncertainty, relatively high risk, cases where close supervision by the National Institute would be inappropriate, and projects

where the aims are broad and general rather than specific. Contracts would be used where the Institute can define the desired output reasonably well, and where the cost of the study can reasonably be estimated. This would be especially appropriate in equipment development where the specifications can be described fairly precisely. In both cases, the Institute should assure that there is evaluation of the projects undertaken.

a. Grants. The most frequent recipients of grants would be criminal justice agencies and individuals at universities and private, non-profit research organizations. In the latter cases, individuals with important ideas and with demonstrated research competence would be supported in the development of these ideas. Such research studies would typically involve new methodological development, experimentation, and theoretical development.

At criminal justice agencies the grants would go for a wide variety of experimental and innovative studies or demonstration projects where the control is to be vested in the operating agencies. In many such cases, subcontracts will be needed to provide technical support for the agency; in other cases, separate contracts will be necessary for independent evaluation of projects.

b. Contracts. The Institute would let both competitive and sole-source contracts. Competitive contracts would normally result from studies undertaken by the Institute which indicate the basic specifications and requirements to be met by the contract. These detailed requirements would then be incorporated by the Institute into a Request for Proposal distributed to a list of potentially competent bidders. This would be the preferred method for contracts oriented to well-defined requirements; it would enable the Institute to review a variety of development approaches and achieve the required result at minimum cost.

In some cases, only one source possesses the idea (e.g., as reflected in an unsolicited proposal) or unique technical competence to undertake a given job to meet specified requirements. Sole-source contracts are designed for such conditions.

### 3. Institutional Development

Some of the awards by the National Institute will be for the purpose of helping to establish and support new institutions. These would include, for instance, the creation of an equipment test and evaluation laboratory, a major private research institute or a document retrieval and dissemination facility. These would normally be housed in an organization with established competence to perform the required function and the ability to operate in close conjunction with the Institute. The contractor could be in or out of the Federal Government, profit- or non-profit-making. He would probably be selected in a competition among comparable organizations and funded in a continuing way through a cost plus fixed-fee contract.

Problems such as whether longevity funding can be guaranteed are central in the creation of these new institutions. The Institute's budget is not likely to be large enough in the near future to support longevity funding, and so other sources of support--such as private foundations--will be crucial for maintaining the facilities.

### D. DEVELOPMENT AND EVALUATION OF RESEARCH PROJECTS

The planning, development, evaluation, monitoring and review of research projects will be a major function of the Institute. For contract studies, the Institute will first have to conduct or sponsor a project-definition phase to identify the critical problems in a given area of inquiry and to formulate the requirements in sufficient detail to lead to a Request for Proposal. The evaluation of the proposals would be conducted by the Institute staff, using whatever supplementary technical assistance is needed. Throughout such

projects, the contractor's progress would be continually monitored to assure that the objectives are being approached and that no misinterpretations have been made. Such monitoring would probably have to be done on a regular basis and no less frequently than four times formally during the course of the projects.

The Institute will stimulate desired research grant proposals by making its needs known by such means as annual formal statements of its research needs and visits by the Institute's staff to professional society meetings, major research institutions, universities, etc., to report on the critical problems and to stimulate research proposals addressing them. The proposals submitted in response to such stimulation would be reviewed for their technical proficiency, including the importance of the problem being addressed, the soundness of the research approach, the competence of the investigators, and the adequacy of their facilities. The Institute's staff would perform the initial screening of these proposals. The proposals passing such a screen might then be reviewed by an advisory panel composed of research specialists and representatives from the relevant fields of criminal justice, augmented as needed by special consultants. Such research should be reviewed upon completion, and at least annually, to assure that adequate progress has been made, to evaluate the desirability of continuation or extension of the grant, and to determine what subsequent research should build on the research accomplished.

There would probably be advisory review panels for each of the Institute's divisions and a more general one for the Institute as a whole. These panels would review proposals for grants and they might be called upon to review contract proposals. They should be presented regularly with the research program of the Institute and the divisions to obtain their guidance and suggestions on gaps and priorities.

## E. IMPLEMENTATION OF RESEARCH RESULTS

The mission orientation of the Institute demands that its results find their way into operational innovation in the crime control process, and especially in the operation of the criminal justice system. Intensive efforts must be directed by the entire LEAA to foster such implementation. There must be a steady flow from research into operations. This will occur in many ways:

- The technical assistance organization of the LEAA will be in continuing contact with operating agencies and must be kept closely informed of research results as they develop. This group can then serve as a verbal channel of communication to the users and can assure that the useful results become known to operating organizations. They are also an important source of information to the Institute in identifying important operating problems.
- The results of research should be widely distributed through newsletters, journal and magazine articles, conferences and workshops, and periodic Institute notices to State and local criminal justice planning groups urging that proven innovations be incorporated into State and local plans.
- The Institute should undertake research into the most effective means of implementing reforms. Investigations of the barriers to change, techniques of stimulating change, and evaluation of the effectiveness of the dissemination and implementation program would all be meaningful.
- In the distribution of action grants and especially in the distribution of the discretionary portion under the control of the LEAA, priority should be given to those innovations which have been found to be effective and useful as a result of the Institute's work.

## APPENDIX A

### REVIEW OF CURRENT RDT&E PROGRAM ON LAW ENFORCEMENT AND CRIMINAL JUSTICE

This appendix contains a brief description of the relevant projects organized by sponsor and by program area for each sponsor. In parentheses following each project description is a coded indication of:

(1) Objectives: R = Research, D = Development, T&E = Test and Evaluation

(2) Relevant Part of the Criminal Justice System: P = Police, AOJ = Administration of Justice, Cor = Corrections

(3) Cost in Thousands of Dollars (K = 000)

Due to the subjective nature of any such classification of this kind, there will be a number of ambiguous cases which may reasonably be classified in one or another program area. In some cases, where a project has multiple objectives, these are indicated by a plus sign (e.g., D + T&E); the principal objective is indicated first (D in this case). In addition, since the classification is based upon the available project summary statements, it may well be that more detailed information on any particular project would suggest its reclassification. Such differences, however, are not expected to affect significantly the allocation summaries shown on pages 62, 63, and 64.

I. CURRENT PROGRAM OF THE OFFICE OF LAW ENFORCEMENT ASSISTANCE

MISSION AREA I: Crime Prevention and Rehabilitation - Reduction in the Need and Desire to Commit Crime

Program Area 1: Identification and Reduction of Causes of Crime  
(no projects)

Program Area 2: Rehabilitation of Offenders

Project Descriptions

Regents of the University of California--Examination of the operation of critical factors affecting success/failure of adult parolees and formulation of changes to increase parole agency effectiveness. (R, Cor, 148K)

Youth Studies Center, UCLA--Development and testing of mathematical models of the probation process. (R, Cor, 113K)

Institute for the Study of Crime and Delinquency, Sacramento, California--Planning for intensive control and treatment services in a model community correctional program for adult misdemeanants and felons. (D, Cor, 160K)

Institute of Criminal Law and Procedure, Georgetown University Law Center--Evaluation of offender rehabilitation project. (T&E, Cor, 74K)

St. Louis Police Department--Detoxification facility for persons taken into police custody as alternative to usual arrest, jail, and prosecution process. (D, Cor, 80K)

Vera Institute of Justice--One-year interagency program of police-community handling of destitute alcoholics on a voluntary non-arrest basis. (T&E, Cor, 99K)

District of Columbia Department of Public Health--Establishment and operation of detoxification facility as substitute for jail detention and nolle prosequi consideration for treated offenders. (D, Cor, 274K)

Pennsylvania Board of Parole--Resocialization of paroled burglars, larcenists, and forgers through control and treatment program and living facility for parole violators in lieu of re-imprisonment. (D, Cor, 63K)

Alachua County (Florida) Sheriff's Office--Comprehensive rehabilitation services for county jail inmates. (D, Cor, 44K)

Program Area 2 (continued)

Opportunities, Inc.--Establishment of model residential treatment facility for juvenile offenders as rehabilitation alternative between probation supervision in home and state school commitment. (D, Cor, 93K)

King County (Washington) Sheriff's Office--Development, operation, and evaluation of 2-yr. pilot work-release program for county jail misdemeanants. (D, Cor, 107K)

Denver County (Colorado) Court--Establishment of a professionally directed, community-oriented probation service for misdemeanor offenders. (D, Cor, 157K)

City of Detroit--Intensive treatment and rehabilitation of misdemeanants in house of corrections. (D, Cor, 137K)

MISSION AREA II: Crime Control - Increase in the Risks and Difficulty of Committing Crime

Program Area 3: Direct Crime Prevention

Project Descriptions

Cleveland Police Department--Design and demonstration of mobile unit with closed-circuit TV for surveillance, incorporating video recording. (D, P, 64K)

Los Angeles County Sheriff's Department--Test and evaluation of ability of police helicopter patrol to substitute for normal patrol by auto. (T&E, P, 159K)

Village of Edina (Minnesota)--Development of system of random police car patrol to reduce response time and increase probability of police presence in prevention and apprehension. (D, P, 53K)

Program Area 4: Improvement of the Probability of Apprehension and Conviction of Offenders

Project Descriptions

Kelly Scientific Organization, Washington, D.C.--National study of radio spectrum needs of police and public safety agencies, including improvement proposals and estimated costs and effectiveness of alternative approaches. (R, P, 77K)

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# Understanding HIV

Consumer Guide

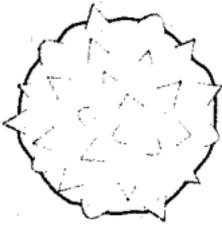


Clinical Practice Guideline  
Number 7

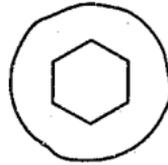
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

## The Immune System and HIV

The body's health is defended by its immune system. White blood cells called lymphocytes (B cells and T cells) protect the body from "germs" such as viruses, bacteria, parasites, and fungi. When germs are detected, B cells and T cells are activated to defend the body.



Lymphocyte



Human immunodeficiency virus—HIV

This process is hindered in the case of the acquired immunodeficiency syndrome (AIDS). AIDS is a disease in which the body's immune system breaks down. AIDS is caused by the human immunodeficiency virus (HIV).

When HIV enters the body, it infects special T cells, where the virus grows. The virus kills these cells slowly. As more and more of the T cells die, the body's ability to fight infection weakens.

A person with HIV infection may remain healthy for many years. People with HIV infection are said to have AIDS when they are sick with serious illnesses and infections that can occur with HIV. The illnesses tend to occur late in HIV infection, when few T cells remain.

### Where did HIV and AIDS come from?

We may never know where or how HIV and AIDS began. Many experts believe that AIDS was present in the United States, Europe, and Africa for several decades or longer before the earliest cases appeared in 1980 and 1981.

HIV was first identified in 1984 by French and American scientists, but the human immunodeficiency virus did not get its name until 1986.

148804

**U.S. Department of Justice  
National Institute of Justice**

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# Understanding HIV

## Purpose of this Booklet

Even before HIV causes AIDS, it can cause health problems. Learning about how the virus can affect your body and getting care early, before health problems worsen, can help you live longer and have fewer health problems.

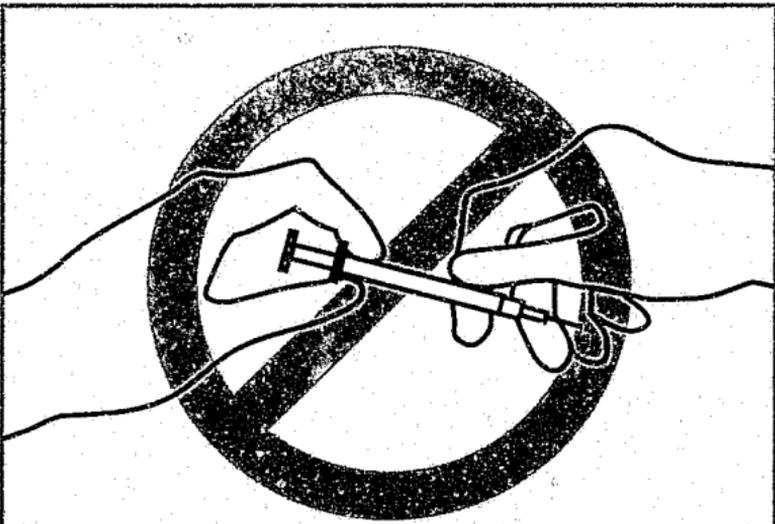
This booklet is a guide to understanding HIV and getting the right care as soon as you can. You can also share this booklet with family members and friends so they can learn more about HIV.

The booklet will tell you about some of the problems you will probably have to face and suggests questions you may want to ask your doctor, nurse, or other health care provider. Asking these questions will help you get the information you need to make decisions about your own health care.

## First Steps

Learn as much as you can about HIV. Finding out you have HIV infection can be frightening and confusing. Here are some questions you may want to ask your health care provider:

- What will HIV do to my health?
- Will I need to change the way I live?
- How will HIV affect my relationships with family, friends, sex partners, and people at work or school?
- What types of health care or other services will I need, now and in the future?



Sharing needles and syringes is risky.  
This is one way HIV infection is  
passed from one person to another.

Having HIV means that you can give HIV infection to someone else through unprotected (unsafe) sex or sharing needles or works if you inject drugs. Be sure to ask your health care provider how you can keep from spreading HIV.

### **Talking About Your HIV Status**

Your HIV status is very personal, and telling other people that you have HIV infection may be one of the hardest things you will ever have to do.

When you first find out you have the virus that causes AIDS, you may feel sad, depressed, ashamed, or afraid. Telling other people about your HIV infection may mean that you will get more support and help from others, but it can also lead to problems.

Local or state laws may require that your health care provider report your HIV status to the health department. Otherwise, your HIV infection should be kept confidential, unless you decide to talk about it. Ask your doctor about the laws in your state.

Your health care provider can help you decide whom to tell and help you tell them once you have decided to do so. Some of the people you may want to tell include:

- ❑ Sex partners
- ❑ Persons with whom you inject drugs
- ❑ Family
- ❑ Friends

You should talk with your sex partners about using condoms for safe sex and about the risks of having a baby with HIV. If you inject drugs, you will want to discuss the danger of sharing needles or works.

You may want to talk with members of your family about how your condition might affect them. You may also choose to tell your co-workers, neighbors or members of your church, and if you are a student, people at school, such as the school nurse, administrators, teachers, and classmates.

Some people with HIV choose not to talk about their health, and that's all right, too. It's your choice.



## Talking About Your HIV Infection

### Possible Benefits

- ☑ Support and help from family and friends
- ☑ In some states, better health and welfare benefits
- ☑ Greater chance that your sex partner or persons you have injected drugs with will get tested for HIV

### Possible Risks

- ☑ Rejection by partner, family, friends, school, club, or employer
- ☑ Changes in health benefits
- ☑ Trouble finding a place to live
- ☑ Loss of child custody

Although the risks of sharing information about your HIV infection with others may seem to outweigh the benefits, remember that these are only risks and might never happen.

## Taking Care of Yourself

If you have HIV infection, you may feel, look, and act just fine. But you need to take good care of yourself as soon as you find out you have HIV—this is the key to delaying the onset of more serious problems.

Try to keep a positive outlook. Hope is very important. Everyday there are new drugs and treatments for HIV that may help you. Each time you visit your doctor, be sure to ask about new treatments and clinical trials (research studies) in which you might take part.

Try not to worry. Worrying can lead to stress, and stress can weaken your immune system. Take steps to reduce stress.

Activities that may relieve your stress include breathing exercises, leisure walks, reading, and community activities. Ask your health care provider about ways to cope with worry and stress.

See your doctor often. Don't wait until you get sick. The following hints may help you stay well longer:

- Get immunizations (shots) to prevent other infections.
- Avoid exposure to infection — for example, people with colds, other illnesses, and human or pet waste.
- Eat healthy foods. This will help keep you strong, keep your energy and weight up, and help your body protect itself.
- Exercise regularly to stay strong and fit.
- Get enough sleep and rest.
- Finish your medicines, even though you may feel better.

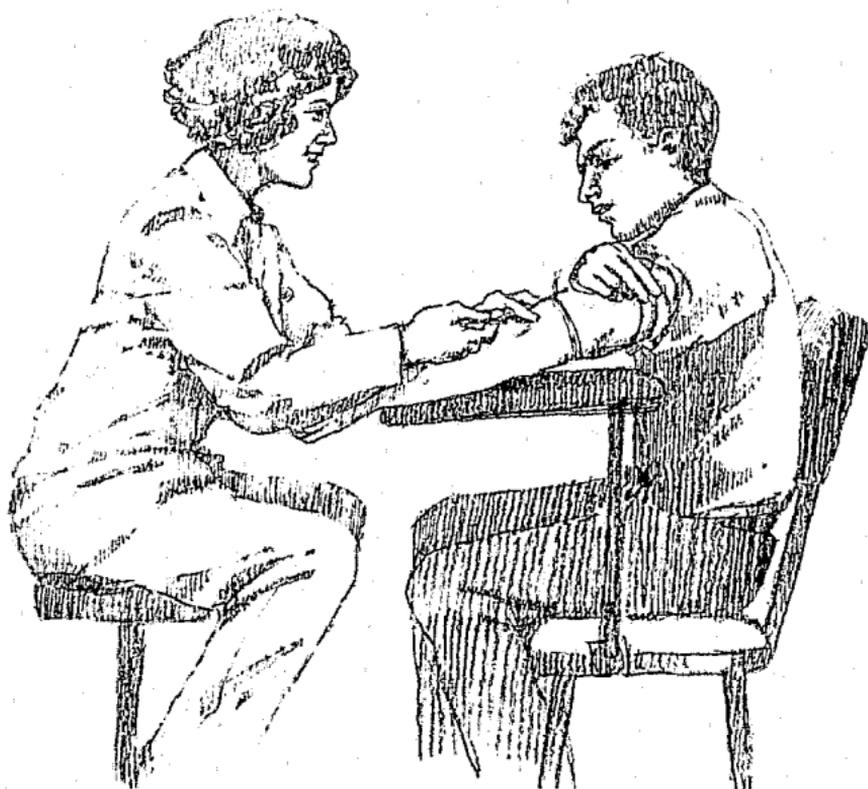
**Tell your health care provider right away if you have numbness, sores in your mouth, changes in your eyesight, or shortness of breath.**

## Monitoring Your Immune System

One of the blood cells infected by HIV is the CD4 cell (a special T cell). Its job is to defend your body from invaders such as viruses. The number of CD4 cells in your blood shows how strong your immune system is.

A test called the "CD4 cell count" is used to check on the progress of HIV infection. Your health care provider will probably ask you to have blood tests every few months so that your CD4 cell count can be used to show when to start medicines.

As long as your CD4 count is over 600, you will need to have it tested about every 6 months. If your CD4 count drops below 500, your doctor may suggest testing your blood more often and may start you on medicine to slow HIV.



## Starting Treatments

Your doctor should talk with you about the risks and benefits of starting treatment with drugs for HIV. AZT, now called ZDV (for zidovudine), is the most widely used drug for HIV. If ZDV does not work or causes side effects (for example, sleep problems, leg cramps, headaches, nausea, diarrhea, or anemia), your doctor may give you didanosine (ddI) or dideoxycytidine (ddC). Be sure to tell your doctor about any side effects you may have from ddI or ddC, such as belly pain or numbness in your hands or feet.

Remember, the treatments for HIV are changing rapidly, so be sure to ask your doctor if there are new treatments.

If your HIV infection worsens, you will be more likely to have other infections that take advantage of your weakened immune system. If your CD4 cell count falls below 200, or if you have had pneumonia or other symptoms, your doctor will probably recommend that you start taking trimethoprim-sulfamethoxazole or TMP-SMX (Bactrim®, Septra®, and generic products) to prevent the most common of these infections, *Pneumocystis carinii* pneumonia, or PCP. Most people have no problem with TMP-SMX, but if you develop a rash or severe stomach problems, stop taking the medicine and call your doctor right away to discuss other treatments.

HIV and HIV-related illnesses vary from person to person. Some people have been living with HIV for many years. Others become sick soon after their diagnosis. Your medical care plan will be designed especially for you and may differ somewhat from the care described in this booklet.

Here are some questions you should ask your doctor, nurse, or other health care provider:

- How often should my CD4 count be taken?
- At what CD4 count should I begin taking medicine for HIV infection?
- What about medicines to prevent other illnesses that can occur with HIV? How will these medicines help me? Do they have side effects?
- Are there new treatments?

## Detecting and Treating Other Diseases

### Tuberculosis

Because HIV weakens the body's ability to resist infections, you are at special risk for infection with the germ that causes tuberculosis (TB). Even if you become infected with this germ, proper treatment can keep it from turning into active TB. Be sure to ask your doctor, nurse, or other health care provider:

- How often should I be tested for TB infection? What kinds of tests are needed?
- How can I avoid becoming infected with TB?
- If I get TB, how can I avoid infecting others?

Tell your health care provider if you think you have been exposed to someone with TB.

If you become infected with the bacteria that causes TB, your doctor may give you the medicine, isoniazid (INH), which you will need to take once a day, every day, for a full year, even if you feel fine. Your doctor may also recommend that you take pyridoxine, a form of vitamin B<sub>6</sub>, each day to help reduce side effects from isoniazid. Be sure to tell your doctor about any side effects you may

have from the medicine, such as nausea, vomiting, loss of appetite, tiredness or weakness, skin rashes, or fever.

Instructions for taking medication for TB infection can be confusing. Work closely with your health care provider to be sure you complete your treatment.

## **Syphilis**

Syphilis is a sexually transmitted disease (STD). It often occurs with HIV infection but can be hard to recognize and treat in persons who have HIV. Untreated syphilis can cause severe nerve, heart, and blood vessel damage and even death.

You should tell your doctor about your full sexual and medical history. Some of the questions you may want to ask include:

- What are the tests for syphilis? How often should I be tested?
- How is syphilis treated?
- Will I need tests to make sure the treatment worked?
- How can I avoid passing syphilis to others?

Your doctor may give you blood tests to learn if you have syphilis and to see how far it has progressed. You also may need other tests. You should be tested for syphilis anytime you think you have been exposed to an STD.

If you have syphilis, you should tell your sex partners or persons who have injected drugs with you. Your health care provider or a health department worker can help you do this and tell you whether the law in your state requires that your sex partners be notified.

Penicillin shots are the usual treatment for early syphilis. For more advanced disease, you may require intravenous (IV) penicillin and perhaps a hospital stay. If you are allergic to penicillin, you may need to see a specialist.

## Program Area 2 (continued)

Personality in Delinquency: Response to Treatment--This study seeks to find the relationship between four dimensions of personality associated with juvenile delinquency and indexes of both institutional and post-institutional adjustment in a group of 300 male adolescent delinquents. Once it has been established that the personality dimensions are in fact related to adjustment criteria for a program already in existence, the next task might be to design treatment programs differentially. (R, Cor, 6K)

Differential Treatment Environments for Delinquents--The purpose of this project is: (1) to determine the feasibility of establishing five types of group homes--with each of the five representing a type of environment specific to the growth and developmental needs of particular types of delinquent youth; (2) to develop a taxonomy of treatment environments; and (3) to evaluate the impact of the group home experience of the youngsters assigned to them. (D, Cor, 88K)

Cottage Treatment of Delinquent Wards--This project will develop a systematic psychological conceptualization of environmental treatment in institutions for delinquent adolescents, where primary responsibility for fostering change typically resides in non-professional, minimally trained cottage parents. Hopefully, the project will not only increase knowledge of environmental treatment, but will also provide an appropriate quasi-theoretical frame of reference within which the cottage staff can identify and work effectively with critical treatment opportunities. (D, Cor, 56K)

Typology of Juvenile Delinquents and Recidivists--This is a longitudinal study of 1,000 young men (previously followed for 10 years) during age span of 25 to 32. The orientation is psycho-social; the endeavor is directed towards the life cycles of the individuals and their families. Factors are assessed by clinical and specific criteria and correlated with original data. They have demonstrated that a group of previous delinquents is affected by the stabilizing influence of family responsibilities, while a smaller group continues to be adjudicated offenders. Factor analysis and predictive validation studies are used. (T&E, Cor, 48K)

Self-Instructional Program for Youthful Offenders--This action research project is focused upon the education and vocational training of youthful offenders. The orientation of the project is that of group dynamics specifically applied to education and motivation. The investigators have been able to show that when there is real opportunity for achievement, significant numbers of youthful offenders will respond although they had previously seen themselves as "three time" or "sure losers." The investigators have enabled 8 men to complete high school and be accepted into college all while in prison. This project provides one of the most promising recent developments in correctional training. (T&E, Cor, 76K)

## Program Area 2 (continued)

A Measure of Casework in Corrections--The purpose of this project is to complete the analysis of the data and write the final report on the pilot intensive counseling organization (Pico) project sponsored in 1955 by the California Dept. of Corrections. This project was charged with the dual task of demonstrating the feasibility of the application of intensive counseling to young adult delinquents and the measure of its effect. The effects of the experiment were assessed in 3 areas: personality, institutional behavior, and post-institutional behavior. (T&E, Cor, 15K)

5th Precinct Delinquency Treatment Program--The purpose of this project is to utilize and evaluate the effectiveness of detached workers using modified behavior techniques for the treatment of juvenile offenders in a low socio-economic area. The criteria by which effectiveness is estimated are: recidivism of contact with the police, improvement in school work performance, and a decrease in the frequency of the specific maladaptive behavior for which the offender has been referred. (T&E, Cor, 88K)

Pre-Trial Diversion of Mentally Ill Offenders--This project would establish a "Pre-Trial Conference" unit for D.C. Court of General Sessions and U.S. District Court under the auspices of the Georgetown University Pre-Trial Clinic. The PTC unit would, by means of consultations with prosecuting and defense attorneys, and clinical and social evaluation, locate criminal defendants suffering from mental illness who might be managed and treated in the community. It would seek to divert them from the criminal process into community mental health treatment and rehabilitation channels, with which the PTC unit will collaborate. Evaluation would be concerned with learning the psychological and social characteristics of criminal cases which can be identified and safely and effectively diverted to community mental health resources; and with identifying the attitudinal, procedural and legal factors which presently militate against diversion and the limitations of community service and resources which presently prevent it. (T&E, AOJ, 106K)

A Community Residential Treatment Program--Objective is to develop a residential treatment program in which men released from correctional institutions will have a suitable place to live while receiving assistance in obtaining employment and counseling in adjustment to the social community. It is hoped that this project will demonstrate that a residential treatment program can reduce the high rate of recidivism to criminality. A study will be made of the success-failure rate of persons admitted to the residence center program compared to a control group who returned directly from the prison to the community. (T&E, Cor, 13K)

Program Area 2 (continued)

Volunteer Community Services in Misdemeanant Probation--This is a service-research project which aims to expand the dimensions of the community-oriented rehabilitation program of the Royal Oak (Mich.) Municipal Court, and to evaluate this program. The special feature of the Royal Oak program is the rather extensive and intensive use of psychiatric diagnosis, consultation and supervision during both the court procedure and the probation period. This includes assisting the Judge in presentence evaluation, assisting in the supervision of volunteer probation sponsors, performing individual psychiatric follow-up, and conducting group therapy programs. (T&E, Cor, 25K)

A Community-Oriented Halfway Home for Local Offenders--This study is designed to test the proposition that constructive change in the social adjustment of confined offenders can be effected more successfully by a program of quasi-institutional, family-type living that is closely and systematically related to the local community than by even a progressive, treatment-oriented institution which is physically and operationally separate from the community. The staff will try to discover the degree to which such a program can succeed, and types of offenders and the kinds of community involvement which are most suitable to it. Evaluation will be study of success-failure patterns of target group and a control group. (T&E, Cor, 41K)

Treatment for the Families of Training School Boys--This project represents a continuing search for techniques designed to "correct" the social problems represented by the population of a public training school in the Midwest. General significance of the project is the demonstration of pragmatic institutional programming. Specific significance is seen in the following areas: (1) Demonstration of how to involve families in rehabilitation may encourage local mental health, welfare and probation agencies to adopt means of reaching out to similar families; (2) A contribution will be made to the growing but slim knowledge of the functioning of family systems in which there is at least one delinquent child; (3) If successful, demonstration will establish the desirability of including family therapy as a regular feature of a comprehensive training school program; (4) Results of this project will be applicable to corrective programming for delinquents throughout the country. (D, Cor, 114K)

Juvenile Delinquency Demonstration Training Project--This is a field demonstration and training project in a high delinquency suburban area designed to test the concept that solution of suburban delinquency requires effective combination of three basic kinds of child and family treatment services. Target: delinquents with diagnosis of antisocial character. The current demonstration is a follow-up to a 6-year training project supported by NIMH to develop methods of training mental health personnel and others in the rehabilitation of delinquents. (D + T&E, Cor, 168K)

MISSION AREA II: Crime Control - Increase in the Risks and  
Difficulty of Committing Crime

Program Area 3: Direct Crime Prevention (no projects)

Program Area 4: Improvement of the Probability of Apprehension  
and Conviction of Offenders

Project Descriptions

The Juvenile Offender and the Law--This project will conduct an in-depth study and analysis of the juvenile justice system. It would address the critical need for comprehensive information about existing laws and court decisions affecting juvenile offenders, as well as information concerning the operation of the courts. It is hypothesized that important mental health implications would be based in a determination that a non-punitive system of justice for juveniles has failed or is not desirable. In other words, if the system has failed, many questions could be asked about the role of mental health in the legal system. (R, AOJ, 59K)

Reactions to Juvenile Norm Violations--This project will study punitive response, by adults, to law violation by juveniles. It is hypothesized that having an institutional responsibility for social control, believing that one is likely to be a victim of crime, and not having a social deterministic image of man are all associated with judging a violation to be serious. It is further hypothesized that high perceived social support and belief that punishment will work result in a substantial correlation between judgment that a violation is serious, and punitiveness. (R, AOJ, 46K)

Competency to Stand Trial and Mental Illness--This project is a demonstration focusing on the clinical assessment of competency for criminal trial in pre-trial psychiatric examinations. The purpose is to develop clinical criteria and procedures which are psychiatrically and legally valid and which will improve psychiatric service to patient-defendants and to the courts. The first year of the 5-year project will be spent in the courts to establish baselines for competency requirements established by the court in a variety of criminal proceedings. The next three years will be spent at the State Hospital of the Massachusetts Correctional Institution during which time clinical procedures and criteria for the assessment of competency for trial will be tested and refined. Defendants will be followed through the trial experience. (T&E, AOJ, 77K)

MISSION AREA III: Criminal Justice System Management Improvement -  
Reduction of the Cost of System Operations

Program Area 5: Improvement of the Efficiency and Effectiveness  
of CJS System Management

Project Descriptions

Follow-Up of Crime and Delinquency Current Projects--A project to recircularize selected projects from 2,330 projects collected by the Information Center on Crime and Delinquency in order to prepare and make available all final project summaries, and to use the summaries as the informational base for an evaluative monograph. (R, 32K)

Improving Correctional Decision Making Through EDP--This research effort constitutes a second phase of a project to develop a correctional information system. Objectives of this phase are to provide an initial operating capability compatible with work in progress on long-range development of an overall system design. (D, Cor, 150K)

Uniform Parole Reports Pilot Project--This proposal would establish a three-year project to set up in a number of states a uniform records system. This system would make possible the construction and comparison of parole prediction devices and would feed back to parole administration information obtained in the process of constructing and validating the prediction instruments. (D, Cor, 91K)

Program Area 6: Improvement of Relations Between CJS and Community

Project Description

An Analysis of the Philadelphia Police Advisory Board--A study of the Philadelphia Police Advisory Board, an independent civilian board which receives and investigates complaints brought by citizens against members of the police force, aimed at determining the extent to which it has performed the functions for which it was established. (T&E, P, 41K)

Program Area 7: Improvement of the Selection and Training of  
Personnel

Project Descriptions

Changes in Role Concept of Police Officers--The broad objectives of this project are to devise a means of testing the hypothesis that changes occur in young men within their first few months as a policeman, to specify the nature of the changes and to interpret their operational significance. A Role Perception Index

Program Area 7 (continued)

will be constructed to measure these changes to determine if such changes do occur, and to relate such changes to behavior changes. Also to be examined is the degree to which such changes are differentially associated with types of initial assignments--also how the role concepts of a new patrolman differ from other classes of police officers. The findings will be interpreted into operational terms so they may be applied to police training and administration. (R, P, 46K)

The Police and Sex Related Crime--Essentially, this study involves (1) a review of American and European literature on sex crime in order to identify problems related to law enforcement and correction; (2) a field survey of selected police departments to learn about police practice and opinion regarding enforcement matters as related to sex crime; and (3) a resulting set of policy prescriptions designed to improve police performance in the area of crime control. It is hypothesized that each of three types of sex offense calls for a distinctive police role if crime control is to be effective. Accordingly, a series of research questions has been formulated for each offense category dealing with the characteristics of the offense, the offender, the victim, the role of the police, and certain broad issues of social policy. (R, P, 42K)

### III. CURRENT PROGRAM OF THE OFFICE OF JUVENILE DELINQUENCY AND YOUTH DEVELOPMENT

MISSION AREA I: Crime Prevention and Rehabilitation - Reduction in the Need and Desire to Commit Crime

Program Area 1: Identification and Reduction of Causes of Crime

#### Project Descriptions

Training the Leaders of Juvenile Gangs to become Streetworkers. This two-year training project would prepare 20 youth leaders of inner-city juvenile gangs to become streetworkers as well as prepare them to occupy staff roles in a variety of new public agency programs. The trainees would be attached to a delinquency prevention agency in San Francisco called Youth For Service and educated to become streetworkers in a program designed to help gang boys participate with public agency officials in developing and executing projects that might better meet the needs of slum youth. If the projects developed in conjunction with the public agencies prove successful, it is hoped that new civil service jobs can be created for the trainees at the end of the two-year demonstration period. (T&E, \$139K)

A Structural Approach to Gang Intervention: The Lincoln Heights Project. This project employs extensive data from previous work with delinquent gangs to design, implement, and evaluate a new approach to detached work intervention with a traditional juvenile gang-cluster. The action model employs knowledge of gang structure, membership participation patterns, and the development of community youth opportunities to effect a decrease in gang cohesiveness. Cohesiveness reduction, in turn, is hypothesized to result in a decrease in gang recruitment and member offense behavior. The project has been applied in a Mexican-American community of Los Angeles. The action phase will last for a one and a half year period, followed by six months for final evaluation and writing. (D, \$57K)

Southern Arizona Predelinquency Project. The Southern Arizona Predelinquency Project is a program for early intervention in identified predelinquent, predropout cases. It utilizes a program of careful assessment of the child, his family, and other significant individuals in his natural environment. All therapeutic intervention is mediated by these naturally related individuals. The intervention program is created to take advantage of the child's reinforcement hierarchy. The selection of mediators is according to their ability to administer the selected reinforcements contingent on successive approximations to the desired behavior of the child. An important aim is to develop a program of consultation which will be appropriate to a sparsely

## Program Area 1 (continued)

populated, multi-ethnic group area where direct professional contact with behavior-problem individuals is unfeasible. (T&E, \$51K)

Boys In Action. This is an experimental project to develop improved methods in preventing the re-occurrence of teenage gang fighting and re-direct these energies into constructive channels through educational and vocational training. The project will be carried out in the Mexican-American slums of South El Paso, Texas, where fighting gangs emerge every ten years. (D, \$167K)

Creative Arts for Alienated Youth. This proposal sets forth a continuation, extension and further development of a creative arts program designed to provide an opportunity for alienated and uncommitted youth to engage in productive activities. The program is geared toward deflecting trouble-prone and deviant youth from otherwise self destructive and socially deviant behavior through commitment and participation in creative art work. The art program consists of three major units: (1) theatre program, (2) film-making program, and (3) poetry and writing program. Each is designed to promote serious and disciplined creative work by workshops and public presentations. Artist-directors and technical equipment are the basic resources to be utilized. The problem of youth alienation and social deviance and the program's effectiveness will be assessed and evaluated by a research staff. (T&E, \$181K)

Community Alert Patrol: A Grass Roots Experiment in Self Rehabilitation. To demonstrate effectiveness of voluntarily assumed community service by ghetto youth, delinquent, out of school, untrained. Service consists of aiding in maintenance of peace by regular patrol of area to observe potential disorder or law violation by either residents or police. Group also serves as law-abiding role model to younger boys with whom there are close ties. Patrol will operate an automotive maintenance and service center for patrol cars, initially, and as vocational training for themselves and other area youth. The service center is planned to become self-supporting, offering a much needed low-cost maintenance service to the community. Project utilizes interest in automobiles as motivation for pre-vocational and vocational training not otherwise available in area for such a group. Also uses strong feelings of group for the ghetto community as link to self-help movement now developing in South Los Angeles as alternative to continued destructiveness and clearly necessary as means of developing essential services now absent or inadequate. (D, \$238K)

Program Area 1 (continued)

Training Activities for Youth Work Personnel. A project to continue significant training activities for planners and administrators of youth manpower programs, including the use of workshops and the further development of curriculum materials. During the past year, the Center for the Study of Unemployed Youth focused primarily on the work problems of deprived, delinquent youth. A series of twenty training documents was developed, which was widely distributed to Federal, State, and local governmental units, universities, and private agencies. (D, \$138K)

Role of Labor in the Vocational Training and Placement of Hardcore Youth. A project sponsored by the Labor Relations and Research Center in Amherst, Massachusetts, to develop new roles for organized labor in opening up training and employment opportunities for deprived and delinquent youth. With the full and active support of the Massachusetts State Labor Council, the project held a statewide conference for key representatives of labor groups in the Commonwealth, which was followed by workshops conducted in a number of different communities throughout the State. Based on this project model, the Office of Economic Opportunity has granted monies to the Center to train labor leaders in community action projects, and the Community Services Committee of the State Labor Council has recommended the continuation of programs for disadvantaged, delinquent youth under its auspices when funding from the Office of Juvenile Delinquency and Youth Development terminates. (D, \$44K)

Changing Community Attitudes Toward Delinquency through the Medium of Radio. A project by the Berkshire Farm Institute for Training and Research to develop a series of informational radio tapes on delinquency for scheduled programming in fifteen key cities in all sections of the United States. The tapes will consist of interviews with institutionalized and noninstitutionalized delinquent youth, field recordings of interviews with their parents, and with police, probation officers, judges, teachers, social workers and others who work with delinquents as career professionals. The tapes will be designed to give the public some insight into the problems facing these youth, and to arouse public interest in support of worthwhile prevention and rehabilitation programs. It is anticipated that the series will prove to be of immediate educational benefit to parents who are faced with the perplexities of dealing with their own children's problems with greater understanding. (D, \$60K)

Creative Arts for Alienated Youth. This project is to continue, extend, and further develop a creative arts program designed to provide an opportunity for alienated and uncommitted youth in the East Village section of New York to engage in productive activities. Three basic programs have been organized, each

## Program Area 1 (continued)

directed by artists who have the requisite skills for working with youth: a theater component, a film-making program, and a poetry and writing program. The project is being evaluated by the Center for New York City Affairs of the New School for Social Research. (D + T&E, \$113K)

Recapture, Educate, Motivate for the Development of Youth. This project is to develop training curricula which will: identify new ways of bringing about changes in school policies and programs; develop new roles for youth in educational programs and decision-making processes; and reflect new methods for training educators to identify, create and implement learning experiences which will provide a useful and satisfying education for delinquent, malperforming, and vulnerable youth as well as for non-delinquent students. The project is based on the hypothesis that although the school should be the primary social agent in providing services to youth for the attainment of educational and social success, schools often contribute to the malperformance and alienation of a significant number of youth. During each phase of the project, school administrators, teachers and youth in the Wayne County (Detroit) Intermediate School District will jointly participate in developing methods, procedures, and policies for the fostering of youth involvement within the school system. Various approaches to youth involvement will also be explored: i.e., using target group youth as tutors for younger students; as data collectors and in other sub-professional research positions; as committee members for curriculum development and as participants in the process of student self-government. (T&E + D, \$154K)

## Program Area 2: Rehabilitation of Offenders

### Project Descriptions

The Adolescent Social System as a Control Agent in Middle-Class Communities. Recent studies point out that delinquency is a group phenomena requiring prevention, control, and treatment approaches to utilize the social systems of youth if the problems of delinquency and deviance are to be addressed in a meaningful fashion. Further, they indicate that the capacity of the communities to absorb delinquency and deviance internally is being reduced. "Capacity to absorb" refers to the attempts of parents, schools, neighborhoods, and communities to address the problem of delinquent youth without referral to official agencies or, if there has been such a referral, to extricate the offender from the official process by offering a solution, technique, or method of dealing with him outside normal judicial channels. The solutions devised to rescue youngsters from the law enforcement apparatus represent the individual ingenuity of desperate

## Program Area 2 (continued)

parents. It is proposed that these solutions be identified systematically and given collective force and character, making explicit those strategies which can contain delinquency within the community and developing them into a community delinquency prevention demonstration program. (R, Cor, \$60K)

Developing Alternatives to Juvenile Training Schools. Project No. 66214 has encouraged the development of alternative programs to juvenile training school commitments in ten target states. Presently, state consultants of the National Council on Crime and Delinquency are working with the decision makers in both sets of states attempting to cause the development of concrete alternatives to training schools for juvenile offenders. This project will assess the effectiveness of the training institute as a vehicle for disseminating information and for promoting change, and a publication will result. (D, Cor, \$16K)

Rehabilitation of Low-Income Neglected and Delinquent Children on Probation. The program seeks to achieve the resocialization of delinquent or neglected children whose problems are serious enough to indicate categorization as "hopeless" individuals by the community: (1) By providing a genuine opportunity to remain in the mainstream of community life; (2) By utilizing multiple forms of intervention, i.e., group, family, individual services and community organization. The project seeks to determine the feasibility of utilizing sub-professionals in the role of "aides" to probation officers creating and opening employment opportunities for sub-professionals in the project or related fields. It seeks to engage the direct involvement of the clients themselves, court wards, parents, custodians, and guardians, in the rehabilitation process. The involvement of clients in their own rehabilitation is intended to create confidence in their own ability to help bring about change in their lives. Underlying the foregoing objectives is the assumption that the juvenile court is not a criminal court but one whose statutory goal is the rehabilitation and treatment of delinquent and neglected children. (T&E, AOJ, \$127K)

Group Rehabilitation Center - An Alternative to Institutionalization. This project offers, as an alternative to institutionalization for boys 16-17 years old, a day program which combines paid work experience and guided group interaction. The boys will return to their homes at 7:00 P.M. every day, thus allowing them to deal with their problems in their own homes and neighborhoods. In this way, it is hoped to avoid the artificial situations that arise when a boy is removed from his natural peer group and the sources of his problems.

## Program Area 2 (continued)

Because Puerto Rico is a small island with only one major institution for serious older delinquent boys (The Industrial School in Mayaguez), it is envisioned that this new alternative, if successful, can have an island-wide impact on the treatment methods used with juvenile delinquents. (D, Cor, \$40K)

Juvenile Court Demonstration Project. This project will demonstrate a means for changing the theoretical orientation, the diagnostic process, and the treatment program of the juvenile court. The methods used will be a sociologically oriented interdisciplinary theory of delinquent behavior, techniques of investigation required to apply this theory to the study of such behavior as it occurs in a given neighborhood, and the development of a community action program designed to address the cultural and organizational roots of such behavior as revealed by the perspective and the methods of study employed. (D, AOJ, \$151K)

Juvenile Term Services Proposal. This is a demonstration project built around the concepts of court worker and godparent. Court workers will be assigned to the family courts in New York City, in Manhattan, Bronx and Brooklyn. The court worker will be an employee of the Puerto Rican Community Development Project of New York City and when requested will assist the probation officer in obtaining and evaluating family, environment, and other information pertaining to Puerto Rican children brought to the attention of the court. The court worker will also act as liaison between the court and approximately 100 block workers currently on the staff of the Puerto Rican Community Development Project, and between the probation officers and a group of godparents to be organized as part of this project. (D, AOJ, \$160K)

Reducing Delinquency Through Integrating Delinquents and Non-Delinquents in Conflict Resolution. Delinquency is one response to a conflict over life possibilities. This project will attempt to demonstrate that alternate responses, reductive of delinquent behavior, can be developed through the integration of delinquent and non-delinquent youth in this conflict resolution. A nucleus of twenty delinquent and pre-delinquent youth, Negro and white, primarily from low-income families, will be integrated with non-delinquent youth, Negro and white, primarily middle class. They will receive intensive leadership training in a nine-week summer camp operated by the United Community Centers. On their return to the community they will use their training-based leadership to demonstrate youth ability, in cooperation with adults, to develop possibilities important to youth through involving the larger community, youth and adult. (T&E, Cor, \$166K)

Program Area 2 (continued)

Juvenile Review Board. The Juvenile Review Board is a town-sponsored project developed through the combined efforts of the Department of Social Services and the Police Department which proposes to closely examine the juvenile delinquency problem in Enfield, Connecticut, and to offer new approaches to combat this problem. With the help of our consulting psychiatrist, medical and behavior problems can be separated, family strengths and weaknesses evaluated, and positive approaches to remedial action designed. Existing community agencies will be utilized in providing medical, vocational, recreational, educational, and social services. An active effort will be made to alter, add to, or institute new services within the community to reduce to a minimum the necessity to refer youth to judicial agencies. (D, Cor, \$39K)

MISSION AREA II: Crime Control - Increase in the Risks and Difficulty of Committing Crime

Program Area 3: Direct Crime Prevention (no projects)

Program Area 4: Improvement of the Probability of Apprehension and Conviction of Offenders (no projects)

MISSION AREA III: Criminal Justice System Management Improvement - Reduction of Cost System Operations

Program Area 5: Improvement of the Efficiency and Effectiveness of CJS System Management

Project Description

Curriculum Center. There is a vast reservoir of insights, ideas, experiences, and judgments held by staff which are often not systematically tapped by formal research procedures. It is the purpose of the Curriculum Center to systematically compile the practice wisdom and program experience of the service givers and the service recipients in Mobilization For Youth and make it available to the various agencies and professions concerned with the problems of delinquency and social disorganization. (D, \$102K)

Program Area 6: Improvement of Relations Between CJS and Community

Project Descriptions

Police-Community Relations Program. This project is the demonstration component of a program to reduce tensions and create a working understanding and cooperation between the Philadelphia Police Department and the North Philadelphia Community. Operating

## Program Area 6 (continued)

concurrently with a training component, the demonstration is designed to strengthen and expand the improvement of police-community relations as initiated in the training component. To accomplish this end, several programs are being provided: (1) District Committees, which are formed in each precinct and act as representative voices for their communities in police matters; (2) A Steering Committee, providing a forum in which police-community relations peculiar to one or more of the districts involved can be given the benefit of consideration by area-wide leadership; (3) An extended informational program, conducted for the community in police-community relations and designed to reach not only program participants but also significant nonparticipants; (4) An extended program of interaction between police and community, designed to produce a general atmosphere in which it is normal and expected that police and community members will interact; and (5) Experimentation with the involvement of youth in police-community relations interaction processes. Special youth programs have also been initiated. It is expected that the relationship established between the police and the community groups will have opened the way for citizens to play an important role in handling crisis or emergency situations, should they arise. Although it is too early for such a definitive relationship to have developed, there is every indication that such a relationship is in at least tentative existence. (D + T&E, P, \$129K)

Police Training Officers. Recognizing that juveniles and youth adults are disproportionately represented in contacts with the police, this project, under the sponsorship of the International Association of Chiefs of Police, is to develop curriculum materials which will enable local police departments to better understand the causes of social ferment and environmental problems which lead to unlawful behavior. It is believed that understanding these conditions will not only enable the police to take a more active role in broader community efforts directed at delinquency prevention, but also will help the police to develop lines of communication with other agencies and citizens within the community to work together on common community efforts to eliminate delinquency and crime problems. It is anticipated that the training materials developed will enable the police to bridge the gap of misunderstanding which now exists between police and youth in many communities. (D, P, \$129K)

Program Area 7: Improvement of the Selection and Training of Personnel

Project Descriptions

Use of the Performing Arts in Delinquency and Youth Development. In order to produce a training aid for agency and community staff concerned with problem youth, the following will be undertaken: (1) a survey will be made of the current uses of the performing arts in this field; (2) papers will be written on the implications of the survey findings for agency staff-client relationships, community development, personality development, and information flow in decision-making; (3) papers will be written by representatives describing different kinds of uses of the performing arts; (4) a workshop of artists, agency youth workers, social scientists, and youth (the clients) will be held; (5) a publication will incorporate the above as a training aid; (6) the publication will be reviewed by appropriate agencies and communities to obtain evaluations as to the training aids effectiveness. (D, Cor, \$31K)

Development of Case Histories and Other Interdisciplinary Curriculum Materials for Law Students. This project is designed to develop teaching materials and techniques concerning the juvenile court for primary use in law schools. The materials are of two types. One is judicial opinions and other readings in juvenile court law, structure and function. The other is case history description of juvenile court cases in which lawyers have been involved. A seminar for third-year students at Boston College Law School is the setting for developing these materials. The students are assigned as counsel to children in the Boston Juvenile Court and their experiences become the core of the case history descriptions. (D, AOJ, \$52K)

Demonstration and Curriculum Development Project in Correctional Training. The development of a monthly in-service training program for police and juvenile correctional personnel based on a yearly summer institute of one to two weeks. A generic approach to the prevention and treatment of delinquency with emphasis on the combined use of casework, group work and other social work methods in a context of providing opportunity to the juvenile probationer. Two field units are established for the purpose of implementing generic course curriculum material at the St. Louis University School of Social Service. An M.S.W. program elective course in corrections embodying materials gained from project unit experience will be developed in cooperation with the teaching faculty of the School of Social Service. (D, Cor, \$103K)

Curriculum Development Through Experimental Field Placement In Community Organization. The major objectives of this project are (1) to develop and disseminate materials based upon community

## Program Area 7 (continued)

organization work in the areas of poverty and youth deviancy and (2) to provide, and evaluate through research, varied field training experiences for students in the above areas. The project will conclude its two year period with (1) A statement on the problems and prospects of placement in non-traditional, non-social work settings as a learning experience for social work students; (2) A research evaluation of the effectiveness of the experimental and other placements; and (3) A report of research of the relation of selected organizational variables upon community organization practice and field training. (R, Cor, \$94K)

Training Center in Youth Development. This project is a two-year plan to train personnel in youth agencies, particularly those concerned with youthful offenders. The Center will work closely with such agencies as youth correctional authorities, juvenile courts, probation departments, law enforcement agencies, and psychiatric court clinics. Work will be done to develop intra-university courses and seminars to be taken over eventually as regular university offerings. (D, Cor, \$51K)

Delinquency Study and Youth Development Project. The Delinquency Study and Youth Development Project proposes to continue its training and consultation efforts with personnel and agencies in the fields of delinquency prevention and rehabilitation. These efforts will include the further development of training models and materials. As in the past four years a primary focus will be upon the coordination of existing youth services in the Metropolitan East St. Louis area with the objective of eliminating redundant services and the strengthening of these services which are not meeting the needs of delinquent and potentially delinquent youths. (R, Cor, \$64K)

Training Center for Juvenile Delinquency Prevention and Control. The goals of the Training Center are: (1) to focus attention within the University on the needs of the city - and of the state and nation - for aid in the many areas in which society must intervene if the door of opportunity is to be opened equally to all and delinquency effectively reduced, (2) to serve as a channel through which various resources of the University can be made available to assist the community in the varieties of intervention required, (3) to feed back to the appropriate University departments curriculum material and insights that can contribute to the control of delinquency and related social problems, (4) to serve as the center for information on corrections and related social problems and programs in the Upper Midwest, and (5) to pioneer new training programs for key correctional personnel in the Upper Midwest. (D, Cor, \$166K)

Program Area 7 (continued)

New Roles for Volunteers: Training In Delinquency Prevention For Girls. The National Council of Negro Women have selected three cities in which women from varied backgrounds and experiences, including those from poor and disadvantaged sectors, will be trained to work with delinquent and pre-delinquent girls who have never been a part of nor able to cope with the traditional agencies and programs of our society. (D, Cor, 68K)

Recruitment and Effective Use of Volunteers in Local Juvenile Delinquency Programs. This project aims to evaluate, intensively, the recruitment and effective use of local volunteers in action programs designed to combat juvenile delinquency without resort to institutionalization. The performance of the volunteer is observed and analyzed in a range of more than thirty distinct jobs, with particular attention given to the concept of "net effectiveness": under what conditions and to what extent are the benefits of volunteer services counter-balanced by the regular staff time and effort "lost" to direct action with juveniles, because it must be invested in the recruiting and administrative support of volunteers? Secondly, to what extent are favorable procedures and results in Boulder, transportable to other communities? (T&E, AOJ, \$110K)

Pilot Study of Correctional Training and Manpower. Preparation of national guidelines on manpower and training in the field of criminal justice by the National Council on Crime and Delinquency. Two lines of inquiry are being pursued: systematic selection, analysis and formulation of data on manpower and training originating from 989 academic institutions and 1,449 practice agencies; and systematic selection and organization of policy recommendations on manpower and training contained in the reports and standards of government commissions, foundations, associations and prominent spokesmen in the domain of criminal justice. The end product will be a publication consisting of three sections: (1) Policy Guidelines on Academic Education for Work with Juvenile and Adult Offenders; (2) Policy Guidelines on Special Training and Research Centers for Criminal Justice; and (3) Policy Guidelines on Staff Training in Criminal Justice Agencies. The proposed guidelines are intended to help bridge the gap between generalized recommendations and operational implementation by anchoring the policy guidelines to data on existing programs, combined with empirical responses to alternate plans by those who conduct training and those who recruit the products of such training. (D + R, Cor, \$79K)

IV. CURRENT PROGRAM OF THE U. S. BUREAU OF PRISONS, U.S.  
DEPARTMENT OF JUSTICE

MISSION AREA 1: Crime Prevention and Rehabilitation - Reduction in  
the Need and Desire to Commit Crime

Program Area 1: Identification and Reduction of Causes of Crime  
(no projects)

Program Area 2: Rehabilitation of Offenders

Project Descriptions

Team Classification Study. The team classification system, widely used in Federal prisons, is a technique that has increased the effectiveness of diagnosis and made it possible to place the inmate in programs that are most likely to be successful in correcting him. This project will study the team classification system to develop information and techniques that would increase the unit effectiveness of the team members in identifying and treating deficiencies and in evaluating the success of both the individual and the relative effectiveness of the corrective programs. Current status: Nine specific factors that are related to delinquency and criminality have been identified. Preliminary work on methods of measuring these factors has begun. (R, Cor, \$12K)

Prison Violence. The prison social system provides an excellent laboratory for the study of violence. This project will study the causes of intergroup conflict in the prison by an examination of (1) the social structure inside the prison that is conducive to disorder, e.g., the relative size of two ethnic groups related to their potential for violence; would establishment of inmate councils reduce intergroup tensions, etc., and (2) the personal characteristics of those inmates who engage in violence--their attitudes, their deficiencies, and what can be done to correct them. There will also be a determination of what measures can be taken to prevent intergroup conflict from deteriorating into violence. Current status: The analyst is presently reviewing reports from a survey of recent disorders in two Federal correctional institutions, and is preparing a methodology for studying them. (R, Cor, \$3K)

Selective Service. Between FY 1966 and FY 1967 the number of Selective Service violator commitments almost tripled. The increase continued into FY 1968, and it is expected that in FY 1969 there will be some 1500 Selective Service violators in the total Bureau population. These inmates differ greatly from the general population in background and motivation. They are

## Program Area 2 (continued)

better educated, committed to causes rather than personal gain, and are unsuited for our programs that are intended for the less sophisticated general population. The presence of these Selective Service violators presents a unique opportunity to study: (1) those youths who are the revolutionists, the prototypes of the radical new left, and (2) those youths who are neither religious pacifists nor radicals, but who chose prison rather than service in the military. These two groups are expected to differ significantly from each other. The significant questions to be studied are: (1) background factors influencing them, (2) beliefs and values motivating them, (3) most effective prison programs for changing their beliefs and values, (4) utilization of their talents or skills while imprisoned, and (5) identification of post-release community programs most effective in neutralizing their negative attitudes. (R, Cor, \$12K)

Morgantown Experimental Study. For the past five years at the National Training School Dr. Herbert Quay has been developing screening tests to distinguish different types of delinquents, such as Immature, Neurotic, Sub-Cultural, and Psychopathic. Preliminary studies of specialized programs for these different categories of delinquents have shown promising results, so that we are now ready to test the effectiveness in a more rigorously controlled fashion. The opening of the new Youth Center at Morgantown affords a rare opportunity for an experimental comparison of different kinds of programs with an identical population. The initial population for Morgantown will be randomly selected from an age and offense appropriate pool of youthful offenders recently admitted to the Ashland and Tallahassee facilities. At Morgantown, the new kind of program which provides different treatment strategies for different types of delinquents will be tested; while the control populations at Ashland and Tallahassee will continue to receive the treatment programs which have been developed in those institutions. Both the Morgantown experimental group and the control groups in the other institutions will be "typed" as to delinquent behavioral category on the basis of the screening tests, so that comparison of how a particular type responds to specialized treatment (at Morgantown) or to generalized treatment (at Ashland and Tallahassee) will be possible. (T, Cor, \$25K)

Community Treatment Center Evaluation. A substantive study will be undertaken which seeks to build on our earlier statistical studies of descriptive characteristics and recidivism for various parole "risk" groups. One study has shown that the worst parole risk group has a significantly lower recidivism rate than "base expectancy" tables predicted for them. Although such

Program Area 2 (continued)

"base expectancy" tables can help us select the best candidates for the Community Treatment Center programs, we still do not know what program variables account for the differences in outcome, and what modifications we can make in programs so as more effectively to reach those types who apparently fail to benefit. The present evaluation includes a study of how the problems to be worked upon while at the Community Treatment Center are perceived by staff and inmates; and how specific variables relate to progress on the problems and to eventual success in the community adjustment. Problems such as 1) securing and maintaining employment, 2) reestablishing family ties and responsibilities, or 3) developing non-criminal social and recreational associations, will be studied in relation to inmate's motivations, capacities, and opportunities in his environment or the services available to assist him. From these dimensions we can distinguish particular types of offenders and plan different treatment strategies according to the deficiencies they present. Not only will such a study improve our effectiveness in the Community Treatment Center programs, but it should provide clues for improvement in our institutional programs where the inmate is prepared for the Community Treatment phase of correctional experience. (R, Cor, \$15K)

V. CURRENT PROGRAM OF THE CHILDREN'S BUREAU,  
U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

(Projects Funded Under the Child Welfare  
Research and Demonstration Grants Program)

Program Area 2: Rehabilitation of Offenders

Philadelphia Psychiatric Center: Comparison of Three Treatment  
Models in Delinquency. (R, Cor, \$105K)

Program Area 4: Improvement of the Probability of Apprehension  
and Conviction of Offenders

University of Puerto Rico: International Study of Intake and  
Accomplishments of Juvenile Courts in Delinquency Cases, Puerto  
Rico Section, First Phase. (R, AOJ, \$27K)

Program Area 5: Improvement of the Efficiency and Effectiveness  
of CJS System Management

Washington Center for Metropolitan Studies: Law, Mental Dis-  
orders, and Juvenile Processes. (R, AOJ, \$87K)

VI. CURRENT PROGRAM OF THE FEDERAL BUREAU OF INVESTIGATION

Program Area 4: Improvement of the Probability of Apprehension and Conviction of Offenders

Project Description

Two projects for development of computer techniques for the recognition of ridge endings and bifurcations on fingerprints. (D, P, \$200K)

Program Area 9: Establishment and Operation of a Statistics and Crime Measurement Center

Project Description

Uniform Crime Reports - Statistical series collection and reporting, and the analysis of criminal career patterns. (R, P, \$600K)

VII. CURRENT PROGRAM OF THE VOCATIONAL REHABILITATION ADMINISTRATION

MISSION AREA I: Crime Prevention and Rehabilitation - Reduction in the Need and Desire to Commit Crime

Program Area 1: Identification and Reduction of Causes of Crime  
(No projects)

Program Area 2: Rehabilitation of Offenders

Project Descriptions

The Federal Offenders Rehabilitation Program. This program consists of a nationwide collaborative field experiment to assess the effectiveness of "intensive" versus "current" rehabilitation services provided to Federal offenders at various stages of the correctional process. The overall Program Director, in Seattle, Washington, will coordinate and direct the research activities of the 8 projects involved. Intensive rehabilitation services to a randomly selected demonstration group of Federal offenders at each project site will be possible through the assignment of a reduced caseload to a professional, skilled Vocational Rehabilitation Counselor who, working in collaboration with a Federal Protection Office, will coordinate the training, medical treatment, economic support, job placement, and other services, and provide needed counseling. He will also conduct a follow-up investigation of all cases. A randomly selected control group will receive whatever service would be normally available to them. Criteria for the evaluation of effectiveness will include: recommitment to institutions, economic independence, social participation in community activities, and personal attitudes. Reports will be issued with recommendations for possible changes in public laws, rehabilitation policies, and operating procedures. The following are the projects included in this program:

Federal Offenders Rehabilitation Program in Olympia, Washington (Parent Project). (T&E, Cor, \$161K)

Atlanta Federal Offender Rehabilitation Project. (T&E, Cor, \$63K)

Colorado Federal Offenders Project. (T&E, Cor, \$39K)

Texas Federal Offenders Rehabilitation Project. (T&E, Cor, \$32K)

Tampa Federal Offenders Rehabilitation Project. (T&E, Cor, \$18K)

Chicago Federal Offenders Rehabilitation Project. (T&E, Cor, \$17K)

Springfield Federal Offenders Rehabilitation Project. (T&E, Cor, \$11K)

Program Area 2 (continued)

Pittsburgh Federal Offenders Rehabilitation Project. (T&E, Cor, \$13K)

Surgical and Social Rehabilitation of Adult Male Offenders. To study the effectiveness of a program of medical rehabilitation comprising plastic surgery for facial and somatic disfigurements and the removal of visible tattoos supplemented by social and vocational services on the reduction of chronic unemployment, emotional disturbance, and recidivism of adult male and female correctional inmates released from the custody of the New York City Department of Corrections. (T&E, Cor, \$60K)

Modeling: An Approach to Vocational Rehabilitation of Juvenile Offenders. This research seeks to determine the degree to which juvenile offenders are responsive to modeling opportunities. The opportunities, to be provided in cottages of the State of Washington's Cascadia Juvenile Reception-Diagnostic Center, will be arranged by placing University students in close contact with Cascadia residents. The research will be experimental in nature and will involve a number of different treatment groups. The effects of modeling will be assessed, both at Cascadia and afterwards, by means of follow-up studies. (R, Cor, \$91K)

Work Release: Factors in Selection and Results. North Carolina prisoners placed on work release 1957-1963 will be subject to analysis to determine: (1) factors related to their selection for the program, (2) success rates for various classes of prisoners, (3) functioning of work release within the labor force structure of the free community, (4) administrative problems for the prison incidental to introduction of the program as a stimulus for correctional reform, and (5) overall assessment of work release as a correctional technique. (R, Cor, \$4K)

A Study of Factors Associated with Successful Group Counseling for the Rehabilitation of Offenders. This project will investigate the following problems: (1) What is the relationship between client traits of personality and success in group counseling?; (2) What is the relationship between client traits of personality and success in individual counseling?; and (3) What is the relationship between a counselor's success in individual or group counseling and counselor traits of personality? Clients of the U.S. Probation Office in the District of Columbia will be randomly assigned to counselors and to treatments. Personality measures and a rating scale will be administered and a discriminant function analysis will be applied to answer the above questions. (R, Cor, \$41K)

Effectiveness of a Vocational Rehabilitation Program in a Maximum Security Prison. This project will demonstrate the

## Program Area 2 (continued)

effectiveness of intensive vocational and social rehabilitation services in a collaborative institutional program at Attica Prison (New York State) which will serve male physically disabled inmates throughout the State system. The goal is to prepare inmates for a productive work role within the prison as well as in the community. Innovating approaches will consist of introduction of a rehabilitation workshop into the prison setting, program organization based on Daniel Glaser's study of prison behavior, application of behavior therapy and programmed instruction, and efforts to lower barriers between inmates, institution, and community with the cooperation of organized labor and industry. Project evaluation will compare work attitudes, vocational adjustment and recidivism for treatment groups comprised of parolees and maximum term releasees, as well as vocational adjustment of long termers remaining in prison with prior and concurrent non-treatment comparison groups. (T&E, Cor, \$43K)

Study of Work-Furlough. A pool of County Jail inmates will be divided into experimental and control groups. The experimental group A will be permitted to work at paid conventional jobs in the free community and will return to the jail for confinement at night. Experimental group B will receive vocational aide to develop jobs so that they too could participate in work-furlough. The control group will receive the "usual" treatment for jail inmates. An assessment will be made of the effect of this program. It will involve, on a before-after basis, such variables as inmate and keeper attitudes, financial savings, vocational behavior, inmate family attitudes, and intra- and post-institutional behavior. (R, Cor, \$90K)

A Cooperative Program for the Alleviation of Juvenile Behavioral Problems. The purpose of this research project is to demonstrate the effectiveness of providing individualized education and vocational training in conjunction with intensive counseling to combat juvenile delinquency. Continuous project evaluation will be conducted to determine the effectiveness of the project in relation to (1) the amount of reduction in delinquent acts by the juveniles, and (2) the increase of efficiency of providing services to delinquents through coordination of efforts and activities of the cooperating agencies. (R, Cor, \$58K)

Vocational Rehabilitation of the Sexual Offender. (R, Cor, \$15K)

VIII. CURRENT PROGRAM OF THE COMMUNITY ACTION PROGRAMS OF THE  
OFFICE OF ECONOMIC OPPORTUNITY

MISSION AREA I: Crime Prevention and Rehabilitation - Reduction in  
the Need and Desire to Commit Crime

Program Area 1: Identification and Reduction of Causes of Crime

Project Descriptions

Georgetown University Law Center--Study of Federal Government Law,  
Regulations, and Programs inconsistent with national poverty  
objectives. Target: Underprivileged. (R, AOJ, \$65K)

American Bar Foundation--To perform research study in 4 communities  
to assess the need for and utilization of legal services by poor.  
(R, AOJ, \$78K)

President & Fellows of Harvard College--Neighborhood legal services  
program to impoverished area. Target: Urban Ghetto. (D, AOJ,  
\$101K)

The Research Foundation State University of New York--Ombudsman  
as intermediary in local citizen-government relations. (T&E, AOJ,  
\$132K)

Emory University School of Law--Law school support for metropolitan  
legal aid agencies. Target: Urban Poor, 45% Negro. (D, AOJ,  
\$233K)

National Legal Aid & Defender Association--Community counsel  
demonstration project. (D, AOJ, \$327K)

University of Detroit--A law school for the urban community.  
Target: Urban, low-income persons. (D, AOJ, \$352K)

Legal Aid Society of Cleveland, Inc.--Implementation of arbitra-  
tion procedures in landlord-tenant relationships. Target: Low-  
income ghetto residents. (D, AOJ, \$58K)

Community Relations Conference of Southern California--Community  
Mediation Center designed to effect special change through con-  
trolled interpersonal communication (i.e., a mediator) Target:  
Urban poor. (D, AOJ, \$100K)

California Rural Legal Assistance--To provide legal assistance  
to the poor. Target: Farm workers & rural poor. (D, AOJ, \$757K)

Program Area 1 (continued)

Columbia University Low Memorial Library--To analyze the effect of consumer credit systems and garnishment practices on the poor with the aim of stimulating reform in related areas of the law. Target: Urban ghetto. (T&E, AOJ, \$98K)

Boston University School of Law--Conduct extensive research into impact of Massachusetts' law and administrative procedures on the poor; hold workshops on the legal problems of the poor for social workers and other non-lawyers. Target: Massachusetts poor people. (R, AOJ, \$97K)

Columbia University--To provide expert research and training services to local legal services programs in the area of social welfare law in order to achieve reform in that field. Target: Urban ghetto. (D, AOJ, \$138K)

Migrant Legal Services Community Action Fund, Inc., St. Petersburg, Florida--To provide legal services to an estimated 100,000 migrant families in a 15-county area of South Florida. (D, AOJ, \$806K)

Marquette University Law School--To train attorneys, involve students and conduct research in the legal problems of the poor. (R, AOJ, \$156K).

State Bar of Wisconsin--To provide legal services to rural poor in Wisconsin and demonstrate the effectiveness of the "JUDICARE" type of legal services program. Eligible poor are given cards which allow them to get service from a lawyer of their own choosing at program expense. Target: 50,000 underprivileged persons in rural counties. (D, AOJ, \$290K).

Washington Township Bar Association, Fremont, California--To establish legal assistance office to screen and refer poor clients to private attorneys who will be compensated, below the normal rate, with grant funds. (JUDICARE). (D, AOJ, \$111K).

American Arbitration Association, New York, New York--Study on dispute settlement procedures between landlords and the poor; research on demonstration project. (R, AOJ, \$20K)

University of New Mexico--In-depth 15-month study of selected OEO-funded legal aid programs in the Bay Area of California. (T&E, AOJ, \$77K)

Program Area 2: Rehabilitation of Offenders

Legal Aid for the District of Columbia--Offender Rehabilitation Project. Target: Indigent families. (D, Cor, \$266K).

University of Portland (Upward Bound Oregon Prison Project)-- Education of disadvantaged inmate students of maximum security penitentiary. (D, Cor, \$240K)

## IX. SAMPLES OF OTHER PROGRAMS OF THE FORD FOUNDATION

### Program Area 2: Rehabilitation of Offenders

#### Project Description

The Silverlake Experiment: A Community Study in Delinquency Rehabilitation. (Youth Studies Center, University of Southern California) - This project examines the effectiveness and experiences of a short-term community delinquency treatment center as contrasted with a long-term community delinquency treatment center as contrasted with a long-term institutional program. The sample subjects are 261 male, adjudicated delinquents, 16 to 18 years of age, who are randomly assigned into experimental and control groups. There are multiple measures of input, process and outcome data, including change indices and recidivism rates. (R, Cor, \$57K).

### Program Area 5: Improvement of the Efficiency and Effectiveness of CJS System Management

#### Project Descriptions

Joint Committee of American Bar Association and the American Institute of Architects. A two-year study to establish standards for modernizing the physical facilities of courts and court-related agencies. The aim will be to establish--for the first time--comprehensive guidelines for physical and environmental arrangements of all types of courts in relation to community needs and requirements of agencies involved directly in the administration of justice. The study is unique in that it will assess the physical and environmental needs of courts and their relationship to other relevant agencies in the community. (Grant announced 3/68) (R, AOJ, \$197K)

George Washington University Institute of Law. This grant will be used by Ronald L. Goldfarb for the most comprehensive report to date on the American prison system. The system of corrections is the last stage in the criminal-law process, yet little attention has been paid to the problems of prison administration. Areas to be investigated will include the legal policies pertaining to sentencing and correction; architectural prototypes of prison environments; and physiological and psychological studies of the effects of isolation, overcrossing, and other prison conditions. (Announced 5/13/68) (R, Cor, \$97K)

The Home Advisory and Service Council of the State of New York. A four-year demonstration using volunteer counselors in the family courts of four upstate New York counties, extending a service now provided by the Council in New York City. It

## Program Area 5 (continued)

supplements Family Court probation and social services personnel with trained lay volunteer counselors working under professional supervision. The Council's program constitutes one approach to easing the situation of heavy caseloads and lack of properly trained probation workers and adequate counseling services in New York State. (D, AOJ, \$400K)

Northwestern University School of Law. An accelerated police legal advisor program designed to more than double the number of police legal advisors as in past years. Beginning in 1964, the program originally was a two-year program for young lawyers, involving a year of law school seminars and internship with the police departments of Chicago, Skokie, and Evanston followed by a second year's internship with a police agency elsewhere in the country. Graduates receive a master of laws degree. The President's Commission on Law Enforcement and Administration of Justice last year specifically recommended that "every medium- and large-sized department . . . employ a skilled lawyer full-time as its legal advisor. Smaller departments--part-time." As the legal-advisor concept has gained acceptance, the number of student applicants to Northwestern has greatly increased. To help meet the demand, the new program will take a semester or a year to complete, depending on the enrollee's background, and no degree will be awarded. Half the students will be recent law graduates who will spend one semester at the law school and six-month law graduates who will spend one semester at the law school and six months in a field assignment. The rest will be men with experience in a prosecutor's office, and will thus spend only the semester in the school. During their internships the lawyers help policemen comply with recent court rulings dealing with arrest, search and seizure, confessions, and civil rights. They represent police at legislative hearings and, if the need arises, in court. (Announced 5/13/68) (D, P, \$365K).

The New York City Police Department. An extension of a pilot program begun in December 1967, using neighborhood women as receptionists in precinct stations, to three highly diversified precincts in Manhattan. A large percentage of calls for help are not related to police services. The grant will be used to establish the receptionist program on a seven-day-a-week basis in three precincts having approximately 350,000 residents and a wide range of social, economic, and educational levels. The receptionists' duties will include greeting visitors, providing information, or putting the inquirer in touch with the appropriate official in the station or in a community agency. Three social workers will provide crisis counseling and extensive referral services to other agencies. Police assigned to the precincts will receive an intensive advance briefing in the objectives, operations, and theoretical framework of the program. (Grant announced May 13, 1968) (D, P, \$168K)

Program Area 5 (continued)

Committee on the Administration of Justice of the Judicial Council of the District of Columbia. A study by management experts of court practices in the Nation's capital. The importance of this first top-to-bottom examination of a city court system is in the search for solutions to the "caseload explosion" that has inundated the courts throughout the country. Rather than an investigation, the study is a joint venture involving the judges of all D.C. courts, the bar, and experts from business, science, and technology. This cooperation is expected to demonstrate what can be accomplished by employing modern management techniques to help solve problems of judicial administration. (R, \$210K)

Program Area 7: Improvement of the Selection and Training of Personnel

Project Descriptions

Institute of Local Self Government (Berkeley, California). An analysis of life history factors of police recruits to see if the performance of police officers can be predicted. This project is a follow-up to a study financed by NIMH which retrospectively analyzed employment records of approximately 5,000 police officers in California during 1952-62. In the new study, the background and personality factors of approximately 2,000 recruits in 14 California jurisdictions will be assessed prospectively, and job performance predicted. At the end of two years, the prediction will be compared with actual performance. Fundamental reorganization of police personnel classifications and work assignments will be recommended, if the new study substantiates earlier tentative findings. The NIMH study found that the officers separated from the service had more years of education than those retained, and that police departments, generally, did not sufficiently meet the needs of their better-educated officers. (Grant announced 5/13/68). (R, P, \$95K)

New York University School of Law. This project will be an action-oriented criminal justice program for undergraduate and graduate law students. It will allow undergraduate law school students to specialize in criminal justice for the first time in a variety of ways. "Squadcar lawyers" will follow the history of a felony case while assigned to a patrol car or precinct station. He will also be present for as much of the prosecution, defense, and judicial phases as take place during the seminar. Other students will work on assignment with legal aid lawyers, district attorneys, U. S. attorneys, and selected private attorneys assigned to indigents. A third group will enroll in law and psychiatry and Forensic Medicine seminars, and will participate in the diagnostic, commitment and treatment process. (D, AOJ, \$600K)

## APPENDIX B

### DELPHI REVISITED: AN EXPERIMENT IN ALLOCATION

#### INTRODUCTION

Olaf Helmer of the RAND Corporation has outlined a method for working with groups of experts which he labels "The Delphi Method." This procedure is grounded in a basic three-step process: (1) independent judgments by experts; (2) feedback of results to the group; (3) rejudging. The overall goal of this method is to help achieve some level of group consensus in decision making.\*

IDA used a variation of this approach at a meeting of the Criminal Justice Research and Development Steering Committee on April 13, 1968. The task assigned to the Committee was to allocate a potential research budget of \$15 million to 17 program areas.\*\* As an aid to this group allocation, the judgment-feedback-rejudgment procedure was employed. A brief description of the procedure and some of the judgment results follow.

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\*See Helmer, O., "A Use of Simulation for the Study of Future Values," RAND Corp., P-3443, 1966; "Analysis of the Future: The Delphi Method," RAND Corp., P-3558, 1967; "Systematic Use of Expert Opinions," RAND Corp., P-3721, 1967.

\*\*The program areas have been revised since the April meeting; hence there is a discrepancy between the program areas outlined earlier in this report and the program areas used as a basis for these allocations. Also, the budget changed from the anticipated \$15 million to the requested \$10 million.

## METHOD

Nine members of the Steering Committee participated in the allocation game. After an explanation of the structure and kinds of projects to be included in each program area (Table B-1), the participants were given the equivalent of \$15 million -- more modestly represented by \$1.50 in pennies, nickels and dimes. One cent thus represented \$100,000. These counters were placed by the participants on a grid (Table B-2). Different patterns of program area placement were developed on the grids which were randomly distributed to the participants.

Allocations were made and recorded on a separate sheet (Table B-3), the results of which were displayed on graph paper and given to the participants. Figure B-1 shows the results fed back on the first set of allocation judgments. Each arrow indicates the allocation of one participant and the circle on each program area line represents the median allocation of the group. The arrow below each line is the allocation developed by IDA in prior, more detailed examination.

Each program area was then discussed in turn, with the judges in the extreme positions being called upon to support their positions. After this feedback and discussion, the judges made a second allocation of the \$15 million (Figure B-2).

## RESULTS

The median value of allocations in each program area at  $T_1$  (the first allocation) and  $T_2$  (the second allocation) is presented in Table B-4.

One of the presumed goals of the Delphi method is to reduce the amount of variation around the group's estimate. That is, the feedback and discussion should reduce the coefficient of variation at the second judging ( $T_2$ ) as compared with the first judging ( $T_1$ ).

Table B-5 shows the coefficient of variation for each of the program areas at each of the two judgments ( $T_1$  and  $T_2$ ). A larger coefficient suggests more variability among estimates, a smaller one less

TABLE B-1. OPERATIONAL MODEL USED FOR ALLOCATION PROCEDURE

PROGRAM AREAS AND ILLUSTRATIVE SUB-AREAS

- Program Area 1: Identification and reduction of social causes  
(identification of causes, evaluation of crime-control effectiveness in social programs)
- Program Area 2: Reducing recidivism through rehabilitation  
(prediction of recidivism, evaluation of treatment programs, aids to decision)
- 
- Program Area 3: Direct prevention of crime  
(hardening targets, enhancing detection analysis and experiments with preventive patrol, deterrence)
- Program Area 4: Increasing probability of apprehension  
(field experiments, crime pattern analysis, command and control, communications, fingerprint recognition, crime laboratories, weapons, vehicles)
- 4.1 Crime pattern analysis and patrol operations
  - 4.2 Command, control and communications
  - 4.3 Crime laboratories and fingerprint recognition
  - 4.4 Others (vehicles, weapons, analysis, etc.)
- Program Area 5: Improving custody  
(prison design, surveillance in community)
- 
- Program Area 6: Improving relationship between CJS and public  
(measurement of attitudes, evaluation of programs)
- Program Area 7: Improving operations of CJS agencies  
(cost reduction, delay reduction, total systems analysis, diffusion of innovation)
- Program Area 8: Reducing unfairness, erroneous convictions, and invasion of privacy  
(evaluating forms of evidence, record security)
- 
- Program Area 9: Providing assistance and guidance in improved selection and training of personnel  
(assessment of important personnel attributes, development of training materials)
- Program Area 10: Developing CJS information systems
- Program Area 11: Establishing and operating equipment testing and evaluation center
- Program Area 12: Statistics Center and crime measurement
- Program Area 13: Establishing and operating a major research institute
- Program Area 14: Providing technical support for program management

TABLE B-2. SAMPLE GRIDS

5	8	10	4.2
3	4.4	2	12
7	13	6	4.1
11	4.3	9	1
14			

4.4	13	8	14
11	5	7	4.3
9	4.2	1	10
12	2	6	3
4.1			

TABLE B-3. SAMPLE TRANSCRIPTION SHEET

PROGRAM AREA	NAME _____					COMMENTS
	IDA 15M	Famili- arity 0-10	1stRun 15M	2ndRun 15M	1stRun 40M	
1. Reduce Social Causes						
2. Recid. & Rehab.						
3. Direct Crime Prev.						
4. Appreh.: 4.1 Pattern & Patrol						
4.2 CC&C						
4.3 Lab & F'print						
4.4 Others (Veh,Wpn)						
5. Improve Custody						
6. CJS/Public Relat.						
7. CJS Operations						
8. Fairness,Convictions,Privacy						
9. Sel. & Trng.						
10. Info. Systems						
11. Equip. T&E Center						
12. Stat. Center & Meas.						
13. Research Inst.						
14. Program Management						

TABLE B-4. MEDIAN VALUE OF APPROPRIATIONS  
\$100K

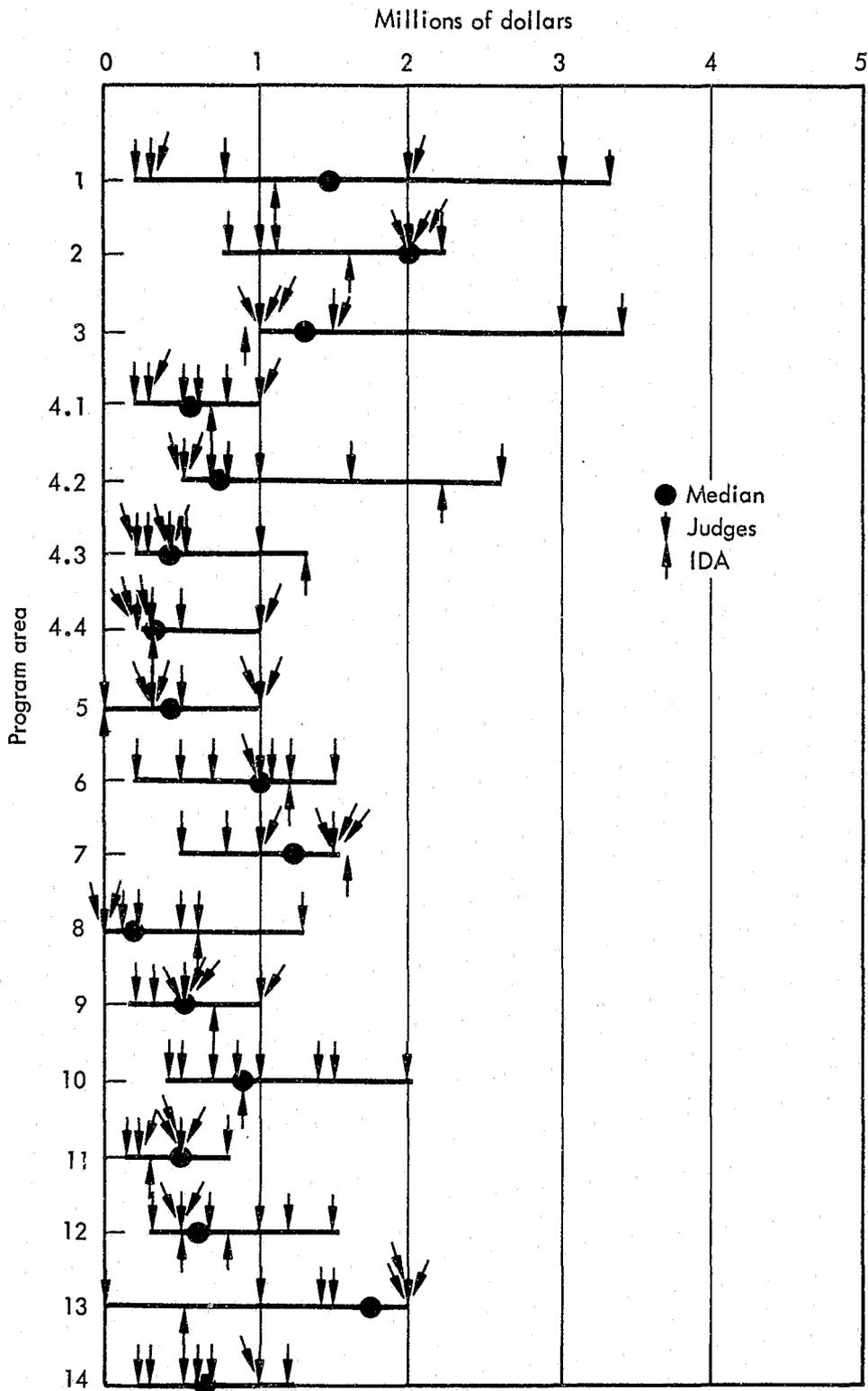
PROGRAM AREAS

	1	2	3	4.1	4.2	4.3	4.4	5	6
T <sub>1</sub>	9.0	20.0	13.5	7.0	9.0	5.0	5.0	6.0	10.0
T <sub>2</sub>	5.5	20.0	15.0	7.0	7.5	4.0	4.0	4.0	10.0

PROGRAM AREAS

	7	8	9	10	11	12	13	14
T <sub>1</sub>	10.0	4.0	5.0	7.5	3.0	9.5	18.0	6.5
T <sub>2</sub>	15.0	2.0	5.0	10.0	5.0	6.0	17.5	6.5





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FIGURE B-2. Allocation Judgment, Second Swing (\$15 Million)

variation. Comparing  $T_2$  to  $T_1$ , the table shows that 10 of the 17 program areas have less variability the second time around. This difference (10 less, 7 greater) is not statistically significant ( $\chi^2_1 < 1$ ).

TABLE B-5. COEFFICIENT OF VARIATION

		PROGRAM AREAS								
		1	2	3	4.1	4.2	4.3	4.4	5	6
$T_1$		1.057	0.443	0.568	0.720	0.651	0.624	0.565	0.578	0.439
$T_2$		1.097	0.387	0.534	0.642	0.662	0.625	0.681	0.760	0.426
$T_2 - T_1$		0.040	-0.056	-0.034	-0.078	0.011	0.001	0.116	0.182	-0.013

		PROGRAM AREAS							
		7	8	9	10	11	12	13	14
$T_1$		0.456	0.951	0.466	0.601	0.827	0.656	0.621	0.583
$T_2$		0.367	1.323	0.480	0.490	0.544	0.537	0.522	0.585
$T_2 - T_1$		-0.089	0.372	0.014	-0.111	-0.293	-0.119	-0.099	0.002

NOTE:  $T_2 - T_1$   
 + -  
 7 10 Insignificant by  $\chi^2$ .

Another approach for analysis is to take a more fine-grained analogy and question the individual changes made from  $T_1$  to  $T_2$ . That is, look at each change in judgment from the first to the second estimate and ask if, when a change was made, it moves toward the group median at  $T_1$  or away from it. One might thereby measure the directional influence of the feedback with the group median after the individual has reassessed his first allocation.

There were 153 possible changes (9 men each re-allocating monies for the 17 program areas). More than half of the possible changes did not occur. Some 54 percent of the possible man-program area changes were 0. It is clear that the group discussion did not offer compelling arguments for change in most cases. The remaining 47 percent of the changes were divided into 44 changes toward the group median and 27 away from it. This difference within the subset of changes is significant at less than the 0.05 level of significance. So, when a change was made, it tended to be in the direction of the group's first-run allocation (Median value in  $T_1$ ).

Each member of the group rated his familiarity in each of the 17 program areas. This score could range from no familiarity (0) to the fullest possible familiarity (10). An assumption might be made that a person would be more resistant to group influence for those program areas in which his personal familiarity is high and less resistant in low familiarity areas. Isolating just those cases where change occurred, the results are in the direction of this hypothesis but the difference is not statistically significant.

FAMILIARITY		Change toward Median	Change away from Median
	$\geq 6$	19 (58%)	14 (42%)
$\leq 5$	25 (66%)	13 (34%)	

In less familiar areas, 66 percent of the changes were in the direction of the  $T_1$  median, as opposed to 58 percent in more familiar areas.

Anecdotal comments from the participants about this method were essentially positive. Perhaps the greatest gain was that the method provided a basis for organizing the discussion within the program areas and for drawing out the principal arguments associated with each program area.

This discussion consequently proved an efficient means of eliciting opinions and judgments from such a group of authorities, even though it may not have made a significant difference in group judgments. The recording of that discussion provided valuable guidance in further development of the program areas and associated budgets.

The analyses reported here show (counter to the group-consensus-type of hypothesis) that marked reduction in variability of estimates did not occur as a result of feedback and discussion. Allocations to most program areas were unchanged from one judging period to another; but among those that did change, a significant share were directed toward the group median of the first judging.

## APPENDIX C

### SUMMARY DESCRIPTIONS OF PROJECTS IN PROPOSED FIRST-YEAR RESEARCH PROGRAM

#### 1. PROGRAM AREA 1. IDENTIFICATION AND REDUCTION OF CAUSES OF CRIME

##### 1.1 Measurement of Factors Related to Crime (2 projects at \$100,000 each)

Two studies should be undertaken for the joint purposes of sorting, isolating and evaluating the many factors that are potentially causes of crime. One should be a longitudinal study using an existing cohort or other sample of individuals for whom a criminal history and general biographical data are available. It will probably be necessary to augment the available data with additional information specially collected (on the available sample). In addition to criminal records available at, say, a state corrections agency, pertinent new data should be collected on personality characteristics and perhaps risk-taking tendencies. The criminal records will have to be supplemented by sufficient biographical data. Since such a sample contains only persons who have been arrested, it is important to find a comparable control group without such criminal records.

The second study should be a cross-sectional analysis focusing on aggregate data rather than tracing single individuals over time. Census data may prove useful if it is augmented by other social variables also reported by census tract. Various forms of multivariate statistical analyses would be applied to these data to identify the effect on crime rates associated with each of the relevant variables. (The value of this cross-sectional approach is its ability to segregate target groups for more intensive preventive attention.)

Both studies depend strongly on the availability of an adequate data base. If such data bases containing an appropriate range of variables are available, the studies can be valuable. If it is necessary to develop these data bases (a fairly expensive process), then the cost of the studies would be much larger than indicated and of reduced priority in a first-year program. Effort, instead, should be directed at the development of the data bases.

### 1.2 Evaluation of the Crime Reduction Consequences of Action Programs (4 projects at \$50,000 each)

Many social action programs are being undertaken, some with the express purpose of reducing crime and others with broader social objectives. Among these are innovative educational programs, new housing and relocation plans and changes in requirements for public welfare payments. Very little is ever learned of the crime control consequences of such programs. The Institute should support such evaluation for four such programs. The support for the actual operation of the action programs would be expected to come from sources other than the Institute.

The programs chosen for evaluation should have access to a satisfactory source of baseline data which indicates the local crime rates prior to the initiation of the program and crime records of participants in the program. In addition, there must be a reasonable opportunity for collecting comparable data for the program once it is under way. Similar data would be required for a control sample not directly affected by the program.

It is essential here that the evaluation focus on individual families, as well as examining the community-wide effect of related action programs. Since so many forces are at work, it requires special care that a successful program not be labeled "no effect on crime" because overall crime rates did not markedly decline. Most single social action programs are addressed to relatively small groups, and the effect may be washed out in a community-wide indicator. The evaluation would be conducted by an independent, technically competent group

requiring cooperation and participation by the organization conducting the program.

The programs selected for evaluation could be of many kinds, but it is desirable that programs judged to have a high potential effect be selected. And for these projects, it is even more important that the evaluation opportunities be substantial.

### 1.3 Development of Methodology for Social Program Evaluation (2 projects at \$150,000 each)

These projects are intended to represent a more significant effort to develop methodology for evaluating action programs. In contrast to the previous projects (Section 1.2) heavy emphasis must be placed on the development of the methodology itself. This should not be done in the abstract, however, but rather in the context of specific operating programs.

The group conducting the evaluation must contain superior technical and analytical competence to develop sophisticated research designs. The research design must account for the difference between the treatment group and a control group, secular trends in crime rates, Hawthorne effect (the effect on the treatment population of merely being under observation), and other variables and effects that could be anticipated to affect the results.

Two specific areas might prove fruitful--both of them concerned with evaluation of data when all experimental niceties cannot be met. The first is an extended investigation of time series, and especially the study of the so-called "regression artifact." This is a characteristic of any group of specially selected numbers which may lead to an overstatement of effect. Investigated with any completeness in only the last five years, it is significant for a valid reading on program effects.

The second area is the development of more experimental finesse with research designs which do not contain a pre-test. "After-only" designs are also relatively new, and offer promise for both more economical and valid understandings when baseline data are unavailable.

These projects should be developed to bring experimenters of high caliber into the criminal justice research community, and should be useful factors in improving the quality of such research.

1.4 Analysis of Causation and Development of Civil Disorders  
(2 projects at \$150,000 each)

Much has been written, in the Report of the National Advisory Committee on Civil Disorders and elsewhere, on the causes of a riot as basic causes (e.g., poverty, discrimination), proximate causes (e.g., urban renewal projects, frustration with Government), and direct causes (e.g., misdemeanor arrest, police-citizen confrontation). In addition, a number of surveys have been conducted to determine who participates in a riot and to analyze the attitudes of participants and observers.

Most of these studies, however, represent straightforward data collection which lack a significant theoretical base or analysis of the data. It is important to inquire into their epidemiological characteristics (propagation rates, immunization rates) both locally within a city and nationally. Of particular interest are events occurring over time which dampen or blunt the thrust of an expanding riot situation. Physical barriers, simple fatigue and police presence are all elements, but imperfectly known ones. Various forms of theoretical structure might be developed. Both sociology (the diffusion of innovations) and epidemiology can contribute initial models for comparison. Research should examine the relationship between the outbreak of riots and the availability of legitimate and responsive grievance mechanisms. The effects of "show of force" in quenching a riot should also be examined.

## 2. PROGRAM AREA 2. REHABILITATION OF CRIMINAL OFFENDERS

### 2.1 Prediction of Future Criminal Patterns (2 projects at \$200,000 each)

Two major projects should be undertaken to predict the probable future criminal behavior of individuals, both adult and juvenile, when subjected to various forms of treatment. Such studies will require the availability of a historical data base of several thousand criminal-career patterns, along with a variety of personal information on the individuals, from which one might develop critical personal attributes. The correlation studies should attempt to develop prior estimates of recidivism based on personal attributes and experience alone; and then, controlling for these, should attempt to assess the effects of treatment actions by the criminal justice system.

If investigation reveals that such adequate data bases do not exist, then the resources allocated for these projects should be devoted to providing the data bases.

For comparative purposes, the two projects should use different statistical approaches, data from different regions of the country, and different jurisdictions. They might then serve as a check against each other when both studies are completed.

### 2.2 Development and Evaluation of Innovative Treatment Programs (4 projects at \$150,000 each)

At the present time, there is considerable innovation and experimentation being undertaken in the development of new treatment programs. These include post-adjudication community treatment programs, halfway houses, pre-adjudication diversion from the criminal process, greatly expanded employment of ex-offenders and sub-professionals, group

counseling and group therapy sessions, and many other attempts to replace the ineffective traditional techniques with new alternatives.

As has been demonstrated by the success and replication of the California Community Treatment Program and the Provo, Utah, youth program, a careful, rigorous evaluation of the effects of the program can be a significant factor in its more widespread acceptance.

The Institute should sponsor four projects to evaluate such innovative programs. The projects would be conducted by an operating agency working in conjunction with an experimentally oriented research team. The specific programs selected may be less important than the availability of the opportunity to conduct rigorous evaluations. The necessary requirements should include opportunities for random assignment of individuals to alternative treatments and controls, an opportunity for prior classification of individuals along meaningful dimensions (e.g., base expectancy, maturity level) and an opportunity for follow-up to measure recidivism and rehabilitation. The evaluations should compare the costs as well as the operating effectiveness associated with each program.

Particular emphasis in these programs should be given to means which follow the suggested approaches of the National Crime Commission such as community treatment programs, deferred prosecution, programs which divert the offender from the criminal justice system, and programs which make extensive use of sub-professionals and ex-offenders. The treatment programs which prove to be successful in the evaluation should be reported widely across the nation, should be described in detail to the technical assistance staff of LEAA, and should be encouraged in the action-grant program of LEAA. In this way, effective innovation can be widely disseminated.

### 2.3 Development and Evaluation of New Offender Training Techniques and Materials for Offenders (1 project at \$100,000)

A project should be undertaken to develop improved training materials and techniques, such as programmed-learning books, for providing

widely needed vocational training to prisoners. A basic goal should be to better align the skills taught in prison to the labor demands of the neighboring outside society. A review should first be made of the kinds of employment which released prisoners could well take; then a review of the unused potential opportunities should be undertaken. Specific training materials should be developed for the predominant occupations. The teaching program should use equipment and techniques comparable to those used in the outside economy and foreman-teachers able to teach and supervise the skills. The program would be evaluated in terms of job stability of the trained men as well as criminal recidivism.

#### 2.4 Physical Design of a Model Correctional Institution (1 project at \$100,000)

An architectural design competition should be held to design a family of model juvenile institutions. The competition would have two phases. The first would be an examination of the needs of new institutions and how the physical structure might help meet them. The second phase would be the architectural design of the institutions. Physical characteristics affecting treatment such as education, work, and recreational facilities should be given important concern. More subtle aspects such as provision of privacy, lighting, and territorial concerns should all be designed with an eye to encouraging successful reintegration after the individual leaves the institution.

In developing designs emphasizing treatment and avoiding negative prisonization effects, the designers should survey the relevant literature on the influence of a prison's physical and social environment on the prisoners. They should also consult with professional corrections officials and staffs, and with juvenile offenders themselves.

#### 2.5 Analysis of Characteristics of Offenders (1 project at \$100,000)

Much more needs to be known about the intelligence, age, education, family, and other background characteristics of the offenders who appear

at various stages of the criminal justice process, especially in correctional institutions. Furthermore, these characteristics must be related to the types of criminal behavior and criminal careers. Some initial studies have been conducted on the drunkenness offender and the violent offender, but much more is needed. One such survey should be undertaken that builds on the criminal records in a state which maintains a reasonably complete data base on its offenders. It would be particularly desirable if major portions of that data base were available in a computer-readable form.

Again the goal is to determine, at an early stage, those individuals who hold the greatest promise for rehabilitation by alternative treatment methods.

### 3. PROGRAM AREA 3. DIRECT CRIME PREVENTION

#### 3.1 Establishing Building Code Requirements to Minimize Crime Vulnerability (1 project at \$50,000)

Most approaches to "target hardening" will be undertaken by private citizens individually or by industry making better equipment to be bought by individuals or by commercial establishments. Building codes are an aspect of hardening the target which is a responsibility of local government and to which the Institute could provide significant guidance.

The Institute should sponsor a study to aid communities to incorporate into their building codes specifications which can provide a significant increment of protection against certain types of crime. Different specifications would be developed for private homes, apartment houses, and commercial establishments. In many cases, the recommended changes will require only a minor increase in building cost.

The study should be undertaken first by a survey of cities that already have crime prevention components in their building codes. Additional information could be obtained from insurance companies which already require their insured clients to use additional protective designs and devices in their structures. The study should be followed by an examination of reasonable and economic design modifications that appear to warrant incorporation into a building code. Where the effect on crime is ambiguous, specific field tests and analyses might be undertaken or suggested to assess the effect.

This study might include a variety of cost and effectiveness tradeoffs to identify, wherever adequate data may exist, the least costly methods for reducing crime.

The code might include such aspects of design as interior lighting, visibility from patrol cars, locks on windows and doors, door materials, and elevator alarm systems.

### 3.2 Community Surveillance and Alarm Systems (1 project at \$150,000)

Community surveillance can be achieved either by the resident citizens themselves or by expensive hardware systems such as a TV surveillance system. (A demonstration project of a TV system is currently being tested in one city.) Community surveillance by the residents often uses no specific program or organizations but is a natural result of the community's desire to detect and ward off potential criminals. However, in several cities it has become necessary to establish citizen groups with members allocating part of their time solely to surveillance activities. In other cases, people normally on the street (e.g., taxi drivers) are encouraged and aided in performing such surveillance.

The Institute should make a study of various methods of community surveillance, and citizen reaction to each, perhaps propose and test new methods, and develop demonstration projects which could be introduced on a larger scale in a high-crime area. These demonstration projects would require the cooperation of local citizens and perhaps new or modified hardware devices.

### 3.3 Studies of Factors in Deterrence (2 projects at \$150,000 each)

The concept of deterrence is central to much of the operation of the criminal justice system. Still, very little is known about who is deterred from what behavior by what kinds of action. There is already some evidence that the susceptibility of persistent offenders to deterrence via the criminal sanction differs from that of persons without a long criminal history. Two studies should be undertaken to explore these questions.

One study should contrast a group of repeated offenders to a control group of similar socio-economic and age levels. To learn what does deter, their differences in perceptions of crime, of police, of apprehension, of conviction, and other aspects of deterrence should be explored. The questions to be examined include their differential susceptibility to direct prevention techniques such as street lighting and police patrol, their perceptions of the threat of apprehension under various circumstances, and their perceptions of the threat of conviction if they are apprehended.

A second set of studies should be conducted under laboratory conditions to study factors involved in individual risk-taking situations. Gaming or other reward/penalty situations might be used to determine the risk-taking propensity of offenders, non-recidivists, and non-offender control groups and to identify what aspects of changes in the physical or incentive environment lead to changes in the risk-taking behavior. Some non-obvious findings are probable. Such a study should be undertaken by a university social psychology department with considerable experience in laboratory experimentation using as subjects prisoners in juvenile and adult institutions, former parolees and probationers, and a comparable control group.

This subject of deterrence is one that is amenable to fairly rapid understanding through laboratory, field, and survey research. Because of the importance of these considerations to basic understanding of the role of the criminal justice system, this area should have high priority in the early phases of the Institute's program.

#### 3.4 Analysis and Experimentation with Preventive Patrol Strategies and Techniques (2 projects at \$100,000 each)

There are many complex questions to be explored in the tactics of preventive patrol. These include such issues as the effects of increasing the intensity of patrol (as was done in Operation 25 in New York and as is currently being done in Precinct 20 in New York) and the best mix of marked and unmarked patrol cars, foot patrolmen, and special tactical squads. To develop the most appropriate tactics

in the use of mobile forces against specified crimes, a historical analysis of the times and locations of various kinds of crimes is required so that future crimes may be more accurately predicted and preventive actions can be taken (e.g., prepositioning of unmarked cars).

The Institute should undertake two separate experimental projects with two police departments, each operating in close conjunction with an experiment design and evaluation group.

One experiment should examine the consequences of a significant increase in the patrol forces allocated to a particular precinct. The additional forces would not be required in most cases to respond to routine calls for service, but would have as their sole purpose the prevention of crime. The variables to be measured would include the crime rate by type of crime, both in the test precinct and in the adjoining precincts, both before and after deployment of the additional forces. The experiment should also measure side effects (e.g., additional misdemeanor arrests, hostility to the police, and traffic violation arrests) in both the test and adjoining precincts. The principal hypothesis being tested is that certain kinds of crimes (e.g., street robberies) will decrease significantly in the test precincts after some period of time. To adequately test this hypothesis, it may be necessary to conduct resident surveys before and after the new deployment to detect any change in the citizens' crime reporting behavior. (The National Crime Commission indicated that only about one serious crime in three is reported in some areas, perhaps due to lack of confidence in the police ability to apprehend the perpetrator. With a greatly increased force, the citizens may be more inclined to report crimes.) It is important to determine the time it takes until a measurable effect is noted in order to provide a guide to the development of future strategies on the reassignment of patrol forces.

This experiment should also consider the effects of redeployment of the incremental force from one precinct to another after various

times spent in each precinct. The study should examine the incremental force required to achieve a significant increment in deterrence, the time for that effect to be noted, and the duration of the effect after the forces are withdrawn. Defining the parameters of this "inertia of deterrence" can lead to significant improvement in preventive patrol strategies.

The second experiment should be conducted to investigate other variables of preventive patrol such as the interactions between patrol and street lighting and the best mix of marked and unmarked patrol cars and footmen for randomized patrol. Studies should include the planning of mobile patrols based on the analysis of crime data to determine times and locations for augmenting the regular patrol force.

The development of both these experiments should be preceded by a more detailed analysis by the Institute of the results of the Operation 25 and Precinct 20 tests in New York, particularly emphasizing the spillover effects of crimes in adjacent precincts.

The experiments should then be undertaken with a Request for Proposals which the Institute should distribute to police departments and to research organizations. They should be submitted jointly by teams composed of an operating police department and a technical support group. The technical support group would construct proposed models of patrol operations which would specify the data needs for each of the experiments and would allow tests of various theories of preventive patrol to be performed. The measurable parameters might include patrol speed as a function of traffic conditions, patrol sighting distance in one-man and two-man cars, frequencies with which various points in the cities are passed, percentage time spent patrolling, and the visible duration of interceptable or preventable crimes.

In conducting these experiments, all the conventional precautions about efficient experiment design, using randomization and experimental control, must be carefully observed.

A fringe benefit from these experiments is the relationship that will be created between police departments and neighboring technical research organizations--a relationship certain to lead to continued involvement of technical personnel with police departments.

### 3.5 An Analysis of the Economic Structure of Organized Crime (1 project at \$200,000)

This study should be an intensive economic analysis of organized crime as a criminal system and should be designed to identify the vulnerabilities and weaknesses of such systems in order to mount strategic attack upon them. The study will likely require the development of an economic model of the organized crime industry which operates as a black market supplying an existing demand for forbidden goods and services. The model will require the collection of data on demand, demand elasticity to price changes, and components of operating costs. It would have to be conducted with the close cooperation of the organized crime intelligence unit of a police force in a large city. Within the model framework to be developed, the study should explore various strategies for reducing the profitability of organized crime activities by increasing their costs or reducing the demand for goods and services. Initially, it will probably be best to focus on a particular set of black market operations, perhaps even a single location.

### 3.6 Tactics for Early Quenching of Potential Riot Situations (1 project at \$100,000)

It has been demonstrated on several occasions that a rapid display of sufficient force can prevent a critical incident from flaring into a major riot situation. It is important to know the relationships among the critical variables relating pre-positioning, intelligence, command response time, and mobility. An analysis should be conducted of the successful quenching operations, both those using small and large forces, to determine the critical parameters and response requirements. Mathematical models should be developed to examine the interrelationships of the system parameters and to find the optimum cost method for providing a capability for a rapid show of force.

#### 4. PROGRAM AREA 4. IMPROVEMENT OF THE PROBABILITY OF APPREHENSION AND CONVICTION OF OFFENDERS

##### 4.1 Analysis of Reported Crimes by Time, Position, and Characteristics (1 project at \$150,000)

In most police departments crime patterns are depicted by pin maps updated at periodic intervals. These pin maps show the locations and sometimes the time of crimes of various types. In some cases (e.g., St. Louis), computers have been used to generate such displays. More sophisticated techniques of analysis and prediction are required. This study should focus on the development of such techniques using multivariate statistical analysis in conjunction with computer-generated displays.

The object would be manifold. First, it would be useful to know where and when crimes are most likely to occur in order to properly pre-position patrol forces. For this objective, time and space analyses are required. Second, it would be extremely helpful for detective forces to know which crimes were probably committed by the same individual or group of individuals. For this objective, a very sophisticated analysis of the detailed characteristics of each committed crime is required. These characteristics describe the mode of operation (MO) of the offender. It has been shown that for many classes of crimes (e.g., bank robberies, rapes) an offender's MO remains remarkably unchanged from crime to crime. A successful analysis would cause those crimes committed by the same offender to cluster and be easily identifiable.

#### 4.2 Analysis of Factors Leading to Apprehension (1 project at \$100,000)

Crime Commission studies have used a sample of calls for police assistance to identify some of the factors in a crime and police reactions (e.g., rapid response time, on-sight detection, and detective investigation) that are associated with successful apprehension. A more detailed study is needed to identify the best modes for improving apprehension probability. The factors to be considered should include the emergency nature of the call, the type of crime, the naming of the suspect, the availability of physical evidence at the scene, and the formal collection and analysis of such evidence. The results of this study should identify more precisely which of these factors lead to apprehension and should permit an assessment of the consequences for apprehension rates of various police actions and policies.

The study should also emphasize the preventive capability inherent in early arrival at many non-emergency calls, where escalation to a possible emergency is averted.

#### 4.3 Allocation of Police Patrol Resources (1 project at \$150,000)

The effective allocation of police patrol resources is perhaps the most important single operational problem facing police departments today.

The problems involved in police patrol allocation include prediction of demand for services (e.g., calls for service, preventive patrol); establishment of an allocation criterion (e.g., minimize average or maximize response time, minimize costs to provide a specified level of response, minimize probability of dispatch delay); re-positioning of forces (e.g., mix of marked and unmarked one- and two-man cars, method of spatial assignment); and re-positioning of forces in real time.

The proposed project should build on studies already undertaken (especially in St. Louis and Boston). It should incorporate analytical approaches to develop schedules of police assignment consistent with

anticipated demands for services, using criteria such as those listed above. The control of variables in such studies would include the number and location of police forces at various times during the day and during the week.

This study should be conducted by an analytical group in conjunction with a police department, preferably one with available data in computer form indicating where and when different calls for service occur. After schedules and procedures have been developed, they should be tested in the field and performance and costs compared with the prior schedules.

#### 4.4 Design of Improved Command and Control Systems (2 projects at \$150,000 each)

These two projects should examine the police patrol operations, under both normal and emergency conditions, to identify the requirements for an advanced command and control system and to develop preliminary design and system specifications. The emphasis in the design should be on examining, unconstrained by existing practice, how patrol functions might and should be conducted with the improved technology.

These two projects might be viewed as two competitive parallel program definition studies to be conducted over one year. The better design study would be awarded a follow-on contract to support the development of a new model command-and-control system. This study, therefore, is the initial phase of a major continuing project.

#### 4.5 Development of a Laboratory for Simulation of Command-and-Control Operations (1 project at \$300,000)

A simulation laboratory is needed to explore various configurations and operating procedures of a police communications center. Such a laboratory would use simulated work stations and simulated displays, perhaps produced by a computer. It would be instrumented to evaluate response time and correctness of decision under various operating conditions. Such a laboratory tests new ideas for their efficacy and provides a site for training and evaluating communications

center operators. Moreover, it is an effective way to introduce modern training technology into police operations.

The funding for the first year would be for the design and initial development of the simulation facility and for developing the plan of use during coming years. A continuing operating expense on the order of \$200,000 to \$300,000 per year in future years should be contemplated.

The laboratory should become a facility in which different police departments' configurations and procedures could be tested and guidelines for the improvement of operations developed and disseminated.

#### 4.6 Design of Police Radio Networks (1 project at \$200,000)

In most major metropolitan areas, it is important that the different police departments be able to communicate with each other during emergencies. Where radio frequencies are scarce and congested, some form of frequency sharing through a common network will become necessary. Building upon the studies in the Chicago area, such radio networks should be designed.

#### 4.7 Development of New Family of Portable Police Radios (1 project at \$200,000)

This project should lead to the preparation of specifications for a new, low-cost, lightweight family of portable police radios. The preliminary studies would address questions such as the optimum locations of base stations and the optimum frequency for transmission in a city and for penetrating buildings. The emphasis in the study should be on means of achieving lightweight, low-cost, and high reliability.

This project will require a committee of police users, radio engineers, and industry representatives to resolve the requirements questions.

The study should also explore the costs, benefits, and risks associated with the various forms of Federal stimulation of the development. These include outright Federal purchase and then redistribution or sale to police departments, Federal support of the development if the radios are sold at specified price, Federal guarantee of an initial order quantity, or other approaches to assure the large volume necessary to achieve low unit cost and to minimize distribution and sales costs.

Prior to embarking on this project, the Institute should review the recent radio developments by industry to ascertain the immediate needs.

#### 4.8 Development and Evaluation of Forensic and Other Evidential Techniques (2 projects at \$150,000 each)

Two projects should be undertaken to improve the quality of trial evidence. One project should be undertaken to develop a data base of characteristics of materials most often involved in crimes. The preparation of the data base should be preceded by a survey of crime laboratories to identify the form of data they most need. A second project should be an evaluation of the reliability of eye-witness testimony. The project should involve a variety of social psychology experiments in which "assailants" encountered a victim and then the victim was posed with the problem of distinguishing the assailant from others of varying degrees of similarity. Various forms of information presentation, such as lineups, television tapes, color photographs, and black and white photographs should be used. Of particular interest here are attributes of witnesses associated with more or less credible reporting.

#### 4.9 Development of Modern Fingerprint Recognition Techniques (1 project at \$200,000)

Projects for automatic recognition and classification of fingerprints are now being conducted under sponsorship of NYSIIS and the FBI. In view of this activity, there is no need for the Institute to

duplicate such efforts. It is important, however, to arrive at an assessment of the potential utility of a single fingerprint system in terms of potential additional apprehensions.

This project would be undertaken at a police department with records on calls for evidence technicians, and a single fingerprint capability. Estimates would be made of the additional number of crimes solved due to an ideal single fingerprint capability.

#### 4.10 Development of Experimental Police Vehicles (1 project at \$200,000)

The Institute should undertake a project to develop the specifications of a new police vehicle and then conduct a design competition for the construction of a prototype automobile. The car design should be based on a conventional chassis and engine to minimize ultimate production costs. The specifications should be based on a survey of requirements and of potential equipment. The requirements survey should include considerations of the functions a policeman performs in his vehicle and the functions he performs outside it where the vehicle might assist him. The study would, therefore, identify what support he needs. The study would also consider the visual impact on the public generally of various configurations of the vehicle's exterior.

Once these specifications for the vehicle have been written, they should be distributed widely to engineering and industrial design organizations with invitations to submit proposals for the construction of a prototype vehicle.

5. PROGRAM AREA 5. IMPROVEMENT OF THE EFFICIENCY AND EFFECTIVENESS OF CRIMINAL JUSTICE SYSTEM MANAGEMENT

5.1 Analysis of Operations of a Total Criminal Justice System  
(2 projects at \$200,000 each)

Comprehensive criminal justice system planning, as called for by the planning grants program, requires the development of more effective tools for interrelating the component parts of the criminal justice system. Mathematical models of the total system represent an important tool for examining the interactions among actions at various point in the system for examining the cost consequences of different allocation policies.

These two projects should be directed at analyzing a criminal justice system for a state and for a city. This work would build on the illustrative model presented in the National Crime Commission Science & Technology Task Force Report for the United States as a whole.

The studies should be conducted by a system analysis group working in close conjunction with a state and a city criminal justice planning commission. In that way, the important and relevant policy issues will be addressed by the systems analysis group and the state and city models will be adapted to the kinds of questions being asked.

5.2 Improving Allocation of Resources by Time, Place and Function  
(3 projects at \$100,000 each)

The three projects are intended to examine improved ways of allocating resources for the police, courts, and corrections subsystems.

The police project should involve an improved statistical procedure which attempts to identify the effect on crime of an incremental police officer at various times and locations. Such a project would lead to improved police efficiency in the particular department being studied and provide a model for applying such procedures elsewhere. The project should be undertaken as a joint effort between an operations research group and a police department.

The study for the courts would focus on improving the efficiency and reducing the delay in processing cases through a typical court. The emphasis would be on identifying the critical bottlenecks, considerations of reallocation of clerical resources from one stage to another, development of efficient scheduling procedures, and consideration of the tradeoffs between the costs of detention and the costs of additional resources for faster court processing. The study should be undertaken in a court with an effective administrator able to collect the data, to work with the support group conducting the analysis, and to implement the improvements that result.

In correction, studies should be undertaken in the project to identify an optimum workload by type of offender and by characteristics of corrections officer. The study should also develop means for assessing the appropriate sequence of visits between offender and correctional officer within the constraints of a specified work load. It is anticipated that these studies will indicate a high frequency of visits immediately upon assignment to parole or probation with the frequency decreasing as termination approaches. Some of the statistical techniques of quality control inspection might be very relevant to this study.

### 5.3 Studies on the Process of Innovation and Change in Criminal Justice Agencies (1 project at \$100,000)

This study should examine a variety of criminal justice agencies which have recently undergone significant innovation and change. This might include the introduction of a new communication center, the introduction of a computer, or a radical change in the court scheduling

system. Those agencies in which the change has successfully been applied should be distinguished from those in which the change has not achieved its intended or potential promise. The studies should indicate the characteristics which distinguish the successes from the failures, particularly in terms of the change agents, the preparatory work, the role of the various levels of management, and the organizations' traditions that indicate how change can be successfully incorporated in the future. The studies should also examine the desirable and undesirable consequences of these changes.

#### 5.4 Development of Model Criminal Justice Information Systems Across Agencies and Jurisdictions (2 projects at \$200,000 each)

Two model projects should be undertaken. The first is designed to develop a computer-based information system meeting the needs of a comprehensive planning agency within a single city or a metropolitan area. The emphasis would be on finding means for meeting the needs across the entire criminal justice system in a consistent and compatible way. The first phase of the study would be identifying the information requirements for each of the component subsystems, with the second phase the design of an information system to meet these requirements. The funding for the purchase and actual development and programming of the information system would come from other sources at a later time.

The second project would emphasize regional needs combining the total criminal justice information system requirements of a group of states. Here, too, the emphasis would be on identifying the information requirements among the states in a consistent and compatible form and establishing specifications for an integrated, centrally based information system serving police, courts, and corrections throughout the region and connecting to the relevant national information systems.

5.5 Development of Standard Computer Formats (2 projects at \$50,000 each)

These projects would involve convening committees of users and computer specialists in specific areas where there is, or is likely to be, considerable interchange of information. One of the projects should be focused specifically on the appropriate format for criminal records at the Federal and state level. The FBI should be a principal participant in such a group. In addition, representatives from the computerized state information systems and from those state systems planning to establish computer-based criminal records should be active members.

The second project would consider the possibility of obtaining agreements among local police departments and state crime reporting agencies of a format for common reporting of crime events. The purpose of the standard format is principally to identify the information needed locally by the operating police departments and to bring together the collective wisdom and requirements of various departments.

Since an important user of a portion of this information will be the FBI, in the publication of their Uniform Crime Reports, they should also be an important participant in such a group.

5.6 Development of Computer Utility Programs (2 projects at \$50,000 each)

These projects are designed to provide a central programming service in areas of specific interest to criminal justice agencies. This makes it possible for one programming group, working in conjunction with a specific criminal justice agency but scanning the needs of the others, to prepare a software package that can then be widely disseminated.

One project should focus on providing a software capability for court systems. Such a package would include docket preparation,

prisoner records, trial scheduling, and a variety of information-processing requirements associated with the courts. A second project should focus on the principal police or corrections management functions of personnel, finances, records, etc.

6. PROGRAM AREA 6. IMPROVEMENT OF RELATIONS BETWEEN THE  
CRIMINAL JUSTICE SYSTEM AND THE COMMUNITY

6.1 Measurement of Attitudes and Behavior (3 projects at  
\$100,000 each)

These studies should be conducted by groups in three communities troubled by difficult relationships between the criminal justice system and the community--especially in those communities which contemplate new programs to improve such relationships. The studies would provide a baseline of information on the degree of hostility and conflict, later to be compared with the changes brought about by the new programs. The studies should also focus on identifying the critical sensitivity points reflecting those interactions leading to the greatest hostility. The studies should be undertaken in three different communities using different direct and indirect approaches to measure the attitudes and the behavior of both police and community residents.

6.2 Evaluation of Community Relations Programs (4 projects at  
\$100,000 each)

Of the many community relations programs being undertaken, four should be selected for independent evaluation by the Institute. These evaluations will require the collection of baseline data before the introduction of the community relations programs and then a careful analysis of the changes in community attitudes and behavior as well as in police attitudes and behavior brought about by the program. The data resulting should be classified in sufficient detail so that the population affected by the program can be defined with reasonable precision.

6.3 Assessment of Effect on Attitudes and Behavior of Criminal Justice System Operations (1 project at \$100,000)

This project should focus on the effect of criminal justice system actions on community attitudes. An experiment might be conducted, for instance, with two approaches to establishing halfway houses in different sectors of a large city. The success rates in terms of community acceptance (measured by expressed opposition) and employer cooperation (measured by hiring rate) represent the dependent variables in such an experiment. The independent variables should include such elements as the use of mass media education campaigns or the creation of community action groups.

## 7. PROGRAM AREA 7. IMPROVEMENT OF THE SELECTION AND TRAINING OF PERSONNEL

### 7.1 Relating Skills to Jobs (2 projects at \$100,000 each)

One specific project would focus on the standard means for evaluating, say, a street patrolman. The conventional approach is to rate a sample of incumbents in those jobs and correlate these ratings with characteristics of the incumbents to find those which correlate most highly with successful job performance. The characteristics would be personality characteristics, social characteristics, physical characteristics, interest, attitudes, abilities, and aptitudes. Separate and independent analyses of the jobs themselves will provide additional information relevant to the skills or characteristic requirements. These analyses will then give rise to the development of selection tests for the jobs.

A second project should center on external description of required characteristics for one or two specific tasks, develop a careful description of the tasks, and the attributes of the men who must fill them. For the street patrolman, the question is what is entailed if he is to be more completely integrated into his beat area, if he is to become a collaborator with citizens' groups, and if he should expand the legitimate span of his activities. A project on the street patrolman would spell out the new demands, the degree to which old patrolman skills are productive or counterproductive, and the ways in which a local jurisdiction might identify and train men talented for the newly defined job.

## 7.2 Development and Evaluation of Job Selection Tests (1 project at \$100,000)

Using a variety of existing personality and aptitude tests, the scoring profile of those rated highly in job performance suggests a desirable profile in the selection of personnel. A project should be undertaken in conjunction with several police departments whereby such tests are administered to a random selection of personnel who are independently rated and the discriminating tests identified.

This technology of testing is already well developed for manpower selection. The unique demand for the criminal justice system is that the proper yardstick be developed. This yardstick comes from both our accrued experience for jobs on which there is a long history and a more tentative set of criteria for jobs which are significantly different from the conventional definitions. A project should be undertaken in conjunction with several police departments to attack both sides of this problem and to link it closely with the ways in which new personnel are trained and in-service training for veteran officers is undertaken. Clearly a significant part of such a project would be attention to the question of how one selects from among current personnel those who have the greatest promise for new assignments.

## 7.3 Development of Training Materials and Techniques (1 project at \$100,000)

This project should undertake the development of specific training materials and explore new techniques for presenting them. These might include programmed learning texts and recorded television lectures. The project should include an evaluation phase in which the new materials and techniques are presented to a randomly selected sample of a police department or a corrections agency and their job performance subsequently compared after the training period with those not subjected to such training.

8. PROGRAM AREA 8. ESTABLISHMENT OF EQUIPMENT TESTING AND EVALUATION LABORATORY
9. PROGRAM AREA 9. ESTABLISHMENT AND OPERATION OF A STATISTICS AND CRIME MEASUREMENT CENTER
10. PROGRAM AREA 10. ESTABLISHMENT OF A MAJOR PRIVATE RESEARCH INSTITUTE
11. PROGRAM AREA 11. PROVISION FOR PROGRAM MANAGEMENT TECHNICAL SUPPORT

These program areas in Mission Area IV each involve the creation of an institution to support the overall program. Their operations and functions are discussed in Chapter IIIB.