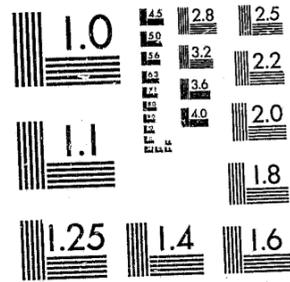


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National Institute of Justice
United States Department of Justice
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7-6-82



U. S. Department of Justice
National Institute of Justice

MF-1

Police Research Catalog

1969-1981

82138

U.S. Department of Justice 82138
National Institute of Justice

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About the National Institute of Justice

The National Institute of Justice is a research, development, and evaluation center within the U. S. Department of Justice. Established in 1979 by the Justice System Improvement Act, NIJ builds upon the foundation laid by the former National Institute of Law Enforcement and Criminal Justice, the first major Federal research program on crime and justice.

Carrying out the mandate assigned by Congress, the National Institute of Justice:

- Sponsors research and development to improve and strengthen the criminal justice system and related civil justice aspects, with a balanced program of basic and applied research.
- Evaluates the effectiveness of federally-funded justice improvement programs and identifies programs that promise to be successful if continued or repeated.
- Tests and demonstrates new and improved approaches to strengthen the justice system, and recommends actions that can be taken by Federal, State, and local governments and private organizations and individuals to achieve this goal.
- Disseminates information from research, demonstrations, evaluations, and special programs to Federal, State and local governments; and serves as an international clearinghouse of justice information.
- Trains criminal justice practitioners in research and evaluation findings, and assists the research community through fellowships and special seminars.

Authority for administering the Institute and awarding grants, contracts, and cooperative agreements is vested in the NIJ Director, in consultation with a 21-member Advisory Board. The Board recommends policies and priorities and advises on peer review procedures.

NIJ is authorized to support research and experimentation dealing with the full range of criminal justice issues and related civil justice matters. A portion of its resources goes to support work on these long-range priorities:

- Correlates of crime and determinants of criminal behavior
- Violent crime and the violent offender
- Community crime prevention
- Career criminals and habitual offenders
- Utilization and deployment of police resources
- Pretrial process: consistency, fairness, and delay reduction
- Sentencing
- Rehabilitation
- Deterrence
- Performance standards and measures for criminal justice

Reports of NIJ-sponsored studies are reviewed by Institute officials and staff. The views of outside experts knowledgeable in the report's subject area are also obtained. Publication indicates that the report meets the Institute's standards of quality, but it signifies no endorsement of conclusions or recommendations.

James L. Underwood
Acting Director

POLICE RESEARCH CATALOG

Police-Related Research Supported by The National Institute of Justice

1969-1981

Compiled by

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February 1982

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ABOUT THE CATALOG

WHAT'S IN THE CATALOG

This Police Research Catalog is a compilation of police-related research supported by the National Institute of Justice (NIJ)* from 1969 to fall 1981.

The Catalog traces the evolution of police research at NIJ--from the initial years of very limited budget and staff resources to the more comprehensive program that NIJ began to build in the mid-seventies. Since 1976, much of the effort by NIJ's Police Division has focused on the long-range priority of utilization and deployment of police resources. In addition, management issues along with forensics and technology development have been the subject of funded research.

While shifts in research emphasis have occurred during the past 12 years, the overriding goal of the NIJ police research program has been to develop an organized body of knowledge about police matters. With this broader understanding, policymakers, administrators, and researchers are better equipped to chart long-term improvements in the effectiveness, efficiency, and equity of police services.

The results of these research efforts are documented in a final written product or products, required by NIJ as fulfillment of the grant. Sometimes these final products are findings published in limited quantity by the grantee; sometimes they are reports published by NIJ through the Government Printing Office (GPO). In many cases, the NIJ-sponsored research has led to additional books, monographs, journal articles, as well as conference and workshop presentations. Several educational texts also have been published for use by police officers, administrators, and students of police science incorporating the findings of the NIJ-sponsored research. We term such publications "derivative work." Both the final products and derivative works stemming from the NIJ grants are listed in this catalog. This information makes the Police Research Catalog a useful reference for those engaged in police work and for those who expect to initiate research projects.

*Formerly the National Institute of Law Enforcement and Criminal Justice (NILECJ); renamed by the Justice System Improvement Act (JSIA) of 1979.

HOW TO USE THE CATALOG

The Catalog is arranged by year and by grant number in chronological order. Thus, the reader can see the progression of research efforts--some studies leading logically to further investigation, others exploring new avenues. Where projects are continued under another grant, the number for the continuation is indicated. Each grant is identified by number, title of project, grantee's organization (including a project director), date of award, and status of the project. The project summary, final product(s), and derivative works, if any, follow.

A separate section of NIJ police contracts follows the chronological listing of research grants.

- Indexes

Three indexes provide quick references to grants: a subject index, project title index, and grantee index. If a particular area of research is of interest, the subject index, with 38 descriptive terms, provides references to titles by page numbers. The grant number is also a guide since it indicates the year the research was awarded. (Years are thumb indexed in the Catalog.) The grantee and project title also are referenced to grant numbers and page numbers.

- The Appendix

The appendix lists bibliographies on police-related topics produced for NIJ by NCJRS.

- Symbols and Abbreviations Used in the Catalog

NIJ	National Institute of Justice
NCJRS	National Criminal Justice Reference Service
n.d.	No publication date given
GPO	Printed by the Government Printing Office
Microfiche	Document is available on microfiche from NCJRS
NCJ 19956	Indicates NCJRS accession number in NCJRS data base
(28) pp.	Parentheses indicate pages were hand counted

HOW THE CATALOG WAS COMPILED

Descriptions of the police research came from several sources. The NIJ files supplied many of the summaries, and a search of the Grant Program File (PROFILE) System gave valuable information for the most recent studies. The PROFILE data base, maintained by the Office of Justice Assistance Research and Statistics (OJARS), contains information on all JSIA-agency awards. An earlier NCJRS publication, Grants, Contracts and Interagency Agreements, 1969-74 (NCJ 19975) was used to search out the 1969, 1970, and 1971 research grants. NIJ staff and NCJRS reference specialists and librarians reviewed the research descriptions.

The extensive derivative collection was assembled by searching the NCJRS document data base using grant numbers and key words in the project title. It is not intended to be comprehensive. Drafts, book reviews, and articles or books accepted for publication but not yet published are not included as derivative

work. In addition, some derivative information came in response to a letter to grantees from NIJ requesting a comprehensive list of both primary and derivative works that resulted from NIJ-sponsored research.

HOW TO OBTAIN THESE DOCUMENTS

Many documents in this Catalog are part of the National Criminal Justice Reference Service (NCJRS) collection and are available to the public in the NCJRS Reading Room on weekdays between 9 a.m. and 5 p.m. The NCJRS Reading Room is located at 1600 Research Blvd., Rockville, Maryland.

For researchers who prefer to obtain copies, a sales source is identified whenever possible. For periodical literature, the following are potential sources of reprints: Original Article Tear Sheet Service (Institute for Scientific Information, 325 Chestnut Street, Philadelphia, PA 19106) and University Microfilms International (Article Reprint Department, 300 North Zeeb Road, Ann Arbor, MI 48106).

Documents From GPO

The letters "GPO" after a citation indicate that copies may be purchased from the Government Printing Office. Inquiries about availability and cost should include stock number and title and be addressed to:

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NCJRS Microfiche Program
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Researchers may be interested in the forthcoming Police Catalog SLIM (Selected Library in Microfiche). After NCJRS has completed filming the project reports in this Catalog, all the filmed reports will be available as a complete set. This Catalog will serve as a useful index to the SLIM package. Avail-

ability of the Police Catalog SLIM will be announced in the NCJRS Selective Notification of Information (SNI) bimonthly bulletin. You can register to receive the SNI by writing to:

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1969

Grant No: 69-NI-99-003
Project: ILLINOIS POLICE COMMUNICATIONS STUDY, PHASE II
Grantee: Associated Public Safety Communications Officers, Indianapolis, Indiana (I.O. Rhoades)
Award Date: January 1, 1969.
Status: Completed

Project Summary: The focus of this project was the design of optimum communications systems for the three-state area around Chicago to include Milwaukee, Wisconsin, and Gary, Indiana.

Final Product(s):

Illinois Police Communications Study, Phase II, Summary, I.O. Rhoades, 1969, 22 pp. NCJ 02892.

Illinois Police Communications Study, Phase II, Vol. I: Allocation of Spectrum to Police Radio Services, I.O. Rhoades, 1969, 142 pp. NCJ 02894.

Illinois Police Communications Study, Phase II, Vol II: Initial Development of Implementation Plans, 1969, 312 pp. NCJ 02893.

Illinois - Police Communications Study - Phase II, 1969, 129 pp. NCJ 14167.

Grant No: 69-NI-99-007
Project: REPORTS, RECORDS AND COMMUNICATIONS IN THE BOSTON POLICE DEPARTMENT
Grantee: Boston Police Department, Boston, Massachusetts (S.D. Rosenberg)
Award Date: July 1, 1969.
Status: Completed

Project Summary: This grant continued the research effort begun under two earlier OLEA grants (OLEA-153 and OLEA-346) which studied communication and information systems. During this phase, data were provided on police field operations in order to (a) improve utilization of personnel and resources; (b) collect machine-useable data on operations; and (c) produce analyses of department operations on a regular basis. The final product was an operating model of a computerized command and control communications system.

Final Product(s):

Boston Police Department - Reports, Records and Communications, S.D. Rosenberg, 1969, 84 pp. NCJ 00669.

Reports, Records and Communications in the Boston (MA) Police Department - Final Report, Boston Police Department, n.d., 42 pp. NCJ 69915, Microfiche.

Grant No: 69-NI-99-009
Project: STUDY OF THE POLICE VEHICLE
Grantee: Wayne State University, Detroit, Michigan (H.G. Ludwig)
Award Date: June 30, 1969.
Status: Completed

Project Summary: This research presented recommendations and guidelines to police administrators so that they might select a better vehicle for patrol purposes and operate it at an overall lower cost. Included in the report is a discussion of the design parameters of the vehicle and information on how to procure and replace police vehicles. Recommendations are given on the maintenance of the vehicle and on the operation of the vehicle maintenance facilities.

Final Product(s):

Study of the Police Patrol Vehicle, H.G. Ludwig, 1970, 320 pp. NCJ 00095.

Grant No: 69-NI-99-010
Project: A LONGITUDINAL STUDY OF PSYCHOLOGICAL TEST PREDICTORS AND ASSESSMENT OF PATROLMAN FIELD PERFORMANCE
Grantee: Chicago Police Department, Chicago, Illinois (J. Furcon)
Award Date: June 30, 1969.
Status: Completed

Project Summary: This research represents the follow-up to a 19-month basic study conducted in 1966-68 which developed testing procedures and established standards for selecting patrolmen. Predictions made from the original measures of job performance and test results (in 1966) have been correlated with succeeding assessments of job performance made in 1967, 1968 and 1969. The results support the findings of the original study, and indicate that psychological tests can be used to predict police job performance as measured by a variety of criteria, and are useful for assisting in the selection process. That racial group differences can be used to predict performance, and that patrolman "types" (groups of officers having similar styles in performing their jobs) persist over long periods of time were also shown.

Final Product(s):

Longitudinal Study of Psychological Test Predictors and Assessments of Patrolman Field Performance, E.C. Furcon and R.G. Froemel, 1971, 200 pp. NCJ 08731.

Psychological Assessment of Patrolman Qualifications in Relation to Field Performance, Melany E. Baehr, Ernest C. Froemel, and John E. Furcon, 1968, 246 pp. NCJ 04321.

Some Questions and Answers About Police Officer Selection Testing, John E. Furcon, 1972, 54 pp. NCJ 11534.

Grant No: 69-NI-99-017
Project: FORENSIC APPLICATIONS OF SPARK SOURCE MASS SPECTROMETRY ANALYSIS
Grantee: University of Virginia, Charlottesville, Virginia (W.W. Harrison)
Award Date: April 22, 1969.
Status: Completed

Project Summary: This grant was awarded for the comparison and evaluation of the relative advantages in criminalistics of spark-source mass spectrometry analysis and neutron activation analysis. (Continued in 71-NI-AX-019-6).

Derivative Work:

Harrison, W.W. and W.H. Wadlin. "Effects of Spark Position in Spark Source Mass Spectrometry." Analytical Chemistry 42(12):1399-1402, 1970. NCJ 00415.

Grant No: 69-NI-99-020
Project: NEUTRON ACTIVATION ANALYSIS
Grantee: Atomic Energy Commission, Washington, D.C. (R. Butenhoff)
Award Date: June 15, 1969.
Status: Completed

Project Summary: This study generated six reports describing the uses of neutron activation analysis as an aid in forensic analysis. Specific items described included paper, paint, gunshot residue, and bullet-lead. The research describes the result of a number of additional exploratory effects encompassing a broad spectrum of materials which include hair, automobile grease, plastics, rubber, soil, ink, wood, a number of drugs, etc. Numerous reference sources are cited for further investigation.

Final Product(s):

Applications of Neutron Activation Analysis in Scientific Crime Investigation - Comprehensive Report Covering the Six-Year Period May 1, 1962 - May 31, 1968, G.H. Anderson and S.C. Bellanca, 1970, 261 pp. NCJ 01909.

Application of Neutron Activation Analysis in Scientific Crime Investigation - Final Report, F.M. Graber and R.P. Hackleman, 1970, 109 pp. NCJ 01907, Microfiche.

Forensic Neutron Activation Analysis of Bullet-Lead Specimens, V.P. Grunn and H.R. Lukens, 1970, 48 pp. NCJ 01906.

Forensic Neutron Activation Analysis of Paint, H.R. Lukens and H. Schlesinger, 1970, 261 pp. NCJ 01904.

Forensic Neutron Activation Analysis of Paper, H.R. Lukens and D.M. Sittle, 1970, 50 pp. NCJ 01908.

Special Report on Gunshot Residues Measured by Neutron Activation Analysis, H.R. Lukens and H. Schlesinger, 1970, 144 pp. NCJ 01905.

Grant No: 69-NI-99-027
Project: METHODOLOGICAL STUDIES IN CRIME CLASSIFICATION
Grantee: University of Michigan, Ann Arbor, Michigan (A.J. Reiss)
Award Date: June 30, 1969.
Status: Completed

Project Summary: Using data from the Detroit, Michigan Police Department, this study involved an intensive investigation of the crime of larceny, focusing on its accuracy as a crime statistic. Since larceny as a Part I crime in the Uniform Crime Reporting system depends upon the valuation of the goods taken, particular attention was given to the sensitivity of larceny-theft statistics to the effects of inflation on prices. An assessment of the criterion of valuation of property reported stolen is given. The research recommends the kind of larceny and larceny-victimization statistics that are appropriate for operating law enforcement agencies.

Final Product(s):

Methodological Studies in Crime Classification - Final Report, A.J. Reiss, 1972, 115 pp. NCJ 08889.

Grant No: 69-NI-99-028
Project: POLICE MANAGEMENT OF CONFLICTS AMONG PEOPLE
Grantee: City University of New York, New York, New York (M. Bard)
Award Date: June 13, 1969.
Status: Completed

Project Summary: Following the successful completion of OLEA-157, "Training Police as Specialists in Family Crisis Intervention," this research contrasted three methods of training for the full range of conflict resolution problems which confront the police. The project attempted to train officers in a manner

which would affect their services to citizens. A further analysis of data was developed in 70-NI-068.

Final Product(s):

Police Management of Conflicts Among People - Final Report, J.W. Zacker, E. Rutter, 1970, 83 pp. NCJ 32471, Microfiche.

Training Police as Specialists in Family Crises Intervention, M. Bard, 1970, 113 pp. GPO 027-000-064, NCJ 00050, Microfiche.

Grant No: 69-NI-99-030
Project: CITY POLICE
Grantee: University of Pennsylvania, Philadelphia, Pennsylvania
(J.B. Rubinstein)
Award Date: June 30, 1969.
Status: Completed

Project Summary: City Police is based on extensive research by the grantee in the Philadelphia Police Department. He attended the police academy and was a working member of a patrol unit for a year. Through this day-by-day interaction with the police he was able to establish a rapport with his fellow officers and uncover facts about police work that he could not have learned otherwise. The research is divided into three sections. The first describes the department's organization and shows the effects of organizational constraints on the policeman's field performance. The second part deals with the policeman's attempts to understand the various people he must police and the processes by which he categorizes them into "legitimate" and "illegitimate." In the final section, the author deals with the grey area "between law and order" describing the problems of "little crimes" and corrupt temptations facing policemen and some of the unique aspects of a policeman's life.

Final Product(s):

City Police, J.B. Rubinstein, New York: Farrar, Straws, and Groux. 1973, 479 pp. NCJ 10319.

Grant No: 69-NI-99-032
Project: PHYSICAL EVIDENCE UTILIZATION IN THE ADMINISTRATION OF CRIMINAL JUSTICE
Grantee: University of California, Berkeley, California (B. Parker)
Award Date: June 15, 1969.
Status: Completed

Project Summary: This research program established a frequency profile of the potential input of physical evidence from schemes of crimes in a forensic science laboratory. This profile of evidence types represents a maximum input against which actual operations and investigation alternatives may be viewed.

It yielded for selected crime categories a measure of all pertinent physical characteristics at locations of criminal activity. Of the approximately 750 cases investigated, 88 percent were judged to have physical evidence at the crime scenes. On the average each crime site yielded evidence in three distinct categories (e.g., fingerprints, toolmarks, glass, blood, etc.). Data describe the frequency of 23 evidence types with 7 crime categories. Only a negligible quantity of evidence from Part I Crimes was actually submitted to a laboratory for scientific analysis.

Final Product(s):

Physical Evidence Utilization in the Administration of Criminal Justice, B. Parker and J. Peterson, 1972, 55 pp. NCJ 02261, Microfiche.

Grant No: 69-NI-99-037
Project: REGIONAL LAW ENFORCEMENT ASSISTANCE IN RURAL AREAS: A PRELIMINARY STUDY
Grantee: The Justice Foundation, Fayetteville, Arkansas (J.W. Gallman)
Award Date: July 1, 1969.
Status: Completed

Project Summary: The overall objective was the development of a model regional law enforcement assistance agency capable of effectively reducing the incidence of crime and delinquency in rural areas. The study examines the problems of cooperation among law enforcement and criminal justice agencies and their activities from the local through the county to the State level in a rural area.

Final Product(s):

Regional Law Enforcement Assistance in Rural Areas - A Preliminary Study, J.W. Gallman, R. Guzman, T.J. McDonough, H.S. Napier, 1970, 261 pp. NCJ 70112, Microfiche.

Grant No: 69-NI-99-042
Project: ADAPTATION OF SCOTLAND YARD MICRO-ELECTROPHORESIS IDENTIFICATION OF SUBGROUPS IN DRIED BLOOD
Grantee: City University of New York, New York, New York (A. Joseph)
Award Date: June 30, 1969.
Status: Completed

Project Summary: A laboratory manual on a new Scotland Yard Laboratory technique for increasing the identifiable human blood subgroups from about 10 to several thousand was developed under this grant. Workshops to transfer this technology to the U.S. were conducted.

Final Product(s):

Adaptation of Scotland Yard Micro-Electrophoresis Identification of Subgroups in Dried Blood, A. Joseph, 1970, 75 pp. NCJ 34367, Microfiche.

Grant No: 69-NI-99-044
Project: A SYSTEMS ANALYSIS OF CRIMINALISTICS OPERATIONS
Grantee: Midwest Research Institute, Kansas City, Missouri (W.R. Benson)
Award Date: June 30, 1969.
Status: Completed

Project Summary: This work performed a systems analysis of the role that criminalistics plays in the criminal justice system and defined factors that influence size and location of criminalistics operations. Lack of uniform data made it difficult to make recommendations but several conclusions are presented regarding the improvement of criminalistics operations.

Final Product(s):

Systems Analysis of Criminalistics Operations - Final Report, W.R. Benson and J.E. Stacy, 1970, 216 pp. NCJ 10372.

Grant No: 69-NI-99-045
Project: CONFERENCES ON COMPUTER APPLICATIONS IN LAW ENFORCEMENT AND POLICE RESPONSE TIME
Grantee: Franklin Institute Research Laboratories, Philadelphia, Pennsylvania (H. Koppel)
Award Date: June 30, 1969.
Status: Completed

Project Summary: Two conferences to define unmet user requirements in the areas of computer applications in law enforcement and police response time were supported under this grant, with the intention of identifying and designing research in these areas. Representatives of local police agencies and scientists attended.

Final Product(s):

Computer Applications in Law Enforcement-User Requirements (From Conferences on Critical Topics in Law Enforcement), H. Koppel, 1969, 119 pp. NCJ 02310.

Grant No: 69-NI-99-046
Project: CRIME CONTROL TEAM
Grantee: Police Department, City of Syracuse, New York (T. Sardino)
Award Date: June 30, 1969.
Status: Completed

Project Summary: The effect of tactical team policing on crime was evaluated in this project. A small group of police officers, lead by a sergeant, was assigned exclusive responsibility for all crimes in a police beat. Rather than organizing the department along specialist lines (i.e., patrol, traffic, vice, etc.), each member of the crime control team was considered a generalist in crime-related activities. Each member of the squad was expected to assume responsibility and authority for an incident in which he was involved, rather than involving various branches of the department. This program appeared to have a positive effect on reducing crime. It was found that members of the team policing units were familiar with and responsive to the crime-related problems of their beat.

Final Product(s):

Assessment of the Risk of Using Emergency Driving Procedures for Responding Police Units, J. Elliott and T. Sardino, 1971, 6 pp. NCJ 02509.

Crime Control Team - Final Report, J. Elliott, 1970, 235 pp. NCJ 01337.

Some Data on Crime as it Relates to Police Strategy and Tactics, J. Elliott and T. Sardino, 1971, 7 pp. NCJ 00352.

The Time Required to Commit a Crime, J. Elliot and T. Sardino, 1971, 8 pp. NCJ 00399, Microfiche.

Derivative Work:

Elliott, J.F. "Concept of an Offensively Deployed Police Force." Police, September/October 1968, pp. 65-71. NCJ 00337.

Elliott, J.F. "Crime Control Team and the Police - How Effective Are They." Event 9(3):16-23, Spring 1979. NCJ 00394.

Elliott, J.F. "Project Management Approach to Controlling Urban Crime." Aerospace Management 4(2):59-64, 1969. NCJ 06955.

Elliott, J.F., J.F. O'Connor. "Detector and Interceptor Capability of One- and Two-Man Patrol Units." Syracuse, NY:General Electric Company (reprint from Police Nov/Dec 1969) 1969, NCJ 00396.

Elliott, J.F., T.J. Sardino. Crime Control Team - An Experiment in Municipal Police Department Management and Operations Springfield, Ill:Charles C. Thomas, 1971, 121 pp. NCJ 35673.

Elliott, J.F., T.J. Sardino. "Experimental Evaluation of the Crime Control Team Organization Concept." Police, May/June 1970, pp. 44-53. NCJ 00397.

Sardino, T.J. "Crime Control Team." FBI Law Enforcement Bulletin 40(5):16-19, 30, May 1971. NCJ 05023.

Grant No: 69-NI-99-051
Project: FLIGHT CHARACTERISTICS AND STAIN PATTERNS OF HUMAN BLOOD
Grantee: Herbert L. MacDonell and Associates, Corning, New York (H.L. MacDonell)
Award Date: July 1969.
Status: Completed

Project Summary: The major objective of the study was the application of the principles of ballistics to a set of blood stain patterns in a crime scene in order to aid in the reconstruction of the conditions at the moment of bloodshed. An enormous set of empirical results are presented from which information as to the several ways blood formed its patterns can be obtained.

Final Product(s):

Flight Characteristics and Stain Patterns of Human Blood, H.L. MacDonell, 1971, 77 pp. NCJ 01747, Microfiche.

Grant No: 69-NI-99-053
Project: IDENTIFICATION OF SPECIFIC FACTORS IN DRIED BLOOD
Grantee: Pittsburgh-Allegheny County Crime Laboratory, Pittsburgh, Pennsylvania (C.A. Melnemej)
Award Date: July 1, 1969.
Status: Completed

Project Summary: The purpose of this project was to introduce the English electrophoresis blood analysis technique to American criminalists.

Final Product(s):

No report available

Grant No: 69-NI-99-054
Project: CASES AND MATERIALS ON MICHIGAN CRIMINAL LAW FOR THE POLICE
Grantee: Wayne State University, Detroit, Michigan (D.A. Calkins)
Award Date: June 20, 1969.
Status: Completed

Project Summary: This project developed a two-volume, 1,473-page text consisting of cases and materials on Michigan criminal law for police administration courses in substantive criminal law at the college and university level. The material covers the traditional offenses against the person and property that are ordinarily covered in a beginning course in criminal law. Chapters are concluded by interrogatories designed to direct the attention of the students to important issues.

Final Product(s):

No report available

Grant No: 69-NI-99-056
Project: A PROGRAM TO TRAIN POLICE OFFICERS TO INTERVENE IN FAMILY DISTURBANCES
Grantee: Human Interaction Research Institute, Los Angeles, California (E.M. Glaser)
Award Date: July 15, 1969.
Status: Completed

Project Summary: This project adapted the New York "Family Crisis" program to a small middle-class community (Refer to NI 69-028). In addition to the apprehension of criminals and crime prevention training, police officers were trained to handle offenses against the family and children such as incorrigible juveniles, family disturbances, and disturbing the peace calls.

Final Product(s):

Program to Train Police Officers to Intervene in Family Disturbances - Final Report, E.M. Glaser and H.L. Ross, 1970, 72 pp. NCJ 01509.

Grant No: 69-NI-99-063
Project: SOCIALIZATION OF POLICE RECRUITS
Grantee: University of Minnesota, Minneapolis, Minnesota (S.O. White)
Award Date: June 15, 1969.
Status: Completed

Project Summary: This research explored the nature and effects of the socialization process on police recruits. The factors which contribute to the socialization of the recruits are: (1) initial on-the-street experiences; (2) the prevailing attitudes of veteran officers in the recruit's precinct; and (3) the type of clientele the recruits deal with.

Final Product(s):

No report available

Grant No: 69-NI-99-066
Project: PROJECT CALCOP: A COMPUTER ASSISTED INSTRUCTION PROGRAM FOR POLICE
Grantee: Orange Coast Junior College District, Costa Mesa, California and Los Angeles Police Department, Los Angeles, California (R.W. Brightman)
Award Date: July 1, 1969.
Status: Completed

Project Summary: Project CALCOP: (1) developed a computer-assisted instruction (CAI) program for teaching police students rules of evidence and search and seizure principles; and (2) compared CAI procedure for teaching these areas of police knowledge with the more traditional academic approach used in the academy. Matched groups of subjects spent comparable amounts of time learning search and seizure principles and rules of evidence under a CAI program, an independent study guide at Golden West College, and by conventional classroom instruction at the Los Angeles Police Academy.

Final Product(s):

Computer Assisted Instruction Program for Police Training, R.W. Brightman, 1971, 58 pp. GPO 027-000-0081-9, NCJ 01891, Microfiche.

Project CALCOP: Final Report, December 1970, R.W. Brightman, 1970, 175 pp. NCJ 69880, Microfiche.

Grant No: 69-NI-99-068
Project: EVALUATION OF A POLICE-SCHOOL LIAISON PROGRAM
Grantee: Department of State Police, East Lansing, Michigan (C.L. Weinman)
Award Date: September 1, 1969.
Status: Completed

Project Summary: Using questionnaires and interviews, this grant presents an evaluation of an ongoing police-school liaison program in Michigan in which young police officers were assigned singly to schools to act as public relations and resource persons. Findings of the study indicate the importance and potential of using police officers in this fashion.

Final Product(s):

Evaluation of a Police-School Liaison Program, D.H. Bouma and D.G. Williams, 1970, 72 pp. NCJ 00113, Microfiche.

Grant No: 69-NI-99-071
Project: CREDIBILITY OF POLICEMEN AS MESSAGE SOURCES
Grantee: Ohio University, Athens, Ohio (R.N. Bostrom)
Award Date: September 1, 1969.
Status: Completed

Project Summary: This study investigated the general problem of police "credibility," specifically, focusing on the credibility ratings given to policemen by high school and college students. A technique established for previous research performed by Michigan State University for the Office of Civil Defense was used to assess credibility. The project points out ways in which policemen can enhance their credibility and thus improve communications with the public.

Final Product(s):

The Credibility of Policemen as Message Sources, R.N. Bostrom and T.H. Hurt, n.d., 32 pp. NCJ 10012.

Grant No: 69-NI-99-075
Project: POLICE-COMMUNITY RELATIONS EVALUATION PROJECT
Grantee: Portland State University, Portland, Oregon (L.P. Brown)
Award Date: June 15, 1969.
Status: Completed

Project Summary: Criteria for the evaluation of police-community relations programs were developed in this project. The report includes: (1) a preliminary study of current police-community relations programs being implemented throughout the nation; (2) observations on the effectiveness of methods used; and (3) guidelines for the establishment of police-community programs.

Final Product(s):

Portland State University - Police-Community Relations Evaluation Project - Final Report, L.P. Brown, n.d., 230 pp. NCJ 00590.

Grant No: 69-NI-99-076
Project: ATTITUDES AND ATTITUDE CHANGE IN LAW ENFORCEMENT OFFICERS
Grantee: Middle Tennessee State University, Murfreesboro, Tennessee (J.F. Lee)
Award Date: September 1, 1969.
Status: Completed

Project Summary: This research presented the results of the testing of law enforcement officers at different levels of experience and training. Evidence is presented that a change in some aspects of attitude, such as dogmatism, can take place over a period of instruction. Other inconclusive evidence suggests that such change may be more likely for persons who are relatively conservative.

Final Product(s):

Attitudes and Attitude Change in Law Enforcement Officers, J.F. Lee, 1970, 54 pp. NCJ 17018, Microfiche.

Grant No: 69-NI-99-077
Project: MANPOWER, THE ADMINISTRATION OF CRIMINAL JUSTICE AND NEW RECRUITMENT TARGET GROUPS
Grantee: Pennsylvania State University, University Park, Pennsylvania (C.L. Newman)
Award Date: September 1, 1969.
Status: Completed

Project Summary: Under this grant, a central information source was developed on the number, types, and caliber of personnel involved in the administration of criminal justice in Pennsylvania. The project used the computer information and converted into action a program to provide employment opportunities and training strategies in the various elements of the criminal justice system for target populations previously underrepresented.

Final Product(s):

Manpower, The Administration of Criminal Justice, and New Recruitment Target Groups, Final Report - Phase 1, C.L. Newman and B.R. Price, 1970, 160 pp. NCJ 00022, Microfiche.

Grant No: 69-NI-99-080
Project: AN ECONOMIC ANALYSIS OF THE DISTRIBUTION OF POLICE PATROL FORCES
Grantee: Miami University, Oxford, Ohio (J.F. Giertz)
Award Date: July 1, 1969.
Status: Completed

Project Summary: This study investigated the distribution of police patrol units among the various districts of a city. Section I analyzes the existing distribution of police and index crimes in the City of Chicago, the relationship between the number of police and the amount of crime in a given district, and the relevant demographic and economic characteristics of the area. Section II describes various alternative distribution plans in several precincts in Los Angeles which might be used by police administrators, and their implications. A decision model is established utilizing the hypothesized preventive effect on crime of police patrol to analyze the various plans. A measure of the cost benefits of police protection is presented.

Final Product(s):

An Economic Analysis of the Distribution of Police Patrol Forces, J.F. Giertz, 1970, 122 pp. NCJ 00594.

Grant No: 69-NI-99-084
Project: POLICE LABOR MOVEMENT: PROBLEMS AND PERSPECTIVES
Grantee: Tucson Police Department, Tucson, Arizona (J.H. Burpo)
Award Date: July 1, 1969.
Status: Completed

Project Summary: The nature of police labor organizations, the problems created by them, and the potential solutions to these problems were the foci of this study. Provided are: (1) a framework within which police administrators, labor leaders and city officials can achieve their competing interests with minimum disruption to the police purpose and public safety; (2) a description of the effect that police labor organizations have on the judicial and police department disciplinary process; (3) information on police organizations to be used as research references; and (4) statistics which can be converted to conclusions and trends.

Final Product(s):

The Police Labor Movement: Problems and Perspectives, J.H. Burpo, 1971, 272 pp. NCJ 08725.

Grant No: 69-NI-99-085
Project: AN EXPERIMENT IN USING LEGAL SKILLS TO REDUCE POLICE-COMMUNITY HOSTILITY
Grantee: Lawyer's Committee for Civil Rights Under Law, Washington, D.C. (L.A. Rodgers)
Award Date: June 15, 1969.
Status: Completed

Project Summary: Under this grant, an attorney was placed in the Oakland Police Department for 3 days each week as a Staff Assistant to the Chief of Police. This legal advisor, whose primary responsibility was to help reduce community hostility toward the police, assisted in several efforts including clarification of the police role in landlord-tenant disputes and implementation of a citation release program for persons accused of misdemeanors.

Final Product(s):

Experiment in Using Legal Skills to Reduce Police-Community Hostility, L.A. Rodgers, n.d., 66 pp. NCJ 00053, Microfiche.

Grant No: 69-NI-99-088
Project: THE EFFICIENCY OF LAW ENFORCEMENT RESOURCES
Grantee: College of St. Thomas, St. Paul, Minnesota (D.L. Sjoquist)
Award Date: July 1, 1969.
Status: Completed

Project Summary: This study statistically estimated the efficiency of law enforcement in reducing the number of major crimes against property. Using cross-sectional data for the United States, statistical estimates of the parameters of an economic model of criminal behavior are ascertained. This study is based on the hypothesis that the criminal is a rotational being and the model is based on a combination of a production function for law enforcement activities and a supply function for the crimes against property. The author considers the possibility that crimes such as robbery, larceny, burglary, and auto theft may be explainable, at least in part, by economic theory. The hypothesis tested is whether, under some conditions, criminals can be treated as rational economic beings, assumed to behave in the same economic manner as any other individual making an economic decision under risk. The approach utilized follows the analysis of behavior under risk.

Final Product(s):

Property Crime as an Economic Phenomenon, D.L. Sjoquist, 1970, 120 pp. NCJ 03416.

Derivative Literature:

Sjoquist, D.L. "Property Crime and Economic Behavior - Some Empirical Results." American Economic Review 63(3):439-446, 1973. NCJ 11299.

Grant No: 69-NI-99-090
Project: DISCIPLINING THE OFFICER: A MODEL FOR POLICE DEPARTMENTS
Grantee: University of Washington, Seattle, Washington (W.H. Rodgers, Jr.)
Award Date: June 5, 1969.
Status: Completed

Project Summary: This project structured a "model" set of internal disciplinary procedures to be used by police departments in cases of civilian complaint against a member of a police force. The project provides for stronger internal police mechanisms to handle complaints as an alternative to outside measures, such as civilian reviews. In addition, the procedures are intended to strengthen police morale, minimize arbitrariness, and provide the police department with legal assistance.

Final Product(s):

Disciplining the Officer - Model Order for Police Departments, W.H. Rodgers, 1970, 34 pp. NCJ 00054, Microfiche.

Grant No: 69-NI-99-091
Project: A MODEL FOR POLICE - SOCIAL SERVICE COOPERATION
Grantee: Wilberforce University, Wilberforce, Ohio (S.B. Silverman)
Award Date: July 1, 1969.
Status: Completed

Project Summary: The goals of the project were to: (1) increase the use of social welfare techniques by law enforcement personnel; (2) bridge the gap between law enforcement and social service systems; and (3) promote social stability in the community. In order to accomplish these goals, a social service consultant in community resources was made available to police. The derived benefits are discussed in the resulting report.

Final Product(s):

Model for Police - Social Service Cooperation Project Acorn - Final Report, S.B. Silverman, 1970, 10 pp. NCJ 01389.

Grant No: 69-NI-99-094
Project: POLICE AND THE URBAN MINORITIES OF PHOENIX
Grantee: Arizona State University, Tempe, Arizona (D.L. McGraw)
Award Date: July 1, 1969.
Status: Completed

Project Summary: Project "PUMP" was an interdisciplinary approach designed to channel the resources of Arizona State University and those of metropolitan Phoenix into the solution of problems arising from strained relations between disadvantaged minorities and law enforcement agencies. The report presents a long-term research, programming, and planning structure to assist in solving complex social, legal, political, and economic questions which face law enforcement agencies. It focuses also on the identification of factors which operate to prevent crime.

Final Product(s):

No report available

Grant No: 69-NI-99-098
Project: IMPLICATIONS OF HUMAN CAUSAL FACTORS IN SERIOUS TRAFFIC ACCIDENTS FOR IMPROVED PUBLIC EDUCATION AND ACCIDENT PREVENTION PROGRAMS
Grantee: University of Georgia, Athens, Georgia (J.P. Morgan)
Award Date: July 15, 1971.
Status: Completed

Project Summary: The primary purpose of this study was the identification of human causal factors directly or indirectly leading to traffic accidents and the formulation of hypotheses regarding the nature of this causality. Persons involved in near fatal accidents and the surviving occupants of vehicles involved in fatal accidents were interviewed in depth. It was found that drivers involved in serious accidents, so far as they could be described, are not clearly different from the nonaccident driver.

Final Product(s):

No report available

1970

Grant No: 70-NI-002
Project: THIRD NATIONAL SYMPOSIUM OF LAW ENFORCEMENT SCIENCE AND TECHNOLOGY
Grantee: ITT Research Institute, Annapolis, Maryland (S.J. Cohn)
Award Date: July 14, 1969.
Status: Completed

Project Summary: This symposium was designed to stimulate the application of science and technology to the criminal justice system by: (1) providing a professional forum for the exchange of ideas and information; (2) identifying the relevant capability of science and technology and (3) fostering communication with the criminal justice and scientific and engineering communities. Major topical areas reviewed at the symposium included: Police Management, Corrections, Courts and Prosecution, the Criminal Justice System, Corrections Research, Communications Technology, Courts and Prosecution Research, Information Systems, Investigative Support Technology, Criminalistics, and Security Systems. The final report presents a detailed summary of the various sessions of the symposium.

Final Product(s):

National Symposium on Law Enforcement Science and Technology, S.J. Cohn and W.B. McMaiton, 1970, 586 pp. NCJ 00224.

National Symposium on Law Enforcement Science and Technology 3D - Final Report, W.B. McMaiton, 1970, 100 pp. NCJ 00567.

Grant No: 70-NI-003
Project: URBAN VEHICLE MONITORING: TECHNOLOGY, ECONOMICS AND PUBLIC POLICY
Grantee: Department of Housing and Urban Development, Washington, D.C. (R. Thomas)
Award Date: July 3, 1969.
Status: Completed

Project Summary: The Institute transferred funds to the Office of Urban Transportation within HUD to support part of a contract award of \$350,000 to the Institute for Public Administration to study operational and technical requirements for an automatic vehicle locator system which could serve all the public

and private agencies in a single metropolitan area. The first phase of the project laid the basis for demonstrating a public urban locator service (PULSE). PULSE is a system which can automatically report the location of numerous moving objects to a central monitor. The system can be used to enhance the operations of several urban functions including police, ambulance, fire control and goods movement, etc. The second phase of the project consisted of a series of experiments for determining the technical design criteria for an optimal public urban locator service (PULSE). The HUD Contract Number is H-1030.

Final Product(s):

Urban Vehicle Monitoring - Technology, Economics and Public Policy, Vol. 1 - Summary Report, R. Thomas, 1972, 37 pp. NCJ 09573.

Urban Vehicle Monitoring - Technology, Economics and Public Policy, Vol. 2 - Technical Analysis and Appendices, Final Report, R. Thomas, 1970, 196 pp. NCJ 09574.

Urban Vehicle Monitoring - Technology, Economics and Public Policy, Vol. 3 - Economic and Institutional Analysis and Appendices, Final Report, R. Thomas, 1972, 237 pp. NCJ 09575.

Grant No: 70-NI-004
Project: VOICEPRINT IDENTIFICATION RESEARCH
Grantee: Michigan Department of State Police, East Lansing, Michigan (W. Van Stratt)
Award Date: November 10, 1969.
Status: Completed

Project Summary: A 2-year voice identification experiment employing visual inspection of spectrograms was performed to check Lawrence Kersta's (founder of Voiceprint Laboratories) claims and to test models which included variables related to forensic tasks. A total of 34,996 experimental identification trials were performed by 29 trained examiners. Each task involved up to 40 known voices, in various conditions: closed and open trials, contemporary and noncontemporary spectrograms, 9 or 6 clue words spoken in isolation, in a fixed context, and in random context, etc. Examiners based their decision solely on spectrogram inspection. Experiment results confirm Kersta's original findings, which involved only closed trials of contemporary spectrograms and clue words spoken in isolation. These experimental tasks, correlated with forensic models (open trials, fixed and random contexts, noncontemporary spectrograms), yielded an approximate error rate of 6 percent of false identifications and 12 percent of false eliminations.

Final Product(s):

Summary Review of Procedures for Speaker Recognition, Stanford Research Institute, 1970, 20 pp. NCJ 01520.

Voice Identification Research, W. Van Stratt, 1972, 147 pp. GPO 027-000-00144-1, NCJ 00481, Microfiche.

Grant No: 70-NI-006
Project: THE UTILIZATION OF HELICOPTERS FOR POLICE AIR MOBILITY
Grantee: Cornell Aeronautical Laboratory, Buffalo, New York (S.P. Zobel)
Award Date: November 13, 1969.
Status: Completed

Project Summary: This was the first phase of a study which surveyed the use of helicopters by law enforcement agencies. Information was gathered from several major police forces and from existing literature. Work continued in 71-NI-AX-038-G.

Final Product(s):

STOL Evaluation, Phase I - Final Report, S.P. Zobel, 1970, 165 pp. NCJ 34096, Microfiche.

Derivative Work:

Kidder, A.R. and S.P. Zobel. "Experiment Compares Use of Helicopters and STOLS." Research Trends 20:50-53, Autumn 1971. NCJ 34095, Microfiche.

Grant No: 70-NI-007
Project: SOCIAL CONFLICT AND COLLECTIVE VIOLENCE IN AMERICAN INSTITUTIONS OF HIGHER EDUCATION
Grantee: Center for Research in Social Systems, The American Institutes for Research, Kensington, Maryland (C.F. Rosenthal)
Award Date: April 1, 1970.
Status: Completed

Project Summary: The primary objective of this project was to compile a report in nontechnical language for use by law enforcement and criminal justice personnel to understand how students become involved in collective violence. Volume I presents a historical study of collective student conflict and violence in America and a framework for analyzing the internal and external dynamics of current student disorders in America. In the historical segment, collective student behavior is categorized into four classes: faddism, deprivation, normative action, and ideological. Each type of demonstration is seen as evolving through four phases: premobilization, mobilization, demonstration, and postdemonstration. Countermeasures appropriate to specific internal factors, e.g., police, public, media, etc., are suggested for each phase. Volume II

consists of an annotated, cross-cultural bibliography of student social values and political behavior. The U.S. bibliographic sources are dated from the beginnings of American higher education and are divided into historical and contemporary studies. The foreign citations, which date from after World War II, are organized by countries within geographic regions.

Final Product(s):

Social Conflict and Collective Violence in American Institutions of Higher Learning, Vol. I - Dynamics of Student Protest, C.F. Rosenthal, 1971, 143 pp. NCJ 08811.

Social Conflict and Collective Violence in American Institutions of Higher Learning, Vol. II - Bibliography, C.F. Rosenthal, 1971, 496 pp. NCJ 07712.

Grant No: 70-NI-009
Project: AN EVALUATION OF THE EFFECT OF A LARGE-SCALE BURGLAR ALARM SYSTEM FOR A MUNICIPAL POLICE DEPARTMENT
Grantee: Cedar Rapids Police Department, Cedar Rapids, Iowa (G. Matias)
Award Date: September 1, 1969.
Status: Completed

Project Summary: This two-phase project provided information as to the design, installation, operation, and evaluation of a police-notification burglary/robbery alarm system in Cedar Rapids, Iowa. Inexpensive commercial alarm equipment was purchased and installed during Phase I in accordance with carefully prepared competitive specifications. Alarm sensors were located in commercial premises which had a high crime rate. Control sites were also selected. All alarm sites were connected by leased telephone line to the police headquarters. Data regarding the effectiveness and impact of the system were gathered and analyzed. A comparative analysis was also made using data from the control sites.

Final Product(s):

Installation, Test and Evaluation of a Large Scale Burglar Alarm System for a Municipal Police Department - Interim Report, G. Matias, 1971, 59 pp. NCJ 01748, Microfiche.

Grant No: 70-NI-013
Project: FEASIBILITY STUDY OF THE EXCLUSIONARY RULE
Grantee: University of Chicago Law School, Chicago, Illinois (D.H. Oaks)
Award Date: December 26, 1969.
Status: Completed

Project Summary: This study examined the effect of the exclusionary rule on the criminal justice system, particularly on law enforcement personnel. The area of concentration is limited to search and seizure since this is the most frequent

cause of the application of the exclusionary rule. The author: (1) examines the history and justifications of the exclusionary rule; (2) reviews what Supreme Court Justices and prominent scholars have said about the deterrent effects of the exclusionary rule; (3) presents empirical evidence on the effects of the exclusionary rule on police search and seizures; (4) discusses possible techniques and areas for further research; (5) discusses limitations upon the deterrent effectiveness of the exclusionary rule in certain circumstances; and (6) reviews various asserted negative effects of the exclusionary rule.

Derivative Work:

D.H. Oaks. "Studying the Exclusionary Rule in Search and Seizure." University of Chicago Law Review 37(4):665-757, Summer 1970. NCJ 00203, Microfiche.

Grant No: 70-NI-017
Project: INTRODUCING A LAW ENFORCEMENT CURRICULUM AT A STATE UNIVERSITY
Grantee: Governor's Public Safety Committee, Boston, Massachusetts
(C. Tenney)
Award Date: June 9, 1969.
Status: Completed

Project Summary: This was a continuation of the effort to assist colleges and universities in planning a curriculum in law enforcement and criminal justice, using as an example the University of Maryland's program. In 1954, a proposal for a degree program in law enforcement was instituted at the University of Maryland. Critics insisted that law enforcement personnel did not need formal, advanced education. The proposal outlines in detail where to locate the school in the present program and delineates the total curriculum and the special curriculum and catalog descriptions. Criteria and qualifications for instructors are divided into categories to determine hiring priorities and job titles.

Final Product(s):

Introducing a Law Enforcement Curriculum at a State University, P.P. Lejins, 1970, 47 pp. GPO 027-000-0065-7, NCJ 00187, Microfiche.

Grant No: 70-NI-029
Project: CONTROL OF ROBBERY
Grantee: University of California at Davis, Davis, California (F. Feeny)
Award Date: May 8, 1970.
Status: Completed

Project Summary: This project consisted of a series of detailed substudies on the following: police response to robbery; a statistical analysis of the robbery system as a whole; the geography of robbery (determining in detail the location of robberies and how location relates to possible methods for control); offenders and robbery (including ideas held by offenders for prevention and control); street robbery and other specific kinds of robbery; an evaluation of

improved police practices and other innovations in robbery control; the role of the courts, corrections, and other criminal justice agencies; and the impact of legal decisions upon robbery.

Final Product(s):

The Prevention and Control of Robbery, Vol. 1 - The Robbery Setting, The Actors and Some Issues, F. Feeny and A. Weir, 1973, 381 pp. NCJ 11764.

The Prevention and Control of Robbery, Vol. 2 - Handling Robbery Arrestees: Some Issues of Fact and Policy, A. Carlson and F. Feeny, 1973, 143 pp. NCJ 11765.

The Prevention and Control of Robbery, Vol. 3 - The Geography of Robbery, S. Wilcox, 1973, 109 pp. NCJ 11766.

The Prevention and Control of Robbery, Vol. 4 - Response of the Police and Other Agencies to Robbery, F. Feeny and A. Weir, eds., 1973, 185 pp. NCJ 11767.

The Prevention and Control of Robbery, Vol. 5 - The History and Concept of Robbery, C. Van Court, 1973, 208 pp. NCJ 11768.

The Prevention and Control of Robbery, A Summary, F. Feeny and A. Weir, 1974, 87 pp. NCJ 29688, Microfiche.

Grant No: 70-NI-031
Project: INVESTIGATING DETECTION FEASIBILITY OF HEROIN DETECTION
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen Proving Ground, Maryland
Award Date: June 15, 1970.
Status: Completed

Project Summary: This project evaluated the various methods of heroin detection including mass spectrometry and plasma chromatography. Related work was done under 70-NI-99-0032. See 71-NI-AX-001-1A for continuation work.

Final Product(s):

No report available

Grant No: 70-NI-032
Project: DEVELOPMENT OF BIOLUMINESCENT NARCOTICS DETECTOR
Grantee: New York City Police Department, New York, New York (J.M. McSloy)
Award Date: March 16, 1970.
Status: Completed

Project Summary: This project evaluated the utility of bioluminescence in heroin detection. Related work was done under 70-NI-99-0031.

Final Product(s):

A Feasibility Study for the Development of a Bioluminescent Narcotic Detector - Final Report, J.M. McSloy, 1971, 74 pp. NCJ 32150, Microfiche.

Grant No: 70-NI-033
Project: THE NEIGHBORHOOD OFFICES OF THE LAW ENFORCEMENT DIVISION OF THE DEPARTMENT OF CONSUMER AFFAIRS
Grantee: City of New York, New York (P.G. Schrag)
Award Date: May 27, 1970.
Status: Completed

Project Summary: The primary objective of this project was the development of techniques for combatting consumer fraud on the local level in New York City. This report documents the activities of two neighborhood offices of the Law Enforcement Division of the Department of Consumer Affairs. These offices, established on an experimental basis, sought to reach into local communities to make it easier for consumers to register their complaints. The report compares the two offices in a number of respects including type of complaints filed, type of firm involved in the complaint, and how the complaint was filed.

Final Product(s):

The Neighborhood Offices of the Law Enforcement Division of the Department of Consumer Affairs, D. Caplovitz and S. Cohen, 1972, 65 pp. NCJ 48893, Microfiche.

Grant No: 70-NI-034
Project: POLICE TRANSCEIVER DEVELOPMENT
Grantee: U.S. Air Force Electronics Systems Division, Bedford, Massachusetts (P. Watts)
Award Date: April 26, 1971.
Status: Completed

Project Summary: The project covered the design, development, fabrication, and testing of six prototype transceiver radios to serve police needs.

Final Product(s):

A Personal VHF/UHF Transceiver, R.N. Cullis, 1973, 161 pp. NCJ 12440, Microfiche.

Grant No: 70-NI-035
Project: PROGRAM DEFINITION OF A BROAD PROGRAM TO DETERMINE THE BENEFITS OF TELECOMMUNICATION TECHNOLOGY FOR URBAN FUNCTIONING AND FORM
Grantee: Department of Housing and Urban Development, Washington, D.C. (A.R. Siegel)
Award Date: March 9, 1970.
Status: Completed

Project Summary: This study: (1) examines the urban need for telecommunication systems; (2) recommends action programs to be carried out by various Federal Government agencies based upon the results of this examination; and (3) highlights areas of specific need where solutions based upon communications technology appear particularly suitable.

Final Product(s):

Communication Technology for Urban Improvement, A.R. Siegel, 1971, 238 pp. NCJ 00824.

Grant No: 70-NI-038
Project: STUDY OF THE INFLUENCE OF FATIGUE, STRESS AND PERSONALITY ON POLICE OPERATIONS
Grantee: City of Miami, Department of Police, Miami, Florida (A. Klimkowski and K. Bergstrom)
Award Date: June 29, 1970.
Status: Completed

Project Summary: Miami police officers are the subjects of this research which examines and identifies factors which determine variations in police patrol behavior. The factors include fatigue, stress, citizen behavior, type of call, neighborhood, shift, day of week, number of citizens, and psychological variables (measured by the MMPI). Certain situations are determined as stressful, and recommendations on improving recruit training programs and methods of deployment of manpower are made in an attempt to alleviate such stress and its undesirable results.

Final Product(s):

Determinants of Police Behavior, D. Cruse and J. Rubin, 1972, 18 pp. GPO 027-000-00215-3, NCJ 10828, Microfiche.

Grant No: 70-NI-041
Project: A METHOD FOR CONSTRUCTING CAREER PATHS TO MEET REQUIREMENTS OF TOMORROW'S POLICE FORCE
Grantee: American Institutes for Research, Washington, D.C.
(D.I. Sheppard)
Award Date: May 1, 1970.
Status: Completed

Project Summary: This project consisted of two parts. Part I developed and demonstrated a method for building improvements into the career program of a police department so that career paths will incorporate requirements for change to meet future needs in police work. The grantee examined personnel records, conducted 215 interviews, and administered a questionnaire to over 1,100 St. Louis Metropolitan Police Department police officers to obtain information on personnel flow, career histories, personal career expectations, the existing career development program, and career paths through the Department. Using this information, programs for reorganizing career fields were developed. Part II offers guidelines for examining the career structure existing within a police agency and for developing a career path model. Specific career path recommendations are made. Although many of the guidelines relate particularly to the St. Louis Police Department, they are designed for broad applicability.

Final Product(s):

Guidelines for Examining and Constructing Police Career Path Programs, D.I. Sheppard and A.S. Glickman, 1971, 47 pp. NCJ 03024.

A Method for Constructing Career Paths to Meet Requirements of Tomorrow's Police, D.I. Sheppard and A.S. Glickman, 1971, 140 pp. NCJ 05827.

Grant No: 70-NI-042
Project: PHYSIOLOGICAL FITNESS STANDARDS FOR LAW ENFORCEMENT OFFICERS
Grantee: Los Angeles County Sheriff's Department, Los Angeles, California
(P.J. Pitchess)
Award Date: June 15, 1970.
Status: Completed

Project Summary: In conjunction with the Los Angeles County Department of Personnel Occupational Health Service, this research study attempted to produce physical and psychophysiological standards for law enforcement officers. The research focused on the problem of manpower loss due to poor physical condition or to retirement caused by physical disability necessitating the development of procedures for detection and prediction of these conditions in police personnel. This report describes the experimental design to obtain test measures and performance measures on 500 law enforcement officers. This project was continued by the Los Angeles County Sheriff's Department under 72-DF-090005, an LEAA discretionary grant.

Final Product(s):

Physiological Fitness Standards Research Project - Interim Report, J.M. Grencik and H.H. Snibbe, 1971, 130 pp. NCJ 07873.

Grant No: 70-NI-043
Project: POLICE WEAPONS SYSTEMS EVALUATION PROGRAM
Grantee: The Police Weapons Center, International Association of Chiefs of Police, Gaithersburg, Maryland (T.S. Crockett)
Award Date: June 1, 1970.
Status: Completed

Project Summary: Data were collected, evaluated, and disseminated on available police weapons systems, protective masks, submachine guns, water cannons, body armor, bomb transport vehicles and aerosol projectors. Data from press reports of police casualties were also tabulated.

Final Product(s):

The Police Weapons Center - Final Report, T.S. Crockett, 1971, 200 pp. NCJ 09639.

Grant No: 70-NI-044
Project: THE IMPACT OF POLICE UNIONS ON LAW ENFORCEMENT
Grantee: Northwestern University, Evanston, Illinois (H.A. Juris)
Award Date: June 1, 1970.
Status: Completed

Project Summary: In-depth field surveys were conducted in major cities where police unions are active, in cities where they have been successful, and in cities where they are forbidden. These surveys yielded data relating to methods of dealing with police unions and to the effects of these unions upon professionalization of police personnel, general police personnel, and general policies and operations of police departments. The product is a text designed to help police departments throughout the country deal with matters related to and resulting from police union activity.

Final Product(s):

The Impact of Police Unions, H.A. Juris and P. Feuille, 1972, 404 pp. NCJ 09381.

The Impact of Police Unions, A Summary Report, H.A. Juris and P. Feuille, 1974, 26 pp. GPO 027-000-00248-0, NCJ 13283, Microfiche.

Police Unionism: Power and Impact in Public Sector Bargaining, H.A. Juris and P. Feuille, 106 pp. NCJ 01358.

Grant No: 70-NI-047 (71-AX-016, 71-AX-0037, 72-NI-99-0001, 73-NI-99-0001-A, 73-NI-99-A021 continued through 1981)
Project: LAW ENFORCEMENT STANDARDS LABORATORY/TECHNOLOGY ASSESSMENT PROGRAM
Grantee: National Bureau of Standards, Washington, D.C. (L. Eliason)
Award Date: April 27, 1970.
Status: Ongoing

Project Summary: These funds were provided for the establishment and maintenance of a Law Enforcement Standards Laboratory which will define voluntary minimum performance standards for equipment; develop standard procedures for measuring equipment performance; design a program for inspecting and certifying commercial testing laboratories; develop user guidelines; develop design standards so that equipment or components from different manufacturers can be used together; and recommend to NIJ the promulgation of equipment standards. The Institute will then publish and distribute the standards to law enforcement agencies, manufacturers, and other interested persons.

Final Product(s):

The following Standards, Reports, and Guidelines are grouped by function: Communications Equipment, Investigative Aids and Forensic Science, Protective Equipment and Weapons, Security, Vehicles and Vehicle Accessories, and Miscellaneous.

COMMUNICATIONS EQUIPMENT

Automatic Vehicle Location Techniques for Law Enforcement Use, LESP-RPT-0205.00, September 1974, NCJ 14189, Microfiche.

Batteries for Personal/Portable Transceivers, NIJ-STD-0211.00, June 1975. NCJ 25994, Microfiche.

Batteries Used with Law Enforcement Communications Equipment: Chargers and Charging Techniques, LESP-RPT-0202.00, June 1973. GPO Stock No. 27-000-00216-1. 80 cents. NCJ 10692, Microfiche.

Batteries Used with Law Enforcement Communications Equipment: Comparison and Performance Characteristics, LESP-RPT-0201.00, May 1972. GPO Stock No. 027-000-00156-4. 50 cents. NCJ 07031, Microfiche.

Body-Worn FM Transmitters, NIJ-STD-0214.00, December 1978. GPO Stock No. 027-000-00711-2. \$1.20. NCJ 47378, Microfiche.

Communication Systems Guide, NBS Special Publication 480-12, January 1979. GPO Stock No. 003-003-02012-5. \$1.60. NCJ 55335, Microfiche.

Continuous Signal-Controlled Selective Signaling, NIJ-STD-0219.00, August 1980. GPO Stock No. 027-000-01041-5. \$1.75. NCJ 71097, Microfiche.

Control Heads and Cable Assemblies for Mobile FM Transceivers, NIJ-STD-0216.00 n.d. NCJ 77184.

Digital Data Transmission Tests on Voice Channels, NBS Special Publication 480-19, July 1977. GPO Stock No. 003-003-01773-6. \$2.10. NCJ 42845.

Electronic Eavesdropping Techniques and Equipment, LESP-RPT-0207.00, September 1975. GPO Stock No. 027-000-00362-1. \$1.15. NCJ 30008, Microfiche.

Fixed and Base Station Antennas, NIJ-STD-0204.01, April 1981. NCJ 77186.

Fixed and Base Station FM Receivers, NIJ-STD-0206.00, September 1975. GPO Stock No. 027-000-00358-3. 55 cents. NCJ 29643, Microfiche.

Fixed and Base Station FM Transmitters, NIJ-STD-0201.00, September 1974. GPO Stock No. 027-000-00283-8. 65 cents. NCJ 15243, Microfiche.

FM Repeater Systems, NIJ-STD-0213.00, November 1977. GPO Stock No. 027-000-00568-3. \$1.00. NCJ 41975, Microfiche.

A Guide to Voice Scramblers for Law Enforcement Agencies, NBS Special Publication 480-8, December 1976. GPO Stock No. 003-003-01735-3. \$1.05. NCJ 40134, Microfiche.

Microphone Cable Assemblies for Mobile FM Transceivers, NIJ-STD-0217.00, August 1980. GPO Stock No. 027-000-01031-8. NCJ 71099, Microfiche.

Mobile Antennas, NIJ-STD-0205.00, May 1974. GPO Stock No. 027-000-00250-1. 55 cents. NCJ 13319, Microfiche.

Mobile FM Receivers, NIJ-STD-0207.00, June 1975. GPO Stock No. 027-000-00344-3. 65 cents. NCJ 25996, Microfiche.

Mobile FM Transmitters, NIJ-STD-0202.00, October 1974. GPO Stock No. 027-000-00287-1. 70 cents. NCJ 15244, Microfiche.

Personal FM Transceivers, NIJ-STD-0209.00, December 1978. GPO Stock No. 027-000-00728-0. \$1.50. NCJ 47380, Microfiche.

Police Communications Equipment Survey of 1976, NBS Special Publication 480-13, August 1977. GPO Stock No. 003-003-01818-0. \$2.00. NCJ 42844, Microfiche.

Repeaters for Law Enforcement Communication Systems, LESP-RPT-0206.00, October 1974. GPO Stock No. 027-000-00288-9. 65 cents. NCJ 14521, Microfiche.

RF Coaxial Cable Assemblies for Mobile Transceivers, NIJ-STD-0212.00, September 1975. GPO Stock No. 027-000-00357-5. 35 cents. NCJ 28496, Microfiche.

Technical Terms and Definitions Used with Law Enforcement Communications Equipment (Radio Antennas, Transmitters, and Receivers), LESP-RPT-0203.00, June 1973. GPO Stock No. 027-000-00214-5. \$1.55. NCJ 10591.

Voice Privacy Equipment for Law Enforcement Communication Systems, LESP-RPT-0201.00, May 1974. GPO Stock No. 027-000-00260-9. 65 cents. NCJ 13386, Microfiche.

INVESTIGATIVE AIDS AND FORENSIC SCIENCE

Auto Headlight Glass: Visible Features of Forensic Utility, NBS Special Publication 480-17, February 1978. GPO Stock No. 003-003-01857-1. \$3.00. NCJ 46176, Microfiche.

Chemical Spot Test Kits for Preliminary Identification of Drugs of Abuse, NIJ-STD-0604.00, December 1978. GPO 027-000-00730-9. \$1.10.

Color Test Reagents/Kits for Preliminary Identification of Drugs of Abuse, NIJ-STD-0605.00, July 1981. GPO Stock No. 027-000-0116-1. \$2.00. NCJ 77264.

The Hazard of Benzidine to Criminal Justice Personnel, NBS Special Publication 480-21, May 1977. GPO Stock No. 003-003-01777-9. \$1.00. NCJ 35070, Microfiche.

Photographic Terms and Definitions, LESP-RPT-0307.00, October 1975. GPO Stock No. 027-000-00373-7. \$1.10. NCJ 31566, Microfiche.

Reference Collection of (1977) Automotive Paints; \$100 per set.

Reference Collection of (1978) Automotive Paints; \$190 per set.

Refractive Index Glass; A Standard Reference Material of the National Bureau of Standards; \$58 per unit. SRM 1820, September 1974.

Refractive Index Silicone Liquids; A Standard Reference Material of the National Bureau of Standards; \$53 per unit. SRM 1823, February 1976.

Selection and Application Guide to Police Photographic Equipment, NBS Special Publication 480-23, August 1980. GPO Stock No. 003-003-02224-1. \$3.75. NCJ 72213, Microfiche.

Standard Reference Collections of Forensic Science Materials: Status and Needs, LESP-RPT-0601.00, February 1977. GPO Stock No. 027-000-00444-0. \$1.55. NCJ 35833, Microfiche.

A Trace Vapor Generator for Testing Explosives Vapor Detectors, LESP-RPT-0604.00, March 1977. GPO Stock No. 027-000-00453-9. 65 cents. NCJ 36142, Microfiche.

PROTECTIVE EQUIPMENT AND WEAPONS

Ballistic Helmets, NIJ-STD-0106.01, (in press).

Ballistic Resistance of Police Body Armor, NIJ-STD-0101.01, December 1978. GPO Stock No. 027-000-00729-5. \$1.00. NCJ 47495, Microfiche.

Ballistic Resistant Protective Materials, NIJ-STD-0108.00, (in press).

Crash Helmets, NIJ-STD-0105.00, June 1975. GPO Stock No. 027-000-00347-8. 35 cents. NCJ 27242, Microfiche.

An Evaluation of Police Handgun Ammunition: Summary Report, LESP-RPT-0101.01, October 1975. GPO Stock No. 027-000-00374-5. 45 cents. NCJ 34301, Microfiche.

Hearing Protectors for Use on Firing Ranges, NIJ-STD-0102.00, March 1973. GPO Stock No. 027-000-00182-3. 40 cents. NCJ 09959, Microfiche.

Metallic Handcuffs, NIJ-STD-0307.00, October 1974. GPO Stock No. 027-000-00292. 65 cents. NCJ 15436, Microfiche.

Portable Ballistic Shields, NIJ-STD-0103.00, May 1974. GPO Stock No. 027-000-00253-6. 55 cents. NCJ 13316, Microfiche.

The Reduction of Airborne Lead in Indoor Firing Ranges by Using Modified Ammunition, NBS Special Publication 480-26, November 1977. GPO Stock No. 003-003-01821-0. \$1.20. NCJ 44509, Microfiche.

Riot Helmets and Face Shields, NIJ-STD 0104.01, August 1980. GPO Stock No. 027-000-01026-1. \$1.50. NCJ 71102, Microfiche.

Selection Guide to Hearing Protectors for Use on Firing Ranges, NIJ-GUIDE-0101.00, April 1976. GPO Stock No. 027-000-00427-0. 75 cents. NCJ 35069, Microfiche.

A Study of Handcuff Improvements, NBSIR 80-1989, April 1980.

SECURITY

Active Night Vision Devices, NIJ-STD-0305.00, June 1975. GPO Stock No. 027-000-00346-0. 95 cents. NCJ 27241, Microfiche.

Catalog of Security Equipment, NBS Special Publication 480-35, November 1978. GPO Stock No. 003-003-01970-4. \$2.30. NCJ 56874.

Directory of Security Consultants, LESP-RPT-0309.00, October 1975. GPO Stock No. 027-000-00372-9. \$1.25. NCJ 31327, Microfiche.

Hand-Held Metal Detectors for Use in Weapons Detection, NIJ-STD-0602.00, October 1974. GPO Stock No. 027-000-00285-4. 65 cents. NCJ 15246, Microfiche.

Image Quality Criterion for Identification of Faces, LESP-RPT-0303.00, May 1974. GPO Stock No. 027-000-00261-7. 65 cents. NCJ 13389, Microfiche.

Image Quality of Monochrome Television Cameras, NBS Special Publication 480-25, October 1977. GPO Stock No. 003-003-01855-4. 90 cents. NCJ 43677, Microfiche.

Magnetic Switches for Burglar Alarm Systems, NIJ-STD-0301.00, March 1974. GPO Stock No. 027-000-00238-2. 65 cents. NCJ 12060, Microfiche.

Mechanically Actuated Switches for Burglar Alarm Systems, NIJ-STD-0302.00, May 1974. GPO Stock No. 027-000-00258-7. 55 cents. NCJ 13384, Microfiche.

Mercury Switches for Burglar Alarm Systems, NIJ-STD-0303.00, May 1974. GPO Stock No. 027-000-00254-4. 55 cents. NCJ 12584, Microfiche.

Metallic Window Foil for Intrusion Alarm Systems, NIJ-STD-0319.00, August 1980. GPO Stock No. 027-000-00904-2. \$1.25. NCJ 71098, Microfiche.

Passive, First Generation Night Vision Devices, NIJ-STD-0304.00, June 1975. GPO Stock No. 027-000-00325-7. 80 cents. NCJ 19487, Microfiche.

Physical Security of Door Assemblies and Components, NIJ-STD-0306.00, May 1976. GPO Stock No. 027-000-00402-4. 85 cents. NCJ 32269, Microfiche.

Physical Security of Sliding Glass Door Units, NIJ-STD-0318.00, August 1980. GPO Stock No. 027-000-01039-3. \$1.50. NCJ 71100.

Physical Security of Window Units, NIJ-STD-0316.00, August 1980. GPO Stock No. 027-000-01018-1. \$1.50. NCJ 71101, Microfiche.

Selection and Application Guide to Fixed Surveillance Cameras, NIJ-GUIDE-0301.00, December 1974. GPO Stock No. 027-000-00281-1. 85 cents. NCJ 15135, Microfiche.

Selection and Application Guide to Commercial Intrusion Alarm Systems, NBS Special Publication 480-14, August 1979. GPO Stock No. 003-003-02098-2. \$4.00. NCJ 61272, Microfiche.

A Simple Test for Evaluating the Spectral Responsivity of Monochrome Television Cameras, LESP-RPT-0310.00, February 1977. GPO Stock No. 027-000-00445-8. 80 cents. NCJ 36143, Microfiche.

Simplified Procedures for Evaluating the Image Quality of Objective Lenses for Night Vision Devices, LESP-RPT-0304.00, May 1974. GPO Stock No. 027-000-00255-2. 60 cents. NCJ 13388, Microfiche.

Sound Sensing Units for Intrusion Alarm Systems, NIJ-STD-0308.00, March 1977. GPO Stock No. 027-000-00452-1. 45 cents. NCJ 36986, Microfiche.

Survey of Image Quality Criteria for Passive Night Vision Devices, LESP-RPT-0301.00, June 1974. GPO Stock No. 027-000-00259-5. 60 cents. NCJ 13383, Microfiche.

Terms and Definitions for Door and Window Security, NBS Special Publication 480-22, May 1977. GPO Stock No. 003-003-01774-4. \$1.00 NCJ 41910, Microfiche.

Terms and Definitions for Intrusion Alarm Systems, LESP-RPT-0305.00, October 1974. GPO Stock No. 027-000-00290-1. 65 cents. NCJ 17412, Microfiche.

Tests of Hand-Held Metal Weapon Detectors, LESP-RPT-0603.00, March 1977. GPO Stock No. 027-000-00454-7. 35 cents. NCJ 36144, Microfiche.

Test Method for the Evaluation of Metallic Window Foil for Intrusion Alarm Systems, NBS Special Publication 480-34, August 1978. GPO Stock No. 003-003-01961-5. 90 cents. NCJ 50336, Microfiche.

Test Procedures for Night Vision Devices, LESP-RPT-0302.00. GPO Stock No. 027-000-00257-0. 65 cents. NCJ 13390, Microfiche.

Walk-Through Metal Detectors for Use in Weapons Detection, NIJ-STD-0601.00, June 1974. GPO Stock No. 027-000-00256-1. 65 cents. NCJ 13387, Microfiche.

X-Ray Systems for Bomb Disarmament, NIJ-STD-0603.00, June 1975. GPO Stock No. 027-000-00343-5. 45 cents. NCJ 25995, Microfiche.

VEHICLES AND VEHICLE ACCESSORIES

The Development and Testing of a Highly Directional Dual-Mode Electronic Siren, NBS Special Publication 480-28, February 1978. GPO Stock No. 003-003-01925-9. \$2.20. NCJ 48084, Microfiche.

Emergency Vehicle Sirens, NIJ-STD-0501.00, April 1981. GPO Stock No. (to be issued). NCJ 77185.

Emergency Vehicle Warning Devices: Interim Review of the State-of-the-Art Relative to Performance Standards, LESP-RPT-0501.00, April 1981. NCJ 00598, Microfiche.

Emergency Vehicle Warning Systems, NBS Special Publication 480-37, May 1981. GPO Stock No. 003-003-02323-0. \$2.25. NCJ 77185.

Emergency Vehicle Warning Lights: State of the Art, NBS Special Publication 480-16, September 1978. GPO Stock No. 003-003-01901-1. \$3.50. NCJ 52417, Microfiche.

Guide to High Speed Patrol Car Tires, NBS Special Publication 480-33, July 1979. GPO Stock No. 003-003-02073-7. \$2.00 NCJ 59729, Microfiche.

Investigation of the High Speed Hazards of Steel Belted Radial Tires on Police Patrol Cars - Final Report, 1975, NBS Special Publication 480-18, June 1977. GPO Stock No. 003-003-01786-8. \$1.60. NCJ 40887.

The Police Patrol Car: Economic Efficiency in Acquisition, Operation, and Disposition, NBS Special Publication 480-15, April 1978. GPO Stock No. 003-003-01837-6. \$3.00. NCJ 41026, Microfiche.

The Police Patrol Car: State of the Art, LESP-RPT-0403.00, July 1975. GPO Stock No. 027-000-00345-1. \$1.10. NCJ 27785, Microfiche.

Some Psychophysical Tests of the Conspicuity of Emergency Vehicle Warning Lights, NBS Special Publication 480-36, July 1979. GPO Stock No. 003-003-02085-1. \$1.50. NCJ 59302, Microfiche.

Summary Report on Emergency Vehicle Sirens, LESP-RPT-0502.00, September 1974. GPO Stock No. 027-000-00289-7. \$1.10. NCJ 15245, Microfiche.

Terms and Definitions for Police Patrol Cars, LESP-RPT-0401.00, May 1974. GPO Stock No. 027-000-00252-8. 60 cents. NCJ 13385, Microfiche.

MISCELLANEOUS

Anthropometry of Law Enforcement Officers, LESP-RPT-0701.00, December 1976. GPO Stock No. 027-000-00458-0. \$3.30. NCJ 35835, Microfiche.

Directory of Law Enforcement and Criminal Justice Associations and Research Centers, NBS Special Publication 480-20, March 1978. GPO Stock No. 003-003-01904-6. \$2.20. NCJ 10671.

Juror Response to Prerecorded Videotape Trials, NBS Special Publication 480-30, June 1979. GPO Stock No. 003-003-02071-1. \$1.75. NCJ 59301, Microfiche.

LEAA Police Equipment Survey of 1972, Volume I: The Need for Standards-- Priorities for Police Equipment, NBS Special Publication 480-1, June 1977. GPO Stock No. 003-003-01722-1. \$3.00. NCJ 13985, Microfiche.

LEAA Police Equipment Survey of 1972, Volume II: Communications Equipment and Supplies, NBS Special Publication 480-2, June 1977. GPO Stock No. 003-003-01723-0. \$2.75. NCJ 15152, Microfiche.

LEAA Police Equipment Survey of 1972, Volume III: Sirens and Emergency Warning Lights, NBS Special Publication 480-3, June 1977. GPO Stock No. 003-003-01744-2. \$2.50. NCJ 15247, Microfiche.

LEAA Police Equipment Survey of 1972, Volume IV: Alarms, Security Equipment, Surveillance Equipment, NBS Special Publication 480-4, June 1977. GPO Stock No. 003-003-01745-1. \$2.75. NCJ 15211, Microfiche.

LEAA Police Equipment Survey of 1972, Volume V: Handguns and Handgun Ammunition, NBS Special Publication 480-5, June 1977. GPO Stock No. 003-003-01747-7. \$2.20. NCJ 15210, Microfiche.

LEAA Police Equipment Survey of 1972, Volume VI: Body Armor and Confiscated Weapons, NBS Special Publication 480-6, June 1977. GPO Stock No. 003-003-01748-5. \$2.20. NCJ 15154, Microfiche.

LEAA Police Equipment Survey of 1972, Volume VII: Patrol Cars, NBS Special Publication 480-7, June 1977. GPO Stock No. 003-003-01766-3. \$2.40. NCJ 13986, Microfiche.

Life Cycle Costing Techniques Applicable to Law Enforcement Facilities, LESP-RPT-0801.00, October 1974. GPO Stock No. 027-000-00284-6. 70 cents. NCJ 13987, Microfiche.

Literature Search: Law Enforcement Facilities--Planning, Design, Construction, NBS Technical Note 859, November 1975. NCJ 43145, Microfiche.

Survey of Clothing Requirements for Uniformed Law Enforcement Officers, NBS Special Publication 480-29, April 1978. GPO Stock No. 003-003-01919-4. \$1.10. NCJ 46758, Microfiche.

Transfer of Monochrome Video Information from Magnetic Tape to Motion Picture Film for Archival Storage, NBS Special Publication 480-31, May 1978. GPO Stock No. 003-003-01932-1. 90 cents. NCJ 48124, Microfiche.

Grant No: 70-NI-057
Project: PRIVATE AND AUXILIARY PUBLIC POLICE IN THE U.S.
Grantee: Rand Corporation, Santa Monica, California (S. Wildhorn)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This five-volume study describes the nature and extent of the private police industry in the United States, its problems, its present regulation, and how the law affects it. An evaluation is made of the benefits, costs, and risks to society of current private security. Interviews were conducted with executives and employers of private security contractors, in-house organizations, and clients inquiring about organization, structure, operations, personnel, and problems in the industry. Major findings were: (1) the private security industry has about 400,000 employees and a budget of about four billion dollars; (2) most employees are old, have little education, almost no training, are transient, and are paid low wages; (3) government regulation of private police is currently inadequate; and (4) private security forces contribute significantly to many law enforcement tasks shared by the public sector.

Final Product(s):

Current Regulation of Private Police - Regulatory Agency Experience and Views, Vol. 3, J.S. Kakalik and S. Wildhorn, 1972, 188 pp. GPO 027-000-00139-4, NCJ 04255, Microfiche.

The Law and Private Police, Vol. 4, J.S. Kakalik and S. Wildhorn, 1972, 85 pp. GPO 027-000-00140-8, NCJ 07107.

Private Police in the United States, Findings and Recommendations, Vol. 1, J.S. Kakalik and S. Wildhorn, 1972, 109 pp. GPO 027-000-00137-8, NCJ 02743, Microfiche.

The Private Police Industry - Its Nature and Extent, Vol. 2, J.S. Kakalik and S. Wildhorn, 1972, 158 pp. GPO 027-000-00138-6, NCJ 03381, Microfiche.

Special-Purpose Public Police, Vol. 5, J.S. Kakalik and S. Wildhorn, 1972, 47 pp. GPO 027-000-00141-6, NCJ 03380, Microfiche.

Derivative Work:

Kakalik, J.S. and S. Wildhorn, Private Police-Security and Danger. New York: Crane, Russak and Co. Inc. 1971. 523 pp. NCJ 45092.

Grant No: 70-NI-058
Project: THE DEVELOPMENT OF AN OCCUPATIONAL SAFETY PROGRAM FOR MUNICIPAL POLICE
Grantee: National Safety Council, Chicago, Illinois (T.W. Planek)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project focused on reducing injury and damage in municipal police departments, and specified those organizational and administrative practices which would contribute to safety. Recommendations on organization and management functions, planning, training programs, inspection, officer fitness selection, vehicle equipment specifications, and a records system are made and some countermeasures presented. Most of the results obtained are equally applicable to State police departments.

Final Product(s):

Development of an Injury and Damage Reduction Function for Municipal Police - Final Report, T.W. Planek and R.C. Fowler, 1971, 413 pp. NCJ 02752.

Guidelines for Developing an Injury and Damage Reduction Program in Municipal Police Departments - A Manual of Recommended Methods for Managing and Operating an Injury and Damage Reduction Program, T.W. Planek, 1973, 415 pp. GPO 027-000-00177-7, NCJ 09394, Microfiche.

Grant No: 70-NI-059
Project: THE EXAMINATION AND TYPING OF BLOODSTAINS IN THE CRIME LABORATORY
Grantee: John Jay College of Criminal Justice, New York, New York (A. Joseph)
Award Date: May 14, 1970.
Status: Completed

Project Summary: Prior to the development of new technology in England utilizing electrophoresis analysis, it was possible to identify no more than 12 distinct subgroups of dried blood. This new technology has made possible the identification of several thousand distinct subgroups in dried blood thereby improving the probability of individual identification. In August 1970, the grantee conducted a workshop for about 20 criminalists from major crime laboratories throughout the Nation in order to effectively and quickly introduce this technology into the American criminal justice system. A laboratory manual was produced resulting in the widespread use of this technology in U.S. crime laboratories.

Final Product(s):

The Examination and Typing of Bloodstains in the Crime Laboratory, B.J. Culliford, 1971, 270 pp. GPO 027-000-00083-5, NCJ 01986, Microfiche.

Grant No: 70-NI-064
Project: BURGLARY: A STUDY OF ITS CHARACTER, CORRELATES, CORRECTIVES AND CAUSES
Grantee: Human Sciences Research, Inc., McLean, Virginia (H.A. Scarr)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project examines burglary as a behavior system--i.e., offender, victim, nonvictim, outlets, and techniques of control. The research sites included Washington, D.C., Fairfax County, Virginia, and Prince Georges County, Maryland, and involved the analysis of over 10,000 acts of burglary selected from 1967, 1968, and 1969 police records; patterns of victimization; experiences of victims and nonvictims; experiences of offenders and their most relevant associates (the fences); impact of intervention and control techniques on offender careers; and current and potential impact of this knowledge on the behavior and responses of citizens and police personnel. This project emphasizes patterns of offenses. Work is continued by grant no. 72-NI-99-0002-G.

Final Product(s):

Patterns of Burglary, H.A. Scarr, 1972, 76 pp. GPO 027-000-00207-2, NCJ 07072, Microfiche.

Grant No: 70-NI-065 PG-1
Project: AN ANALYSIS OF THE POLICE INVESTIGATION PROCESS
Grantee: Institute for Police Studies, State College, Long Beach, California (G.T. Felkenes)
Award Date: June 1, 1970.
Status: Completed

Project Summary: This analysis provides police administrators with information on the dimensions of their investigation programs, guidelines for development of departmental policies and procedures, and criteria for determining the workloads of detectives, juvenile officers, and field officers.

Final Product(s):

An Analysis of the Police Investigative Process, J.P. Kenney, 1971, 67 pp. NCJ 09507.

Derivative Work:

Belkin, J. and A. Blumstein. Recidivism as a Feedback Process--An Analytical Model and Empirical Validation. Paper presented at 41st ORSA Conference, New Orleans, April 1972. Pittsburgh:Carnegie-Mellon University, 1972. 32 pp. NCJ 09587.

Grant No: 70-NI-065 PG-2
Project: POLICE TACTICS AGAINST ROBBERY
Grantee: Albert M. Bottoms, Consultant, Buzzards Bay, Massachusetts
Award Date: June 1, 1970.
Status: Completed

Project Summary: This study developed and evaluated improved police procedures to combat robbery. The relationship between tactical deployments of patrol resources and ultimate arrest of the offender was examined.

Final Product(s):

Police Tactics Against Robbery, A.M. Bottoms, 1971, 108 pp. NCJ 00964.

Grant No: 70-NI-065 PG-5
Project: EVALUATION OF NIGHT VISION EQUIPMENT FOR LAW ENFORCEMENT APPLICATIONS
Grantee: Newton Police Department, Newton, Massachusetts (W.F. Quinn)
Award Date: August 1, 1970.
Status: Completed

Project Summary: This research presents an assessment of the suitability of six models of night vision devices for law enforcement applications. The devices operate on an electronic light intensification principle: weak light from the subject is gathered by a lens and converted into a light image of much greater intensity. This new image can be viewed directly by the police officer operating the device, or indirectly by a camera, movie camera, or remote television monitor. The equipment, which permits unobtrusive observation even in starlight, was considered to be an aid to police safety and efficiency, especially useful in mobile patrol work and on evidence-gathering surveillance missions.

Final Product(s):

Evaluation of Night-Vision Equipment for Law Enforcement Applications, W.F. Quinn, 1970, 47 pp. NCJ 02562.

Grant No: 70-NI-065 PG-6
Project: AUTOMATED STATUS REPORTING FOR POLICE COMMUNICATIONS
Grantee: Chino Police Department, Chino, California (F.V. Meehan)
Award Date: June 1, 1970.
Status: Completed

Project Summary: This project concentrates on the elimination of the problem of congested radio traffic which delays or interferes with communications of field officers and the dispatcher in the Chino Police Department. An automated status reporting system was developed which provided for the transmission of basic messages digitally. The system aids in the improvement of patrol unit

response time, the reduction of air traffic time, and the improvement of patrol unit operations for controlling crime.

Final Product(s):

Automated Status Reporting for Police Communications - Final Report, F.V. Meehan, 1971, 129 pp. NCJ 02897.

Grant No: 70-NI-065 PG-9
Project: VOICE RECOGNITION USING COLOR-ENCODED VOICEPRINTS
Grantee: Systems Division, Rensselaer Polytechnic Institute, Troy, New York (L.A. Gerhardt)
Award Date: June 1, 1970.
Status: Completed

Project Summary: This research describes the results and conclusions of an experimental study concerned with the generation, use, and evaluation of color-encoded speech spectrograms or "voiceprints." The basic hypothesis of this study is that given the speech spectrograms as a means of identification, an improvement over conventional spectrograms may be obtained using color-encoding. The report describes the electro-optical system used to transform conventional spectrograms to a color-encoded display.

Final Product(s):

Voice Recognition Using Color Encoded Voiceprints, L. Gerhardt, 1971, 67 pp. NCJ 09892.

Grant No: 70-NI-065 PG-10
Project: MARKETING THEORY AND THE FENCING OF STOLEN GOODS
Grantee: College of Business, Colorado State University, Fort Collins, Colorado (T. Roselius)
Award Date: June 15, 1970.
Status: Completed

Project Summary: This project investigates the feasibility of using conventional marketing theory as an operational scheme for the conceptualization of traffic in stolen goods. A basic explanation of economic marketing theory as it is used to predict the distribution of legitimate goods is presented and parallels are drawn between legitimate and illegitimate markets to the conclusion that law enforcement officials can utilize conventional marketing theory in the investigation of the distribution of stolen goods. Information on fences and their operations is provided, as are general comments on the strategies for combating the traffic in stolen goods. (See 74-NI-99-0050 for related work).

Final Product(s):

Marketing Theory and the Fencing of Stolen Goods, T. Roselius and D. Benton, 1971, 101 pp. NCJ 00578.

Grant No: 70-NI-065 PG-12
Project: JOB ATTITUDES OF POLICEMEN
Grantee: Research Foundation, City University of New York, New York, New York, (J. Lefkowitz)
Award Date: July 1, 1970.
Status: Completed

Project Summary: This is an assessment of the job attitudes of the 425 sworn patrolmen and command personnel of the Dayton, Ohio, Police Department. It relates these attitudes to items of personal history data. A basis for comparison with other occupational groups is established. Attitude measures include job satisfaction, job involvement, supervisory attitudes, cynicism, rigidity, attitudes toward blacks, etc.

Final Product(s):

Job Attitudes of Police, J. Lefkowitz, 1971, 170 pp. NCJ 03409.

Grant No: 70-NI-065 PG-13
Project: DEVELOPMENT OF TECHNIQUES FOR THE DETECTION OF AIRBORNE GUNSHOT RESIDUES
Grantee: Department of Nuclear Engineering, Pennsylvania State University, University Park, Pennsylvania (W.A. Jester)
Award Date: September 1, 1970.
Status: Completed

Project Summary: This research represented an initial attempt to develop a technique which would allow investigative officers to tell whether or not a firearm had recently been fired in a room and if so, the time of the firing. The basic approach involved the use of neutron activation analysis to detect gunshot residues.

Final Product(s):

Development of Techniques for the Detection of Airborne Gunshot Residues - Final Report, W.A. Jester, W.B. Renfro, 73 pp. NCJ 09684.

Grant No: 70-NI-065 PG-15
Project: HUMAN MEMORY AND THE IDENTIFICATION PROCESS
Grantee: The Research Foundation of State University of New York, Albany, New York (K.H. Laughery)
Award Date: September 1, 1970.
Status: Completed

Project Summary: This grant supported a research effort on facial identification at the State University of Buffalo and at Cornell Aeronautical Laboratory. This project studied the effect of the following variables on the ability of a subject to identify a target person from among a number of others: (1) the time delay between initial exposure to the target and the beginning of the search series; (2) the similarity between the target and the other pictures in the search series; and (3) cross-racial identification.

Final Product(s):

Human Memory and the Identification Process, K.H. Laughery and P.K. Fessler, 1971, 76 pp. NCJ 08810.

Grant No: 70-NI-065 PG-17
Project: PILOT COMPUTERIZED INFRARED DATA FILE
Grantee: New York State Identification and Intelligence System, Albany, New York (F.G. Madrazo)
Award Date: August 1, 1970.
Status: Completed

Project Summary: The objective of this study was to increase the efficiency and effectiveness with which forensic laboratories handle difficult identification problems involving infrared data. The project called for a pilot operation of a centrally located infrared data file search service. Located at the division of Criminal Justice Services (Albany, N.Y.), the central registry serviced its Criminalistics Research Bureau, the New York State Police Science Laboratory, and the New York Medical Examiners Laboratory. The research indicates that a central registry of science information data enhances the operations of a forensic laboratory. Products of the research include a final report describing the system and containing a Preliminary Laboratory Manual (Appendix A) and a Programmatic Operator's Instructions (Appendix B) for the system.

Final Product(s):

Pilot Computerized Infrared File for Forensic Science Laboratories - An Evaluation Study, F.G. Madrazo, 1972, 136 pp. NCJ 11426.

Grant No: 70-NI-065 PG-18
Project: RESPONSES TO POLICE OFFICERS IN UNIFORM
Grantee: Department of Psychology, John B. Stetson University, Deland,
Florida (R.E. Wiley)
Award Date: June 1, 1970.
Status: Completed

Project Summary: This study examined the relationship between the physical appearance of police officers and the emotional responses of persons coming in contact with the officers. Laboratory experiments were conducted to investigate whether the type of clothing worn by police officers had any measurable variations on the perceptions and attitudes of citizens. The major finding in the study is that it is advisable for officers to use a uniform that can be used to convey civilian impression under certain circumstances and the more traditional police-type impression under other circumstances.

Final Product(s):

Responses to Police Officers in Uniform - A Study of the Effect of the Civilian Blazer in Police Work, R.E. Wiley and C.D. Cochran, 1971, 136 pp. NCJ 02895.

Grant No: 70-NI-065 PG-24
Project: IDENTIFICATION OF MARIJUANA IN BLOOD, URINE, AND SALIVA
Grantee: Campus Research Office, University of California, Berkeley,
California (B.L. Diamond)
Award Date: July 1, 1970.
Status: Completed

Project Summary: The intent of this program was the development of a chemical test for marijuana and hashish. The main result of the research, however, was the extraction, recovery, and assay of a considerable amount of crude cannabinoid substance.

Final Product(s):

No report available

Grant No: 70-NI-068
Project: CONTINUATION AND RESEARCH ANALYSIS OF FAMILY CRISIS AND CONFLICT
RESOLUTION DATA
Grantee: City University of New York, New York, New York (M. Bard)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This was the third phase of a project begun under OLEA grant 157 and 69-NI-99-028. Its purpose was to train police in family crisis intervention. The initial demonstration phase, utilizing a group of New York City police officers, established the feasibility of training police to handle

domestic disturbances effectively. The second phase, involving the entire police complements of two high-rise public housing projects, expanded training to cover broader skills in conflict resolution. The final project allowed completion of the second phase and intensive analysis of data collected during the first two phases.

Final Product(s):

Family Crisis Intervention: From Concept to Implementation, M. Bard, 1974, 18 pp. GPO 027-000-00244, NCJ 13282, Microfiche.

Police Family Crisis Intervention and Conflict, An Action Research Analysis, M. Bard, J. Zacker, 1972, 226 pp. NCJ 07130.

Grant No: 70-NI-070
Project: CITIZEN MOBILIZATION AROUND ISSUES OF CRIME AND LAW ENFORCEMENT
Grantee: Joint Center for Urban Studies, Cambridge, Massachusetts
(G.T Marx)
Award Date: June 8, 1970.
Status: Completed

Project Summary: This project examined existing empirical research and collected data on citizen mobilization on issues of crime, order, and law enforcement. Much of the attention focused on formally organized, non-governmental groups which act as supplements or alternatives to the police. Among issues considered were: when and how communities mobilize around issues of crime and law enforcement; how are law enforcement situations defined as requiring action; where do community patrols emerge, and what are the consequences; how do police view these efforts; and what are the social, political, and economic barriers to community mobilization.

Final Product(s):

Community Police Patrols - An Exploratory Inquiry, G.T. Marx and D. Archer, 1972, 81 pp. NCJ 10129.

Derivative Work:

Marx, G.T., D. Archer. "Urban Vigilante." Psychology Today 6(8):45-50, 1973. NCJ 10130, Microfiche.

Grant No: 70-NI-072
Project: PORTABLE POLICE PENSIONS FOR LAW ENFORCEMENT OFFICERS:
FEASIBILITY STUDY
Grantee: The College of Insurance of the Insurance Society of New York, New
York, New York
Award Date: June 1, 1970.
Status: Completed

Project Summary: The type and quality of retirement/pension systems vary greatly among the police departments in the United States. This study presents an analysis of the type and quality of retirement/pension systems existing in the United States police departments and develops a method for achieving nationwide portability of pension rights of any policeman transferring from one U.S. police department to any other public police department in the United States.

Final Product(s):

Improving the Mobility of Law Enforcement Officers, The College of Insurance of the Insurance Society of New York, 1971, 105 pp. NCJ 00444.

Portable Police Pensions - Improving Interagency Transfers, G.N. Calvert, 1971, 83 pp. NCJ 02058, Microfiche.

Grant No: 70-NI-088
Project: BURGLARY PREVENTION
Grantee: City of Alexandria, Alexandria, Virginia (J.B. Hill)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project developed and evaluated a model city building security code that served residential and commercial property users by improving the defense of property against illegal intrusions. In addition, standards for achieving cost effectiveness of readily available defensive devices were developed along with operating techniques and procedures. Finally, an educational program was planned to encourage full utilization of the above developments and bring about positive attitudes toward the prevention of illegal entry.

Final Product(s):

Developing and Implementing a Burglary Prevention Program - Summary Report, R.P. Joyce, 1973, 41 pp. NCJ 11446, Microfiche.

Grant No: 70-NI-089
Project: CRIME REDUCTION THROUGH AERIAL PATROL
Grantee: Metropolitan Police Department, Washington, D.C. (T.R. Zanders)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project was an extension of the OLEA 198 study of aerial patrol in the Los Angeles, California, area. This grant to the Washington, D.C., Police Department was designed to assess how effectively helicopters can be used for aerial patrol in a more densely populated community with more severe weather conditions than the Los Angeles area.

Final Product(s):

Crime Reduction Through Aerial Patrol, T.R. Zanders, n.d., 113 pp. NCJ 10029.

Grant No: 70-NI-091
Project: POLICE TELECOMMUNICATION SYSTEMS
Grantee: Associated Public Safety Communications Officers, Inc.,
Pittsburgh, Pennsylvania (F.D. Campbell)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project examined each step of police telecommunications, primarily for communications, planning, or supervisory personnel of police agencies. While the main emphasis was on municipal police communications, this information is applicable to all public safety agencies. The approach may be in modifying an existing system or designing a new one. The types of fixed and mobile equipment are described as to use and interface with other equipment. Police telecommunications systems--radio, telephone, teletype, facsimile, microwave, computer, and combinations--are described and evaluated. A reference section includes BCC rules which apply directly to police communications. Appendices include technical data on transmission and propagation, a list of references, and a bibliography.

Final Product(s):

Police Telecommunication Systems, F.D. Campbell, 1971, 440 pp. NCJ 00341, Microfiche.

Grant No: 70-NI-094
Project: BOMB DISPOSAL EQUIPMENT AND EVALUATION
Grantee: U.S. Navy, Indian Head, Maryland (P. Gale)
Award Date: June 19, 1970.
Status: Completed

Project Summary: This grant presented an evaluation of the Bomb Handling System and the ability of the "bomb-baskets" to contain or effectively suppress

bomb detonation effects. The "bomb-baskets" did reduce blast effects considerably, although serious physiological damage could still result from blast effects for persons near the bomb at the time of detonation.

Final Product(s):

No report available

Grant No: 70-NI-095
Project: SEMI-AUTOMATED SINGLE FINGERPRINT SYSTEM
Grantee: New York State Identification and Intelligence System, Albany, New York (F.G. Madrazo)
Award Date: July 1, 1970.
Status: Completed

Project Summary: This project was designed to enable the law enforcement agencies to search a single fingerprint of poor quality (such as a crime scene latent print) against a large master file, as well as to evaluate the operational impact of such a capability. An integral part of the program was the testing and evaluation of a Semi-Automated Fingerprint Encoding System which provides for a third level of fingerprinting classification, namely minutiae location. The project was a cooperative venture with local police agencies. (Continued in 73-NI-99-0002-G.)

Final Product(s):

No report available

Grant No: 70-NI-099
Project: LAW ENFORCEMENT COMMAND AND CONTROL PROBLEMS RELATED TO CROWDS AND DEMONSTRATIONS
Grantee: Hughes Aircraft Co., Fullerton, California (D.L. Vogelsang)
Award Date: June 30, 1970.
Status: Completed

Project Summary: Data were gathered on disturbances in seven cities and analyzed in depth to identify the action of the dissidents and the specific response of the law enforcement agencies. It has been possible, through this detailed process, to identify general and specific problems encountered in command and control of crowds and demonstrations. During the study, the command and control problems were evaluated according to the parameters of duration, magnitude, form, and frequency of the disturbance. The time periods, or phases, of the disturbances were analyzed to determine duration and such event characteristics as locales, and behavior of the individuals, groups, and organizations involved.

Final Product(s):

The Identification, Description and Evaluation of Law Enforcement Command and Control Problems Related to Crowds and Demonstrations, Vol. I Draft Final Report, D.L. Vogelsang, 1971, 240 pp. NCJ 01972.

The Identification, Description and Evaluation of Law Enforcement Command and Control Problems Related to Crowds and Demonstrations, Vol. II - Draft Final Report, D.L. Vogelsang, 1971, 229 pp. NCJ 01973.

Grant No: 70-NI-100
Project: RESPONSES TO COLLECTIVE VIOLENCE IN THREAT OR ACT
Grantee: Human Sciences Research, Inc., McLean, Virginia (E.E. Erickson)
Award Date: June 30, 1970.
Status: Completed

Project Summary: This project appraised research and development conducted during the period 1968 - 1970 on the role of law enforcement and criminal justice agencies in preventing and controlling collective violence both in educational institutions from grade schools to colleges and resulting from activities of extremist organizations and youth gangs. A summary, included in the report, emphasizes practical experience and guidelines for action.

Final Product(s):

Responses to Collective Violence in Threat or Act, Vols. I, II, S.D. Vestermark, 1971, 399 pp. NCJ 10795.

1971

Grant No: 71-NI-AX-001-1A
Project: HEROIN DETECTION FEASIBILITY STUDY
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen, Maryland (M. Cutler)
Award Date: January 31, 1971.
Status: Completed

Project Summary: This project was a study of the various methods of heroin detection including bioluminescence, mass spectrometry and plasma chromatography. (Continued from NI-70-031.)

Final Product(s):

No report available

Grant No: 71-NI-AX-015-G
Project: ULTRAVIOLET DETECTION OF METAL TRACES
Grantee: Minnesota Bureau of Criminal Apprehension, St. Paul, Minnesota (J.O. Rhoads)
Award Date: September 15, 1970.
Status: Completed

Project Summary: A trace metal detection technique (TMDT) was developed, to determine whether a suspect or nonmetallic material has been in contact with metal objects. The method uses a test solution to treat skin, clothing, or other material which produces visible metal trace patterns when the treated area is subjected to ultraviolet light. The metal trace patterns give off fluorescent colors that are unique to types of metals. The identification may be as specific as type, model, and size of a weapon. Equipment test procedures and photographic techniques are fully described.

Final Product(s):

Trace Metal Detection Techniques in Law Enforcement, J.O. Rhoads, 1970, 16 pp. GPO 027-000-0068, NCJ 00204.

Ultraviolet Detection of Metal Traces - Trace Metal Detection Technique - Final Report, J.O. Rhoads, 1971, 75 pp. NCJ 34019, Microfiche.

Grant No: 71-NI-AX-018-G
Project: DEVELOPMENT OF A MODEL FOR DETERMINATION OF LAW ENFORCEMENT CONTRACTUAL COSTS FOR CONTRACT AND INDEPENDENT POLICE DEPARTMENTS
Grantee: California Contract Cities Association, Lakewood, California (M.W. Julian)
Award Date: September 15, 1970.
Status: Completed

Project Summary: This research project (1) established cost data and a cost formula for law enforcement contract services provided by sheriffs' offices in the State of California, and (2) developed and tested a cost-effectiveness performance budget model of law enforcement activities. The model is intended to improve decisions on actual and planned allocation of resources and to advance the concept of State and contracting law enforcement activities, where appropriate, including performance/cost decisions.

Final Report(s):

Determination of Law Enforcement Contractual Costs California Contract Cities, 1971, 157 pp. NCJ 13501, Microfiche.

Performance and Cost Decision-Making System for the Field Policing Function - California Contract Cities Association, M.W. Julian, 1972, 282 pp. NCJ 13500, Microfiche.

Grant No: 71-NI-AX-019-G
Project: FORENSIC ANALYSIS: SPARK SOURCE MASS SPECTROMETRY AND NEUTRON ACTIVATION ANALYSIS
Grantee: University of Virginia, Charlottesville, Virginia (W.W. Harrison)
Award Date: October 16, 1970.
Status: Completed

Project Summary: This research effort was the final phase of a continuation study (NI 69-017) sponsored by the Institute. Both spark source mass spectrometry and neutron activation analysis offer greatly increased potential for analyzing elemental composition approaching one part per billion. The comparative merits of these two technologies in trace element analysis are examined. A reference text for crime laboratories on the utilization of these technologies constitutes the final research product of this project.

Final Product(s):

Application of Spark Source Mass Spectrometry and Neutron Activation Analysis to Forensic Science, T.G. Williamson and W.W. Harrison, 1973, 84 pp. NCJ 29687, Microfiche.

Grant No: 71-NI-AX-024-G
Project: WORKSHOP ON FORENSIC APPLICATIONS OF THE SCANNING ELECTRON MICROSCOPE
Grantee: Illinois Institute of Technology Research Institute, Chicago, Illinois (O. Johari)
Award Date: December 1970.
Status: Completed

Project Summary: This 1-day workshop on forensic science applications of the scanning electron microscope (SEM) was part of the 1971 IIT Research Institute's Annual International SEM Symposium in Chicago. The conference provided an opportunity for criminalists from many countries to communicate with SEM experts and to explore together possible applications of this new tool to law enforcement, particularly to American police agencies.

Final Product(s):

Scanning Electron Microscopy/1971, O. Johari, 1971, 632 pp. NCJ 34049, Microfiche.

Grant No: 71-NI-AX-027-1A
Project: LATENT INDENTED WRITING READING INSTRUMENT
Grantee: Technology Utilization Division, National Aeronautics and Space Administration, NASA, Washington, D.C. (R.J. Phillip)
Award Date: November 15, 1970.
Status: Completed

Project Summary: A fiber optics device developed by the National Aeronautics and Space Administration for flange imperfection inspection (for discovering imperfections in connecting surfaces of tubes and pipes) was examined for application in the detection of faint handwriting impressions on paper caused by traces left on sheets under the original paper. This technique is for use in reading indented-writing crime laboratory document examinations.

Final Product(s):

No report available

Grant No: 71-NI-AX-030-G
Project: POLICE BACKGROUND CHARACTERISTICS AND PERFORMANCE
Grantee: New York City Rand Institute, New York, New York (B. Cohen)
Award Date: March 31, 1971.
Status: Completed

Project Summary: The study compares factors in the life history of 1,915 police officers appointed to the NYC Police Department in 1951 to their effectiveness in police work over the following decade. Measures of officers' performance on the job, available in the Department's personnel files, were used

to determine the types of candidates who are likely to display specific patterns of performance. Questions focused on whether the addition or substitution of new selection instruments improve the predictive validity of this selection process and if there is a racial discrimination potential in the present procedures.

Final Product(s):

New York City's Police - The Background and Performance of the Class of 51, B. Cohen and J. Chaiken, 1973, 29 pp. NCJ 13225.

Police Background Characteristics and Performance, B. Cohen and J. Chaiken, 1972, 164 pp. NCJ 08981.

Police Background Characteristics and Performance Summary Report, B. Cohen and J. Chaiken, 1972, 32 pp. NCJ 07425, Microfiche.

Grant No: 71-NI-AX-0032-G
Project: POLICE PERSPECTIVES AND BEHAVIOR IN A CAMPUS DISTURBANCE
Grantee: The Ohio State University Research Foundation, Columbus, Ohio (E.L. Quarantelli)
Award Date: January 1, 1971.
Status: Completed

Project Summary: During the spring of 1970, the Columbus, Ohio, Police Department was heavily involved in four major civil disorders which occurred at Ohio State University. The Disaster Research Center of the University used a questionnaire to survey over 500 members of the Columbus Police Department, and also conducted several hundred hours of systematic field observation of police actions during the rioting. A survey was taken of Ohio State student attitudes on police-student interactions. The analysis focuses on the general implications of the findings for police operations during the civil disturbances.

Final Product(s):

Police Perspectives and Behavior in a Campus Disturbance, R. Dynes and E.L. Quarantelli, 1972, 171 pp. NCJ 09081.

Derivative Work:

Quarantelli, E.L., R.R. Dynes, and J.L. Ross. "Police Perspectives and Behavior in a Campus Disturbance." Journal of Police Science and Administration 1974, 13 pp. NCJ 36683.

Quarantelli, E.L., J.R. Ponting. "Police Department Perceptions of the Occurrence of Civil Disturbances." Sociology and Social Research 59(2):30-38, 1974. NCJ 40994.

Quarantelli, E.L., J.R. Ponting, and J. Fitzpatrick. "Police Perceptions of Riot Participants and Dynamics." International Journal of Group Tensions 5(3):163-170, 1975. NCJ 32586.

Grant No: 71-NI-AX-036-G
Project: THE USE OF AN INCIDENT SERIOUSNESS INDEX AND COMPUTERIZED SCHEDULING IN DEPLOYMENT OF POLICE PATROL
Grantee: St. Louis Police Department, St. Louis, Missouri (N. Heller)
Award Date: April 30, 1971.
Status: Completed

Project Summary: This research was based on a study of measures of harm--amount of physical injury, property loss, and intimidation--incurred by 9,827 victims of Part I crimes in St. Louis during a 2-month period. The seriousness index for rating crime was adapted from the quantitative index of delinquency developed by Sellin and Wolfgang. It was then applied as a yardstick for comparing the relative seriousness of crimes and traffic accidents and for police management analysis and resource allocation. Volume I describes the actual research and the author's conclusions. Volume II contains a thorough independent evaluation of the project by the Governmental Research Institute of St. Louis, and Incident Seriousness Coding Guide, a Program User's Manual and 60 profiles of the Seriousness of Crime in St. Louis. Work was continued in grant 72-NI-99-0018-G.

Final Product(s):

Use of an Incident Seriousness Index in the Deployment of Police Patrol Manpower, Methods, and Conclusions Vols. 1 and 2, N. Heller, 1972, 161 pp. NCJ 07153.

Grant No: 71-NI-AX-038-G
Project: POLICE AIR MOBILITY; STOL EVALUATION
Grantee: Cornell Aeronautical Laboratory, Inc., Buffalo, New York (S.P. Zobel)
Award Date: February 1, 1971.
Status: Completed

Project Summary: This research is continued from previous work under 70-NI-006. It summarized survey data on utilization of helicopters in support of law enforcement activities. Information was gathered from several major police forces and from existing literature. The survey focuses on the uses, types, and numbers of helicopters, the installation of special equipment, the annual utilization rate, procurement and operating costs, and performance data. The effectiveness of helicopter pilot selection criteria, pilot training programs, and flight crew costs is also discussed.

Final Product(s):

The Utilization of Helicopters for Police Air Mobility, S.P. Zobel, 1971, 85 pp. GPO 027-000-0062-2, NCJ 02412, Microfiche.

Grant No: 71-NI-AX-040-C
Project: CONCEALED WEAPONS DETECTION SYSTEM
Grantee: Illinois Institute of Technology, Research Institute, Chicago, Illinois (R. Moler)
Award Date: March 23, 1971.
Status: Completed

Project Summary: The grantee developed and tested a prototype low level X-ray detector utilizing a radioisotope source. The device measures lead K-alpha and K-beta fluorescence and sounds an alarm when lead is detected above certain levels.

Final Product(s):

Exploratory Design, Engineering and Operational Development of a Pilot Model Lead Detection System, S.I. Baker and R.B. Moler, 1972, 110 pp. NCJ 09533.

Grant No: 71-NI-AX-051-1A
Project: EXPLOSIVES DETECTING DOGS
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen Proving Grounds, Maryland (M. Cutler)
Award Date: February 1, 1971.
Status: Completed

Project Summary: In this project, two dogs were trained at the U.S. Army Land Warfare Laboratory to detect hidden explosives. The study showed that a law enforcement agency, at minimal expense, can select and train detection dogs if that agency has an existing K-9 unit and qualified personnel available.

Final Product(s):

Explosives Detecting Dogs, Final Report, M. Krauss, 1971, 110 pp. NCJ 07127.

Grant No: 71-NI-AX-053-G
Project: HEROIN DETECTION FEASIBILITY STUDY
Grantee: New York City Police Department, New York, New York (G. Mullins)
Award Date: February 22, 1971.
Status: Completed

Project Summary: The research presents the findings of various methods of heroin detection including bioluminescence, mass spectrometry, and plasma chromatography. An evaluation of these methods is presented by the New York City Police Department.

Final Product(s):

Heroin Detection Feasibility Study, G. Mullins, 1972, 250 pp. NCJ 34091, Microfiche.

Grant No: 71-NI-AX-063-G
Project: POLICE PERFORMANCE APPRAISAL
Grantee: The Pennsylvania State University, University Park, Pennsylvania (F.J. Landy)
Award Date: July 1, 1971.
Status: Completed

Project Summary: The project objectives were to develop instruments to measure accurately the important job dimensions of the police patrol officer position. Secondary objectives were to obtain information on patrol motivation and job satisfaction which can be utilized to enhance the performance of individuals and police departments. The first phase of this project resulted in a set of performance dimensions based upon supervisor and peer workshops and the construction of a set of scales to measure these performance dimensions.

Final Product(s):

Police Performance Appraisal - A Report on Phase I, F.J. Landy, 1973, 94 pp. NCJ 11598.

Grant No: 71-NI-AX-070-G
Project: STUDY OF CRIME LABORATORIES
Grantee: University City Science Institute, Philadelphia, Pennsylvania (E.S. Krendel)
Award Date: March 22, 1971.
Status: Completed

Project Summary: This study was undertaken as a practical exercise in operations research problem formulation and solution by a graduate seminar at the University of Pennsylvania. The study goal was to devise methods for determining the best forensic science service for a particular area. In order to accomplish this, the demands placed upon this service by the pattern of criminal activity

and the requirements of the judicial system were analyzed for the City of Philadelphia and the laboratories serving the States of Pennsylvania and New Jersey. On the basis of these analyses a simulation model of a laboratory, as a production facility subject to constraints of time, and a capital budgeting model were developed to assist management decisions. Interpretations of various factors of the simulation model as they apply to forensic laboratories were also made. Several surveys of crime laboratories were conducted and the data used in the models are presented.

Final Product(s):

Management Planning for Forensic Science Laboratories, E.S. Krendel and R.M. Dummer, 1971, 170 pp. NCJ 00414.

Grant No: 71-NI-AX-075-G
Project: A STUDY OF POLICE OPERATIONAL PRACTICES
Grantee: Brookville Systems Company, Inc., Old Brookville, New York (S.S. Johnson)
Award Date: June 14, 1971.
Status: Completed

Project Summary: The goal of this project was the development of a prescriptive theory of police corruption. This theory suggests measures for curtailing the undesirable impacts of corrupt practices while providing guidance to law enforcement administrators, government executives, legislators, and concerned citizens.

Final Product(s):

Development of a Theory of Police Corruption - Report of Phase I Exploratory Study of the New York City Police Department, Brookville Systems Co., n.d., 367 pp. NCJ 27045, Microfiche.

Grant No: 71-NI-AX-078-G, 70-NI-004
Project: RESEARCH OF VOICE IDENTIFICATION
Grantee: Department of Michigan State Police, East Lansing, Michigan (W. Van Stratt)
Award Date: May 31, 1971.
Status: Completed

Project Summary: During this third phase of a continuing voice identification project (see 70-NI-004), the grantee developed improved automated speaker identification techniques and evaluated their effectiveness in law enforcement activities. The primary method of research involves computerized Fast Fourier analysis.

Final Product(s):

Semiautomatic Speaker Recognition System, R.W. Becker, 1972, 91 pp. GPO 027-000-00231-5, NCJ 11428, Microfiche.

Grant No: 71-NI-AX-085-G
Project: DEVELOPMENT OF PSYCHIATRIC STANDARDS FOR POLICE SELECTION
Grantee: Personnel Decisions, Inc., Minneapolis, Minnesota (M.D. Dunnette)
Award Date: May 15, 1971.
Status: Completed

Project Summary: This project developed a set of performance scales for operational and management jobs in a variety of police departments. This phase used these scales to develop and validate a set of predictor items for the Police Career Index (PCI) and a series of job simulations for the Police Assessment Center (PAC). Manuals describing the PCI and PAC and their utilization by non-technical personnel were also prepared.

Final Product(s):

Development of Psychiatric Standards for Police Selection, R.W. Heckman and R.W. Groner, 1972, 70 pp. NCJ 09537.

Grant No: 71-NI-AX-088-G
Project: NEW METHODOLOGY FOR THE DETECTION OF HEROIN AND RELATED DRUGS
Grantee: Huntingdon Research Center, Baltimore, Maryland (J.D. Johnston)
Award Date: April 1, 1971.
Status: Completed

Project Summary: The research consisted of a study aimed at isolating bacteria or fungi capable of activity in a morphine environment. Numerous organisms were tested from sources which included ornamental poppy plants, dust from narcotics storage cabinets, solid samples from opium poppy fields, as well as pond and river water, cesspools and manure, etc. These were inoculated into media containing morphine substrate, and the growth rate, if any, was measured. In almost all cases, no growth was observed.

Final Product(s):

New Methodology for the Detection of Narcotics - Final Report, J.D. Johnston, 1972, 79 pp. NCJ 02305.

Grant No: 71-NI-AX-089-G
Project: NEW FINGERPRINT RECORDING METHOD
Grantee: New York State Identification and Intelligence System, Albany, New York (J.J. Paley)
Award Date: April 1 1971.
Status: Completed

Project Summary: A system which can record a high-quality fingerprint on a photo-sensitive material, using a high-resolution fiber-optics system to correct the curvature distortion, was developed under this grant. The new recording medium was to be both quick (a few seconds) and inexpensive (a few cents for material).

Final Product(s):

No report available

Grant No: 71-NI-AX-096-G
Project: THE DEVELOPMENT OF A MANAGEMENT INFORMATION SYSTEM FOR THE OVERALL MANAGEMENT OF AN URBAN POLICE DEPARTMENT
Grantee: University of Pittsburgh, Pittsburgh, Pennsylvania (W. King)
Award Date: September 2, 1971.
Status: Completed

Project Summary: Modern techniques and concepts of information and management theory were applied by the grantee to a modern urban police environment. The research effort was structured around the development of a model executive-level management information system (MIS) for police department use. The information system reflects the value system of top-level police department executives in their role as developers of organizational strategy and as implementers of broad municipal policy.

Final Product(s):

Development of a Management Information System for the Overall Management of an Urban Police Department, W. King, 1972, 112 pp. NCJ 07125.

Grant No: 71-NI-AX-097-G
Project: COLLECTIVE VIOLENCE INFORMATION REQUIREMENTS
Grantee: Operations Research, Inc., Silver Spring, Maryland (T. Callahan)
Award Date: April 24, 1971.
Status: Completed

Project Summary: This research provides local law enforcement agencies with guidelines for the collection and dissemination of essential elements of information required for sound decisionmaking capacity during an episode of collective violence. Specifically, guidelines are provided for chiefs of police, community relations personnel, intelligence personnel, patrol commanders, and

patrol personnel. These guidelines were compiled during a 10-month study in which law enforcement officials in 14 selected cities and 6 State police departments were interviewed. Four steps were followed in developing the guidelines: (1) a literature survey, (2) consultation with a panel of active law enforcement specialists, (3) a field survey, and (4) analysis, interpretation, and review of the data.

Final Product(s):

Prevention and Control of Collective Violence - Guidelines for Police Decision-Making, Operations Research, W.T. Callahan, 1972, 200 pp. NCJ 32559, Microfiche.

Prevention and Control of Collective Violence, Volume 1 - Guidelines for the Chief of Police, W.T. Callahan, 1973, 80 pp. GPO 027-000-00197-1, NCJ 09953, Microfiche.

Prevention and Control of Collective Violence, Volume 2 - Guidelines for Community Relations Personnel, W.T. Callahan, 1973, 58 pp. GPO 027-000-00198-0, NCJ 09954, Microfiche.

Prevention and Control of Collective Violence, Volume 3 - Guidelines for Intelligence Personnel, W.T. Callahan, 1973, 63 pp. GPO 027-000-00199-8, NCJ 09957, Microfiche.

Prevention and Control of Collective Violence, Volume 4 - Guidelines for the Patrol Commander, W.T. Callahan, 1973, 55 pp. GPO 027-000-00200-5, NCJ 09955, Microfiche.

Prevention and Control of Collective Violence, Volume 5 - Guidelines for Patrol Personnel, W.T. Callahan, 1973, 50 pp. GPO 027-000-00203-0, NCJ 09956, Microfiche.

Grant No: 71-NI-AX-100-G
Project: BOMB SEARCH/DETECTION DOGS EVALUATION
Grantee: New York City Police Department, New York, New York (K. O'Neil)
Award Date: April 27, 1971.
Status: Completed

Project Summary: In recent years the number of clandestine bomb incidents has risen significantly. In this project, two dogs previously trained to detect explosives were trained and acclimated by the New York City Police Department to methodically search a building room by room and nearly every other environment normally the concern of the NYPD Bomb Section. The two trained dogs were further used for the detection of explosives at both political conventions in Miami during the summer of 1972. The two dogs successfully demonstrated their performance capability under almost every conceivable condition. This is an evaluation of 71-NI-AX-051-1A.

Final Product(s):

Feasibility Study of Using Dogs Trained for Explosive Detection in an Urban Environment - Final Report, K. O'Neill, 1972, 21 pp. NCJ 32554, Microfiche.

Grant No: 71-NI-AX-102-1A
Project: TEST AND EVALUATION OF HYDRONAUTICS EXPLOSIVE VAPOR DETECTION SYSTEM
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen Proving Grounds, Maryland (M. Cutler)
Award Date: June 1, 1971.
Status: Completed

Project Summary: This award tested and evaluated the technical aspects of the hydronautics explosive vapor detection system for applicability to domestic, civilian, and bomb-disposal problems.

Final Product(s):

Assessment of the Vapor Trace Analyzer as an Explosive Detector - Final Report, L.S. Delicio, 1972, 37 pp. NCJ 25631, Microfiche.

Grant No: 71-NI-AX-105-PG
Project: DETERMINATION OF THE AGE OF BLOOD STAINS BY NON-DESTRUCTIVE METHODS
Grantee: The Catholic University of America, Washington, D.C. (L. May)
Award Date: July 1, 1971.
Status: Completed

Project Summary: This project tested various methods for determining the age of blood stains after the death of an individual. The study employed a non-destructive technique, Mossbauer spectroscopy, and ultraviolet spectroscopy to measure the age of blood exposed to air. The assumption underlying these techniques was that one of the blood components, hemoglobin, contained heme, which is an iron porphyrin complex. The grantee tested two hypotheses: (1) that the nature of the bonding between the iron and porphyrin is altered with the passage of time; and (2) that this metamorphosis is reproducible. Ultraviolet spectroscopy showed the most promise of the two techniques.

Final Product(s):

Determination of the Age of Blood Stains by Non-Destructive Methods, L. May, 1972, 6 pp. NCJ 32555, Microfiche.

Grant No: 71-NI-AX-108-PG
Project: TIME DEPENDENT ELECTRON SPIN RESONANCE CHARACTERISTICS OF GUNPOWDER AND PRIMER RESIDUE
Grantee: EG&G, Inc., Goleta, California (R.K. Mullen)
Award Date: June 1, 1971.
Status: Completed

Project Summary: The grantee presented a feasibility study of the time-dependent characteristics of gunpowder and primer residues. Hopefully, this set of characteristics will be utilized by crime laboratories in determining if a firearm has been recently discharged and in making estimates of how much time has elapsed from firearm discharged. If successful, this method would enhance the capabilities of crime laboratories and expedite investigatory processes by eliminating innocent suspects.

Final Product(s):

Time Dependent Electron Paramagnetic Resonance Characteristics of Detonated Primer Residues, L.A. Franks and R.K. Mullen, 1971, 39 pp. NCJ 02826, Microfiche.

Grant No: 71-NI-AX-110-PG
Project: MICROCHEMICAL METHODS OF ASSAY FOR ERYTHROCYTE ISOENZYMES IN DRIED BLOOD THROUGH AUTORADIOGRAPHY
Grantee: John Jay College of Criminal Justice of the City of New York, New York, New York (A. Sapse)
Award Date: July 1, 1971.
Status: Completed

Project Summary: The grantee attempted to develop an autoradiographic method for the detection of isoenzymes in blood. It was expected that this would simplify, sensitize, and add to present techniques of blood comparisons. The initial approach explored the feasibility of finding an alternative medium to hydralize starch and assaying the material using both electrophoresis and classical partition chromatography. This method was unsuccessful and attempts were made to utilize bioluminescence in a gel medium. This too was unsuccessful.

Final Product(s):

Microchemical Methods of Assay for Erythrocyte Isoenzymes in Dried Blood through Autoradiography - Final Report, R.E. Gaensslen and A.M. Sapse, 1973, 18 pp. NCJ 10443.

Grant No: 71-NI-AX-111-PG
Project: AN INVESTIGATION INTO THE STUDENT-MANNED CAMPUS SECURITY FORCE
Grantee: Mankato State College, Mankato, Minnesota (G.L. Hudson)
Award Date: June 1, 1971.
Status: Completed

Project Summary: This project evaluates a new approach to campus safety: a security force consisting of both city police and student volunteers. The grantee uses personality scales, standardized psychological measuring instruments, workshops, and training sessions in order to determine: (1) student attitudes toward a campus security force composed of other students; (2) the type of student most effective in the role of security officer; and (3) the type of training techniques effective in developing a security force that can function with the cooperation of the campus community.

Final Product(s):

Investigation Into the Student - Manned Campus Security Force, G.L. Hudson, 1973, 55 pp. NCJ 32820, Microfiche.

Grant No: 71-NI-AX-114-PG
Project: AN EXAMINATION OF THE IMPACT OF INTENSIVE POLICE PATROL
Grantee: University of Rhode Island, Kingston, Rhode Island (F.S. Budnick)
Award Date: June 1, 1971.
Status: Completed

Project Summary: This research presented a discussion of the development and potential uses of a statistical model designed to estimate crime levels in one section of a city from the knowledge of the levels in statistically similar areas elsewhere in the city. The grantee postulated that since there are a number of crime-related influences which operate in a city as a whole, the level of crime in one area of the city might be the function of the crime level within another area. Data were gathered on the monthly crime index levels over a 30-month period for each reporting area in Washington, D.C. Results of the data analysis indicated that two areas could be highly correlated with one another with regard to crime levels. The estimates of crime derived from the "crime correlated area model" can be used as a base line against which to evaluate, in a retrospective fashion, the effect of different patrol strategies. The model is also a potential aid in evaluating crime control programs including manpower studies, helicopter patrol programs, high-intensity street lighting, etc.

Final Product(s):

Crime-Related Area Model - An Application in Evaluating Intensive Police Patrol Activities, F.S. Budnick, 1972, 202 pp. NCJ 10357, Microfiche.

Examination of the Impact of Intensive Police Patrol Activities (Final Report), F.S. Budnick, 1971, 202 pp. NCJ 11806.

Grant No: 71-NI-99-118-G
Project: TRAINING SEMINARS IN FORENSIC PATHOLOGY
Grantee: College of American Pathologists Foundation, Committee on Forensic Pathology, Baltimore, Maryland (Russell S. Fisher)
Award Date: July 19, 1971
Status: Completed

Project Summary: In order to improve the medicolegal investigation of deaths in the United States, a series of seminars was conducted by the Forensic Pathology Committee of the College of American Pathologists in various geographic locations of the country. These seminars were intensive courses in forensic pathology for clinical pathologists who were engaged part-time in performing forensic autopsies in their respective communities. Approximately 350 pathologists who attended the seminars were carefully selected to provide a balanced geographic representation of hospital pathologists who carry out this part-time activity.

The present project resulted in the development of a modern textbook in forensic pathology.

Final Product(s):

Forensic Pathology - A Handbook for Pathologists, Russell S. Fisher and C.S. Petty, 1977, 210 pp. GPO 027-000-00541-1, NCJ 43951, Microfiche.

Grant No: 71-NI-AX-119-1A, 72-NI-99-0011-1A
Project: DETECTION OF NARCOTICS BY DOGS
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen Proving Grounds, Maryland (M. Cutler)
Award Date: May 18, 1971.
Status: Completed

Project Summary: This study investigates the feasibility of training dogs to detect heroin. The experimental training program consists of two phases. In Phase I, the dog was trained to detect and respond to heroin. In Phase II, the dog was tested for its ability to respond under conditions that closely approximated actual operational conditions. Work was continued under grant 72-NI-99-0011-1A.

Final Product(s):

Training Dogs for Heroin Detection, M. Cutler, 1971, 49 pp. NCJ 07096.

Grant No: 71-NI-AX-120-G
Project: AUTO THEFT
Grantee: Denver Research Institute, Denver, Colorado, (R.E. Williams)
Award Date: July 1, 1971.
Status: Completed

Project Summary: This research described a comprehensive technique for the collection and analysis of data on auto thefts, and presented detailed information on the circumstances surrounding all reported auto thefts in Denver from July 1970 to June 1971. Factors such as make and year of car, time of day of the theft, weather conditions, and location of the car were all used to determine high-risk automobiles and parking habits. The report also included information such as age, previous arrest record, and home district for all persons arrested for auto theft during the study year.

Final Product(s):

Collection and Analysis of Auto Theft Data in Denver, July 1970 - June 1971, A.S. West, 1971, 65 pp. NCJ 11001.

Grant No: 71-NI-99-126-G
Project: A STUDY OF VIOLENCE PROBLEMS AFFECTING FIRE DEPARTMENTS
Grantee: Stanford Research Institute, Menlo Park, California (Kendall D. Moll)
Award Date: July 6, 1971
Status: Completed

Project Summary: This study is based on a comprehensive statistical data base of metropolitan fire department problems related to violence. The data covering the period 1968 through 1971 were gathered by the use of questionnaires, field visits, and a review of relevant literature. The following six major areas of violence are covered: building fires attributed to arson and suspected arson; false alarms; acts of physical violence against fire departments during riots and civil disorders; isolated acts of harassment directed against fire department personnel, equipment, and facilities; and bomb threats and bomb incidents. The author has indicated that the intention of the study was not to suggest general changes in the criminal justice system, but rather to find specific need for violence affecting fire departments. Therefore, the study dealt specifically with each of the areas of violent behavior, attempting to identify the major contributions to the problem, extent of the problem, and possible avenues for alleviation of the effects of violent behavior on fire departments. Mr. Moll concludes that, except for arson, violence is not presently an unmanageable burden to fire departments. Although he finds that fire departments have been relatively successful in adapting their internal operations to violence problems, he strongly suggests that greater interservice cooperation with the police is needed. Government officials who oversee both police and fire functions are urged to promote this cooperation.

Final Product(s):

Arson, Vandalism, and Violence - Law Enforcement Problems Affecting Fire Departments, Kendall D. Moll, 1972, 190 pp. GPO 027-000-251, NCJ 11547, Microfiche.

Grant No: 71-NI-AX-129-G
Project: DIGITAL RADIO TELECOMMUNICATIONS FOR LAW ENFORCEMENT APPLICATIONS
Grantee: Massachusetts Institute of Technology, Cambridge, Massachusetts (J.F. Reintjes)
Award Date: July 15, 1971.
Status: Completed

Project Summary: The purpose of this project was to conduct a thorough investigation of the new field of digital communications (code as opposed to voice transmission) for adaptation to police use. These systems may help in solving many problems such as privacy, efficient use of channels, speed, and automation. This study essentially matched applicable techniques and equipment to police needs.

Final Product(s):

Investigation of Digital Mobile Radio Communications, T.C. Kelly and J.E. Ward, 1973, 141 pp. GPO 027-000-00233-1, NCJ 11423, Microfiche.

Grant No: 71-NI-AX-132-G
Project: NATIONAL EVALUATION PROGRAM PHASE I - STUDY TO DETERMINE THE IMPACT OF STREET LIGHTING ON STREET CRIME
Grantee: Kansas City, Missouri, Public Works Department (M.B. Flint)
Award Date: July 1, 1971.
Status: Completed

Project Summary: The goal of this two-phase study was to provide a clearer basis for allocating street lighting resources and for planning their future utilization. Phase I developed a data base for the statistical analysis to be carried out in Phase II. A conceptual, system-based model of criminal behavior was formulated in this phase and various sources of offense and lighting data are evaluated. The research method included a stratified sampling of various neighborhoods with a balanced distribution of lighting conditions. Several socio-economic indices were developed and used to characterize the city and the sample, and a preliminary analysis was made of the relationship between lighting and crime.

Final Product(s):

Study to Determine the Impact of Street Lighting on Street Crime, Phase I, Final Report, M.B. Flint, 1972, 163 pp. NCJ 47011, Microfiche.

Grant No: 71-NI-AX-143-PO
Project: CASE STUDY OF ORGANIZED CRIMINAL INFILTRATION INTO LEGITIMATE BUSINESS
Grantee: New York State Identification and Intelligence System, Albany, New York (E.J. deFranco)
Award Date: June 31, 1971.
Status: Completed

Project Summary: The grantee prepared a case study on the Murray Meat Packing Company as an example of organized crime's infiltration into legitimate business. The final report is intended to be used as a training resource for police officers.

Final Product(s):

Anatomy of a Scam: A Case Study of a Planned Bankruptcy by Organized Crime, E.J. deFranco, 1973, 81 pp. GPO 027-000-00230-7, NCJ 11213, Microfiche.

Grant No: 71-NI-AX-144-1A
Project: EVALUATION OF THE ALL-PURPOSE COMMUNICATIONS/PROTECTIVE HELMET
Grantee: Biological Sciences, U.S. Army Land Warfare Laboratory, Aberdeen Proving Grounds, Maryland (M.S. Wargovich)
Award Date: July 14, 1971.
Status: Completed

Project Summary: The grantee tested an all-purpose communication/protective helmet, under a variety of conditions, for use by law enforcement personnel during collective violence situations. The series of examinations performed on the helmet/face shield/neck protector assembly determined the effects of weapons (guns, clubs, etc.), harmful chemicals such as CS gas, and toxic environments. Four police departments were asked to test the operational aspects of the helmet and its communication system.

Final Product(s):

Evaluation of the All-Purpose Communications/Protective Helmet, M.S. Wargovich and M.L. Lonky, 1973, 32 pp. NCJ 12850.

Grant No: 71-NI-AX-147-G
Project: FLEXIBLE OPTICAL INSPECTION DEVICE
Grantee: Franklin Institute Research Laboratories, Philadelphia,
Pennsylvania (R.J. Gibson)
Award Date: August 1, 1971.
Status: Completed

Project Summary: The objective of this project was the development of a prototype instrumented probe that can be inserted into a container through a small orifice for a visual examination of the container's contents. The probe, which is composed of fiber optical materials, contains a wide-angle feature and transmits the interior view to an observer some distance away. The probe can be manipulated from behind a shield and it furnishes its own illumination.

Final Product(s):

Flexible Optical Inspection Device, R.J. Gibson and John A. DeBenedictis, 1972, 27 pp.

Grant No: 71-NI-AX-153-G
Project: A STUDY OF THE FEASIBILITY OF DEVELOPING NEW EFFECTIVE MEASURES FOR ORGANIZED CRIME CONTROL EFFORTS
Grantee: International Research and Technology Corporation, Washington, D.C. (D.H. Overly)
Award Date: September 27, 1971.
Status: Completed

Project Summary: International Research and Technology Corporation evaluated ways in which the effectiveness of organized crime control efforts can be gauged. The study examined a number of aspects of organized crime in business and labor dealings. By investigation of archival data and public records pertaining to these and other organized crime activities, IR&T determined the effect that law enforcement control efforts have had on these activities in order to assist the law enforcement agencies in planning their efforts against organized crime.

Final Product(s):

New Effectiveness Measures for Organized Crime Control Efforts: Development and Evaluation, D.H. Overly and T.H. Schell, 1972, 119 pp. NCJ 10935, Microfiche.

Grant No: 71-NI-AX-159-1A
Project: EVALUATION OF INSTRUMENTATION FOR THE DETECTION OF POLAR ORGANIC ACIDS
Grantee: University of California, Los Alamos Scientific Laboratory, Los Alamos, New Mexico (R.N. Rogers)
Award Date: October 12, 1972.
Status: Completed

Project Summary: The laboratory conducted an evaluation of an instrument suitable for the detection of low quantities of polar organic acids. The detector was evaluated in various scenarios. The final product was a report which included recommendations for future work in this area.

Final Product(s):

Evaluation of an Organic Acid Detector for the Detection of Heroin, R.N. Rogers, E.D. Loughran, and E.M. Wewerka, 1973, 12 pp. NCJ 18849, Microfiche.

1972

Grant No: 72-NI-99-0002-G
Project: BURGLARY: A STUDY OF ITS CHARACTER, CORRELATES, CORRECTIVES, AND CAUSES
Grantee: Human Sciences Research, Inc., McLean, Virginia (H.A. Scarr)
Award Date: October 1, 1971.
Status: Completed

Project Summary: This grant continues the research effort performed in NI 70-064. In the initial grant and this continuation, burglary as a process is examined in order to produce empirically grounded recommendations to aid in its prevention and control. This project focuses particular attention on patterns of victimization. The offense, the offender, the victim, the social control agents, and the citizens were studied to determine the context in which burglary occurs, the opportunity structure in which it thrives, and the social psychology that impels its practitioners. The setting for this study was the metropolitan Washington, D.C., area: Fairfax County, Virginia; the District of Columbia; and Prince Georges County, Maryland. In summary, the study recommends that all effort should be made to encourage the ordinary citizen in the belief that by a series of simple, straightforward acts he can reduce the likelihood of being burglarized (reduce crime opportunities), and the police should encourage citizens to take simple precautions of this kind to reduce burglary and to enable the police to concentrate on the more skillfully (and fewer) executed offenses.

Final Product(s):

Patterns of Burglary, H.A. Scarr, 1972, 76 pp. NCJ 07072, Microfiche.

Patterns of Burglary - Part 1 - An Intensive Study of Crime in a Metropolitan Area, H.A. Scarr and J.L. Pinsky, 1972, 125 pp. GPO 027-000-00207-2, NCJ 10761.

Patterns of Burglary - Part 2 - An Annotated Bibliographic Guide to the Literature on Burglary, Burglars, and Burglarizing, J.L. Pinsky, 1972, 40 pp. NCJ 10762.

Patterns of Burglary - Part 3 - Tables and Figures, H.A. Scarr, 1972, 166 pp. NCJ 10763.

Patterns of Burglary - Part 4 - Interview Schedules and Coding Manuals Used in the Victimization Study, H.A. Scarr and D.S. Wyatt, 1972, 157 pp. NCJ 10764.

Patterns of Burglary - Part 5 - Technical Appendices, H.A. Scarr and J.L. Pinsky, 1972, 142 pp. NCJ 10765.

Patterns of Burglary - Part 6 - Related Technical Papers, H.A. Scarr, 1972, 67 pp. NCJ 10766.

Patterns of Burglary, 2nd Ed., H.A. Scarr and J.L. Pinsky, 1973, 347 pp. NCJ 10767, Microfiche.

Grant No: 72-NI-99-0011-1A, 71-NI-AX-119-1A
Project: TRAINING DOGS FOR NARCOTIC DETECTION
Grantee: U.S. Army Land Warfare Laboratory, Aberdeen Proving Grounds, Maryland (M. Cutler)
Award Date: March 14, 1972.
Status: Completed

Project Summary: Additional funding was provided the grantee of an earlier award (71-NI-AX-119-1A) to continue investigating the feasibility of training dogs to detect heroin. The experimental training program consisted of two phases. In Phase I, the dog was trained to detect and respond to heroin. In Phase II, the dog was tested for its ability to respond under conditions that closely approximated actual operational conditions.

Final Product(s):

Training Dogs for Narcotic Detection - Final Report, M. Cutler, 1972, 54 pp. NCJ 41753.

Grant No: 72-NI-99-0018-G
Project: COMPUTERIZED SCHEDULING OF POLICE MANPOWER
Grantee: Metropolitan Police Department, City of St. Louis, Missouri, (Nelson B. Heller)
Award Date: November 5, 1971.
Status: Completed

Project Summary: The first grant, 71-NI-AX-036-G, was awarded to initiate a "proportional rotating schedule" system designed to program police manpower in the Evidence Technician's Unit (ETU) of the St. Louis Police Department. The system's advantage over previous methods is that it is designed to provide equitable work schedules for police personnel. The original program effort was a manual adaptation.

The second grant, 72-NI-99-0018-G, was then awarded to enhance this effort even further by means of computerization. The benefits included: 1) decreasing the time required to design schedules, 2) providing an ability to control an even greater number of schedule attributes (such as types of programs to specify lengths of longest and shortest acceptable recreation and work periods, watch change conditions, manpower levels, etc.), and 3) providing an ability to

construct and examine a much larger number of alternative schedules for a given applicant from which an optional schedule could be selected. Examples of optional schedules include those where all officers rotate watch assignments, or where officers are permanently assigned to watch, or a combination of the two.

The total package is summarized in a users manual, located at the end of the second volume.

Final Product(s):

Computerized Scheduling of Police Manpower - Vol. 1 - Methods and Conclusions, N.B. Heller and T.J. McEwen, 1973, 153 pp. NCJ 13362, Microfiche.

Computerized Scheduling of Police Manpower - Vol. 2 - Evaluations and Program User's Manual, N.B. Heller and J.T. McEwen, 1973, 107 pp. NCJ 13363, Microfiche.

Scheduling Police Manpower by Computer, N.B. Heller and J.T. McEwen, 1972, NCJ 10837.

What Law Enforcement Can Gain From Computer Designed Work Schedules, Nelson B. Heller, 1974, 28 pp. GPO 027-000-00279-0, NCJ 15155, Microfiche.

Grant No: 72-NI-99-0027
Project: LAW ENFORCEMENT DEVELOPMENT GROUP
Grantee: Air Force Headquarters, Space & Missiles Systems Organization, Los Angeles, California, with the Aerospace Corporation, El Segundo, California (B. Henshall)
Award Date: June 2, 1972.
Status: Completed

Project Summary: The objective of the Equipment Systems Improvement Program was to contribute to the solution of law enforcement and criminal justice problems by developing, demonstrating, and evaluating new or improved procedures and equipment systems. To achieve this objective, three functionally specialized organizations were established: an Analysis Group, a Development Laboratory, and a Guidelines and Standards Group. This Interagency Agreement provided for the establishment of the Law Enforcement Development Group. The Development Laboratory developed hardware solutions to criminal justice systems problems. It generated design concepts and fabricated prototypes and test gear for evaluative purposes. It prepared field evaluation test plans and supports operational tests and evaluation in the field.

Final Product(s):

Equipment Systems Improvement Program Development Evaluation of Aerial Vehicles for Law Enforcement Application, J.B. Nichols, 1973, 114 pp. NCJ 14211, Microfiche.

Power Line Alarm Transmissions Systems- Phase I Report - Power System Characterization, D.L. Hardison and K.N. Duvall, 1973, 222 pp. NCJ 15605, Microfiche.

Power Line Alarm Transmission System - Final Report, R.F. Bell, D.L. Hardison, V.V. Pazemenas, and D.H. Rowe, 1973, 72 pp. NCJ 17089, Microfiche.

Grant No: 72-NI-99-0036-2
Project: EQUIPMENT SYSTEMS IMPROVEMENT PROGRAM
Grantee: USAF Electronic Systems Division, Bedford, Massachusetts, and the Mitre Corporation, McLean, Virginia (W.E. Holden)
Award Date: May 1, 1972.
Status: Completed

Project Summary: The objective of the Equipment Systems Improvement Program was to contribute to the solution of law enforcement and criminal justice problems by developing, demonstrating, and evaluating new or improved procedures and equipment systems. To achieve this objective, three functionally specialized organizations were established: An Analysis Group, a Development Laboratory, and a Guidelines and Standards Group. This Interagency Agreement provided for the establishment of the Analysis Group. The Analysis Group was the principal contact between the equipment systems program and the user community. Its purpose was to identify and formulate criminal justice system problems and assess the value of existing and proposed systems for the resolution of these problems.

Final Product(s):

Battery Power Supplies for Police Electronics, J.J. Gasparotti, 1973, 23 pp. NCJ 14966, Microfiche.

Burglar Alarm Requirements Analysis, N.H. Mines, 1973, 32 pp. NCJ 14970, Microfiche.

Commercial Robbery on a Medium-Sized City: Columbus, Georgia, L.E. Gunn, 1973, 98 pp. NCJ 14958, Microfiche.

Detailed Operational Requirements: Protective Garments for Law Enforcement Agencies, R.S. Carper, 1973, 20 pp. NCJ 14963, Microfiche.

Detailed Requirements Analysis for Protective Garments, R.S. Carper, 1973, 35 pp. NCJ 14962, Microfiche.

Equipment Systems Limitations in Surveillance Operations, D.D. Cox, 1973, 37 pp. NCJ 14965, Microfiche.

Notes Concerning the Impact of the Energy Crisis on the Criminal Justice System, W. Eliot and J.J. Gasparotti, 1973, 20 pp. NCJ 14967, Microfiche.

Police Low-Visibility Patrol Operations, M.V. Newman, 1974, 37 pp. NCJ 14960, Microfiche.

Preliminary Police Patrol Aircraft Requirements Analysis, J.H. Parness, S.H. Roth, 1973, 27 pp. NCJ 14971, Microfiche.

Preliminary Problem Statement Concerning Cell Door Open/Close Status, K.M. Levin, 1974, 22 pp. NCJ 14959, Microfiche.

Project CARES: Columbus Armed Robbery Enforcement System, L.G. Gunn, 1973, 41 pp. NCJ 14957, Microfiche.

Protective Garments for Police: Preliminary User Opinion Survey, A. Bruckheim, 1973, 22 pp. NCJ 14989, Microfiche.

Research on Latent Fingerprints on Human Skin, W.E. Holden, 1973, 5 pp. NCJ 14956, Microfiche.

Sample Survey of Police Department Radio Channel Number and Use, W.E. Holden, 1974, 13 pp. NCJ 14969, Microfiche.

Speaker Identification Through Voice Prints: A Brief Review, W.E. Holden, 1973, 8 pp. NCJ 14968, Microfiche.

Thirty-Eight Caliber Weapon Effectiveness, S. Roth, 1973, 31 pp. NCJ 14961, Microfiche.

Use of Interactive CCTV (Closed-Circuit Television) to Provide Legal Counseling Services in Philadelphia, W. Moy and J.R. Foulkes, 1973, 16 pp. NCJ 14964, Microfiche.

1973

Grant No: 73-NI-99-0002-G
Project: SEMI-AUTOMATIC FINGERPRINT ENCODING SYSTEM
Grantee: New York State Identification and Intelligence System, Albany, New York (F.G. Madrazo)
Award Date: October 1, 1972.
Status: Completed

Project Summary: The intent of this project (a continuation of 70-NI-095) was to enable the law enforcement system to search a single fingerprint of poor quality (such as a crime scene latent print) against a large master file, as well evaluate the operational impact of such a capability. An integral part of the program was the testing and evaluation of a Semi-Automated Fingerprint Encoding System which provided for a third level of fingerprinting classification, namely minutiae location. The project was a cooperative venture with local police agencies.

Final Product(s):

No report available

Grant No: 73-NI-99-0006
Project: CYCLOPEDIA OF POLICING: FEASIBILITY STUDY
Grantee: Loyola University of Los Angeles, Los Angeles, California (Gerald F. Uelmen)
Award Date: October 25, 1972.
Status: Completed

Project Summary: The purpose of this grant was to assess the need for a comprehensive "loose-leaf" series of volumes on law enforcement which could be used by law enforcement officers and training academies.

In making the assessment, the field of law enforcement was subdivided into 20 topic areas. A recognized "expert" in each area was commissioned to search, identify, study, and list all of the literature in his area of concern. The expert then evaluated the literature in terms of its comprehensiveness and utility for police officers.

Final Product(s):

Cyclopedia of Policing - Feasibility Study - Survey and Evaluation of Law Enforcement Literature in the United States, issued in 20 numbered volumes, Gerald F. Welmen, 1973, 2497 pp. NCJ 40381.

Grant No: 73-NI-99-A008
Project: EVALUATION OF AN ORGANIC ACID DETECTOR FOR THE DETECTION OF HEROIN
Grantee: Los Alamos Scientific Laboratory of the University of California, Los Alamos, New Mexico (R.N. Rogers)
Award Date: December 1973.
Status: Completed

Project Summary: This project consisted of (1) identification of the chemical compounds that appear in significant concentrations as volatiles from heroin samples, and (2) evaluation of a specific instrument designed to detect concealed heroin by sensing these volatiles.

Volatiles detected, in approximate order of concentration, are water, acetic acid, acetone, hydrogen chloride, chloroform, methanol, ethanol, isopropanol, methylene chloride, and diethyl ether. The heroin molecule itself is not detected in the vapor phase at normal temperatures.

The instrument (based on the "Biosensor" system of the RPC Corporation, El Segundo, California) was found to respond with great sensitivity, at approximately 50 parts per billion, to acetic acid. However, other low-molecular-weight organic acids are easily detected, and several types of organic and inorganic compounds elicit responses. The detector's sensitivity is a function of the background concentration of compounds that cause a response from the bacterial cultures used. The detector did not respond to pure, dry heroin; therefore, it must be considered primarily an acetic acid detector.

Final Product(s):

Evaluation of an Organic Acid Detector for the Detection of Heroin, R.N. Rogers, E.D. Loughran, E.M. Wewerka, and G.W. Taylor, 1973, 12 pp. NCJ 18849, Microfiche.

Grant No: 73-NI-99-0018 and 74-NI-99-0001
Project: DEVELOPMENT OF A POLICE SELECTION INSTRUMENT
Grantee: Personnel Decisions, Inc., Minneapolis, Minnesota (Marvin D. Dunnette)
Award Date: March 15, 1973.
Status: Completed

Project Summary: The major objective of this research program was to develop new methods for evaluating persons who apply for positions in police work and for

assessing the potential of present police officers who are being considered for promotion. A secondary objective was to learn what activities or job behaviors are critical to effectiveness or ineffectiveness in police work. Thus, a first step in the research program involved studying the critical features of four different police jobs: General Patrol Officer, Patrol Sergeant, Investigator/Detective, and the Intermediate Command Function. Defining these critical dimensions of job performance for each of these four police functions was used in two distinct ways to accomplish the central objective of developing new assessment methods for police jobs.

First, the critical dimension of police performance was used to design new methods for rating the job performance of police officers in the four aforementioned functions. These rating methods were used to evaluate the current job performance effectiveness in order to conduct a concurrent validation study which would be a short easily administered inventory with separate scoring keys shown empirically to be related to different levels of performance effectiveness in those four functions. This procedure is called the Police Career Index. Second, the critical dimensions of police performance were basic for designing simulations and standardized situational tasks for use in evaluating candidates being considered for placement in any of the four police functions. This is known as the Regional Assessment Center Procedure.

In terms of methodology, the Police Career Index (PCI) was developed and validated by utilizing police officers in nine cities. Job performance ratings were obtained and a battery of tests was administered to all participants. Complete data were available for 700 patrol officers, 415 detectives, 362 sergeants, and 206 middle command officers. A variety of statistical methods of analysis was used to examine the dimensionality of the performance ratings. A Monte Carlo method of item analysis and scoring key development was used to select scoring keys most likely to yield stable validity coefficients. These methods were applied separately to each of the four police functions in developing PCI keys. After scoring keys were developed, their validities were examined separately according to subgroupings based on city, race, and sex.

Development of simulations to be used in the Regional Assessment Center Program entailed a number of steps as described: (1) study and on-site observations of officers as they carried out their jobs; (2) review of preliminary simulations of nine police psychologists and police officers; (3) modify simulations based on the above feedback, (4) obtain critiques by other police psychologists and police officers; (5) pretest simulations in three cities; and (6) conduct eight pilot assessment centers. The final pretests were considered successful. Even with minimal training, the grantee found assessor staff members were able to make sound behavioral observations, perform accurate ratings of candidates, and agree about the relative overall effectiveness of the candidate whom they observed.

The final report provides a technical assessment of the project activities as well as users manuals for each of the four police job activities.

Final Product(s):

Police Selection and Career Assessment, M.D. Dunnette and S.J. Motowidlo, 1975, 220 pp. GPO 027-000-00390-7, NCJ 28087, Microfiche.

Police Selection and Career Assessment - Executive Summary, M.D. Dunnette and S.J. Motowidlo, 1975, 13 pp. NCJ 32903, Microfiche.

Grant No: 73-NI-99-0035-G
Project: PROJECT SEARCH--LATENT FINGERPRINT STUDY
Grantee: California Crime Technological Research Foundation, Sacramento, California (Paul Wormeli)
Award Date: June 19, 1973.
Status: Completed

Project Summary: The objectives of this project were to analyze and evaluate commercially available single-print latent fingerprint search systems and to assess available technology which could be applied to fingerprint systems. The grantee identified and analyzed approximately 10 commercial single-print systems. In assessing available technology, the grantee identified technological advances applicable to latent print systems which warrant further research. A final technical report described the state of the art relative to latent prints. In addition, the grantee produced a document for police administrators and heads of crime laboratories and identification bureaus which set forth guidelines for selection of a latent print search system.

Final Product(s):

Project Search - Report on Latent Fingerprint Identification System, P. Wormeli, 1974, 334 pp. NCJ 14711, Microfiche.

Project Search - Analysis of Automated and Semi-Automated Systems for Encoding and Searching Latent Fingerprints, P. Wormeli, 1974, 92 pp. NCJ 14712, Microfiche.

Grant No: 73-NI-99-0036
Project: POLICE PERFORMANCE APPRAISAL
Grantee: Pennsylvania State University, Department of Psychology, University Park, Pennsylvania (F. Landy)
Award Date: May 15, 1973.
Status: Completed

Project Summary: This project was primarily directed toward the development and experimental use of performance appraisal scales for patrol officers with plans to use these scales as criteria in the validation of selection procedures, in constructing a "retention/discharge strategy," and for analyzing the role played by job satisfaction and work motivation as related to performance. The basic technique used in developing these scales was that of behavioral anchoring, rather than anchoring in the traditional evaluation manner-graphic supervisory rating scales. Scales of this type were developed for two levels of police performance, namely a set of eight technical performance scales (for rating by supervisors) and nine sets of performance scales related to coworkers (for peer

rating). As part of the evaluation of the resulting scales, the scales were developed and tested in 56 cooperating municipal police agencies throughout the country.

Final Product(s):

Performance Appraisal for Police Patrol Officers, F.J. Landy and J.L. Farr, 1973, 30 pp. NCJ 34520, Microfiche.

Derivative Work:

Landy, F.J. "The Validity of the Interview in Police Officer Selection." Journal of Applied Psychology 61:193-198, 1976. NCJ 53671.

Landy, F.J., et al. "Behaviorally Anchored Scales for Rating the Performance of Police Officers." Journal of Applied Psychology 61:548-557, 1976. NCJ 46586.

Grant No: 73-NI-99-0037-G
Project: ANALYSIS OF THE CRIMINAL INVESTIGATION PROCESS
Grantee: Rand Corporation, Santa Monica, California, (Peter W. Greenwood)
Award Date: June 13, 1973.
Status: Completed

Project Summary: The objectives of the research were:

- o To describe, on a national scale, current investigative organization and practices.
- o To assess the contribution that police investigation makes to the achievement of criminal justice goals.
- o To ascertain the effectiveness of new technology and systems being adopted to enhance investigative performance.
- o To reveal how investigative effectiveness is related to differences in organizational form, staffing, procedures, etc.

The scope of the Rand study was limited to police investigation of serious reported crime: homicide, rape, assault, robbery, burglary, and theft.

The initial volume, The Criminal Investigation Process: Summary and Policy Implications, summarizes and synthesizes the overall findings of the study and draws policy-relevant conclusions and recommendations. This report should be of interest to police officials and to other criminal justice practitioners, such as prosecutors and judges, whose work brings them in contact with criminal investigators.

Volume II of the series, The Criminal Investigation Process: Survey of Municipal and County Police Departments, reports on the responses to a national survey of police departments with more than 150 employees. Differences among departments with regard to policies, resources used, and operational characteristics are identified and then related to standard gross performance statistics such as crime, clearance, and arrest rates. This report should be of interest to both police officials and the criminal justice research community.

Volume III of the series, The Criminal Investigation Process: Observations and Analysis, presents a comprehensive description of the criminal investigation process (based on all data gathered in the course of the study) and an analysis of those issues that can be illuminated by quantitative evidence. This report is directed primarily to researchers but may also be of interest to police officials who wish to examine the details of the analysis supporting the findings reported in this volume.

Final Product(s):

Criminal Investigation Process, V1: Summary and Implications, Peter W. Greenwood and Joan Petersilia, 1975, 48 pp. NCJ 32153, Microfiche.

Criminal Investigation Process, V2: Survey of Municipal and County Police Departments, Jan M. Chaiken, 1975, 94 pp. NCJ 32154, Microfiche.

Criminal Investigation Process, V3: Observations and Analysis, Peter W. Greenwood, Jan M. Chaiken, Joan Petersilia, and Linda Prusoff, 1975, 199 pp. NCJ 32155, Microfiche.

Criminal Investigation Process - Dialogue on Research Findings, Peter W. Greenwood, 1977, 75 pp. GPO 027-000-00510-1, NCJ 40331, Microfiche.

Criminal Investigation Process - A Summary Report, J.M. Chaiken and P.W. Greenwood, 1976, 50 pp. NCJ 44810, Microfiche.

Derivative Work:

Chaiken, J.M., P.W. Greenwood, and J. Petersilia. "Response To An Evaluation of the Rand Corporation's Analysis of the Criminal Investigation Process." Police Chief 43(12):62-71, 1976. NCJ 38105.

Chaiken, J.M., J. Petersilia, and P.W. Greenwood. Criminal Investigation Process. Boston:D.C. Heath and Company, 1977. 346 pp. NCJ 40597.

Grant No: 73-NI-99-0041-G, 71-NI-028
Project: UNIFORM RULES OF CRIMINAL PROCEDURE
Grantee: National Conference of Commissioners on Uniform State Laws, Chicago, Illinois (Kenneth F. Kirwin)
Award Date: July 1, 1973.
Status: Completed

Project Summary: This is the final phase of a 3-year project, the first 2 years of which were funded under Grant 71-NI-028, to develop a comprehensive set of rules to revise and update the 1952 Uniform Rules of Criminal Procedure. The set of rules reflects major policy changes in the approach to the trial of criminal cases, among which are an emphasis on reducing court time, centralizing in the prosecutor the responsibility for initiating and controlling criminal prosecutions, and providing broad discovery to prosecution and defense.

Following final adoption by the National Conference of Commissioners on Uniform State Laws, the Rules will be promulgated for adoption by the States.

Final Product(s):

Uniform Rules of Criminal Procedure (1974), Drafted by the National Conference of Commissioners of Uniform State Laws (Approved Draft), 1974, 435 pp. NCJ 15260. Microfiche.

Grant No: 73-NI-99-0047
Project: RESPONSE TIME ANALYSIS STUDY
Grantee: Kansas City Police Department, Response Time Analysis Project, Kansas City, Missouri, (William Bieck)
Award Date: June 30, 1973.
Status: Completed

Project Summary: The overall objectives of this research effort were to identify and analyze the operational problems that are related to response time, and to analyze the effect of response time on the various outcomes of police field services. The studies major objectives were:

1. To identify crime outcomes associated with differential response times, e.g., criminal apprehensions, citizen injury, witness availability, citizen satisfaction, etc.;
2. To describe patterns and problems in reporting crimes; and
3. To determine time needed to report criminal offenses and process information through the communication and dispatch system.

Through the use of civilian observers, analyses of the communication center's tapes, and interviews with victims and witnesses, the project collected a wealth of data.

Analysis of data indicates that on-scene arrest, incidence of citizen injury, and witness availability were found to be potential outcomes in only 39 percent of all crime incidents. Perhaps the most significant result was that citizen reporting delays were extensive in a high proportion of cases and that citizen mobilization time constituted a significant proportion of the total response time continuum. Not only was reporting time lengthy, but it also appeared to be a mediating time factor in the probability of an on-scene arrest and the availability of witnesses. Continued in 77-NI-99-0016.

Final Product(s):

Response Time Analysis Report - Executive Summary, Kansas City Police Department, 1978, 44 pp. GPO 027-000-00731-7, NCJ 46852, Microfiche.

Response Time Analysis Report - Volume I Methodology, Kansas City Police Department, 1978, 318 pp. GPO 027-000-00734-1, NCJ 47076, Microfiche.

Response Time Analysis Report - Volume II Analysis, Kansas City Police Department, 1978, 262 pp. GPO 027-000-00735-0, NCJ 47077, Microfiche.

Grant No: 73-NI-99-0052
Project: ASSESSMENT OF THE FORENSIC SCIENCES PROFESSION
Grantee: The Forensic Sciences Foundation, Inc., Colorado Springs, Colorado (Kenneth S. Field)
Award Date: June 14, 1973.
Status: Completed

Project Summary: This nationwide study of the forensic sciences profession provides a state-of-the-art assessment of the number, training, and experience of forensic scientists and related paraprofessional personnel serving the criminal justice system. Included as forensic scientists are: criminalists, coroner/medical examiners; forensic anthropologists; forensic odontologists; forensic psychiatrists; forensic toxicologists; and questioned document examiners. Also included are evidence technicians--as support personnel.

The assessment was accomplished through the use of 11 different questionnaires mailed to over 7,000 individuals and agencies throughout the United States. The target population was any individual who, during the period 1969-1974, had testified in criminal proceedings as an expert witness plus all agencies that perform forensic sciences services.

Three reports were produced from the surveys: a study of the laws that impact on forensic scientists; a series of rosters showing educational opportunities available in the various disciplines and the assessment of the personnel comprising the forensic sciences profession.

Final Product(s):

Assessment of the Forensic Sciences Profession - A Legal Study Concerning the Forensic Sciences Personnel, V3, O. Schroeder, 1977, 239 pp. GPO 027-000-00504-7, NCJ 41899, Microfiche.

Assessment of the Personnel of the Forensic Sciences Profession, Kenneth S. Field, et al., 1975, 250 pp. GPO 027-000-00503-9, NCJ 37881, Microfiche.

A Survey of Educational Offerings in the Forensic Sciences, Kenneth S. Field, et al., 1975, 78 pp. NCJ 37775, Microfiche.

Derivative Work:

Schroeder, R.O., Jr. Forensic Sciences In American Criminal Justice - A Legal Study Concerning the Forensic Sciences Personnel. Rockville, Md:Forensic Sciences Press, 1974, 250 pp. NCJ 37776, Microfiche.

Grant No: 73-NI-99-0059-G
Project: STUDY FOR ALAMEDA COUNTY 911
Grantee: Alameda Regional Criminal Justice Planning Board, Oakland, California (Scott W. Hovey, Jr.)
Award Date: July 1, 1973.
Status: Completed

Project Summary: This was Phase II of a two-phase project to develop procedures and study the feasibility of implementing the "Single number - 911" system throughout Alameda County. The three specific aims of this phase of the project were: (1) to determine the operational, economic, and social feasibility of implementing an automated 911 system in a complex multijurisdictional urban area such as the Oakland metropolitan area and perform the preliminary planning for implementing such a pilot system; (2) to project the cost/benefits and conditions for implementing the national pilot system in the test area so that the concerned governmental and telephone agencies can make an informed decision on whether to proceed with the implementation and the level of their particular participation; and (3) to provide a plan for introducing 911 service throughout Alameda County in accordance with California State law--a plan with suitable options for the exercise of local government preference and varying contingencies implementation and availability of "911" equipment.

Final Product(s):

911-Study for Alameda County - Appendix, 1973, 58 pp. NCJ 29733, Microfiche.

Study for Alameda County (CA) 911, Scott W. Hovey, Jr., 1974, 90 pp. NCJ 29732, Microfiche.

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Grant No: 74-NI-99-0004
Project: EVALUATIVE STUDY OF THE EQUIPMENT SYSTEMS IMPROVEMENT PROGRAM
Grantee: Northwestern University, Evanston, Illinois (Michael Radnor)
Award Date: November 16, 1973.
Status: Completed

Project Summary: An evaluation was made of the Equipment Systems Improvement Program (ESIP) of the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice. The substantive discussion in this report is presented in three volumes. Volume I is an executive overview of the whole report. It contains an evaluation of the NILECJ ESIP program in the light of research carried out under NILECJ grant 74-NI-99-0004. The ESIP program is criticized for its lack of policy direction and suggestions are made for redirection. The point is made that NILECJ must recognize that an equipment and systems improvement program involves management of the implementation, diffusion, and dissemination as well as the innovation aspects of the total R&D system. The critical importance of market and user behavior and capability as policy targets is highlighted. An overview is given on the research to date. This was based on analyses of key issues (the producer R&D Process; Law Enforcement Markets; Information Transfer and Dissemination; Need Identification; Cooperation Between Users; Funding and Budgeting; The Equipment Acquisition Process; Installation Utilization, Maintenance, and Assessment). In addition analyses are presented of 10 selected law enforcement products (body armor, holster utility belts, low-light photography and surveillance equipment, nonlethal weapons, portable transceivers, vehicle locators, voice identification, weapons detection, building design for courts and prisons, court recording systems), and comparative analyses of producers, users, distributors, and other agencies. Suggestions are made for further work of both research and action orientations.

Final Product(s):

Studies and Action Programs on the Law Enforcement Equipment R&D System: Evaluative Study of the Equipment Systems Improvement Program - Vol. 1 - Introduction and Overview, Michael Radnor, 1975, 60 pp. NCJ 35014.

Studies and Action Programs on the Law Enforcement Equipment R&D System: Evaluative Study of the Equipment Systems Improvement Program - Vol. 2 - The Research Programs, Michael Radnor, 1976, 310 pp. NCJ 35015.

Studies and Action Programs on the Law Enforcement Equipment R&D System: Evaluative Study of the Equipment Systems Improvement Program - Vol. 3 - Recommendations for Further NILECJ Research, Michael Radnor, 1975, 25 pp. NCJ 35016.

Studies and Action Programs on the Law Enforcement Equipment R&D System: Evaluative Study of the Equipment Systems Improvement Program - Vol. 4 - Appendices, Michael Radnor, 1975, 75 pp. NCJ 35017.

Grant No: 74-NI-99-A005
Project: LIGHTWEIGHT BODY ARMOR
Grantee: Biophysics Laboratory, Edgewood Arsenal, Maryland
(Clarence E. Hawkins)
Award Date: October 17, 1973.
Status: Completed

Project Summary: The task of developing suitable lightweight body armor for police and public figures was given to the U.S. Army. Efforts included determination and evaluation of blunt trauma, development of fabrication processes for comfort and wearability based on laboratory techniques for measuring comfort, heat retention, and other important parameters, and final configuration of the armor. The effort was to be based on NIJ recommendations related to the use of Kevlar®, a duPont aramid material then known as Fiber B. Many successful products emerged. They are in wide use and have saved many lives.

Final Product(s):

Body Armor - Blunt Trauma Data, V.R. Clark, 1975, 54 pp. NCJ 32266.

Body Armor - Medical Assessment, M.A. Goldfarb, 1975, 32 pp. NCJ 32265.

Lightweight Body Armor for Law Enforcement Officers, N. Montanarelli, 1975, 119 pp. NCJ 30462.

Derivative Work:

Carroll, Andrew W., Carl A. Soderstrom. "A New Nonpenetrating Ballistic Inquiry." Annals of Surgery 188:753-757, December 1978.

Metker, LeRoy W., Russell N. Prather, Phillip A. Coon, et al. "A Method of Soft Body Armor Evaluation: Cardiac Testing." Technical Report ARCSL-TR-78034 Aberdeen Proving Ground, Md.:U.S. Army Armament Research and Development Command, November 1978. 36 pp.

Prather, Russell N., Conrad L. Swann, and Clarence E. Hawkins. "Backface Signatures of Soft Body Armors and the Associated Trauma Effects." Technical Report ARCSL-TR-77055 Aberdeen Proving Ground, Md.:U.S. Army Armament Research and Development Command, November 1977. 40 pp.

Soderstrom, Carl A., Andrew W. Carroll, Clarence E. Hawkins, and Lester D. Shubin. "The Medical Assessment of a New Soft Body Armor." Technical Report ARCSL-TR-77057 Aberdeen Proving Ground, Md.:U.S. Army Armament Research Development Command, January 1978.

Grant No: 74-NI-99-0019
Project: DEVELOPMENT OF MODEL RULES OF CONDUCT FOR INTERNAL DISCIPLINARY ACTION
Grantee: International Association of Chiefs of Police (IACP), Gaithersburg, Maryland (Glen R. Murphy)
Award Date: March 29, 1974.
Status: Completed

Project Summary: The overall objectives of this 2-year study were:

1. To identify within selected police agencies those conditions which are perceived to have a positive or negative effect on police discipline.
2. To identify rules of conduct and discipline procedures which are or may be subjected to legal challenge and to revise those rules and procedures found to conflict with judicial decisions, or which cause police officers substantial concern.
3. To develop a manual which offers guidance on establishing or improving police disciplinary practices.

Conditions relevant to discipline were studied in 17 agencies, using three complementary approaches: (1) a two-part legal analysis, including an assessment of rules and procedures and the inputs of local government officials and citizen groups; (2) an administrative analysis to determine the roles and behavior of department managers in the disciplinary process; and (3) a questionnaire administered to a stratified sample of police officers to determine perceptions of existing practices.

The final products of the project are: (1) an individual report of research findings specific to each participating agency; (2) a comprehensive report which presents general practical implications of the combined findings as well as the quantitative results of the three data gathering techniques; and (3) an executive summary highlighting major project findings and recommendations. The full report contains a prototype document containing rules of conduct and disciplinary procedures for police organizations. Continues in grant 76-NI-99-0104.

Final Product(s):

Guidelines for Taking Police Disciplinary Action - Supervisors' Handbook, IACP, 1976, 21 pp. NCJ 37585, Microfiche.

Major Recommendations for Management of Effective Police Discipline - Executive Summary, IACP, 1976, 48 pp. NCJ 37586.

Managing for Effective Discipline - A Project to Develop Prototype Rules of Conduct and Disciplinary Procedures for Law Enforcement - Final Project Report, Glen R. Murphy, 1975, 400 pp. NCJ 35592.

Managing for Effective Police Discipline - A Manual of Rules, Procedures, Supporting Law and Effective Management, IACP, 1976, 416 pp. NCJ 37584.

Grant No: 74-NI-99-0023
Project: A MAN-COMPUTER SYSTEM FOR SOLUTION OF THE MUG FILE PROBLEM
Grantee: University of Houston, Houston, Texas (Benjamin T. Rhodes, Jr.)
Award Date: June 18, 1974.
Status: Completed

Project Summary: This is Phase I of a two-phased study concerned with ameliorating problems inherent in the process of witness identification of criminal suspects from police department mug shot files. This first phase was expressly developmental. The information provided by the final report, which gives an account of the final phase, is a collection of working documentation of the extensive research that has been undertaken by the Houston staff during that period.

The primary objective of this Phase I study was to develop a "first generation" set of procedures, hardware and software which together could be used by an operating police department to significantly reduce the number of photographs a witness must examine in order to identify a suspect contained in a mug file. The basic premise of the study is that witness exposure to a small number of mug shots (as provided by the computerized system to be developed) as opposed to numerous mug shots (the traditional tome search presently employed by police departments) enhances suspect identification as it is less confusing and fatiguing for the witness.

The approach used in the development of this project involved four basic steps:

- Obtaining an image of the suspect's face from the witness using a sketch artist, identi-kit, or a similar device;
- Measuring certain parameters of the face of the image obtained from the witness and entering these into a computer program;
- The computer program or algorithm (pattern recognition mathematical model developed for the study) searching the parameters of the faces in the mug file and determining which mug shots are "look alikes" to the image supplied by the witness; and
- Having the investigator and witness examine the selected "look alikes" to determine if one or more of the individuals should be considered a suspect.

The study was a laboratory experiment which has resulted in the development of a computerized system which is an improvement over the "random selection" system traditionally used by police departments. This system, however, must be improved in order to be a cost-effective replacement for traditional methods. Phase II is to be devoted to improving upon this model, taking the experiment out of the laboratory, and actually implementing it in a police department where it can be

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adapted to address the effectiveness and efficiency needs of police department operations. Continued in 76-NI-99-0012.

Final Product(s):

A Man-Computer System for Solution of the Mug File Problem, K.R. Laughery, J.D. Bargainer, J.R. Townes, and G.W. Batten, Jr., 1976, 106 pp. NCJ 36113.

Grant No: 74-NI-99-0029
Project: POLICE WORK AND A COMPARATIVE ANALYSIS OF DRUG LAW ENFORCEMENT
Grantee: Department of Sociology, Michigan State University, East Lansing, Michigan (Peter Manning)
Award Date: May 10, 1974.
Status: Completed

Project Summary: The purpose of this project was twofold: 1) to complete a manuscript entitled Police Work and 2) to conduct a comparative study of drug law enforcement.

Police Work is a historical and theoretical study of the police from the development of the police idea in Great Britain to dilemmas found in policing in the United States today. This book evolved from field observation work done by the author in both Michigan and London. Topics included in this book are: the construction of a theoretical framework in which to discuss the police; the rise of the police; the police mandate; police presentational strategies; police organizations as situationally justified action; the social organization of police work as ritual; redundancy and social structure in policing; and policy and the police.

The second part of the project has resulted in a preliminary article "Working Bases for Corruption: Organizational Ambiguities and Narcotics Law Enforcement." This article was the result of field work done in Washington, D.C., and Montgomery County, Maryland, two southwestern cities, one southeastern city, and one large midwestern city. The major theme of the article is that the structural organization of narcotics law enforcement leads to such problems as corruption, malfeasance, and violations of trust.

Final Product(s):

Working Bases for Corruption: Organizational Ambiguities and Narcotics Law Enforcement, Peter K. Manning and Lawrence John Redlinger, 1975, 40 pp. NCJ 39858, Microfiche.

Derivative Work:

Manning, Peter K. NARC's Game - Organizational and Informational Limits on Drug Law Enforcement. Cambridge, Mass.:MIT Press, 1980. 331 pp. NCJ 071020.

Manning, Peter K. Police Mandate and Institutional Contradictions. (From International Seminar on Police Research - Final Report, October 1976) Wash., D.C., 1976. 34 pp. NCJ 49596, Microfiche.

Manning, Peter K. Police Work - The Social Organization of Policing. Cambridge, Mass.:MIT Press, 1977. 430 pp. NCJ 39859.

Manning, Peter K. Policing - A View From the Street. Santa Monica, Calif.: Goodyear Publishing Co., 1978. 368 pp. NCJ 55527.

Manning, Peter K. "Policy, Evaluation, and Structural Constraints on Policing." International Seminar on Policy-Making and Evaluation Research - Proceedings Saint Marguerite, Quebec, April 1976. 38 pp. NCJ 77768.

Manning, Peter K. "Rules in Organizational Context: Narcotics Law Enforcement in Two Settings." The Sociological Quarterly 18:44-61, 1976. NCJ 77770.

Grant No: 74-NI-99-0032
Project: VARIANT POLYPEPTIDES IN HAIR
Grantee: Massachusetts General Hospital, Boston, Massachusetts (Dr. Howard P. Baden)
Award Date: July 1, 1974.
Status: Completed

Project Summary: Hair is of great potential value in the identification of individuals and thus has importance in Forensic Sciences. In a given day, the average individual will lose an estimated 30-50 hairs. In the course of violent activity, the hair loss is likely to be even higher. Events of physical contact such as physical assault or rape invariably include an exchange of materials between the perpetrator and victim, including hair and fibers. Morphological examination of human hair has been of help but lack of specificity and objectivity limits its usefulness.

The purpose of this project was to develop biochemical techniques to characterize the polypeptides of hair proteins and to use these patterns in the identification of specific hair samples. The samples studied were those of normal individuals. As a result of this research, a variant pattern was found in hair from all body regions of an affected individual and was transmitted in an autosomal dominant fashion. The hair appeared to be normal in structure and amino acid composition and the explanation for the variation was a polymorphism of one of the polypeptides most likely as a result of a single amino acid substitution.

The investigators found that their standard electrophoresis procedure was adequate for examining small specimens of hair. They obtained excellent patterns using an 8 cm length of hair which weighs under 0.5 mg and the results were reproducible.

Using their original technique, the investigators found the incidence of the variant pattern in Caucasians in 10 percent of the population. They did not find the variant in a sample of Orientals (75 Japanese) or 25 black Africans. In American Blacks (100 specimens) the variant was found in two individuals, which is close to the expected incidence of Caucasian genes in that population.

Examination of the matrix proteins in human hair by polyacrylamide electrophoresis required the development of a new technology since these polypeptides

ran as a single component by standard techniques. Using this technique, the investigators established the appearance of the usual pattern and observed 5 variant patterns. One of these has been observed with a frequency of about 5 percent, the others at the 1 percent level. The patterns were entirely reproducible using multiple samples from the same individual.

Final Product(s):

Variant Polypeptides in Hair, H.P. Baden, 1974, 20 pp. NCJ 65354.

Grant No: 74-NI-99-0034
Project: AN UNEXPLORED AREA IN BAIL: THE RETRIEVAL PROCESS, WHO CONDUCTS RETRIEVALS, THE GOVERNING RULES AND THE REFORMATION OF THE RULES
Grantee: College of Law, University of Cincinnati, Cincinnati, Ohio (John Joseph Murphy)
Award Date: June 1, 1974
Status: Completed

Project Summary: This study predicts that over half the Nation's police vehicles will be equipped with computer terminals by the 1980's. In addition, hand-held terminals are currently being developed for the patrol officer. These technological innovations will provide the police with direct access to national computerized fugitive files. Murphy predicts that this and bail reform efforts will shift the responsibility of fugitive retrievals to local police patrols.

Murphy goes on to examine the controversy that will arise from this situation, including the implications of this technological innovation for both the police and persons in the computerized fugitive files. He also examines the inadequacies of our current extradition laws and recommends alternatives for revising the Extradition Act.

Final Product(s):

Arrest by Police Computer: The Controversy over Bail and Extradition, John Joseph Murphy, 1975, 153 pp. NCJ 29431.

Derivative Work:

Murphy, J.J. Arrest by Police Computer: The Controversy Over Bail and Extradition, Lexington, Mass.: Lexington Books, 1975.

Grant No: 74-NI-99-0036
Project: RANK CHANGE IN THE METROPOLITAN POLICE DEPARTMENT OF WASHINGTON, D.C.
Grantee: Bureau of Social Science Research, Washington, D.C. (James Kretz)
Award Date: June 6, 1974.
Status: Completed

Project Summary: This research effort provided basic information with regard to changing police department rank structures from the current military model to a functional model probably resembling most civilian, formal organizations. Data were gathered and analyzed concerning both functional and dysfunctional aspects of the current rank structure and functional and dysfunctional aspects of the anticipated set of rank titles and insignia. These four areas will be investigated both from the perspective of the D.C. Metropolitan Department as a whole and from the perspective of individual officers and citizens within the D.C. community. Five data sources are identified, including discussions with high ranking members of other police departments around the country; group exploratory interviews with officers of various ranks; a total census of the MPD; a random sample of 700 D.C. residents within the 7 precinct areas; and a survey of 100 opinion leaders in the area. The analysis of data collected is designed to facilitate decisionmaking with regard to anticipated rank structure changes. The results of this study, while of particular interest to the MPD, is of interest to other departments considering similar organizational changes.

Final Product(s):

District of Columbia - Report of Public Opinion Survey Concerning Rank Change in the Metropolitan Police Department, J.M. Kretz, 1975, 50 pp. NCJ 41379.

Grant No: 74-NI-99-0037
Project: ROLE OF POLICE IN A FREE SOCIETY
Grantee: Law School, University of Wisconsin - Madison, Madison, Wisconsin (Herman Goldstein)
Award Date: June 6, 1974.
Status: Completed

Project Summary: The accomplished purpose of this project was to identify and study the major issues and problem areas facing contemporary law enforcement in urban America. The issues that were dealt with were both those that pose complex problems for the police and those that have not received proper attention in other works. Because the state of knowledge was rather primitive in many of these areas, especially in the area of the interrelationships among the problems, the nature of the methodology was exploratory rather than emphasizing systematic data collection.

The study produced a book length manuscript, Police in a Free Society, that is aimed at law enforcement administrators and encourages directing attention away from overly simplistic solutions to complex policing problems.

Final Product(s):

Policing a Free Society, Herman Goldstein, 1976, 1023 pp. NCJ 35914.

Derivative Work:

Goldstein, H. "Law Enforcement in a Democracy: A Review of Policing in a Free Society." Criminal Law Bulletin Sept-Oct. 1977.

Goldstein, H. Policing a Free Society. Cambridge, Mass: Ballinger Publishing Co., 1977. 371 pp. NCJ 40518.

Grant No: 74-NI-99-0041
Project: CHARACTERIZATION AND INDIVIDUALIZATION OF SEMEN
Grantee: The Regents of the University of California, Berkeley, California
Award Date: May 22, 1974.
Status: Completed

Project Summary: The purpose of this project was to provide the foundation, in knowledge and procedure, for the improved analysis of semen in the context of rape investigation. The research had two objectives:

1. Improvement of procedures for the identification of semen.
2. Improvement of the ability to individualize semen.

The researchers determined that prostatic acid phosphatase, the phosphatase found in semen, belongs to a class of tissue acid phosphatases characterized by molecular weight, catalytic properties, and substrate specificities. The vaginal acid phosphatase also belongs to this class. Within this class there is heterogeneity in electrophoretic mobility; the prostatic enzyme can be distinguished from the other tissue acid phosphatases, including the vaginal acid phosphatase, by this criterion. However, the prostatic, vaginal, and several tissue acid phosphatases are immunologically cross-reactive. This finding suggests that they have a common genetic origin and may differ only in a secondary property. Of practical significance, the vaginal and prostatic enzymes may undergo inter-conversions such that they are indistinguishable. The researchers have found that treatment of prostatic acid phosphatase with a bacterial enzyme (such as might be found in the vagina) can alter its electrophoretic mobility such that it appears indistinguishable from the vaginal enzyme. These observations suggest that the acid phosphatase test has limited specificity and that there is a significant risk of false negatives.

In addition, over 20 known genetic polymorphisms were surveyed for their expression in semen. Of these, 15 were found of which 5 are present only in seminal plasma, 7 are present only in sperm, and 3 are present in both. In addition, one confirmed new genetic marker in sperm was discovered and another tentative new genetic marker is indicated. The new genetic marker (Sperm Diaphorase) is of particular interest since it is found only in sperm.

Final Product(s):

Identification and Individualization of Semen in the Investigation of Rape, G.F. Sensabaugh, n.d., 41 pp. NCJ 72577, Microfiche.

Derivative Work:

Blake, E.T., G.F. Sensabaugh. "Esterase D Typing in Blood Stains." Forensic Serology 1:1-4, 1976.

Blake, E.T., G.F. Sensabaugh. "Genetic Markers in Human Semen - A Quantification of Polymorphic Proteins" Journal of Forensic Science 23(4):717-729, October 1978. NCJ 51793.

Blake, E.T., G.F. Sensabaugh. "Genetic Markers in Human Semen: A Review." Journal of Forensic Science 21: 784-796, 1976.

Blake, E.T., G.F. Sensabaugh. "Protein and Enzyme Polymorphisms in Human Semen." International Microform Journal of Legal Medicine 10:Article 21, 1975.

Caldwell, Kevin, Edward T. Blake, and George F. Sensabaugh. "Sperm Diaphorase: Genetic Polymorphism of a Sperm-Specific Enzyme in Man." Science 191:1185-1187, 1976.

Golden, V.L., G.F. Sensabaugh. "Esterase D Polymorphism in Chinese and Japanese." Human Genetics 35:103, 1976.

Sensabaugh, G.F. "Isolation and Characterization of a Semen Specific Protein from Human Seminal Plasma. A Potential New Marker for Semen Identification." J. For. Sci 23:106-115, 1978.

Sensabaugh, G.F. "Molecular Evolution and the Immunological Determination of Species." International Microform Journal of Legal Medicine 2:Article 219, 1976.

Sensabaugh, G.F. "Quantitative Acid Phosphatase Test - A Statistical Analysis of Endogenous and Postcoital Acid Phosphatase Levels in the Vagina." Journal of Forensic Sciences 24(2):346-365, April 1979. NCJ 57024.

Grant No: 74-NI-99-0048, 76-NI-99-0091
Project: LABORATORY PROFICIENCY TESTING
Grantee: Forensic Sciences Foundation, Rockville, Maryland
(Kenneth S. Field)
Award Date: July 1974.
Status: Completed

Project Summary: This research project was initiated to determine how to conduct a national proficiency testing program and also to collect data relating to test methods and procedures utilized by crime laboratories as a means to design education and training programs. As a result of the research performed,

knowledge was obtained regarding weaknesses of crime laboratories, nationwide, as it applies to selected items of physical evidence.

Typical categories of physical evidence tested in conjunction with this research grant included: drugs, firearms evidence, bloodstains, glass, paint, soil, fibers, arson evidence, body fluids, metal samples, hairs, questioned document examinations, and wood samples.

Approximately 240 local, State, and Federal crime laboratories participated in these tests (2 percent Federal laboratories, 57 percent State or regional laboratories, 40 percent local, and 1 percent private or Canadian government laboratories). The participation rate varied from 99 percent in drugs to 40 percent for wood samples.

Recommendations included additional training for crime laboratory examiners, research on selected items of physical evidence, and dissemination of additional laboratory standards. The final report notes that the problems uncovered in the Nation's crime laboratories and recommendations to upgrade these laboratories should be recognized by law enforcement agencies at all levels of government. Research continued in 76-NI-99-0091.

Final Product(s):

Crime Laboratory Proficiency Testing Research Program, J.L. Peterson, E.L. Fabricant, K.S. Field, et al., 1978, 282 pp. GPO 027-000-00713-9, NCJ 48122, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) - Supplementary Report, Samples 1-5, J.L. Peterson, 1975, 25 pp. NCJ 41146.

L.P.T.P. (Laboratory Proficiency Testing Program) - Supplementary Report, Samples 6-10, J.L. Peterson, 1976, 33 pp. NCJ 41147.

L.P.T.P. (Laboratory Proficiency Testing Program) - Supplementary Report, Samples 11-15, J.L. Peterson, 1977, 27 pp. NCJ 41148.

L.P.T.P. (Laboratory Proficiency Testing Program) - Supplementary Report, Samples 16-21, J.L. Peterson, 1977, 44 pp. NCJ 48648.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 2, Firearms Evidence, 1975, 52 pp. NCJ 47523, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 3, Blood Analysis, 1975, 27 pp. NCJ 47524, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 5, Auto Paint Examination, 1975, 23 pp. NCJ 47526, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 6, Drug Analysis, 1975, 29 pp. NCJ 47527, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 7, Firearms Evidence, 1975, 15 pp. NCJ 47528, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 8, Blood Analysis, 1976, 29 pp. NCJ 47529, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 9, Glass Examination, 1976, 39 pp. NCJ 47530, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 10, Paint Examination, 1976, 36 pp. NCJ 47531, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 11, Soil Examination, 1976, 24 pp. NCJ 47532, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 12, Fiber Examination, 1976, 34 pp. NCJ 47533, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 13, Physiological Fluid, 1976, 28 pp. NCJ 47534, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 14, Arson Examination, 1976, 35 pp. NCJ 47535, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 15, Drug Analysis, 1976, 16 pp. NCJ 47536, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 16, Paint Examination, 1977, 24 pp. NCJ 47537, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 17, Metal Examination, 1977, 22 pp. NCJ 47538, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 18, Hair Examination, 1977, 17 pp. NCJ 47539, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 19, Wood Examination, 1977, 16 pp. NCJ 47540, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 20, Questioned Document Examination, 1977, 16 pp. NCJ 47541, Microfiche.

L.P.T.P. (Laboratory Proficiency Testing Program) No. 21, Firearms Examination, 1977, 12 pp. NCJ 47542, Microfiche.

Grant No: 74-NI-99-0050
Project: DESIGN OF ANTI-FENCING STRATEGIES
Grantee: Colorado State University, Fort Collins, Colorado
(Ted Roselius)
Award Date: June 20, 1974.
Status: Completed

Project Summary: This project undertook a comprehensive analysis of the criminal redistribution system in a major metropolitan area. Marketing research knowledge and methods was employed for the purpose of (1) developing practical techniques for collecting information about the marketing and other operating behavior of fences and thieves on a continuing basis; (2) classifying different types of fences on the basis of their operating characteristics; and (3) designing operational strategies that will make the various types of fencing systems more prone to detection and interruption and more vulnerable to prosecution and conviction. The 15-month project utilized extensive interviews and onsite observation to gather its information from police records and investigation practices, from district attorney and court requirements and procedures, from local businessmen and commercial interests, and finally from known or suspected offenders (both fences and the thieves who supply them).

Final Product(s): See 70-NI-065-PG-10.

Derivative Work:

Roselius, Ted, D. Benton. "Marketing Theory and the Fencing of Stolen Goods." Denver Law Journal 50(2), 1973.

1975

Grant No: 75-NI-99-0001
Project: VALIDITY AND RELIABILITY OF DETECTION OF DECEPTION
Grantee: Department of Psychology, University of Utah, Salt Lake City, Utah
(David C. Raskin)
Award Date: July 17, 1974.
Status: Completed

Project Summary: This 24-month project was designed to provide information concerning the validity and reliability of polygraph techniques in the detection of truth and deception with criminal suspects. The methodology comprised a series of studies utilizing criminal subjects in field situations and laboratory experiments of mock crime situations. Study conclusions and recommendations included the following:

1. Polygraph examinations can be highly accurate in determining truth and deception regarding specific issues in criminal investigations;
2. Polygraph examinations should employ control-question tests or guilty-knowledge tests, when applicable;
3. Polygraph recordings should include respiration, skin conductance, and relative blood pressure;
4. Examiners should be given formal training in numerical scoring of polygraph charts;
5. The results of control-question examinations should always be determined by numerical evaluation of polygraph charts; and
6. If the above conditions are met, the results of this research indicate an accuracy rate of approximately 90 percent with criminal suspects.

Final Product(s):

Effectiveness of Techniques and Physiological Measures in the Detection of Deception, David C. Raskin and J.A. Podelsny, 1976, 59 pp. NCJ 36972, Microfiche.

Evaluation of Polygraph Techniques Currently Practiced by Law Enforcement and Private Polygraph Examiners, David C. Raskin, 1976, 29 pp. NCJ 35507, Microfiche.

Psychopathy and Detection of Deception in a Prison Population, David C. Raskin, 1975, 29 pp. NCJ 26018, Microfiche.

Reliability of Chart Interpretation and Sources of Errors in Polygraph Examinations, David C. Raskin, 1976, 17 pp. NCJ 35509, Microfiche.

Validity and Reliability of Detection of Deception, David C. Raskin, 1978, 37 pp. GPO 027-000-00692-2, NCJ 36973, Microfiche.

Validity and Reliability of Polygraph Examinations of Criminal Suspects, G.H. Barland and David C. Raskin, 1976, 51 pp. NCJ 35508, Microfiche.

Derivative Work:

Podlesny, John A. and David C. Raskin. "Effectiveness of Techniques and Physiological Measures in the Detection of Deception." Psychophysiology 15(4):344-359, 1978.

Podlesny, John A. and David C. Raskin. "Physiological Measures and the Detection of Deception." Psychology Bulletin 84(4):782-799, 1977.

Raskin, David C. "Orienting and Defensive Reflexes in the Detection of Deception." Paper presented at NATO Conference. The Orienting Reflex in Humans, The Netherlands, June 4-9, 1978.

Raskin, David C. and R.D. Hare. "Psychopathy and Detection of Deception in a Prison Population." Psychophysiology 15(2):126-136, 1978. NCJ 60675.

Grant No: 75-NI-99-0011, 76-NI-99-0099
Project: INDIVIDUALIZATION OF BLOODSTAINS
Grantee: University of Pittsburgh, Pittsburgh, Pennsylvania
(Dr. Robert C. Shaler)
Award Date: July 23, 1974.
Status: Completed

Project Summary: Criminalistics is concerned with the scientific evaluation of physical evidence and is devoted toward establishing its associative value for the courts. Bloodstain evidence has the greatest potential as associative evidence because its uniqueness in the population can be calculated and identification can be made from a physical match. These studies were dedicated toward studying promising aspects of bloodstain evidence.

The bloodstain research was divided into several parts.

- A. The population frequencies of several genetic marker systems were needed for the United States population. The researchers proposed to initiate a data base for the Gm and Inv antigens which are known to be stable in dried blood. They also proposed to develop a data base for the esterase-D and carbonic anhydrase genetic marker systems.

- B. Through previous NILECJ research (Grant No. 75-NI-99-0011) the researchers had established Gm and Inv typing in dried blood. The absorption inhibition test which is currently used gives a negative result when the appropriate Gm or Inv antigen is present. The researchers proposed to eliminate the uncertainties of the negative result and the use of fresh red blood indicator cells by modifying the technique with the use of coated latex particles.

- C. The determination of the sexual origin of bloodstain evidence is potentially very rewarding. The researchers proposed to extend the studies of the previous research to a more practical level by obtaining casework on a blind study basis from crime laboratories across the country. Each of the participating crime laboratories will evaluate the potential utility of the method at the completion of the project.

- D. Another study proposed under this grant was the development of a method to eliminate the obvious shortcomings in typing bloodstains with the MN system thereby facilitating its utilization by the forensic serologist.

The results of this were as follows:

First, population frequencies for the isoenzymes, esterase-D, and carbonic anhydrase-C were determined. Second, Gm typing statistics were initiated although sufficient quantity and quality of antisera in this country greatly limited their efforts. In addition, the researchers successfully completed a pilot study to eliminate a time consuming step requiring fresh red blood indicator cells for this system. Third, additional data were collected using the researcher's sex determination technique to further demonstrate the validity of such testing. Fourth, techniques for the determination of drugs in bloodstains and for the isolation and typing of haptoglobins were developed.

Finally, the problems associated with mistyping of the MN system with bloodstains were studied in detail. The results of this research demonstrate that this system should be discontinued with dried stains until existing testing procedures and antisera production are changed or modified to allow consistently accurate analysis.

Final Product(s):

Individualization of Blood Stains, C.E. Mortimer and R.C. Shaler, 1977, 84 pp. NCJ 72547, Microfiche.

Individualization of Forensically Important Physiological Fluids, R.C. Shaler, 1975, 76 pp. NCJ 40313.

Derivative Work:

Shaler, R.C., A.M. Hagins, and C.E. Mortimer. "MN Determination in Bloodstains - Selective Destruction of Cross-Reacting Activity." Journal of Forensic Sciences 23(3):570, 1978

Smith, F.E., C.E. Mortimer, R.C. Shaler, and L.T. Bert. "Population Frequencies of Carbonic Anhydrase-C, Esterase-D in the Pittsburgh Metropolitan Area." Journal of Forensic Sciences 25(4):866, 1980.

Smith, F.E., R.C. Shaler, and C.E. Mortimer. "Detection of Drugs in a Bloodstain-1 Diphenylhydantoin." Journal of Forensic Sciences 24(4):701-706, 1978. NCJ 51791 and NCJ 51783.

Grant No: 75-NI-99-0014
Project: EVALUATION OF AN IMPLEMENTED AVM SYSTEM
Grantee: Public Systems Evaluation, Inc., Cambridge, Massachusetts
(Dr. Richard Larson)
Award Date: July 23, 1974.
Status: Completed

Project Summary: This Phase I study reports the performance and effectiveness of one type (dead-reckoning) of AVM system in dispatching police vehicles. The system, named FLAIR (FLAIR is a registered trademark of the Boeing Company) was tested in one police district in St. Louis. The evaluation assessed the technical performance of the equipment (accuracy in tracking vehicles, utilization of digital communications, etc.), the operational effectiveness (changes in response times, changes in dispatcher workloads, etc.), and an assessment of the attitudes of the officers toward the technology.

A number of necessary equipment and organizational changes were made during the evaluation period which resulted in the findings being inconclusive. The tentative findings indicate that response times are unlikely to be substantially reduced due to the technology alone because dispatch procedures, user attitudes, and other factors are critical variables.

The report includes a number of specific recommendations that would be useful to potential AVM purchasers in assessing their system requirements and selecting appropriate equipment. For Phase II of this study see 76-NI-99-0095.

Final Product(s):

Evaluation of an Implemented AVM System - Phase I Two volumes, Richard C. Larson, Kent W. Colton, and Gilbert C. Larson, 1976, 879 pp. NCJ 37687, Microfiche.

Evaluation of a Police Implemented AVM (Automatic Vehicle Monitoring) System - Phase 1 - With Recommendations for Cities, Dr. Richard C. Larson, K.W. Colton, and G.C. Larson, 1977, 76 pp. NCJ 42750; Summary Report 1977, 80 pp. NCJ 38061, Microfiche.

Derivative Work:

Colton, Kent W., Richard C. Larson, and G.C. Larson. Evaluation of a Phase I Implementation of an Automatic Vehicle Monitoring. Lexington, Mass.:Heath Lexington Books, 1978. NCJ 51077 (see also NCJ 51065).

Larson, G.C. "Evaluation of an AVM System Implemented City-Wide in St. Louis." Proceedings: 1979 Carnahan Conference on Crime Countermeasures, Lexington, Kentucky, University of Kentucky, 1978. 19 pp. NCJ 53103.

Larson, R.C., K.W. Colton, and G.C. Larson. "Evaluating a Police-Implemented AVM System: The St. Louis Experience (Phase I)." IEEE Transactions on Vehicular Technology VT-26(1):60-70, February 1977. NCJ 77771.

Larson, R.C. and Evelyn A. Franck. "Evaluating Dispatching Consequences of Automatic Vehicle Location in Emergency Services." Computer Operations Research 5:11-30, 1978. NCJ 77772.

Grant No: 75-NI-99-0016
Project: AN APPROACH TO EVALUATING A POLICE PROGRAM OF FAMILY CRISIS INTERVENTION IN SIX DEMONSTRATION CITIES
Grantee: Human Resources Research Organization, Alexandria, Virginia
(Peter B. Wylie)
Award Date: August 21, 1974.
Status: Completed

Project Summary: This evaluation assessed the effectiveness of training police officers in techniques of defusing potentially violent domestic quarrels, hypothesizing that trained officers could contribute to a reduction in assaults and injuries resulting from domestic quarrels.

The evaluation described the problems of implementing innovative programs in police departments and presented data regarding officer and citizen opinions of the training. A large majority of officers reported that the training not only helped them deal with domestic quarrels, but was useful in their other police duties as well. Similarly, the great majority of citizens served by the trained officers reported satisfaction with the officers' performance. However, due to data deficiencies, it was not possible to reach conclusive findings about changes in rates of assaults or arrests as a result of the training.

Final Product(s):

Approach to Evaluating a Police Program of Family Crisis Intervention in Six Demonstration Cities, Peter B. Wylie, Louis F. Basinger, Charlotte L. Reinecke, et al., 1976, 300 pp. NCJ 37083, Microfiche.

Grant No: 75-NI-99-0021
Project: FELONY INVESTIGATION DECISION MODEL
Grantee: Stanford Research Institute, Menlo Park, California
(Bernard Greenberg)
Award Date: August 19, 1974.
Status: Completed

Project Summary: The primary goals of research were decision models for four felony classes--robbery, assault with a deadly weapon, car theft, and rape--to determine cases having sufficient probability of clearance to warrant intensive investigation. A secondary objective, determination of personal-appearance and

crime-event descriptors contributing to offender ID and case solution by investigators, led to consideration of the value of computers in the investigative function.

Only for robbery was it found feasible to construct a decision model. Primary case-solution factors, e.g., victim knowledge of offender, statistically dominated other random factors. The findings showed that unless offender ID was made by responding officers, case solution at the detective level was minimal. Therefore, it was concluded that patrol and investigative functions cannot be viewed as completely separate. Documentation of relevant crime scene information by patrol heavily influences case solution by investigators. The findings reinforced the importance of a national issue: habitual offenders. Analyses of the felony case sample drawn showed 80-88 percent of the suspects had prior offenses. Confronted by similar experience many police agencies have turned to computer-based M.O.-type investigative systems to assist in tracking and identifying known offenders. However, such systems have yet to demonstrate marked success. The findings, conclusions, and recommendations arising from the study are contained in the final analytical report.

Final Product(s):

Felony Investigation Decision Model - An Analysis of Investigative Elements of Information, Bernard Greenberg, Carola V. Elliott, Lois P. Kraft, et al., 1977, 237 pp. GPO 027-000-00467-9, NCJ 35741, Microfiche.

Grant No: 75-NI-99-0024
Project: CONTROLLING POLICE CORRUPTION
Grantee: Yale University, Department of Sociology, New Haven, Connecticut (Lawrence W. Sherman)
Award Date: September 27, 1974.
Status: Completed

Project Summary: The purpose of this study was to explore the means by which police corruption can be controlled. The study examined three problems:

1. The nature of police corruption prior to the scandals;
2. The strategies and tactics used to control police corruption;
3. The changing nature of police corruption in the wake of scandal and reform.

Scope

Four police departments were studied, each of which had experienced a major scandal over police corruption. A new police executive was appointed with a mandate to reform the department in each of these cities: Oakland, California (1955); New York, New York (1970); Newburgh, New York (1972); and pseudonymous "Central City" (1974).

Methodology

Policies for controlling corruption were identified through interviews with police executives and analysis of various documents. Changes over time (before and after the scandal) in corruption were measured by eight indicators of the

level of organization of corruption. Corruption reports, allegations, and rumors from a variety of sources, mostly written, were pinpointed in time of occurrence and analyzed for the level of organization they indicated to be present in corruption on a year-to-year basis.

Findings

A. Corruption Before the Scandal

All four cities had a high level of organization in police corruption prior to the scandal.

B. Organization Reform Policies

Three of the police departments adopted policies aimed at preventing and detecting ongoing corruption, and one adopted policies aimed only at responding to allegations of past corruption. The policies aimed at ongoing corruption involved tighter administrative control, attempts to change the aspects of the organizational environment encouraging corruption, and covert internal investigations initiated by internal policing units.

C. Corruption After Reforms

The level of organization present in corruption, as measured by the indicators used in this study, declined substantially in all four cities after the adoption of reform policies. However, in the one city which focused on past corruption, only 1 year of data was gathered. The decline of corruption organization in that city may be attributable solely to the effects of scandal.

Conclusions

- A. Premonitory strategies (aimed at ongoing corruption) for corruption control can reduce the level of organization of police corruption.
- B. Postmonitory strategies (aimed at past corruption) for corruption control do not seem to be as effective as premonitory strategies.
- C. The same strategies for corruption control can be employed in a police department of any size, although the tactics may differ.

Final Product(s):

Controlling Police Corruption - Final Report, A.J. Reiss, Jr. and Lawrence W. Sherman, 1976, 368 pp. NCJ 35917, Microfiche.

Controlling Police Corruption - The Effects of Reform Policies - Summary Report, Lawrence W. Sherman, 1978, 19 pp. GPO 027-000-00616-7, NCJ 42963, Microfiche.

Grant No: 75-NI-99-0045
Project: A STUDY OF THE DETECTIVE ROLE IN A METROPOLITAN POLICE SYSTEM
Grantee: Department of Sociology, College of William and Mary,
Williamsburg, Virginia (Anthony L. Guenther)
Award Date: October 4, 1974.
Status: Completed

Project Summary: The purpose of this project was to analyze the criminal investigation process in a large urban police department using participant-observation. The study was performed in the Washington, D.C., Metropolitan Police Department. It focused on members of the criminal investigation division and those members of the patrol division involved in investigative work. Topics covered in the study include: the sequential nature of an investigation; selection, training, and deployment of detectives; images of investigative work, observations on investigative techniques; and the relationship between detectives, prosecutors, and the criminal courts. The final report on this study discusses the research setting, the project methodology, and the analysis described above.

Final Product(s):

A Study of the Detective Role in a Metropolitan Police System, Anthony L. Guenther, 1977, 305 pp. NCJ 46675.

Grant No: 75-NI-99-0056
Project: NATIONAL EVALUATION PROGRAM PHASE I - TRADITIONAL PREVENTIVE PATROL
Grantee: University City Science Center, Washington Programs Office,
Washington, D.C. (Theodore H. Schell)
Award Date: December 31, 1974.
Status: Completed

Project Summary: This project resulted in perhaps the first systematic description of the traditional preventative patrol function, i.e., a specification of the interrelationships among its component subsystems and, for each subsystem, an identification of its inputs and processes. It also identified a comprehensive display of the universe of assumptions, which governs the operation of traditional preventative patrol activities, and which provides the links between patrol inputs and the attainment of specific operational objectives.

The analytical framework focused upon two categories of patrol inputs: modes of transportation for patrol and patrol officer characteristics, and the patrol processes of supervision, task assignment, and deployment. Literature and program activities were reviewed in order to determine the level of knowledge which exists linking each of these inputs and processes to the attainment of the specific operational objectives and overall goals of preventative patrol.

Final Product(s):

Issues in Traditional Preventive Patrol: A Review and Assessment of the Literature, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1975, 152 pp. NCJ 44793, Microfiche.

Issues of Traditional Preventive Patrol - A Review and Assessment of the Literature - National Evaluation Program - Phase I Report, Theodore H. Schell, 1975, 144 pp. NCJ 35448, Microfiche.

Issues in Traditional Preventive Patrol - A Review and Assessment of the Literature - Bibliography, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1975, 36 pp. NCJ 35440, Microfiche.

Traditional Preventive Patrol - A Design for Phase 2 Research - National Evaluation Program - Phase I Report, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1976, 30 pp. NCJ 35439, Microfiche.

Traditional Preventive Patrol - A Site-Specific Evaluation Report Design - National Evaluation Program - Phase I Report, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1976, 31 pp. NCJ 35438, Microfiche.

Traditional Preventive Patrol: An Analytical Framework and Judgemental Assessment - National Evaluation Program - Phase I Report, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1976, 182 pp. NCJ 35449, Microfiche.

Traditional Preventive Patrol - Summary Report - National Evaluation Program - Phase I Report, Theodore H. Schell, Don H. Overly, Stephen Schack, et al., 1976, 88 pp. GPO 027-000-00516-1, NCJ 34817, Microfiche.

Grant No: 75-NI-99-0057
Project: WOMEN ON PATROL: AN EVALUATION OF THEIR PERFORMANCE AND POTENTIAL
Grantee: Vera Institute of Justice, New York, New York (Hurbert Sturz)
Award Date: January 2, 1975.
Status: Completed

Project Summary: This project was designed to build upon previous research in this area. Special emphasis, however, was on filling in knowledge gaps on a crucial area which had not been sufficiently addressed in previous study: the effectiveness of women in handling violent and potentially violent situations. A secondary focus concerned analyses of how women meet the physical prowess requirements of police work.

Participants in the study consisted of 41 female and 41 male officers located in 11 precincts spanning New York City's ethnic and economic diversity. Male and female officers were matched by length of time on the force, patrol experience and type of precinct. Data on officer performance were obtained principally via observation.

The study can essentially be viewed as an effort at data base building. The data base, however, with few exceptions, parallels findings of other major research in this area, viz, Peter Bloch and Deborah Anderson, Policewomen on Patrol: Final Report (Washington, D.C.: Police Foundation, 1974); Lewis Sherman, "An Evaluation of Police Women on Patrol in a Suburban Police Department," Journal of Police Science and Administration, 1975, Volume 3, Number 4, pp. 434-438; and Judith Greenwald and Harriet Connolly, Policewomen on Patrol: New York City (unpublished manuscript, 1974).

Again, as in previous studies, data were insufficient to answer questions regarding performance in violent and potentially violent situations. Such incidents are few and far between and even more elusive under random and focused (sample population) observations.

Final Product(s):

Women on Patrol: A Pilot Study of Police Performance in New York City, J.L. Sichel, L.N. Friedman, J.C. Quint, et al., 1978, 95 pp. GPO 027-000-00631-1, NCJ 44148, Microfiche.

Derivative Work:

Sichel, Joyce L. "The Challenge of Patrol Performance Evaluation in the Study of Policewomen" Paper prepared for National Conference on Criminal Justice Evaluation, Washington, DC., February, 1977. 40 pp. NCJ 44587, Microfiche.

Sichel, Joyce L. "Expectations Which Have Shaped Women's Role in Policing in New York City" Paper presented at National Institute on Crime and Delinquency Conference, Miami, Florida, June 1978. 9 pp. NCJ 49056, Microfiche.

Grant No: 75-NI-99-0065
Project: NATIONAL EVALUATION PROGRAM PHASE I - TEAM POLICING
Grantee: National Sheriffs' Association, Washington, D.C. (William G. Gay)
Award Date: February 6, 1975.
Status: Completed

Project Summary: Neighborhood Team Policing in the United States: Assessment Summary presents the results of a critical review of efforts to evaluate the effectiveness of Team Policing Programs in expanding the role of the patrol officer, combatting crime, and improving police-community relations. The information contained in this report relies heavily upon formal evaluations of Team Policing Programs in 14 cities. The report provides a "snapshot" of the characteristics of Team Policing Programs, assesses the state of the knowledge about Team Policing, and indicates what additional information is needed to fully evaluate Team Policing.

Final Product(s):

Issues in Team Policing: A Review of the Literature, J.P. Woodward, H.T. Day, J.P. O'Neil, and C.J. Tucker, 1977, 57 pp. GPO 027-000-00529-2, NCJ 34480, Microfiche.

Monitoring and Evaluating Team Policing Program Products 5 and 6, H.T. Day and W.G. Gay, 1976, 44 pp. NCJ 34482, Microfiche.

Neighborhood Team Policing - National Evaluation Program - Phase I Summary Report, William G. Gay, H. Talmage Day, and Jane P. Woodward, 1976, 54 pp. GPO 027-000-00480-6, NCJ 35294.

Neighborhood Team Policing in the United States - An Assessment - Product 4, William G. Gay, H. Talmage Day, and Jane P. Woodward, 1976, 160 pp. NCJ 34481, Microfiche.

Grant No: 75-NI-99-0066
Project: NATIONAL EVALUATION PROGRAM PHASE I - PATROL SUPPORT SYSTEMS - CRIME ANALYSIS
Grantee: Foundation for Research and Development in Law Enforcement and Criminal Justice, Incorporated, Bloomington, Indiana (Hobart Reinier)
Award Date: February 6, 1975.
Status: Completed

Project Summary: This is a Phase I National Evaluation Program concerned with crime analysis. The project was designed to determine what is currently known about crime analysis, what additional information could be provided through further evaluation of crime analysis projects, and what would be the cost and value of obtaining the additional information.

Crime analysis, in the broadest sense, has been considered as the total process of management decisionmaking throughout the entire criminal justice system and related agencies. However, the focus of this project, police management and operations, primarily includes issues surrounding the allocation and deployment of patrol personnel. This project, therefore, examined crime analysis as an integral part of the decisionmaking process for: (1) patrol deployment--the tactical movement and actions of police personnel directed at specific crime problems and, (2) allocation--the strategic assignment of personnel by function, geography, and tour of duty to deal generally with crime and other police responsibilities.

The study employed essentially two tactics for data collection: literature reviews and site visits to police departments. Neither of the approaches, site visits or literature reviews, proved extremely helpful in terms of identifying progress being made in the area of crime analysis. In essence, the overriding conclusion of the study is that first, crime analysis is indeed an essential adjunct to police work and second, much more research, implementation, and evaluation are necessary to advance this area.

Final Product(s):

Crime Analysis in Support of Patrol - National Evaluation Program - Phase I Report, G.H. Reinier, M.R. Greenlee, and M.H. Gibbens, 1976, 100 pp. GPO 027-000-00538-1, NCJ 39887, Microfiche.

Crime Analysis In Support of Patrol - National Evaluation Program - Phase I - Summary Report, G.H. Reinier, M.R. Greenlee, M.H. Gibbens, and S.F. Marshall, 1977, 125 pp. GPO 027-000-00538-1, NCJ 42547, Microfiche.

Issues in Crime Analysis in Support of Patrol - Review and Assessment of the Literature - National Evaluation Program - Phase I Report, Hobart Reinier, 1975, 300 pp. NCJ 39885, Microfiche.

NEP (National Evaluation Program) Crime Analysis Site Visit Report - National Evaluation Program - Phase I Report, Hobart Reinier, 1976, 175 pp. NCJ 39886, Microfiche.

Grant No: 75-NI-99-0067-SI
Project: NATIONAL EVALUATION PROGRAM PHASE I - SPECIALIZED PATROL PROJECTS
Grantee: Institute for Human Resources Research, Bethesda, Maryland (Kenneth W. Webb)
Award Date: December 31, 1974.
Status: Completed

Project Summary: This was an effort to assess specialized patrol operations performed by police departments in terms of types of operations, the successes or failures, methods and techniques of evaluation, and other issues involved. The project produced four separate documents (products) in fulfillment of the re-search agreement: (1) a literature search which entailed reviews of LEAA and other Federal agency grants, books, journals, articles, and other evaluation projects on specialized patrol; (2) a report describing patrol projects which were purposely selected as being representative of what is known about the most widely used forms of specialized patrol, namely, civilian dress, uniformed tactical, and mechanical device tactics; (3) a report which synthesizes selected patrols and combined high/low visibility patrols; (4) a report designed to determine data reliability, assess success and failure, amass a knowledge base, and identify major gaps in the knowledge on specialized patrols and; (5) a final report which summarizes the research efforts of the four above-mentioned reports.

Final Product(s):

Bibliography of Specialized Patrol, 1975, 66 pp. NCJ 30385, Microfiche.

National Evaluation of Selected Patrol Strategies, Phase 1 - Product 1 - Literature Search, A.J. Andrews, T.F. Angelis, M.R. Burt, E.F. Davis, et al., 1975, 138 pp. NCJ 30380, Microfiche.

National Evaluation of Selected Patrol Strategies, Phase 1 - Product 2 - The Universe and Selected Project Descriptions, A.J. Andrews, M.R. Burt, E.F. Davis, W.I. Harlowe, et al., 1975, 350 pp. NCJ 30381, Microfiche.

National Evaluation of Selected Patrol Strategies, Phase 1 - Product 3 - Project Families, Synthesis Framework and Measurement, A.J. Andrews and M.R. Burt, 1975, 105 pp. NCJ 30382, Microfiche.

National Evaluation of Selected Patrol Strategies, Phase 1 - Product 4 - Assessment of the Knowledge on a Specialized Patrol, A.J. Andrews and M.R. Burt, 1975, 196 pp. NCJ 30383, Microfiche.

National Evaluation of Selected Patrol Strategies, Phase 1 - Products 5 and 6 - Study Designs for Local, Multiple Project and Field Experimental Evaluations of Specialized Patrol, A.J. Andrews and M.R. Burt, 1975, 71 pp. NCJ 30384, Microfiche.

Specialized Patrol Projects - National Evaluation Program Phase 1 - Summary Report, B.J. Sowder, A.J. Andrews, M.R. Burt, and E.F. Davis, 1977, 87 pp. GPO 027-000-00469-5, NCJ 38324, Microfiche.

Derivative Work:

Sowder, B.J., Evaluation of Specialized Police Patrols. Bethesda, Md.:Burt Associates, Inc., 1977. 13 pp. NCJ 53932, Microfiche.

Grant No: 75-NI-99-0076
Project: EARLY-WARNING ROBBERY REDUCTION PROJECTS: ASSESSMENT OF PERFORMANCE
Grantee: Mitre Corporation, McLean, Virginia (Warner A. Eliot)
Award Date: March 1976.
Status: Completed

Project Summary: Results of a survey of information available about police silent-alarm antirobbery projects are presented. The survey showed that under certain conditions police can apprehend robbery suspects at the scene of the crime where early-warning alarms are installed and that under some conditions this capability is effective in reducing the incidence of robbery. However, it also found that existing data collected by projects are insufficient to permit definitive conclusions to be drawn regarding the degree of improved police performance achieved.

Final Product(s):

Early-Warning Robbery Reduction Projects - An Assessment of Performance, Warner A. Eliot, John R. Strack, and Alice E. Witter, 1975, 53 pp. NCJ 32498, Microfiche.

Early-Warning Robbery Reduction Projects - Individual Project Evaluation Design, W.A. Eliot, J.R. Strack, Jr., and A.E. Witter, 1975, 54 pp. NCJ 32499, Microfiche.

Grant No: 75-NI-99-0078
Project: RESEARCH AND DEVELOPMENT ON IMPROVING POLICE PROCEDURES IN CONFORMITY WITH CONSTITUTIONAL STANDARDS
Grantee: Trustees of Boston University, Boston University Center for Criminal Justice, Boston, Massachusetts (Sheldon Krantz)
Award Date: March 28, 1978.
Status: Completed

Project Summary: The first objective of this project was to examine the applicability of previously developed model rules for use in a particular police department. Once promulgated, these model rules were to be monitored and evaluated for effectiveness in structuring police discretion. The second objective was to identify and formulate guidelines in additional priority areas in need of rules. Third, examine the exclusionary rule as well as other forms of deterrence and develop strategies to foster compliance with these procedures. The final objective was to develop training materials devised to support any rules formulated and promulgated under this project.

Although internal department restrictions necessitated that the evaluation to assess impact of the guidelines be postponed until the second phase, all other project objectives have been met. Unavailability of data necessitated some tempering of the original evaluation plans but an evaluation design has been devised. Guidelines and explanations were produced in the following areas: obtaining and executing search warrants, car searches, searches incident to arrest, stop and frisk, eyewitness identification, and arrest. A guideline manual was produced for each of these areas. Further, a process of using original videotape situations was developed to serve both as an evaluation and training tool. Continues in 76-NI-99-0129.

Final Product(s):

Boston Police Criminal Investigative Procedures, Boston Police Department and Boston University Center for Criminal Justice, 1976.

Police Policymaking - The Structuring of Discretion in the Use of Criminal Investigative Procedures, Boston Police Department and Boston University Center for Criminal Justice, 1976, 415 pp. NCJ 42078.

Police Policymaking: The Structuring of Discretion in the Use of Criminal Investigation Procedures - Final Report - Phase 1, E. Bolt, F. Coleman, E. Connally, J. Daley, A. Dinatale, and J. Doyle, 1977, 75 pp. NCJ 42075, Microfiche.

Derivative Work:

Krantz, Sheldon. Boston Police Task Forces Criminal Investigation Procedure. Lexington, Mass.: Lexington Books, 1979.

Grant No: 75-NI-99-0080
Project: PATROL EXPERIMENTATION AND EVALUATION
Grantee: Wilmington Bureau of Police, Administrative Division, Wilmington, Delaware (Nicholas Valiante)
Award Date: April 23, 1975.
Status: Completed

Project Summary: This evaluation report is the product of an 18-month effort undertaken by Public Systems Evaluation, Inc. (PSE) in connection with the design and implementation of an experiment to test the efficacy of the split-force and implementation of an experiment to test the efficacy of the split-force patrol concept. The split-force patrol concept is a significantly different approach in patrol specialization, based on the separation of the call-for-service response and crime prevention functions of a police patrol force and the subsequent assignment of each function to a separately organized group within the patrol force. The experiment was conducted by the Wilmington Bureau of Police.

The evaluation of Public Systems Evaluation, Inc., concluded that:

1. The concept produced an increase in call-for-service response productivity.
2. The formation of a dedicated, prevention-oriented force resulted in an increase in the quantity of Patrol Division arrests and clearances--at the partial expense of these rates in the Detective Division.
3. The increase in arrests can be primarily attributed to the immediate incident-oriented investigation.
4. There is an indication that management of police demand is a potentially effective and efficient approach in the delivery of police services.

Final Product(s):

Alternative Approach in Police Patrol: The Wilmington Split Force Experiment, James M. Tien, James W. Simon, and Richard C. Larson, 1978, 258 pp. GPO 027-000-00668-0, NCJ 43735, Microfiche.

Grant No: 75-NI-99-0083
Project: ANTI-CORRUPTION MANAGEMENT PROGRAM
Grantee: Research Foundation of City University of New York, New York, New York (Richard H. Ward)
Award Date: April 4, 1975.
Status: Completed

Project Summary: The purpose of this study was to develop guidelines for the police administrator on anticorruption management approaches and to contribute to the limited body of knowledge on the subject. Project efforts were aimed at two distinct areas. First, the nature of corruption from administrative, sociological, and psychological perspectives was explored to develop baseline information for more intensive research. Second, project efforts were directed at

surveying current methods of assessing corruption, anticorruption efforts, and their management implications.

The primary product of this study was an anticorruption program guide for police administrators concerned with: (1) defining, locating, and measuring corruption; (2) developing anticorruption programs and policies; and (3) providing guidelines for program implementation. Additionally, a series of monographs pertaining to different aspects of the corruption problem were completed. This project was continued under 78-NI-AX-0005.

Final Product(s):

Developing and Managing An Anti-Corruption Program: A Guide for Police Administrators, Richard H. Ward and Robert McCormack, 1977.

Literature of Police Corruption, VI - A Guide to Bibliography and Theory, Antony E. Simpson, 1977, 225 pp. NCJ 44274.

The Literature of Police Corruption V2: A Selected Annotated Bibliography, Nina Duchaine, 1977, 200 pp. NCJ 57132.

A Monography Series published by John Jay Press includes:

1. A Functional Approach to Police Corruption, Dorothy H. Bracey, n.d., 31 pp. NCJ 39730, Microfiche.
2. The Psychosocial Costs of Police Corruption, Charles Bahn, n.d., 20 pp.
3. Role of the Media in Controlling Corruption, David Burnham, n.d., 15 pp. NCJ 39731, Microfiche.
4. Police Integrity: The Role of Psychological Screening of Applicants, Allen Shealy, n.d., 18 pp. NCJ 39733.
5. A Police Administrator Looks at Police Corruption, William McCarthy, n.d., 58 pp. NCJ 39734, Microfiche.
6. Developing a Police Anti-Corruption Capability, Mitchell Ware, n.d., 29 pp. NCJ 41457.
7. Measuring Police Corruption, Janet Fishman, 1978, 56 pp. NCJ 46862.

Derivative Work:

Bahn, Charles. Psychosocial Costs of Police Corruption. New York:John Jay Press, 1977. 20 pp. NCJ 39732, Microfiche.

Beigel, H. Closed Fraternity of Police and the Development of the Corrupt Attitude, 1977. 43 pp. NCJ 45256.

Bracey, Dorothy H. Functional Approach to Police Corruption. New York: John Jay Press, 1976. 31 pp. NCJ 39730, Microfiche.

Burnham, David. Role of the Media in Controlling Corruption. New York: John Jay Press, 1977. 75 pp. NCJ 39731, Microfiche.

McCarthy, William. Police Administrator Looks at Police Corruption. New York: John Jay Press, 1976. 59 pp. NCJ 39734, Microfiche.

Sheahy, Allen, E. Police Integrity - The Role of Psychological Screening of Applicants. New York:John Jay Press, 1977. 18 pp. NCJ 39733.

Sherman, Lawrence W. City Politics, Police Administrators and Corruption Control. New York:John Jay Press, 1977. 32 pp. NCJ 45255.

Ward, Richard H. and McCormack, Robert J. Anti-Corruption Manual for Administrators In Law Enforcement. New York:John Jay Press, 1979. 151 pp. NCJ 57131.

Ware, Mitchell. Developing A Police Anti-Corruption Capability. New York: John Jay Press, 1977. 29 pp. NCJ 41457.

Grant No: 75-NI-99-0103
Project: A STUDY OF CONTRACT LAW ENFORCEMENT PRACTICES
Grantee: National Sheriffs' Association, Washington, D.C. (Robert R. DeLa Hunt)
Award Date: May 30, 1975.
Status: Completed

Project Summary: This 12-month project involved a review and analysis of the literature and experience of contract law enforcement programs. A series of 21 site visits and 37 telephone interviews were conducted across the country to provide:

1. A critical review of contract programs as it relates to those currently involved in and committed to contracting; and
2. To specify essential considerations which must be made in planning and implementing a contract law enforcement program.

For purposes of this project the operational definition of contract law enforcement was limited to "a voluntary program in which one government enters into formal, legally binding agreements to provide law enforcement services to another government for a fee and without altering the fundamental powers and responsibilities of either government."

Final Product(s):

Contract Law Enforcement - A Practical Guide to Program Development, R.D. Engler, W.G. Gay, and R.R. Delahunt, 1978, 91 pp. GPO 027-000-00652-3, NCJ 43370, Microfiche.

An Evaluation Study in the Area of Contract Law Enforcement: A Review of the Literature, Robert R. DeLa Hunt, 1975, NCJ 43337.

Judgmental Assessment of Contract Law Enforcement, 1976, 90 pp. NCJ 43367.

Grant No: 75-NI-99-0117
Project: EVALUATION OF POLICE REFORM
Grantee: School of Public Administration, University of Southern California, Los Angeles, California (Gerald E. Caiden)
Award Date: June 24, 1975.
Status: Completed

Project Summary: The purpose of this project was to analyze trends in police reform and revitalization in United States municipal police departments. Although the author concentrated primarily on the period 1965-1975, a considerable amount of background material is included in the manuscript. The methodology utilized in this study included an extensive review of police literature combined with interviews with police officials.

The manuscript is divided into three parts. The first section is an overview of different aspects of the total revitalization effort. The second portion consists of an intensive analysis of strategies for change in a variety of areas: patrol, the introduction of women into policing, police corruption, and civilian review. Part three contains case studies in departments which have carried out reforms with some degree of success: Berkeley, California; Menlo Park, California; Los Angeles, California; Kansas City, Missouri; and Birmingham, Alabama. The results of this study are of two types. One is the collection of facts surrounding police change in the last decade. The other area of findings are impressionistic and relate to the author's assessment of these changes in the police field. The study includes an extensive bibliography of police literature.

Final Product(s):

Police Revitalization, Gerald E. Caiden, 1977, 383 pp. NCJ 43795. (Also available from Heath Lexington Books, Lexington, Mass.)

Derivative Work:

Caiden, Gerald E., N.J. Caiden. "Administrative Corruption." Public Administration Review, May-June 1977 p. 301-309. NCJ 43796.

Caiden, Gerald E., H. Hahn. "Public Complaints Against the Police." Evaluating Alternative Law Enforcement Policies, R. Baker and F. Meyer eds. Lexington, Mass, D.C. Heath, 1979, pp. 169-176. NCJ 65745.

1976

Grant No: 76-NI-99-0011
Project: DEVELOPMENT OF METHODS AND PROGRAMS TO PROMOTE PHYSICAL FITNESS IN POLICE OFFICERS
Grantee: International Association of Chiefs of Police, Gaithersburg, Maryland (Clifford S. Price)
Award Date: August 12, 1975.
Status: Completed

Project Summary: This study sought to promote the cardiorespiratory, body composition, and musculoskeletal fitness of police officers through the development of a physical fitness program consisting mainly of several different exercise regimens. The study assessed the physiological effects of exercise, the influence of social and psychological factors upon program participation, and the extent and nature of existing physical fitness programs in police agencies.

Volunteer officers from three police agencies received fitness evaluations and were assigned to various groups with various exercise regimens. All volunteers also were given questionnaires designed to get at social and psychological factors related to program participation. Finally, a survey was conducted of law enforcement agencies throughout the country to discover the extent and nature of existing fitness programs. Site visits were made to some of the responding agencies.

Few adequate programs were discovered throughout the country. The exercise regimens in the experimental program did promote physical fitness. However, the extent to which physical fitness contributes to agency effectiveness was not dealt with, and the matter of maintaining and administering a program was only partially considered.

Final Product(s):

Development of Methods and Programs to Promote Physical Fitness Among Police Officers, Report 1 - Nature of Specific Exercise Programs, M.L. Pollock, L.R. Gettman, D.A. Kent and W.P. Morean, 1976, 367 pp. NCJ 44815.

Development of Methods and Programs to Promote Physical Fitness Among Police Officers, Report 2 - Methods Police Departments Can Utilize to Determine the Need for Physical Fitness Programs - Recommended Program, L.R. Gettman, M.L. Pollock, and Clifford S. Price, 1976, 205 pp. NCJ 44816.

Development of Methods and Programs to Promote Physical Fitness Among Police Officers, Report No. 3 - Physical Fitness Practices, Attitudes and Perceptions, D.A. Kent and Clifford S. Price, 1977, 448 pp. NCJ 44118, Microfiche.

Physical Fitness Programs for Law Enforcement Officers - A Manual for Police Administrators - Final Report, M.L. Pollock, L.R. Gettman, Clifford S. Price, and D.A. Kent, 1977, 680 pp. NCJ 44149.

Derivative Work:

Collingwood, Thomas R. "Police Stress and Physical Activity." The Police Chief February 1980, pp. 25-27. 76 pp. NCJ 64546, Microfiche.

Collingwood, Thomas R. and Michael Pollock. "Physical Fitness Training Programs." The Police Yearbook 1977, pp. 261-269. NCJ 45062.

Gettman, Larry R. "Aerobics and Police Fitness." Police Stress 1:22-24, 1978. NCJ 53209.

Gettman, Larry R. "The Effect of Circuit Weight Training on Strength, Cardiorespiratory Function, and Body Composition of Adult Men." Medicine and Science in Sports 10:171-176, 1978.

Gettman, Larry R. Panelist. "Police Physical Fitness." The Police Yearbook International Association of Chiefs of Police, 1977, pp. 88-94. NCJ 45062.

Gettman, Larry R. and Michael L. Pollock. "Evaluation of Physical Fitness Program for Police Affairs." From proceedings of the 83rd Annual Conference of the International Association of Chiefs of Police." Miami Beach, Florida, September 1976. 22 pp. NCJ 77767.

Pollock, Michael L., L.R. Gettman. "Coronary Risk Factors and Level of Physical Fitness in Police Officers." From proceedings of the 83rd Annual Conference International Association of Chiefs of Police, Miami Beach, Florida, September 1976. 18 pp. NCJ 77766.

Pollock, Michael L., L.R. Gettman, and B. Meyer. "Analysis of Physical Fitness and Coronary Heart Disease Risk of Dallas Area Police Officers." Journal of Occupational Medicine 20:393-398, 1978. NCJ 55899.

Grant No: 76-NI-99-0012
Project: A MAN-COMPUTER SYSTEM FOR SOLUTION OF THE MUG FILE PROBLEM
Grantee: University of Houston, Department of Engineering, Houston, Texas
(Benjamin T. Rhodes)
Award Date: August 7, 1975.
Status: Completed

Project Summary: This study was performed in two phases (Phase I, 74-NI-99-0023). It concerned improving the identification and selection of mug shots from police department mug shot files. The means used in this study for system improvement entailed the development of a computer system with the

capability of retrieving a small number of look-a-like mug shots from an automated mug shot file based on the witness description of a suspect. Central to the focus of this research study is the premise that it is easier for a witness to identify a suspect from a small number of mug shots rather than from volumes and volumes of mug shots. We have learned from earlier research that prolonged exposure to numerous faces in search of a suspect leads to confusion and fatigue on the part of the witness, thus reducing the likelihood that a suspect identification will be made. The approach undertaken in this study to develop a system to resolve problems attendant to the mug shot file had the following major objectives:

- A. The cost of the total system to be developed would be within the reach of agencies of moderate size (e.g., police departments in communities of 50,000 people);
- B. It must contain an accessible known-offender file with physical description, criminal activity, and mug shot records;
- C. It must be capable of searching the known-offender file on the basis of available information (physical description, type of crime, etc.) and displaying the set of individuals selected (the "hit list") and the witness;
- D. It would accept information from an Identi-Kit, composite, or a drawing by a sketch artist, and it would include a pattern recognition technique which would sort the hit-list mug shots on the basis of some "look-a-like" criteria before displaying them to the witness; and
- E. It would allow multiterminal operation in a time-sharing mode so that several witnesses and/or investigators could use the system simultaneously.

The study resulted in the design of a system which has, to some degree, achieved many of the above objectives. However, it is realized that more research is needed to maximize the capability of the system. For example, it is recognized that there are improvements to be made in the area of witness description and recall and the algorithm designed to retrieve the mug shot. Therefore, in its present stage, the system is not suitable for technology transfer. Plans are to improve the latter concern (algorithm) during a demonstration project to be conducted in the Oakland, California, Police Department. This department, if the test is ever actualized, will operationalize this system and evaluate its effectiveness and efficiency. At the present time, however, there are no immediate plans for improving witness description and recall. But, this is an area that deserves strong consideration.

This project would be of interest to all police administrators, criminal investigators, and others with interest in computer science, image generation, and the like that comprise the interdisciplinary elements that combine to design and operate a system of this kind. (Continued from Grant 74-NI-99-0023.)

Final Product(s):

A Man-Computer System for Solution of the Mug File Problem, K.R. Laughery, J.D. Bargainer, J.R. Townes, and G.W. Batten, Jr., 1976, 106 pp. NCJ 35113.

Mug File Project Report Number UHMUG-2 - An Analysis of Procedures for Generating Facial Images, K.R. Laughery, G.C. Duval, and R.H. Fowler, n.d., 199 p. NCJ 47585, Microfiche.

Mug File Project Report Number UHMUG-3 - Factors Affecting Facial Recognition, K.R. Laughery and R.H. Fowler, n.d., 52 pp. NCJ 47586, Microfiche.

Mug File Project Report Number UHMUG-4 - The Minolta Montage Synthesizer as a Facial Image Generating Device, F.H. Duncan and K.R. Laughery, n.d., 161 pp. NCJ 47587, Microfiche.

Mug File Project Report Number UHMUG-7 - Transcripts of Artist/Technician and Witness Interaction, n.d., 478 pp. NCJ 47588, Microfiche.

Mug File Project Report Number UHMUG -8 - Adjective Descriptions Used in Generating Sketches and Identikit Composites, n.d., 232 pp. NCJ 47589, Microfiche.

Mug File Project Report Number UHMUG-11 - Forgery Application of a Pattern Recognition Algorithm for Facial Images, B.T. Rhodes, Jr. and K. Prasertchuang, 1977, 42 pp. NCJ 47590, Microfiche.

Mug File Project Report Number UHMUG-13 - FORTRAN Subroutines for the Pattern Recognition Algorithm Designed to Find "Look-Alikes" in a Mug File, K. Sumney, 1977, 35 pp. NCJ 47591, Microfiche.

Mug File Project Report Number UHMUG-15 - The UHMFS (University of Houston Mug File System) Computer Software, G.W. Batten, H.H. Nguyen, and A. Karachievala, 1977, 70 pp. NCJ 47592, Microfiche.

Grant No: 76-NI-99-0029 (Phase I) and 77-NI-99-0051 (Phase II)
Project: A STUDY OF THE STRUCTURE AND OPERATION OF THE RACKETS IN METROPOLITAN NEW YORK, PHASE I AND PHASE II
Grantee: Policy Sciences Center, Inc., New York, New York
(Jonathan Rubinstein)
Award Date: September 30, 1975.
Status: Completed

Project Summary: Utilizing extensive data collected from criminal justice investigative records and material evidence files as well as from interviews with law enforcement personnel and "underworld" informants, the project conducted an in-depth study of illegal numbers, bookmaking, and loansharking enterprises in metropolitan New York. The research addressed two overall project objectives: (a) to improve our knowledge and understanding of the structure and operations of these three racketeering industries and (b) to utilize this knowledge to develop more effective antiracketeering strategies.

Project findings (presented in a Final Research Report and Executive Summary) suggest that, contrary to traditional belief, there is little centralized "Mafia-type" syndicate control over local NYC racketeering operations. While syndicate members frequently become involved in local rackets as business investors, there was little evidence of syndicate domination or excessive profiteering. In general, control of operating policies and procedures, as well as a major portion of the profits, remained with the local "entrepreneurs."

Based on their findings, the project concludes that traditional law enforcement methods of individual, case-by-case investigation and prosecution cannot effectively interrupt the operations of large-scale organized crime syndicates. Recommended, instead, is a proactive, system-wide approach which utilizes intelligence-gathering and analysis as a resource for shaping governmental and legislative antiracketeering policy as well as for criminal prosecution.

Final Product(s):

Numbers - The Routine Racket, Jonathan B. Rubinstein and Peter Reuter, 1977, 190 pp. NCJ 46633.

Grant No: 76-NI-99-0030
Project: NATIONAL EVALUATION OF THE FULL SERVICE NEIGHBORHOOD TEAM POLICING DEMONSTRATION PROGRAM
Grantee: The Urban Institute, Washington, D.C. (Thomas White)
Award Date: September 10, 1975.
Status: Completed

Project Summary: The purpose of this evaluation was to access the implementation experience and effectiveness of a team policing program conducted by six police departments. The evaluation was based on a model of team policing derived from existing literature on the subject and the specific activities and outcomes planned at each site. The major sources of information utilized to evaluate the program included: surveys of citizens and patrol personnel; on-site interviews; and a review of departmental records and reports.

The principal findings were the following:

- Five of the six participating departments indicated that major aspects of team policing were good. All departments plan to continue some parts of the program.
- The six sites implemented approximately 80 percent of the elements indicated in team policing theory. This implementation varied by site, creating programs that were nominally similar but operationally different.
- The six programs achieved few of their goals and objectives within the 1- to 2-year project period.
- The merits and liabilities of team policing appeared to be roughly in balance.

Final Product(s):

Working Paper 5054-2, Analysis Plan for Evaluating the Full Service Neighborhood Team Policing Demonstration Program, Peter B. Block, 1975, 44 pp.

Grant No: 76-NI-99-0033, 78-NI-AX-0016 (S-1, S-2)
Project: NATIONAL LAW ENFORCEMENT EQUIPMENT INFORMATION CENTER/TECHNOLOGY ASSESSMENT PROGRAM
Grantee: International Association of Chiefs of Police (IACP), Gaithersburg, Maryland (Frank D. Roberson)
Award Date: September 24, 1975
Status: Ongoing

Project Summary: This grant was provided to offer sufficient information concerning basic items of law enforcement and criminal justice equipment for purchasers to make informed acquisition decisions. Priorities are set by the Technology Assessment Program Advisory Council (TAPAC). Subcontracts are let to testing organizations which have been certified by NBS to be qualified and the equipment is tested in accordance with existing NBS/LESL Standards. Publication of results is mandated. This is an ongoing project with elements of experiment, demonstration, research, and evaluation serving all elements of the criminal justice system with current emphasis on police. Professional IACP personnel are utilized in overseeing the testing. The Advisory Council is composed of representatives from State and local agencies and Federal agencies with representation across the widest possible spectrum.

Final Product(s):

A Guide - Scheduled Preventive Maintenance, IACP, 1981, 21 pp.

1981 Model Year Patrol Vehicle Testing, IACP, 1980, 21 pp.

Patrol Vehicle Testing (for 1980), IACP, 1979, 72 pp.

Police Patrol Vehicle Testing, IACP, 1979, 155 pp. NCJ 64237.

Police Body Armor, IACP, 1978, 23 pp. (seven supplements) NCJ 53987.

The Technology Assessment Program, Findings from a Decade of Technological Research, 1981, 22 pp. NCJ 78155.

Grant No: 76-NI-99-0043
Project: COMPUTERS AND POLICE: AN EVALUATION OF THE USE, IMPLEMENTATION AND IMPACT OF INFORMATION TECHNOLOGY
Grantee: Department of Urban Studies and Planning, Massachusetts Institute of Technology, Cambridge, Massachusetts (Kent W. Colton)
Award Date: November 24, 1975.
Status: Completed

Project Summary: This project had three basic objectives concerning computer technology and police activities:

- 1) To document the evaluation and current use of computer technology by police.
- 2) To analyze the implementation problems associated with computer technology.

- 3) To assess the impact of the computer technology on police activities.

To achieve these objectives four levels of questions were addressed relative to the eight case studies examined:

- 1) Did the computer application persist over time?
- 2) What were the technical impacts of the application?
- 3) What were the impacts on police service delivery?
- 4) Were there power shifts through changes in the structure and processes of decisionmaking?

In general, the picture that emerges is a mixed one. Important questions remain about the final impact of the technology. Quick solutions from the technology should not be expected and costs do accompany any benefits. There has been little impact from computer technology on crime and police activities. No major power shifts were identified as a result of computer utilization. However, subtle changes may occur as certain utilizations are increased. In general, personnel have had more impact on the technology than the reverse. Computer technology itself does not appear to lead to centralization of power. Rather, it is a tool that can be used to centralize or decentralize power.

Final Product(s):

Police and Computer Technology: Use, Implementation, and Impact, Kent W. Colton, 1977, 548 pp. NCJ 50239, Microfiche.

Police and Computer Technology - Use, Implementation, and Impact - A Summary Report, Kent W. Colton, 1977, 55 pp. NCJ 49673, Microfiche.

Police and Computer Technology - A Decade of Experience Since the Crime Commission - Summary, Kent W. Colton, 1979, 76 pp. GPO 027-000-00839-9, NCJ 60551, Microfiche.

Derivative Work:

Colton, Kent W. "The Impact and Use of Computer Technology by the Police." Communications of the ACM 22(1):10-20, January 1979. NCJ 56830.

Colton, Kent W. "Police and Computer Technology - The Expectations and the Results." National Computer Conference 1979, pp. 443-453. NCJ 77204.

Colton, Kent W. "Police and Computers - The Use Implementation and Impact of Information." Technology in U.S. Police Departments (from Mapping & Related Applications of Computers to Canadian Police Work) 1977, 20 pp.

Colton, Kent W. (Editor). Police Computer Technology. Lexington Mass.: Heath Lexington Books, 1978. 297 pp. NCJ 51065.

Grant No: 76-NI-99-0087
Project: POLICING CORRUPTION IN LOCAL GOVERNMENT REGULATORY AGENCIES
Grantee: SRI International (formerly Stanford Research Institute), Menlo Park, California (Theodore Lyman)
Award Date: April 14, 1976
Status: Completed

Project Summary: This six-volume series addresses problems of local government corruption in land-use and building regulation. The research provides guidelines for detection, prevention, and enforcement measures with which public officials may combat the problem of corruption in regulatory agencies. Volume I is a summary of the environment in which corruption can occur and presents possible corrective and preventive measures. Volume II presents 10 documented incidents of corruption in 9 cities and 1 documented absence-of-corruption case. Volume III, An Anticorruption Strategy for Local Governments, outlines a countercorruption strategy that can be implemented by city administrators to monitor the performance of employees and to increase their understanding of what constitutes corruption and how to avoid it. Volume IV, An Analysis of Zoning Reforms: Minimizing the Incentive for Corruption, outlines zoning reforms that can be considered by planners, zoning commissioners, and others involved in land-use regulation. Volume V, Establishing a Citizen's Watchdog Group, explains how to establish a citizen's group to expose corruption and bring pressure for reforms. Analysis and Bibliography of Literature on Corruption is the subject of Volume VI.

Final Product(s):

Anticorruption Strategy for Local Governments, T. Fletcher and S. Hentzell, 1979, 67 pp. GPO 027-000-00836-4, NCJ 58524, Microfiche.

Corruption in Land Use and Building Regulation, Volume I, J.A. Gardner, 1979, 120 pp. GPO 027-000-00832-1, NCJ 47543, Microfiche.

Corruption in Land Use and Building Regulation, Volume II, R.T. Lyman, 1979, 152 pp. GPO 027-000-00833-0, NCJ 58526, Microfiche.

Establishing a Citizen's Watchdog Group, P. Manikas, 1979, 138 pp. GPO 027-000-00837-2, NCJ 58523, Microfiche.

Zoning Reforms - Minimizing the Incentive for Corruption - An Analysis, J. Getzels and C. Thurow, 1979, 57 pp. GPO 027-000-00835-6, NCJ 58525, Microfiche.

Derivative Work:

Gardiner, John A and Theodore R. Lyman. Decisions for Sale: Corruption and Reform in Land-Use and Building Regulation. New York: Praeger Publishing, 1975. NCJ 59259.

Lyman, T.R., and J.A. Gardner. Prevention, Detection, and Correction of Corruption in Local Government - A Presentation of Potential Models, 1978. 93 pp. GPO 027-000-00736-8, NCJ 50199.

Grant No: 76-NI-99-0095
Project: PHASE II EVALUATION OF AN IMPLEMENTED AUTOMATED VEHICLE MONITORING SYSTEM
Grantee: Public Systems Evaluation, Inc., Cambridge, Massachusetts (Richard Larsen)
Award Date: May 14, 1975.
Status: Completed

Project Summary: An Automatic Vehicle Monitoring (AVM) system provides real-time location and status information for each vehicle in the system. Typically, the system would include a display showing a map of the city (presented in several scales) with cars, including their identification number, properly positioned on the map. This report is a Phase II evaluation of such a system implemented citywide by the St. Louis Metropolitan Police Department. The principal goal was reduction in response time, which it was believed would increase the rate of criminal apprehension and possibly deter crime because of time saved by always dispatching the car closest to an incident site. Other objectives included improved officer safety, more effective command and control, less voice band congestion because of the digital communications included in the particular AVM system used, and better supervision of the force.

The evaluation results were unfavorable for response time reduction, favorable for improved operations due to digital communication, and mixed in the realization of other objectives. During the process of evaluation, it became clear that full system potential could not be assessed without some change in police procedures and operating methods. Such potential relates to the use of directed dispatch rather than the all points broadcast (APB) for extraordinary events such as pursuits, burglaries in process, and disturbances; the dynamic reallocation of the force to maintain a patrol presence or to reduce queuing levels in areas where excessive calls for service have depleted the force availability; and better supervision of the force made possible by the new information that the AVM system supplies. An outgrowth of these potentials can be improved effectiveness of the force, greater productivity, and a cost-effective system. Phase I of this research was 75-NI-99-0014.

Final Product(s):

Evaluation of a Police Automatic Vehicle Monitoring (AVM) System: A Study of the St. Louis Experience 1976-1977, Gilbert C. Larson and James W. Simon, 1979, 178 pp. GPO 027-000-00800-3, NCJ 55338, Microfiche.

Evaluation of an AVM System Implemented City-Wide in St. Louis (MO) - A Summary Report, Richard C. Larson and K.W. Colton, 1978, 19 pp. NCJ 53103, Microfiche.

Markov Models of Fixed-Post Sensor AVL (Automatic Vehicle Location) Systems, From Police AVM (Automatic Vehicle Monitoring) System - Phase II Evaluation 1978, Richard C. Larson, 1977, 56 pp. NCJ 64854.

St. Louis (MO) - Police AVM (Automatic Vehicle Monitoring) System - Phase II City-Wide Implementation, Evaluation, Gilbert C. Larson and James W. Simon, 1978, 235 pp. NCJ 64852, Microfiche.

Derivative Work:

Larson, R.C. "Markov Models of Signpost Sensor AVL Systems." Transportation Science 12(4):331-352, 1978.

Larson, R.C. "Modeling the Operational Impact of Automatic Vehicle Monitoring Systems in Cities." From Large Engineering Systems 3, eds. M.E. Elhusary, W.J. Vetter. Proceedings of the Third International Symposium on Large Engineering Systems. St. John's, Newfoundland, July 1980, pp. 415-420. NCJ 77769.

Grant No: 76-NI-99-0097
Project: POLICE STRIKES MONOGRAPH
Grantee: International Association of Chiefs of Police,
Gaithersburg, Maryland (Richard F. Mayer)
Award Date: September 28, 1976.
Status: Completed

Project Summary: The major objectives of the study were to identify the causes of police strikes and to make recommendations for their prevention. The basic research design involved case studies of five recent (within the prior 2 years) police strikes in San Francisco, Tuscon, Oklahoma City, Los Cruces, and Youngstown. A survey of the general literature related to police strikes was performed as well as a detailed collection of documentation on each of the strikes chosen for intensive study. The primary means of data collection was through structured personal interviews at each of the sites with key participants from the police associations, and with police and city management representatives. Based on this information, each case study was developed to describe the events leading up to the strike, the strike itself, and the aftermath of the strike. Through an analysis of each case study, detailed findings were developed, and recommendations for the prevention or elimination of conditions that contribute to police strikes were prepared.

Final Product(s):

Police Strikes: Causes and Prevention, William D. Gentel and Martha Handeman, 1979, 277 pp. NCJ 59735.

Grant No: 76-NI-99-0101, 77-NI-99-0070
Project: FORENSIC SCIENCES CERTIFICATION PROGRAM
Grantee: Forensic Sciences Foundation, Inc., Rockville, Maryland
(Joseph L. Peterson)
Award Date: May 24, 1976.
Status: Completed

Project Summary: There existed in the forensic science community an increased awareness of the need and public demand for professional accountability and competence in the forensic sciences. In direct response to this demand, the American Academy of Forensic Sciences in 1976 seized the initiative and undertook

the responsibility of establishing a comprehensive three-step program including: 1) certification (including testing); 2) continuing education; and 3) recertification. With LEAA funding, the Forensic Science Foundation, the research arm of the Academy, administered the program. During this grant period, the profession has made substantial progress toward attaining its stated objectives. "Traditional" inertia has been overcome and the forensic sciences community has shown a growing acceptance for a nationwide Certification Program. Two boards, Forensic Odontology and Forensic Toxicology, became operational during the first year grant and certified 34 in Odontology and 44 in Toxicology. The remaining four disciplines in Psychiatry, Anthropology, Document Examiners, and Criminalistics continued with their stated goals to establish a Certification Program within their respective disciplines. (Continued in 77-NI-99-0070.)

Final Product(s):

Forensic Science Certification Program Final Report Period May 24, 1976 - September 30, 1977, Joseph L. Peterson, 1978, 364 pp. NCJ 64946.

Forensic Science Certification Program, Joseph L. Peterson, 1979, 124 pp. NCJ 64945.

Grant No: 76-NI-99-0104
Project: IMPLEMENTATION AND EVALUATION OF PROTOTYPE RULES AND PROCEDURES FOR POLICE DISCIPLINE
Grantee: International Association of Chiefs of Police, Gaithersburg, Maryland (Bjorn Pederson)
Award Date: June 24, 1976.
Status: Completed

Project Summary: The intent of this study was to evaluate the implementation process and impact of the prototype rules and procedures for police policy developed under a previous NILECJ grant (74-NI-99-0019). The implementation was undertaken primarily in two sites (Albuquerque, NM, and Lansing, MI) with partial implementation in a third (Denver, CO). The specific goals were: a) to develop the modified system according to the needs of each site with minimum dilution of the quality and character of the prototype; b) to implement the system; c) to maintain and monitor the system for 12 months; d) to develop measurements designed to detect possible improvements in the operational effectiveness of the new system compared to the previous system; and e) to develop measurements designed to detect possible improvement in officer attitudes toward discipline. In general, the study showed that a new system could be implemented and could result in improvements with regard to the administration of discipline and officers' attitudes toward it.

Final Product(s):

Implementation and Evaluation of Prototype Rules and Procedures for Police Discipline, International Association of Chiefs of Police, 1980, 402 pp. NCJ 69603, Microfiche.

Implementation and Evaluation of Prototype Rules and Procedures for Police Discipline - Executive Summary, International Association of Chiefs of Police, 1980, 45 pp. NCJ 69604, Microfiche.

Grant No: 76-NI-99-0108
Project: POLITICAL TERRORISM AND LAW ENFORCEMENT STRATEGIES
Grantee: University of Cincinnati, Department of Political Science, Cincinnati, Ohio (Abraham H. Miller)
Award Date: September 1, 1976
Status: Completed

Project Summary: The primary focus of this project was the law enforcement response to hostage situations in the United States. The author shows how the methods devised in this country to deal with encounters with ordinary felons have been used in situations that required negotiations with political terrorists. He attempts to assess these procedures and their implications for dealing with political terrorists. The discussion of hostage negotiation is set in the broader context of international terrorism. For example, sections of the report are devoted to the role of the media in terrorist events, the problem of psychological transference for both victims and hostage-takers, and possible impacts of the United States policy of nonnegotiation. Information for this project was obtained from interviews with domestic and foreign law enforcement officials, government officials, and victims, as well as an extensive review of the literature on terrorism. Products of this effort include a monograph and several articles.

Final Product(s):

Terrorism & Hostage Negotiations, Abraham H. Miller, 1980, 150 pp. NCJ 64413.

Derivative Work:

Miller, A.H. Hostage Negotiations and the Concept of Transference - Terrorism - Theory and Practice. Boulder, Colo.:Westview Press, Inc., 1979. pp. 137-158. NCJ 57919.

Miller, A.H. "Negotiations for Hostages - Implications from the Police Experience." Terrorism 1(2):125-146, 1978. NCJ 48532.

Miller, A.H. Terrorism and Hostage Negotiations. Boulder Colo.:Westview Press, Inc., 1980. 150 pp. NCJ 64413.

Grant No: 76-NI-99-0109
Project: POLICE NARCOTICS CONTROL: PATTERNS AND STRATEGIES
Grantee: Research Triangle Institute, Research Triangle Park, North Carolina (Jay Williams)
Award Date: June 11, 1976.
Status: Completed

Project Summary: This project studied drug law enforcement in six narcotics local units across the United States. The research was designed to identify the perceived drug problems of the urban area narcotics units studies; to determine the goals and objectives of the units with respect to defined enforcement problems; and to gather from official records, interviews, and observations the specific means and strategies used to achieve these goals. Once this model of the enforcement process was articulated, the researchers sought to see how the organizational structure maintained control over key operational areas such as evidence, money, informants, agent recruitment, and agent training. The final report consists of an Executive Summary and a report divided into two volumes: Volume I and Volume II.

The major finding of the study was that, in the main, narcotics units within police departments operate without written policy. This fact led the researchers to refer to narcotics enforcement activities as investigator-centered. Although excessive control could be counterproductive, the researchers warned that increased organizational controls would help to improve narcotics enforcement efforts.

Final Product(s):

Police Narcotics Control: Patterns and Strategies, Executive Summary, Jay Williams, Lawrence Redlinger, and Peter Manning, 1979, 53 pp. GPO 027-000-00822-7, NCJ 54262, Microfiche.

Police Narcotics Control: Patterns and Strategies, Volume I and II. Jay Williams, Lawrence Redlinger, and Peter Manning, 1979, 485 pp. GPO 027-000-00813-5, NCJ 56873, Microfiche.

Derivative Work:

Manning, Peter K. The Narcs' Game. Cambridge, Mass.:The MIT Press, 1980. NCJ 71020.

Grant No: 76-NI-99-0111
Project: NATIONAL EVALUATION PROGRAM PHASE I - ASSESSMENT OF POLICING URBAN MASS TRANSIT SYSTEMS
Grantee: The MITRE Corporation, Criminal Justice System Research Department, McLean, Virginia (Warren S.L. Moy)
Award Date: June 24, 1976.
Status: Completed

Project Summary: This assessment was based on a literature survey, site visits of 12 mass transit systems, and interviews with various transit police and

security officials. The assessment included an analysis of the interactions among the transit environment, crime, and police operations; an examination of the effectiveness of various transit policing strategies; and suggestions concerning new evaluative and experimental programs to either fill knowledge gaps or improve policing effectiveness.

The research findings indicate that the crime problem in mass transit is concentrated in the Nation's largest cities, is of greater magnitude on rapid rail than bus systems, and generally reflects the environment of surrounding communities. Secondly, passengers are influenced by perceptions of crime and security. Thirdly, the nature and type of law enforcement activities performed by transit police are similar to those of the general police force. Evaluative research of policing activities has focused on the impact of saturation patrol in rapid rail systems. Data indicate that although saturation patrol reduces crime, its effects appear to diminish over time. Other policing activities, however, have not been formally evaluated in terms of their impact on transit crime.

Final Product(s):

Assessment of Crime and Policing Responses in Urban Mass Transit Systems, L. Siegel and M. Molof, 1977, 150 pp. NCJ 42630.

Policing Urban Mass Transit Systems - Evaluating Designs and Recommendations for Future Research, M. Molof and L. Siegel, 1977, 37 pp. NCJ 60283.

Policing Urban Mass Transit Systems Phase I Summary Report, L. Siegel, M. Molof, W. Moy, J. Strack, F. Jordan, Jr., 1979, 70 pp. GPO 027-000-00858-5, NCJ 60284, Microfiche.

Grant No: 76-NI-99-0119, 75-NI-99-0007
Project: NATIONAL PROJECT TO DEVELOP POLICE PROGRAM PERFORMANCE MEASURES:
PHASE II
Grantee: American Justice Institute, Sacramento, California
(Jerome A. Needle)
Award Date: August 21, 1974.
Status: Completed

Project Summary: This study is in response to the recommendations of the National Commission on Criminal Justice Standards and Goals which stated in Police that "...a national study be undertaken to determine methods to evaluate and measure the effectiveness of individual police agencies in performing their crime control function."

An earlier Phase I study (75-NI-99-0007) was, in large part, conceptual. It developed a system of performance measures, corresponding to a hierarchy of police objectives, sub-objectives and sub-sub-objectives. Objectives of Phase II were to implement, refine, and evaluate the performance measurement system in four major metropolitan cities in the country. The system is evaluated in terms of whether it can improve police program performance management capabilities, and whether it is technically usable on a widescale basis. Finally, the project

developed a performance measurement system "package" containing materials required to enable police agencies to implement and use the system.

Final Product(s):

Police Program Performance Measurement System, Jerome A. Needle, 1981, GPO.

Derivative Work:

Needle, Jerome A. "The Changing Role of Police." Paper presented at National Conference of the American Society of Criminology, Tucson, Arizona, 1976.

Needle, Jerome A. "Police Program Performance Measurement. A Scheme for Gauging Effectiveness and Productivity." From workshop on Police Productivity and Performance, Ottawa, Canada, May 25 - 26, 1978. Sponsored by Research Division, Ministry of the Solicitor General of Canada, 1980, pp. 35-67. NCJ 66695.

Needle, Jerome A. "A Report on the National Project to Develop Police Performance Measures." Paper presented at the National Conference on Criminal Justice Evaluation, Washington, D.C., 1977.

O'Neill, Michael W., Jerome A. Needle, and Raymond T. Galvin. "Appraising the Performance of Police Agencies: The PPPM System." Journal of Police Science and Administration 8(3):253-264, September 1980. NCJ 72971.

Grant No: 76-NI-99-0125
Project: POLICE PRECINCTS: A STUDY OF INFORMAL ORGANIZATION AND COMMUNICATION
Grantee: Institute for Social Analysis, Newfoundland, New Jersey
(Francis A.J. Ianni)
Award Date: August 25, 1976.
Status: Completed

Project Summary: This is a study of the social organization of two police precincts in New York City. The study describes the emergence and functioning of two cultures within the Department. A conception of the "good old days" is the organizing ethos for "Street Cop Culture," which organizes individual officers into a social system. This sense of what the old days were like in the Department may or may not be an accurate interpretation of the past, but it represents the way street cops believe the Department should be today. Analysis indicates the belief that a number of social and political forces have weakened the "good old days" culture, so that the organic structure of the Department is disintegrating. Various forces have contributed to the development of a new headquarters-level "Management Cop Culture," so that what was once a family is now a factory. Unlike other bureaucratic systems in which the upper echelon of the hierarchy is recruited from different socioeconomic and educational levels than the lower ranks, managers at all levels in the Department began as cops, since there is no lateral entry. While there is some uneasy accommodation between "Street Cops" and "Management Cops," they are increasingly in conflict, which serves to isolate precincts from headquarters. The result is disaffection, strong stress reaction, increasing attrition, and growing problems with

integrity. This in turn reinforces the resistance of the Street Cop Culture to attempts by headquarters managers to produce organizational change.

While the ethnographic methodology of the study was designed for problem finding rather than problemsolving, two sets of recommendations did emerge. One set describes how the social organization of the precinct can become a valuable resource in police administration. The other is a recommendation for decentralization of planning and evaluation functions to the precinct.

Final Product(s):

Street Cops vs. Management Cops: The Social Organization of the Police Precinct, 1979.

Grant No: 76-NI-99-0129
Project: BOSTON POLICE DEPARTMENT PROJECT ON CRIMINAL INVESTIGATIVE PROCEDURES
Grantee: Trustees of Boston University, Boston University Center for Criminal Justice, Boston, Massachusetts (Sheldon Krantz)
Award Date: September 30, 1976.
Status: Completed

Project Summary: Building on the previous work of the authors (75-NI-99-0078), the Arizona State University Model Roles Project, and the ABA Standards Relating to the Urban Police Function, the grantee undertook to carry the previous work in police administrative policy-making into new priority areas. The main thrust of this collaborative effort with the Boston Police Department was to develop guidelines in search warrants, motor vehicle searches, searches incident to arrest, stop and frisk, eyewitness identification and arrest, and then to evaluate the impact of the guidelines on officer conduct.

The specific objectives of this phase of the effort were:

1. To develop guidelines in sensitive areas affecting both the detective and patrol function, including selective enforcement of the criminal law;
2. To evaluate the impact of guidelines in structuring police discretion;
3. To assess and document the project's guideline development process and to institutionalize policymaking within the Boston Police Department; and
4. To develop national recommendations following an examination of the applicability of this policymaking process to other police agencies.

Final Product(s):

Police Policymaking to Structure Discretion: The Boston Experience, Sheldon Krantz, 1978, 651 pp. NCJ 58941, Microfiche.

Derivative Work:

Krantz, Sheldon, Boston Police Task Force, Criminal Investigation Procedure. Lexington, Mass.:Heath Lexington Books, 1979.

Krantz, Sheldon, B. Oilman, C.G. Benda, C.G. Hallstrom, et al. Police Policymaking - The Boston (MA) Experience. Lexington, Mass.:Heath Lexington Books, 1979. 333 pp. NCJ 63390.

Grant No: 76-NI-99-0137
Project: POLICE SERVICE DELIVERY TO THE ELDERLY
Grantee: University City Science Center, Washington, D.C. (Stephen Schack)
Award Date: September 30, 1976.
Status: Completed

Project Summary: This report presents a brief review of current knowledge and opinion about the elderly's need for police service, discusses the kinds of service police provide to the elderly, and assesses the implications of these service delivery patterns for police operations. Data for the report are drawn from a community survey of 913 elderly citizens in 2 cities, a survey of 893 police officers in 2 departments, a review of elderly requests for police service, and a nationwide review of police-related programs designed to assist elderly clients. The citizen survey indicated that the urban elderly's anxieties concerning crime impose several limitations upon their lifestyles and contribute to feelings of depression and loneliness. However, despite the physical, financial, and emotional suffering caused by victimization and fear of crime, the elderly expressed extremely favorable attitudes toward the police. The results of the police officer survey indicate that the responding officers have a generally positive image of the elderly and that, in comparison with the non-elderly older persons, are perceived as making proportionately fewer demands for police service and fewer unnecessary requests for service. Analysis of the elderly requests for police service indicates that the elderly do not make excessive or especially difficult demands upon the police or that there are any severe strains in police/elderly interactions. The findings summarized in this report have two principal and possibly controversial policy implications for police operations. First, the dominant theme that emerges from the analysis of the survey data is that the elderly have quite favorable attitudes toward the police and are generally satisfied with the quality of police services they receive, and that the police have a generally positive image of the elderly and appear to encounter few special difficulties in providing services to them. These findings raise serious questions about the advisability of undertaking major programs designed specifically to improve the quality of police services provided to the elderly without first carefully establishing that such programs represent the most effective use of limited police resources. Second, the analysis suggests that the police could play a much more active role in referring elderly citizens with either crime or noncrime-related problems. The survey data revealed that only a very small percentage of the police service recipients were referred to other sources for help. This is surprising, because the police are often called to handle noncrime-related problems which fall outside their field of expertise, such as elderly crime victims who may have problems coping with the physical, economic, and psychological effects of victimization.

Final Product(s):

Police Service Delivery to the Elderly, Grant Grissom, Stephen Schack, and Saul B. Wax, 1980, 166 pp. NCJ 77263.

Derivative Work:

Schack, S. and R.S. Frank. "Police Service Delivery to the Elderly." Annals of the American Academy of Political and Social Science 438:81-95, July 1978. NCJ 56513.

Grant No: 76-NI-99-0140
Project: CIVIL SERVICE SYSTEMS: THEIR IMPACT ON POLICE ADMINISTRATION
Grantee: Public Administration Service, Chicago, Illinois (Joseph Molkup)
Award Date: September 30, 1976.
Status: Completed

Project Summary: This study examines the positive and negative effects of civil service upon urban police systems. This was accomplished through an analysis of the basic laws and legislative frameworks; an analysis of the impacts of city politics on police personnel systems and the political setting for change; an analysis of the actual policy and administration of police personnel systems; an analysis of the characteristics of police unionism and its impacts on police personnel systems; an analysis of the impacts of civil service on police personnel programs and practices and of police responses to administrative issues; and an analysis of the effects of civil service on the quality of police performance. The study concluded that any major thrusts of civil service reform should be fostered through the shifting of roles from regulation to that of police formulation. The law, in and of itself, cannot be considered as an exclusive or all-embracing instrument for reform. One major report plus four monographs resulted from this study.

Final Product(s):

Cities, Politics, and Civil Service Commissions: The Urban Context of Police Personnel Administration, J. Slovak, 1979, 28 pp. NCJ 60202, Microfiche.

Civil Service Systems: Their Impact on Police Administration, G.W. Greisinger, J.S. Slovak, and J.J. Molkup, 1979, 238 pp. NCJ 58954, Microfiche.

Impact of Affirmative Action and Civil Service on American Police Personnel Systems, H.G. Locke, 1979, 19 pp. GPO 027-000-00856-9, NCJ 59256, Microfiche.

Police Personnel Practices in Forty-Two American Cities, G.W. Greisinger, J.S. Slovak, J.J. Molkup, 1978, 38 pp. NCJ 59501, Microfiche.

Police Unions in the Civil Service Setting, J.H. Burpo, 1979, 43 pp. GPO 027-000-00859-3, NCJ 59255, Microfiche.

Derivative Work:

Slovak, J.S. "Work Satisfaction and Municipal Police Officers." Journal of Police Science and Administration 6(4), December 1978. 9 pp. NCJ 52862.

1977

Grant No: 77-NI-99-0003
Project: APPLICATION OF CRISIS INTERVENTION TO CASES OF BURGLARY, ROBBERY AND HOMICIDE
Grantee: American Institutes for Research, Washington, D.C. (Gary B. Brumbach)
Award Date: October 14, 1967.
Status: Completed

Project Summary: The 8-month project was intended to investigate whether a problem exists in three crime types (homicide, robbery, and burglary) for which known crisis intervention principles and/or procedures can be utilized by the police to better fulfill their responsibilities. Three law enforcement agencies were used as data collection sites. They were: Birmingham, Alabama; Fort Worth, Texas; and Rochester, New York. The specific research objectives were:

1. Determine the absence or presence of crisis and assess its level among cases of homicide, robbery, and burglary. This objective includes the development and application of scaling procedures for reliably judging the level of crisis;
2. Assess the impact of levels of crisis upon police operations, especially the investigative capability;
3. Assess police sensitivity to varying levels of crisis;
4. Determine whether victim satisfaction with the police depends on the level of crisis and the degree of police sensitivity to it;
5. Determine whether better approaches are needed by the police to handle crisis in the specified crimes; and
6. Assess the residual effects of crisis upon the victim or relative's life.

Semistructured interviews were conducted with robbery and burglary victims, the patrol officers taking the original reports, and the detectives assigned to each case.

The principal findings were:

1. The presence of crisis responses on the part of victims can be judged reliably from interview data provided by victims, police officers, and investigative officers.

2. Serious crime responses are estimated to be present in 10-15 percent of robbery cases and 8-12 percent of burglary cases. These estimates are very tentative since they are based on a small sample, and are also influenced by the necessarily arbitrary definition of "serious."
3. While crisis is more frequent in robbery, burglary appears to have a greater impact on the victim's subsequent life.
4. The police performance is generally viewed as satisfactory by victims. Victims of burglary are less satisfied with the police than are victims of robbery. For burglary victims, the higher the degree of crisis responses, the lower the satisfaction with the police.
5. Police are significantly more sensitive to crisis behavior in victims of robbery than in victims of burglary; hence the finding in number 4, above.
6. It appears that multiple victimization deserves attention. In the sample, over 40 percent of the victims had been victimized at an earlier time. It was the victim's situation (neighborhood, place of employment, etc.) that seemed to account for the repeated crimes against him.

Final Product(s):

Crisis Intervention: Investigating the Need for New Applications, Blair B. Borque, Robert E. Krug, Gary B. Brumbach, and Louis O. Richardson, 1978, 65 pp. NCJ 47323, Microfiche.

Grant No: 77-NI-99-0013
Project: EVALUATION OF THE NATIONAL DEMONSTRATION PROGRAM FOR MANAGING CRIMINAL INVESTIGATIONS
Grantee: The Urban Institute, Washington, D.C. (Robert Sadacca)
Award Date: January 17, 1977.
Status: Completed

Project Summary: The purpose of this evaluation was to assess the implementation experience and impact of a managing criminal investigations (M.C.I.) program conducted in five police departments. The evaluation framework was based on the M.C.I. program components and outcomes which the five sites articulated. The major sources of information utilized to evaluate the program included reviews of grant application, personnel rosters, UCR crime and arrest statistics, departmental orders, offense reports, and onsite interviews.

The principal findings were as follows:

- o All sites implemented activities to (1) augment the role of the patrol officer in investigative work; (2) institute new or adjusted ongoing case screening systems to ensure that follow-up investigations were concentrated on those cases with the highest probability of being solved; and (3) manage continuing investigations.

- o Overall, only marginal, if any, change was observed in the ratio of arrests to offenses.
- o Conviction rates remained constant in two sites and increased slightly in two sites.
- o In general, improved clearance rates were not achieved although two sites showed marginal increases.

Final Product(s):

Managing Criminal Investigations: A Summary Report, Katryna J. Regan, Paul G. Nalley, and Thomas White, 1979, 78 pp. NCJ 72578, Microfiche.

Managing Criminal Investigations in Birmingham, Alabama: A Case Study, Katryna J. Reagan, 1979.

Managing Criminal Investigations in Montgomery County, Maryland: A Case Study, Paul G. Nalley and Katryna J. Reagan, 1979.

Managing Criminal Investigations in Rochester, New York: A Case Study, Paul G. Nalley, 1979.

Managing Criminal Investigations in Santa Monica, California: A Case Study, Harleigh Johnston and Thomas White, 1979.

Managing Criminal Investigations in St. Paul, Minnesota: A Case Study, Katryna J. Reagan and Paul G. Nalley, 1979.

Grant No: 77-NI-99-0016
Project: RESPONSE TIME ANALYSIS STUDY: PHASE II
Grantee: Kansas City Police Department, Kansas City, Missouri
 (Lt. Col. Lester N. Harris)
Award Date: January 7, 1977.
Status: Completed

Project Summary: The Response Time Analysis study was designed to provide a comprehensive assessment of issues and assumptions regarding the value of police response to a variety of crime and noncrime, emergency and nonemergency incidents. Specifically, two objectives were established:

1. Analysis of the relationship of response time to the outcomes of on-scene criminal apprehension, witness availability, citizen satisfaction, and the frequency of citizen injuries in connection with crime and non-crime incidents.
2. Identification of problems and patterns in reporting crime or requesting police assistance.

The results of the complete study, funded under this grant and a previous award (73-NI-99-0047), are presented in a set of four technical volumes, executive

summary, and synopsis which detail the methodology, analysis, and findings for Part I and Part II crimes and for noncrime incidents. The series examines the relationships between the time taken by citizens to report crime or request police service, the time required for the police to process, dispatch, and respond to calls, and various outcomes related to police response.

Through the use of civilian observers, analysis of the communications tapes, and interviews with victims and witnesses, approximately 7,000 citizen generated calls for service processed through the departments' communications unit were analyzed.

Final Product(s):

Response Time Analysis, Volume III Part II Crime Analysis, Kansas City Police Department, 1979, 205 pp. NCJ 71109.

Response Time Analysis, Volume IV Non-Crime Call Analysis, Kansas City Police Department, 1979, 257 pp. NCJ 71110.

Response Time Analysis Synopsis, Kansas City Police Department, 1980, 42 pp. NCJ 71108, Microfiche.

(Executive Summary, Volume I and II listed under 73-NI-99-0047.) NCJ 46852, 47076, and 47077.

Derivative Work:

Bertram, D.K., and A. Vargo. "Response Time Analysis Study - Preliminary Findings on Robbery in Kansas City." Police Chief 43(5):74-77, May 1976. NCJ 34530.

Grant No: 77-NI-99-0025
Project: THE SPATIAL DISPLAY AND ANALYSIS COMPONENT OF A POLICE INFORMATION SYSTEM: A DESIGN AND IMPLEMENTATION STRATEGY - GRADUATE RESEARCH FELLOWSHIP
Grantee: Research Foundation of State University of New York, Department of Geography at SUNY Buffalo, Buffalo, New York
 (Dr. Perry O. Hanson, III)
Award Date: February 25, 1977.
Status: Completed

Project Summary: This research explored the problems relating to computerized information systems within police departments throughout the U.S. Police information systems have been underutilized, little attention has been devoted to the spatial display and crime analysis components of these systems, and research relating to the development of constructs of criminal etiology has been extensively ignored. This research studied these problems and suggested a design and implementation framework for executing crime analysis and spatial display processing.

The approach was twofold: it attempted to demonstrate the utility of developing and operationalizing a crime analysis and display phase into a police information system; and, the theoretical discussion was buttressed by a sample statistical and computer graphic package utilizing the city of Buffalo master crime file data base.

The study established a basic foundation for constructing a crime analysis and spatial display component into police information systems so that long-range police planning can be realized.

Final Product(s):

No report available

Grant No: 77-NI-99-0054
Project: RESOURCE UTILIZATION FOR URBAN POLICE PATROL - GRADUATE RESEARCH FELLOWSHIP
Grantee: Ohio State University Research Foundation, Faculty of Management Sciences, Columbus, Ohio (Lawrence D. Vitt)
Award Date: May 27, 1977.
Status: Completed

Project Summary: This research was concerned with the development of planning techniques to be used in the deployment of patrol vehicles and manpower. The patrol planning function seeks to have available the right number of patrol vehicles and manpower at the right place and time. The actual patrol function consists of primarily two activities: (1) responding to calls-for-service and (2) administrative and crime prevention activities. The ratio of activities (1) and (2) is the utilization ratio. Specifically, the primary area of interest of this research was the investigation of this utilization ratio concept and its use in police patrol allocation programs.

Past research has discovered that the utilization ratios can vary from 10 to 40 percent between districts. Some of the reasons cited for these deviations are (1) the population density, (2) the square miles per patrol unit, (3) the workload per citizen by district, and (4) the "preventive" requirements of the area. These causes lead to a rather complex set of interrelationships.

Final Product(s):

Methodology for the Allocation of Police Patrol Vehicles, B.A. Saladin, 1980, 303 pp. NCJ 66435, Microfiche.

Grant No: 77-NI-99-0070, 76-NI-99-0101
Project: FORENSIC SCIENCES CERTIFICATION PROGRAM
Grantee: Forensic Sciences Foundation, Inc., Rockville, Maryland (Joseph L. Peterson)
Award Date: August 31, 1977.
Status: Completed

Project Summary: The Forensic Sciences Certification Program was constituted to facilitate the deliberation, research structuring, and field testing efforts of 6 separate forensic science certification planning committees.

During the second year (this grant continues the work of 76-NI-99-0101) public demand increased for professional accountability and competence in the forensic sciences work force, and two additional disciplines, Anthropology and Document Examiners, joined the ranks of Toxicology, Odontology, and Psychiatry--a total of five--with each now having an operational nonprofit certifying Board incorporated in the District of Columbia.

Whereas NIJ Grant No. 76-NI-99-0101 proved to be the catalyst needed to overcome the initial inertia so prevalent in the forensic sciences community toward any form of certification, NIJ Grant No. 77-NI-99-0070 provided the means not only to maintain our modest efforts of the first year, but also to improve upon our accomplishments. Under the two grants, five Boards have initiated operations to certify qualified applicants, certification procedures have been developed and tested, extensive examinations have been administered in three disciplines, and two disciplines are well along in the development stage with their examination process. Wide publicity has been given to the fact of certification, brochures have been published in five disciplines outlining the required standards, and a "Directory of Diplomates," initially published in January 1978 with a total of 98 Diplomates, has been revised and was republished in January 1979 with a listing of 240 certified Diplomates.

Applications received and individuals certified increased as follows:

Discipline	Applications		Certified	
	From	To	From	To
American Board of Forensic Toxicology, Inc.	102	185	44	110
American Board of Forensic Odontology, Inc.	63	65	34	41
American Board of Forensic Psychiatry, Inc.	13	137	0	29
American Board of Forensic Anthropology, Inc.	0	29	0	22
American Board of Forensic Document Examiners, Inc.	0	112	0	57

Much work is needed to continue to field test the existing programs through the cycle of certification, primarily in the area of credentialing and examination phases, to research the area of continuing education, the various options open in the area of recertification, and finally to the establishment of a national viable certification program in Criminalistics.

Final Product(s):

Forensic Sciences Certification Program Final Report, October 3, 1977 - April 2, 1979, Forensic Sciences Foundation, 1979, 124 pp. NCJ 64945.

Derivative Work:

1979 Directory of Diplomates, 2nd Edition. Rockville, Md: The Forensic Sciences Foundation, Inc., 1979. 42 pp. NCJ 77212.

Grant No: 77-NI-99-0074
Project: MANAGING THE POLICE DEMAND: A CONCEPT IN POLICE ADMINISTRATION
Grantee: City of Wilmington, Wilmington Bureau of Police, Wilmington, Delaware (Charles E. Bryan)
Award Date: September 26, 1977.
Status: Completed

Project Summary: The object of the evaluation was to test alternative responses to noncritical calls for service, and the corresponding changes in resource allocation. The program included four components. The first component, the establishment of a complaint-screening function to divert noncritical calls for service and the second, a call-back function that designated a police officer to contact diverted callers to determine an appropriate means of handling requests, supported the third component of alternative response strategies. When implemented, these provide the means of carrying out a reduction in the size of the patrol force that responds to citizen calls for service (fourth component). In Wilmington, the patrol force was already split between Basic patrol (with primary responsibility for responding to calls for service) and Structural patrol (responsible for undertaking preventive patrol).

The report's conclusions indicate that the development and implementation of a system which appropriately screens requests for police services results in better resource allocation and use, and brings about an increase in call for service response efficiency; a response-oriented Complaint Service Unit improves the quality of complaint-related information on which response decisions are based; and capitalizing on the response specialization of the split patrol force, diversion of calls for service to alternative responses allows proportional reductions in the size of the patrol force and appropriate reassignment of excess patrol personnel to other divisions.

Final Product(s):

An Alternative Approach in Police Response: The Wilmington Management of Demand Program, Michael F. Cahn and James M. Tien, 1981.

Derivative Work:

Regan, Dennis P. and James M. Tien, "Managing the Police Demand." From Special National Workshop on Criminal Justice Program Evaluation Selected Workshop, Criminal Justice Research Utilization Program, Washington, D.C., May 17 - 19, 1980, pp. 35-40. NCJ 75712.

Grant No: 77-NI-99-0082
Project: POLICE CAR SURVEY 1977
Grantee: International Association of Chiefs of Police, Gaithersburg, Maryland (Warren Whitfield)
Award Date: September 27, 1977.
Status: Completed

Project Summary: The Police Car Survey of 1977 attempted to determine whether the compact car was being utilized in a patrol mode and what was the experience of police agencies with the compact patrol vehicle. The IACP surveyed 101 of the largest city/county and 49 State law enforcement agencies and collected a vast amount of data which demonstrated the following:

- a. About 20 percent of the city/county patrol cars are compacts;
- b. There is little difference in cost between compacts and larger cars;
- c. Resale value of compacts is about the same or lower than larger cars;
- d. Operational costs are equivalent to larger cars;
- e. There is no significant difference in mileage between compact and larger patrol cars;
- f. Compact patrol cars, like the larger cars, are generally overpowered and loaded with power options; and
- g. Compact car does not fulfill many operational needs.

The IACP gathered considerable data which could be used to develop additional information concerning patrol car equipment, usage, maintenance, operational use, and costs. These data are available in tables incorporated into the report.

Final Product(s):

Police Car Survey 1977 - Technical Research Division, International Association of Chiefs of Police, 1979. NCJ 61570.

Grant No: 77-NI-99-0085
Project: ALTERNATIVE STRATEGIES FOR RESPONDING TO POLICE CALLS FOR SERVICE
Grantee: City of Birmingham Police Department, Birmingham, Alabama (Lee Hitchcock)
Award Date: September 30, 1977.
Status: Completed

Project Summary: The primary focus of this effort was to explore the possibility of developing alternative responses to police calls for service and to develop a decision model that police agencies could use upon the receipt of a call for service. In addition to reviewing the literature and previous research findings, 200 police departments were surveyed for existing practices, and an analysis of response procedures was conducted in four cities. Citizen surveys were also undertaken to ascertain the community's reaction to alternative response strategies.

The report suggests a method for classifying calls for service so that the appropriate response can be selected. The classification system takes into

account both the time of occurrence of the incident (in relation to the telephone call) and the nature of the incident in terms of personal injury, property damage or loss, and whether a crime has been committed.

Final Product(s):

Differential Police Response Strategies, Michael T. Farmer and Ray Sumrall, 1980.

Derivative Work:

Michael T. Farmer, Ed., Differential Police Response Strategies. Police Executive Research Forum and Birmingham Police Department, 1981. 193 pp. NCJ 76693.

1978

Grant No: 78-NI-AX-0001, 76-NI-99-0107
Project: SOURCEBOOK IN FORENSIC SEROLOGY
Grantee: Robert Gaensslen, New York, New York
Award Date: May 20, 1976.
Status: Completed

Project Summary: The purpose of this project was to develop a sourcebook in forensic serology which would be a suitable reference tool for laboratory workers. This sourcebook is a comprehensive review of medicolegal examinations of blood and body fluids. It was conceived as a single-source reference of background material in medicolegal serology, immunology, and biochemistry. Topics covered in the sourcebook include: background material on genetics, biochemistry, immunology, and methods; identification of blood; identification of body fluids; species determination; blood groups; isoenzymes; hemoglobin, plasma proteins, and other polymorphisms; sexing and other markers; and translations of selected contributions to the original literature of medicolegal examinations of blood and body fluids.

Final Product(s):

Sourcebook in Forensic Serology, Immunology and Biochemistry, R.E. Gaensslen, 1981. (900 pp.) GPO.

Derivative Work:

Gaensslen, R.E. "Sourcebook in Forensic Serology, Immunology and Biochemistry: Translations of Selected Contributions to the Original Literature of Forensic Serology." Forensic Science International 14:147, 1979.

Grant No: 78-NI-AX-0005
Project: ANTI-CORRUPTION MANAGEMENT PROGRAM
Grantee: John Jay College of Criminal Justice, City University of New York, Research Foundation, New York, New York (Robert J. McCormack)
Award Date: November 16, 1977.
Status: Completed

Project Summary: This effort will involve the development of a comprehensive measurement index for assessing levels of police corruption. Additionally, research concerning predictive variables related to police corruption will be

conducted. The results of this research should offer a more proactive approach to anticorruption management and should expand the body of knowledge concerning police corruption. Literature search is involved, and questionnaires will be used as well to measure police officers' perceptions of corruption and citizens' perceptions of corruption. This effort is a continuation of 75-NI-99-0083.

Final Product(s):

No report available

Grant No: 78-NI-AX-A007
Project: SYMPOSIUM ON DETECTION AND ID OF EXPLOSIVES
Grantee: Department of Treasury, Bureau of Alcohol, Tobacco, Firearms, Washington, D.C. (A. Atley Peterson)
Award Date: August 7, 1978.
Status: Completed

Project Summary: NILECJ was requested by the Bureau of Alcohol, Tobacco, and Firearms, along with elements of the Department of Transportation and Energy, to co-sponsor a symposium on detection and identification of explosives. The symposium was held on October 30, 31, and November 1, 1978, at the Reston Conference Center and included worldwide participation. A report on the symposium reflects the high order of the conference and further reflects the state of the art on detection and identification technologies relative to explosives.

Final Product(s):

New Concepts Symposium and Workshop in Detection and Identification of Explosives - Proceedings, 1978, 637 pp. NCJ 58392.

Grant No: 78-NI-AX-0015
Project: EASY-TO-USE POLICE RESOURCE ALLOCATION PLANNING TOOLS
Grantee: Institute for Public Program Analysis, Justice System Division, St. Louis, Missouri (Nelson B. Heller)
Award Date: December 20, 1977.
Status: Completed

Project Summary: The primary objective of the project was to make the insights available from sophisticated computer-based police resource planning models accessible to a wide range of planners who need such tools but cannot use them in their present form. The project developed and tested a new police resource allocation planning system based on an inexpensive programmable pocket calculator and minicomputer. This system provides many of the conversational, tutorial, computational, and error correcting capabilities of interactive real-time data processing at a fraction of the cost.

Final Product(s):

Police/Plan - An Easy-to-Use Resource Allocation System - Executive Summary, Institute for Public Program Analysis, 1979, 58 pp. NCJ 69517, Microfiche.

Police/Plan - An Easy-to-Use Resource Allocation System - Training Materials for Patrol/Plan, Beat/Plan, and Data/Plan Software on Apple II Microcomputer, Institute for Public Program Analysis, 1979, 147 pp. NCJ 69431.

Police/Plan - An Easy-to-Use Resource Allocation System - User's Manual for Patrol/Plan, Beat/Plan, and Data/Plan Software on Apple II Microcomputer, Institute for Public Program Analysis, 1979, NCJ 69432.

Police/Plan - An Easy-to-Use Resource Allocation System - User's Manual and Training Materials for Patrol/Plan Software on TI Programmable 59 Calculator, Institute for Public Program Analysis, 1979, 79 pp. NCJ 69429.

Police/Plan - An Easy-to-Use Resource Allocation System - User's Manual and Training Materials for Patrol/Plan Software on TRS-80 Microcomputer, Institute for Public Program Analysis, 1979, 323 pp. NCJ 69430.

Grant No: 78-NI-AX-0020, 76-NI-99-0112
Project: POLICE REFERRAL SYSTEMS IN METROPOLITAN AREAS - PHASE II
Grantee: Indiana University Foundation, Bloomington, Indiana (Elinor Ostrom)
Award Date: February 24, 1978.
Status: Completed

Project Summary: This grant and its companion award (76-NI-99-0112) were initially undertaken as an examination of the effects of different policy agency organizational structures and service conditions on police referral practices. The objectives were to examine the short-run effect of different organizational arrangements and policies for delivering social services, and to analyze the relationships between police departments and complementing, supplementing, or overlapping social service agencies.

Data for this effort were gathered in 24 police agencies in 3 metropolitan areas (Rochester, NY; Tampa, FL; and St. Louis, MO) and represent the first empirical overview of police referral practices in metropolitan areas, examining police-referral agency relations from an agency and officer perspective, extent of officer referrals and impressions of referred citizens. Most significantly, it found that close analysis of citizen demand and mode of police response is potentially useful in establishing communications policies and guidelines, in helping determine personnel deployment patterns, in improving police-community relations, and in improving initial response to calls for service.

Final Product(s):

Calls for Service: Citizen Demand and Initial Police Response, Eric J. Scott, 1981, (107 pp.) GPO, NCJ 78362.

Patterns of Police Referral Agency Interaction, Eric J. Scott and Annalee Moore, 1981, (80 pp.) NCJ 78341.

Police Referral in Metropolitan Areas Summary Report, Eric J. Scott, 1981, (49 pp.), GPO, NCJ 77317.

The Referral Agency Interview and Narrative Forms Methods Report, Eric J. Scott, 1981.

These reports should be considered as companion pieces to the reports resulting from grant #76-NI-99-0112: Case Disposition - An Assessment of Literature on Police Referral Practices (NCJ 44847 Microfiche) and Portfolio of Research Instruments on Police Referral (NCJ 44848 Microfiche).

Derivative Work:

Antunes, George and Eric J. Scott. "Calling the Cops: Police Telephone Operators and Citizen Calls for Service." Journal of Criminal Justice 9(2):165-180, 1981. NCJ 78328.

Scott, Eric J. and Stephen L. Percy. "Improving Police Services through Telephone Operations." Police Chief 67(7):48-52, 1980. NCJ 68985.

Grant No: 78-NI-AX-0025
Project: POLICE-PROSECUTOR RELATIONS
Grantee: Georgetown University Institute of Criminal Justice, Washington, D.C. (William McDonald)
Award Date: March 9, 1978.
Status: Completed

Project Summary: Many recent studies indicate the presence of a number of problems associated with police-prosecutor relations. Often, it is believed, these problems are impediments to the effective and efficient administration of justice. Since these problems and their possible solutions have neither been addressed in a comprehensive nor a systematic way, the purpose of this study was to provide a full and systematic description of the relationship between police and prosecutors. Particular attention was given to the nature and causes of problems in that relationship and means of resolving such problems. The study focused both on specific areas of police-prosecutor interactions (such as arrest, charging, witness management, bail setting, management of investigations, determination of final dispositions, training, and courtroom performance) and on more general issues such as setting criminal justice policies and controlling the use of criminal justice resources. For each area identified, the study reports the nature and cause of the problems, if any, in that area, and the various sources of expert opinion and research findings identified by the study. The study relies primarily on focused interviews and observations with command-level and line-level police and prosecutors, as well as judges and defense attorneys. The study impact, as implied by the above activities, was directed at increasing the understanding of police-prosecutor roles and how these roles may be performed more effectively.

Final Product(s):

Police Prosecutor Relations in the United States - Executive Summary, James A. Cramer, William J. McDonald, and Henry H. Rossman, 1981, 56 pp.

Grant No: 78-NI-AX-0042
Project: SMALL TOWN POLICE: AN ETHNOGRAPHY - GRADUATE RESEARCH FELLOWSHIP
Grantee: University of Oregon, Department of Anthropology, Eugene, Oregon (Christopher Gatney and Renate Gatney)
Award Date: April 5, 1978.
Status: Completed

Project Summary: The objectives of this research project were to produce a descriptive study of police behavior in a small American city, observing and describing both patrol and administrative functions, and comparing the results and conclusions of this study with prominent conclusions and generalizations expressed in the literature presently available. The majority of the present material published regarding police behavior has been based on large urban departments, so the differences are expected to be significant. The major portion of the data collection was collected using the participant-observer methodology. The researcher was employed full-time as a patrolman on a small police department in Oregon for 9 months, and then spent 3 months observing the administrative functionings of the same department.

Final Product(s):

Small Town Police: An Occupational Ethnography May 1981, C. Gatney and Renate Gatney, 1981. (will be available from NCJRS)

Grant No: 78-NI-AX-0055
Project: POLICE STRESS: AN ORGANIZATIONAL ANALYSIS - GRADUATE RESEARCH FELLOWSHIP
Grantee: Research Foundation, State University of New York, Albany, New York (Robert Ford)
Award Date: May 2, 1978.
Status: Not Completed

Project Summary: The goal of this study is primarily to relate police organizational properties to individual stress within that organization. The objective in establishing this relationship is to demonstrate relationships between police control, stress, coping responses, and effects on the community. An underlying hypothesis is that police hierarchy emphasis on control creates undue stress and undesirable coping responses in individual police officers, who may, in turn, direct their reactions back towards the community. This study will involve the analysis and comparison of 25 police organizations. Information regarding the characteristics of each individual organization will be obtained through interviews with the chief of each department by the researcher. In

addition, data will be obtained from organizational members through a questionnaire concerned with organizational practices, individual attitudes, and a stress scale. It is anticipated that the sample size will number approximately 1,000.

Grant No: 78-NI-AX-0056
Project: POLICE ROLES: IMPLICATIONS FOR FUTURE ORGANIZATIONAL STRUCTURING
Grantee: Police Foundation, Washington, D.C. (Mary Ann Wycoff)
Award Date: May 2, 1978.
Status: Not Completed

Project Summary: The intent of the proposed program is to produce an analysis of what police are expected to do, what they actually do, how these activities are perceived, and an understanding of the primary determinants of police behavior. The research program consists of two components. The first would involve a secondary analysis of the extent, quality, and implications of existing data concerning the activities that police perform and the attitudes of citizens and police officers toward those activities. During the second year both existing and newly developed data sets will be integrated in order to fill identified gaps in the data base and to empirically examine the primary determinants of police behavior.

Derivative Work:

Kelling, George and Mary Ann Wycoff. "Policing: A Research Agenda for Rational Policy Making." From paper presented at the Cambridge Criminology Conference, University of Cambridge, Cambridge, England, July 12, 1979. 35 pp.

Wycoff, Mary Ann. "Improving Police Performance Measurement: Is The Topic Worth One More Paper?" From National Conference of the American Society for Public Administration, Detroit, April 12 - 15, 1981. 21 pp.

Grant No: 78-NI-AX-0061
Project: SYNTHESIZING, EXTENDING THE RESULTS OF POLICE RESEARCH
Grantee: Public Systems Evaluation, Inc., Cambridge, Massachusetts (Michael F. Cahn)
Award Date: May 19, 1978.
Status: Completed

Project Summary: Many of the police research activities, particularly with regard to operations, have reached the unique state in their development where accumulation and synthesis of the findings are feasible. The four major objectives of this project are, therefore, to assess and assimilate research findings in the area of police field services; to build on recent research results, thereby attempting to fill knowledge gaps; to synthesize current research knowledge and communicate the results to police administrators who require such information in order to formulate department policy; and to explore and identify the persisting knowledge gaps for police researchers and to develop an agenda for

future NIJ research. It is therefore expected that the proposed synthesizing of past research, highlighting of exceptional research, and projecting of future research will benefit police researchers, police administrators, and NIJ staff members.

Final Product(s):

Synthesizing and Extending the Results of Police Research Studies: Final Project Report, Richard C. Larson and Michael F. Cahn, 1981.

Grant No: 78-NI-AX-0066
Project: FORENSIC MICROSCOPY WORKSHOPS
Grantee: Forensic Science Foundation, Colorado Springs, Colorado (Joseph L. Peterson)
Award Date: June 7, 1978.
Status: Completed

Project Summary: The objective of this project was to train crime laboratory personnel in the use of the polarizing microscope for trace evidence analysis and to develop a state-of-the-art monograph assessing the use of forensic microscopy in the Nation's crime laboratories. Approximately 354 crime laboratory examiners from 177 crime laboratories were trained in either basic or advanced forensic microscopy. The advanced courses given were in evidence categories on soils, mineralogy, and botanicals. Follow-up proficiency testing samples were sent to all students. Of the 354 students who attended the course, 216 returned answers (61 percent). Of these, 85 percent passed the proficiency examination and received certificates.

Final Product(s):

Forensic Microscopy Workshop, Walter C. McCrone, Joseph L. Peterson, and Ira T. Silvergleit, 1980, 131 pp. NCJ 76854.

A Summary of the State of the Art of Forensic Microscopy, Joseph L. Peterson and Ira T. Silvergleit, n.d., 24 pp. NCJ 76855.

Grant No: 78-NI-AX-0068
Project: SPATIAL RESOURCE ALLOCATION PROBLEM FOR POLICE DEPARTMENTS - GRADUATE RESEARCH FELLOWSHIP
Grantee: State University of New York/Research Foundation, Albany, New York (Ross D. MacKinnon)
Award Date: May 25, 1978.
Status: Not Completed

Project Summary: The objectives of this research are to evaluate the application of available location-allocation models and techniques to the problems of manpower deployment, police district/beat delineation, and police facility location; and to evaluate the impact of the integration of location-

allocation models upon the design considerations for police information systems. The benefits to be derived from this research will provide those departments with operational information systems an indication of the extent and direction of necessary modifications (if any) for the implementation of a particular model or models; and to provide those departments in the initial stages of developing a police information system, factors to be considered in the system's design, if such a system is to incorporate resource allocation capabilities.

Grant No: 78-NI-AX-0071
Project: POLYGRAPHIC INTERROGATION
Grantee: University of Minnesota, Minneapolis, Minnesota
(David T. Lykken)
Award Date: June 12, 1978.
Status: Completed

Project Summary: The primary objective of this grant was the completion of a detailed, comprehensive review of the scientific literature pertaining to polygraphic interrogation, including a critical appreciation both of the available data and of the ways in which these data have been interpreted in the literature. It was intended that this monograph would bring together in one place the available facts, issues, arguments, and counter-arguments pertinent to the question of the scientific status and practical utility of the several methods of polygraphic interrogation. It is expected that this compendium will be useful to forensic scientists, to courts and legislative bodies, to policy makers in both the public and private sectors, as well as to other researchers interested in the area.

Final Product(s):

Methods of Polygraphic Interrogation - Final Report, D.T. Tykken, 1979, 67 pp. NCJ 72567, Microfiche.

Grant No: 78-NI-AX-0079
Project: FORENSIC SEROLOGY WORKSHOPS
Grantee: Forensic Science Foundation, Colorado Springs, Colorado
(Joseph L. Peterson)
Award Date: July 31, 1978.
Status: Completed

Project Summary: The need to enhance the analytical capabilities of the Nation's crime laboratories has been established. Previous LEAA-sponsored proficiency testing research has demonstrated that discrepancies often exist between actual laboratory capabilities to examine physical evidence types and recognized levels of satisfactory proficiency. This is particularly true in the analysis of bloodstain evidence. The primary objective of this project was, therefore, to train 100 forensic serologists in newly developed techniques of bloodstain analysis. Training was directed by Mr. Brian Wraxall, who developed the new multisystem blood analysis methodology. Selection of students was contingent

upon their meeting a number of criteria, including the availability of necessary equipment and supplies at their home laboratories, and relevant forensic science experience. Course length varied as a function of student experience, being either 2 or 3 weeks in length. The training site was the Serological Research Institute (SERI) in Emeryville, California. Rigorous evaluation of training effectiveness was conducted both during instruction and through followup examinations. The project enhanced the crime laboratory's ability to differentiate among individuals based on blood characteristics. This ability to identify and/or disqualify suspected offenders was expanded.

Final Product(s):

No report available

Grant No: 78-NI-AX-0086
Project: PERFORMANCE MEASUREMENT THEORY AND THE CRIMINAL JUSTICE SYSTEM - POLICE
Grantee: University of North Carolina, Institute for Research in Social Science, Chapel Hill, North Carolina (Gordon P. Whitaker)
Award Date: August 18, 1978.
Status: Completed

Project Summary: This study sought to advance the state of the art in the conceptualization of police performance measurement issues. The principal departure of this study from previous efforts in the area is that it addresses explicitly the multidimensional nature of performance in the provision of public services. Its primary objectives were to increase our appreciation of the factors influencing police performance and to develop an agenda for future measurement research. The research involved a combination of field work, review of recent empirical findings, and secondary analysis on available data sets. Continued in 80-IJ-CX-0040.

Final Product(s):

Measuring Police Agency Performance, Gordon Whitaker, Stephen Mastrofski, Elinor Ostrom, et al., 1980, 203 pp. NCJ 78161. Microfiche.

Grant No: 78-NI-AX-0092
Project: ARREST CONVICTABILITY AS A MEASURE OF POLICE PERFORMANCE
Grantee: Institute for Law and Social Research, Washington, D.C.
(Frank Leahy)
Award Date: August 25, 1978.
Status: Completed

Project Summary: Although a considerable amount of research has taken place on criminal investigation procedures and basic apprehension activities of the police, the issue of the police role in arrest and postarrest outcomes has not been closely examined. It was therefore the intent of this grant to address the

differences between police officers who make a high number of arrests which lead to convictions and those officers who do not make the same quality arrests (i.e., leading to convictions). The major approach of this study was to explore the subject of arrest quality as a measure of police performance along two different but related lines. First, the research replicated the earlier INSLAW study of police operations in Washington, D.C., in order to determine whether some officers make felony arrests that are systematically more likely to lead to convictions than the arrests of other officers. Secondly, the project examined the extent to which personal characteristics and special knowledge influence the performance of individual police officers.

Final Product(s):

Arrest Convictability as a Measure of Police Performance, Part One - The Replication Analyses, Frank Leahy, 1980, 101 pp.

Arrest Convictability as a Measure of Police Performance, Part Two - Analyses of The Survey Data - Part Three - Conclusions, Frank Leahy, 1980, 134 pp.

Arrest Convictability as a Measure of Police Performance, Summary Report, Frank Leahy, 1980, 50 pp.

Grant No: 78-NI-AX-0095
Project: THE NATURE OF A POLICE EXECUTIVE'S WORK
Grantee: Southern Illinois University, Carbondale, Illinois
(William Vicars and Robert Bussom)
Award Date: September 1, 1978.
Status: Not Completed

Project Summary: This study addressed two related problems. How can police executives become more efficient in managing their organizations, and what available knowledge about managerial effectiveness is appropriate for their use?

The study is based on the premise that the research must identify the various functions and activities of the police executive. A second task of the study was to identify effective management strategies that are congruent with the police department needs. Information about the police executive was obtained through observation. Data were studied for patterns, interrelationships, and similarities among the individual executive's job. In this manner the essential content of the work of police executives could be depicted and understood. Various modern management practices and principles, now existing in business, industry, and the military were also explored to determine their impact on improving the police executive's job.

Grant No: 78-NI-AX-0097
Project: POLICE OPERATIONAL DECISION-MAKING
Grantee: University of Illinois at Chicago Circle, Center for Research in Criminal Justice, Chicago, Illinois (Richard H. Ward)
Award Date: September 6, 1978.
Status: Not Completed

Project Summary: Despite the significant advances in developing improved understanding of police field service delivery systems and police management, very little is known about the factors related to operational decisionmaking by first line supervisors and midlevel managers. The objective of this project is to examine those variables which influence operational decisionmaking and to develop models which are intended to be of practical value to the police administrator in improving the decisionmaking process. This project will be carried out in seven primary police departments through the use of participant observers, a survey instrument, and simulation models.

Grant No: 78-NI-AX-0104
Project: AUTOMATION OF FORENSIC LABORATORY ANALYSES
Grantee: University of Oklahoma, Health Sciences Center, Oklahoma City, Oklahoma (Kurt Dobowski)
Award Date: September 6, 1978.
Status: Not Completed

Project Summary: The purpose of this project is to develop improved and universally applicable automated techniques for crime laboratories and to demonstrate their feasibility and practicality. Automating the major workload of crime laboratories will provide the most effective, economical means to overcome delays, overloads, and inadequacies of performance. Using standard instrumental methods such as spectrophotometry and incorporating chemical characteristics (e.g., sensitivity and specificity) into the reagent systems, automation of the analysis of hashish and marijuana will be done first, as submissions of these substances constitute one of the largest workloads of forensic laboratories. In addition, a simple manual version of the automated procedure will be devised for laboratories with lesser workloads.

Grant No: 78-NI-AX-0107
Project: REPLICATE CITIZEN REPORT COMPONENT - KC RESPONSE TIME ANALYSIS
Grantee: Police Executive Research Forum, Washington, D.C.
(Deborah M. Galvin)
Award Date: September 6, 1978.
Status: Not Completed

Project Summary: This grant will replicate one component, citizen reporting behavior, of the response time continuum as defined in the Response Time Analysis study (73-NI-99-0047 and 77-NI-99-0016) and undertaken by the Kansas City Police Department. The intent of the research is to determine the generalizability to other jurisdictions of the observed phenomenon of disproportionately long victim

and witness reporting times. This effort should produce information essential to administrators and reformers who are interested in effecting rational and practical changes in police department's delivery of field services to the citizenry.

Grant No: 78-NI-AX-0108
Project: MICROSCOPICAL IDENTIFICATION OF SYNTHETIC FIBERS
Grantee: McCrone Research Institute, Inc., Chicago, Illinois (Skip Palenik)
Award Date: September 8, 1978.
Status: Not Completed

Project Summary: The purpose of this project is to collect and organize analytical data for the identification of synthetic fibers obtained as trace evidence at crime scenes. The results of this study will assist in the accurate identification of synthetic fibers and will provide crime laboratories with all data necessary for characterizing small fiber fragments by means of simple microscopical and microchemical tests. The parameters to be measured include the refractive index, solubility, melting point, and sign of elongation. Additional microchemical tests will be conducted to identify specific substances. Two criteria were used in selecting the parameters for use: their ease of measuring with relatively simple equipment on very small fiber fragments, and their independence. The information developed for a complete set of fibers will be an invaluable aid to forensic microscopists working in crime laboratories across the Nation.

Grant No: 78-NI-AX-0109
Project: GUNSHOT RESIDUE WORKSHOPS
Grantee: McCrone Research Institute, Inc., Chicago, Illinois
(Walter McCrone)
Award Date: September 8, 1978.
Status: Completed

Project Summary: Examination of a person's hands for the presence of gunshot residue is an important forensic procedure where someone is suspected of having fired a gun but was not observed doing so. NIJ-sponsored research (particle analysis method) developed the first technique to conclusively identify the presence of gunshot residue on a suspect's hands even hours after a person fired a gun. The primary objective of this project was to present an intensive training course to 32 qualified crime laboratory examiners in this new technique. Training was conducted at the McCrone Research Institute, Chicago, Illinois. Selection of students was contingent upon meeting a number of criteria in terms of laboratory needs and individual and laboratory minimum qualifications. Course length was 1 week in duration. Rigorous evaluation of training effectiveness was conducted both during the period of instruction and regularly scheduled followup examinations (proficiency testing) at the student's home laboratory. Immediate benefit of this training are expected increase in the use of this technique in criminal proceedings for Part I crimes involving the use of hand guns and long guns.

Final Product(s):

No report available

Grant No: 78-NI-AX-0119
Project: CRIMINALISTICS METHODS OF ANALYSIS FEASIBILITY STUDY
Grantee: Forensic Sciences Foundation, Inc., Colorado Springs, Colorado
(Joseph L. Peterson)
Award Date: September 19, 1978.
Status: Not Completed

Project Summary: There has been no systematic effort to identify, evaluate, and disseminate to workers in the field of criminalistics a compendium of valid and reproducible methods of analysis for the examination of common types of physical evidence routinely encountered in the crime laboratory. That such a need existed was demonstrated and documented in the recently completed NILECJ funded research "Laboratory Proficiency Testing Program" (#76-NI-99-0091) which found crime laboratory methods of analysis to yield results which ranged from superior to unacceptable. Often, the latter emerged as a function of inadequate and/or inappropriate methodologies employed by the analyst. The primary objective of the project is to develop a suitable mechanism for determining the acceptability of alternative scientific methods of analysis in the criminalistics/forensic sciences field. A methods advisory board will coordinate a comprehensive review of the criminalistics literature, followed by the development of a suitable mechanism for determining method acceptability and those techniques which are most amenable to testing. A high-priority evidence category will be selected and evaluated. A second evidence category will then be pilot tested reflecting improvements which result from the previous pilot testing procedure. In this way, a general method of evaluation of evidence categories will be developed.

Grant No: 78-NI-AX-0145
Project: EVALUATION-INTEGRATED CRIMINAL APPREHENSION PROGRAM (ICAP)
Grantee: University City Science Center, Washington, D.C. (William Gay)
Award Date: September 30, 1978.
Status: Not Completed

Project Summary: The primary objectives of the evaluation of ICAP are to determine the extent to which the five basic program components have been implemented and integrated and the impact they have had on the improved delivery of police field services, i.e., improved decisions regarding manpower and resource allocation and improved arrest and prosecution practices in the handling of serious habitual offenders. Inasmuch as ICAP represents a substantial investment of LEAA funds and a major part of LEAA police improvement effort, the evaluation results will be important for refunding and information dissemination decisions as well as further model development and demonstration. Four selected

sites will be intensively assessed in terms of the ICAP's operation and effectiveness both qualitatively and quantitatively. Also, 25 additional sites will be assessed from a comprehensive view point.

Grant No: 78-NI-AX-0150
Project: AN EVALUATION OF THE MANAGING PATROL OPERATIONS PROGRAM
Grantee: Theorem Institute, San Jose, California (E.A. Unwin)
Award Date: September 30, 1978.
Status: Not Completed

Project Summary: The purpose of this evaluation is to assess an inter-related group of analysis techniques and management strategies intended to more efficiently utilize and manage patrol officer's time in three police departments. The evaluation will include both process and outcome components and will specifically assess the impact of the program on patrol efficiency. Five reports will be produced as a result of this effort to include an evaluation design, a process analysis report, a report on transfer guidelines, a final report, and an executive summary. (Continued in grant 81-IJ-CX-0002.)

1979

Grant No: 79-NI-AX-0004
Project: CITIZEN/POLICE RELATIONS IN POLICE POLICY SETTING
Grantee: Institute for Social Analysis, Reston, Virginia (Terry Eisenberg)
Award Date: January 30, 1979.
Status: Completed

Project Summary: The purposes of this research were to increase knowledge of police policy processes with emphasis on citizen participation, and to model a process for citizen participation.

Literature reviews, mail surveys, and visits to 16 cities were made. Data sources were police chiefs, supervisory personnel, line officers, government officials, judges and attorneys, business/interest groups, and residents. Policies on use of force, processing of citizen complaints, enforcement priorities, promotion, handling domestic cases, stop and frisk, and gathering intelligence information were considered.

The literature reviews indicated little evidence of relationships between "police-community relations programs" and citizen participation in policy processes.

Mail surveys revealed that policy is most often developed by police personnel at the top and middle command levels, that community groups and criminal justice professionals are rarely involved, that civil service commissions, State standards organizations, and union contracts or memorandums of understanding have influence, and that geographic and population differences exist.

Site visits found a hierarchy of involvement, that the "chief" is the key decisionmaker, that police personnel have a "review/influence" role, that judges and attorneys influence technical policies, and that involvements of residents are "not appropriate" except for policies regarding citizen complaints and enforcement priorities.

Final Product(s):

Citizen/Police Relations in Police Policy Setting - Final Report, Terry Eisenberg and S. Lawrence, 1980, 169 pp. NCJ 74049, Microfiche.

Grant No: 79-NI-AX-0013
Project: THE IMPACT OF FEDERAL FUNDING ON CRIMINOLOGY AND POLICING RESEARCH IN THE SOCIAL SCIENCES (GRADUATE RESEARCH FELLOWSHIP)
Grantee: Department of Sociology, Michigan State University, East Lansing, Michigan (Peter K. Manning)
Award Date: March 1, 1979.
Status: Completed

Project Summary: By examining Federal sponsorship of criminal justice research, particularly policing studies, within the context of a sociology of knowledge, two issues are addressed: 1) the ideological configurations underlying knowledge production, and 2) the possible politicization of research by Federal funding.

Two research strategies were employed. The first was an examination of the organizational processes underlying funding decisions for the NILECJ that entailed both interviews of persons involved in NILECJ activities, and a document analysis of legislation, policy documents, and NILECJ correspondence and memoranda. The second strategy employed a precise coding instrument for a content analysis comparing funded and nonfunded policing studies in six sociological and criminal justice journals.

The study conclusions are: 1) the relationship between the State and the activities it sponsors cannot be understood by examining formal rules and procedures, intents, and legal authorization of Federal agencies because of the other factors in play; 2) the politicization of research occurring in both funded and unfunded policing studies seems to originate in the preconceptual stage of research suggesting that the prior ideology of the researcher rather than any shaping by State sponsorship to be a key factor; 3) a sociology of knowledge requires a theory of both structural and individual ideology as well as a theory of the State to account for the production of the politicization and ideological figures underlying knowledge production.

Final Product(s):

The Relationship of Federal Funding to Criminology and Policing Research in the Social Sciences, Jim Thomas, 1980, 280 pp. NCJ 70035.

Grant No: 79-NI-AX-0032
Project: FORENSIC SCIENCES CERTIFICATION PROGRAM
Grantee: Forensic Sciences Foundation, Inc., Colorado Springs, Colorado (Joseph L. Peterson)
Award Date: April 12, 1979.
Status: Not Completed

Project Summary: The purpose of this grant is to continue the effort initiated under LEAA grants #76-NI-99-0101 and #77-NI-99-0070 on the design, research, and field testing of certification programs for six of the disciplines comprising the forensic sciences profession. Under the first and second year grants, planning committees/boards were formed, and formal intradiscipline dialogue continued to take place. Formulation of and research on various facets

for certification are well under way. The principal thrust of the foundation's third year proposal is to support meetings of all the planning committees and to carry the certification cycle to a posture in which all boards could be self-sustaining.

Grant No: 79-NI-AX-0043
Project: GENETIC MARKERS IN HUMAN SEMEN - SEXUAL ASSAULT CASE
Grantee: Oakland Police Department, Oakland, California (Jan Bashinski)
Award Date: May 31, 1979.
Status: Not Completed

Project Summary: This project is designed to extend previous NIJ research on the typing of genetic markers in human semen from the academic research laboratory to the practical context of the working crime laboratory. The project will determine which of the genetic markers known to be present in semen can be expected to yield useful typing information in evidence material from sexual assault cases, what the potential sources of error are in these typing tests, and how potential problems in the analysis of case material may be recognized and minimized. The researchers will investigate these problems by analysis of samples prepared in the laboratory under experimental conditions and by examination of actual case material collected in incidents of sexual assault. The results of this study will provide guidelines to permit the Nation's crime laboratories to optimize their methods for collection and storage of evidence and to select types of analyses most likely to yield useful information. Development of the potential of genetic typing of semen will improve the quality of investigation and prosecution of rape cases by providing an independent means of corroborating a victim's identification of her assailant or of eliminating a falsely accused person.

Grant No: 79-NI-AX-0091
Project: CRIMINAL JUSTICE CASE INFORMATION REQUIREMENTS
Grantee: Socio-Environmental Research Center, Ltd., Milwaukee, Wisconsin (Dr. Richard D. Knudten)
Award Date: September 18, 1979.
Status: Not Completed

Project Summary: The proposed research uses a comprehensive literature review to assist in the development of data collection instruments for detailed study at six sites. The detailed data collection effort will be conducted in two phases, the first covering two sites followed by preliminary analysis, and the second encompassing the remaining four sites. Data will be collected on the types of information desired and needed for different types of cases (aggravated assault, robbery, burglary, narcotics violations, and arson); the uses of the information in case-related decisions; and the relative importance of the different types of information for making different decisions.

Grant No: 79-NI-AX-0095
Project: CRIME-FOCUSED POLICE ACTIVITY - INTERNAL PERSPECTIVES
Grantee: Michigan State University, East Lansing, Michigan (Peter Manning)
Award Date: September 21, 1979.
Status: Not Completed

Project Summary: Police activities can be classified as either crime related or non-crime related. Crime-related activities are conducted to produce direct impacts on crime prevention and control whereas non-crime-related activities are conducted for numerous public service reasons (e.g. funeral escort, traffic control, etc.). Generally the level and utility of police crime related activities are indicated by parameters such as patrolled miles, apprehensions, arrests, etc. However, these parameters are only vaguely informative as to the impact that police crime related activities have on crime prevention and control. This research will seek new and more fundamental measures of police activities that focus directly on crime. It will also seek fundamental measures of the utility of these crime-focused activities as they relate to crime prevention and control. This research project is one of two complementary research projects being proposed on the topic of crime-focused police activities. This specific project will concentrate on the internal aspects of the police agency whereas the complementary project by William Brown of the State University of New York at Albany will concentrate on the external community environment. Both use the phenomenon of crime as the focus. (Complementary project 79-NI-AX-0111.)

Grant No: 79-NI-AX-0104
Project: NATIONAL EVALUATION PROGRAM PHASE I - ASSESSMENT OF POLICE LIAISON ACTIVITIES
Grantee: Mitre Corporation, McLean, Virginia (Joseph Calpin)
Award Date: September 26, 1979.
Status: Not Completed

Project Summary: The proposed effort will entail a national assessment of police liaison activities consistent with the approach of the National Evaluation Program (NEP) Phase I studies. Successful functioning of the criminal justice process requires a close relationship between the police and other agencies, both within and outside of the criminal justice system. However, no effort has yet been made to identify and collect available information on these activities and to systematically review what is known about their effectiveness. NEP Phase I studies are designed to specify more accurately what is known about actual activities, outcomes, and the effectiveness of existing projects, and to identify areas requiring further research. Major issues to be examined in the conduct of this assessment includes the development of the liaison units: police and nonpolice perspectives, the nature of liaison activities with respect to generic criminal justice functions, the effectiveness of liaison units, and the barriers to improve liaison between police and nonpolice agencies. Project reports will include an assessment of the present state of knowledge in the topic area, site visit reports concerning police liaison efforts, research and program areas which merit further support by LEAA, and evaluation designs for obtaining additional information.

Grant No: 79-NI-AX-0111
Project: CRIME-FOCUSED POLICE ACTIVITY - EXTERNAL PERSPECTIVES
Grantee: State University of New York at Albany, Albany, New York (William Brown)
Award Date: September 29, 1979.
Status: Not Completed

Project Summary: Police activities are classified as either crime related or non-crime related. Crime-related activities are conducted to produce direct impacts on crime prevention and control whereas non-crime-related activities are conducted for numerous public service reasons (e.g. funeral escort, traffic control, etc.). Currently, police crime-related activities are often focused on specific crime-related entities such as robberies, career criminals, arsonists, etc. While such foci might impact the specific crime entity, there might be little or no impact on the basic problem that produces the criminal entity. This project explores the community environment to determine if more basic community issues form the basis of crime. It will concentrate on the development of theories related to issues underlying the incidence of UCR Part I crimes. The research is expected to define the more fundamental problems which must be addressed by a crime-focused police activity that focuses on the prevention and control of Part I crimes. This research project is one of two complementary research projects being proposed on the topic of crime-focused police activities. This specific project will concentrate on the external, community environment aspects of the police agency whereas the complementary project by Dr. Peter Manning of Michigan State University will concentrate on the internal aspects of the police agency. (See also 79-NI-AX-0095.)

Grant No: 79-NI-AX-0112
Project: CONTROLLED PREVENTIVE PATROL EXPERIMENT
Grantee: Public Systems Evaluation, Inc., Cambridge, Massachusetts (Richard Larson)
Award Date: September 29, 1979.
Status: Not Completed

Project Summary: Estimates indicate that 60 to 70 percent of the sworn personnel resources of a police department are assigned to the patrol function. Patrol officers perform a variety of services but the greatest proportion of time devoted to any single task involves routine, high-visibility preventive patrol. Estimates are that preventive patrol consumes about 30 to 40 percent of patrol resources. The objective of this project is to determine preventive patrol effectiveness by varying the levels of patrol presences measured, for example, via an automatic vehicle monitoring system. The impact of level variations will be assessed in terms of crime deterrence, deference, and displacement factors.

Grant No: 79-NI-AX-0115
Project: IDENTIFICATION OF HAIR BY ANALYSIS OF STRUCTURAL PROTEINS
Grantee: Massachusetts General Hospital, Boston, Massachusetts
(Howard P. Baden)
Award Date: September 29, 1979.
Status: Not Completed

Project Summary: Hair is of great potential value in identification of individuals and thus has importance in forensic sciences. Morphological examination has been of help but lack of specificity and objectivity limits its usefulness. Genetic markers are of greater value because they are more directly related to an individual. Earlier studies funded by NIJ (Grant No. 74-NI-99-0032) demonstrated variances in the polymorphism of hair polypeptides (proteins) in 10 percent of the population. In this project the investigators plan to extend this work with the identification of genetically inherited markers of fibrous and matrix proteins in hair utilizing SDS electrophoresis, electrofocusing, and immunoelectrophoretic techniques. One of the techniques (immunoelectrophoresis) will involve making antibodies from the hair proteins of a number of individuals anticipating that a number of different antigenic components can be identified. In addition, the investigators plan to identify additional differences in the polypeptide composition of hair in the population utilizing SDS electrophoresis and electrofocusing techniques to demonstrate that these techniques also can be used for the identification of an individual. The investigators recently developed an electrophoretic technique that will determine species identification of hair with almost 100 percent certainty.

Grant No: 79-NI-AX-0116
Project: EXAMINATION OF INVESTIGATIVE INFORMATION AND BEHAVIOR
Grantee: Police Executive Research Forum, Washington, D.C.
(Michael T. Farmer)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: The Police Executive Research Forum (PERF) will conduct an intensive study of investigative information and behavior at several sites to collect data on the variation of the administration of investigative functions. Specifically, extensive data will be collected on the type of information collected during investigations; the investigative activities of police personnel; and the level and types of resources utilized in investigations. The interaction of the above factors will also be explored along with their effects on various output measures. The study will focus on cases of robbery, burglary, and proactive investigations. In addition to the target crimes, case studies will be carried out on selected homicides, child abuse, runaway/missing persons, and arson in order to give as wide an array of investigation situations as possible. These case studies will then be compared with the in-depth data collected on the three major target crimes to identify any differences among these investigations.

Grant No: 79-NI-AX-0120
Project: LBLD ANTIBODY APPROACH - SIMULTANEOUSLY DETERMINE SEVERAL ANTIGENS
Grantee: Research Foundation, City University, John Jay College of Criminal Justice, New York, New York (Peter R. Deforest)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: Dried bloodstains are often crucial items of physical evidence in crimes of violence. Frequently, traces of blood are found on the weapons or instruments used in the commission of crimes or the clothing of the victim and the perpetrator. While the examination of fresh liquid blood is relatively straightforward, the examination of the dried bloodstains often submitted to crime laboratories requires vastly more complicated and difficult techniques to be employed. The reason for this is that the red blood cells rupture and change while drying. Therefore, techniques applicable to fresh blood are not usable on dried blood. This project will test an innovative and promising approach for determining whether a dried bloodstain is of the A, AB, B, or O blood type. The proposed method involving labeled antibodies is unique because it is potentially capable of testing for the presence or absence of the characteristics simultaneously rather than sequentially as is done presently. The technique, if successful, will make it easier to type bloodstains and will yield more reliable results than is possible now.

Grant No: 79-NI-AX-0125
Project: RESEARCH, EVALUATION OF PROCEDURES AND ANTISERA FORENSIC SEROLOGY
Grantee: University of New Haven, West Haven, Connecticut (R.E. Gaensslen)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: Human blood is a highly complex combination of cells and serum. Within the cells and serum are systems of genetic characteristics. Since these characteristics or variants are present in everyone's blood in different combinations, these have a high potential for identifying the source of a blood clue. For example, one variant system is the typing of blood into the A, B, AB, and O blood types and another is the RH factor. Antisera is the name used for the reagent compounds that detect the blood type and any other blood variants in dried bloodstains. The prevailing view of forensic serologists, however, has been that the quality of these commercially available reagents is generally poor. This project is designed to provide for a thorough evaluation of commercially available reagents in terms of their applicability for bloodstain grouping, and to bring about the introduction of additional blood group systems into the routine bloodstain grouping procedures of the crime laboratories. The results of this research will be brought together in a manual of techniques and procedures, designed to give laboratory examiners detailed information about sources of suitable reagents, about methods for evaluating reagents for use in bloodstain grouping and about the most suitable methods for bloodstain grouping.

Grant No: 79-NI-AX-0131
Project: USE OF DEADLY FORCE BY POLICE OFFICERS - POLICE PERSPECTIVE
Grantee: International Association of Chiefs of Police (IACP), Bureau of Operations and Research, Gaithersburg, Maryland (Norman Darwick)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: This effort by the IACP will provide for the police perspective on the deadly force issue. The proposed study by the IACP will survey the 54 largest police departments in order to obtain data for establishing hypotheses about which variables are most closely associated with high and low rates of the use of deadly force. Information on policies, shooting incidents, review authority, firearms training, types of weapons, ammunition, body armor, as well as on tactical and hostage negotiation units, was collected. Additional statistical information was obtained from FBI records. This project represents part of a five-pronged effort by the National Institute to undertake research on the use of deadly force by police officers with the major portion of the research to be undertaken by the University of California at Irvine. Basically, the academic, police, and minority perspectives will be represented by the University of California at Irvine, the IACP, and the National Urban League in conjunction with the National Council of La Raza, respectively. The Chicago Law Enforcement Study Group also received funding. All efforts will be closely coordinated through the use of a joint advisory board.

The data are being analyzed descriptively and graphically. In cities where firearms discharge and homicide data are available, an interrupted time series design will be used to examine the relationship between a variety of events, interventions, or conditions and their effect on the behavior of the police officers. The ultimate objective of the research is to identify manipulable factors related to the use of deadly force which will allow police administrators to reduce the number of violent confrontations in which citizens and police officers are killed. See also 79-NI-AX-0132, 79-NI-AX-0134, 0-0034-J-OJARS.

Grant No: 79-NI-AX-0132
Project: USE OF DEADLY FORCE BY POLICE OFFICERS - A MINORITY PERSPECTIVE
Grantee: National Urban League, Inc., New York, New York
(Garry A. Mendez, Jr.)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: The National Urban League is undertaking an exploratory study to examine the role of race in police use of deadly force. The methodology approaches the problem from a structural perspective, rather than from an incident analysis approach. That is, the rate of deadly force will be examined in relation to socioeconomic variables (income, employment, education, etc.) and more specifically, in relation to the level of nonwhite participation in the social structure. The primary hypothesis is the greater the level of nonwhite participation in mainstream social structure activities, the lower the level of societal violence directed against nonwhites since they are better able to influence that system.

The ultimate purpose of this effort is to compare police-caused deaths of majority and minority citizens and to identify factors within the society which influence those differences. The anticipated product of this research effort will be a better comprehension of the relationship between social structural dimensions and police violence.

Half of the grant is to the National Council of La Raza. The National Council of La Raza is focusing its research on police use of deadly force in Hispanic communities. The purpose of this study is to obtain information on Hispanic communities' attitudes and perceptions on the issue of unjustified use of deadly force by police officers. See also 79-NI-AX-0131, 79-NI-AX-0134, 0-0034-J-OJARS.

Grant No: 79-NI-AX-0134
Project: USE OF DEADLY FORCE BY POLICE OFFICERS
Grantee: University of California, Irvine, Public Policy Research Organization, Social Ecology, Irvine, California (Arnold Binder)
Award Date: September 30, 1979.
Status: Not Completed

Project Summary: The proposed project represents part of an initial effort by the National Institute to undertake research which will attempt to identify the critical organizational, administrative, and policy elements that impact upon the use of deadly force by police officers and may thus be administratively controlled. The ultimate objective of this research is to reduce the number of citizens killed by police officers without further jeopardizing the officers by examining organizational elements, administrative strategies, and the effect of different types of police policies and administrative sanctions and determining how they impact upon the problem.

Each research objective was therefore designed to reflect fundamental policy issues which are important for both a better understanding of police conduct as well as for the creation of policy strategies which may ultimately control police use of deadly force. The seven research objectives include:

1. Development of an empirical-level theory to account for differences in the likelihood of an officer using deadly force;
2. Determination of direct empirical relationships between departmental shooting policy and departmental shooting rate;
3. Development of a picture of shooting incidents as sequential decision processes;
4. Determination of the modes of police behavior prior to a shooting which might exacerbate community responses to shootings by police officers;
5. Identification of the types of police or community events or actions which are likely to increase or decrease shooting rates;
6. Identification of the types of personal events which are likely to make an officer more susceptible to using deadly force; and
7. Determination of how police training programs may be made more effective in reducing the incidence of deadly force without risk to the officer or to the community.

See also 79-NI-AX-0131, 79-NI-AX-0132, 0-0034-J-OJARS.

1980

Grant No: 80-NI-AX-0001
Project: UTILIZATION OF FORENSIC SCIENCES IN POLICE INVESTIGATIONS
Grantee: The Forensic Sciences Foundation, Inc., Colorado Springs, Colorado
(Kenneth Fields)
Award Date: October 30, 1979.
Status: Not Completed

Project Summary: This effort is a 2-year exploratory research study to gather empirical information on the utilization of physical evidence in police investigations. The primary goal of this project is the conceptualization of the process in which physical evidence is (or is not) utilized by law enforcement personnel, and the design and validation of a workable measurement scheme for determining the costs and benefits of such evidence. Both real world and maximum evidence utilization models will be developed, as will measures of costs and benefits.

Grant No: 80-NI-AX-0002
Project: A SYNTHESIS OF RESEARCH AFFECTING POLICE ADMINISTRATION
Grantee: Public Administration Service, McLean, Virginia
(George Greisinger)
Award Date: November 2, 1979.
Status: Completed

Project Summary: "A Synthesis of Research Affecting Police Administration" is a comprehensive and critical analysis of published research on police management, administration, and organization, with a supplemental analysis of research published in other managerial and social science disciplines.

The goals of this study were the development of a research agenda for future research on police administration and an identification of the status of research on police management, administration, and organization. A total of 485 empirical research studies were reviewed to form the data base for this synthesis. A comprehensive, conceptual framework consisting of 40 variables examining managerial, administrative, and organizational issues was used as an analytical tool in synthesizing these studies. The findings of these studies were scrutinized to deduce a knowledge base regarding police management, administration, and organization.

The synthesis identifies both knowledge base strengths and weaknesses in the literature. It confirms many theoretically based management and organization principles, while also raising questions as to the efficacy of certain traditional police managerial and organizational practices. The synthesis also identifies areas where very little research has been conducted.

Final Product(s):

A Synthesis of Research Affecting Police Administration, Robert I. Macfarlane and Arlen S. Morris, 1981, 378 pp. NCJ 77898, Microfiche.

Derivative Work:

Macfarlane, Robert I. "An Examination of Police Professionalism: Organizational and Individual Perspectives." From workshop on Police Professionalism in Europe and North America, Detroit, Michigan, April 4, 1981. Sponsored by National Conference of American Society for Public Administration, 12 pp. NCJ 78465.

Grant No: 80-IJ-CX-0014
Project: CITIZEN DEMAND AND INFORMATION EXCHANGE IN INITIAL POLICE RESPONSE
Grantee: Indiana University Foundation, Bloomington, Indiana
(Elinor Ostrom and Eric J. Scott)
Award Date: April 16, 1980.
Status: Not Completed

Project Summary: Recent emphasis in funding and research has concentrated on improving technology for patrol unit response, but has neglected the role of initial call handling by police telephone operators and dispatchers. This project will examine patterns of citizen demand for service and information exchange among citizens, operators, dispatchers, and patrol officers. Points at which information may become distorted or lost will be identified and implications of information exchange patterns for both citizens and officers will be analyzed. Two research reports will be prepared. One will assess patterns of citizen demand for police service by problem type, location, and caller attributes. A second report will examine police call handling procedures from initial receipt through dispatch, patterns of information exchange, and causes and effects of information distortion or loss. Police administrators will find the information useful for anticipating service demands from particular kinds of neighborhoods and for improving and understanding communications procedures. Scholars and practitioners will be interested in interaction patterns among citizens and police personnel, in the ways citizen demand is channeled, and in the effect of information exchange upon police response.

Grant No: 80-IJ-CX-0029
Project: CROSS NATIONAL RESEARCH COORDINATION ON INVESTIGATIONS
Grantee: Police Foundation, Washington, D.C. (Mary Ann Wycoff)
Award Date: July 3, 1980.
Status: Not Completed

Project Summary: The purpose of this grant is to enable the police foundation to continue to maintain the primary role in coordinating cross-national research between Sweden, England, Australia, Canada, Holland, Germany, and the United States in the area of criminal investigations. The major objectives of this grant are to continue to coordinate the activities between the seven participating countries; to assist in the development of testable hypotheses, project methodologies, and instruments; to provide consultation regarding the conduct of police research; to disseminate information about the studies through the publication of a monthly newsletter; to plan and convene any necessary meetings of administrators and/or researchers; to examine cross-national historical and ethnographic studies; to provide a literature review; to develop a book of readings on criminal investigations; and to develop a monograph on the pastoral development and current role of investigators.

Grant No: 80-IJ-CX-A029
Project: STUDY: THEORY/APPLICATION OF ACOUSTICS TO FORENSIC QUESTION
Grantee: National Science Foundation, Law and Public Policy Division, Washington, D.C. (Arthur F. Konopka)
Award Date: September 18, 1980.
Status: Not Completed

Project Summary: The project will establish a workshop of experts to review the acoustical data and methodologies employed; review the findings presented to the select committee on assassinations; reach a judgment on the degree of accuracy with which conclusions could be drawn from the acoustical data; report its findings and recommendations to the Department of Justice. The National Academy of Science committee is expected to deal solely with the technical questions associated with the reception, recording, and analysis of the data, and with the statistical methods that could assist in interpreting the data.

Grant No: 80-IJ-CX-0031
Project: STUDY POLITICAL/LEGAL CONSTRAINTS ON STREET PROSTITUTION - GRADUATE RESEARCH FELLOWSHIP
Grantee: State University of New York/Albany, Albany, New York (Travis Hirschi)
Award Date: July 24, 1980.
Status: Not Completed

Project Summary: The objectives of this study are to identify police methods of controlling prostitution, when these methods are utilized, geographical areas where their efforts are most concentrated, and the way in which targets are

selected for observation. The applicant hypothesizes that police response to prostitution is simultaneously shaped by the formal structures of law, the system of coordination and control developed for the administration of that law, and the political and legal pressures to "do something" about prostitution. The applicant plans to identify public expectations of police activity. The methodology described is of an inductive nature consisting of observations and interviews with current and past members of the control unit.

Grant No: 80-IJ-CX-0039
Project: VALIDITY OF ARREST RATES FOR CROSS-SECTIONAL ANALYSIS
Grantee: Police Foundation, Washington, D.C. (Barry Glick)
Award Date: August 12, 1980.
Status: Not Completed

Project Summary: Police arrest statistics are widely used for both analytic and operational purposes. There is substantial evidence, however, that arrests are defined and counted quite differently in different police departments. This study will systematically investigate those differences in order to accomplish three objectives: to provide a checklist of validity concerns for all potential analysis of arrest statistics; to estimate the degree to which variation in arrest rates are due to variation in arrest definitions; and to show how arrest rates might be corrected for definitional differences in order to increase their validity for cross-sectional analyses.

Grant No: 80-IJ-CX-0040
Project: PERFORMANCE MEASUREMENT THEORY FOR POLICE
Grantee: University of North Carolina-Chapel Hill, Chapel Hill, North Carolina (Gordon Whitaker)
Award Date: August 12, 1980.
Status: Not Completed

Project Summary: Phase I research (78-NI-AX-0086) in the performance measurement program was devoted to conceptualizing and synthesizing performance issues in police and to providing an agenda for future research. Phase II efforts are intended to test and validate empirically some of the concepts developed in the first phase. Four empirical studies are proposed: the analysis of factors which contribute to police agency capacity to service calls; the analysis of patrol officer time allocation; the analysis of factors which contribute to desirable outcomes in police-citizen encounters; and the study of citizen perceptions of policing based upon service patterns and encounter experiences. All research will be conducted on existing data held by the investigators.

Derivative Work:

Whitaker, Gordon P., Stephen Mastrofski, Elinor Ostrom, Roger B. Parks, et al. "Measuring Police Agency Performance - An Overview." University of North Carolina Newsletter 66(1), 1980.

Grant No: 80-IJ-CX-0041
Project: DEVELOPMENT OF PROBLEM-ORIENTED APPROACH TO IMPROVE POLICE SERVICE
Grantee: University of Wisconsin, Madison, Wisconsin (Herman Goldstein)
Award Date: August 12, 1980.
Status: Not Completed

Project Summary: The concept, presented by Goldstein in a crime and delinquency article, outlines a relatively simple process of inquiry by which police administrators can focus on the substantive aspects of their operations. The goal of this effort is to develop and articulate the concept and process in sufficient detail to enable implementation in operating agencies. This effort will involve the conceptual and operational development of the systematic processes implied in the problem-oriented approach such as identifying problems in more precise terms, researching each problem, documenting the nature of the current police response, assessing its adequacy and the adequacy of existing authority and resources, engaging in broad exploration of alternatives to current responses, weighing the merits of these alternatives and choosing from among them. Working in an operational setting, the researcher will attempt to determine what can be done to work through some of the anticipated difficulties in adopting the approach; to explore its potential; and, at the same time, to learn from the experience in ways that can be shared with others who are in a position to take the concept further.

Grant No: 80-IJ-CX-0064
Project: IMPROVING POLICE SERVICES: IMPACT OF SOCIO-ECONOMIC TRENDS
Grantee: Hudson Institute, Croton-on-Hudson, New York (Michael Sherman)
Award Date: September 10, 1980.
Status: Not Completed

Project Summary: The purpose of this grant is to identify and examine the effects of socioeconomic trends over the next 10 to 20 years on the nature and effectiveness of police services. The aim of such a study is to increase our understanding of societal trends, patterns, and events that have critical significance for improving or modifying police services so that policy makers as well as other decisionmakers may anticipate available current and future improvement options upon which to base their decisions for strengthening police services. The ultimate objectives of this effort are to identify the pertinent emerging issues and problems of policing and conceptualize a basis for contingency planning; provide information for crisis avoidance; encourage the need to explicate alternatives and trade-offs; and develop various models or

plans of action for implementation of various proposed changes and strategies. It is anticipated that the study will collect information from six sites initially and, later, pilot the findings in Westchester County.

Grant No: 80-IJ-CX-0071
Project: RESEARCH FINDINGS FOR FORENSIC INFORMATION USERS
Grantee: Forensic Sciences Foundation, Inc., Colorado Springs, Colorado (Kenneth S. Field)
Award Date: September 18, 1980.
Status: Not Completed

Project Summary: Forensic science, by definition, is the application of science to the resolution of legal issues. What makes science "forensic" is its use by the legal system. In order that the legal system can make maximum use of forensic science information, the uses of this information must have an understanding of the current capabilities and limitations of forensic science and the critical issues which impact on its future. To this end, leading figures in each of the forensic science disciplines will author a chapter on their respective disciplines describing the "state of their art." The chapters will be prepared in manual form and will be critiqued and reviewed by an editorial advisory board composed of representatives of the legal profession, the judiciary, and the police. The final product of this effort will be a forensic science state-of-the-art manual which will be addressed to law enforcement officials, attorneys, and judges and which will include coverage of the following forensic science topics: criminalistics, anthropology, toxicology, odontology, pathology, document examination, and psychiatry.

Grant No: 80-IJ-CX-0072
Project: FORENSIC TOXICOLOGY LABORATORY PROFICIENCY TEST RESEARCH
Grantee: University of Utah, Center for Human Toxicology, Salt Lake City, Utah, (Michael A. Peat)
Award Date: September 18, 1980.
Status: Not Completed

Project Summary: The purpose of this research project is to make a nationwide assessment of the current proficiency of forensic, analytical toxicologists to accurately and precisely determine drugs, their metabolites, and chemicals in biological specimens for medicolegal purposes. The design of this program, which will be completed in 1 year, involves support of the major forensic toxicology professional organizations in the United States. Principal members of these organizations will serve on an advisory board in order to steer the program and ensure the maximum voluntary participation of all forensic toxicologists. Participation of about 100 laboratories is expected following letter and personal contact invitations. Specimens will be prepared from hemolyzed blood, human urine, gastric contents, and homogenized animal tissue, to resemble case material and be accompanied by a hypothetical case history to guide the analyst. The results of the analysis will be recorded on a report form and returned to the Center for Human Toxicology, University of Utah, for compilation and statistical

analysis. The results of the statistical analysis will be tabulated and graphed for critique by the advisory board and returned to the participating laboratories. Results are expected to form the basis for recommendations to improve the overall performance of forensic toxicology laboratories nationwide.

Grant No: 80-IJ-CX-0074
Project: NATIONAL STANDARDS FOR MEDICO-LEGAL INVESTIGATION OF DEATH
Grantee: Forensic Sciences Foundation, Inc., Colorado Springs, Colorado
(Kenneth S. Field)
Award Date: September 18, 1980.
Status: Not Completed

Project Summary: Serious inadequacies currently exist in the investigation of death in the United States. One significant step in the eradication of these inadequacies can be achieved through the formulation and promulgation of minimum voluntary standards for the medicolegal investigation of deaths from other than natural causes. To this end, a multidisciplinary advisory panel composed of a leading medical examiner, coroner, forensic toxicologist, criminalist, forensic anthropologist, and forensic odontologist will be organized to provide guidance to the project director, principal consultant, and the project staff in the development of minimum voluntary standards for all deaths from other than natural causes. These standards will be subjected to indepth analysis. The final product of this effort will be a manual entitled "National Standards for the Medico-Legal Investigation of Death" for use by medicolegal death investigation practitioners, police, judges, attorneys, regulatory agencies, and other interested parties.

Grant No: 80-IJ-CX-0080
Project: UTILIZATION OF PRIVATE SECURITY IN THE UNITED STATES
Grantee: Hallcrest Systems, Inc., McLean, Virginia
(William C. Cunningham)
Award Date: September 15, 1980.
Status: Not Completed

Project Summary: This project investigates the status of the private security industry to 1) establish the present role and contribution of private security to crime control; 2) describe the operating relationships between private security and law enforcement; 3) profile the growth and changes in the private security industry in the last decade; 4) document progress in private security professionalism; 5) conduct an economic analysis of the marketplace for private protective services; and 6) outline a research agenda for future projects that will likely be a natural outgrowth of this study.

These data will be obtained through literature searches; selective national surveys of private security firms/practitioners, users of private security products and services, and law enforcement agencies/officers; and in-depth case studies at representative sites.

Grant No: 80-IJ-CX-0092
Project: EVALUATING PLASMA PROTEIN MARKERS/STUDIES OF PROTEINS IN BLOOD
Grantee: University of California - Berkeley, Berkeley, California
(George F. Sensabaugh)
Award Date: September 30, 1980.
Status: Not Completed

Project Summary: Bloodstain evidence is often of considerable value in the investigation and prosecution of violent crimes. The full potential of bloodstain evidence has only begun to be realized; more knowledge about bloodstains and bloodstain markers could greatly extend the value of this type of evidence. The principal objectives of the proposed research are to extend the potential for bloodstain individualization by the addition of new genetic markers for bloodstain typing; and to place bloodstain analysis on a firmer scientific foundation by studying the fate of protein markers in stains. The product of the research should have immediate impact on the practice of criminalistics in the Nation's crime laboratories. The ultimate beneficiaries of the work will be the police and the courts as users of the improved crime laboratory product.

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Grant No: 81-IJ-CX-0001
Project: COMPARING IMPACT-ORIENTED EVALUATION OF TWO POLICE DIRECT PATROL PROGRAMS
Grantee: E. Fennessy Associates, San Francisco, California
(Edmund Fennessy)
Award Date: November 12, 1980.
Status: Not Completed

Project Summary: The purpose of this evaluation is to test the hypothesis that implementation of a directed patrol program will result in an increase in police patrol effectiveness. Two California police agencies serving fairly large populations that have recently implemented directed patrol programs have agreed to serve as test sites for this evaluation: the Sacramento Police Department (serving a population of almost 300,000) and the Oxnard Police Department (serving a population of 110,000). The two agencies have developed their programs in quite different ways since the SPD was one of the agencies participating in the NIJ-sponsored field test of the Managing Patrol Operations (MPO) program and the OPD was the recipient of LEAA-funded Integrated Criminal Apprehension Program grants. Because key members of the proposed evaluation staff have been involved in the "process" evaluation of both directed patrol programs since their inception, a quite unique opportunity exists to conduct an impact assessment of the results achieved by these two alternative and innovative police programs. A wide variety of evaluation methods will be employed to assure that this evaluation produces results that are relevant and that can assist in later transfer and refinement of this promising, but untested, police program concept.

Grant No: 81-IJ-CX-0002
Project: EVALUATION OF MANAGING PATROL OPERATIONS FIELD TEST, PHASE TWO
Grantee: Research Management Associates, Inc., Herndon, Virginia
(Tom McEwen)
Award Date: October 28, 1980.
Status: Not Completed

Project Summary: The Managing Patrol Operations (MPO) Program is one of several National Institute of Justice sponsored "field tests" specifically designed to assess the implementation experience and effects of a set of improved law enforcement practices. Prior research findings and successful operational experience form the basis for this program model. The primary goal of the

program is to enhance the capability of police departments to define and achieve patrol performance objectives. The program model requires police personnel to utilize a set of analytic techniques and undergo a series of training sessions to help identify and define performance objectives and strategies to achieve those objectives. This project is intended to complete an evaluation to determine the degree to which the MPO program leads to the achievement of departmental performance objectives and to identify factors which hinder and facilitate successful implementation. The evaluative approach will comprise a before and during comparison at three sites. The analysis will include assessments of: the use of computerized models for resource allocation; call-for-service management techniques; crime analysis and directed patrol activities; and managerial factors affecting program components. The final report will document the results of this effort and recommend program modifications for future MPO efforts. (See 78-NI-AX-0150 for Phase I.)

Grant No: 81-IJ-CX-0073
Project: CROSS NATIONAL RESEARCH COORDINATION
Grantee: Police Foundation, Washington, D.C. (Lawrence W. Sherman)
Award Date: October 1, 1981
Status: Not Completed

Project Summary: The purpose of this grant is to enable the Police Foundation to continue to maintain the primary role in coordinating cross national research between Sweden, England, Australia, Canada, Holland, Germany, and the United States in the area of criminal investigations. In addition to the coordination activities, the Police Foundation will compile a report which summarizes the literature on criminal investigations, presents the findings of the research conducted in the participating countries, places those findings in their respective legal and organizational contexts, synthesizes the findings, and discusses the theoretical and practical implications of the results of the research. The monograph and annotated bibliography initially drafted under Phase II of this project will also be completed in this final phase.

Grant No: 81-IJ-CX-0074
Project: THE IMPACT OF COLLECTIVE BARGAINING AND INTEREST ARBITRATION ON POLICING
Grantee: Labor Industrial Relations, University of Illinois, Champaign, Illinois (Peter Feuille)
Award Date: September 21, 1981
Status: Not Completed

Project Summary: The major objective of this research is to evaluate the impacts of collective bargaining and compulsory interest arbitration on policing, with a particular emphasis on arbitration. The intent of this research is to assess the impacts of bargaining and arbitration on police wages, fringe

benefits, and budget allocations, on the delivery of police services, on police management's ability to manage the workforce, and on the formulation and substance of law enforcement policy.

Grant No: 81-IJ-CX-0076
Project: QUANTITATIVE ANALYSIS OF PARTIAL MERGERS OF POLICE AND FIRE SERVICES IN SMALL AND MEDIUM SIZE CITIES
Grantee: Wayne State University, Center for Urban Studies, Detroit, Michigan (Kenneth Chelst)
Award Date: April 1, 1982
Status: Not Completed

Project Summary: This project will investigate the cost and benefits (quantitatively) of a partial merger between police and fire departments in small and medium size cities. Specifically, a portion of the police patrol personnel resources will be trained in firefighting and to respond to fires under conditions of lower fire personnel resources depleted by natural attrition rather than lay-off. The effects of depleted resources on both police and fire services will be assessed. The objective of the research is to place the arguments for and against local merger decisions on a more quantitative basis. This research is analytical only, involving the development of models and exercise of the models under simulated field conditions. No "live" field tests are involved.

Grant No: 81-IJ-CX-0078
Project: POLICE OFFICER EFFECTIVENESS: A MULTIPLE PERSPECTIVES STUDY
Grantee: Workshop on Political Theory and Policy Analysis, Indiana University, Bloomington, Indiana (Roger B. Parks)
Award Date: October 12, 1981
Status: Not Completed

Project Summary: This project will attempt to operationalize officer effectiveness and to identify effective actions taken by patrol officers in response to four types of problems: (1) violent personal crimes, (2) major property crimes, (3) domestic conflicts, and (4) disturbances. In addition, it will identify determination of the choice of effective rather than ineffective activities, concentrating on policy-relevant (manipulable) variables that affect officer behavior. Analysis will be based on a large existing data base consisting of information collected by patrol observation, debriefing of citizens following encounters with police, and surveys of observed patrol officers. This research is designed to extend knowledge of how police handle the situations they face on a day-to-day basis and the importance of discretion and choice on their performance. Completion of the proposed research should add significantly to the limited literature on officer effectiveness.

Grant No: 81-IJ-CX-0079
Project: KEEPING THE PEACE: COMMONALITIES AND INDIVIDUALITIES OF POLICE DISCRETION
Grantee: Northwestern University, Psychiatry Department, Evanston, Illinois (Linda A. Teplin)
Award Date: October 12, 1981
Status: Not Completed

Project Summary: In order to better understand police response and to provide, in part, a basis for beginning to structure police discretion, the proposed study will analyze an array of "problems" police are called upon to resolve, police response to the situation, and police and citizen reactions (degree of satisfaction) with the disposition. A database on police discretion has already been compiled, and includes a multimethod scheme of data-recording: (1) approximately 600 incidents of violent interpersonal crimes, interpersonal conflicts, minor disturbances, and public service contacts were observed during a period of 1 year and were quantified according to a pilot-tested coding scheme; (2) field notes provide a qualitative account of the police officers' feelings and attitudes in general as well as in relation to specific encounters. The data base can provide information as to the commonalities (quantified data) and individual officer activity (qualitative data) in relation to the full breadth of discretionary activities.

Grant No: 81-IJ-CX-0082
Project: POLICE EFFECTIVENESS IN PROBLEMATIC SITUATIONS
Grantee: Police Foundation, Washington, D.C. (David H. Bayley)
Award Date: January 1, 1982
Status: Not Completed

Project Summary: This proposal suggests a process for generating new knowledge about the relative effectiveness of alternative police responses to "problematic" situations. Problematic situations are defined as police encounters with citizens in which the means for achieving one or several outcomes the police desire are not clear or reliable. A situational, type-specific analysis of how certain police are about the short-term and long-term effects of their actions has never been undertaken.

This project has five specific objectives: 1) to identify a broad range of problematic situations police confront, 2) to set priorities for research among those situations, 3) to analyze one type of situation intensively and identify the alternative ways in which police now handle those situations or could handle them, 4) to observe police officers as they actually handle that type of situation, and 5) to design an experiment that would systematically test the relative effectiveness of the alternative courses of police action.

Grant No: 81-IJ-CX-0083
Project: POLICE EFFECTIVENESS AS A FUNCTION OF INDIVIDUAL OFFICER
ACTIVITY
Grantee: Human Systems Institute, Inc., Boulder, Colorado (Gregory Camilli)
Award Date: December 1, 1981
Status: Not Completed

Project Summary: The objective of this study is to document a set of discretionary street-level practices used by patrolmen and to explore these practices within the decisionmaking framework of patrolmen. The first step is to provide accurate and reasonably complete accounts of a set of street-level skills and techniques. The grantee will use classification analysis and multi-dimensional scaling to search for similar classes of practices and situational features, and major dimensions which may underlie them. A final step in the research is to select representative classes of practices and situations and explore the relationships between the perceived appropriateness of discretionary responses and specific features of police-contact situations.

Grant No: 81-IJ-CX-0084
Project: HIGH RATE USERS OF POLICE SERVICE: IMPLICATIONS FOR THE
MANAGEMENT OF POLICE/COMMUNITY RESOURCES
Grantee: Northeastern University, Center for Applied Social Research,
Boston, Massachusetts (Glenn Pierce)
Award Date: October 1, 1981
Status: Not Completed

Project Summary: Data on calls for police service indicate that an unusually small percentage of callers for police services make up an unusually large percentage of the calls made. However, police policies regarding calls for service are such that each call is treated as an isolated incident and with equal priority depending on the seriousness of the call.

This project will investigate the nature and extent of calls received from high-rate users of police services and the nature of police responses to them. The efficiency of police resources in response to these calls for service will then be assessed and new responses, including potential nonpolice responses, will be identified where appropriate.

Grant No: 81-IJ-CX-0085
Project: EFFICIENT STRATEGIES FOR WIDE-AREA POLICE PATROL: ANALYSIS AND
MODEL DEVELOPMENT OF NEW METHODS FOR EFFICIENTLY ALLOCATING POLICE
PATROLS IN LARGE, LOW POPULATION DENSITY AREAS
Grantee: University of Michigan, Department of Industrial and Operation
Engineering, Ann Arbor, Michigan (Stephen M. Pollock)
Award Date: October 1, 1981
Status: Not Completed

Project Summary: In densely populated urban areas, patrol efficiency and effectiveness are measured by the ability of patrol resources to respond rapidly to high priority, emergency calls for service and to respond in a reasonable time period to low priority, nonemergency calls. As such, quite conventional computer models can suggest patrol allocations and beat designs that closely match demand for service. In less densely populated areas, e.g., suburban and rural areas, these conventional service models are not usable since the travel time to the incident is a large component of the total service time.

In order to provide citizens in suburban and rural areas with the best available service from their police patrols, new and more appropriate models will be investigated and developed by this project. The models to be investigated will emphasize patrol efficiency on low priority, nonemergency needs and patrol effectiveness on the more serious, emergency service needs. All models developed will assume that patrol resources are limited and potentially declining due to police budget restraints.

Grant No: 81-IJ-CX-0088
Project: PCAM MODERNIZATION
Grantee: The Rand Corporation, Santa Monica, California (Jan Chaiken)
Award Date: October 1, 1981
Status: Not Completed

Project Summary: This research project will modernize computer programs developed by the Rand Corporation for a police patrol allocation model known as "Patrol Car Allocation Model" (PCAM). Modernization will incorporate user field experiences learned since the release of this program in 1975. More importantly, however, new knowledge learned from patrol research in the 1970's will also be incorporated. Specifically, to be incorporated are new patrol effectiveness measures, new patrol management techniques, new "call for service" queuing models, directed preventive patrol models, split-force models, new models more appropriate to heavy patrol workload situations, and models that consider more realistically those situations that require multiple patrol car dispatches. The research will produce machine-readable programs and user documentation for immediate use by interested police agencies.

Purchase Order No: 0-0034-J-OJARS
0-0483-J-OJARS
Project: USE OF DEADLY FORCE
Grantee: Chicago Law Enforcement Study Group
Award Date: March 18, 1980
Status: Completed

Project Summary: This study analyzed 5 years' worth of police department data, 1974 through 1978, on all shots fired by and at Chicago police officers. During this period 523 civilians were shot by police and 187 police were shot. The report, partially funded by NIJ, makes a number of recommendations to reduce police shooting, such as:

- Adopt a "defense-of-life" shooting policy
- Establish techniques for enforcing the policy. One method recommended was a "shooting review panel" composed of police, local, and Federal officials, and representatives from private entities that would focus on prevention of future shootings.
- Provide better training in policy and human relations techniques
- Revamp police personnel practices to emphasize the nonviolent problem-solving role of police officers. Psychological screening tests and routine monitoring of officer behavior should be used to weed out violence-prone officers.

The study also found no indication that "racism" plays a significant role in the shootings of civilians by police. See also 79-NI-AX-0131, 79-NI-AX-0132, 79-NI-AX-0134.

Final Product(s):

Split-Second Decisions: Shootings of and by Chicago Police, William A. Geller and Kevin J. Karales, Chicago Law Enforcement Study Group, Chicago, Illinois, 1981, 274 pp. NCJ 77343, Microfiche.

Contracts

Contract No: J-LEAA-010-71
Project: EXPLORATORY DESIGN/ENGINEERING/DEVELOPMENT - PILOT MODEL LEAD DETECTION
Grantee: ITT Research Institute, Chicago, Illinois (Robert B. Moler)
Award Date: March 18, 1971.
Status: Completed

Project Summary: Recent major incidents in courtrooms, police stations, passenger aircraft, and other prime target security areas make manifest the desperate and critical need for research and development in the area of concealed firearms detection. The purpose of this contract was to develop a system that would quickly and accurately detect the presence of lead concealed on a person. It is desired that the detection device be portable and relatively unobtrusive. The contractor performed exploratory development and initial design study for the xenon-filled counter and a survey of radioactive sources suitable for exciting fluorescence in lead to see if other suitable sources exist. The electronics necessary for identifying lead were designed and assembled from commercially available modules. Using the engineering approach, the contractor determined the technical performance and the safety characteristics of the system. This consisted of the testing of the lead detection system under simulated field conditions. The performance of the xenon-filled proportional counter was measured in known geometrics with lead bullets and various absorbers, including clothing. The effect of gold and other objects found on the person were studied. The proportional was calibrated using lead and gold samples.

Final Report(s):

Exploratory Design, Engineering and Operational Development of a Pilot Model Lead Detection System, S.I. Baker and Robert B. Moler, 1972, 10 pp. NCJ 09533.

Contract No: J-LEAA-025-73
Project: RESEARCH, DEVELOPMENT SUPPORT OF LAW ENFORCEMENT DEVELOPMENT GROUP
Grantee: The Aerospace Corporation, Los Angeles, California
(Joseph Meltzer)
Award Date: July 1, 1973.
Status: Completed

Project Summary: The specific objectives of the program were (a) Part I - the analysis of equipment needs and problems related to crime prevention, law enforcement, and crime control under the criminal justice system; (b) Part II - the development of equipment appropriate to satisfy such needs and problems; and (c) Part III - the determination of standards and user guides applicable to such equipment. The contractor was responsible for conducting equipment-related research and development activities related to crime prevention and control under the program, either on an "in-house" or "out-of-house basis," and for advising LEAA with respect to activities in these areas. The contractor was responsible for any required coordination to ensure that the nature and scope of Part II activities were compatible with completed and on-going activities under the analysis (Part I) and standards 11D400000 (Part III) phases of the ESIP and where applicable, with any priorities and plans established by LEAA. In addition the contractor developed an expertise and knowledge of the technology and related activities concerning this aspect of the problem of law enforcement and criminal justice.

Final Product(s):

Annual Progress Report, Fiscal Year 1973, The Aerospace Corporation, 1973, 104 pp. NCJ 13633, Microfiche.

Annual Progress Report, Fiscal Year 1974, The Aerospace Corporation, 1974, NCJ 78763, Microfiche.

Annual Progress Report, Fiscal Year 1975, The Aerospace Corporation, 1975, NCJ 78764, Microfiche.

Annual Progress Report, Fiscal Year 1976, The Aerospace Corporation, 1976, 250 pp. NCJ 38436, Microfiche.

Contract No: J-LEAA-035-74
Project: A NATIONWIDE SURVEY OF LAW ENFORCEMENT/CRIMINAL JUSTICE PERSONNEL NEEDS/RESOURCES
Grantee: The Research Center - National Planning Association, Washington, D.C. (Harold Wool)
Award Date: June 28, 1974.
Status: Completed

Project Summary: The purpose of this project was to implement the mandate of Congress, under Part D, Section 402 (C) of public law 93-83, to survey existing and future personnel needs of the nation in the field of law enforcement and criminal justice and the adequacy of Federal, State, and local programs to meet

such needs. Results of this study are intended to enhance law enforcement and criminal justice personnel development planning at Federal, State, and local levels. The contractor conducted a comprehensive study, including a survey, a functional analysis, and task analysis of law enforcement and criminal justice (LE/CJ) personnel and training and education (T&E) resources and requirements, both qualitative and quantitative.

Final Product(s):

National Manpower Survey of the Criminal Justice System - Executive Summary, 1978, 23 pp. GPO 027-000-00642-6, NCJ 45597, Microfiche.

National Manpower Survey of the Criminal Justice System, V1 - Summary Report, August 1978, E. Raden ed., 1978, 167 pp. GPO 027-000-00650-7, NCJ 43739, Microfiche.

National Manpower Survey of the Criminal Justice System, V2 - Law Enforcement, August 1977, E. Raden ed., 1978, 57 pp. GPO 027-000-00660-4, NCJ 43760, Microfiche.

National Manpower Survey of the Criminal Justice System, V3 - Corrections Final Report, August 1977, E. Raden ed., 1978, 164 pp. GPO 027-000-00661-2, NCJ 43740, Microfiche.

National Manpower Survey of the Criminal Justice System, V4 - Courts, B. Gilman, H. Greenspan, L. Harris, and N. Miller, 1978, 270 pp. GPO 027-000-00662-1, NCJ 43741, Microfiche.

National Manpower Survey of the Criminal Justice System, V5 - Criminal Justice Education and Training - November 1976, 1976, 622 pp. GPO 027-000-00663-9, NCJ 43742, Microfiche.

National Manpower Survey of the Criminal Justice System, V6 - Criminal Justice Manpower Planning - Final Report, August 1977, 1977, 397 pp. GPO 027-000-00664-7, NCJ 43743, Microfiche.

National Survey of Law Enforcement Criminal Justice Personnel Needs and Resources, V7 - The Survey Research Program - Procedures and Results - Final Report (issued in two numbered parts), A.S. Glickman, 1976, 393 pp. NCJ 43359.

Contract No: J-LEAA-014-75
Project: DEVELOPMENT OF A PROTOTYPE PERSONAL PULSE MONITOR
Grantee: Display Systems Associates, Laguna Beach, California
(James W. Sweeney)
Award Date: October 4, 1974.
Status: Completed

Project Summary: This contract was for the design and development of a prototype personal pulse rate monitor. The design and development included the preparation of engineering drawings, specification lists, operating instructions, etc. The development state included environmental tests in laboratory

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conditions. Testing was performed to simulate extreme severe physical activity as well as calm activity. Testing equipment included, among other necessary electronic devices, a standard medical electronic cardiac pulse rate detector.

Final Product(s):

No report available

Contract No: J-LEAA-025-77
Project: POLICE OFFICER ATTITUDES AND OPINIONS ABOUT POLICE WORK
Grantee: ABT Associates, Incorporated, Cambridge, Massachusetts
(Ilene Greenberg)
Award Date: September 9, 1977.
Status: Not Completed

Project Summary: This contract is concerned with a study regarding improving police patrol officer effectiveness by improving officer satisfaction with his/her work. It is concerned with an examination of the nature and causes of police officer work satisfaction and dissatisfaction. This will include such possible problems as bureaucratic alienation. This contract is not concerned with the relationship between job satisfaction/dissatisfaction. The most obvious sources that impact on the police officer's feelings about the job, though they by no means encompass the universe are: the police relationship with the community; police relationship with other criminal justice agencies; the relationship between the police officer and the officer's family; police academy training programs and their relevance to the realities of the job of policing; the paradoxical nature of the police job; police politicization trends and their root causes; the impact of the quasi-military structure upon the ability to perform effectively and; the quality of management received from the upper echelons of police departments and the management's ability to communicate with the officers at the lower levels. An extensive literature review and surveys will be made.

Contract No: J-LEAA-021-78
Project: NATIONAL EVALUATION PROGRAM PHASE I - ASSESSMENT POLICE TRAINING PROGRAMS
Grantee: Macro Systems, Incorporated, Silver Spring, Maryland (J. Williams)
Award Date: September 25, 1978.
Status: Completed

Project Summary: This topic area was adopted by the National Institute/Office of Research Programs which has proposed an interest in determining the universe of traditional and innovative training programs for the three major typologies, i.e., recruit, in-service, and management and supervisory; the extent to which training is responding to police needs such as the provision of basic skills, preparation for specialized duties, improvement of supervisory and management capabilities; the quality of training investigating factors such as course content, level of instruction, qualifications of

instructors, curriculum development, instructor selection, determining training needs, etc.; and the costs and benefits associated with each selected type or subtype of training program.

Final Product(s):

No report available

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The Subject Index contains the descriptive terms, listed below. These terms are printed in bold type. Below each term are project titles posted to that term, listed alphabetically and referenced by page number.

Automated Police Information Systems	Police Manpower Deployment
Automated Vehicle Monitors	Police Occupational Stress
Blood and Body Fluid Analysis	Police Patrol
Crime Laboratories	Police Prosecutor Relations
Criminal Investigation	Police Resource Allocation
Criminalistics	Police Response Time
Drug Law Enforcement	Police Role
Evidence Identification and Analysis	Police Telecommunications Systems
Hair and Fiber Analysis	Police Training
Interagency Cooperation	Police Unions
Personnel Administration	Police Use of Deadly Force
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