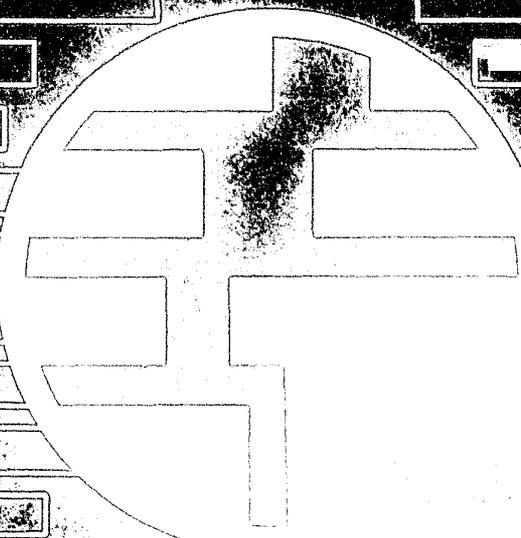


ILLINOIS
CRIMINAL JUSTICE
INFORMATION AUTHORITY

110439



U.S. Department of Justice
National Institute of Justice
110439
Please return to the Information
Center...

110439

**Annual Audit Report
For 1984-1985:**

Illinois' Computerized Criminal History System

August 1985

NCJRS

APR 11 1988

ACQUISITIONS

Illinois Criminal Justice Information Authority

**William Gould, Chairman
J. David Coldren, Executive Director
Christine Devitt, Audit Team Coordinator
Gerard Ramker, Senior Research Analyst**

**Printed by authority of the State of Illinois
August 1985
Number of copies: 300
Printing order number: 86-06**

Table of Contents

List of Tables and Figures	iii
Authority Resolution #1 (1985)	v
Certification	vi
Preface and Acknowledgements	vii
I: Executive Summary	1
Background	1
Formats of CCH Transcripts	2
Results of Previous CCH Audits	3
Findings of the 1984 Annual Audit.	4
<i>Inadequate Documentation.</i>	5
<i>Impact of CCH-Incomplete Records</i>	5
<i>Correspondence of CCH-Complete Records with Records on Other Information Systems</i>	6
<i>Findings of the Security Audit</i>	6
II: Findings and Recommendations	9
III: Introduction	15
Background	15
Overview of 1984 Audit.	16
<i>CCH-Incomplete Records</i>	16
<i>The Correspondence of CCH-Complete Records with Records on Other Information Systems</i>	17
<i>Maintenance and Security of the CCH Database</i>	18
IV: DLE Operational Policies and Procedures	19
V: CCH-Complete vs. CCH-Incomplete Records	21
CCH Database Statistics	21
Volume of Manual Transcripts Disseminated by the DLE	23
Current Status of Inmate Records Audited in 1982-83	23
Requests for CCH Records for 1984 CCH Audit.	26
Summary	27
VI: The Correspondence of CCH-Complete Records with Records on Other Information Systems.	29
PIMS-CCH Audit	30
<i>Identification Segment Audit</i>	30
<i>Summary.</i>	34
<i>Arrest Segment Audit.</i>	35
<i>Summary.</i>	37
Illinois CIMIS-CCH Audit.	38
<i>Identification Segment Audit</i>	38
<i>Summary.</i>	40
<i>Custodial Transaction Audit</i>	41
<i>Summary.</i>	42
PIMS-Illinois CIMIS-CCH Audit	43
<i>Identification Segment Audit</i>	43
<i>Comparison of Audit Findings</i>	44

Review of DLE Internal Audits of CCH Data	45
<i>Audit of CHRI Dissemination Through the Manual Rap Sheet.</i>	45
<i>Audit of CHRI Dissemination Logging Procedures.</i>	45
<i>Audit of Expungement Order Procedures</i>	45
<i>Audit Report of First Offenders</i>	45
<i>Audit Report of the Microfilm Project</i>	45
<i>Summary.</i>	46
VII: The Maintenance and Security of the CCH Database.	47
Summary	49
Illinois Department of Law Enforcement Response.	51
Bibliography	53
Appendices	55
A: CCH, PIMS, and Illinois CIMIS Identification Segment Codes	57
B: Charges Involved in PIMS Arrests Not Found on CCH	58
C: Text of Federal Regulations	59
D: Sample Computerized Criminal History Record	61
E: Audit Coding Sheets	62

List of Tables and Figures

Tables

1: CCH-Complete vs. CCH-Incomplete Records: Percentage Change Between 1982-1984 . . . . .	.22
2: CCH vs. IDOC Status of a Sample of IDOC Inmates . . . . .	.26
3: Responses to Audit Requests for CCH Records . . . . .	.27
4: PIMS-CCH ID Segment Audit: Discrepancies Per Record . . . . .	.31
5: Type of Discrepancies in PIMS-CCH ID Segment Audit . . . . .	.31
6: Summary of Findings of PIMS-CCH ID Segment Audit. . . . .	.32
7: PIMS-CCH ID Segment Audit: Summary of Discrepancies in Height . . . . .	.33
8: PIMS-CCH ID Segment Audit: Summary of Discrepancies in Weight . . . . .	.34
9: PIMS-CCH Arrest Segment Audit: Discrepancies Per Record . . . . .	.36
10: Type of Discrepancies in PIMS-CCH Arrest Segment Audit . . . . .	.36
11: Summary of Findings of PIMS-CCH Arrest Segment Audit . . . . .	.37
12: CIMIS-CCH ID Segment Audit: Discrepancies Per Record . . . . .	.39
13: Type of Discrepancies in CIMIS-CCH ID Segment Audit . . . . .	.39
14: Summary of Findings of CIMIS-CCH ID Segment Audit . . . . .	.40
15: CIMIS-CCH Custodial Segment Audit: Discrepancies Per Record . . . . .	.41
16: Type of Discrepancies in CIMIS-CCH Custodial Segment Audit. . . . .	.42
17: Summary of Findings of CIMIS-CCH Custodial Segment Audit. . . . .	.42
18: Findings of PIMS-CIMIS-CCH ID Segment Audit . . . . .	.43
19: Comparison of Discrepancy Rates Between Audits . . . . .	.44

Figures

1A: BOI Monthly Activity: Data Transmission Unit. . . . .	.24
1B: BOI Monthly Activity: Manual Transcripts Typed . . . . .	.25



ILLINOIS CRIMINAL JUSTICE INFORMATION AUTHORITY

~ RESOLUTION ~

WILLIAM GOULD
Chairman

JAMES A. SPROWL
Vice-Chairman

ALLEN H. ANDREWS
*Director of Public Safety,
Peoria*

HARRY G. COMERFORD
*Chief Judge,
Circuit Court of Cook County*

RICHARD M. DALEY
Cook County State's Attorney

RICHARD E. EAGLETON
10th Circuit Court Judge

RICHARD J. ELROD
Cook County Sheriff

FRED L. FOREMAN
Lake County State's Attorney

NEIL F. HARTIGAN
Illinois Attorney General

DONALD HUBERT
Attorney-at-Law

MICHAEL P. LANE
Director of Corrections

ROBERT E. NALL
Adams County Sheriff

FRED RICE Jr.
Chicago Police Superintendent

JAMES B. ZAGEL
Director of Law Enforcement

J. DAVID COLDREN
Executive Director

#1 (1985)

ANNUAL AUDIT REPORT 1984-85

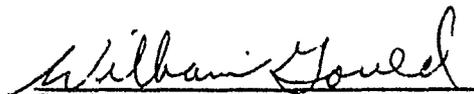
WHEREAS, the Illinois Criminal Justice Information Authority is responsible for conducting annual and periodic audits of the procedures, policies, and practices of the state central repositories for criminal history record information; and

WHEREAS, the Computerized Criminal History (CCH) System maintained by the Illinois Department of Law Enforcement has been examined by the Authority for compliance with federal and state laws with respect to security, accuracy, and completeness; and

WHEREAS, the Department of Law Enforcement has reviewed the Audit Report and has prepared a formal response for incorporation in the Report:

Therefore, be it **RESOLVED** that the 1984-1985 Annual Audit Report, as amended, is hereby adopted by the Authority and shall be released by the Chairman in accordance with the Authority's rules and regulations.

ADOPTED by the Authority this 15th day of March, 1985, by unanimous, voice vote.


Chairman

(Introduced by Judge Richard E. Eagleton. Seconded by Vice Chairman James A. Sprowl. Motion passed by unanimous, voice vote, with Director of Law Enforcement, James B. Zagel abstaining.)



ILLINOIS CRIMINAL JUSTICE INFORMATION AUTHORITY

120 South Riverside Plaza Chicago, Illinois 60606 (312) 793-8550

CERTIFICATION

The Illinois Criminal Justice Information Authority hereby certifies that the criminal history recordkeeping procedures and practices of the Illinois Department of Law Enforcement (now the Illinois Department of State Police) have been tested to ensure compliance with Federal and State privacy and security laws and regulations. During the course of examination, consideration has been given to accuracy and completeness, and delinquent disposition monitoring procedures. The Authority's examination was conducted on a test basis and, as such, cannot assure discovery of all types of irregularities.

Attached hereto is the full report of the Authority, including its findings and recommendations for 1984-1985.

A handwritten signature in cursive script that reads "William Gould".

William Gould
Chairman

Dated: 7/30/85

Preface and Acknowledgements

This audit report, issued by the Illinois Criminal Justice Information Authority, has been reviewed by the Illinois Department of Law Enforcement (DLE) according to procedures established by the Authority's Operations and Audits Committee.

All findings and recommendations contained in the report have been discussed by representatives of the DLE and Authority staff. The DLE has had an opportunity to respond to the report both in the public forum afforded by the Authority's Operations and Audits Committee and in the attached formal written response. Therefore, the findings and recommendations presented in this report represent the product of dialogue with the DLE and are not the viewpoint of the Illinois Criminal Justice Information Authority alone.

The audit benefited from the cooperation of 10 police departments that participate in the Authority's Police Information Management System (PIMS) and of their PIMS managers. The participating agencies were the Arlington Heights, Buffalo Grove, Des Plaines, Evanston, Glencoe, Harvey, Joliet, Mt. Prospect, Park Ridge, and Schaumburg police departments.

The staff of the Illinois Department of Corrections' Information Services Unit also played an instrumental role in the audit. Likewise, the staffs of the DLE's Bureau of Data Processing and Bureau of Identification contributed to the audit.

I. Executive Summary

Background

This report summarizes the findings of the fourth audit of the State central repository for criminal history record information, maintained by the Illinois Department of Law Enforcement (DLE).¹ The Illinois Criminal Justice Information Authority conducts these audits under the State requirement that the Authority "act as the sole, official criminal justice body in Illinois to conduct annual and periodic audits of the procedures, policies, and practices of the Illinois central repositories for criminal history record information."² The purposes of these annual audits are to ensure that the State repository complies with Federal and State laws regarding the privacy and security of criminal history record information, and to ensure that procedures are established to identify and correct errors promptly.

Illinois' current criminal history system is under an intensive analysis and evaluation by the DLE. This audit was designed and implemented with the intent of benefiting these efforts aimed at a redesigned criminal history record information system.³ The findings in this report are considered both in light of the current operation as well as the future system. Likewise, the recommendations in this report speak to the current system, and lend guidance for its restructuring.

The fact that the repository maintained by the DLE's Bureau of Identification (BOI) receives such scrutiny each year attests to the importance of the criminal history record information it contains. The Computerized Criminal History (CCH) system is a "systematic, computerized collection of information submitted by law enforcement agencies, prosecutors, courts, and correctional facilities, from time of arrest to final exit from the criminal justice system."⁴ Specifically, the current CCH system was designed to:

- (1) Store information from all criminal justice agencies throughout the State;
- (2) Generate cumulative transcripts of that criminal history record information (CHRI); and
- (3) Disseminate CHRI to all criminal justice (and authorized non-criminal justice) agencies upon request.

The CCH transcript (or *rap sheet*) is meant to be a cumulative record of an individual's activities within the criminal justice system. By law, however, only felony charges and serious misdemeanors are required to be reported.⁵ The rap sheet also contains identification information, such as race, date of birth, physical descriptors, and fingerprint classification. Criminal history record information is available to any criminal justice agency anywhere in the State for use in day-to-day decisions in processing persons through the system. Examples of how such information is used include the following:

¹On March 29, 1985, Illinois Governor James R. Thompson issued Executive Order No. 3 (1985), changing the name of the DLE to the Department of State Police. This change took effect July 1, 1985. Because this audit was completed before the name change became official, "Department of Law Enforcement" and "DLE" are used throughout this report.

²Illinois Revised Statutes, Ch. 38 par. 210-7(i).

³28 Code of Federal Regulations (CFR) 20.3(b) defines criminal history record information as "information collected by criminal justice agencies on individuals consisting of identifiable descriptions and notations of arrests, detentions, indictments, information, or other formal criminal charges, and any disposition arising therefrom, sentencing, correctional supervision, and release. The term does not include identification information such as fingerprint records to the extent that such information does not indicate involvement of the individual in the criminal justice system." In this report, the DLE's Computerized Criminal History (CCH) system refers to that computer system which produces transcripts reflecting criminal history record information for offenders in Illinois.

⁴Law Enforcement Assistance Administration, *Comprehensive Data Systems Program Guideline Manual*, 1972.

⁵Illinois Revised Statutes, Ch. 38-206-5, 206-2.1 *et seq.*

- State's attorneys rely on rap sheets to decide how to approach a case and what charges to file in light of a defendant's criminal history. For example, theft of a firearm⁶ could be filed as a Class 3 felony instead of as a Class 4 felony if it is a second or subsequent offense.
- Judges rely on rap sheets to set bond for defendants and to decide which defendants not to release prior to final disposition of a case. Judges also use rap sheet information to sentence convicted offenders.
- Probation and other community corrections agencies rely on rap sheet information to formulate treatment programs and to classify offenders for more or less supervision.
- Corrections officials need to classify persons remanded to their custody for appropriate and secure housing, work assignments, and so forth. Knowledge of prior criminal history is essential in making these decisions.

The timeliness, accuracy, and completeness of CCH information are of utmost importance if these and other decisions are to be supported.

Formats of CCH Transcripts

A criminal history record is initiated by an arrest fingerprint card, submitted by the arresting agency. All subsequent activity on that case (prosecution, court disposition, incarceration, etc.) is reported by each agency responsible for the action, and is posted in sequence on the rap sheet. Time limits have been set by law within which each agency is to report its dispositions,⁷ and further, within which the DLE is to enter the reported information on the CCH system.

Presently, CCH information is available in several formats, which vary in detail and speed of accessibility.

For records that have been entered completely onto the CCH database, a *summary* response is available via the Law Enforcement Agencies Data System (LEADS) network of computer terminals. This response contains identifying information, as well as a summarized count of arrests and convictions by charge. It is the most timely format of CCH information about an individual, although it is not very detailed. Law enforcement personnel rely on these summary responses when making immediate decisions in the field. In addition, a *hardcopy* transcript (or rap sheet) of all record information entered on the CCH database also can be requested from the BOI. This information will be transmitted electronically (via Telefax) or mailed. The DLE refers to all records that are recorded completely on the CCH database as "CCH-complete" records.

Not all criminal history records maintained at the BOI are completely automated, however. Approximately 58 percent of the 1.54 million records on the system are termed by the DLE as "CCH-incomplete." These records are defined as computerized records which do not contain *all* information from an individual's manual file. They include:

- Records which have not experienced arrest activity since 1976;
- Records for which the quality of fingerprints submitted precludes positive classification;
- Records for which some problem exists that does not allow additional information to be posted (because of system constraints or problems with the source documents); and,
- Records which have experienced some activity since 1976, but for a number of reasons have not been entered on the CCH system.

⁶Illinois Revised Statutes, Ch. 38-16-1(e),(2).

⁷Illinois Revised Statutes, Ch. 38-206-2.1 *et seq.*

Inquiries made via the LEADS network for CCH-incomplete records will result in a message stating that no automated record exists, but that criminal history record information is available in a manual record file. Thus, a law enforcement officer must make an additional request for a manual file to obtain the desired information. BOI staff retrieve the source records and manually type and transmit a response. Under special circumstances, the record will be entered immediately on the CCH system for faster dissemination. Manual rap sheets also can be transmitted to an inquiring agency via Telefax. This results in less timely access to the information, and repeated requests for the same information increases the BOI staff's workload. Perhaps the most serious drawback of manually produced rap sheets involves serious and/or repeat offenders. Criminal justice decision makers, in dealing with such offenders, should be able to take advantage of the timely access of CCH-complete records rather than being forced to rely on incomplete records which involve inherent delays.

The automated rap sheets contain detailed information on arrest and dispositional events available from BOI sources. Manual records, on the other hand, although more detailed than the summary responses obtained via LEADS, are not as detailed as automated transcripts.⁸

Results of Previous CCH Audits

While the DLE has acted upon some past audit findings and recommendations,⁹ previous audits of the CHRI system (Authority, 1983; Office of the Auditor General, 1982; Illinois Criminal Justice Information Council, 1980, 1979) have documented serious recurrent problems that compromise the timeliness and usefulness of that information:

- Missing dispositions. A significant number of arrests exist on rap sheets with no subsequent dispositions. Although some of these dispositions are missing because the corresponding cases have not been disposed of in court, the majority actually have been resolved.

Missing and delinquent dispositions make it more difficult for criminal justice officials to make decisions that should be based on knowledge of prior convictions. This is especially true for prosecutorial, bail, and sentencing decisions.

- CCH system design deficiencies. Original CCH database programming anticipated neither changes in methods of processing criminal justice data, nor all the alternative ways that criminal justice events could be initiated and disposed of. The result is an inflexible, narrowly focused approach to processing transactions. For example, all criminal history transactions must be initiated by an arrest fingerprint card. A case initiated by grand jury indictment may not produce a fingerprint card, and so will not be reflected on the defendant's rap sheet. A court disposition ultimately may be received by the BOI for posting, but since there is no arrest posted in connection with the court action, the disposition cannot be posted.¹⁰ An audit conducted by the Office of the Illinois Auditor General (1982) noted that the CCH system does not accommodate all of the ways in which the courts dispose of cases, nor is it able to reflect more than one disposition per charge.

The inability to store more than one disposition per charge means that common occurrences, such as probation revocations and subsequent new prison sentences, cannot be reflected on the rap sheet. Instead, some combination of both sentences is entered, without any indication on the rap sheet that the sentence and term have been altered. Thus, it is likely that decisions are made based on erroneous assumptions about CCH data (for example, that the person already was serving some sort of imprisonment and/or probation, instead of being seen as a probation violator).

⁸28 CFR section 20 *et seq.*

⁹The microfilming of record files as a backup protection is one example of such action.

¹⁰While statutes [38 IRS 206-2.1(d)] provide a mechanism for fingerprinting after sentencing in such cases, the records still would be received out of chronological sequence and, under current CCH system constraints, would cause the same problems.

- CCH-incomplete records. At least half of the CCH database consists of "incomplete" records (that is, those records for which only identification information and possibly some arrest, court, or custodial dispositional information was entered on the system). As previously discussed, CCH-incomplete records are more time-consuming to produce and less readily available than are CCH-complete records.

Also, a previous Authority audit (1983) found that serious and/or repeat offenders are more likely to have CCH-incomplete records than are less serious offenders. These records generally are subject to more reporting and posting problems. However, these serious CCH-incomplete cases are the very ones that should be most complete, accurate, and immediately accessible.

- Accuracy and completeness of CCH data. Previous audits have examined the accuracy and completeness of rap sheet entries as compared with the source documents (arrest card, disposition reports, etc.) used during data entry. In general, it has been documented that, although the *percentage* of inaccuracies has not been large, because of the extremely large volume of CCH records, even a small percentage translates into thousands of rap sheets with some inaccuracy or omission. It also has been documented that manual transcripts contain somewhat more inaccuracies and omissions. These rap sheets are not subject to the same data entry checks and constraints as are automated rap sheets.

These are examples of some of the most serious problems of the CCH database, as revealed by previous audits. These examples illustrate some of the major concerns regarding the usefulness of CCH data. They also show why the audit function, the mechanism for revealing these problems, is so important.

Another concern in the present audit derives from the increasing sophistication in criminal justice agencies' information systems. As agencies throughout Illinois continue development in this area, it becomes increasingly necessary to examine how the different information systems and databases compare and communicate with one another. This concern gives this audit of the accuracy and completeness of CCH records a different perspective than that of previous audits. Rather than point to errors or inconsistencies on a item-by-item basis, the audit team felt it vital to examine systematic or procedural differences among information systems. In other words, the audit focused on identifying the types and extent of *systematic* discrepancies, as opposed to producing an item-by-item accounting of specific inaccuracies.

Findings of the 1984 Annual Audit

The methodologies employed in this audit rely on computer-assisted information systems and technology to a greater extent than did previous audits. Therefore, it was possible to investigate many diverse aspects of the CCH system database. These include:

- The impact of CCH-incomplete (partially automated) records.
- Correspondence of CCH-complete records with records of other information systems. This correspondence was measured by comparing records for the same individuals on two databases independent of the CCH system. In addition to identifying discrepancies among the records, this audit also revealed differences in the maintenance and operation of the independent information systems.
- Security of the CCH database from unauthorized access or intentional misuse. The DLE's mandate to act as the repository for the State's criminal history record information dictates that this information be kept secure from these threats.

The following presents the findings of the 1984 audit and discusses the implications of these findings on the ability of Illinois' criminal justice system to administer justice and ensure public safety.

Inadequate documentation

One of the most important findings underlying each audit component was the pervasive lack of documentation of the DLE's policies and procedures. The DLE operates without benefit of formalized documentation of BOI operations or security procedures. What little documentation exists is in the form of internal memoranda, but even these are not compiled in any centralized location.

The significance of this finding is serious and far-reaching. The BOI processes hundreds of thousands of transactions regarding the creation and dissemination of CHRI each year, 24 hours a day. Without easily accessible manuals, there is no assurance that these transactions are being handled properly or in a consistent manner.

Because of the cumbersome programming constraints of the current CCH system, situations commonly arise that require clarification and interpretation of procedures (for example, the case of multiple dispositions received for a single charge, information received that does not conform to DLE entry codes, etc.). There is no guarantee that the *ad hoc* procedures developed by shift supervisors are communicated to all staff that need to know them, or that the procedures are being followed. There is some evidence that this lack of documentation affects the quality of staff training and, ultimately, the quality of the CCH data, although the exact magnitude of such effects cannot be determined.

Outside users of CCH information are not notified that rap sheet data have been modified to satisfy programming constraints. It is possible that critical decisions are being made based on erroneous assumptions and interpretations of that information. This situation compromises the essential purpose of the CCH system--to provide accurate and timely criminal history record information.

Impact of CCH-Incomplete Records

CCH-incomplete records continue to represent more than 50 percent of the entire CCH database. The proportion of these records, compared with CCH-complete records, has increased slightly¹¹ during the past 30 months. It also was found that the production of manual transcripts continues to represent a small, but consistent percentage of the total responses to requests for CHRI.

Research in the area of recidivism has indicated that a relatively small number of offenders are responsible for the majority of criminal activity.¹² These repeat offenders, while few in number, account for the bulk of arrests, dispositions, and incarcerations taking place in the criminal justice system. It is imperative that the most complete, accurate criminal history record information about these offenders be available to the system's decision makers. Enabling law enforcement officials, prosecutors, and judges to identify chronic criminal offenders through the analysis of complete criminal histories will aid in processing these individuals.

For the DLE, these principles translate into a critical need for complete and accurate records on repeat and/or serious offenders. Furthermore, it is imperative that the DLE make these records accessible on-line so that the records can be disseminated in a more timely fashion. In simple terms, this means assuring that the records of repeat and/or serious offenders are CCH-complete records.

¹¹Some of this increase in CCH-incomplete records is due to the DLE's response to a recommendation made by the Auditor General's audit (1982) cited earlier. The DLE began to enter on the computer system identification segments of persons whose records were previously only identifiable through a manual record file. This practice, in effect, created a large number of CCH-incomplete records on the database, although the exact volume remains undetermined. The DLE's purpose in creating such records was to provide "definitive negatives" for users inquiring about the existence of criminal records. Prior to the entry of these records, the database did not include identification information for all individuals with criminal records in Illinois. A small proportion of these identification records for offenders born before 1920 remain to be entered on the system.

¹²See, for example, *Report to The Nation on Crime and Justice: The Data* (Bureau of Justice Statistics, 1983); or *Returning to Prison* (Bureau of Justice Statistics Special Report, November 1984).

Past audits have identified Illinois Department of Corrections (IDOC) inmates and repeat offenders as having a greater possibility than less serious, non-repeat offenders to have incomplete records under the current CCH system. Because of the importance of this issue, this year's audit again examines the problem.

This situation has potentially serious implications which could affect criminal justice decisions, as well as public safety. Law enforcement officials, prosecutors, and judges need the most timely and complete information available on serious offenders. As many as one-third of all released inmates will be back in prison within three years. As the previous audit (Authority, 1983) stated, the continued incomplete status of such records proliferates time-consuming production of manual rap sheets and creates the possibility that the information disseminated contains inaccuracies and omissions caused by the lack of computerized edit checks.

Correspondence of CCH-Complete Records with Records on Other Information Systems

The CCH-complete transcripts generally correspond to entries for the same person in other information systems. In this part of the audit, data elements from the Police Information Management System (PIMS) and the Correctional Institution Management Information System (CIMIS) at the IDOC were compared with corresponding data elements on the CCH database. Discrepancies serious enough to preclude a "hit" (that is, to conclude erroneously that a record does not exist on the CCH database) were detected in a small percentage of cases. The largest percentage of discrepancies observed was in physical description information, such as height and weight. This information supports the identification of persons by users of the information. The DLE has no procedure to update these descriptors after they are first entered on the system, and they become increasingly less useful over time, given natural changes in physical appearance due to aging, illness, accidents, and so forth.

Missing court dispositions continue to be a problem for the CCH system. Fifty percent of the audited PIMS agency arrest records did not have dispositions recorded on the CCH transcripts, although a majority of these did have disposition information in the PIMS database. Without disposition information, informed decisions based on prior conviction information are very difficult.

A number of arrests in the PIMS database were not reflected on the CCH responses, and a number of PIMS arrestees had no CCH record. Many of these non-reported arrests were for municipal ordinance violations or other petty criminal offenses which are not required by law to be reported to the DLE. However, some were for offenses that might be reportable. This does not mean that these arrests were, in fact, reported to the DLE (that is, that the DLE received arrest fingerprint cards in these cases). However, the findings demonstrate that the DLE needs to audit local agencies' compliance with State and Federal regulations regarding the handling and reporting of criminal history information. Federal regulations since 1978 require that the DLE conduct compliance audits, but the department has conducted no such audits to date.¹³

Findings of the Security Audit

Physical security at the DLE's Bureau of Data Processing (BDP) in Springfield is compromised by the fact that the DLE is only a tenant in the building, and thus has no control over the hiring or screening of janitorial staff. These employees are allowed free and easy access to all areas of the building, including the computer room. As a result, they should be subject to the same security clearance procedures as any other employees who have access to that sensitive area.

In addition, the BDP's building is open to the public, and is burdened by a constant flow of pedestrian traffic and activities. The Command Center, which is responsible for providing building security, is reported to be understaffed.

¹³28 Code of Federal Regulations, 20.21(a).

The security of the CCH database at the BDP in Springfield also is compromised by several factors, including: the fact that access to the computer system is not limited by user passwords; terminals capable of deleting records frequently are left unattended; computer programs and related documents are not stored in secured locations, but are left on open shelves; and logs that record information on all database transactions reportedly are not examined routinely for evidence of unauthorized access.

The physical security at the BOI facility in Joliet surpasses that of the Springfield installation, primarily because the building is not open to the volume of non-criminal justice personnel traffic that the latter facility is. Some deficiencies were observed, however. An entrance alarm monitoring system monitors several entrances, but does not allow easy identification of an activated alarm. Although there is an electronic locking device on the front doors, the receptionist has no way to communicate with visitors seeking entry, except to look at them through the glass partition. In addition, the rear entrance is unattended, and at the time of the audit inspection was propped open to allow workmen easy access. The rear door itself is not physically secure, being constructed almost entirely of glass.

While, to the best knowledge of the DLE staff, no serious breach of security has occurred to date, the DLE's current physical and computer security measures may not protect the CCH database and supporting source documents adequately from unauthorized access and intentional misuse of the criminal history record information.

II. Findings and Recommendations

Finding Number 1

The Bureau of Identification (BOI) has no up-to-date manual of policies and procedures for uniform data entry or for the standardized training of staff in the use of Computerized Criminal History (CCH) information. In addition, there are few or no documented security procedures concerning the handling of criminal history information or the physical security of the installations. The little documentation that exists is in the form of internal memoranda between shift supervisors and various staff regarding how specific problems are to be handled. Yet, even these are not compiled in any centralized location by management to serve as a reference source for staff or other users of criminal history record information (CHRI).

This is one of the most significant findings of this audit. The potential ramifications of the lack of up-to-date documentation are serious and far-reaching. In some instances, the *ad hoc* procedures memoranda are actually having the effect of creating misleading data. Users of the CCH information, such as police and judges, are not notified that the original data have been modified procedurally. As a result, it is entirely possible that critical decisions are being made in the rest of the criminal justice system based on erroneous assumptions. Furthermore, there is no assurance that any of these memoranda are being followed in any uniform way.

An example is the procedure used to process probation violations, where the subject is resentenced to prison. The current programming of the CCH system allows only one disposition to be recorded for each charge. To get around the structural problems of posting this new information on CCH, a practice was adopted to modify the probation sentence to read "Probation and Imprisonment," with the modified sentence date as the original sentence date, and a new sentence length that reflects the time actually spent on probation plus the new imprisonment term. Thus, the original probation sentence term may be lost when a new imprisonment sentence is imposed. The CCH transcript in such a probation violation case will actually read "Imprisonment/Probation," possibly misinforming a judge that the person already has spent time in prison, when in reality, an original probation sentence has just been revoked and a new imprisonment sentence imposed.

Since this audit had to be conducted without benefit of any formal knowledge of BOI policies and procedures, it was impossible to assess the use of these procedures or their effect on the completeness and accuracy of the CCH database.

Recommendation

The Authority recommends that the BOI develop an up-to-date policies and procedures manual for all operations relating to CHRI, and that the bureau institute an administrative mechanism to assure that the policies and procedures are followed. A manual also should address the security at the Joliet and Springfield facilities. Manuals should be available to serve as:

- (1) A training aid for appropriate Department of Law Enforcement (DLE) personnel, and
- (2) An aid to all users of criminal history record information in understanding and interpreting criminal history transcripts and their production.

In addition, the Authority recommends that all future CCH data disseminations that the BOI has revised procedurally be marked clearly with a warning that the materials do not reflect original source documents, but have been altered to satisfy the CCH information system's programmatic constraints. This change need not be retroactive; it could be a proactive change after a specified starting date and after notice is sent to CCH users explaining the warning.

Finding Number 2

The previous audit (Authority, 1983) recommended the BOI strive to increase the proportion of "CCH-complete" records, with particular emphasis on converting the records of more serious (repeat) offenders.

At that time, however, the DLE was in the process of adding to the CCH database records for all persons born after 1920, if their records had not yet been computerized. This was undertaken in response to a recommendation made by the Office of the Illinois Auditor General (1982) to facilitate the search for a record when an inquiry is made. Until at least all identification segments were established on the database, a manual name file also had to be searched if an inquiry on the computerized name file resulted in a "no record" response. By adding all of these cases' identification segments to the database, it is now possible, using the computerized name-check routine alone, to determine definitely whether or not a person born after 1920 has a CCH record.

This record entry project was ongoing both before and after the previous audit. The addition of that large a number of identification segments to the database had some impact on the proportion of "CCH-incomplete" records in the database, as reflected in the CCH database statistics obtained in both the previous audit and this year's audit.

In October 1982, approximately 57 percent of the database records were marked as CCH-incomplete. Since that time, the database has grown by more than 30 percent (from 1.18 million to 1.54 million records). However, the proportion of records flagged as CCH-incomplete has changed very little. In fact, the proportion has increased slightly, partially because the record entry project caused the conversion of records to CCH-complete status to be a lower priority.

The previous audit (Authority, 1983) investigated the status of a sample of inmates admitted to the Illinois Department of Corrections (IDOC) during the last 20 years. It found that 49 percent of these inmates had CCH-incomplete records. Another sample of IDOC inmates admitted between June 1982 and June 1983 was chosen for investigation in this year's audit. This sample was not intended to be comparable with the previous inmate sample, but rather to reflect the same time period used in selecting the sample of Police Information Management System (PIMS) arrests. It was found that 31 percent of the inmate sample had CCH-incomplete records. By comparison, only 2 percent of the sample of PIMS arrestees, at least 25 percent of which were first offenders, had CCH-incomplete records.

Furthermore, a follow-up of inmate records found to be CCH-incomplete by the previous audit revealed that only 16 percent of those records had been converted to CCH-complete status, even though 53 percent of that sample were no longer in the custody of the IDOC.

The audit concludes:

- 1) Little progress has been made in converting CCH-incomplete records to CCH-complete status since the previous audit, and
- 2) There is no indication that any consistent policy has been instituted to comply with the Authority's 1982-1983 audit recommendation to convert records of serious/repeat offenders from incomplete to complete status.

Recommendation

Since some of the database records are CCH-incomplete because of programmatic constraints on posting certain criminal record information, the Authority recommends that the BOI eliminate the constraints currently placed on CCH data entry. The programs currently prohibit posting of subsequent activities for an arrest event (such as custodial information) until all preceding events have been reported (such as the state's attorney's decision to file). Removal of these constraints should result in a valuable increase in the number of CCH-complete records on the database, particularly for those cases that have arrest segments already posted on the system.

The Authority recommends further that the BOI institute a policy to ensure that the records of all serious/repeat offenders are converted to CCH-complete status no later than when notice of mandatory supervised release or discharge is received from the IDOC.

Finding Number 3

Internal audits conducted by the BOI do not encompass all aspects of CHRI records and procedures, and are not conducted according to any discernible, systematic schedule of audit periods.

The findings of these internal audits reveal consistent, and in some cases, unacceptably high percentages of errors. In particular, the audit of the microfilming process for source (paper) documents revealed that improper filming or preparation procedures occurred in 28 percent of the microfilm images inspected. For the purpose of this audit, errors have been categorized into three types: 1) improper filming that led to useless images (27 percent of the errors detected, translating into 1.27 percent of the total images audited); 2) failure to follow preparation procedures established to comply with current statutory reporting requirements, failure to correct mistakes made during original document processing, and failure to correct filing errors that have occurred during the last 50 years (62 percent of the errors detected); and 3) miscellaneous errors, such as filming the back of a document already filmed (11 percent of the errors detected). The last two error categories would not result in the loss of any information if the source documents were shredded before these errors were corrected.

Only a few of the audit memos indicated that the errors uncovered by the internal audits had been corrected. There also was no evidence in these documents that the results of the internal audits were used to search for and correct revealed database errors. While the DLE has stated that the errors detected in the audits were corrected, the level of errors reported in the internal audit memos indicate the need to establish additional controls for data handling and data entry procedures.

Recommendation

The Authority recommends that the BOI expand its internal audit program to include the procedures and types of CHRI records not addressed to date. In addition, the Authority recommends that the internal audits focus more on quality control.

There is no formal inspection program where all transactions are inspected for errors as they are completed. Yet, the level of errors detected in the internal audits indicates that, where appropriate, data quality controls in the form of strict data entry error detection devices or techniques should be instituted. In addition, error correction should not be limited to the sample just audited, but should be conducted for the entire database, where appropriate.

The Authority also recommends that internal auditing be scheduled as close in time as possible to the transaction in question. At a minimum, such a policy should be instituted immediately for the microfilming process, where source documents potentially could be destroyed before acceptable microfilm images are produced.

Finding Number 4

The source of a substantial number of discrepancies between information in police and corrections records and CCH records was the *race* or *ethnic origin* element. Forty percent of the total discrepancies observed in primary identification elements (*State identification number, name, race, sex, and date of birth*) involved offender race/ethnic origin information. Most of these discrepancies occurred because the DLE uses the National Criminal Information Center (NCIC) race codes, which do not include separate codes for persons of Hispanic origin. Such cases are entered as "White" in the CCH system.

Recommendation

The Authority recommends that the DLE revise its policy on this issue to collect and preserve on the CCH database as much race and ethnic identification information as possible. The codes should be expanded to capture as much race/ethnic origin identification information as possible. If this were done, the data would reflect more accurately the racial composition of offenders. This change need not be retroactive; it could be a proactive change for all new CCH records after a specified date.

Finding Number 5

Discrepancies among the Police Information Management System (PIMS), the IDOC Correctional Institution Management Information System (CIMIS), and the CCH database in secondary identification elements (*hair color, eye color, height, and weight*) account for 87 percent of all discrepancies in the identification segment elements (primary and secondary identification elements combined). These secondary elements are not included in the search parameters used to locate a record on the CCH system. However, such discrepancies make physical identification of the person problematic. For example, nearly 10 percent of all height and weight discrepancies were great enough to compromise physical identification of an individual. Differences in height of four inches or more and differences in weight of 30 pounds or more were detected in approximately 7 percent of all the PIMS records audited.

Hair and eye color discrepancies arise primarily from variance in the code tables used by the three different databases. Discrepancies in height and weight arise from the lack of updating mechanisms in CCH, among other reasons. These physical descriptors usually are self-reported by offenders instead of actually measured by police, which could lead to inconsistencies as well.

The identification segment on the CCH rap sheet usually originates when the first arrest card is entered onto the database. Physical descriptors generally are not revised after the posting of the first arrest information. Therefore, discrepancies increase with time. The BOI has no formal procedure for handling updates to physical descriptor elements.

Recommendation

The Authority recommends that the BOI institute a formal procedure for updating physical descriptor elements. Furthermore, the BOI should issue written guidelines and standard procedures for verifying questionable physical descriptor information submitted by an agency.

Finding Number 6

The lack of dispositional information in the CCH database seriously compromises the usefulness of CCH information. As every previous audit of the CCH database has documented (Illinois Criminal Justice Information Council [ICJIC], 1980, 1981; Office of Illinois Auditor General, 1982; Authority, 1983), missing dispositional information is a serious problem for the CCH system. Of the 1,074 police arrests examined in the current audit, 50 percent had no disposition posted on CCH, though a majority of these cases had dispositions in the PIMS database.

Several factors account for these problems:

- (1) Some reporting agencies (police departments, state's attorneys, and clerks of the court) are not in compliance with the Uniform Disposition Reporting Law (Illinois Revised Statutes, Ch. 38-206-2.1 *et seq.*).
- (2) Structural constraints in the CCH system prohibit the entry of information out of chronological sequence (for example, entering a custodial card from the IDOC prior to a court disposition is not allowed). Thus, while the IDOC may submit custodial information on a person, the information will not be added to the person's computerized criminal record without a preceding arrest record.

Recommendation

The Authority reiterates certain recommendations made in previous audits (ICJIC 1980, 1981; Office of the Auditor General, 1982; Authority, 1983).

The BOI should issue regular, periodic reports to agencies not complying with the Uniform Disposition Reporting Law. The BOI should forward these reports to the Authority and to other agencies that are in a position to monitor compliance with the law. In connection with this recommendation, the DLE should institute a program of regular, periodic audits of the policies and procedures followed by appropriate samples of local agencies, with specific regard to processing criminal history record information.

The Authority also recommends that the CCH system be redesigned to allow the entry of all valid criminal justice event information, regardless of the chronological order in which the BOI receives it. This entry would have the additional benefit of being a "flag" for delinquent transactions. The receipt of a court or custodial transaction would indicate that all previous dispositions on the case (for example, a state's attorney's decision to file charges) have occurred and should already have been reported, or should be reported within the time frames required by law.

Finding Number 7

The physical security of the DLE's Bureau of Data Processing (BDP) facility in Springfield is compromised by the following problems:

- (1) Because the DLE is a tenant in the facility, DLE staff have no control over the screening of contractual employees, such as janitors, who have access to sensitive areas of the building.
- (2) The Command Center, which is responsible for responding to breaches of security and other emergency situations, reportedly is frequently understaffed. Civilian workers are called upon to assist sworn personnel in certain circumstances.
- (3) The building is open to free and easy public access. Concerts, volleyball leagues, and many other public activities are held in the facility. There is a constant flow of pedestrian traffic.

Recommendation

The Authority recommends that the DLE take steps to increase the overall security of the BDP facility in Springfield. The DLE should be allowed to screen all persons working in the facility who are given access to sensitive areas. The DLE also should provide sufficient physical security for the facility.

Finding Number 8

The following problems compromise the physical security of the DLE's BOI facility in Joliet:

- (1) While visitors at the front entrance to the facility are in full view of the receptionist on duty, it is impossible for the receptionist to communicate with persons awaiting access to the facility without first allowing them such access.

- (2) The facility's rear entrance is unguarded, and at the time of the audit team's on-site visit it was propped open to allow workmen easy access to the interior of the rear of the building. In addition, the door is not physically secure, being constructed nearly entirely of glass. The door is equipped with an alarm, to which the receptionist is supposed to respond.
- (3) The receptionist is supposed to respond to all activated entrance alarms. However, the current alarm system configuration makes it very difficult to identify the specific entrance opened.

Recommendation

The Authority recommends that the front entrance to the Joliet facility be equipped with a communication system that allows the receptionist on duty to query persons waiting to gain access to the building. The facility's rear entrance should be constructed to secure it effectively from unauthorized or undetected access. The alarm system in operation should be reconfigured to allow quick identification of the specific opened entrance.

Finding Number 9

The security of CHRI data at the BDP facility in Springfield is compromised by the following:

- (1) Computer terminals with the capability of modifying or deleting CCH data are left unattended frequently.
- (2) CHRI system programs and program-related documents are left in binders on bookshelves.
- (3) User passwords are not used to limit access to the system. Furthermore, different levels of access are not employed as security precautions.
- (4) Logs of all system transactions are not examined for evidence of unauthorized access.

Recommendation

Computer terminals that permit access to CCH data should be equipped with a locking device to secure the terminals when they are left unattended. Computer programs and program-related documents should be kept in a secure place where they are not subject to unauthorized or public inspection. The computer system should be equipped with user passwords, with accompanying restrictions on levels of access allowed each user. The logs maintained of system transactions should be examined for evidence of unauthorized access or attempted unauthorized access.

Finding Number 10

The security of CHRI data at the BOI facility in Joliet is threatened by the following:

The receptionist's duties frequently include handling sensitive information, such as filling envelopes with CHRI, in full view of visitors or other unauthorized persons. If the receptionist is called away from the reception area, this CHRI is left unprotected from possible theft or loss.

Recommendation

The Authority recommends that CHRI data not be allowed in unsecured areas of the BOI facility. Until the security of the reception area can be improved, the current practice of having receptionists handle this information should be discontinued.

III. Introduction

Background

Criminal history records are the most widely used documents in the criminal justice process. Agency officials rely on criminal history record information to administer justice and ensure public safety at numerous points in the adjudication process. For example:

- State's attorneys rely on rap sheets to decide how to approach a case and what charges to file in light of a defendant's criminal history. For example, theft of a firearm¹⁴ could be filed as a Class 3 felony instead of a Class 4 felony if it were a second or subsequent offense.
- Judges rely on rap sheets to set bond for defendants and to decide which defendants not to release prior to final disposition of a case. They also use rap sheet information to sentence convicted offenders.
- Probation and other community corrections agencies rely on rap sheet information to formulate treatment programs and to classify offenders for more or less supervision.
- Correctional personnel rely on this information to help classify inmates for more or less secure institutional settings and for treatment decisions.

Research in the area of recidivism indicates that a relatively small number of offenders are responsible for the majority of criminal justice activity.¹⁵ These repeat offenders account for the bulk of arrests, dispositions, and incarcerations taking place in the criminal justice system. Therefore, it is imperative that the most complete, accurate criminal history record information possible be available to the system's decision makers. Enabling law enforcement officials, prosecutors, and judges to identify these chronic criminal offenders through the analysis of complete criminal histories will aid in the just processing of these individuals.

For the Illinois Department of Law Enforcement (DLE), these principles translate into a critical need to have the records of repeat and/or serious offenders be complete and accurate. Furthermore, it is imperative that the DLE make these records accessible "on-line" so that the records can be disseminated in the most timely fashion. In simple terms, this means assuring that the records of repeat and/or serious offenders are "CCH-complete" records. Past audits have shown that Illinois Department of Corrections (IDOC) inmates and repeat offenders have a greater probability, under the current CCH system, to have incomplete records. Because of the importance of this issue, this year's audit again examines the problem.

Because criminal history record information (CHRI) is used extensively to make informed criminal justice decisions, these records are the cornerstone upon which the quality and integrity of Illinois' criminal justice system rests. The DLE maintains a CHRI repository in Illinois. The Illinois Criminal Justice Information Authority has been mandated by statute¹⁶ to act as the sole, official criminal justice body in Illinois to conduct annual and periodic audits of the procedures, policies, and practices of the State central repositories for criminal history record information. By virtue of its mandate to coordinate the use of in-

¹⁴Illinois Revised Statutes Ch. 38-16-1(e),(2).

¹⁵See *Report to The Nation on Crime and Justice: The Data*. Washington, D.C.: Bureau of Justice Statistics, 1983; or, *Returning to Prison*. Washington, D.C.: Bureau of Justice Statistics, Special Report, November 1984.

¹⁶Illinois Revised Statutes, Ch. 38-210-7(i).

formation in the criminal justice system,¹⁷ the Authority approaches the issues surrounding the quality and integrity of CHRI from a broad, "systemic" perspective. Therefore, the purpose of the audit is more than the traditional discovery and correction of factual errors. Because of the importance of rap sheet information to the administration of justice at every level of adjudication, the audit also informs decision makers about the quality of the information that is the foundation for their decisions. Not only the DLE, but every criminal justice decision-making body in the State has a vital interest in maintaining and improving the quality of Illinois criminal history record information.

Five audits of the CHRI repository have been conducted since 1979.¹⁸ The first two of these were done by the Illinois Criminal Justice Information Council (ICJIC), a predecessor of the Authority. The Illinois Auditor General's Office completed an extensive audit in 1982. The present audit is the second conducted by the Authority since its creation in 1983. The findings and recommendations from previous audits served as a guide for this audit.

Overview of 1984 Audit

The DLE is analyzing and evaluating the current criminal history system, with the hope of producing a new and improved system. This year's audit was designed and implemented to benefit these redesign efforts. The findings in this report are considered in light of both the current operation and the future system. Likewise, the recommendations in this report address the current system, and lend guidance for its restructuring.

This year's audit of the CHRI system focused on three issues with systemic implications on the quality and integrity of criminal history record information:

- (1) The impact of "CCH-incomplete" (partially automated) records.
- (2) Correspondence of CCH-complete records with records on other information systems. This correspondence was measured by comparing records for the same individuals using two independent databases and the CCH system. In addition to identifying discrepancies among the records, this audit also revealed differences in the maintenance and operation of the independent information systems.
- (3) Security of the CCH database from unauthorized access or intentional misuse. The DLE's mandate to act as the repository for the entire State's criminal history record information dictates that this information be kept secure from these threats.

CCH-Incomplete Records

A CCH record is a Computerized Criminal History record transcript (commonly referred to as a "rap sheet") produced by the the DLE's criminal history record information system. CCH-complete records are those which are available to users almost instantaneously through telecommunications equipment such as teletype or facsimile transmission hardware (for example, Telefax). These records are considered complete as far as containing all known information about an individual's arrests, convictions, and incarcerations.

The status CCH-incomplete is assigned to criminal history records which are not completely computerized with regard to all the information contained in the manual record. If a record is marked "incomplete," it cannot be disseminated to users on-line, which is the most timely manner to disseminate the information. A person inquiring about such a record is referred to a manual file or *jacket* number which contains the original source documents from which a computerized or manually typed response is produced.

¹⁷ Illinois Revised Statutes, Ch. 38-210-7(a),(b).

¹⁸ While the DLE in the past has acted affirmatively upon some audit findings and recommendations, previous audits of the CHRI system have documented serious recurrent problems that compromise the timeliness and usefulness of that information. The *Executive Summary* portion of this report delineates these recurring issues.

Clerks at the DLE are called on to update an existing manual transcript or type a new transcript from these documents, which then is disseminated to the requesting agency or individual.

The Authority's 1983 audit of the CHRI database examined the status of the entire database with respect to the proportion of CCH-complete vs. CCH-incomplete records in the system at certain times. That audit found that more than 56 percent of the 1.18 million records in the system then were marked as incomplete. The audit further revealed that 49 percent of a sample of inmates in the custody of the Illinois Department of Corrections, chosen to represent all inmates in custody at the time, had records flagged as CCH-incomplete.

Expanding upon those findings, this year's audit attempts to portray a more elaborate picture of the extent and nature of incomplete criminal history records. Three criteria were used in this examination:

- (1) An analysis of the volume of manual (that is, CCH-incomplete) transcripts the DLE disseminated to users during a 30-month period (January 1982 through June 1984);
- (2) An analysis of a follow-up to the last audit's findings regarding the CCH status of a sample of IDOC inmates; and,
- (3) An analysis of the record responses to the audit team's requests for CCH rap sheets examined in this year's audit.

These analyses provide a multifaceted approach to the CCH-complete vs. CCH-incomplete issue.

The Correspondence of CCH-Complete Records with Records on Other Information Systems

As criminal justice agencies throughout Illinois continue to develop increasingly sophisticated information technologies and systems for their own use, it has become necessary to examine how these different systems can or do communicate with one another. Rather than simply pointing to errors or inconsistencies on an item-by-item basis, such an examination should evaluate systematic or procedural differences among criminal justice information systems, differences that affect coordinated information flow among them. In other words, rather than detecting and recording sources of errors in a specific record, it is more critical to look at discrepancies among systems as symptomatic of a more basic problem. For example, what can be gained by having information systems maintain individuals' records, if the various systems use distinctly different procedures or codes to identify persons, thus making the information incompatible? Given its statutory mandate, the Authority has the responsibility to conduct such an assessment. The Authority's annual audit, moreover, provides the necessary methodological vehicle.

The Police Information Management System (PIMS) and the Correctional Institution Management Information System (CIMIS) maintained by the IDOC were employed in this year's expansion of the "triangulation" methodology first used in the 1983 audit. These information systems generated samples of individuals and database records. Based on personal identification information in the records, requests were forwarded to the DLE for those individuals' CCH transcripts. The identification and transaction (arrest data in the PIMS sample, custodial admission data in the CIMIS sample) portions of the records were compared with the computerized transcripts received from the DLE. In addition to identifying discrepancies among the records, this audit also revealed procedural differences in the maintenance and operation of these independent information systems.

Finally, the DLE was asked to supply the audit team with the department's own internal audit reports. These documents were reviewed as an additional criterion to assess the quality of criminal history record information.

Maintenance and Security of the CCH Database

To assess the security and maintenance of CCH data, on-site observations and interviews were conducted at the DLE's Bureau of Identification facility in Joliet and the Bureau of Data Processing facility in Springfield. The focus of these visits was to evaluate the DLE's compliance with Federal regulations¹⁹ regarding the security of criminal justice information systems. Nine requirements were drawn from these regulations and used to formulate interview questions and criteria to be observed at the installations.

¹⁹28 CFR 20.21 (f) *et seq.*

IV. DLE Operational Policies and Procedures

During this year's audit, it became clear that a pervasive problem underlies many audit issues and affects the usefulness of CCH information--the lack of adequate documentation of the Bureau of Identification's (BOI) operational policies and procedures. A thorough understanding of the information system under investigation is essential for the proper interpretation of audit results (SEARCH, 1983: 3). Yet, repeated written and oral requests for any policies and procedures manuals used by BOI staff were met with no response. Eventually, it was discovered that no current manual *per se* exists. Instead, operational policies and procedures appear to be set by shift supervisors, who communicate their decisions via internal memoranda to various other staff. It is unclear whether upper-level management reviews these decisions, but it was obvious that procedural revisions are not being compiled in any centralized location.

The potential ramifications of this situation are serious and far-reaching. Previous audits (Authority, 1983; Office of the Auditor General, 1982) have documented that the CCH system has many cumbersome structural constraints to posting information on records in the database. However, the practice of allowing staff to devise procedures to get around these constraints for the purposes of data entry, in the absence of any notification to potential users of that information, has the ultimate effect of leading to errors in interpretation and decision making. For research purposes, the results may be even more devastating.

An example of the policy impact of such procedures came to light at an appeal hearing conducted by the Authority's Administrative Appeals Committee on January 25, 1985. The problem dealt with the way the Department of Law Enforcement (DLE) processes probation violations. Current CCH system programming allows only one disposition to be recorded for each charge. In the case of probation violations, the original probation sentence may be lost on the CCH system if a new imprisonment sentence is imposed. To circumvent the structural constraints of posting this new information on CCH, the DLE adopted a practice to modify the probation sentence to read "Probation and Imprisonment," with the date of the modified sentence as the original sentence date, and a new sentence length that reflects the time actually spent on probation plus the new imprisonment term. The following example depicts this practice:

<u>Facts</u>	<u>CCH Record Changes</u>
1. Defendant receives a 3-year sentence of probation for a battery conviction.	<u>Original Disposition</u> Convicted of Battery Sentenced to Probation Total 3Y
2. He serves 5 months of this term of probation.	
3. He violates his probation.	<u>After Resentencing,</u>
4. He is sentenced on the probation violation to 1-year imprisonment.	the same disposition reads: Convicted of Battery Sentenced to Imprisonment Probation Total 1Y 5M

The only documentation for this procedure is an internal memo initiated by a shift supervisor. There is no message on the automated CCH transcript itself to advise the user of the data that the event is a probation violation and not an imprisonment term followed by a probation sentence. Additionally, there is no assurance that such procedures are followed consistently and uniformly, or that conflicting policies might be used in response to another problem.

This lack of documentation of policies and procedures has certain ramifications for the audit as well. Although the audit team was able to obtain manuals for the other information systems included in this audit, the results of the audit may be subject to alternative interpretations based on some DLE policy or procedure that was unknown at the time. The lack of documentation also hampered the attempt to evaluate fully the production and use of "CCH-incomplete" (or manual) rap sheets.

V. CCH-Complete vs. CCH-Incomplete Records

A number of previous audit findings have revealed that the production and dissemination of manually typed transcripts (as opposed to computer-generated transcripts) represent a problematic process. The Auditor General's report, for example, revealed that the cost to the Department of Law Enforcement (DLE) for the production of a manual record is substantially higher than that for a computer-generated transcript. Furthermore, the Authority's audit last year revealed a higher error rate in manual rap sheets than in the computerized CCH transcripts sampled.

To examine the issue further, this year's audit attempted to assess the policies and procedures surrounding the "CCH-incomplete" (manual) records.

CCH Database Statistics

The DLE's Bureau of Identification (BOI) was asked to provide the audit team with certain statistics describing the CCH database. Specifically, the audit staff asked for the total number of records in the database, the number of "CCH-complete" records, and the number of CCH-incomplete records. These numbers were reported for the database as of December 1, 1984, and were compared with the figures obtained from the database on October 6, 1982.

According to the DLE, it is appropriate to consider the CCH-incomplete records (which represent about 57 percent of the total database) in three distinct categories:

- (1) The 580,353 (65 percent) of the CCH-incomplete records that have only identification segment information posted on the system, because the individuals have had no contact with the criminal justice system since 1976.
- (2) The 74,280 (8 percent) of the CCH-incomplete records that, because of the poor quality of fingerprints submitted, were "unclassifiable," and could not be searched against the master fingerprint file to determine positively if the subject had an existing criminal record.
- (3) The 235,333 (26 percent) of the CCH-incomplete records that fall within two distinct subcategories:
 - a) Records where some problem exists that does not allow additional information to be posted (because of system constraints or problems with the source documents).
 - b) Records which have experienced some activity since 1976, but have not been entered on CCH.

It is the DLE's policy not to reinstate these records to a CCH-complete status until a request is made again for the record. Thus, the receipt of a missing or delinquent piece of criminal history record information will not reinstate the record to a CCH-complete status automatically.

Table 1 shows how the composition of the CCH database has changed since 1982 with regard to complete and incomplete CCH records:

**Table 1. CCH-Complete vs. CCH-Incomplete Records:
Percentage Change Between 1982 - 1984**

CCH Database	<u>Number of Records</u>		Percent Change
	10/1/82	12/1/84	
Total Records	1,184,984*	1,545,502	+ 30.4%
Percent <u>CCH-Complete</u> (Number of Records)	43.5% (515,459)	42.4% (655,536)	- 1.1% (+ 27.2%)
Percent <u>CCH-Incomplete</u> (Number of Records)	56.1% (665,037)	57.6% (889,966)	+ 1.5% (+ 33.8%)

* Less than 1 percent of these records fall into the "deceased" or "FAX" categories.

While the volume of records in the database has increased during the 27-month period by about 30 percent, the portion of those records flagged as CCH-incomplete has increased almost 1 percent. The last audit reported that 44 percent of the records in the database as of October 1, 1982 were complete records. As of December 1, 1984, 42 percent of the records in the database were considered CCH-complete. These figures imply that little if any progress has been made in converting CCH-incomplete records to CCH-complete status, especially in light of the fact that the proportion of CCH-incomplete to CCH-complete records has not changed appreciably since the previous audit.

One reason for this lack of progress may be because the DLE's priority since the previous audit has been to establish, at least nominally, records for persons born after 1920 on the CCH database. This priority is in accordance with a recommendation made by the Office of the Auditor General (1982). Establishing these records makes it possible to determine definitively whether a person has a record by using the computerized name-search capabilities on the CCH system, without having to search through the manual name file. A concerted effort was made to add the identification segments of any such persons not entered onto the CCH database.

This record entry project has had some effect on the proportion of CCH-incomplete records in the database, since this project was ongoing during the previous audit and continued afterward. Thus, the volume of these cases affects the proportion of CCH-incomplete records examined during the 27 months. While admittedly large, the number cannot be determined exactly. However, it is certain that the DLE's priorities during that period focused on establishing records on the database, and not necessarily on converting as many records as possible to CCH-complete status.

Volume of Manual Transcripts Disseminated by the DLE

Active offenders whose CCH records are incomplete have a potential impact on the efficient and timely functioning of the entire criminal justice system. Since an inquiry on an individual with a CCH-incomplete record produces only a reference to a manual file at the Joliet facility (and not a copy of the actual rap sheet), there is always a time lag in obtaining criminal history record information (CHRI). The manual file must be pulled, and an existing manual transcript update or a new manual transcript must be prepared for transmission through the mail or via Telefax. This process could hamper law enforcement efforts in the field, particularly in light of the findings of the previous audit (Authority, 1983) that serious and/or repeat offenders are more likely to have incomplete records than are recent first offenders.

In addition, the lack of automated rap sheets for a significant proportion of convicted felons leads to duplicated efforts. At a minimum, the CHRI for a defendant charged and convicted of a felony could be requested three times during the course of case disposition: by the state's attorney's office prior to a bond hearing; by a probation officer for the presentence investigation report; and by the Illinois Department of Corrections (IDOC) upon incarceration. Under the present system, each request could require the updating of an existing manual transcript or the typing of a new manual transcript from the source documents.

Automated, on-line CCH rap sheets, on the other hand, can be prepared almost instantaneously and disseminated to users through direct mailing, through teletype [the Law Enforcement Agencies Data System (LEADS) network], or through Telefax, which reproduces the criminal history transcript at user locations over telephone lines.

To investigate the production and dissemination of manual rap sheets further, BOI monthly activity reports were examined for the period from January 1982 through June 1984. These reports list the number of responses generated by the Data Transmission Unit each month, by type: automated transcripts generated, manual transcripts, and "no record" responses.

Figure 1A shows these monthly totals for this 30-month period for all types of transmissions; Figure 1B shows the monthly totals for manual transcripts.

As these figures indicate, automated transcripts comprise the majority of responses. However, manual transcripts continue to represent a smaller, but consistent portion of disseminations requested each month. The pattern over time suggests that at least 500 records are disseminated manually each month. The Office of the Auditor General (1982) estimated that the average direct labor time for typing manual transcripts was greater than that for any other selected processing task except fingerprint classification (12.73 minutes per transcript). It could be argued that conversion of records for active offenders from a CCH-incomplete to a CCH-complete status (particularly those with voluminous records) at the time of request eventually would eliminate the need for preparation of most manual transcripts.

Current CCH Status of Inmate Records Audited in 1982-83

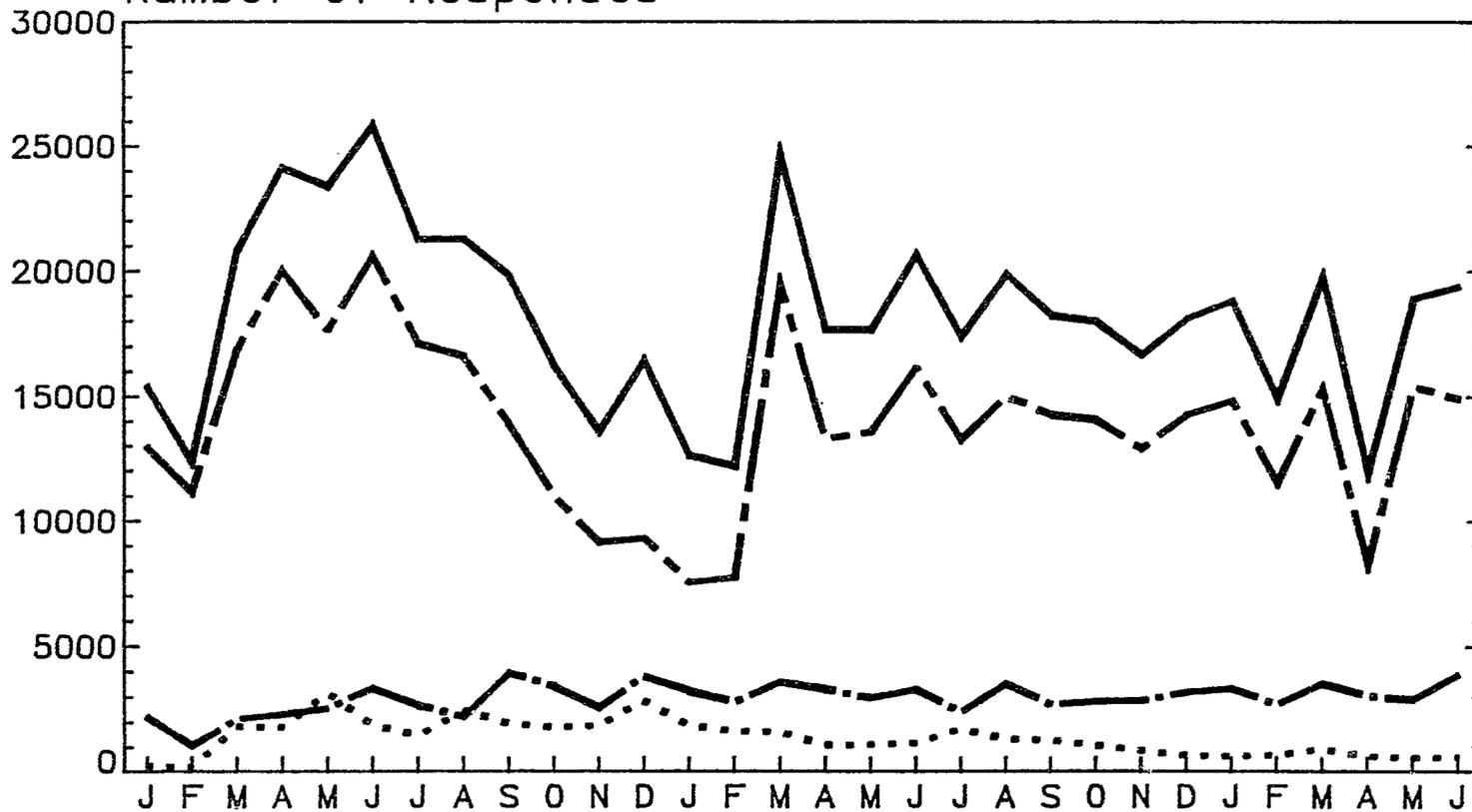
In the previous audit (Authority, 1983), a sample of 525 inmates was drawn from all those in IDOC custody as of March 1983. This sample was to represent all inmates incarcerated at that time, such that the date of admittance to the IDOC spanned from 1961 to 1983. An inquiry about each inmate was made through the LEADS. The results of the CCH inquiries indicated that of the 525 inmates some 49 percent (272) had CCH-incomplete records. As a follow-up to those findings this year's audit included another LEADS inquiry on the same group of inmates identified as having CCH-incomplete records. Additionally, the data were examined to see what proportion of these inmates were no longer in IDOC custody. Table 2 describes the results of this analysis.

Bureau of Identification Monthly Activity: Data Transmission Unit

Total Responses
Auto Trans Generated
Manual Tran typed
No Record Responses

Number of Responses

FIGURE 1A



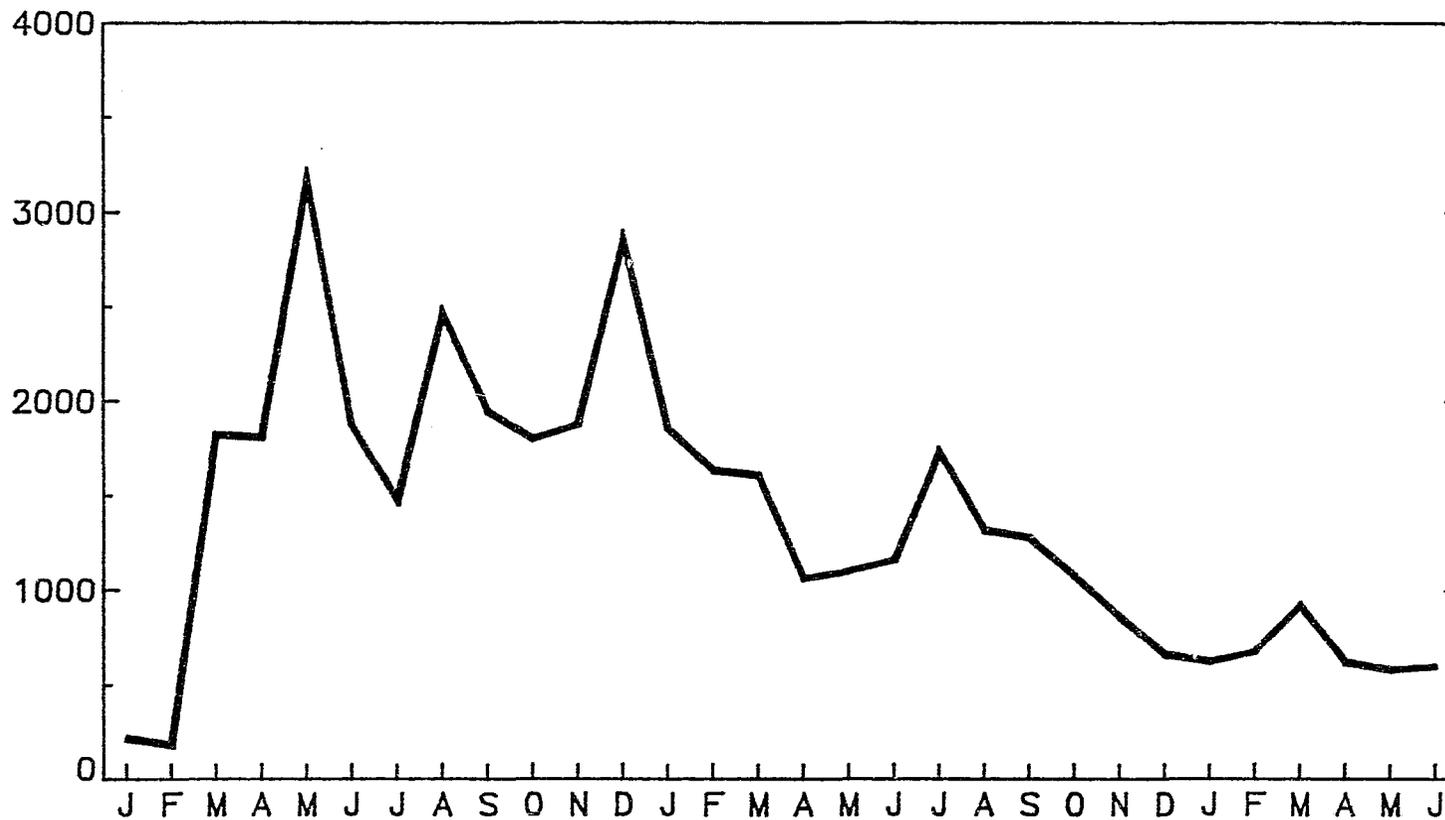
January 1982 through June 1984

(Source: B.O.I. Monthly Activity Reports.)

Bureau of Identification Monthly Activity: Data Transmission Unit

Manual Transcripts Typed

FIGURE 1B



January 1982 through June 1984

(Source: B.O.I. Monthly Activity Reports.)

Table 2. CCH vs. IDOC Status of a Sample of IDOC Inmates

Current IDOC Status	Current CCH Status		Total
	Incomplete	Complete	
Incarcerated	107 (39.3%)	20 (7.4%)	127 (46.7%)
Not Incarcerated	122 (44.9%)	23 (8.5%)	145 (53.3%)
TOTAL	229 (84.2%)	43 (15.8%)	272 (100%)

Of the 272 inmates who had incomplete CCH records in the last audit, 229 (more than 84 percent) were found in this examination to still have CCH-incomplete records. Of this number, 107 (47 percent) of the inmates were still in IDOC custody as of November 1984. The other 122 inmates (53 percent) are no longer in the custody of the IDOC.

These findings indicate that the DLE still has not acted on the Authority's recommendation to institute a policy of converting the records of these serious offenders to CCH-complete status at the next opportunity. A custodial status change (for example, discharged, on parole, etc.) should have been received from the IDOC to be posted on the records of these offenders. Of all the offenders on the CCH database, these convicted felons who are now back in the community should be those most likely to have completely automated CCH records, not among those least likely to have readily accessible CHRI. It has been well documented²⁰ that as many as one-third of the prisoners released from state institutions are imprisoned again within three years. The fact that these "active" offenders do not have CCH-complete rap sheets again points to an unnecessary burden on the BOI to produce manual transcripts continually. The situation also has an impact on timely decision making based on this CHRI by the rest of the criminal justice system.

Requests for CCH Records for 1984 CCH Audit

As part of this year's audit of CCH records, two requests for CCH rap sheets were made to the DLE. The first of these requests was for a sample of individuals arrested between June 1982 and June 1983 by agencies using the Police Information Management System (PIMS). The second request was for a sample of inmates, in IDOC custody as of November 1984, who had been admitted during the same time period, June 1982 through June 1983. Section VI of this report presents more specific information concerning these samples. The present discussion is limited to DLE responses to these requests for criminal histories. Table 3 summarizes these responses.

During this audit, 1,800 records were requested from the DLE's CCH database. The BOI, in both cases, was provided with several pieces of individual identifying information, specifically: full name, race, sex, date of birth, State identification number (when available), Chicago Police Department record number (when available), and IDOC number (when available).

²⁰See, for example, the multistate study reported in the November 1984 Bureau of Justice Statistics Special Report *Returning to Prison*.

Of the total number of offenders' records requested, 1,608 (89 percent) were identified successfully on CCH.²¹ Of those individuals who had records on CCH, 1,422 (88 percent) had CCH-complete records, while the remaining 186 (12 percent) had CCH-incomplete records. It is important to note that the requests for the IDOC inmate sample resulted in a substantially higher proportion of CCH-incomplete responses than the requests derived from the sample of PIMS agency arrestees (31 percent vs. 2 percent of the original records requested). In fact, the IDOC sample of inmates accounted for more than 84 percent of the total number of CCH-incomplete responses (157 of 186).²²

Table 3. Responses to Audit Requests for CCH Records

Sample	Number CCH- Complete	Number CCH- Incomplete	Number No Record*	Number of Duplicate Records	Total Records Requested
PIMS	1,074 (83.1%)	29 (2.2%)	184 (14.2%)	5 (0.4%)	1,292
IDOC	348 (68.5%)	157 (30.9%)	3 (0.6%)	0 (0)	508
TOTAL	1,422 (79.0%)	186 (10.3%)	187 (10.4%)	5 (0.3%)	1,800

*These records could not be identified on CCH using the information provided by the PIMS or CIMIS databases.

Summary

This audit addressed the issue of CCH-incomplete records and their impact on the activity of the BOI, as well as potential impact on the need for timely criminal history information by users of this CHRI. It was found, through examinations of BOI monthly activity reports, that the dissemination of manual rap sheets continues to be a consistent, if small, portion of all responses made each month.

More significantly, the audit found a systematic bias in the types of records that remain CCH-incomplete. Serious offenders, particularly those recently released from the IDOC, are more likely to have manual records than are less serious offenders. Yet, these are the very persons who are also most likely to have future dealings with the criminal justice system via arrest for a new crime or a technical violation of parole conditions.

²¹The reasons no records were found for some individuals are numerous. For the requests arising from PIMS arrest information, one reason for the non-existent record could have been that the arrest offense was "non-reportable" by statute. In other cases, the requested information may have been incorrect to such a degree as to preclude a "hit" on the record.

²²It should be pointed out that the two samples of IDOC inmates examined (from 1983 and 1984) are not directly comparable, since they were chosen to represent different criteria. However, it was possible to conduct further analyses on the sample drawn in 1983 to obtain a comparable subsample. That is, it was possible to ascertain the status of CCH records for the group who had been admitted to IDOC during 1982. It was found that 181 inmates were incarcerated during that time period in the 1983 sample. Of these, 34 percent had CCH-incomplete records.

VI. The Correspondence of CCH- Complete Records with Records on Other Information Systems

The previous audit (Authority, 1983) examined the "internal validity" of CCH records--the accuracy and completeness of CCH records compared with the documents submitted by criminal justice agencies for posting. The Department of Law Enforcement (DLE) is responsible for conducting systematic audits for accuracy and completeness, and is required by law to audit, correct, and update the criminal history record information it maintains.²³ No previous audit, however, has examined the "external validity" of CCH records--the extent to which CCH rap sheets fulfill the purpose for which they were designed, namely, providing criminal justice agencies with accurate cumulative criminal history information useful for adjudication decisions.

One of the most effective ways to assess external validity properly is to use several independent measures, since any single measure is subject to bias. Therefore, this audit again used the "triangulation," or multiple-measure, methodology first introduced in the 1983 audit. This methodology compares the quality of "CCH-complete" record information with that of other systems containing the same data.

By virtue of the Authority's mandate to coordinate the use of information in the criminal justice system, the audit focused on the correspondence of CCH information with that recorded for the same individual in other independent information systems. The extent to which the data correspond across systems reflects the quality of that information. At the same time, examination of patterns of discrepancies points to systematic or procedural differences that affect the coordinated flow of information. The assessment of the quality of this system-wide flow of information, and the resultant degree of usefulness of this information system to decisions, is the overall goal. This is a more basic problem than errors or inconsistencies in individual records. This analysis of the impact of policy and procedure on the data should be particularly useful in the process of redesigning the CCH database, which the DLE is undertaking currently.

The methodology applied in this audit calls for a different approach to the assessment of "error." In a more traditional comparison of source documents with computer output, a definitive decision about the cause of a discrepancy can be made. The comparison done in this audit, on the other hand, did not intend to assess the cause of discrepancies on a case-by-case basis, but to document the effect of data entry policies and procedures on a large scale. Therefore, the findings presented in this section document the extent of discrepancies observed. It should not be concluded that these discrepancies are "errors" committed by the DLE; any individual discrepancy could have been caused by data entry errors in any or all information systems compared. Rather, the audit focused on identifying patterns of discrepancies among many cases, patterns which might point to underlying policies and procedures that caused the discrepancies.

The emphasis was placed on computerized information systems to allow for the auditing of a larger number of records than in the past (a total of 1,422 CCH-complete records were audited) and to introduce audit reliability checks (for example, reauditing of records, etc.) not feasible in the field. Large sample sizes were necessary to identify reliable patterns of discrepancies. The multiple, independent information systems used in this audit were the Police Information Management System (PIMS), a system shared by 17 law enforcement agencies in northern Illinois at the time of the audit, and the Correctional Institution Management Information System (CIMIS), maintained by the Illinois Department of Corrections (IDOC). Samples of individuals from both systems were audited. Data elements checked included personal identification information, as well as arrest and custodial admission transaction information. Additionally, because some individuals arrested by PIMS agencies eventually were incarcerated by the IDOC, their

²³20 Illinois Administrative Code, Ch. III, s1500.

identification information could be compared across the three information systems. The results of the PIMS-CCH sample audit, the Illinois CIMIS-CCH sample audit, and the PIMS-Illinois CIMIS-CCH audit are reported separately below.

PIMS-CCH Audit

A sample database of arrests made by the 10 original PIMS departments²⁴ between June 1982 and June 1983 was constructed. This original database contained information relating to 10,136 arrests. For the purposes of this record audit, the charges involved in these arrests had to be "reportable" to the DLE as specified in Illinois Revised Statutes (Ch. 38-206-5 *et seq.*), to ensure that the PIMS agencies forwarded the arrestees' fingerprint cards to the DLE. An initial examination of the PIMS arrest database revealed that many of the arrests were for petty offenses or municipal code violations which are not strictly reportable to the DLE. Thus, the original database was purged²⁵ of these kinds of offenses, leaving a "population" of 9,549 arrest events.

The sampling strategy used to select the records to be audited "stratified" the sample by PIMS agency, rather than by type of arrest.²⁶ In this way, it would be assured that a statistically significant number of arrest incidents would be audited for each PIMS department, and meaningful feedback on the quality of each agency's database could be provided at the conclusion of the audit.

This sampling procedure yielded an initial sample of 1,362 arrest events for 1,287 different individuals. A request for these individuals' CCH rap sheets was forwarded to the DLE's Bureau of Identification, and a total of 1,074 CCH-complete records were received for examination. As mentioned earlier in this report, the remainder of the records requested either could not be found on the CCH database or were "CCH-incomplete" records. The reasons some individuals were found to have no records are numerous. For the requests arising from PIMS arrest information, one reason for the non-existent records could have been that the arrest offense was "non-reportable" by statute. In other cases, the request information supplied to the DLE may have been incorrect to such a degree as to preclude a "hit" on the record.

Two separate audits of data correspondence were conducted on these records: (1) an audit of identification segment data elements, and (2) an audit of data elements dealing with the PIMS agency arrest transaction.

Identification Segment Audit

Because the purpose of the methodology employed in this phase of the audit was to identify systemic problems in the comparability of data across independent information systems, certain elements that were known to be subject to incompatible coding procedures were still included in the audit, even though comparisons would produce "automatic" discrepancies (as in the case of *race* or *hair color* codes). The audit team felt this was an excellent opportunity to demonstrate the impact of these systemic differences on a large-scale basis.

Ten data elements were audited in this examination of PIMS and CCH identification information:

- State Identification (SID) Number
- Last Name
- First Name
- Date of Birth

²⁴These police departments were Arlington Heights, Buffalo Grove, Des Plaines, Evanston, Glencoe, Harvey, Joliet, Mt. Prospect, Park Ridge, and Schaumburg.

²⁵Because of PIMS use of Uniform Crime Report (UCR) offense codes, it was impossible to eliminate all "non-reportable" offenses, since some municipal ordinances and petty offenses also fall within these codes.

²⁶The formula used in this sampling strategy was: $n = P(1-P) / \sqrt{((P(1-P))/N)^2 + ((SE)/t)}$. Refer to Herbert Arkin's *Handbook of Sampling Strategy for Auditing and Accounting* for a detailed discussion of this formula. It ensures a 5 percent sampling error and a 90 percent confidence interval.

- Sex
- Race
- Hair Color
- Eye Color
- Height
- Weight

Of the 1,074 records audited, 35 percent (376) were found to contain no discrepancies, while 65 percent contained at least one discrepancy. Twenty-seven percent (293) of the records contained one discrepancy, and almost 25 percent (267) contained two discrepancies. The remaining 138 records (12.8 percent) had discrepancies in at least three of the 10 data elements audited. Two records contained five discrepancies in the identification segment audited. Table 4 shows the total discrepancies detected in the audit:

Table 4. PIMS-CCH ID Segment Audit: Discrepancies Per Record

Number of Discrepancies	Number of Records	Percent
0	376	35.0%
1	293	27.3
2	267	24.9
3	110	10.2
4	26	2.4
5	2	0.2
<hr/>		
Total Number of Records	1,074	100.0%

Table 5 reports the total number of discrepancies detected in the audit of the PIMS-CCH identification segment elements. Of the possible 10,740 discrepancies (1,074 DLE records audited, times 10 elements per record), 1,262 (12 percent) discrepancies and nine (0.08 percent) omissions were detected.

Table 5. Type of Discrepancies in PIMS-CCH ID Segment Audit

Type of Discrepancy	Number	Percent of Detected Discrepancies (n=1,271)	Percent of Possible Discrepancies (n=10,740)
No CCH Entry	9	0.7%	0.08%
No Match PIMS-CCH Entry	1,262	99.3	11.75
<hr/>			
TOTAL	1,271	100.0%	11.83%

Table 6 reports the discrepancies detected in this audit, according to the data element audited:

Table 6. Summary of Findings of PIMS-CCH ID Segment Audit

Data Element	Number of Discrepancies		Number of Omissions		Total	
<u>Primary Search Items:</u> *						
SID Number	29	3%	0	0%	29	3%
Last Name	11	1	0	0	11	1
First Name	27	3	0	0	27	3
Date of Birth	37	4	0	0	37	4
Sex	2	0.2	0	0	2	0.2
Race	56	5	1	0.1	57	5
<u>Secondary Search Items:</u> **						
Hair Color	166	16%	4	0.4%	170	16%
Eye Color	80	8	0	0	80	8
Height	331	31	2	0.2	333	31
Weight	523	49	2	0.2	525	49
TOTAL	1,262		9		1,271	

Total Number of Records Examined: 1,074

(NOTE: COLUMN PERCENTAGES BASED ON NUMBER OF RECORDS EXAMINED.)

* These data elements are considered "primary" search items in the database. Inaccuracies in these items can preclude an inquiring agency from finding the correct record.

** These data elements are considered "secondary" search items in the database. Inaccuracies in these items would not preclude "hits."

The first six data elements reported in Table 6 are considered "primary" search items for CCH purposes. In other words, discrepancies in these elements are considered more serious because potentially they could preclude a "hit" during a search for an individual's CCH record. A total of 162 (13 percent) of the discrepancies detected in this audit were for data elements considered primary search items. More than one-third of these discrepancies (56) were found in the audit of the *race* data element. The majority of these discrepancies were attributed to differences in the coding schemes used by PIMS and CCH for the *race* element. For example, the DLE adheres to National Crime Information Center (NCIC) race codes, which do not provide unique codes for Hispanics. PIMS is constructed to accommodate reporting directly to the Illinois Uniform Crime Reporting (I-UCR) program, which distinguishes among several Hispanic categories (see Appendix A). Hispanic cases generally are coded as "White" in the CCH database, while they may be entered as one of four Hispanic codes in PIMS (see Appendix A).

This year's audit also recorded the identification of aliases in the *last name, first name, and date of birth* data elements. Two percent of the elements audited were found to be alias entries in the CCH records. These were not considered discrepancies, since such aliases are included in the search algorithms used to identify records, and therefore would not preclude a "hit." Thus, Table 6 portrays actual observed discrepancies for the *name and date of birth* elements.

Of all the identification elements audited, discrepancies in one element, *SID Number*, could be positively attributed to faulty data entry and update policies by the PIMS agencies (since the DLE generates these identification numbers and rap sheets for the correct persons were received). Inquiries into the SID numbers in question on the Law Enforcement Agencies Data System (LEADS) revealed that a "hit" on the database was not achieved using only the PIMS version. Many of these numbers appeared to be a special series (beginning with "8") reserved for cases where the fingerprints were unable to be classified. If a classification is achieved later, that special number is discontinued, and another SID number assigned. Apparently, the PIMS agencies do not always update their files when the DLE notifies them of this conversion.

The majority of discrepancies detected in the identification segment were in "secondary" search items. These four data elements (*hair color, eye color, height, and weight*) accounted for roughly 87 percent (1,100) of the discrepancies detected. *Height* and *weight* data elements accounted for almost 68 percent (854) of all discrepancies detected.

A total of 582 records contained either discrepant height or weight information. Some 273 (47 percent) of these records contained discrepancies in both height and weight information.

Table 7 summarizes the discrepancies encountered for height information:

Table 7. PIMS-CCH ID Segment Audit: Summary of Discrepancies in Height

Discrepancy (inches)	Number of Records	Percent of Discrepant Records	Cumulative Percent
1	190	57.2%	57.2%
2	81	24.4	81.6
3	33	9.9	91.5
4	13	3.9	95.4
5	10	3.0	98.4
6	2	0.7	99.1
+ 12	3	0.9	100.0
Total Records = 1,074		Total Found Discrepant = 332 (31%)	

The majority of discrepant PIMS and CCH entries for height were within 2 inches of each other (82 percent, or 271). Less than 10 percent (28) of the 332 discrepant records contained heights that were off by more than 3 inches. Five records (1.5 percent) contained discrepancies of 6 inches or more.

The discrepancies encountered for weight information are summarized in Table 8:

Table 8. PIMS-CCH ID Segment Audit: Summary of Discrepancies in Weight

Discrepancy (lbs)	Number of Records	Percent of Discrepant Records	Cumulative Percent
1 - 5	153	29.3%	29.3%
6 - 10	127	24.3	53.6
11 - 15	71	13.6	67.2
16 - 20	57	10.9	78.1
21 - 30	65	12.4	90.5
31 - 40	30	5.7	96.2
41 - 50	13	2.5	98.7
+ 51	7	1.3	100.0
----- Total Records = 1,074		Total Found Discrepant = 523 (49%)	

Of the 523 records detected with discrepant weight data, just more than half (54 percent) contained weights within 10 pounds of one another. More than two-thirds of the discrepancies (351) between PIMS and CCH weight data were within 15 pounds. Nearly 10 percent of the discrepancies (50) were inaccurate by more than 30 pounds. Seven of these discrepant weights showed differences of 51 pounds or more.

Discrepancies found in hair color and eye color, while somewhat less numerous than other secondary search item elements audited, accounted for more than 19 percent (246) of the discrepancies detected in the identification segment audit. Most of the differences observed in the audit of these elements may be attributed to differences in coding schemes between the database systems.

Summary

The comparison of identification elements in CCH and PIMS revealed that 88 percent (9,478) were in agreement. Furthermore, only nine of the 10,740 elements audited were omitted in CCH.

Of the 1,262 discrepancies observed, 162 were in "primary" search items, or elements used to search for records in the CCH database. Of these, 29 (18 percent of primary search element discrepancies) were caused by incorrect SID numbers in the PIMS database. If these numbers alone were used to inquire on the CCH database, a "no record" response would be obtained, even though these individuals have records in CCH. Another 56 (35 percent of primary search element discrepancies) were because of differences in race codes used by CCH and PIMS, particularly for persons of Hispanic origin.

It should be pointed out, however, that 184 cases (14 percent of the total records requested) had no CCH record at all. A majority of these persons were arrested for potentially "non-reportable" offenses; if they had not previously been arrested for a "reportable" offense, they would not be expected to have a record in CCH. Another possible explanation is that some of these "no record" cases had errors in primary search items, as recorded in PIMS, serious enough to have precluded a "hit" on CCH. The extent to which this might have occurred cannot be ascertained without checking the original source documents used in making the PIMS entries.

A majority of the 1,262 discrepancies observed were in "secondary" search items, or physical descriptors. These made up 87 percent (1,100) of the discrepancies observed. Appendix A lists the codes used by the respective databases for these elements, and reveals the automatic differences that might occur. The discrepancies observed, however, go beyond these differences in actual codes for *race* or *hair color*.

For example, the identification segment in CCH usually is created from the first arrest card received at the time of initial entry (and perhaps conversion) to the computer database. Furthermore, there is no explicit procedure or policy for updating any of this information. The previous audit (Authority, 1983) documented that this practice makes it difficult to tell the arrest card from which information is entered, especially for cases that were converted to CCH-complete at some time later than the first offense. Thus, if the arrest card used to produce the PIMS entry was not the first one the DLE received for that individual, the discrepancies can be attributed to different source documents and incompatible codes. Yet, the PIMS submission is no less valid for the individual than the first arresting agency's submission, and should be reflected on the rap sheet, though perhaps in a different format.

Arrest Segment Audit

Five data elements were audited in this examination of the PIMS and CCH arrest transaction information:

- Agency Control Number/Document Control Number (ACN/DCN)
- Date of Arrest
- Offense Description
- Disposition Description
- Date of Disposition

The DCN refers to the unique identifying number assigned each arrest card used in the State. The DLE uses the DCN to link subsequent events to be posted to the CCH system. In the PIMS system, however, this number is optional, and was not recorded for every case audited. If an ACN were entered in this field in PIMS, the audit examined the CCH *ACN* element.

Table 9 presents the number of discrepancies detected per record in the arrest transaction audit. Of the 978 records audited, 535 (55 percent) contained no discrepancies. Almost one-quarter of the arrest records audited (232) contained one discrepancy, and nearly 22 percent (211) contained at least two discrepancies in the data elements audited.

The 1,074 individual records contained 1,123 arrest events. In other words, 49 persons had two arrest events in the PIMS records. Of these 1,123 arrest events, 978 (87 percent) were "posted" on the individuals' CCH records. An analysis of the charges involved in the 145 arrests not found in CCH records revealed that many could have been for "non-reportable" crimes as defined by Illinois statutes. These offenses had been left in the original "population" of PIMS arrests from which the sample was drawn because, from their description on the database, they might have been reportable offenses (for example, where municipal ordinances and Illinois statutes were described by the same term). There were 33 PIMS arrests for disorderly conduct, 23 arrests under the Cannabis Control Act, and 17 simple battery arrests not posted on CCH. Appendix B contains the list of PIMS arrest charges not found on the corresponding CCH records.

This finding affirms that the DLE needs to audit the reporting practices of local agencies, as well as its own policies for handling "non-reportable" arrests. Federal regulations require that the DLE set forth operational procedures²⁷ to ensure the accuracy and completeness of CHRI. Furthermore, the regulations require that a random sample of local criminal justice agencies be audited to verify that they comply with Federal regulations. To date, the DLE has not conducted any audits of local criminal justice agencies.

²⁷28 CFR 20.21(a)

Table 9. PIMS-CCH Arrest Segment Audit: Discrepancies Per Record

Number of Discrepancies	Number of Records	Percent
0	535	54.7%
1	232	23.7
2	173	17.7
3	24	2.5
4	12	1.2
5	1	.1
6	1	.1

Total Number of Records	978	100.0%

Table 10 summarizes the number of discrepancies encountered in the audit of the PIMS-CCH arrest segment information. This table reports that 205 discrepancies (4 percent of possible discrepancies) and 627 omissions (13 percent) were detected in the audit. This pattern is the reverse of that observed in the PIMS-CCH identification segment audit, where a majority of discrepancies were disagreements between PIMS and CCH entries, and fewer than 10 omissions were detected in CCH information.

Table 10. Type of Discrepancies in PIMS-CCH Arrest Segment Audit

Type of Discrepancy	Number	Percent of Detected Discrepancies (n=832)	Percent of Possible Discrepancies (n=4,890)
No CCH Entry	627	75.4%	12.8%
No Match PIMS-CCH Entry	205	24.6	4.2

TOTAL	832	100.0%	17.0%

Table 11 presents the number of discrepancies observed, by data element. Omissions in dispositional elements (*disposition description* and *disposition date*) accounted for 100 percent of omissions detected. However, Table 11 does not include the 237 cases where dispositions were found in neither the PIMS database nor the CCH database. The numbers in the table reflect only those cases in which a disposition could be found in PIMS, but not in CCH. If these additional cases are included, the number of omissions increases to 553, or more than 50 percent of the records audited.

Table 11. Summary of Findings of PIMS-CCH Arrest Segment Audit

Data Element	Number of Discrepancies		Number of Omissions*		Total	
ACN/DCN	16	2%	0	0%	16	2%
Date of Arrest	42	4	0	0	42	4
Offense Description	89	9	0	0	89	9
Disposition Description	39	4	316*	32	355	36
Date of Disposition	19	2	316*	32	335	34
Total Discrepancies	205	(24.6%)	632	(75.4%)	837	

Total Number of Records Examined: 978

(NOTE: COLUMN PERCENTAGES BASED ON TOTAL RECORDS EXAMINED.)

* Does not include 237 cases where no disposition was found in either PIMS or CCH, and 145 arrest records found in PIMS but not in CCH. This does not mean, necessarily, that one or the other information system is at "fault" or that missing information is necessarily "delinquent." The findings simply point to some discrepancies between systems.

This extent of dispositional information missing from CCH coincides with findings of previous audits (Authority, 1983; Office of Auditor General, 1982). The fact that PIMS recorded dispositions in at least one-third more of the cases audited indicates that these cases already were disposed of and should have had a disposition posted on CCH. However, since the PIMS database is not constrained to using only information provided by the court clerks, as is the CCH system, the lack of dispositions in CCH does not necessarily mean that the DLE received, but did not post, a disposition. For example, it is possible that police officers were assigned by various PIMS agencies to report any dispositions made, as observed directly in the courtroom. In addition, at least one PIMS agency relies on state's attorneys' information, rather than court information, and thus may have recorded "no file" decisions that were not forwarded to the DLE.

Of the 205 discrepancies observed in arrest information, 89 (43 percent) were for offense description and another 58 (28 percent) were for dispositional elements. The discrepancies observed in arrest descriptions primarily arose from differences in charge code tables used by PIMS and CCH. PIMS relies on UCR codes, which are more generic in nature than are statute citations entered on CCH. Differences in case disposition codes also account for some discrepancies observed in that element. In addition, some disposition discrepancies were caused by the fact that PIMS had recorded a bond forfeiture as the last disposition, when in fact, the defendant later had returned to court and the case was disposed of. In these cases, the disposition date also was likely to differ between the databases.

Summary

The audit of the arrest segments revealed some interesting findings that would not have been observed if more traditional source document output comparisons had been used. For example, it was possible to detect a significant portion of arrests in the PIMS database for individuals that either could not be found to have a record in CCH, or that were not reflected on an existing CCH record. A majority of these arrests were for charges that may not have been reportable to the DLE, although some clearly should have been posted. In addition, it was possible to identify dispositions recorded in the PIMS database but missing from the CCH database, as well as a group of records for which dispositions were missing in both databases. Only an independent source of information other than the source documents stored by the DLE could have uncovered these types of discrepancies.

Illinois CIMIS-CCH Audit

As part of this year's triangulation audit, the Illinois Department of Corrections (IDOC) was asked to provide a computer tape listing all persons in its custody as of November 1984. The data on the tape included identification information for 17,133 inmates and information about the inmates' commitment to the IDOC.

A sample of 508 inmates was selected to represent the current composition of inmates. Inmates for the sample were chosen according to admit type (that is, those admitted directly from court, parole or work release violators, etc.).²⁸ It was important that this sample represent all inmates admitted between June 1982 and June 1993, so that the inmate sample would be comparable with the sample of PIMS arrestees. This setup made it possible to compare cases found in all three databases (for example, a person arrested by a PIMS agency who then was incarcerated by the IDOC for that offense).

Once the sample was drawn, a request was submitted to the DLE's Bureau of Identification to provide the audit team with the inmates' CCH records. As reported earlier, 69 percent (348) of the inmates had CCH-complete records, while 31 percent (157) of the inmates had CCH-incomplete records. In addition, records for three inmates could not be found in the CCH database.

Two audits of these records were conducted: (1) an audit of identification segment data elements, and (2) an audit of data elements dealing with the custodial admission transaction.

Identification Segment Audit

Nine data elements were audited in this examination of Illinois CIMIS and CCH identification information:

- State Identification (SID) Number
- Name (First and Last Names)
- Date of Birth
- Sex
- Race
- Hair Color
- Eye Color
- Height
- Weight

Table 12 summarizes the number of discrepancies detected in the audit, per record audited. Of the 348 CCH-complete records compared with Illinois CIMIS records, only 13 (4 percent) contained no discrepancies or omissions. Eighty-two (24 percent) records contained one discrepancy. Thus, only about 27 percent (95) of the records audited had either one discrepancy per record or no discrepancies at all. In terms of discrepancies per record, this CIMIS-CCH comparison revealed the worst ratio of non-discrepant records to records with one or more discrepancies than any other PIMS or CIMIS comparison.

²⁸As of November 1984, 75 percent of the inmates were classified either as being admitted to the IDOC for the first time ("direct from court") or as being readmitted to the IDOC after a previous discharge ("discharged and recommitted"). The remaining 25 percent were parole, Mandatory Supervised Release (MSR), or work release violators.

Table 12. CIMIS-CCH ID Segment Audit: Discrepancies Per Record

Number of Discrepancies	Number of Records	Percent
0	13	3.7%
1	82	23.6
2	180	51.7
3	59	17.0
4	13	3.7
5	1	0.3
Total Number of Records	348	100.0%

The discrepancies detected in the audit of the Illinois CIMIS-CCH records are reported in Table 13. This table reveals that of the 3,132 possible discrepancies (348 records audited, times nine elements per record), 675 (21 percent) discrepancies and one omission were discovered in the audit of identification information. This pattern of findings is similar to that observed in the PIMS-CCH comparison of identification elements. Thus, it can be concluded that the CCH database contains few omissions in identification information.

Table 13. Type of Discrepancies in CIMIS-CCH ID Segment Audit

Type of Discrepancy	Number	Percent of Detected Discrepancies (n=676)	Percent of Possible Discrepancies (n=3,132)
No CCH Entry	1	0.1%	0.03%
No Match CIMIS-CCH Entry	675	99.9	21.60
TOTAL	676	100.0%	21.63%

Table 14 presents a breakdown of the discrepancies encountered, by data element audited. Fifty-nine discrepancies were in "primary" search items. These discrepancies accounted for 8.7 percent of all discrepancies found in the identification segment audit. As was the case with the PIMS-CCH audit, the majority of the primary search item discrepancies found were in the *race* data element. Again, differences between the databases in coding race, particularly for persons of Hispanic origin, accounted for most of these discrepancies.

More than 90 percent of the 676 discrepancies and omissions observed in this audit were found in "secondary" search items. Nearly 81 percent of all discrepancies (545) were found in the audit of *height* and *weight* data elements. In fact, 92 percent of the 348 records examined were discrepant on weight, calling into serious question the usefulness of that information. Again, this finding parallels that found in the PIMS-CCH audit. Also, some discrepancies found in the *hair color* and *eye color* data elements may be attributed to differences in coding schemes the two information systems use. One record omitted the *eye color* data element.

Table 14. Summary of Findings of CIMIS-CCH ID Segment Audit

Data Element	Number of Discrepancies		Number of Omissions		Total	
<u>Primary Search Items:</u>						
SID Number	6	2%	0	0%	6	2%
Name	4	1	0	0	4	1
Date of Birth	16	5	0	0	16	5
Sex	0	0	0	0	0	0
Race	33	10	0	0	33	10
<u>Secondary Search Items:</u>						
Hair Color	47	14%	0	0%	47	14%
Eye Color	24	7	1	0.3	25	7
Height	226	65	0	0	226	65
Weight	319	92	0	0	319	92
Total Number of Discrepancies	675	(99.9%)	1	(0.1%)	676	

Total Number of Records Examined: 348

(NOTE: COLUMN PERCENTAGES BASED ON TOTAL RECORDS EXAMINED.)

Summary

The comparison of Illinois CIMIS and CCH identification information revealed a pattern of discrepancies strikingly similar to the discrepancies found in the PIMS and CCH databases. Table 19 presents the discrepancy rates for identification elements among the three information systems. As can be seen, more discrepancies appear in secondary search items than in primary search items, when CCH information is compared with other systems' information. Elements that must be coded (*race*, *hair color*, etc.) have a greater likelihood of being discrepant than those that do not have to be coded (for example, *name* or *date of birth*). The fact that the discrepancy rates for *height* and *weight* elements are slightly higher when the CCH database is compared with the CIMIS database than when the CCH database is compared with the PIMS database highlights the importance of updating these elements, since the discrepancies will increase over time.

Custodial Transaction Audit

A total of four data elements were examined in this audit of the Illinois CIMIS-CCH admission transaction information:

- Date Received
- Current Institution
- Conviction Charges
- Conviction Sentences

The *current institution* element was included in the audit initially to be consistent with the CIMIS-CCH comparison conducted in the Authority's 1983 audit. Since that time, however, the DLE had discontinued posting inmate transfers between IDOC institutions. Also, the Uniform Disposition Reporting Law (Ill. Rev Statutes 38 S206 2.1, *et seq.*) no longer requires that such custodial transfers be reported. Therefore, the *current institution* element was excluded in the following discussion of findings.

Table 15 reports on the findings of this audit in terms of the number of discrepancies per record audited. Of the 345 records audited, 264 (76 percent) had no discrepancies, while another 60 (17 percent) had one discrepancy. The remaining 21 records (6 percent) had two or more discrepancies. In terms of discrepancies per record, the comparison of CCH and CIMIS custodial elements revealed a greater number of records with no discrepancies than did any other audits of PIMS or CIMIS data already discussed.

Table 15. CIMIS-CCH Custodial Segment Audit: Discrepancies Per Record

Number of Discrepancies	Number of Records	Percent
0	264	76.5%
1	60	17.4
2	10	2.9
3	8	2.3
4	2	0.6
5	1	0.3
Total Number of Records*		345
		100.0%

* While a total of 348 records were audited with regard to identification information, custodial admission information was not present in three of the records examined. Each of these admissions were within days of the date that the computer tape, from which the sample was drawn, was created. The absence of this data probably reflects delays in information processing for new admissions.

Table 16 reports the findings of this audit in terms of the types of discrepancies encountered. Forty-seven omissions (1 percent of all possible discrepancies) and 70 discrepancies (2 percent) were detected in this audit. In terms of omissions, the small percentage observed is consistent with all other PIMS and CIMIS comparisons, except PIMS arrest segments (where 12 percent of the total possible omissions were observed).

Table 16. Type of Discrepancies in CIMIS-CCH Custodial Segment Audit

Type of Discrepancy	Number	Percent of Detected Discrepancies (n=397)	Percent of Possible Discrepancies (n=4,140)
No CCH Entry	47	40.2%	1.1%
No Match CIMIS-CCH Entry	70	59.8	1.7
TOTAL	117	100.0%	2.8%

Summary

Table 17 summarizes the custodial segment audit findings, by data element examined:

Table 17. Summary of Findings of CIMIS-CCH Custodial Segment Audit

Elements	Number of Records	Number of Discrepancies		Number of Omissions		Total	
Charge 1	345	12	4%	9	3%	21	6%
Sentence 1		22	6	9	3	31	9
Charge 2	107	1	1	4	4	5	5
Sentence 2		2	2	4	4	6	5
Charge 3	41	1	2	0	0	1	2
Sentence 3		1	2	0	0	1	2
Charge 4	17	1	6	0	0	1	6
Sentence 4		1	6	0	0	1	6
Charge 5	6	0	0	0	0	0	0
Sentence 5		0	0	0	0	0	0
Date Received		29	8	21	6	50	15
Total Discrepancies		70		47		117	
		(59.8%)		(40.2%)			

Total Number of Records Examined: 345

(NOTE: COLUMN PERCENTAGES BASED ON TOTAL RECORDS EXAMINED.)

Up to five conviction charges and sentences were audited in this examination. Of the 348 records examined, three persons had been admitted to the IDOC within days of the production of the computer tape from which the sample was drawn. These Illinois CIMIS records, as well as the CCH-complete records received for the audit, contained no IDOC admissions information and were excluded from the analysis. Conviction charge and sentence information accounted for 59 percent (41) of the discrepancies and 55 percent (26) of the omissions encountered in this audit. Reception dates were discrepant in 29 (41 percent) of the total number of discrepancies. In addition, omissions in reception date accounted for 21 (45 percent) of the omissions detected.

PIMS-Illinois CIMIS-CCH Audit

Of the 1,074 CCH-complete records received as a result of the requests for the PIMS sample of arrest information, 24 were for individuals who also appeared on the data tape received from the IDOC. Thus, the audit team had three sources of identification segment data elements to compare for this subsample of persons. In addition to the three-way comparison of identification information, an audit of some additional custodial information was conducted.

Identification Segment Audit

Nine data elements were included in the three-way comparison:

- State Identification (SID) Number
- Name (First and Last Names)
- Date of Birth
- Sex
- Race
- Hair Color
- Eye Color
- Height
- Weight

The discrepancies detected in this comparison are presented in Table 18:

Table 18. Findings of PIMS-CIMIS-CCH ID Segment Audit

Data Element	Number of Discrepancies		Number of Omissions		Total	
<u>Primary Search Items:</u>						
SID Number	0	0%	0	0%	0	0%
Name	0	0	0	0	0	0
Date of Birth	2	8	0	0	2	8
Sex	0	0	0	0	0	0
Race	1	4	0	0	1	4
<u>Secondary Search Items:</u>						
Hair Color	5	21%	0	0%	5	21%
Eye Color	3	13	0	0	3	13
Height	14	58	0	0	14	58
Weight	11	46	0	0	11	46
Total Discrepancies	36		0		36	

Total Number of Records Examined: 24

(NOTE: COLUMN PERCENTAGES BASED ON TOTAL RECORDS EXAMINED.)

This table reaffirms many of the findings in both the PIMS-CCH and the Illinois CIMIS-CCH audits. In general, primary search items are somewhat less likely to be discrepant than are secondary search items. In this audit, primary search item discrepancies accounted for only three of the 36 discrepancies detected across the three information systems. Again, problems in *25 height* and *weight* data elements accounted for the majority of all discrepancies detected (nearly 70 percent).

Although based on a small sample (24 records), this audit illustrates that a majority of information maintained about an individual in all three systems would be expected to be in agreement (71.4 percent of this sample), and that most of the discrepancies could be attributed to coding or procedural differences in capturing the data.

Comparison of Audit Findings

A comparison of audit findings of identification information is presented in Table 19. This table reflects the parallel findings from the three audits in percentages of total discrepancies represented by the data elements examined.

Table 19. Comparison of Discrepancy Rates Between Audits

Data Element	PIMS*	IDOC**	PIMS-CIMIS***
<u>Primary Search Items:</u>			
SID Number	2%	1%	0%
Name	3	1	0
Date of Birth	3	2	6
Sex	0.2	0	0
Race	5	5	3
<u>Secondary Search Items:</u>			
Hair Color	13%	7%	14%
Eye Color	6	4	8
Height	26	33	39
Weight	41	47	31

* Based on 1,074 CCH-complete records audited.

** Based on 348 CCH-complete records audited.

*** Based on 24 CCH-complete records audited.

This comparison revealed the recurring finding in the audits that the *height* and *weight* data elements account for the greatest number of discrepancies in the information systems. The table also affirms the finding that the different coding schemes used to create records in the information systems generate discrepancies. Primary search items appear less subject to discrepancy than do secondary search items. In addition, it is apparent that omissions in identification elements are not a problem in the CCH database, although missing court dispositions continue to be problematic in both the PIMS and CCH databases.

Review of the DLE Internal Audits of CCH Data

Eleven CCH-related internal audits conducted by Bureau of Identification (BOI) personnel were reviewed as part of this audit. These audits were conducted in five areas: (1) CHRI dissemination through manual rap sheets; (2) CHRI dissemination logging procedures; (3) procedures relating to expungement orders; (4) first offender CCH records; and (5) the microfilm project. Originally, it was intended that this review would use BOI operations and procedures documentation to evaluate fully the internal audits with regard to their intended purpose. In the absence of such materials, this review is limited to a discussion of generic methodological considerations. Other issues regarding CCH completeness and accuracy not covered in the comparison of the CCH system with other independent information systems also are considered.

Audit of CHRI Dissemination Through the Manual Rap Sheet

DLE audited the manual rap sheets twice yearly between January 1982 and August 1984. The DLE typically relied on the total number of transactions performed in the previous month as the population from which to draw the sample of records. Some general criticisms of this methodology could be made. Under this approach, errors associated with changes in personnel and seasonal fluctuations in the volume of documents processed might be missed in analysis. Furthermore, if audit months are designated in advance and become well known by affected staff, an understatement of random error may take place when compared with "non-audit" months. Discussions with DLE staff confirmed that the audit schedule is not announced in advance. A sampling methodology that would draw randomly from all months in the audit interval would eliminate many of these and associated biases.

Audit of CHRI Dissemination Logging Procedures

The DLE has conducted three of these audits per year since 1982. The percentage of errors uncovered in these audits of teletype and "FAX" disseminations are high relative to the errors reported for disseminations by mailing. No description of the relative seriousness of the errors detected is provided in the reports, making interpretation of the findings difficult.

Audit of Expungement Order Procedures

Unlike other audit methods reviewed, expungement order procedures were subject to a 100 percent audit inspection for the entire year. That is, between January and December of 1984, every expungement request form was examined for compliance with expungement logging procedures. No errors in the logging of expungement orders (such as notifying agencies requesting documents within one year prior to expungement) were detected.

Audit Report of First Offenders

The audit report of first offenders was designed to ensure that manual CHRI documents for first offenders are recorded accurately in the CCH database. The report, however, fails to list sample sizes or percentage of records out of file, making a complete methodological review impossible.

Audit Report of the Microfilm Project

To reduce the vast amount of paper records stored and to ensure the security of the master record jackets kept at the BOI, the DLE has begun converting paper records to microfilm. Errors in these procedures are critical because of the eventual loss of original paper source documents on which CCH records are based. The internal audit examined samples of microfilm images against the original source documents for proper filming and compliance with "cleaning and preparation procedures." The internal audit revealed that a large portion of the jackets examined contained errors (28 percent of those examined).

Further analysis of the images in error revealed that 27 percent of the errors were caused by improper filming. A second category of errors--that of failure to follow proper cleaning and preparation procedures--accounted for the majority (62 percent) of the errors detected. Another miscellaneous category accounted for the remaining 11 percent of the errors, and included such errors as filming the back of a previously filmed document.

The primary purpose of the microfilming project is to provide a backup copy of the source documents. In addition, the DLE has expanded the project to include purging the master files of obsolete materials, and correcting errors in filing before the jackets are filmed. In this way, the project would serve as a 100 percent inspection program of the manual files. The errors found in the cleaning and preparation tasks did not affect the usefulness of the microfilm images, and no source documentation would be lost if it were not corrected before the paper documents were shredded.

The findings of this audit indicate the importance of complete verification of the microfilmed images for readability and completeness of image before the original records are shredded. After interviewing BOI personnel, the audit team understands that this verification process is, in effect, built in to the microfilm project. It is important to note also that this project served another purpose. It provided a check of all the files and their contents. By the time the source documents are shredded, according to the BOI, the verification of the quality of the microfilm images will have taken place numerous times. In other words, the microfilm project serves to audit the manual record jackets on a case-by-case basis, with a 100 percent sample. It is unclear, however, whether any errors uncovered also will be corrected on the database if appropriate.

Summary

The review of DLE internal audits revealed several serious drawbacks. First, the audits conducted since October 1983 did not encompass a broad scope of CHRI records or procedures. Second, the audits did not seem to be conducted according to any discernible pre-existing plan. Third, the audit findings reviewed in some cases revealed unacceptably high and consistent error rates. Finally, in many cases the audit reports did not indicate that the errors detected were corrected in the sample, let alone in the database. Further discussions with DLE staff indicated that the errors detected in the audit sample were corrected, although no further detection and correction in the database were conducted. It must be reiterated that the lack of documentation seriously hampered this review. A more complete interpretation of the procedures used could have been accomplished with such materials in hand.

VII. The Maintenance and Security of the CCH Database

The security phase of this year's CCH audit involved on-site observations at the Department of Law Enforcement's (DLE) Bureau of Data Processing (BDP) facility in Springfield and Bureau of Identification (BOI) facility in Joliet. The audits primarily concerned the physical security of the installations as well as "computer" security involving the handling of criminal history record information (CHRI).

The audit team evaluated nine legal requirements relating to these topics. These requirements were drawn from Federal regulations²⁹ regarding security and privacy of criminal justice information systems.

The audit consisted of interviews with BOI and BDP personnel, who were asked to respond to questions about the different legal requirements of the Federal regulations. In addition, both facilities were toured, during which time the audit team recorded observations regarding several aspects of the regulations. In some instances, questions applied to one facility, though not to the other. The findings from these interviews and observations are presented here with those distinctions in mind.

1. Software and hardware must be designed to prevent unauthorized access, and all attempts to penetrate the system shall be recorded for output.

While the current CCH system does not provide extensive protection against unauthorized access--such as personal passwords, limitations on certain "levels" of access, and so forth--the "new" CCH system will include these provisions. Also, when terminals in the CCH system network initiate transactions, the system requires that certain polling procedures be completed successfully before granting certain capabilities.

All transactions and messages are logged permanently on magnetic tape and stored off-site in Springfield. These logs can be used not only to check for unauthorized access, but also as "backup" for the system. Currently, however, these logs are not screened systematically for unauthorized intrusions. The system's limited built-in queries at the start of sessions are the only check against unauthorized access.

2. Only authorized personnel may gain direct access to CHRI.

BDP personnel are somewhat limited in their access to CHRI. For the most part, this results from the different duties and responsibilities employees there have. At the BOI, virtually any employee can come into direct contact with CHRI. Again, this results from the processing of CCH information that takes place there. At the BDP, capabilities for editing or modifying the database are restricted to certain computer terminals and designated employees. However, computer terminals frequently are left unattended at the BDP facility. Though access to the computer room is restricted, requiring clearance from the Data Center Services manager, direct CHRI access may be gained through terminals not under the scrutiny of computer room personnel. Terminals at the BOI facility are not limited with regard to direct access to the database. The terminals there, however, are in use more frequently and rarely are left unattended.

3. Data may not be altered by non-criminal justice terminals.

The database is accessible (given the limitations previously discussed) only from specified computer terminals at the BDP. Any terminal at the BOI facility has such access capabilities. The database is not accessible from non-criminal justice agencies or terminals.

²⁹28 CFR 20.20 et seq. The text of these regulations is presented in Appendix C.

4. Criminal justice agencies shall control the destruction of records.

Day-to-day non-sensitive records at the BDP, created during program testing and other related activities, currently are shredded by hand under no supervision. Whenever anything of a sensitive nature or anything containing personal identification information is involved, the materials are shredded upon clearance of supervisors under guard at the Illinois Department of Revenue Building. Source document shredding done at the BOI in the course of the microfilm conversion is carried out after supervisory personnel screen the materials.

5. Knowledge of the actual programs designed to detect unauthorized access shall be restricted.

This requirement does not apply under the current system because no such program exists. Reportedly, the system now being designed will provide such software, and the physical security of the documentation involved is an issue under consideration.

6. Data shall be maintained in physically secure environments.

The physical security of the BDP facility leaves much to be desired. The facility is housed in a structure which allows free and easy public access. As such, it is nearly impossible to protect the entire building adequately against intrusion by unauthorized personnel. The facility is equipped with several electronic security devices (video cameras, door access controls, and so forth), and the DLE has security personnel stationed there around the clock. Personnel are required to wear security badges throughout the data processing facilities, and the computer room is protected by locked doors 24 hours each day. Yet, according to DLE management, the security unit is understaffed, and outside law enforcement personnel must be dispatched in certain circumstances. Additionally, because the DLE is essentially a tenant in the Armory facility, it has no control over the screening of janitorial employees who are contracted by the landlord agency. These persons, furthermore, have unrestricted access in the facility.

The physical security of the Joliet BOI facility is a great deal better than that of the Springfield facility. The BOI structure is not open to the volume of non-criminal justice personnel traffic as is the latter facility. Personnel are required to wear security badges throughout the facility, and visitor logs and badges are also requisite. Although there is an electronic locking device on the front doors, the receptionist has no way to communicate with visitors seeking entry, except to look at them through the glass partition. Furthermore, once inside the facility, no other barrier to physical records or computer equipment is offered. Additionally, the receptionist frequently is processing CHRI at the desk in the lobby area.

The loading dock at the facility's rear entrance has an alarm/sensor device, as do all the entrances. The door itself, however, is not physically secure, because of its glass construction. Once inside this entrance, an intruder has access to the entire facility.

7. Criminal justice agencies shall screen personnel having access to CHRI.

The DLE screens personnel who have access to CHRI, with the exception of contract employees at the BDP facility (see discussion accompanying legal requirement number 6).

8. Persons with direct access to CHRI shall be subject to administrative actions by criminal justice agencies.

Persons with direct access to CHRI are subject to administrative and criminal sanctions by the DLE. For example, users' agreements must be signed by officials of the photographic lab which handles microfilm processing for the BOI.

9. Employees shall be informed of the substance and intent of the Federal regulations.

Employees at both facilities go through an orientation which includes discussions about the sensitivity of the information they are handling. However, neither bureau trains personnel specifically about the Federal regulations concerning criminal justice information systems.

Summary

In some cases, the DLE complies with the requirements of the Federal regulations about the security and maintenance of CHRI. However, for the majority of requirements evaluated, several shortcomings were detected in this audit.

The fact that the DLE is a tenant in the BDP building in Springfield, and thus has no control over the screening or hiring of janitorial staff, compromises the physical security of that facility. These contractual employees are allowed free and easy access to all areas of the building, including the computer room. As a result, they should be subject to the same security clearance procedures as any other employees who have access to that sensitive area.

In addition, the building itself is open to the public, and is burdened by a constant flow of pedestrian traffic and activities. The Command Center, which is responsible for providing building security, is reported to be understaffed.

The security of the CCH database at the BDP facility in Springfield is compromised by several factors, including: the fact that access to the computer system is not limited by user passwords; terminals capable of deleting records are frequently left unattended; computer programs and related documents are not stored in secured locations, but are left on open shelves; and logs which record information on all transactions conducted on the database reportedly are not routinely examined for evidence of unauthorized access.

The physical security at the BOI facility in Joliet surpasses that of the Springfield installation. This is because the building is not open to the volume of non-criminal justice personnel traffic as is the Springfield facility. Some deficiencies were observed, however. An entrance alarm monitoring system currently used monitors several entrances, but does not allow easy identification of the opened entrance. Although there is an electronic locking device on the front doors, the receptionist has no way to communicate with visitors seeking entry, except to look at them through the glass partition. In addition, the rear entrance is not attended, and at the time of the audit inspection, it was propped open to allow workmen easy access. The rear door is not physically secure, being constructed mainly of glass.

While, to the best knowledge of DLE staff, no serious security breaches have occurred to date, the DLE's current physical and computer security measures may not protect the CCH database and supporting source documents adequately from unauthorized access and intentional misuse of the criminal history record information.

STATE OF ILLINOIS
DEPARTMENT OF LAW ENFORCEMENT
OFFICE OF THE DIRECTOR



March 14, 1985

JAMES B. ZAGEL
DIRECTOR

Mr. William Gould, Chairman
Illinois Criminal Justice Information
Authority
120 South Riverside Plaza
Chicago, Illinois 60606

Dear Chairman Gould:

The Department of Law Enforcement has reviewed the Annual Audit Report for 1984-1985. As with most audits, only selective issues have been examined. These issues must be considered in the context of total program operations, both historically and in terms of current activities. Significant progress has been made during the last several years. Significant backlogs of reported criminal events have been eliminated resulting in reduced processing times; a microfilming program is well underway which will serve to protect these valuable records; and many changes have been made (e.g., a new name search routine, file structures, and reduction in duplicative reporting of Illinois Vehicle Code violations) which have and will continue to result in more timely and accurate services to agencies.

While recognizing that significant progress has been made, much work remains. Our primary concern must remain to provide an acceptable level of current services as we strive to improve these services. The department has embarked on two major efforts to continue our progress in improving services. First, a new microfilming program has begun with three primary goals:

- a. Secure, off-site storage to protect these valuable records.
- b. Correction of errors which have occurred during the past 50 years in processing and utilizing these records.
- c. Establishment of new procedures and file structures to significantly reduce errors and their impact upon agencies.

Secondly, a complete analysis and new design of the Criminal History Record Program is underway. This effort is directed toward resolution of current processing problems as well as to provide a more adaptable system for the future. Many of the issues raised in this year's audit report had already been incorporated into the design.

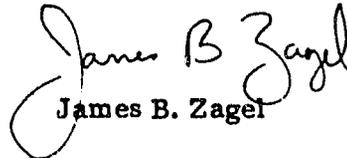
These efforts are critical to the provision of improved criminal history services to Illinois' agencies. There are those who suggest that the scope of the design effort be greatly expanded to serve other needs for information exchange. While these objectives appear worthy of further examination, these efforts cannot be allowed to delay significantly the system, and the enhancements it contains, currently under development.

Mr. William Gould, Chairman
March 14, 1985

Page 2

The findings and recommendations contained in this report have and will continue to be incorporated into the broader efforts of the department to improve the Criminal History Record Information Program. The recommendations relative to security, however, are primarily dependent upon fiscal resources and only represent some of the security concerns to be addressed.

Very truly yours,

A handwritten signature in cursive script that reads "James B. Zagel". The signature is written in dark ink and is positioned above the printed name.

James B. Zagel

Director

JBZ:lc

Bibliography

Bureau of Justice Statistics, U.S. Department of Justice

1984 *Returning to Prison*. Bureau of Justice Statistics Special Report. Washington, D.C.: Bureau of Justice Statistics.

Illinois Criminal Justice Information Authority

1983 *Annual Audit Report for 1982-1983: Data Quality of Computerized Criminal Histories*. Chicago: Illinois Criminal Justice Information Authority.

Illinois Criminal Justice Information Council

1980 *Annual Privacy and Security Audit Report*. Chicago: Illinois Criminal Justice Information Council.

1981 *Annual Privacy and Security Audit Report*. Chicago: Illinois Criminal Justice Information Council.

Office of the Auditor General, State of Illinois

1982 *Management and Program Audit, Criminal History Components, Criminal Justice Information System, Illinois Department of Law Enforcement*. Springfield, Ill.: State of Illinois.

SEARCH Group, Inc.

1983 *Audit Manual for Criminal History Record Systems*. Sacramento, Calif.: SEARCH Group, Inc.

Appendices

A: CCH, PIMS, and Illinois CIMIS Identification Segment Codes.57

B: Charges Involved in PIMS Arrests Not Found on CCH58

C: Text of Federal Regulations.59

D: Sample Computerized Criminal History Record61

E: Audit Coding Sheets.62

APPENDIX A

CCH, PIMS, and Illinois CIMIS Identification Segment Codes

Eye Color Codes

<u>CCH</u>	<u>PIMS</u>	<u>CIMIS</u>
Black	Black	Black
Blue	Blue	Blue
Brown	Brown	Brown
Gray	Gray	Gray
Green	Green	Green
Hazel	Hazel	Hazel
Maroon	Maroon	Maroon
Pink	Pink	Pink
	Unknown	Unknown

Hair Color Codes

<u>CCH</u>	<u>PIMS</u>	<u>CIMIS</u>
Bald	Bald	Bald
Black	Black	Black
Blonde	Blonde	Blonde
Brown	Brown	Brown
Gray	Gray	Gray
Red	Red	Red
Sandy	Sandy	Salt & Pepper
White	White	Sandy
	Unknown	Unknown
		White

Race Codes

<u>CCH</u>	<u>PIMS</u>	<u>CIMIS</u>
Black	American Indian	American Indian
Chinese	Asian	Asian or Pacific Islander
Indian	Black	Black (<i>Not of Hispanic Origin</i>)
Japanese	Chinese	Chinese
Other	Eskimo	Hispanic
White	Hispanic	Japanese
	Japanese	Mexican American
	Mexican	Oriental
	Other Latin	Other
	Puerto Rican	Puerto Rican
	White	Spanish American
		Unknown
		White (<i>Not of Hispanic Origin</i>)

Appendix B

Charges Involved in PIMS Arrests Not Found on CCH

Aggravated Assault
Aggravated Battery
Armed Robbery: Handgun
Assault: Simple
Battery: Reckless Conduct
Battery: Simple
Burglary: Forced Entry
Cannabis Control Act
Contributing to Delinquency of Minor
Criminal Damage to Property
Criminal Damage to Vehicle
Criminal Trespass to Land
Criminal Trespass to State-Supported Land
Deceptive Practices
Deceptive Practices: Credit Cards
Deceptive Practices: Forgery
Deceptive Practices: Fraud
Disorderly Conduct
Fleeing a Police Officer
Gambling
Hit & Run
Interfering with Police Officer
Liquor Control Act
Mob Action
Motor Vehicle Theft
Sex Offenses: Prostitution
Sex Offenses: Public Indecency
Sex Offenses: Solicitation
Theft of Services
Theft over \$300
Theft under \$300
Unlawful Possession of Weapons
Unlawful Storage of Weapons
Unlawful Use of Weapons
Unlawful Use of Weapons: No ID

Appendix C

Text of Federal Regulations (Chapter 28, Code of Federal Regulations, Section 20.21)

- (f) Security. Wherever criminal history record information is collected, stored, or disseminated, each State shall insure that the following requirements are satisfied by security standards established by State legislation, or in the absence of such legislation, by regulations approved or issued by the Governor of the State.
- (1) Where computerized data processing is employed, effective and technologically advanced software and hardware designs are instituted to prevent unauthorized access to such information.
 - (2) Access to criminal history record information system facilities, systems operating environments, data file contents whether while in use or when stored in a media library, and system documentation is restricted to authorized organizations and personnel.
 - (3)(i) Computer operations, whether dedicated or shared, which support criminal justice information systems, operate in accordance with procedures developed or approved by participating criminal justice agencies that assure that:
 - (a) Criminal history record information is stored by the computer in such manner that it cannot be modified, destroyed, accessed, changed, purged, or overlaid in any fashion by non-criminal justice terminals.
 - (b) Operation programs are used that will prohibit inquiry, record updates, or destruction of records, from any terminal other than criminal justice system terminals which are so designated.
 - (c) The destruction of records is limited to designated terminals under the direct control of the criminal justice agency responsible for creating or storing the criminal history record information.
 - (d) Operational programs are used to detect and store for the output of designated criminal justice agency employees all unauthorized attempts to penetrate any criminal history record information system, program or file.
 - (e) The programs specified in paragraphs (f)(3)(i)(b) and (d) of this section are known only to criminal justice agency employees responsible for criminal history record information system control or individuals and agencies pursuant to a specific agreement with the criminal justice agency to provide such programs and the program(s) are kept continuously under maximum security conditions.

- (f) Procedures are instituted to assure that an individual or agency responsible for (1) the physical security of criminal history record information under its control or in its custody and (2) the protection of such information from unauthorized access, disclosure or dissemination.
 - (g) Procedures are instituted to protect any central repository of criminal history record information from unauthorized access, theft, sabotage, fire, flood, wind, or other natural or man-made disasters.
 - (ii) A criminal justice agency shall have the right to audit, monitor and inspect procedures established above.
- (4) The criminal justice agency will:
- (i) Screen and have the right to reject for employment, based on good cause, all personnel to be authorized to have direct access to criminal history record information.
 - (ii) Have the right to initiate or cause to be initiated administrative action leading to the transfer or removal of personnel authorized to have direct access to such information where such personnel violate the provisions of these regulations or other security requirements established for the collection, storage, or dissemination of criminal history record information.
 - (iii) Institute procedures, where computer processing is not utilized, to assure that an individual or agency authorized direct access is responsible for (a) the physical security of criminal history record information under its control or in its custody and (b) the protection of such information from unauthorized access, disclosure or dissemination.
 - (iv) Institute procedures, where computer processing is not utilized, to protect any central repository of criminal history record information from unauthorized access, theft, sabotage, fire, flood, wind, or other natural or man-made disasters.
 - (v) Provide that direct access to criminal history record information shall be available only to authorized officers or employees of a criminal justice agency and, if necessary, other authorized personnel essential to the proper operation of the criminal history record information system.
- (5) Each employee working with or having access to criminal history record information shall be made familiar with the substance and intent of these regulations.

Illinois
Department of Law Enforcement
Division of Support Services
Bureau of Identification

515 East Woodruff Road,
 Joliet, Illinois 60432

ILL. BUREAU NO. IL99999999
 FBI NUMBER ABC1985
 CHICAGO IR NO. IR999999
 AGENCY CONTROL NO ABC-123

AGENCY REQUESTING TRANSCRIPT
 DIRECTOR
 IL CRIM JUST INFO AUTHOR
 120 SO RIVERSIDE PLAZA
 CHICAGO
 IL 60606

NUMBER OF BONDS 01
 BFW ISSUED 01
 BFW QUASHED 00

NAME TEST, RECORD ONLY
 BIRTHDATE 010220
 ALIAS DOB 010225 010202
 MISC. NO.
 HAIR BRO
 HGT. FT. 5 IN. 11
 HENRY FP CLASS
 AA 01 A AAAAAA AA
 BB 02 BBBBBB BB

SEX M RACE W
 EYES BLU
 WEIGHT 185
 NCIC FP CLASS
 1234567AAABBBBBCCCCC

DLE 6-65 4/78

WARNING: RELEASE OF THIS INFORMATION TO UNAUTHORIZED INDIVIDUALS OR AGENCIES OR MISUSE IS PROHIBITED BY FEDERAL LAW
TITLE 42 USC 3771b PERTAINING TO CRIMINAL HISTORY INFORMATION.

CONTRIBUTOR DOCUMENT CONTROL NO. AGENCY CONTROL NO.	TRANSCODE	DATE OF TRANS.	A C H	STATUTE CITATION	ACTION	NAME USED
ARREST		02/01/85			DATE OF TRANSCRIPT	
CHICAGO CB99887766 IR999999	A	08/17/56	01	38-12-3	BATTERY	
S.A. DISPOSITION						
COOK CO S A	S	08/17/56	01	38-12-3	FILED BATTERY	
COURT DISPOSITION						
COOK CIR CRT	J	08/31/56	01	38-12-3	CONVICTED OF BATTERY SENTENCED TO IMPRISONMENT FOR 14-10Y	
CUSTODIAL INFORMATION						
JOLIET REC COR CTR CD999888777 C009999	C	09/01/56			RECEIVED	

Illinois Criminal Justice Information Authority
Page 61

Appendix D
Sample Computerized Criminal History Record

Appendix E
Audit Coding Sheets



1984 CCH Audit
CCH Complete Analysis

NO

AGENCY

IDENTIFICATION SEGMENT

ELEMENT	CCH	PIMS	IDOC	COMMENT	CODE
1. SID NUMBER					
2. LAST NAME					
3. FIRST NAME					
4. DATE OF BIRTH					
5. SEX					
6. RACE					
7. HAIR COLOR					
8. EYE COLOR					
9. HEIGHT					
10. WEIGHT					

Coder: _____ Date: _____

ARREST SEGMENT

ELEMENTS	CCH	PIMS	COMMENTS	CODE
1. AGENCY CONTROL NUMBER				
2. DATE OF ARREST				
3. OFFENSE DESC.				
4. DISPOSITION DESC.				
5. DISPOSITION DATE				

CUSTODIAL SEGMENT

ELEMENTS	CCH	IDOC	COMMENTS	CODE
1. ADMIT DATE				
2. ADMIT OFFENSE				
3. IDOC NUMBER				



... ..