

Chapter 3

Evolution to Computerized Criminal History Records

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Evolution to Computerized Criminal History Records

Chapter Summary

Until the 1960's, criminal history records were maintained on paper in manual files. The evolution to computerized recordkeeping reflects several factors, including growing problems with manual files, concern over multi-State offenders, a rising crime rate, efforts to reform the criminal justice process, and the availability of new technology.

Manual files have grown so large and cumbersome that response time has become a serious problem. For example, the Federal Bureau of Investigation (FBI) Identification Division's (Ident) file has grown from 2 million fingerprint cards in 1924 to about 175 million in 1981, with an average of 27,392 cards received each day. The typical Ident response time during 1981 was in the range of 27 work-days for all criminal record inquiries (including fingerprint and name checks).

Another justification for centralized, computerized files is the mobility of criminals. Computer-based information systems can help speed the exchange of criminal history records among the States. OTA verified that multi-State offenders account for about 30 percent of the Ident criminal record file and 33 percent of the National Crime Information Center/Computerized Criminal History (NCIC/CCH) file. With Federal offenders excluded, about 12 percent of the records in the NCIC/CCH file are for multi-State offenders.

Several study commissions established in response to rising crime rates have emphasized the role of computers in the reform of the criminal justice process. One result was the enactment of the Omnibus Crime Control and Safe Streets Act of 1968, which established the Law Enforcement Assistance Administration (LEAA). One priority of LEAA was the development of CCH systems in the States.

At the Federal level, the FBI had wanted for years to automate criminal records. The computer technology of the 1960's provided the first practical opportunity. Thus, 1963 marked the initial FBI use of computer technology to process individual criminal records for Federal offenders, and led eventually to the establishment of NCIC. This center began operations on January 27, 1967, to create automated files of wanted persons and stolen vehicles.

Automating criminal history records proved to be much more difficult. Questions immediately arose about who should operate a CCH system and what information should be maintained at the Federal and State levels of government. In 1970, after Project SEARCH (System for Electronic Analysis and Retrieval of Criminal Histories) began development of a national CCH system with LEAA funding, the U.S. Attorney General assigned management responsibilities for CCH to the FBI rather than to LEAA, a joint LEAA/FBI entity, or a consortium of States.

Problems With Manual Files

Until the 1960's, criminal history records were maintained on paper, and were created and updated manually (typewriter or hand-

writing). While this approach appeared to be satisfactory for many years, the increasing number of records eventually created a severe

problem. Manual processing of paper records is extremely time-consuming and labor-intensive, thus costly. As staffing and funding limits were reached, delays in obtaining and updating records increased significantly.

Ident's experience exemplifies the immensity of the problem. Starting with about 2 million fingerprint cards in 1924, the number grew to about 76 million in 1943, and to 170 million in 1979. As of October 1981, Ident held about 175 million fingerprint cards representing records on about 65 million persons. Of this total, 78 million cards representing 21 million individuals were in the Ident criminal file. During fiscal year 1981, Ident received an average of 27,392 fingerprint cards daily, of which about 12,684 involved criminal offenders.¹

Each card has to be recorded, examined for data completeness, searched against the master criminal file to locate any previous record, classified by fingerprint characteristics if a new print, and entered into an existing criminal history record (or a new record if the individual has no previous record). A copy of the record is then forwarded by mail (or occasionally by teletype or facsimile in case of urgent need) to the requesting agency.

¹Based on data supplied by letter to OTA dated Oct. 30, 1981, from the Deputy Assistant Director, FBI Identification Division. During fiscal year 1981, Ident received a total of 6,848,043 fingerprint cards, of which 3,171,102 were from Federal, State, and local criminal justice agencies. Thus, based on 250 workdays, an average of 27,392 cards were received daily. Of these, a daily average of 12,684 were from criminal justice agencies.

Reports from the field indicate that when an arresting agency forwards a fingerprint card to the FBI, it typically takes several weeks to receive a response.² Surveys conducted for the FBI in 1979 and 1980 indicated that the average Ident response time for processing of fingerprint cards was in the range of 36 workdays.³ As of July and October 1981, the FBI estimated that Ident internal processing time (excluding mailing time) was averaging 27 and 25 workdays, respectively, for all categories of inquiries (both fingerprint checks and name checks). As of July 1982, processing time had improved, at least temporarily, to about 13 days, due to Ident's suspension of record checks for federally chartered or insured banking institutions and State and local employment and licensing authorities.⁴ The problem of slow response from manual systems is a key factor supporting the evolution to computerized systems.

²See "Excerpts From Representative Viewpoints of State Criminal Justice Officials Regarding the Need for a Nationwide Interchange Facility, March 6, 1978," reprinted as app. B to U.S. Congress, Office of Technology Assessment, *Preliminary Assessment of the National Crime Information Center and Computerized Criminal History System*, Washington, D. C., December 1978, p. 71.

³Jet Propulsion Laboratory, FBI *Fingerprint Identification Automation Study: AIDS III Evaluation Report, Volume I*, California Institute of Technology, Pasadena, Calif., Nov. 15, 1980, pp. 1-1 to 1-3; prepared for U.S. Department of Justice, Federal Bureau of Investigation.

⁴Oct. 1, 1981, letter to all Ident fingerprint contributors from Nick F. Stames of the FBI, p. 2. Mar. 26, 1982, letter to OTA from Conrad Banner of the FBI; personal communication with Conrad Banner, July 30, 1982. Ident plans to restore these services on Oct. 1, 1982.

Concern Over Multi-State Offenders

The problem of multi-State offenders has been recognized for decades. It was one reason for the initial establishment of a national repository of criminal history records in the FBI to facilitate the exchange of records among different States.

However, until relatively recently the actual percentage of multi-State offenders was not known. In 1974, based on a sample of Ident records, the FBI concluded that approximately 30 percent of the persons arrested annually

in the United States have multi-State records (that is, have been arrested in more than one State during their criminal careers). More recently, based on the composition of the NCIC/CCH file as of August 1, 1981, the FBI estimated that 33 percent of all offenders have multi-State records.⁵ An OTA study of crimi-

⁵See NCIC staff paper prepared for the Nov. 3-4, 1981, meeting of the NCIC Advisory Panel Board Subcommittee on the Interstate Identification Index, Topic #3, p. 7. As of Aug. 1, 1981, 610,502 of the 1,841,776 total records in the NCIC/CCH file (or 33.15 percent) were multi-State.

nal history files provides a confirmation and interpretation of the 1974 and 1981 FBI estimates.

As summarized in table 1 based on a 1979 survey, OTA found that about 30.4 percent of individuals in the FBI's Ident file have arrests in more than one State, which agrees very closely with the earlier FBI figure of 30 percent. However, all Federal offenders are included in both the Ident and NCIC/CCH files. If Federal multi-State offenders are excluded, the percentage of multi-State records in the NCIC/CCH file drops from 33 to 12 percent.⁶ As of August 1, 1981, the percentage of NCIC/CCH multi-State records for the eight States with records in the NCIC/CCH file fell within the 3-to 36-percent range, as shown in table 1.

Thus, multi-State offenders represent a significant part of the total criminal population. Whether this multi-State population is com-

⁶Ibid. Excluding the 448,860 Federal offender records counted as multi-State, the remaining 161,642 multi-State records represent 11.6 percent of the 1,392,916 State records in the NCIC/CCH file.

Table 1.—Percent Multistate Offenders in Selected Criminal History Record Files

Selected criminal history record files	Percent multi-State offenders
FBI Identification Division File ^a	30.4 %/0
FBI NCIC/CCH File ^b	33.2
FBI NCIC/CCH File Excluding Federal Offenders ^c	11.6
States with records in the NCIC/CCH file ^d	
Nebraska	36.1 0/0
Michigan	16.4
North Carolina	16.1
Florida	13.8
Iowa	11.0
Virginia	8.4
South Carolina	2.6
Texas	2.5

^aPercent of offenders in the file with arrests in two or more States based on a 1979 OTA Survey of record quality. For the 168 Ident records with verifiable arrest events (see ch. 8), the number of different States in which arrests occurred was distributed as follows: 1 State (117 records out of 168), 2 States (29 records), 3 States (8 records), 4 States (7 records), 5 States (3 records), 6 States (1 record), 7 States (2 records), 8 States (1 record).

^bBased on NCIC/CCH file size and composition as of Aug. 1, 1981.

SOURCE: Office of Technology Assessment and Federal Bureau of Investigation

posed of criminals whose crimes are more serious or less serious than those of the general criminal population could not be determined from information available to OTA.

Criminal Justice Reform and Computers

In the mid-1960's, the continuous rise in the incidence of crime, coupled with political and social tensions (e.g., over civil rights, urban renewal, and the Vietnam War), led to renewed efforts to reform the criminal justice process. In 1965, President Lyndon B. Johnson established a President's Commission on Law Enforcement and Administration of Justice to probe the causes of crime and recommend ways to improve its prevention and control. Two years later, in its 1967 report, the commission found serious deficiencies in criminal justice information in general and criminal history record systems in particular. The commission suggested that "criminal justice could benefit dramatically from computer-based information systems."⁷

⁷President Commission on Law Enforcement and Administration of Justice, *The Challenge of Crime in a Free Society* (Washington, D. C.: U.S. Government Printing Office, 1967), p. 266.

The commission also concluded that the criminal justice process: 1) suffered from extreme decentralization, fragmentation, and a general lack of coordination of the agencies involved, and 2) was seriously overburdened partly owing to a general tendency in the United States toward overcriminalization, i.e., to prescribe criminal justice solutions to what were essentially social and moral problems. Nevertheless, the commission's emphasis on the use of computer and communication technology in the criminal justice process helped set the agenda for subsequent legislative and administrative initiatives with respect to computerized criminal history records.

Foremost among these initiatives was the passage of the Omnibus Crime Control and Safe Streets Act of 1968 and the establishment of LEAA. Title I of this act represented the Federal Government's first comprehensive

grant-in-aid program for reform and modernization of the criminal justice process. The act provided for a "block grant" approach to Federal funding, recognizing that prevention and control of crime was basically a State and local responsibility. LEAA was established to administer the block grant program and to work closely with the States and localities in improving the administration of criminal justice at every level.

Following the recommendations of the President's Commission, LEAA gave relatively high priority to grants for the development of computerized criminal justice information and statistical systems in the States, including

computerized criminal history record systems. From 1970 to 1980, LEAA awarded about \$207 million in categorical grants to the States for criminal justice information systems, although only about \$39 million was earmarked specifically for CCH-related systems.⁸ An additional \$200 million to \$400 million in LEAA block grants to the States is estimated to have been spent on information systems.⁹ These grant programs ended in fiscal year 1981.

⁸Based on data from the Office of Justice Assistance Research and Statistics, U.S. Department of Justice. See ch. 5 for discussion.

⁹Based on data and analysis provided in a Sept. 9, 1981, letter to OTA from Tom Dalton of Seattle University. See ch. 5 for discussion.

Birth of the National Crime Information Center

Almost from its inception, Ident has experimented with new techniques to process fingerprints and rap sheets more efficiently. For example, as early as 1934 the FBI tried a punch-card and sorting system for searching fingerprints, but the technology at that time could not handle the large number of records in the Ident files. It was not until the development of third generation computer technology in the early 1960's that the FBI's goals of automating criminal records became feasible. For the first time computer technology made it possible to electronically store hundreds of thousands or even millions of records, and to process record requests and updates almost instantaneously.

The FBI first used computer technology to process individual criminal records in 1963. In a "Careers in Crime" study, the criminal identification records of 194,000 Federal offenders were computerized and regularly updated as new information came into the FBI on arrests, convictions, and other criminal justice transactions. The study found that criminal activity increasingly was spilling over local government boundaries. It also concluded that the existing mechanisms for the exchange between local and State jurisdictions of wanted

persons and stolen vehicle information, as well as rap sheets, were too slow and incomplete.¹⁰

As a consequence, the Uniform Crime Reports (UCR) section of the FBI Criminal Records Division recognized a need to initiate the use of new computer technology. Computers could automate criminal records, allowing remote access to States and localities through appropriate communication lines.

In 1965, the UCR section sought approval to proceed with the development of a national crime information system. Initially, it would be used for the rapid exchange of wanted person and stolen property information, with criminal history information to be added later. On January 20, 1966, the Attorney General approved the development of a national crime information center in the FBI. In his memorandum to FBI Director Hoover, the Attorney General cited the FBI's collection and exchange of criminal records with local police organizations as sufficient authority to establish the center.¹¹

¹⁰ Alan F. Westin and Michael A. Baker, *Data Banks in a Free Society* (New York: Quadrangle Books, 1972), p. 51.

¹¹Nicholas deB. Katzenbach, Attorney General of the United States, Memorandum for J. Edgar Hoover, Director, Federal Bureau of Investigation, "National Crime Information Center," Jan. 20, 1966.

Subsequent to the Attorney General's approval, several planning meetings were held in which the FBI, the International Association of Chiefs of Police, local police departments and other law enforcement agencies (primarily State police) participated. The planning process helped determine the files to be initially included, criteria for entry of records into those files, and operational procedures to ensure that participating local and State information systems would be technically compatible with the national center.

On January 27, 1967, NCIC began operation with approximately 23,000 records of wanted persons and stolen property in its computer files. The 15 initial participating agencies are listed in table 2.

By September 1967, the FBI reported that over 260,000 records were on file on stolen ve-

Table 2.—initial Participating Agencies for the National Crime Information Center

Washington, D. C., Police Department
Maryland State Police, Pikesville
Pennsylvania State Police, Harrisburg
Philadelphia, Pennsylvania Police Department
New York State Police Department
New York City Police Department
Boston, Mass. Police Department
Chicago, Ill. Police Department
St. Louis, Mo. Police Department
Denver Field Division of the FBI
California Highway Patrol, Sacramento
Texas Department of Public Safety, Austin
New Orleans, La, Police Department
Georgia State Patrol, Atlanta
Virginia State Police, Richmond

SOURCE: Off Ice of Technology Assessment

hicles and license plates, stolen guns, stolen articles, and wanted persons. NCIC was operating 7 days a week and 22 hours a day, averaging 10,000 entries and inquiries daily.

Origins of the Computerized Criminal History Program

The way was now prepared for the development of a national computerized criminal history program. In 1967, the President's Commission on Law Enforcement and Administration of Justice strongly endorsed the use of computers in the criminal justice process. In 1968, Congress passed the Omnibus Crime Control and Safe Streets Act, which established LEAA to help the States improve their administration of criminal justice. Priority was to be placed on upgrading criminal justice information systems at the State and local levels. In 1967, when the FBI began operating NCIC, the first computerized national criminal justice information system, criminal history files were initially excluded. This was a deliberate decision in order to hold off until the stolen property and wanted person files were implemented. The feasibility of automating criminal history records had already been demonstrated and was never doubted.

As it turned out, implementation of the CCH file proved to be much more difficult—

for a variety of reasons, including disagreements within the FBI and between the FBI and LEAA.

In 1968 and 1969, the FBI established a working group made up of NCIC and Ident staff to begin developing plans for automating criminal history records in the FBI. As a result of disagreements over the impact of a CCH file on the maintenance of rap sheets in Ident, the FBI planning effort was temporarily halted. The initiative then moved to LEAA.

LEAA was already receiving a number of grant applications from States seeking funds to develop computerized criminal justice information systems. LEAA agreed there was a need for such systems, but was concerned that "each State might go off in its own direction, leaving us with a bewildering complex of independent and incompatible programs."² In ad-

²Project SEARCH, *National symposium on Criminal Justice Information and Statistics Systems*, Sacramento, Calif., 1970, p. 10.

dition, the total funds requested far exceeded LEAA's budget for this purpose.

LEAA therefore decided to fund a new organization called Project SEARCH to 'develop and demonstrate that a computerized criminal offender file, containing data from all segments of criminal justice, can be standardized and exchanged between States on a timely basis.'¹³ States originally participating in Project SEARCH included Arizona, California, Connecticut, Florida, Maryland, Michigan, Minnesota, New York, Texas, and Washington.

Within 14 months, working with LEAA grants, Project SEARCH developed a computerized rap sheet format and completed an on-line demonstration of the interstate exchange of Criminal history records. The demonstration linked six States with a central computer in Michigan's State Police headquarters. In this way, Project SEARCH and LEAA proved that it was technically feasible not only to automate manual history records, but to use a computerized system for the interstate exchange of criminal histories.

However, questions arose about who should operate the system and what computerized criminal history information should be maintained at the Federal and State levels. During 1970, the pros and cons of different alternatives were analyzed and debated by the Attorney General, the FBI, and LEAA, and later the Office of Management and Budget.¹⁴

¹³Project SEARCH Newsletter, Sacramento, Calif., 1969, vol. 1, issue 1.

¹⁴See Donald A. Marchand, et al., *A History and Background Assessment of the National Crime Information Center and*

On December 10, 1970, the Attorney General decided that the FBI would take over management responsibility for the CCH system, rather than LEAA, a joint LEAA/FBI entity, or a consortium of States. The FBI named the system the Computerized Criminal History (CCH) program and operated it as part of NCIC, using NCIC computers and communication lines.

The CCH program began operations on November 29, 1971, joining wanted persons and stolen property files maintained in the NCIC. On an interim basis, the CCH file was to contain the detailed criminal history of each offender whose record was entered by the States into the system. Eventually, under the single-State/multi-State plan adopted by the FBI, NCIC/CCH would maintain only summary data in the form of an index of single-State offenders, while the States would maintain detailed records. For multi-State offenders and Federal offenders, NCIC/CCH would maintain the detailed records.

Due to a variety of issues addressed later in this report, neither the single-State/multi-State plan nor any other NCIC/CCH alternative has been fully implemented.¹⁵

Computerized Criminal History Program, Bureau of Governmental Research and Service, University of South Carolina, June 1979, sec. III, "The Computerized Criminal History Program: Its Origins and Initial Implementation," especially pp. 78-86, for details of this debate.

¹⁵For a complete discussion of the history and background of NCIC/CCH, see *Ibid.* and Donald A. Marchand, *The Politics of Privacy, Computers and Criminal Justice Records* (Arlington, Va.: Information Resources Press, 1980), especially chs. 4 and 6.