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REVIEW OF THE APPLICATION OF SCIENCE AND TECHNOLOGY TO CRIME CONTROL

SPECIAL OVERSIGHT REPORT NO. 3

SUBCOMMITTEE ON
DOMESTIC AND INTERNATIONAL
SCIENTIFIC PLANNING AND ANALYSIS

OF THE

COMMITTEE ON
SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
NINETY-FOURTH CONGRESS
SECOND SESSION

Serial BBB

DECEMBER 1976

Printed for the use of the Committee on Science and Technology

U.S. GOVERNMENT PRINTING OFFICE
78-390 WASHINGTON : 1976

For sale by the Superintendent of Documents, U.S. Government Printing Office
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LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
Washington, D.C., November 30, 1976.

Hon. OLIN E. TEAGUE,
Chairman, Committee on Science and Technology,
House of Representatives,
Washington. D.C.

DEAR MR. CHAIRMAN: I am pleased to submit to you our report on the hearings on the Application of Science and Technology to Crime Control conducted by the Subcommittee on Domestic and International Scientific Planning and Analysis.

Because of his special interest in the area of crime control, the Honorable James H. Scheuer, a Member of the Subcommittee, chaired this series of hearings. Mr. Scheuer, along with Senator Robert F. Kennedy, was responsible for the initiative that led to the creation of the National Institute of Criminal Justice. He also wrote a definitive book on the subject entitled, *To Walk The Streets Safely.*

There were several areas of attention during these hearings, including:

1. Pure and applied research in crime control and prevention;
2. Intergovernmental dissemination of information to assure application of successful approaches and techniques;
3. Procedures within the Law Enforcement Assistance Administration (LEAA) and its research arm, the National Institution of Law Enforcement and Criminal Justice (NILE); and,
4. Relationships of other agencies involved in crime-related research and coordination with NILE.

The Subcommittee was constrained to only three days of hearings on this broad subject. We did pursue the broader subject of technology sharing at a later date in the 1st Session of the Ninety-Fourth Congress during hearings entitled, "Intergovernmental Dissemination of Federal Research and Development Results."

The recommendations contained in this Special Oversight Report complemented those of the subsequent hearing noted above. Time did not allow detailed examination of many complex issues involved in the use of Science and Technology in crime prevention and control. However, we did find that there is a need to move forward in examining specific areas, such as information exchange among jurisdictions and criminal corrections, where the application of science and technology can be beneficial and where greater efforts at intergovernmental cooperation is needed.

Sincerely yours,

RAY THORNTON, *Chairman,*
Subcommittee on Domestic and International
Scientific Planning and Analysis.

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SPECIAL OVERSIGHT

Research and development is conducted throughout the Federal Government. Most agencies and departments support research and development to further advances in those fields of science and technology which are related to their mission.

In the House of Representatives these research and development activities are reviewed individually by a number of standing Committees having jurisdiction of the various programs, agencies, and departments. Beginning with the 94th Congress, the rules of the House provide that a continuing review of the entire Federal research and development effort be done. For this purpose the Committee on Science and Technology is charged with the function of Special Oversight in this area. Rule X, paragraph 3 (f) provides that "The Committee on Science and Technology shall have the function of reviewing and studying, on a continuing basis, all laws, programs, and Government activities dealing with or involving non-military research and development." This Special Oversight function is to be performed in addition to the legislative and direct oversight function of the standing committees.

The review and the recommendations included in this report are made pursuant to this special oversight provision of the House rules.

RECOMMENDATIONS

The Special Oversight hearings [1] covered by this report were held for the purpose of considering the current and potential application of science and technology to crime prevention and control. The hearings were structured to gain an insight into current efforts to bring science and technology to bear on one of the nation's major problems—crime.

Interagency coordination and intergovernmental cooperation received primary emphasis while specific techniques for crime control and prevention were also discussed.

The Subcommittee received testimony from witnesses representing the research community, the potential users of new techniques, and Federal agencies working to apply scientific and technological advances to deal with crime prevention and control. Based on the hearings, the following recommendations for future activities are made.

RECOMMENDATION 1

Interagency Coordination of Crime Related Research and Development Activities Should Be Improved in Order to Insure a Unified Approach and a More Effective Application of the Results to the Nation's Crime Problems

Criminal conduct cannot be considered as an isolated problem on which to focus research and development efforts. Several agencies are involved in the study of a wide range of problems related to crime. This interrelationship is frequently overlooked in the mission orientation of each Agency's R. & D. effort. Institutional mechanisms to bring about a focus on the broader questions and the need for funds required to allow interagency coordination where programs are potentially complimentary and/or duplicative should be considered.

RECOMMENDATION 2

Identification and Establishment of Priorities for Research and Development in Crime Prevention and Control Should be Determined in Cooperation with State and Local Governments.

Only recently have State Planning Agencies, funded partly by the Law Enforcement Assistance Administration within the Department of Justice, asserted a role in determining

[1] U.S. House of Representatives. Committee on Science and Technology, Ninety-Fourth Congress, No. 25, Subcommittee on Domestic and International Scientific Planning and Analysis. Special Oversight Hearing on The Application of Science and Technology to Crime Control, July 1975.

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R. & D. priorities for crime prevention and control. This has also been augmented by efforts of local public interest groups to have an input to the agenda for future activities in the criminal justice area. For new developments in science and technology to be accepted and utilized by non-Federal jurisdictions, these efforts need to be encouraged. There are several isolated success stories of techniques being utilized in single communities. Too often few jurisdictions across the nation are made aware of or assisted in utilizing these techniques, and cross-jurisdictional rivalries often deter development of effective area-wide criminal justice systems. Consideration should be given to the use of the LEAA bloc grant program to effect this cooperation.

RECOMMENDATION 3

The Performance of the Primary Federal Research and Development Entity in the Field of Criminal Justice, the National Institute of Law Enforcement (NILE) Within the Law Enforcement Assistance Administration of the Department of Justice, Should Be Reviewed Both in Terms of Its Research Activities and in Relation to Its Organizational Position in the Department of Justice

The ability to disseminate R. & D. results, establish funding priorities, and attract the needed manpower to develop, monitor and conduct research on crime prevention and control should be a subject for careful Congressional review and oversight.

RECOMMENDATION 4

A Careful Study Should Be Made of the Collection, Dissemination, and Use of Statistics Resulting From Research and Development Efforts Undertaken To Assist in the Control of Crime Including Deterrence, Apprehension, and Rehabilitation

Data on the various aspects of crime and the individual criminal are useful tools in developing programs to deter crime. However, utilization of such data must be done carefully. The distinction line between actions intended to reduce criminal activity and actions which could be interpreted as behavior modification must be understood and respected. It is increasingly necessary to educate the user of statistics—policemen, judges, wardens, and others concerned with crime prevention—regarding the role research data plays in effecting useful programs. Proper use, once these statistics are collected will require careful consideration of policymakers at all levels.

RECOMMENDATION 5

Current and Anticipated Research on Crime Prevention and Control Should Be Evaluated and Conducted To Institute an Improved Balance Between Hardware Development and the Study of Societal and Behavioral Aspects of Crime

Previous emphasis in R. & D. for crime prevention and control has been on the development of new hardware devices and techniques. There is increasing awareness that human and social factors need greater consideration in research relating to the criminal justice system. Crime control does not consist only of apprehension of the criminal, but also on the functioning of the courts, the determination of what is criminal activity, proper punishment and rehabilitation of criminals, and problems of humane and compassionate consideration of the victim of crimes.

Programs in crime prevention and control that are successful should be evaluated for continued federal assistance. Often local units of government are faced with the problem that once a program is proven successful, funding is no longer available. Shifting emphasis in R. & D. priorities often work to the disadvantage of the most innovative cities unless they can restructure programs to fit the current areas of interest. Increased evaluation and data collection to substantiate the impact of programs would assist policymakers in determining whether to proceed with present or planned activities.

SUMMARY AND ANALYSIS OF HEARINGS ON THE APPLICATION OF SCIENCE AND TECHNOLOGY TO CRIME CONTROL

Introduction

The Subcommittee on Domestic and International Scientific Planning and Analysis of the Committee on Science and Technology held hearings on the applications of science and technology to crime control in July, 1975. The Subcommittee Chairman, Ray Thornton, in opening this series of hearings, noted the Subcommittee's Special Oversight function for federally funded, non-military research and development, and the Subcommittee's responsibility to assist other Subcommittees and Committees of the Congress. He stated:

> While looking into the area of R. & D. in crime control as part of the Subcommittee's Special Oversight function, we need to keep in mind that other Committees of the House having legislative jurisdiction for criminal justice activities retain responsiblity for direct oversight as well as for legislation related to agencie s and programs under their jurisdiction. * * * It is our charge to recommend to the Committees of principal jurisdiction legislation with regard to coordination and review of Federal R. & D. activities as a whole. (p. 1).

Fellow Subcommittee Member, Congressman James H. Scheuer (D., New York), was requested by Chairman Thornton to chair the three days of hearings. Mr. Scheuer has a strong interest in the broad area of crime prevention and control and a wide-ranging knowledge of previous and current efforts to bring science and technology to bear on the many facets of this question. During the hearings Mr. Scheuer expressed the following concerns:

1. The role of pure and applied research in applying science and technology to the criminal justice system;
2. The effectiveness of efforts to disseminate information about techniques and approaches that are successful;
3. The need to improve procedures within the Law Enforcement Assistance Administration (LEAA) and its research arm, the National Institute of Law Enforcement and Criminal Justice (NILE); and
4. The need for recommendations regarding other agencies involved in research and development related to criminal justice and coordination with the National Institute.

Scope of the Hearings

The focus of the Subcommittee hearings was on those federal agencies whose R. & D. efforts directly, or in a significant, although indirect manner, impact our nation's criminal justice system. There was a natural evolution of testimony—the first and second days served to identify past and present research activities and priorities for future research from the user and researcher perspective. Witnesses included university researchers and representatives of state and local jurisdictions responsible for the criminal justice delivery systems.

The final day offered the Subcommittee the opportunity to hear from representatives of three federal agencies and from an individual familiar with those states' criminal justice planning agencies supported by the Law Enforcement Assistance Administration. Basic questions asked of the witnesses on the final day of hearings were: Does current and anticipated research mesh with the needs and priorities identified in the previous two days of hearings; are new institutional mechanisms or incentives needed to improve and/or alter the R. & D. efforts related to crime control, and; are R. & D. results which have potential for improving the criminal justice system disseminated effectively to jurisdictions across the nation?

The agencies represented before the Subcommittee were The National Institute of Law Enforcement and Criminal Justice (NILE), the research arm of the Law Enforcement Assistance Administration of the Department of Justice; the Research Applications Directorate of the National Science Foundation; the Center for Studies of Crime and Delinquency of the National Institute of Mental Health; and, the States' Criminal Justice Information Project within the Council of State Governments. The funding levels for R. & D. related to crime varies widely between these agencies. NILE commands the largest dollar resources with approximately 40 million dollars and the Crime and Delinquency Center devotes approximately 5 million dollars to research and training programs related to crime prevention and control. The National Science Foundation and the Council of State Governments, while involved in research related to criminal justice, combine R. & D. activities with planning, evaluation, and information dissemination efforts concerning a broad range of domestic services in a manner that makes separate budget figures difficult or impossible to develop.

In addition to the dollars devoted to research that is clearly directed toward crime prevention and control, each agency represented is involved with R. & D. evaluation, training, and information dissemination covering a wide range of social problems related to crime—housing, poverty, education, etc. Activities of other agencies are related to this problem because of the interrelationships of crime to the entire social and cultural fabric of the nation. Those agencies represented at the hearings were invited because of their specific programs directed at crime control and prevention.

The interchange between agencies, research and development programs was highlighted on the final day of the series of hearings when Dr. Plaut of the National Institute of Mental Health discussed the transfer to LEAA of an originally NIMH funded study to develop a uniform reporting system. Dr. Plaut noted that:

> The creation of LEAA was welcomed by us because it strengthened the total Federal effort in crime, and permitted a division of effort between NIMH and LEAA. For example, in the early and late 1960's, the National Institute of Mental Health developed not by itself but through its extramural grant program a uniform system of reporting on the effectiveness of parole programs. The Department of Justice later took over this activity and continued this reporting system after the expiration of the original grant funded by NIMH. (P. 112)

Expressing concern over the limited funds available to NIMH to expend in the area of crime prevention and control, Dr. Plaut stressed their dependence on the program within NILE which could develop from or pick up programs started by NIMH which demonstrated effectiveness.

POTENTIAL FOR APPLICATION OF RESEARCH AND DEVELOPMENT IN SPECIFIC AREAS OF CRIME PREVENTION AND CONTROL

The diversity of backgrounds and experience within the nation's criminal justice system represented by the witnesses appearing before the Subcommittee resulted in identifying a wide spectrum of areas with potential for application of science and technology. Opinions regarding funding requirements, the state of development of technology, and the appropriate role for science and technology elicited a serious if not always harmonious dialogue.

Police

Patrick Murphy, Police Foundation President, focused on needs for improved R. & D. to assist the man in uniform. Berating the lack of any "system" among police departments across the nation, he identified the belief held by some that there is a dichotomy between professionalization of police and the neighborhood police concept. Current research is attempting to evaluate the neighborhood police concept and, parallel to this effort, R. & D. emphasis is being placed on ways to coordinate activities and communication across jurisdictions. Mr. Murphy observed that:

> The crime problem in any large city spills out. Our criminals go from crime in the city to surrounding jurisdictions. To have an effective police system, there should be close coordination and cooperation among metropolitan jurisdictions.
>
> Given the fragmented nature of policing because of so many jurisdictions and wider fragmentation within the criminal justice system, the States are going to have to take on the job of instituting better coordination and streamlining of the various elements within the system. (pp. 18–19)

He further noted that there is a vital need for a more comprehensive and coordinated approach to the problem of exchange of data and information. An example elicited from a dialogue between Mr. Murphy and Congressman Blanchard was the disturbing ability of a criminal to escape arrest due to the multiplicity of jurisdictions across which he could travel faster than could the information necessary for apprehension.

Chief of Police McNamara of Kansas City expanded on the need for R. & D. to assist the policeman, and expressed his concern about the limited resources available for the research he recommends. Chief McNamara felt strongly that police agencies were lacking in the ability to utilize the techniques employed in the private sector such as the use of computers in American industry. He commented that:

> The present utilization by police agencies of the computer tends to be rather mundane, limited to intelligence and criminal record histories, and a few management applications such as payroll.
>
> But what we fail to do is use the computer as industry has been using it during the past 10 years, to aid in decisionmaking. For example, how do you deploy your police officers? What kind of calls do you want them to answer? What kind of patrol patterns do we want to follow? What impact will any variations in the patrol patterns have? These questions remain to be answered.
>
> However, the computer can provide the kinds of sophisticated analysis that will help the police decisionmakers decide what strategies to pursue. (pp. 32–33)

In a colloquy begun by Congressman Scheuer regarding the use of computer trained policemen or civilian experts, and competition from the private sector able to pay higher wages for skilled computer technicians, Chief McNamara suggested that there is a problem:

. . . we feel that we have no choice, that we need to make use of this tool so that we can use our resources as economically as possible and as effectively as possible.

But in terms of summing up what we in the law enforcement field feel we need, I guess you hear from everyone that sits here before you that they need money. While we don't believe we can solve these very complex problems simply by throwing money at them, a variety of experiments in Kansas City and the utilization of the computer in Kansas City has been made possible not by massive grants, but by relatively small amounts of seed money, which was more than matched by resources from the Department, and the results have been most encouraging in terms of achievement.

And so, we would ask that the Federal Government help us. For example, a very small grant could facilitate the transfer of private sector expertise in various fields to police agencies. We do have large corporations that are presently doing this for nothing, but some encouragement and some financial assistance, I believe, could greatly expedite and increase this kind of technique.

We can't expect an officer who is trained in the work of the police officer who reaches management-level rank to suddenly develop the expertise that a corporate vice president would have, and therefore we have a very distinct need in this area.

He continued:

I believe, also, that the cutbacks in the funding are going to have a very negative impact on police work. One reason that we've made more progress in the last 10 years than in the previous 130 years of policing, is that we have a greatly increased number of college-educated police officers who are able to open up their minds and able to comprehend and utilize expertise of private management. (pp. 33–34)

Dr. McNamara concluded his comments with the observation that with research, the working street patrolman, the rank and file officers, showed impressive understanding of how technology can be of help to them. They provided the design for patrol experiments in response time studies funded by the National Institute under LEAA. The potential for success of such programs is much greater when there is active participation at all levels.

The police are only one element in the criminal justice system. Several witnesses believed that once an offense has occurred, the most significant element for both the accused and the victim may well be the Courts. Science and technology can be brought to bear here as well.

The Courts

Judge Benjamin Altman, Chairman of the Criminal Justice Coordinating Council in the Office of the Mayor of the City of New York, presented a broad perspective within which consideration of specific improvements in the judicial system can be addressed. In his written statement submitted for the record, Judge Altman stated that:

Our society rests on the foundation of a viable criminal justice system where the prompt and fair disposition of criminal cases breeds confidence in our laws. Yet, as we sit here today, the criminal justice system is floundering under an immense backlog of cases which does not even belong in the system and which has practically destroyed its ability to handle serious felonies.

The problems facing the criminal justice system are so overwhelming that they cannot be solved solely with a massive infusion of new funds. New approaches, innovative concepts and the application of modern technological and scientific ideas will have to be adopted before we can hope to revive the faltering criminal justice system. My proposals do not depend entirely on new funds. They do not rely entirely on new studies. They are, in fact, a primer for new, concrete action. For far too long, people concerned with the criminal justice system have called for new studies and new money, when, in my view, what is needed is new and coordinated action. (p. 37)

Judge Altman called for action on two fronts: the modernization of the court system through the application of technology; and the removal of certain classes of cases from the system.

Discussing modernization of administration and management, Judge Altman recommended professional help to unify court systems, calendaring, and jury selection including possible reduction in number of jurors required; liberalization of preliminary hearings to allow for early full disclosure; and use of technical devices for transcribing court minutes, video taping of proceedings, and overhaul of record keeping procedures.

Underlying the concern with improvement in the criminal justice system is the implicit view that such improvements will reduce crime. Mr. Stanley Fink, Chairman, Criminal Code Committee of the New York Legislature expressed the view that "swiftness and certainty" of justice is more vital to the deterrence of crime than the "theoretical severity of the sentence structure." He concurred with earlier testimony that the perception of the potential criminal as to whether he will be apprehended and brought to trial is highly significant. Statistics indicate there is an arrest in only one out of four felonies and sentencing in 10 percent of these, and therefore incarceration in the case of 1 or 2 percent of reported crime. It is assumed that the number of reported crimes is less than the number of actual crimes committed, and therefore only a fraction of 1 percent of crimes committed result in incarceration.

Additional testimony highlighted the fact that even if the criminal is caught, today's courts are so overburdened and inefficient that delays and/or continuations often result in dropped charges.

Addressing the second front of attack to improve the Court system—removal of certain classes of cases from the system—Judge Altman identified four directions for action: decriminalize victimless crimes; expand on the concept of mediating disputes outside the criminal justice system; train police to distinguish between activities which are not criminal but rather social in nature; and, reallocate manpower to assign more experienced prosecutors to incoming cases.

Two areas of discussion recurred during the hearing: "victimless" crimes should be dealt with, and, interestingly, science and technology has an important role in achieving this goal.

Mr. Thornton drew a clear distinction between the policy issue of victimless crimes and the questions before the Subcommittee. In an exchange with Mr. Stanley Fink, a New York assemblyman, the following was stressed:

> Mr. THORNTON. I do think that it's important that we focus upon the distinction between the very real function of the legislature in modernizing the system itself and the usefulness of research and development in providing the equipment, the ammunition and the statistical basis for that reform.
>
> Mr. FINK. Mr. Chairman, my point is that if we had some way of providing the statistical basis for things that many of us have gut reactions and notions about, then I think the reform of the individual States' criminal codes could be accomplished much more swiftly. That's my point. (pp. 69–70)

Following from a concern with how scientific and technological advances can assist a policeman in his job and improve the court system, is a concern with correctional institutions. The criminal, once caught and convicted of a crime, will usually remain in the criminal justice system in some form of retention facility.

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Correctional Facilities

Although a great amount of attention was not focused on correctional institutions as compared to other components of the criminal justice system, some basic issues were raised, and the utility of R. & D. in this area suggested. The social and behavioral research needed to determine the effect of incarceration was noted, as were more technical developments to improve facilities once incarceration is effected.

In a discussion of arguments surrounding incarceration policy, Professor Alfred Blumstein suggested several R. & D. needs for improvement in correctional facilities. His basic thrust was two pronged—limited facilities require examination of laws requiring incarceration and, secondly, limited capacity of correctional facilities require efforts to improve operation of existing facilities to meet basic humanitarian requirements.

Dr. Blumstein concluded that as long as the purpose of incarceration was primarily incapacitation it should be enforced humanely. He said, "Let's recognize judges want to be humane, and that they are not going to put people into institutions that are inhumane." (p. 7) The need for examination of punishment which addresses the issue of the utility of incarceration and the potential for R. & D. efforts to improve correctional facilities led to a discussion of the potential application of science and technology to prevention of crime, diversion of minor offenders out of the criminal justice system, and rehabilitation of convicted criminals.

Prevention, Diversion and Rehabilitation

Rehabilitation is closely related to the previous section on correctional facilities. A thought provoking statement on the utility of scientific and technological developments over the previous ten years was included in the prepared remarks of Professor Blumstein. Describing the ideological arguments on incarceration, Professor Blumstein provided the link between views and research findings on the rehabilitative effect on prisons. In a succinct summary of his statement, he noted that:

> The issue I principally focus on in the testimony relates to the question of the growing debate on appropriate imprisonment policy. The debate was set off by an attack on the traditional ideology of rehabilitation which has dominated the thinking in the field for at least the last century.
>
> That attack started, initially, with some evaluative research which compared various kinds of treatment programs that were being tested. The principal finding in most of those evaluations seemed to be that, regardless of what you do to people, their future recidivism is not much different.
>
> That gave rise to an initial attack on the rehabilitative ideology. And that attack came principally from the left, which said that if you cannot change people very much then why intervene in peoples' lives as much as we do. Some studies that we have done indicated, for example, that the chance of a young man being arrested sometime in his life for something more serious than a traffic offense is about 60 percent
>
> * * * * * * *
>
> The findings on the effectiveness of rehabilitation were then picked up from the right, and their argument had two principal thrusts. One of these was for deterrence, and it said that if we increase the risk of punishment, then, presumably, people will commit less crime, so, therefore, let's increase that risk of punishment.
>
> The other attack from the right advocated an incarceration strategy. It argues that we should simply identify the bad actors and lock them up for a long enough period of time.

This was followed by a counterattack from the left which, in its turn, said that we really cannot very well identify the people who are the serious risks to society. That involves a difficult technical question of identifying the future criminality of an individual. We cannot identify serious criminals all that well, and therefore, we should simply administer what are "just desserts" for a crime. Appropriate punishment for that individual and for that crime should be formulated and punishment should be imposed at that level.

The thing that makes this developing debate exciting and important is that what has always been a totally ideological debate, including only rhetoric, is now starting to invoke scientific evidence as part of the debate. The scientific evidence comes as a result of the research efforts that have gone on over the past 10 years or so.

That evidence must get an open and public critical review by those able to engage its technical validity. That evidence, much of which is arcane, is now being injected into the public debate in forms that make it difficult for legislators and the judges to evaluate it adequately. So I think that as the information that forms the basis of the debate becomes increasingly technical, the Nation will have to organize a variety of mechanisms to illuminate the evidence more clearly, to assess its validity, to make the limits of its validity very clear and to provide a springboard for moving further into the next stages of research to provide better insight and better understanding of the process, as well as the policy guidance associated with it. (pp. 4–5)

Judge Altman provided the Subcommittee with background information and examples of successful rehabilitative efforts and urged support to make proven programs more widespread. His comments indicated that where rehabilitation programs consist of ineffective measures such as training in outmoded techniques and activities such as the "making of license plates," the exdefendant, upon release, would be forced into welfare or illegal activities (p. 43). In contrast to this, New York City is currently evaluating a program involving big business in modern training programs and guaranteed employment. Judge Altman anticipates that rehabilitation will be a real thing, and that recidivism will then be reduced. (p. 53)

With the exception of Judge Altman's example, very little additional testimony during the first two days of hearings focused on rehabilitation. In the final day, witnesses representing federal agencies returned to this issue and their comments are noted in Section III of this report.

Judge Altman further discussed prevention and diversion. Concluding his comments on the need for science and technology to develop systems to improve court procedures, he broadened his concerns and identified fruitful programs already being developed:

Unless we stop the funnel of all these young people coming into the system, it really doesn't matter how much you do in the field of research and technology.

What we have done with the aid of Federal money is to work out a few programs in one of the counties in Brooklyn's Park Slope area of which you are a representative. We have a program run by the system there called the Family Reception Center. The concept is not only to help the individual who is involved in crime, but also to bring the family and the community in. The approach to the young person is "we'll help you," and the approach to the family and the neighborhood is "we'll help you and in working together we can be successful." The police tell me in those two precincts which are involved in this effort that the rate of juvenile crime has dropped dramatically. The schools tell me that with the aid of modern technology and getting together the community, the family and the neighborhood with the younster involved, that we now see youngsters not only developing away from the crime and criminal activity, but actually going on and finishing school, going on to college. The results have been dramatic.

We also have found, for example, that when youngsters do get in trouble that we have the right kind of diversion programs. We have psychological aptitude tests and we have somebody who has training to sit down with young people to divert the individual from crime. (p. 42)

In response to questions by Mr. Scheuer, Judge Altman defined "diversion" as the utilization of counseling, psychiatric help, educational programs and rehabilitation directed toward criminal offenders.

Congressman Scheuer asked the question pertinent to any program currently being evaluated, "Have you tracked these people in any way and come up with some kind of a measure of success or failure?" (p. 42) While hard figures are still not available due to the need for the development of test methods and data collection techniques, Judge Altman quoted an estimate of at least 50 to 60 percent of the youngsters diverted not being involved in trouble within 2 years. (p. 42)

In addition to the areas of concern clearly within the realm of the criminal justice system, witnesses discussed the obvious relationship of crime to the total community.

The Community

In discussion with Mr. Murphy on the proper expenditures of funds in the crime area, Congressman Scheuer suggested that, "It could be that noncriminal expenditures would be a better deterrent. Perhaps spending money on improved street lighting would do more to reduce crime than anything else." p. 10)

Each witness mentioned the relationships of the total community to crime—ghetto conditions, housing design, suburban sprawl, and fragmented police departments. They also all agreed on the need to develop useful computer information systems to help effect the coordination of information in each of these areas, the possible impact of LEAA funding, and the lack of coordination of federal programs. Mr. Donaldson began the discussion with the blunt observation that:

> In any area that the Federal Government has spent money for technology, they have spent money on the information system. The Department of housing and Urban Development has spent, I think, probably close to $2 billion over the last 10 years to try to develop total information systems for cities.
>
> Probably, if you would go back and look into the money that's come out of LEAA, the single biggest category has been the development of information systems. Yet the simple fact is there isn't any method that can produce the kind of information that you can make decisions on, like everyone here is talking about.
>
> I think that has to do with just the things I was talking about, the schizophrenia of the Federal programs. You know, we from local government find out we have to introduce Federal people to each other because they don't know each other. They're all off in their own little direction, and then each year the style changes. One year we're going to be big for modeling and the next year we're going to be big for something else.
>
> And so, consequently, instead of taking this simple-minded kind of an idea—that it would be helpful if you had all that information together—we get all kinds of fragmentation. (pp. 74–75)

Mr. Donaldson replied to a question from Mr. Scheuer about opposition to LEAA pressure to dedicate computers to only be operated by police officials, which would not allow coordination of information from other departments with the police department. He stated that there would be total opposition to this pressure and that the most helpful and productive use of computer information would be better communication and coordination. He stated that:

> One of the things about our city government is we have a whole bag of skills that we can apply to problems, and it may very well be that, for instance, a lot of the police problems may be addressable by the guy that designs traffic lights and street lights. And it may very well be that a lot of the problems we have

with young people are more addressable by programs that we have in our human service delivery system. It seems to me they all ought to come together. You know, one of the points I think that the chief was making earlier is that probably if you look at all of our agencies and say give us your top 10 offenders, give us your top 10 juveniles, and go to the schools and say tell me the top 10 families that don't come to school, go to the welfare and say tell me the top 10 families that cause you trouble, we'd be surprised how much they're all the same people. And I think our people never know that.

Much of the discussion during the first two days of this series of hearings provided a perspective or background to better understand the efforts and philosophy behind activities undertaken to control and/or prevent crime. The final day returned to the more specific issues of the Subcommittee's original concern—the application of science and technology to crime control. However, a final caveat was noted, the overall issue of the proper use of data collected in an effort to undertake R. & D. in crime prevention and control.

Crime Statistics and Their Use

The question was asked of Mr. Murphy by Congressman Thornton, ". . . do you think that the increased incidence of crime, which statistics show, relates to a real increase in criminality or more effective reporting mechanisms or both?" (p. 11)

The response from Mr. Murphy identified a basic area for R. & D. application:

I believe we are reporting crime better than we were a few years ago. I make reference in my statement to the victimization surveys of the Law Enforcement Assistance Administration. I commend Administrator Velde for his strong and courageous support of these surveys. Through these surveys we are learning that the non-reporting of crime varies very significantly across the country. It is very helpful to police administrators and the citizens of a city to get a better picture of how much crime is occurring. Without a doubt, in my mind, there has been an enormous increase in crime. I think it is related to problems caused by urbanization and to our race problem. (pp. 3–4)

Congressman Thornton and Congressman Scheuer reiterated during their discussion with Mr. Murphy that the Subcommittee's interest was in what science and technology could do. Professor Blumstein, in discussion with Congressman Blanchard, provides a concluding overview—potentials and problems—which provides an introduction for the inquiry in the following section into what Federal agencies are actually doing.

Dr. BLUMSTEIN. To the extent that the oversight role of the committee is concerned with the use of planning and analysis, I would hope that you probe rather deeply into the degree to which planning and analysis are used in our crime control programs, at the Federal or the State level.

I think it is intriguing that the Justice Department, through LEAA, requires States to have planning agencies. It is not clear to what degree the Justice Department, which runs its own criminal justice system, has a planning capability for the Federal criminal justice system.

As I indicated earlier, the State planning agencies typically engage in writing the report that will appease the Feds rather than engaging in a process that we would call planning in the sense of considering alternative uses of the money, considering the impacts on the other parts of the criminal justice system or on crime of alternative uses of this money, of getting a capability to anticipate the consequences of alternative actions that are being considered. This is necessary for the money to be wisely used and effectively used. I would think the committee through its oversight role could, in fact, probe and illuminate the limited degree to which planning and analysis are, in fact, being used.

I think you could foster much better use of planning and analysis by dealing with better use of information being collected in computers. There are many kinds of information. For most research purposes, there is no need to keep the name of an individual in the records, and so privacy protection should not be a serious problem.

If we had complete records on people who have had criminal histories, then we would be able to analyze those records to address the question that Congressman Scheuer raised, about the degree to which there is really a small number of people committing a lot of crimes, or many people committing a few crimes.

Research is very difficult in that area, because those records are very difficult to get. They are very difficult to get, presumably for reasons of privacy. No researcher cares to know the names of those people, but they do need to have access to the records in order to be able to find out about the nature of criminal careers, so that the system can undertake appropriate intervention at early points. Then some of the legislation calling for planning and analysis could be adhered to.

Mr. BLANCHARD. To the extent that there are new ideas, new ideas that appear to be workable in law enforcement, is there a problem of assuring that these ideas are spread around, or are all of the new ideas getting transferred around?

We know in our other areas, technology transfer is a major problem.

Mr. MURPHY. And it is worse than any place else, I suspect, in policing, because in policing almost every chief of police in the country today is an individual who began his career 20, 25, or 30 years ago as a police officer in that one department. His whole adult life has been spent in policing, which some would say is a somewhat narrowing experience, and in one police department. And police departments do not know what's going on in other police departments. Let me assure you of that because I am a rare bird. I have been in four police departments, and it is interesting to go from one to the other and observe how policies and practices vary widely. This is one of the basic problems in policing which flows from fragmentation. Of course, there is no profession of policing; there is not even a profession of police administration. Policing has an association, but there is not much of a body of knowledge. Dissemination is weak, but improving very much in the past few years. People do not get an opportunity to know that others are doing in policing. (pp. 22–23)

Congressman Thornton raised the question of the proper use of data gathered. This question is parallel to the one raised regarding improved information systems and computer predictions raised in earlier sections. The following exchange highlighted the concern when Mr. Thornton referred to the mass of statistical data of a research project "to determine the nature of criminality as a repeating process" and questioned the use to which the information should be put.

Mr. Shah and Mr. Plant both responded that the original intent of the particular study was to develop a statistical base, but that with some expansion to a "second stage" there would be an effort to identify characteristics of "high risk" individuals and development of programs of prevention.

Mr. Thornton expressed the opinion that the identification of background factors conducive to the development of individuals with high propensity for crime, and the recommendations for changes in the societal structure to eliminate such factors, seemed an appropriate and proper scientific appraisal, but utilization of this type of data to alter individuals in a physical/mental concept could be "grossly inconsistent with human rights and due process." He urged very serious consideration of this dichotomy in the use of research data.

The discussion in the preceding sections evidence problems within the various elements of crime prevention and control as well as the community's efforts to affect reform in the community at large. The following section seeks to address the issue of how well the perspective of identifiable needs mesh with activities at the Federal level to undertake R. & D. in the field of crime prevention and control.

THE AGENCIES' PERSPECTIVES: NEEDS AND MECHANISMS FOR RESEARCH AND DEVELOPMENT RELATED TO CRIME CONTROL

The final day of hearings on the Application of Science and Technology to Crime Control offered the Subcommittee the opportunity to hear from representatives of three Federal agencies and an individual familiar with the states' criminal justice planning agencies partially supported by the Law Enforcement Assistance Administration. Three major aspects of R. & D. in crime control and prevention were illuminated on this final day: Does current and anticipated research mesh with the needs and priorities identified in the previous two days of hearings? Are new institutional mechanisms or incentives needed to improve and/or alter R. & D. efforts related to crime control? And, lastly, are R. & D. results which have positive potential for improving the criminal justice system disseminated effectively to jurisdictions across the nation?

The Subcommittee heard from witnesses representing the National Institute of Law Enforcement and Criminal Justice (NILE), the research arm of the Law Enforcement Assistance Administration of the Department of Justice; the Research Applications Directorate of the National Science Foundation; the Center for Studies of Crime and Delinquency of the National Institute of Mental Health; and, the State's Criminal Justice Information Project within the Council of State Governments.

The National Institute of Law Enforcement (NILE)

Mr. Gerald M. Caplan, Director of NILE presented an overview of the Agencies astivities and submitted a Research Plan for the record. (Appendix II, pp. 200)

Mr. Caplan noted the relatively recent surge of interest in crime control, which emerged as a major issue in the Presidential campaign of 1964 and which continues to surface as a major concern in public opinion polls. As a result LEAA has expanded from an initial budget of 3 million dollars and staff of 4 in 1968 at a very rapid rate to a Federal appropriation of $40 million and staff complement of 85. Noting that LEAA initially had great expectations but insufficient appreciation of the difficulties, and commenting with respect to NILE specifically, Mr. Caplan observed, "Perhaps the single most important thing that can be said about these 7 years of extensive research is that they have exposed how little we know." (p. 91)

He commented that scientific and technological achievements in medicine, space exploration, and other areas are not analogous to improvement in the techniques of prevention and crime control. "But the wiser view is that it will be through improved understanding of human behavior that real progress will be made." (p. 92) Mr. Caplan noted NILE's activities in four major areas and provided examples of each: Efficiency of the institutions for criminal justice—police, prosecution, courts, and corrections; Achieving a level of fairness in administration of justice—reducing disparities in treatment of criminals convicted of similar crimes; Reducing costs of crime to individuals in terms of prevention and aftercare; and, lastly, crime reduction. In the first three areas, Mr. Caplan noted promising studies—police patrol patterns and reduction in jury size; information systems to permit comparison of criminal profiles and

more rational charging and plea regulation; "Operation Ident" and new burglary alarm systems, respectively. In the area of reduction in crime, he was not optimistic, and said that, aside from recognition of limited success in specific programs such as methadone maintenance and new approaches to patrol, "We have learned little about reducing the incidence of crime and have no reason to believe that significant reductions will be secured in the future." (p. 94)

The perspective on NILE's activities given by Mr. Caplan is instructive in identifying concerns specific to the Law Enforcement Assistance Administration which relate to problems that were raised in the previous two days testimony. On the opening day, Congressman Scheuer requested Professor Blumstein and Mr. Murphy to express their views as to the effectiveness of LEAA and the National Institute regarding first, the pure research development function in applying science and technology to the criminal justice system, second, their effectiveness as a clearinghouse—Getting information out on new techniques and approaches that work, and, finally, recommended improvement in LEAA's operations.

Mr. Murphy, generally supportive of the National Institute's efforts, identified basic problems it faces in undertaking research—the nature of the client—the policeman, the judge, and the warden—who is not used to the ways of research, who frequently fails to maintain pure research conditions, and, is skeptical of applicability of results obtained in LEAA studies undertaken in other jurisdictions. He stated that LEAA has supported a volume of important research, and added "mistakes have been made in many research efforts but * * * it has helped to build a foundation that we can move from." (p. 14)

The LEAA program of bloc grants to the states for state planning agencies faces its own problems. It is through these agencies that effective R. & D. undertaken at the Federal level should be implemented at the State and local level. However, Mr. Murphy noted that:

> * * * The LEAA program, set up as a block grant system, is one that is not easy to administer. No matter how well meaning the people at LEAA or the State planning administrators, when you get down to brass tacks at the State level, the members of the State advisory committees are fighting for the dollar for themselves or their own sectors. The police want their share and more, so do the others in the criminal justice system. It is that kind of a game and the real test, the politics of it, make it difficult. (p. 14)

Congressman Scheuer and Mr. Murphy exchanged views on and agreed that previous effort had overemphasized hardware rather than research in the social sciences. In an exchange with Professor Blumstein, the kind of nonhardware research efforts which already show promise were discussed by Congressman Scheuer, particularly the impact of public housing on crime prevention and control. Mr. Murphy noted the close interrelationship of crime to other social problems and suggested that due to the limitation of total LEAA funds and NILE funding specifically, other agencies such as the National Science Foundation, the Department of Health, Education, and Welfare, and the Department of Housing and Urban Development should utilize their resources in combined effort in a non-hardware approach to crime prevention.

Dr. Blumstein did suggest that most of the large volume of hardware expenditures that have been made are in the area of computer technology, and that he hoped there would soon develop a more efficient

appreciation of the information stored in computers for the purpose of identifying activity at present and how to alter conditions for improvement in results where necessary.

The value of the developments in improved information systems was not lost in Mr. Caplan's testimony. He cautioned, however, that this is a problem that is being addressed:

> The use of automated information systems does, of course, raise important issues regarding the security and privacy of the information. As a safeguard, LEAA has established privacy and security standards for LEAA-financed systems which protect individual rights while permitting legitimate use of information for criminal justice purposes. (p. 93)

Following the discussion of the current and future research activities of the National Institute, a discussion of potential changes in the organization or mechanics of the Institute's activities was initiated by Congressman Scheuer. An outline of the reasons why NILE was established within the Department of Justice rather than as a separate entity, such as The Institute of Defense Analysis for defense related research, was provided. This led to a question addressed to Mr. Caplan by Mr. Scheuer concerning possible placement of NILE closer to the Attorney General, outside of LEAA. Mr. Caplan responded that:

> Under the proper circumstances, it would prosper in either place. If you can accept that as my evasion, I would appreciate it. (p. 106)

Focusing on the mechanics of NILE's activities, the concern was twofold: dissemination of R. & D. results and funding priorities. Relating to the former, the laments in earlier testimony, which noted the problem of each locality wanting its own department and feeling that it's problems are unique, brought the focus on the difficulties of information dissemination. Professor Blumstein contended that in the private sector directors of management consultation services working with NILE frequently encounter the difficult attitude that the problems of each department are unique, that research findings are not applicable on an all inclusive basis. He observed that jurisdictions do vary but that there are many common denominators and that utilization of successfully researched and implemented programs greatly reduces the initial cost factor.

Congressman Scheuer questioned the methods of dissemination of information of research findings and new techniques. Mr. Caplan described current activities within LEAA: the enlargement of the Office of Technology Transfer, a currently expanding publications program, and three major transfer programs within this unit. Mr. Caplan noted the exemplary project programs which identify, review, and follow up with training and demonstrating outstanding projects. He cited as an example the family crises unit work in New York City.

Congressman Scheuer commented that Judge Altman's testimony describing the family crisis program had favorably impressed him and Mr. Caplan concurred that the program was a "genuine success" in that it avoided unnecessary arrests, breakup of families, and violence. This type of program was the focus of demonstration for the past year and neighborhood team policing was to be the focus of the current year. Mr. Caplan noted that limited funding precludes the preparation and presentation of more than two major demonstrations a year. He also commented that there was frequently a tendency to question

the applicability of one city's innovations to the problems of another area. Dr. Blumstein's had testified that, "* * * whether a change is right is an empirical question that we can answer. That is what the Institute is about."

The question of evaluation of projects is inextricably bound to funding procedures. Earlier discussion suggested that jurisdictions had to play word games to present "innovative" projects for funding. In discussion with Mr. Caplan, Congressman Scheuer expressed concern with criteria for continued funding. Are successful projects supported and failures rejected?

An interesting caveat related to this subject had been introduced by Chief McNamara—what happens to the innovative city with a successful project. He suggested that in the case of Kansas City:

". . . people continually flock in to see what we're doing. We don't get financed for that, and it causes—while it's a kind of honor to have that kind of recognition—a considerable disruption. . . ." (p. 78)

There has been little consideration of funding mechanisms or assistance for the innovative city to demonstrate their results.

Dr. Jack D. Foster, Director of the Criminal Information and Assistance Project of the Council of State Governments, who is familiar with state planning agencies supported by LEAA, provided additional insights into dissemination funding mechanism and noted the element of politics vs. technology. He stated that, in his view, there is a real problem:

The consumers within the Criminal Justice Agencies are experimenters of an uncontrolled type. They attempt to implement one kind of change and then another kind. What I sense among what I call policymakers—these would be the legislative staff people in the Governors' offices and so forth, who are controlling the flow of dollars and directing changes in legislation—they are getting very disturbed about the seeming confusion and conflicting requests about changes, and they are beginning to ask for harder information about the impact of these changes before they proceed any further to make them.

We went through a flurry of changes in the late 1960's and early 1970's, largely, as a result of the influence of LEAA dollars. Much of this money has, in retrospect, probably been used unwisely because it was not preceded by research; I mean, it preceded research rather than followed it. I think that we have to work more to bridge the gap between research and development and the actual implementation.

One of the consumers of research that I haven't heard many people talk about so far are the policymakers; and it seems to me that the things that really concern them most of all is an improvement in their ability to measure crime and the impact of the changes that we make in our system as we try to react to the problems of controlling crime. The measures of crime and the impact of our effort to control it is an evaluation measurement problem, and that is an area of considerable concern to them. They also want to know what we can do to improve our ability to protect citizens from victimization. It is the heart of the matter of trying to bridge the gap between conventional police control and other devices that we may have to develop in our society for the control of crime. And, third, they are beginning to ask the question that I think all persons in government should ask, and that is, are there other ways we can get people to comply with law, other than relying upon criminal sanctions or criminal penalties? (pp. 132-133)

Mr. Caplan, Director of NILE, responded to this concern by noting that NILE would be continuing both hardware and social research. His response identified a very real problem for NILE in their efforts to work with other agencies.

One of the frustrations is that the causes of crime seem unbounded. In some sense, the work of crime control is the work of all Federal agencies, all Government agencies and private institutions. If we had some leads . . . we could confer with other agencies to find out what they know and what they have done. The

Institute, however, concentrates on the more narrowly defined criminal justice system and does not initiate research that would, for example, get involved in the health care system. (pp. 101–202)

The testimony suggested that coordination between agencies undertaking research related to crime prevention and control is not currently effective. One such agency, which focuses more narrowly on social behavior and its relationship to crime, is the Center for Studies of Crime and Delinquency within the National Institute of Mental Health (NIMH). Earlier reference was made to the dependence of NIMH on the ability of the National Institute of Law Enforcement to pick up research initiated by NIMH and carry it to implementation and further dissemination if proven effective.

The National Institute of Mental Health (NIMH)

Dr. Thomas F. A. Plant who is Counselor to the Director of the National Institute of Mental Health (NIMH), and Dr. Saleem Shah, Chief, Center for Studies of Crime and Delinquency provided the Subcommittee with an overview of their activities related to crime control. He noted that their program was only approximately one-eighth the size of the Law Enforcement Assistance Administration's research expenditures.

Four research priority areas were noted. All were behavioral and biomedical rather than hardware related. They were 1) community based programs as alternatives to institutionalization of children who persistently engage in delinquent and related behavioral problems; 2) further study of improved criteria for decision-making with respect to difficult law and mental health issues; 3) understanding of the factors associated with violent behavior; and, 4) longitudinal studies to better understand involvement of youngsters with the juvenile and criminal justice systems and factors that enable most to "mature" out of delinquent behavior while others persist in criminal careers. Each area was further described with examples in both oral and written testimony.

The approach of NIMH, as noted by Dr. Plant, is to give initial "seed" funding and emphasize dissemination. The "Achievement Place" model, an example of their R. & D. approach, provides community based programs rather than institutionalization of delinquent youths. Dr. Plant noted that this program consists of family-like settings for six or eight youths who have had trouble with the law. They live with specially trained husband and wife teams who assist the youths in coping with life's problems while they continue to attend their regular school in their home communities. He continued with the following observation:

The total NIMH funds invested in this research activity have been on the order of magnitude of $2.5 million over 7 or 8 years. Users of this demonstration project in more than three dozen other places throughout the country have invested an estimated $7 million in this project. So we have here an example where limited Federal funds demonstrated the effectiveness of the program, trained people in its use, and helped to "seed" it. We are now involved in the evaluation of program outcomes in other settings like you may have in New York. (p. 113)

A third Federal agency, the National Science Foundation's program, involved in crime prevention and control and is concerned with both basic and applied research.

The National Science Foundation (NSF)

Dr. Harvey Averch, Deputy Director for Analysis and Planning, Research Application of the National Science Foundation highlighted areas where the activities of the Foundation relate to application of science and technology to crime control. He began by noting that:

> The Foundation funds basic and selected applied research that is relevant to crime control. We have also in cooperation with relevant mission agencies supported independent objective evaluations of the scientific merit and policy utility of existing R. & D. in some areas of crime control and criminal justice. (p. 122)

Dr. Averch discussed the agenda for future R. & D. in crime prevention and control by relating to the efforts of NSF to evaluate the state of the art. The focus was primarily on the outcome from evaluations of existing research. He urged that evaluation of R. & D. effectiveness in the area of crime control be considered on the basis of incremental contributions. This may require some alteration in criteria for evaluation of research findings and design and conduct of research.

A second problem Dr. Averch addressed was that on occasion technically valid research was difficult to interpret or apply. He suggested ways to enhance the relevance of R. & D. and thereby increase the return in terms of dollars spent and impact achieved. First, the potential user must be committed and see the utility of research being undertaken in order for valid research designs to be constructed and research carried through. To achieve commitment of the user community, Dr. Averch suggested:

> Research designs must satisfy the triple requirements of scientific validity, insurance against contamination, and involvement of users. It is rare that researchers are able to meet these requirements. (p. 124)

Addressing the difficulty of the development of adequate research designs, Dr. Averch again tied the problem to the need for evaluation, in this instance a failure to commit funds to evaluate the design before research is undertaken as well as after the results are achieved. He identified the problem and suggested possible solutions in the following excerpt:

> Research designs in the criminal justice area often lack means of making comparisons, even though comparisons are the object of the research. Often, statistical models may be used when the assumptions required for their use are not satisfied. It may be that research funders have not been tough enough in demanding good research designs or evaluation designs from investigators. For example, the research evaluations cite Federal reports showing that, of more than 100,000 Federal grants for youth development and delinquency projects, less than 10,000 contained any evaluation of the programs. Of those with evaluation designs, over two-thirds allocated less than one percent of the budget to evaluation. Competent evaluation and research designs are costly, but they are well worth the price.
>
> What can we do? In funding research there are a number of questions we should ask systematically.
>
> What problem will the research contribute to solving?
>
> What is the incremental contribution the research will make toward problem solution?
>
> How will the research be accomplished?
>
> What are the utilization plans for the project and how will users be involved?
>
> To ask these questions of investigators implies that funders must do much more work in integrating existing knowledge, defining where large incremental gains can be achieved, and then translating output into information usable for decision-makers. (p. 124)

Touching only briefly on the specific areas for a future R. & D. agenda, Dr. Averch noted areas previously mentioned that should be pursued given OMB, Congressional and user community guidance: Police protection studies, diversion of juveniles programs, and the role of legal personnel—judges, prosecutors, lawyers. His final emphasis added a caveat to the need for better design and evaluation for greater R. & D. payoff. He stated:

> Let me note parenthetically the integration of R. & D. is so important because no single study usually makes a difference in this field. It takes a set of them integrated in some way and translated for users. That makes the difference. (p. 125)

Congressman Thornton expanded on the problem of coordinating research and integrating research efforts in the many disciplines which have a potential contribution for solving social problems related to crime. Overlapping this problem with the problem identified earlier of the lack of effective evaluation procedures, Mr. Thornton and Dr. Averch developed the following concern:

> Mr. THORNTON. You have expressed concern, I believe, a very real concern that research in this complicated area, at least as far as the social sciences are concerned, is not really scientifically conducted.
>
> Dr. AVERCH. The defects I mentioned apply both to social science and "hardware" research so that the engineers are as culpable often as the social scientists are.
>
> Mr. THORNTON. I didn't mean to single out either one. I would like to pursue that because if it indeed is true, then trying to extrapolate results from this research can lead to some pretty serious wrong conclusions, could it not?
>
> Dr. AVERCH. Yes, you can generate great social errors by acting on the basis of erroneous research. My concern is, I think as is Dr. Blumstein's, that we don't have any systematic means of sifting the erroneous from the correct research. I think the integration of the research is something that needs a good deal more work. It is very difficult to do. We have some experience in reaching such applications and NSF in trying to do that. It is something that we will have to pay much more attention to. It is connected with the utilization questions. We do not want to disseminate or have utilized invalid research, so they are intimately connected. (p. 125–126).

COORDINATION OF FEDERAL RESEARCH IN CRIME PREVENTION AND CONTROL

On the first day of the Subcommittee's hearings a basic theme emerged that recurred throughout—priorities for R. & D. in crime control must be established by coordinated effort involving all levels of government. Patrick Murphy, President of the Police Foundation, lamented the almost "non-system" for decision-making in law enforcement activities and applauded the emerging awareness on the part of states as to their proper role. One indication of this was a debate among participants at the National Conference of State Criminal Justice Planning Administrators held in Idaho in July 1975. Those attending discussed their role and whether it should be broadened beyond administration of LEAA funds to include greater influence in efforts to coordinate all the work of law enforcement and criminal justice within their states.

Mr. Murphy made the point that within the 50 states there are 25,000 or more police departments and thousands of prosecutor's offices, courts and correction systems. These are frequently not coordinated and do not function effectively and efficiently. The

confused and discouraging result often is that police condemn court procedures and prosecutors accuse the police for failures in crime control. Mr. Murphy said:

> There is a great need for research and further investigation into how our current system of criminal justice can evolve into an effective series of 50 systems with each State doing more to coordinate each system. That would make sense. It is very important. (p. 9)

Local levels of government face problems with the current priority setting procedures for criminal justice R. & D. expenditures. Congressman James Blanchard drew the scenario of federal-level priority setting which emphasizes "innovative" efforts at the local level. The perplexing problem for the local units is the frequent shift in emphasis in R. & D. and the equation of "innovative" with "new." Thus, while dollars for R. & D. are available, Mr. Blanchard noted that "unfortunately communities which have been demonstratively innovative, have successfully initiated and implemented new programs, cannot qualify for funds to sustain them." (p. 19)

This observation was followed by a question from Mr. Blanchard reflecting a primary concern of the Subcommittee and addressed to Patrick Murphy:

> What do you think this Subcommittee ought to do, or the Science and Technology Committee ought to do, to help the process of encouraging intelligent research, the application of science and technology to crime prevention? (p. 19)

Mr. Murphy's response suggested increased state involvement in research. This was amplified during the following day of hearings by Mr. William Donaldson, City Manager of Cincinnati, Ohio. Mr. Donaldson brought into sharp focus the problem of the locality faced with shifting Federal R. & D. priorities that wants to maintain its share of the R. & D. dollar. He stated that he felt more could be achieved through actual involvement of local government and that, for an example, money could be more helpfully and productively invested by not bringing computer experts into a police department, but training people on the force to use the computer. He said:

> I think one of the points is that technology tends to be something that's done to us, and that we're not part of doing it. And I think that it's very important, if we're ever going to get any kind of a change and we're really going to make any kind of difference, that we know enough about it to be full partners in doing it.
> I think where the Congress could be more helpful to us is maybe helping us be those kinds of full partners. (p. 59)

Mr. Donaldson further commented on the confusing and changing priorities of R. & D. funding as had Congressman Blanchard, and said:

> There has to be, then, some kind of continuity in the programs that the Federal Government is providing * * * .They can't go around looking for things that are exotic and changing their directions each year. I think we have to have some sort of confidence that we are some part of the process of the long-range planning of programs and that success will be rewarded and that those programs that are successful will be continued—that they will continue to receive assistance. (p. 60)

Mr. Donaldson's description of the dilemma faced by communities in their interaction with R. & D. funding agencies in the Federal government was preceded by testimony from Mr. Lloyd Bedik of Public Technology, Inc. He identified some local priorities. Representing the Urban Consortium for Technology Initiatives, an orga-

nization of twenty-seven cities and six urban counties each with over five hundred thousand in population, Mr. Bedik discussed the development of a national urban R. & D. agenda. Based on approximately one hundred and twenty-five 'need' statements in crime prevention and control, Mr. Bedik identified four broad categories of R. & D. needs: police hardware needs—technology developments for the police at the street level—and; police software needs in three areas—management techniques that can be used by police administrators; the courts; and, correctional institutions. He noted that "sixty percent of the entire criminal justice need statements fall into the software area, and only thirty-five percent into the hardware category." (p. 51)

A brief colloquy followed suggesting that the almost two to one ratio between the needs in the software area and the previous emphasis by local officials on needs for police equipment and training suggests reorientation in thinking and R. & D. efforts. Congressman Scheuer referred to Mr. Bedik's comment and stated:

> I was very encouraged by your remark that cities seem more interested in software than they are interested in gadgetry and hardware, and while I've been a supporter of the National Institute's development of hardware and police communications and helmets, which are life-saving and important, perhaps they have not been giving sufficient priority to software items. It's encouraging to me to hear from you that that's really what the local police professionals seem to want. (p. 53)

Local preference for software R. & D. are amplified in the following sections dealing with specific areas with potential for R. & D. application.

In later testimony relating to NSL research activities, the emphasis of coordination of efforts shifted from local level priority setting to a possible insufficient attention to coordination at the Federal agency level. This led to the question of Dr. Averch from Mr. Scheuer, "Where is the proper place in the Federal Government R. & D. establishment for the joining of the streams of information to take place?"

The question and subsequent colloquy is applicable across the broad range of federally funded R. & D.

> Mr. SCHEUER. What would you suggest; what would your recommendation be?
> Dr. AVERCH. I will not make a recommendation. I will give you an option. There may be some room for considering a Federal systems integration office that will take the output of the R & D agencies and put it together and feed it back to the agencies and say, "Look, here is what we are saying."
> Mr. SCHEUER. Where would this be located?
> Dr. AVERCH. I think there are many options; you can set it up as an independent kind of operation, as you mentioned, and you could attach it to OMB.
> Mr. SCHEUER. God forbid.
> Dr. AVERCH. You could attach it to NSF, for we have no particular interest in program outcomes. I couldn't tell you at the moment what the most cost-effective arrangements would be.
> Mr. SCHEUER. Actually, maybe I should reconsider my reluctance about putting it in with the OMB, since the OMB is funding these social programs. Maybe the place where the agonizing reappraisal should take place is right at the funding source itself. Maybe the OMB should properly do that.
> Dr. AVERCH. Well, again, as a professional economist I can tell you that there is some value in connecting budgeting activities with research and activities. (pp. 130–131)

In addition to coordination among the different agencies undertaking R. & D. related to crime prevention and control, each agency is faced with an internal problem that they share in common. The concluding section addresses this issue.

MANPOWER AS A CRITICAL NEED IN R. & D. RELATED TO CRIME CONTROL

A final concern which cut across the Federal Agencies involved in R. & D. related to crime control was the need to induce competent individuals to focus their attention on specifically crime related research. It would seem appropriate to suggest that without efforts to solve this basic problem, many of the recommendations to attack more specific issues cannot be effective.

Congressman Scheuer began a colloquy by expressing his concern about the research entity within a Federal Agency being constrained in its ability to attract outside talent. He suggested that:

> The success of your research, the success of your oversight, even success of your applications of your research, depend on attracting excellent people to the work of the Institute. It is obvious that when you have an out-house capability, like IDA, you have a greater flexibility in attracting experts. First of all, you can pay them what you have to pay them. If you have to pay them $500 a day you can pay them $500 a day. You can take off for a 3-month summer sprint. You can ask somebody at the head of a great corporate giant with research capability to take a 1 year sabbatical or a 6 month sabbatical. You have total flexibility in tailoring arrangements; to take on outstanding people for a specific job. You don't quite have that flexibility when you are operating in the Executive Branch and agencies where you are subject to all limitations and strictures of the civil service system.

Mr. Caplan, while enthusiastic about the quality of people NILE employs, suggested that the nature of the job created some limitations. Mr. Caplan suggested that there was no simple solution and that one problem was that of staff frustration over being research administrators rather than researchers. Mr. Scheuer suggested that perhaps sabbaticals were a solution. He suggested the following:

> A little movement of really talented people who had a chance to work for a year or two or three. We could get an overview, move them out to the States' planning agencies, move them out to engage in local R & D efforts with the police departments, perhaps one of these space firms, or with a great engineering school. I can see the advantage to society of getting people who have developed insight from serving in the Institute involved in ongoing research projects, perhaps involved in the great industrial organizations, the great engineering schools, and local police departments. It seems to me that would be sort of an informal program, a fund-stretched part of the dissemination process.

Mr. Caplan concurred:

> In some ways, perhaps the most effective technology-sharing method we have is transferring capable, knowledgeable people. We have revitalized a fellowship program during the past 2 years that has been helpful in attracting able scholars to do their own research at the Institute with our assistance, and that program will continue. (pp, 108–109)

The range of suggestions and observations of problems to be studied in efforts to improve crime prevention and control covered a broad spectrum of possible actions to improve applications of science and technology in a coordinated fashion across agencies' jurisdictions. These are outlined in the first section of this report—Recommendations.

APPENDIX

List of Witnesses

HEARINGS ON THE APPLICATION OF SCIENCE AND TECHNOLOGY TO CRIME CONTROL

July 16, 1975:

Dr. Alfred Blumstein, Director of the Urban Systems Institute, School of Urban and Public Affairs, Carnegie-Mellon University, Pittsburgh, Pennsylvania.

Patrick V. Murphy, President, Police Foundation, Washington, D.C.

July 17, 1975:

Dr. Joseph D. McNamara, Chief of Police, Kansas City, Missouri.

Stanley Fink, Chairman, Criminal Code Committee, New York State Legislature, New York.

Lloyd T. Bedik, Program Director, Urban Consortium for Technology Initiatives, Public Technology, Inc., Washington, D.C.

William V. Donaldson, City Manager, Cincinnati, Ohio.

Judge Benjamin Altman, Chairman, Criminal Justice Coordinating Council, City of New York.

July 18, 1975:

Gerald M. Caplan, Director, National Institute of Law Enforcement and Criminal Justice Law Enforcement Assistance Administration, Department of Justice, Washington, D.C.

Dr. Jack D. Foster, Director, States' Criminal Justice Information and Assistance Project, Council of State Governments, Lexington, Kentucky.

Dr. Harvey A. Averch, Deputy Director for Analysis and Planning, Research Application, National Science Foundation, Washington, D.C.

Dr. Thomas F. A. Plaut, Counselor to the Director, National Institute of Mental Health, Department of Health, Education, and Welfare: accompanied by Dr. Saleem Shah, Chief, Crime and Delinquency Center, NIMH, Department of Health, Education and Welfare, Washington, D.C.

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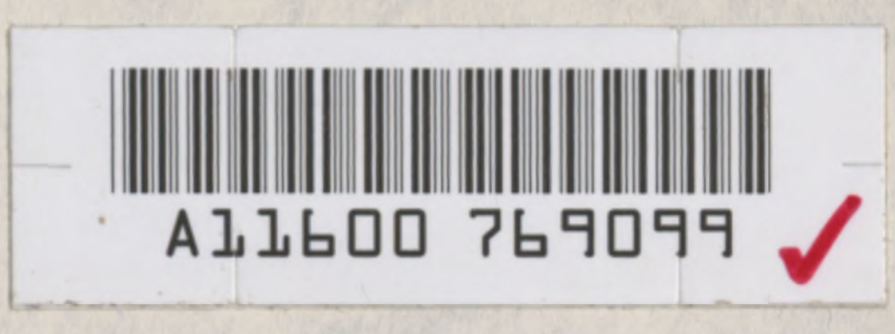
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