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REPORT BY THE

Comptroller General

OF THE UNITED STATES

RELEASED

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The FBI Operates Two Computerized Criminal History Information Systems

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The FBI operates the National Crime Information Center's Computerized Criminal History program, which was developed in response to the perceived need for rapid dissemination of criminal history information to Federal, State, and local law enforcement agencies. The FBI also operates its Automated Identification Division System program, which was developed to reduce costs and time required by its manual system for making positive fingerprint identifications and disseminating criminal history information.

These programs record the same types of crimes and disseminate the same kind of information. Duplicate records between these two programs totaled 647,990 as of June 1979. This represents 44 percent of the Computerized Criminal History program's records, and 16 percent of the other program's records. As the two data bases increase, so also will the number of duplicate records.

This report was requested by the Chairman, Subcommittee on Government Information and Individual Rights, House Committee on Government Operations.

HSE01504

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GGD-79-81
SEPTEMBER 7, 1979

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-179296
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The Honorable Richardson Preyer
Chairman, Subcommittee on Government
Information and Individual Rights
Committee on Government Operations
House of Representatives

HSE01504

Dear Mr. Chairman:

This report describes the two programs operated by the Federal Bureau of Investigation (FBI) for accumulating and disseminating criminal history information. It points out the duplication that occurs between these programs and analyzes the procurement of computer equipment for their operation.

This review was made pursuant to your December 22, 1978, request. As you requested, we did not obtain written agency comments, and as agreed with your office, we are only presenting information on these two programs. The matters covered in the report were discussed with agency officials, and their comments were considered in preparing it.

As arranged with your Subcommittee, we will provide one copy of this report to the Attorney General and one copy to the FBI Director with the stipulation that they not disseminate the report for 30 days or until released by you. Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its date. We will then send copies to interested parties and make copies available to others upon request.

Sincerely yours,

Comptroller General
of the United States

REPORT BY THE COMPTROLLER GENERAL OF THE UNITED STATES

THE FBI OPERATES TWO COMPUTERIZED CRIMINAL HISTORY INFORMATION SYSTEMS

D I G E S T

The Federal Bureau of Investigation (FBI) operates two programs for accumulating and disseminating criminal history information. The National Crime Information Center's Computerized Criminal History (CCH) program was developed for rapid dissemination of criminal history information. (See p. 27.) The Automated Identification Division System (AIDS) program was developed to reduce operating costs and shorten the time required to disseminate criminal history information. (See pp. 6 and 27.)

Both programs are being developed so that either could be the comprehensive system for the criminal justice community. Developmental plans provide for AIDS to phase out its maintenance and dissemination of criminal history information as the States assume these responsibilities. (See p. 27.)

FBI officials attribute parallel development of these programs to lack of progress in implementing CCH. Nevertheless, they are maintaining the same type of criminal history information and producing the same kind of product. (See p. 27.)

THE AIDS PROGRAM

Since 1924, the FBI has served as the national repository and clearinghouse for fingerprint cards and related arrest record information. It operates its fingerprint identification and criminal history dissemination process manually but is automating it because of high personnel costs and long response times. (See pp. 2 and 5.)

GGD-79-81

Some of the issues hindering full development of CCH are

--whether it is desirable for the FBI to provide message switching services needed for decentralization,

--indecision regarding the future operational aspects of the program,

--States' desire for a decentralized system,

--impact on privacy and related rights, and

--the cost of State participation. (See p. 19.)

The latest proposed concept for CCH development was offered in April 1978. Under this concept, criminal history record information, except that submitted by Federal agencies, would be kept at the State level. Exchange of this information would be between States holding the information and the requesters. Thus, the State of record would be able to determine if dissemination would be consistent with State law. This concept was presented to the Department of Justice in July 1978. As of July 1979, however, no action had been taken on the concept by the Department. (See p. 17.)

DUPLICATION BETWEEN THE TWO PROGRAMS

The two programs record the same type of crimes and disseminate the same kind of information. Consequently, duplication of arrest information exists in varying degrees between AIDS, CCH, and the States' systems. (See p. 22.)

FEDERAL PROCUREMENT POLICIES NOT FOLLOWED IN ACQUIRING COMPUTER EQUIPMENT

When the FBI initially awarded the present contract for its computer system, the method of acquisition did not offer the greatest advantage to the Government. An analysis of alternative acquisition methods was not made as required by Federal regulations to determine which method would be best. (See p. 30.)

The FBI has renewed the equipment contract each fiscal year since 1972. It has not, however, conducted annual reviews as required by Federal regulation to determine if the Federal Government could save money by negotiating a new contract. (See p. 31.)

The FBI did not develop a long-range plan identifying its automatic data processing requirements. As a result, its current computer equipment is overloaded. (See p. 32.)

Many of the FBI's computer programs are coded in a low-level machine dependent language. This may make it costly to convert the programs if incompatible equipment is used when the FBI replaces its computer system in 1982. Conversion costs are minimized when programs are written in a standard high-level language. The FBI recently issued computer programing standards and guidelines requiring the use of a standard high-level language wherever practical on new and old program applications. (See p. 32.)

At the request of the Subcommittee on Government Information and Individual Rights, House Committee on Government Operations, GAO did not obtain written agency comments. The matters covered in the report were discussed with agency officials, and their comments are included where appropriate.

Contents

CHAPTER 1

INTRODUCTION

The Subcommittee on Government Information and Individual Rights, House Committee on Government Operations requested that we provide information on the

--relationship between the Federal Bureau of Investigation's (FBI's) Automated Identification Division System (AIDS) and its National Crime Information Center's Computerized Criminal History (CCH) file,

--procurement of automatic data processing (ADP) equipment for the programs, and

--feasibility and potential effectiveness of AIDS.

THE FBI AND ASSISTANCE TO STATE AND LOCAL LAW ENFORCEMENT

The FBI is the Department of Justice's principal investigative arm. It is responsible for numerous security, criminal, and selected Government applicant investigations. Responsibility for directing and coordinating all FBI operations, and its 59 field offices, is divided among 10 headquarters divisions.

In addition to its investigative responsibility, the FBI assists State and local law enforcement efforts through law enforcement training programs, laboratory services, fingerprint identification, the National Crime Information Center (NCIC), and the Uniform Crime Reporting Program. Assistance to State and local law enforcement efforts is provided without charge, and the FBI estimates it will provide $90.4 million, or 16 percent of its 1979 budget, for such assistance. Of this amount, $60.9 million will be for fingerprint identification, and $5.3 million will be for operating NCIC. The Identification Division (Ident) provides fingerprint identification services and arrest record information to Federal, State, and local law enforcement agencies, while the Technical Services Division operates NCIC.

These cards represent more than 22 million different individuals in the criminal file and more than 42 million individuals in the civil file. Law enforcement agencies usually submit cards for the criminal file after individuals are arrested for committing a crime. Cards for the civil file are submitted by agencies which fingerprint individuals for Federal, State, and local employment, licensing, and related purposes.

Presently, Ident operates mostly as a manual system. The FBI is dedicated to automating its fingerprint identification processes due to

--high personnel costs and turnover and

--long response times which result from processing large numbers of inquiries.

NATIONAL CRIME INFORMATION CENTER

NCIC is a nationwide criminal justice information system. The system consists of a centralized computer center connected by a telecommunications network to terminals located in Federal, State, and local law enforcement agencies throughout the United States, Canada, and Puerto Rico. Its function is to rapidly respond to inquirers from a central data bank maintained by the FBI.

NCIC grew out of a recognition by the President's Commission on Law Enforcement and Administration of Justice that a computerized index of information could help criminal justice agencies combat the increase in crime. It was developed with the assistance of an advisory group composed of State and local law enforcement personnel from agencies that either had or were themselves planning computerized systems.

The FBI operates NCIC under the same authority that it operates Ident. Management of NCIC, however, is shared with officials from State and other Federal law enforcement agencies. The NCIC Advisory Policy Board advises the FBI Director on the overall policy and management direction for the system. The Board is composed of 26 individuals. Twenty of these are elected by the States and 6 are appointed by the FBI Director--2 each from the correctional, judicial, and prosecutive branches of law enforcement. The Board recommends changes to the FBI Director, who decides whether to accept and implement them.

CHAPTER 2

AUTOMATING THE FBI'S IDENTIFICATION DIVISION

Much of the AIDS program's success depends on state-of-the-art technology involving the invention of new special purpose computers to read and match fingerprints. Programs based upon planning for inventions sometimes experience developmental delays, underestimated costs, and changes in plans due to unworkable ideas. All of these have occurred with the AIDS program.

After years of developing AIDS, there still exists the unresolved question: Can machines read and match fingerprints accurately in large fingerprint files? The FBI is currently testing this part of the AIDS program.

If successful, AIDS would reduce costs and improve service response time. In addition, future extensions of AIDS-developed technologies could result in new significant law enforcement tools.

HOW THE MANUAL SYSTEM WORKS

Ident maintains a central criminal file of records of all arrests reported by law enforcement agencies and disseminates such information on request to authorized agencies. The arrests are reported to the FBI on fingerprint cards which are put in a file maintained for each arrested individual by fingerprint classification. Information from the fingerprint cards is transferred to a "rap sheet," making it a master list of all reported criminal activity for that particular individual. Any disposition data submitted by the arresting agency or the court also becomes part of the file maintained for each arrested person.

Every fingerprint card is processed to determine if a record presently exists for that individual. The first check for a previous record is made by searching the more than 69.4 million name cards representing names and aliases used by the 22.1 million individuals in the master criminal fingerprint card file. About 65 percent of incoming criminal fingerprint cards are tentatively identified in this manner. The FBI estimates that it is 10 times as cost effective to tentatively identify a subject by name and description than it is to initially attempt to identify the subject through searching fingerprint characteristics alone.

request for criminal history information via a fingerprint card and receiving that information is usually about 3 weeks.

The FBI's major purpose in automating Ident's functions is to reduce these costs and service time. Important to the success of the automation effort is developing the capability to read and match fingerprints automatically. The ability to read fingerprints has been accomplished; the ability to match them within a large file has yet to be proven. Although problems have occurred, the FBI's effort is well underway and could provide the foundation for even further extensions of fingerprint identification technology.

Developing automatic fingerprint identification capability

In June 1967, the FBI awarded two cost-reimbursement contracts for developing an automatic fingerprint reader (AFR) to Rockwell International Corporation and Calspan Corporation. By 1969, both contractors had built model AFRs that could accurately read good quality, inked fingerprint impressions. The National Bureau of Standards (NBS) had also developed computer programs that compared and matched fingerprint data. FBI and NBS concluded, however, that the AFRs needed further development so they could also read poorer quality fingerprints. Upon determining that Calspan's machine had a higher potential for developing this capability than Rockwell's machine, the FBI extended its contract with Calspan.

In 1970, Calspan demonstrated the readability of poorer quality fingerprints. In September 1970, its contract was again extended for developing and constructing a prototype AFR. The prototype reader was delivered to the FBI in September 1972 at a cost, according to the FBI, of $1,346,976.

After testing the prototype, the FBI and NBS developed specifications for advanced production AFRs. On July 30, 1974, the FBI awarded a firm fixed-price contract in the amount of $4,715,000 to Rockwell for constructing five production model readers. These AFRs were completed and delivered between November 1975 and August 1977.

FBI officials told us that the estimates on realizable savings are no longer accurate. They now estimate that automation would result in annual savings of about 1,000 staff years. We did not evaluate Rockwell's estimated savings or those developed by the FBI. However, an analysis of Rockwell's figures by the Department of Justice's internal audit staff led to the conclusion that the figures were no longer valid. The auditors did state, however, that they believed AIDS has the potential to produce substantial personnel and dollar savings.

AIDS is being implemented in phases over a span of several years. AIDS-I, AIDS-II, and AIDS-III are to eventually provide for computer storage and retrieval of arrest record data, computerized name searching of a name index, and automatic fingerprint searching capability through use of AFRs.

AIDS-I

AIDS-I provides for entering and storing in a computerized file all descriptive and background data of arrestees, the arrest charges, and any disposition data provided. This generally includes all identifying information appearing on fingerprint cards other than inked fingerprint impressions. The automated data base of names and descriptors will allow for computerized, instead of manual, name searching.

Since July 1, 1974, the FBI has added to the automated file every new offender and has updated it with any rearrests for those same individuals. The building of this data base is a day-one-forward file conversion effort. In other words, the FBI has no intention of converting the information contained in the name card index file. The FBI estimates that to do so would require 100 keypunch operators for 100 years.

The FBI decided that beginning with only new offenders, a data base would result which would allow automated searching for everyone under a certain age. As each year passes, the age criteria for searching in the automated file can be raised by one year. Many years will be required to phase-out the manual name searching and phase-in the computerized name searching.

the FBI decided to convert only the fingerprint cards for those individuals. Conversion started in March 1977 and is proceeding at a rate of 20,000 fingerprint cards per day, six days per week. As of June 1, 1979, 7,602,301 cards had been converted. The FBI estimates this conversion effort, involving about 13.5 million cards, will be completed by October 1980.

FEASIBILITY OF AUTOMATED READING AND MATCHING OF FINGERPRINTS

The development of a machine for reading fingerprints and computer technology for matching them has not come easy. The FBI has suffered many delays and cost overruns in developing the technology for an automated fingerprint identification process. Some problems may not be solved for years, if ever. At this time, problems exist in the areas of automated classification, matching speed, and automated searching of a large data base.

To assure that the presently conceived AIDS program is the best approach to automation, the FBI is negotiating with the National Aeronautics and Space Administration's Jet Propulsion Laboratory to perform a study to assess automation feasibility from an economic, technical, and operational standpoint and recommend alternatives for future automation efforts.

Classification

The AFR was designed to compute fingerprint ridge direction for classification and minutiae, the points at which ridges stop or split, for matching. Classification is required in a computerized fingerprint file for the same reason it is in a manual file, that is, to reduce the area of the file that must be searched.

After 11 years of concerted effort by NBS mathematicians, a final solution to automatic classification remains unanswered. The FBI informed us that part of the problem lies in reading blurred fingerprint impressions. The AFR ignores that portion of a fingerprint which is too smeared or heavily inked to read. As a result, it may misclassify a fingerprint based on the ridge direction it can read in the remaining portion of the fingerprint. This is not to be confused with the inability of the AFRs to read minutiae on low-quality fingerprint cards. (See p. 8.)

The FBI is aware of the need to test the matcher in a large data base and has contracted with Rockwell to develop an Automated Technical Search Pilot System. This system was scheduled to be operational in May 1978; however, the FBI said it only began using the system for testing in May 1979.

POTENTIAL EXTENSIONS OF AFR TECHNOLOGY

The FBI believes that automated fingerprint reading technology will provide the foundation for many future developments. It lists the following as possibilities.

First, the capability to automatically search latent crime scene fingerprints against a large data base of pre-read fingerprints could be developed. This capability would give law enforcement agencies a significant new investigative tool. Under the manual system, latent fingerprints are only useful if the fingerprints of known suspects are available for comparison. This automated capability could identify suspects for law enforcement agencies.

Second, automatic fingerprint searching could also be made available by means of remote semiautomatic or automatic readers. This would involve placing AFR-type machines in law enforcement agencies' offices and linking them to the AIDS central data base through telecommunication lines. This development would allow immediate identification with a high degree of accuracy through fingerprint matching from another location. Positive identification as determined under the manual system or AIDS would not be obtained because human verification would be lacking. However, the FBI believes the machine method for making identification has a greater potential for accuracy than the CCH's method for making matches based on name and physical descriptors alone. The need for such a capability could arise in the future if positive fingerprint identification must be made before the criminal history information can be used. Thus, more rapid identification would be needed to satisfy this requirement. In fact, one State has this requirement.

Third, machines could potentially be developed to read fingerprints directly from the fingers. This, of course, would eliminate the problem of blurred, smeared, or poor quality fingerprint impressions and could result in more efficient operation of AFRs and the AIDS system.

The Department of Justice decided that a national system should be operated at the Federal level, and designated the FBI responsible for operating the system on December 10, 1970. The FBI was chosen because it had a preexisting system of computers, communication lines, and personnel presently engaged in exchanging criminal information and which could be expanded to include criminal histories.

The FBI named the system the Computerized Criminal History Program and operated it as part of NCIC, using NCIC computers and communication lines. Because CCH was an integral part of NCIC, the NCIC Policy Advisory Board made recommendations to the FBI Director regarding CCH's development.

In March 1971, the Board approved the operational concept, security requirements, and record content for the CCH program, and the system became operational on November 30, 1971. The central data bank, as recommended by the Board, would now contain detailed criminal history records on State offenders whose records were entered by the States and Federal offenders whose records were entered by the FBI. Basically, this detailed criminal history record would contain the same type of information which Ident kept manually on offender rap sheets.

Maintaining the complete detailed record of each offender was only to be an interim measure, according to the NCIC Board, because all users would not have the capability to fully participate in the beginning of the system. It would take time for the States to establish identification bureaus and develop fingerprint identification capability, information flow, and computer systems capability. The FBI endorsed this concept.

PRESENT DEVELOPMENTAL STATUS

The District of Columbia and all States except two have the ability to query the CCH file and obtain instantaneously a summary of a subject's criminal history. If detailed criminal history information is needed, the inquiring State may also request through the system to have the subject's detailed record mailed. Depending on the capabilities of the inquiring State's system, the detailed record could be sent through the system to the State terminal and received

users within the State to the centralized file and responses back to the users. Iowa operates at this level, which is an interim measure until a State obtains the necessary equipment to fully participate.

The FBI told us that an additional 10 States have the required capabilities to join CCH at Level I. According to the FBI, these States developed their own systems partially through funding by the Law Enforcement Assistance Administration. The FBI says these States are delaying their participation due to the

--indecision regarding the future of CCH and

--cost of adding their records to the central file, which would be needlessly incurred should a decision be made to decentralize the CCH file.

The FBI also told us that an additional 15 States have plans for developing their own systems.

PROPOSED OPERATIONAL CONCEPT

The NCIC Board in April 1978 proposed the latest concept for developing CCH and decentralizing its records. This concept resulted from a survey of 10 States to determine the needs of the criminal justice community and provide the foundation for a new concept for CCH development. The concept was presented to the Department of Justice in July 1978. As of July 1979, however, the Department had not taken action on the concept.

This 1978 concept provides for no arrest information to be held on State offenses at the national level. The concept calls for the FBI to maintain a national fingerprint file, an interstate identification index, and criminal histories on Federal offenders.

The fingerprint file would consist of one fingerprint card for each individual arrested by participating States. It would also contain Federal agencies' criminal fingerprint cards. After the initial arrest and forwarding of a fingerprint card, any fingerprint taken from the same individual in subsequent arrests in the same State would be stopped at the State level. Thus, only those fingerprints which a State was unable to identify after searching its master

the record would be consistent with its laws. If release would not be, the index should not indicate to the inquiring State that a record exists. To do so would prejudice the subject, thereby circumventing the laws of the State of record, and leave the inquiring State with knowledge of a record but not the nature of the charges or offense.

IS THE PROPOSED CONCEPT ACHIEVABLE?

The original goal for all States was to have fully operational systems for participating in CCH by July 1, 1975. Today, there are just eight States entering records in CCH.

Some of the issues hindering full development of the CCH program are

--whether it is desirable for the FBI to provide message switching services needed for decentralization,

--indecision regarding the future operational aspects of the program,

--desire on the part of the States for a decentralized system,

--the impact a fully developed computerized criminal history information system could have on privacy and related rights of citizens, and

--the costs and effort which would have to be incurred by the States to participate.

One of the major issues hindering the implementation of the CCH program is the question of whether the FBI should be authorized to provide message switching service to route inquiries and responses regarding criminal history information among States. Message switching capability would be needed in operating a decentralized records system. There is concern that the FBI might use this device to (1) monitor the activity of certain individuals on the basis of name checks being entered by the States or Federal agencies and/or (2) generally monitor all law enforcement communications.

No estimates have been prepared on the cost of a decentralized system or that portion which the States would have to bear. Each State has or will have to incur a substantial sum to develop the required capabilities. After such initial commitment, each State's costs would be related to the size of its criminal population. That a decentralized CCH program would be costly was also recognized by the Board in its April 1978 decentralization concept. The Board pointed out that the design and development of the proposed system would involve a substantial financial commitment on the part of the various States.

arrest data stored at the national level, the CCH policy regarding nonserious offenses was adopted in the AIDS program. In CCH, the NCIC Board had decided that many arrests at the local level did not warrant interstate exchange. These include such offenses as a false fire alarm, hitchhiking, and minor traffic violations. (See appendix for a complete listing of nonserious offenses.)

As shown below, information on the detailed criminal history records received from AIDS or CCH is generally the same.

Item of information	AIDS	CCH
FBI number	X	X
Contributing agency's		
Identification number	X	X
Name	X	X
Case number	X	-
Subject's		
Name	X	X
Personal identifiers (height, weight, etc.)	-	X
State identification number	X	X
Date of arrest	X	X
Charge placed against subject	X	X
Disposition of charge and date	X	X
Interim disposition	-	X
NCIC fingerprint classification	X	X
Notation that subject's record is in CCH	X	-

Duplication of record systems

Criminal history records are maintained in numerous information systems. At the Federal level, a record could be stored in two different systems. That same record could again be duplicated at the State level. The numerous levels of duplication make it difficult to determine the exact number of duplicate records at the State level. However, the areas where duplication is occurring can be identified.

All individuals committing their first offense after July 1, 1974, are entered into AIDS. The FBI has entered all Federal offenders since January 1, 1970, into CCH. Some of the States entering records into CCH enter State first offenders from the date the States' participation in CCH began. Therefore, AIDS records for (1) all Federal first

First, Ident maintains the master criminal fingerprint file of all reported criminal offenders and determines if individuals arrested for the first time in participating States have prior records in nonparticipating States. Participating States are responsible for entering individuals' complete records in CCH.

Second, Ident acts as the interface between participating and nonparticipating States for individuals whose records have been entered in CCH. If an individual whose record has been entered in CCH is arrested in a nonparticipating State, that individual's CCH record needs to be updated to maintain its completeness. Ident identifies these situations and forwards the new arrest data, and disposition data if and when received, to the CCH operating group for entry.

Third, Ident forwards arrest data, and disposition data if and when received, on Federal offenders to the CCH operating group for entry.

FBI EFFORTS TO INCREASE SUPPORT AND REDUCE DUPLICATION

The AIDS and CCH programs use similar data elements, and therefore, the data in both systems is comparable. The FBI has not overlooked the opportunities this comparability produces for reducing duplication and increasing Ident's support to CCH.

Federal offender information is entered into the AIDS data base by personnel in Ident and then forwarded to personnel in the Technical Services Division for entry into the CCH data base. State offender information is entered into the AIDS data base by Ident personnel and into the CCH data base by personnel in the respective States.

In 1972, the FBI submitted a proposal to the NCIC Board offering to enter all AIDS information into CCH. The FBI pointed out that the following benefits would result:

--Faster entry of arrest data on first offenders in CCH.

--CCH would be built faster and thereby would become productive sooner.

the data bases. Work on eliminating these differences was interrupted in April 1976 when the Director recommended to the Attorney General that the FBI terminate its participation in CCH. This work was not resumed until May 1978. There are no immediate plans for allowing simultaneous entry of information into AIDS and CCH or merger of the data bases.

AIDS AND CCH RELATIONSHIPS

The major purpose of the AIDS program is to reduce high personnel costs and long response times incurred in the manual system for making fingerprint identification and disseminating criminal history information. The major purpose of the CCH program is to provide rapid dissemination of criminal history information. Simultaneous development of these programs is due in part to the uncertain future of the CCH program. Nevertheless, the result has been the creation of two independent systems which maintain the same type of information and produce the same type of product--an individual's criminal history record or rap sheet.

Both programs are being developed so that either could be the comprehensive system for the criminal justice community. Criminal history records are being converted to computerized data storage under AIDS-I at the rate of 3,000 per work day. This is being done to provide the AIDS program with a comprehensive file of criminal history records for dissemination. The CCH file is also being added to and maintained daily by the FBI and the States, and some States are developing capabilities required to participate in the CCH program.

Officials responsible for implementing AIDS and CCH told us developmental plans call for AIDS to phase out its arrest information maintenance and dissemination duties as the States assume these responsibilities under the CCH concept. However, lack of progress in the development of CCH has precluded the implementation of these plans.

While development of the CCH concept would, for the most part, eliminate duplication between the two programs, it would cause conversion of criminal history information under AIDS-I to be a wasted effort. This waste may be minimized if part of this information were used by the nonparticipating States to create their own CCH systems. Also,

CHAPTER 5

FBI FAILED TO FOLLOW FEDERAL PROCUREMENT POLICIES AND STANDARDS IN ACQUIRING ITS COMPUTER EQUIPMENT

Federal policies and standards have been developed to provide for the economical and efficient purchase, lease, maintenance, and use of ADP equipment. However, the FBI failed to follow certain Federal procurement policies when it acquired its present ADP equipment. In addition, the FBI did not develop a long-range plan identifying its ADP requirements and it has not completely implemented the use of a high-level language for its computer programs in accordance with the the Federal Information Processing Standards Program. The FBI is taking action to plan for its future needs and to use a standard high-level language.

FEDERAL ADP PROCUREMENT POLICY

Federal procurement policy states that ADP equipment, maintenance, and related services may be acquired through purchase, straight lease or lease with an option to purchase, or any other legally acceptable method. However, the acquisition method chosen should be that which offers the greatest advantage to the Government. In making this determination, alternative methods of acquisition should be analyzed to determine which method provides the Government with the lowest overall cost during the total system's life. The future value of having title to the ADP equipment must also be considered in the analysis.

Criteria to determine the appropriate method of acquisition

The purchase method is determined to be best when each of the following conditions exist: (1) the comparative analysis indicates that purchase will provide the Government with the lowest overall cost and (2) the approved budget contains funds or funds can be reprogramed for the purchase, or purchase can be made through the General Services Administration's (GSA) Automatic Data Processing Fund. 1/

1/A revolving fund specially created in 1965 by Public Law 89-306 (40 U.S.C. 759) to facilitate the financing of Government acquisition of ADP equipment.

other acquisition methods offered a greater advantage to the Government initially or in succeeding years.

When the FBI awarded the contract to ITEL in 1972, the method of acquisition--straight lease--did not offer the greatest advantage to the Government. An analysis of alternative acquisition methods was not performed to determine the least cost to the Government over the equipment's estimated life. In addition, the contract did not provide for lease with an option to purchase the equipment at a later date.

FBI officials do not know why the cost analysis was not developed. However, they believed the straight lease method was chosen because no purchase funds for ADP equipment were available in the FBI's approved budget. We asked FBI officials if GSA's ADP Fund was considered as a potential source for purchase funds. FBI officials said they did not know whether GSA's Fund was considered.

REVIEW OF LEASE NOT CONDUCTED BEFORE CONTRACT RENEWAL

The original contract with ITEL for the IBM equipment and maintenance services has been extended each fiscal year at a reduced dollar rate. The most recent extension was for the period October 1, 1978, through September 30, 1979, at an annual cost of about $1.4 million. Hardware costs generally have been declining steeply with new technological developments.

With the current contract extension, lease costs over the 87-month period will total about $13 million. Leasing companies generally recoup their investment in computer equipment within about 60 months. Although the FBI had been able to annually negotiate reductions in its monthly lease payments to ITEL, it did not conduct annual reviews, as prescribed by the Federal procurement regulations, to determine if the Government could save money by terminating the lease contract and either purchase new ADP equipment or renegotiate a new lease with an option to purchase. Such action could have provided the Government title to the equipment. FBI officials could not provide reasons why annual reviews were not made in accordance with the Federal procurement regulations.

Many of the FBI's application programs are coded in assembly level code. This is a low-level, machine-dependent language. Machine characteristics vary among different manufacturers' computers. Machine-dependent languages cannot be standardized, and programs using them are very costly to rewrite when incompatible computer brands are substituted.

If incompatible equipment is chosen when the FBI replaces its existing computer equipment, the cost to convert the existing assembly level code programs to run on new computers may be very high. Such costs are minimized when programs are written in a standard high-level language because these languages facilitate transfer to incompatible equipment. In July 1979, the FBI issued computer programing standards and guidelines which require the use of a standard high-level language wherever practical on new and old program applications.

NONSERIOUS OFFENSES

Begging or alms solicitation
Card game-playing
Criminal registration
Curfew violation
Detention only
Dice game-playing
Disturbing the peace (disturbance) (breach of peace)
Drunk
False fire alarm
Hitchhiking
Investigation or inquiry (unaccompanied by criterion charge)
Jaywalking
Juvenile delinquency charges after 2-9-73
Liquor law violations (which involve misrepresenting age or minor in possession of alcohol)
Lodger (sleeper, safekeeping)
Loitering-loafer
Lottery-playing
Patient
Suspicion (unaccompanied by criterion offense)
Traffic violations (traffic, vehicle, and licensing charges only)
Transient
Vagrancy or vagabond

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*U.S. GOVERNMENT PRINTING OFFICE 1979 620-167/300 1-3

LACK OF LONG-RANGE PLANNING

Federal policy states that a long-range plan should be developed to (1) identify ADP needs and (2) ensure that the selection of ADP equipment is based upon these needs. Before leasing the IBM 360/65 computer equipment from ITEL Corporation, the FBI did not develop a plan that identified ADP needs to support the existing users and growth. As a result, the current computer equipment is overloaded.

In an effort to relieve some of its computer overload problems, the FBI has received a delegation of procurement authority from GSA for an interim procurement of another IBM 360/65 or equivalent computer.

FBI officials said they have started developing a long-range plan which will address future ADP needs and the replacement of the current computer system in 1982.

ACTION TAKEN TO REPLACE UNRELIABLE EQUIPMENT

In April 1979, ITEL substituted an ITEL AS6 computer for one of the IBM 360/65 computers being leased to the FBI. After consulting with GSA, the FBI accepted this substitution as the contractor's solution to maintain an acceptable level of reliability and availability of the present computer system. Along with the substitution, the FBI also obtained purchase option credits which will accrue to the Government at the end of the system's life in September 1982.

GSA is reviewing this modification to the contract to ensure that actions taken meet the applicable regulatory requirements.

ACTION TAKEN TO ADOPT FEDERAL INFORMATION PROCESSING STANDARDS

The Federal Information Processing Standard Program was established to reduce procurement costs and promote the effective use of ADP resources. This program recommends that a standard high-level language be used when writing computer programs because they can be readily converted at less cost when a switch in computer vendors is determined desirable.

Under the regulations in force in 1972, the purchase method would be appropriate when a comparative cost analysis indicates that purchase would provide an overall cost advantage in 6 years or less after the date of ADP equipment delivery. The lease with an option to purchase method is best when it is necessary or advantageous to acquire the ADP equipment but it is desirable to temporarily defer the decision to purchase because purchase conditions are not fully satisfied. The straight lease method is for situations in which any one of the conditions for purchase does not exist.

Federal procurement policy also states that leases for ADP equipment should be reviewed before renewal to determine, among other matters, whether more economical sources for acquiring the equipment are available.

METHOD OF ACQUISITION NOT FULLY REVIEWED TO DETERMINE THE GREATEST ADVANTAGE TO THE GOVERNMENT

Before July 1972, the FBI leased ADP equipment from the International Business Machines Corporation (IBM). This equipment supported NCIC, AIDS development, and the FBI's investigative and support activities. The cost of leasing this equipment and maintenance services was $264,816 per month, or about $3.2 million annually.

In an effort to reduce its ADP equipment costs, the FBI contacted various companies, other than IBM, that leased IBM equipment, to determine whether any savings could be achieved. This informal solicitation revealed that the FBI could realize a savings by replacing its existing IBM equipment with identical or compatible computer equipment and comparable maintenance services through third-party leasing.

As a result of competitive bid solicitations, a contract was awarded to ITEL Corporation on July 17, 1972. The contract called for straight lease of three IBM 360/65 computers and maintenance services at $182,027 per month, or about $2.2 million annually. Thus, the FBI realized an annual savings of about $1 million by terminating its contract with IBM. However, the FBI did not determine whether

while AIDS-II and III developed technologies, such as automated name searching and fingerprint reading and matching, respectively, could be used with the National Fingerprint File, the workload levied upon these systems would be reduced.

Each of the two programs has separate advantages, and existence of the duplicate programs suggests that each program's advantages have been determined necessary. AIDS provides for positive association of criminal history information with a subject before the information is released. CCH provides for rapid dissemination of criminal history information. In addition CCH offers the ability to have a decentralized records system.

The FBI has suggested a system providing rapid dissemination and a high degree of identification accuracy as a possible future expansion of the AIDS program. (See p. 13.) This system would be obtained by using automatic or semiautomatic fingerprint readers and matchers (once tested and approved--see p. 11) developed under the AIDS program and connecting them through telecommunication lines to the master criminal fingerprint file. Use of AFRs has been suggested with the AIDS program but not with the CCH program.

The CCH program provides for a decentralized criminal history records system. Officials of the Department of Justice's Office of Management and Finance say that decentralization is necessary so that the States can

--require the reporting of arrest and disposition information and thereby better control the accuracy and completeness of their records and

--assure that dissemination of their criminal history records is consistent with State law.

Decentralization will cause duplication of effort. This is because each State must maintain its own fingerprint identification capabilities and central repository for criminal history information. In addition, as discussed on page 21, the CCH concept for decentralization will be costly to attain and faces many implementation obstacles.

--Gaps in CCH geographic coverage caused by nonparticipating States would be substantially reduced by inclusion of first-offender data from nonparticipating States.

--States would be relieved of the chore of coding first offenders.

--Nonparticipating States might be induced into earlier participation since they would have a ready made data base with which to begin operations.

This proposal was rejected by the NCIC Board in September 1972 because it feared that some States would interpret this action as an offer to take over their CCH responsibilities, and, consequently, they would not feel compelled to fund their State CCH systems.

Based on the results of an internal evaluation, observations were made in a January 1975 FBI memorandum to the FBI Director that the AIDS and CCH data bases should be merged and that entry of information on all first Federal offenders into AIDS and CCH be made part of the same process. No action was taken, however, due to the FBI's belief that authority to make such a change rested with the NCIC Board and not the FBI. The Director, however, has authority to refuse implementation of a change requested by the Board and to implement changes opposed by the Board.

In April 1975, the FBI again submitted to the NCIC Board a proposal that it enter all AIDS information in CCH. In June 1975, the Board said entry of State data by AIDS would be left up to the individual States to decide. To date, however, no criminal history information has been input from AIDS into CCH. Alabama and Pennsylvania have requested and received from the FBI a computer magnetic tape of all individuals in AIDS who committed offenses in their respective States. This information is being used by these States to create their own computerized criminal histories system.

Small differences in the categorizing of arrest charges and in the placement of certain data in the records of the two programs have prevented simultaneous entry and merger of

offenders and (2) all State first offenders created during that State's participation in CCH after July 1, 1974, are duplicated in CCH.

In addition to the duplication between AIDS and CCH of records entered by the participating States, these records are duplicated again in the 10 State systems operating at Level I in CCH. The duplication does not occur in the 11th participating State because participation at Level II does not provide for storing records at the State level.

For those 10 States which the FBI says have the capability to participate at Level I, duplication of offenders' records could exist between AIDS and those systems on records created for first offenders after July 1, 1974.

Most of the remaining States have some type of manual system for maintaining criminal histories of that State's offenders. These records could be duplicated in CCH, and any of these States' offenders who committed their first offense after July 1, 1974, could have their records duplicated in AIDS.

The extensiveness of this duplication can be shown by comparing the AIDS and CCH programs. FBI officials told us that as of June 1979, 647,990 records in the AIDS data base were marked as also being in CCH. This represents about 44 percent of the CCH program's records and 16 percent of the AIDS program's records. As the two data bases increase, the number of duplicate records will also increase.

HOW IDENT SUPPORTS CCH

As long as there are States not participating in the CCH program, information on arrests in such States will have to be supplied to CCH from other sources if subjects' complete records are to be maintained in the system. Incomplete records would cause the system to be a burden because duplicate checks would always be necessary with each of the nonparticipating States or Ident for additional information on an individual.

Ident uses 76 staff years annually to support the completeness of the information in the CCH program. The FBI estimates that if the CCH program expands in the next several years, the number of support personnel can be expected to double. Ident supports CCH in three ways.

CHAPTER 4

AIDS AND CCH--DUPLICATION AND RELATIONSHIPS

The AIDS program was developed to reduce the costs of and provide faster service in disseminating criminal history information. The CCH program was developed in response to the States' perceived need for rapid dissemination of criminal history information. Simultaneous development of these programs has continued due in part to the uncertain future of the CCH program. Nevertheless, it has resulted in two independent systems which maintain the same type of information and produce the same product--an individual's criminal history record or rap sheet.

In addition to the duplication of arrest information between AIDS and CCH, this information is duplicated again at the State level. Improvements could be made to reduce duplication and make the present CCH system more efficient.

Each program has its advantages. AIDS provides for positive association of criminal history information with a subject before the information is released. CCH allows for rapid dissemination of criminal history information. CCH also may offer decentralization of criminal history records; however, as noted in chapter 3, the concept for decentralization will be costly to attain and faces many implementation obstacles. As long as there is not full participation, CCH will not have arrest information on all offenders. It must therefore obtain additional arrest information from Ident to maintain complete criminal histories on subjects in the system.

DUPLICATION EXISTS

The AIDS and CCH programs record the same types of crimes and disseminate the same kind of criminal history information. Consequently, duplication of arrest information presently exists between the AIDS and CCH systems. Duplication of arrest information also occurs between AIDS and CCH and the State systems.

Content of criminal history records

The criminal offenses recorded by the AIDS and CCH programs are the same. Only serious offenses are eligible for entry in these systems. To achieve uniformity in

Indecision regarding the future and direction of the CCH program, according to the FBI, is preventing some States from participating. Furthermore, because of the indecision and the uncertainty of the future, some participating States have questioned whether they should continue to participate. In fact, Illinois and Minnesota notified the FBI in June 1979 that they were ending their participation. Withdrawal of States may answer the question of the CCH program's future.

One of the primary reasons States desire a decentralized concept is because it would allow them to control dissemination of their records. Many States have enacted legislation restricting dissemination of their criminal history records. However, such information submitted by States to the FBI under either the CCH or AIDS program may be released whenever an authorized agency requests the record. This, in effect, may circumvent State laws.

The potential is great for computerized systems to affect individuals' privacy rights and reputations because increased opportunities exist for widely disseminating inaccurate or incomplete records. Manual records are not disseminated widely. Thus, the harm which may be caused by disseminating incorrect criminal history information would be localized. With a computerized system, however, the transaction volume and wide dissemination of criminal history information would likely increase. In addition, fear exists that a computerized criminal history information system is another step in the building of a national data bank. Concern for violating privacy and related rights is shown by increased restrictions on the dissemination of criminal history records.

To fully participate in a decentralized CCH program, each State would have to develop its own system for collecting, storing, and maintaining computerized criminal histories, as well as fingerprint identification capabilities. Recognizing this and to maximize the chances for successful attainment of the proposed developmental goal, the Board recommended in its April 1978 decentralization concept that

--each State make a commitment to participate and

--each State develop fingerprint identification capability and a central repository for criminal history information.

fingerprint file would be submitted for comparison to the national file to determine if the subject was a first offender or had a record for a Federal or other State offense. Fingerprint cards submitted to the national file by the States would contain only the inked impressions and personal identifiers. No arrest information would be listed.

The identification index would not contain any arrest information. It would consist of personal identifiers, the FBI number for each individual on file, and the identification number for each State which had reported that it holds information on that individual. The purpose of the identification index would be to direct an inquirer to the State(s) maintaining criminal history record information on the named subject.

Under this system, criminal history record information, except that submitted by Federal agencies, would be kept at the State level. Exchange of this information would be between the State holding the information and the requester. Thus, the State of record would be able to determine if dissemination would be consistent with State law.

The 1978 concept provides for message switching capability within NCIC to exchange criminal history record information between the State of record and the requester. Under the concept, exchange could also be directly among the States using a variety of means, ranging from an independent telecommunications system, such as the National Law Enforcement Telecommunications System, to the U.S. mail. According to the FBI, assembly of the information into one list is a problem not addressed by the 1978 concept. Assembly might be a problem because the information could be sent from numerous sources at different times to the requester. Assembly could be done by the requester or the FBI depending on the exchange method selected.

The Deputy Assistant Attorney General for Administration told us the Department of Justice had one major problem with the plan presented by the NCIC Board. This official said the index should notify any State of record that a query had hit on one of its records, and the reason for the query, before responding to the State of inquiry. This is a feature of the consensus concept for a decentralized CCH program outlined by the 10 State survey. Such a feature allows the State of record to indicate whether release of

in several minutes. Of those locations which have the ability to query the CCH file, 22 are able to have the detailed records sent through the system. The remaining 27 jurisdictions do not have this capability.

Between 1971, when CCH began operating, and the present, 15 States have entered records. Presently, only 8 States are entering records--Florida, Iowa, Michigan, Nebraska, North Carolina, South Carolina, Texas, and Virginia. Three States--Arizona, California, and Ohio--are maintaining the accuracy of previously entered records but have ceased entering new records. Two States--New York and Pennsylvania--terminated their participation and withdrew their records in 1974. In June 1979, two more States--Illinois and Minnesota--notified the FBI that they were terminating their participation. Both of these States listed indecision regarding the future of the CCH program as their reason for terminating their participation. In addition, California has indicated it may withdraw its records in the near future.

In addition to the States entering records, the FBI enters all Federal offenders into CCH. Of the 1,430,418 records in CCH as of April 1979, the FBI entered almost 26 percent of them. Florida and Michigan have entered 63 percent of the 1,059,227 State records, or 46 percent of all CCH records. About 6,000 to 10,000 records will be purged as a result of Illinois' and Minnesota's termination.

To aid and encourage States to participate in entering records into CCH, the FBI has established levels of participation. Level I, or full participation, provides for a State having its own computerized system for storing and querying criminal histories on-line. When participating at this level, a State enters in its file and the central file at FBI headquarters arrest information (and maintains its accuracy) on offenders arrested within that State. Queries on an individual are processed first against the State file, and if no record is found, then against the national file. Of the States entering or maintaining records, all except Iowa operate at this level.

Level II provides for the State having a computer to (1) enter arrest data into the central file at FBI headquarters, (2) maintain data accuracy, and (3) switch inquiries from

CHAPTER 3

CRIMINAL HISTORY INFORMATION ON-LINE

The original concept of a computerized system for sharing criminal histories provided for a central national index. This index would contain summaries of individual criminal histories and provide for the inquirer to obtain the subject's complete criminal history from the appropriate State. The FBI currently operates the CCH program, however, as a central storage file of detailed criminal histories.

The FBI's goal is to decentralize CCH's records to the appropriate States. The success of this plan depends on many factors outside the control of the FBI. Whether in fact it is achievable appears questionable at this time.

EARLY DEVELOPMENT OF COMPUTERIZED CRIMINAL HISTORIES

A cooperative effort of several States established and demonstrated the feasibility of using a computerized system for the interchange of criminal histories. The States' effort was called the System for Electronic Analysis and Retrieval of Criminal Histories (SEARCH).

The SEARCH project began receiving Federal funds in 1969 from the Law Enforcement Assistance Administration as part of its effort to encourage States to improve their criminal justice systems. SEARCH was developed on the basis that all computerized criminal history records would be stored in the States, that a central computer would maintain an index of abbreviated summary data on arrested individuals, and that message switching capability would be provided for exchange of detailed records.

On request, a State was furnished a summary which contained information on the reasons for and number of arrests and convictions. If more information was desired, a requester could query the State listed on the summary as having the individual's detailed records. SEARCH proved that it was feasible to use a computerized message switching system for the interchange of criminal histories. How the system would become operational had to be determined.

To solve this problem, the FBI has been semiautomatically classifying fingerprints. Semiautomatic classification has a significant effect on the number of staff years that could be saved through automation. Semiautomatic classification requires one employee with technical training to read and classify fingerprints and then convert this into a form for encoding into the computer. Another employee must then enter the classification data into the computer.

Because it is unlikely that fingerprints will always be taken clearly, the only solution to this problem appears to be using semiautomatic classification, or developing, in the future, a mechanized way of taking fingerprints. While this problem does not affect the success of automation, it will affect the savings to be realized.

Matching

The matching process involves the actual comparison of the location of minutiae data in two fingerprints to determine if they came from the same finger. This process is performed by using a computer with built-in programs to match AFR-identified minutiae on incoming prints with file prints.

When the matcher prototype was delivered to the FBI, it did not meet design specifications for speed. The FBI design called for matching the incoming fingerprint card with 217 other cards per second. When delivered, the matcher was making only 72 such matches per second. FBI officials told us that their joint efforts with NBS have been successful in identifying the problem with the matcher's speed capability, and are confident they can eliminate the problem. The speed problem of the matcher does not affect the success of automation. It may, however, make automation more costly by requiring the purchase of more matchers.

Searching

The ability of the matcher to operate successfully in a large data base has not been proven. Although the FBI has performed successful tests using a reader and matcher together with a small number of fingerprint cards, the results may not be the same when the matcher must select possible matches from over thousands of fingerprints in the same classification.

The AIDS-I data base is growing at the rate of 3,000 new arrestees each work day or 750,000 per year. As of June 4, 1979, there were 3,973,701 arrestees' records in the file.

AIDS-II

AIDS-II provides for automated name searching of the file being created in AIDS-I. If implemented in 1979, the FBI estimates automated name searching will reduce the manual name searching workload by 23 percent the first year.

The FBI has experienced delays in implementing automated name searching even though automated name searching techniques are not new. According to the FBI, however, a specially designed name searching technique had to be developed which would have the selectivity to choose the correct match from the FBI's large data base.

The original specifications for the FBI's automated name searching technique were delivered in October 1975. The construction of the more than 380 computer programs for this technique and testing have taken until the present. Final acceptance testing began in June 1979 and implementation is planned for October 1979.

AIDS-III

AIDS-III provides for automatic fingerprint searching through use of AFRs and the matcher. Developing computer fingerprint reading and matching has been the most difficult part of AIDS. AIDS-III has been proceeding since 1967 when the first contracts were awarded for the development of an automated fingerprint reader. The FBI told us that AIDS-III development will continue for the next several years and is scheduled to be operational in 1983.

Presently, the FBI is using its five AFR systems to convert the fingerprints in the master criminal fingerprint file. This will be the computerized data base against which the matcher will compare incoming fingerprints that are not tentatively identified during the automated name search.

As with converting the name index file, the FBI studied this task to determine the best approach. Statistics show that 94 percent of all activity in the master file occurs with individuals under 55 years of age. Therefore,

Early in the development of the AFR, the FBI established that there would always be inked fingerprints of such a low quality that they would have to be read semiautomatically. Thus, specifications were prepared in early 1975 for the construction of a prototype semiautomatic reader. In June 1975, the FBI awarded a contract to build a prototype to a firm that specializes in developing high-quality picture tubes. This prototype was completed and delivered on January 29, 1976, at a cost of $54,500. This equipment has been tested, and production model specifications developed. Bids for manufacture of production models are now being reviewed for awarding of the contract.

Some problems were experienced in developing the fingerprint matcher. Initially, matching of fingerprints on file with incoming prints was to be done with a general purpose computer and programs developed by NBS. The FBI decided, however, that it would be more efficient to build a hardware matcher--that is, build computer programs into the equipment NBS developed so that the speed of the matching process would be increased. Preparation of design specifications began in 1974, and in June 1975, a cost-plus-fixed-fee contract was awarded to Calspan for constructing a prototype matcher system.

After delays and cost overruns, the prototype matcher was delivered on October 4, 1976, at a cost of $555,929. The prototype did not, however, meet the FBI's speed specifications. Since delivery, FBI and NBS have worked on the matcher and increased its speed to about that originally desired. Testing of this equipment on large files began in May 1979. The FBI hopes to develop production model specifications during 1979 and procure the first production model in fiscal year 1981.

Implementation and status

Having demonstrated that fingerprints can be identified automatically, the FBI contracted with Rockwell to determine the technical and economic feasibility of automating the work functions of Ident. Rockwell's August 31, 1971, report stated that automation was both technically and economically feasible. It also estimated that full automation would result in annual savings of about 2,000 staff years and $14 million in operating costs and reduce fingerprint processing time from days to mere hours.

Fingerprint cards not tentatively identified by a name search are classified based on common fingerprint characteristics and compared to cards of that classification in the master file. This file contains the fingerprint card with the clearest impressions received on each of the 22.1 million individuals. All identified fingerprint cards, whether by name or print comparison, are verified by a second fingerprint technician to assure that arrest record information is not released on the wrong individual. After verification, information from the incoming card is transferred to the individual's rap sheet and an updated copy is mailed to the contributing agency.

If after classifying the incoming print and searching the appropriate section of the master file a positive identification is not made, the individual is considered a first offender and a no-record response is mailed to the contributing agency. Name cards for the individual and each alias used are also prepared and added to the name card file, and the fingerprint card is added to the master criminal file. The preparation of no-record responses and name cards for first offenders has been automated as part of the AIDS program.

In addition to processing 24,000 fingerprint cards, Ident also processes approximately 19,000 other daily matters, most of which are requests for rap sheets made by letter, telephone, or teletype. For these requests, Ident will forward the rap sheet to the requester with the qualification that positive identification was not established, unless the requester had submitted an FBI number--a unique number assigned to each individual with an arrest record.

AUTOMATED IDENTIFICATION DIVISION SYSTEM

Ident employs over 3,300 individuals to process the 43,000 inquiries received each day. Significant expense is incurred to recruit, train, conduct background investigations, and pay these individuals, which is compounded by an attrition rate that has averaged 28 percent for the period 1974 through 1978.

Ident averages over 14 working days to process the 24,000 fingerprint cards received daily. When mailing time is considered, the total elapsed period between making a

The FBI provides the computer system and personnel for NCIC operations and also maintains communication lines to the States' computer facilities. Most States maintain a central computer facility and numerous terminals with connecting lines located throughout the State, in such places as State and local police stations.

The FBI began operating NCIC in 1967. At that time there were four stolen property files covering vehicles, license plates, firearms, and other identifiable articles and a wanted persons file. NCIC's original data base was 23,000 records. By the end of 1967, it was handling an average of 15,000 daily transactions.

Presently, NCIC has six stolen property files covering vehicles and parts, guns, miscellaneous articles, boats, license plates, and securities. It also has four other files which include wanted and missing persons, a criminalistic laboratory information system, and CCH. As of April 1979, excluding the laboratory information file, NCIC consisted of 7 million records and was handling over 289,000 transactions daily. The CCH file consisted of 1,430,418 records. In 1978, more than 15,000 transactions were processed daily against the CCH file.

SCOPE OF REVIEW

Our work was performed at the Department of Justice, including the FBI, in Washington, D.C., between February and June 1979. We interviewed agency officials and reviewed documentation relating to the development and operation of AIDS and CCH.

We also reviewed the procurement procedures used by the FBI to acquire (1) 3 computers and associated peripheral equipment and (2) 10 minicomputers for NCIC/CCH and AIDS operations. We did not review the contracts awarded for AIDS development, including the fingerprint reader, because they were reviewed by the Department of Justice's internal audit staff. 1/

1/U.S. Department of Justice internal audit report, "Automated Identification Division System and Its Fingerprint Reader Subsystem of the Federal Bureau of Investigation," April 1978.

FBI'S IDENTIFICATION DIVISION

Positive identification is required by criminal justice agencies for effective law enforcement, and fingerprints offer an infallable means for such identification. Since 1924, Ident has served as the national repository and clearinghouse for fingerprint cards and related arrest record information because

--many States lacked the capability of making positive fingerprint identification for their law enforcement needs and

--many individuals arrested were able to conceal the existence of previous criminal records maintained by other than the arresting law enforcement agency.

Ident operates under legislative authority (28 U.S.C. 534) requiring the Attorney General to collect, classify, and preserve criminal identification, crime records and other records, and exchange these with authorized officials of the Federal Government, States, cities, and penal and other institutions. The Attorney General has delegated this responsibility to the FBI Director.

Ident receives, on the average, over 43,000 inquiries daily. This number consists of over 24,000 fingerprint cards and about 19,000 other matters. These other matters usually involve requests for arrest record information based on persons' names and dispositions of previously reported arrests. Of the 24,000 fingerprint cards, about 12,000 are for arrested individuals, of which about 3,000 will have their first criminal record established.

Ident relies on the voluntary submission of cards by Federal, State, and local agencies. Under this system, Ident has no way of knowing whether cards for all arrested individuals are submitted from any given law enforcement agency.

When first established, Ident's files consisted of 810,188 fingerprint records which formerly belonged to the Leavenworth Penitentiary Fingerprint Bureau and the International Association of Chiefs of Police. Today, Ident's files contain more than 171 million fingerprint cards.

ABBREVIATIONS

ADP	automatic data processing
AFR	automatic fingerprint reader
AIDS	Automated Identification Division System
CCH	computerized criminal history
FBI	Federal Bureau of Investigation
GAO	General Accounting Office
GSA	General Services Administration
IBM	International Business Machines Corporation
Ident	Identification Division
NBS	National Bureau of Standards
NCIC	National Crime Information Center
SEARCH	System for Electronic Analysis and Retrieval of Criminal Histories

FBI officials said that as of June 1979, 647,990 records in AIDS were duplicated in CCH. This represents about 44 percent of the CCH's records and 16 percent of AIDS' records. As the two data bases increase, so also will the number of duplicate records. (See p. 23.)

The FBI has been unsuccessful in its attempts to decrease duplication and increase support to the CCH program. (See p. 25.)

THE RELATIONSHIPS BETWEEN THE TWO PROGRAMS

Each of the programs has separate advantages which have been determined necessary in a criminal history information system. AIDS provides for positive identification, and CCH provides for rapid dissemination. In addition, CCH offers the ability to operate as a decentralized records system. (See p. 27.)

Department of Justice Office of Management and Finance officials say decentralization is necessary so that the States can

--better control the accuracy and completeness of their records and

--make sure dissemination is consistent with State law.

Decentralization will result in duplication of capabilities at the State level and be costly and difficult to implement. (See p. 27.)

The FBI has suggested a system providing rapid dissemination and a high degree of identification accuracy as a possible future expansion of the AIDS program.

The automated system is referred to as the AIDS program and is being implemented in phases. (See pp. 6 and 8.) The full program is scheduled to be operational in 1983. (See p. 10.)

Much of AIDS success depends on state-of-the-art technology involving the invention of new special purpose computers to read and match fingerprints. The program has experienced developmental delays, underestimated costs, and changes in plans due to unworkable ideas. (See pp. 7 and 11.)

The last phase of AIDS deals with developing a methodology to automatically match fingerprints. The ability of the matching process to operate successfully in a large data base has not been proven. The FBI began testing this process in May 1979. (See p. 12.)

THE CCH PROGRAM

The original concept of a computerized system for sharing criminal histories provided for a central national index. This index would contain summaries of individual criminal histories and allow inquirers to obtain subjects' complete criminal histories from the appropriate States. The FBI currently maintains detailed criminal histories and operates the CCH program as a centralized file. This was to be an interim measure until States developed their own fingerprint identification and computer system capabilities. (See p. 14.)

State participation in the CCH program has been low and unsteady. Between 1971, when it became operational, and the present, 15 States have entered records. Presently, only eight States are entering records. (See p. 15.)