Research Bulletin

Integrated justice information system survey findings

By Mark Myrent, Robert Lombardo, and Wil Nagel

The ability to share timely and accurate data is crucial to the efficient management of the Illinois criminal justice system. At the Illinois Criminal Justice Information Authority-sponsored Criminal Justice Planning Assembly in June 2000, state policymakers, government officials, service providers, and citizens discussed the need for justice information integration, and expressed the desire for the development of an integrated justice plan.

While there appears to be a significant amount of automation within police departments, the survey found that there is almost a total lack of electronic data sharing between municipal police departments and the other components of the criminal justice system.

Former Gov. George H. Ryan then established the Illinois Integrated Justice Information System Board. This board, comprised of representatives from state, county, and municipal justice agencies, was charged with developing a strategic plan for justice information sharing in Illinois. This plan was completed in December 2002 and subsequently endorsed by Gov. Rod R. Blagojevich, who also issued Executive Order No. 16 (2003) creating the Illinois Integrated Justice Information System Implementation Board. The plan is available on the Authority's website at www.icjia.state.il.us/iijis.

As part of the ongoing planning process, IIJIS staff members are evaluating the current state of integrated justice in Illinois. To understand the state of information management and sharing practices among criminal justice organizations, a Justice Information Management Survey was sent to 438 agencies, including municipal police departments, sheriffs' offices, state's attorneys' offices, circuit court clerks' offices, and probation departments.

These surveys gathered information on the types of data that are routinely exchanged by criminal justice agencies. The data types listed were identified
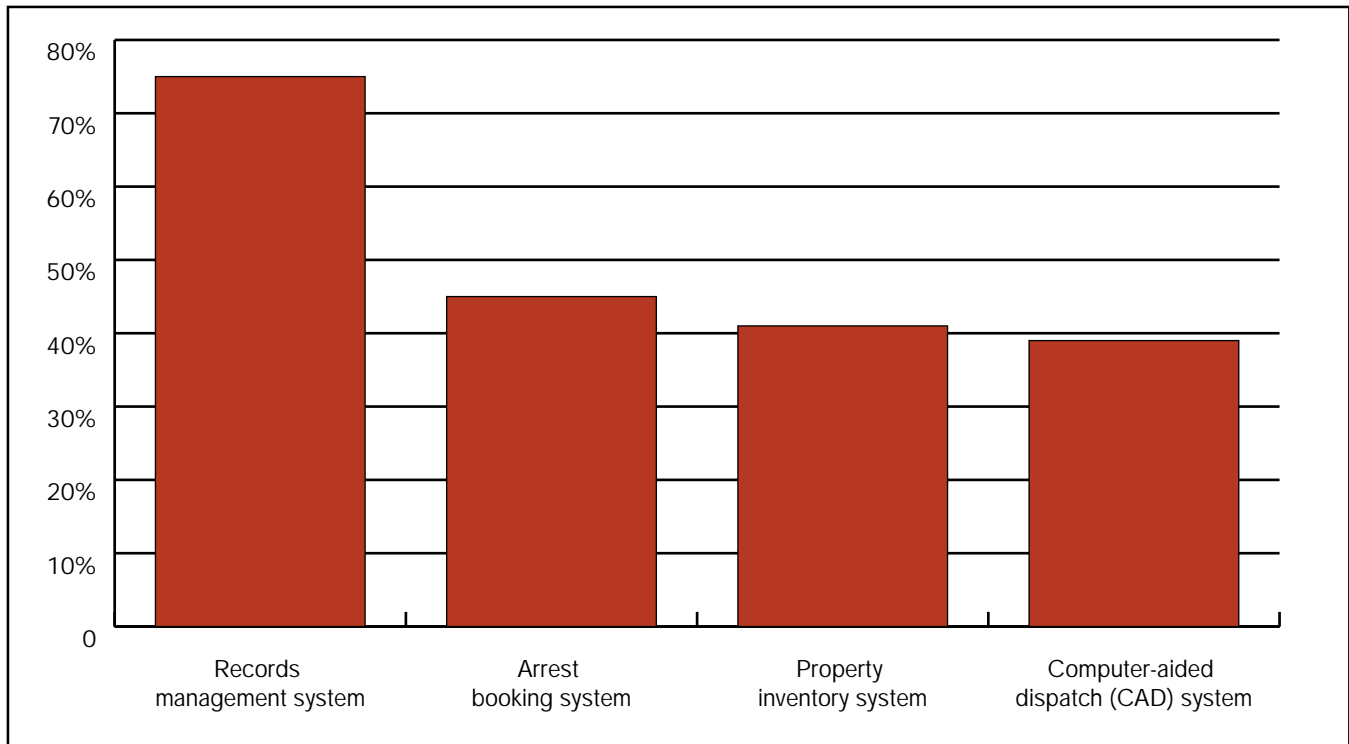
Figure 1
General automation used by municipal law enforcement

through interviews of justice agency officials conducted as part of a business analysis, mapping the exchange of arrest and court case data. The data types identified contain all the data elements and documents that were uncovered in this process.

The agencies surveyed were chosen by a stratified sampling scheme in which the state's justice providers were grouped into five regions: Chicago, suburban Cook County, the collar counties, and downstate urban and rural areas. To collect data from municipal police agencies, surveys were sent to the Chicago Police Department and a randomly chosen sample (25 percent) of police departments in each of the other regions of the state. Surveys also were sent to county sheriffs, state's attorneys, circuit court clerks, and probation departments in Cook County, the five collar counties, all 22 counties located in downstate urban areas, and 19 (25 percent) of the state's rural counties.

In total, 239, or 55 percent, of the agencies responded to the survey including 130 (52 percent) municipal police departments, 31 (66 percent) circuit court clerks' offices, 29 (62 percent) probation departments, 27 (57 percent) sheriffs' offices, and 22 (47 percent) state's attorneys' offices. This report reviews the

findings of the surveys and outlines the scope of criminal justice information sharing in Illinois.

Municipal police departments

In an effort to determine the extent of their general automation, municipal police departments were asked to indicate whether they maintained each of the following information systems: records management, arrest booking, property inventory, and computer-aided dispatch.

Of the 130 police departments responding, 75 percent reported that they maintained a computerized records management system. Police agencies use records management systems to enter, store, and retrieve data pertaining to the occurrence of crime, the reporting of traffic accidents, the issuance of citations, and other law enforcement activities. Nearly one-half (45 percent) of all responding agencies indicated that they maintained an arrest booking system. These booking systems range from livescan machines for electronic fingerprinting of arrestees and storage of arrest information, to arrest modules associated with records management systems, and stand-alone computerized arrest files.

Additionally, 41 percent of respondents reported that their agencies maintained a computerized inventory system. Inventory systems are used by police agencies to document the recovery of evidence, contraband, and abandoned property. Most were stand-alone systems, though some were tied to larger databases such as the department's records management system. Lastly, 39 percent of the Illinois police agencies polled reported that they maintained a computer-aided dispatch (CAD) system. CAD systems are usually housed in a police department's dispatch center and are used to record the assignment of personnel to calls for police service. It is important to note that only 9 percent of respondents from rural areas indicated that their police department maintained a CAD system. This is a significant finding when compared to down-state urban areas, where 40 percent of the agencies reported that they used CAD.

In spite of the fact that there appears to be a significant amount of automation within police agencies, the survey found that there is an almost total lack of electronic data sharing between municipal police departments and the other components of the criminal justice system. In fact, 96 percent of the 334 reported types of information exchanged from police agencies to circuit court clerks, sheriffs, and state's attorneys are manual. Similarly, 93 percent (269) of the exchanges from these agencies to police departments are also manual. Of the 24 electronic exchanges of information identified (nine to law enforcement agencies, and 15 from law enforcement agencies), six were batch transfers and 18 were real-time. Batch transfers occur at scheduled intervals, while real-time transfers occur continuously. Additionally, there appears to be little difference between geographic areas of the state. The absence of electronic exchanges of information by law enforcement agencies is prevalent statewide.

Of the 7,244 documents and data elements exchanged between municipal law enforcement and other criminal justice agencies identified in the survey, 74 percent were sent from a municipal law enforcement agency to another agency. The most frequently forwarded document is the traffic ticket, followed by incident report, criminal complaint, and arrest report. The most frequently forwarded data elements include name, date of birth, incident number, driver's license number, arrest number, social security number, state identification number (SID), document control number, and FBI number. Only three documents — the arrest warrant, indictment, and criminal information (charging documents) — appear to be regularly received by police agencies. The most frequently received data elements include name, date of birth, charge statute citation, SID, and court case disposition.

Municipal law enforcement agencies were also asked to determine their most important integration need. Of the police departments responding, 38 percent indicated that computer-aided dispatch to mobile data terminal (MDT) connectivity was their most important integration requirement. The ability to transmit CAD data to the agency's local records management system (RMS) was next in matter of importance, with 25 percent of the police departments indicating that was an important integration need. The ability to transmit data to the state's attorney's office closely followed with 23 percent of the respondents citing its importance. Lastly, 20 percent of the police departments surveyed indicated that CAD to Law Enforcement Agencies Data System (LEADS) integration was needed. These findings suggest that municipal law enforcement agencies may be more concerned with operational functionality within their departments than with connectivity to other components of the criminal justice system.

Two of the most important law enforcement integration needs, CAD to MDT and CAD to LEADS, involve state-supported systems. Illinois currently supports two MDT systems, the Area-wide Law Enforcement Radio Terminal System (ALERTS) and the Illinois Wireless Information Network (IWIN). To take full advantage of CAD technology, police departments that have installed CAD systems must also develop MDT interfaces to forward assignment related information to patrol units that would be otherwise transmitted by radio. For example, a CAD interface enables police dispatchers to electronically forward information, such as complainant name and address of assignment, to responding field units.

LEADS is a telecommunications system maintained by the Illinois State Police designed to provide access to computerized "hot" files (stolen property, arrest warrants, missing persons, and officer safety information); the motor vehicle files of the Secretary of State;

Figure 2
Manual and electronic transfers by county type
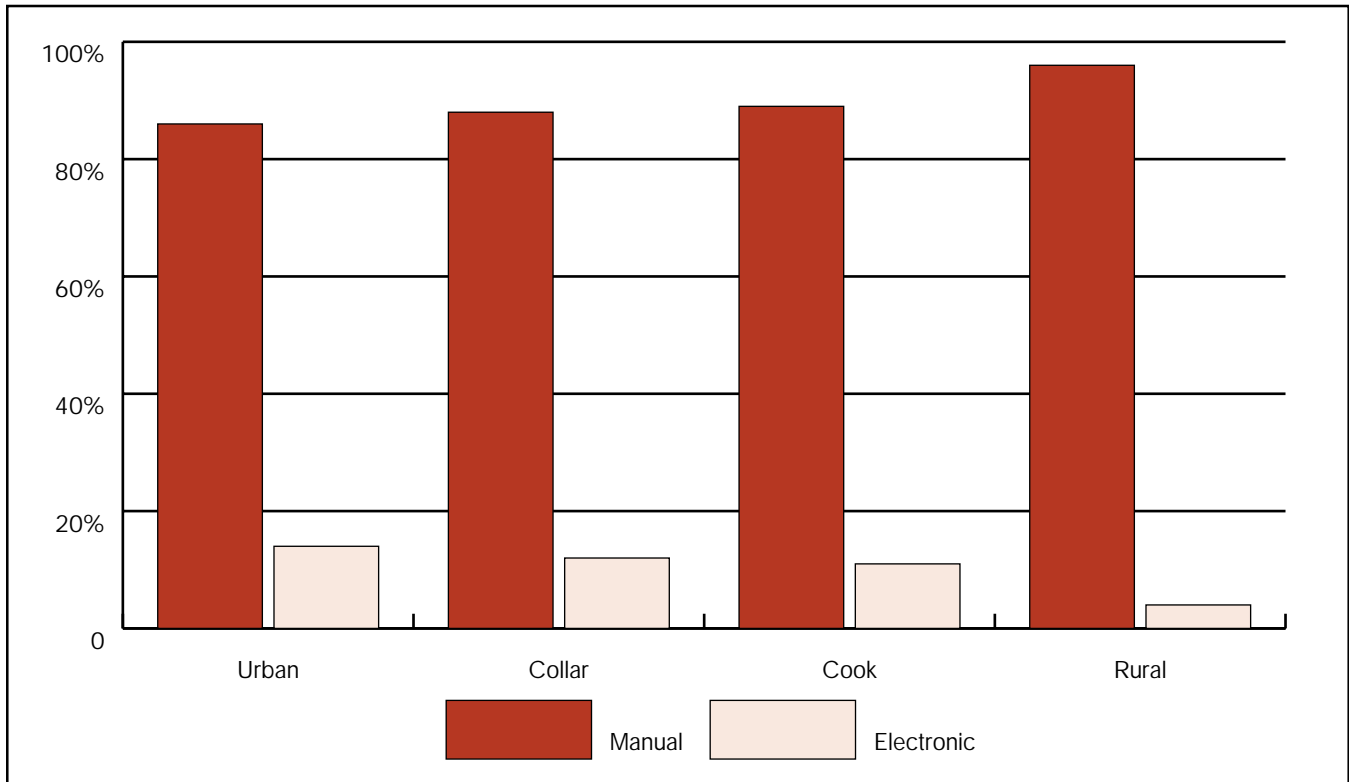
and the National Crime Information Center, which provides out-of-state hot file information. About 800 criminal justice agencies have direct access to LEADS statewide. CAD to LEADS integration allows CAD computers to directly access LEADS. This, in turn, facilitates the transmission of criminal history and other offender status information to patrol cars from the dispatch center. Though responsibility for both CAD to MDT and CAD to LEADS integration rests largely with local agencies, their importance for integrated justice is apparent from the survey responses and should be recognized in any statewide integration plan.

Circuit court clerks

The survey revealed that a significant number of circuit court clerks maintain a case management system. Of the 31 counties that responded to the survey, 68 percent reported that they used the Goodin and Associates' Judicial Information Management System (JIMS). (It should be noted that a total of 80 Illinois counties are using the JIMS product.) JIMS provides Illinois court clerks with a computerized solution for their court-related record-keeping func-

tions. JIMS also provides computerized case management systems for probation offices, public defenders, and state's attorneys. All JIMS users are located in rural areas and urban areas outside of the Chicago metropolitan area. An additional 26 percent of the respondents reported that they used some other form of computerized case management system. The most common of these was JANO Justice Systems, used by 10 percent of the respondents.

Though a significant number of the circuit court clerks in Illinois are using electronic case management systems, the vast majority are still manually exchanging data with other criminal justice agencies. Of the 92 types of outbound exchanges of data identified in the circuit court clerk survey, 73 percent were paper-based. These exchanges involved the transfer of information from the circuit court clerk to municipal law enforcement agencies, sheriffs' offices, probation departments, social service departments, and state's attorneys' offices. There were even fewer reported inbound exchange types to the court clerk's office. Clerks reported that 97 percent of the information transfers that they received from other justice agencies were paper-based. Of the 28 types of electronic trans-

fers identified, 20 were real-time transfers and eight were batch transfers.

Of the 2,143 documents and data elements exchanged between circuit court clerks and other criminal justice agencies, 47 percent of the exchanges were outbound and 53 percent were inbound. The most common documents forwarded by the court clerk include the arrest warrant; notice of supervision, conditional discharge, or probation; order of commitment and sentencing; and order of protection. The most forwarded data elements are name, date of birth, court case number, court date, charge, and SID number. The most common documents received by the court clerk are indictment, traffic ticket, pre-sentence report, arrest report, and non-traffic citation. The most frequently occurring data elements received are name, date of birth, SID number, driver's license number, and social security number. Seventy percent of all information received by court clerks comes from two agencies — municipal law enforcement (36 percent) and the state's attorney's office (34 percent).

Circuit court clerks reported that connectivity to the state's attorney's office was their most important integration need. Ten of the 31 respondents indicated a desire for this type of connectivity. This need was closely followed by a desire for police and jail integration. Nine respondents called for connectivity between the clerk's office and municipal law enforcement, and nine respondents called for connection between the clerk's office and the sheriff's jail facility. Lastly, six of the responding clerks reported a need for a direct link to the Illinois State Police Bureau of Identification. The Bureau of Identification is the state's central repository for criminal history record information. Such a connection would facilitate the posting of court disposition information to criminal history records.

Sheriffs

Sheriffs' offices provide a multitude of criminal justice-related services including police patrol of unincorporated areas, court services, and jail management. As such, they operate a diverse group of information systems, including RMS, arrest booking, property inventory, and CAD, as well as jail information management and warrant tracking. The survey indicates that more than three-fourths of the sheriffs' offices responding employed records management, booking, warrant, and jail management systems. Nearly 60

percent maintained CAD and property inventory systems.

Like other criminal justice agencies, most of the information exchanged by sheriffs' offices is transferred manually. Of 83 reported exchanges from the sheriff to other members of the justice community, 65 percent were identified as being manual. These exchanges involved the Automated Victim Notification system (a telephone system that provides crime victims with current offender status information), the Illinois Department of Corrections, circuit court clerks, and municipal police departments. Of the electronic exchange types, 11 were batch and 15 were real-time. In addition, sheriffs reported that 91 percent of the information received from circuit court clerks and local police departments was paper-based. Though there were more electronic exchanges in urban than rural areas, the difference was not significant.

Of the 1,218 documents and data elements transferred between sheriffs' offices and other components of the criminal justice system, the most frequently received documents included the arrest report, arrest warrant, order of protection, order to recall warrant, and the order of commitment and sentencing. The order of commitment and sentencing was the document most forwarded by sheriffs. The most frequently exchanged data elements included name, date of birth, driver's license number, social security number, court case number, and SID number. Of the 27 sheriffs' offices that answered the survey, seven indicated that connectivity to the circuit court clerk's office was important for integration. Five reported that access to the state's attorney's office was favored.

State's attorneys

Nine (41 percent) of the 22 state's attorneys' offices polled indicated that they utilized some form of electronic case management system. Of the 50 types of information exchanges identified from state's attorneys' offices to other criminal justice agencies, all were paper-based. The agencies that are forwarded information by the state's attorney include the circuit court clerk, municipal law enforcement, and county probation. In addition, 94 percent of the information received by state's attorneys comes in the way of paper reports. Only three state's attorneys reported receiving information from the circuit court clerk

Figure 3
Data types transferred*

*These 24 data types represent 70 percent of the information transferred between agencies.
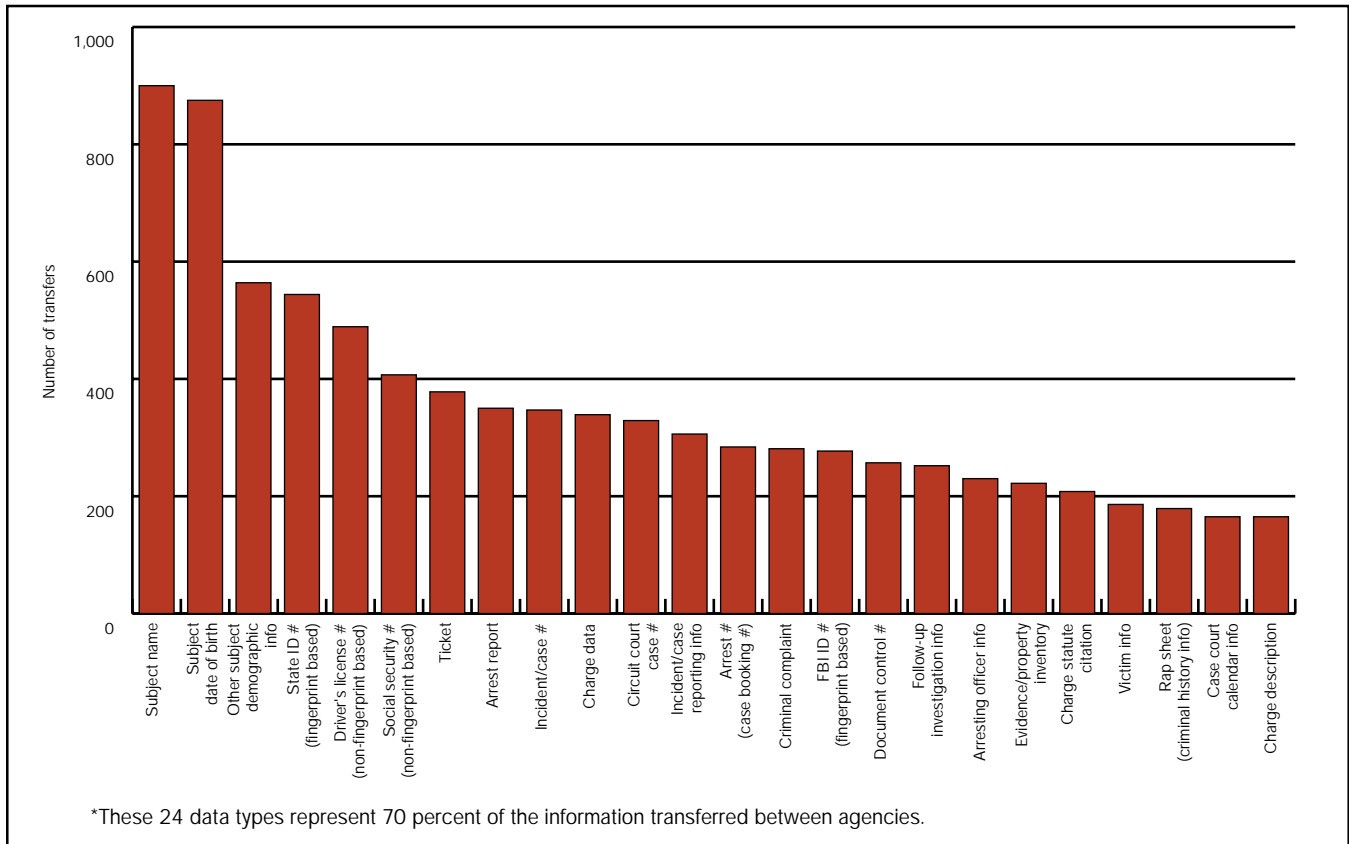
electronically. All three of these offices are located in urban areas outside of Cook County.

Of 1,185 types of documents and data elements exchanged between state's attorneys and other agencies, 58 percent were inbound. The most commonly received documents are the arrest report, incident report, criminal history, pre-sentence investigation report, and the property inventory report. The most commonly forwarded documents include the petition for violation of probation, the indictment, the information, and the arrest report. The most exchanged data elements include name, date of birth, SID number, social security number, driver's license number, incident report number, and arrest booking number.

When asked to identify integration needs, 45 percent (10) of the respondents indicated that connectivity to the court clerk was important. The same portion indicated that connectivity to municipal law enforcement was also important. Finally, 9 percent (two) cited connectivity to the probation department as important.

Probation

Of the 28 probation departments responding to the survey, 64 percent (18) indicated that they maintained a case management system. Of these, five indicated that they plan to access the Probation On-Line Automated Reporting Information System (POLARIS) when it becomes operational. POLARIS is being developed by the Administrative Office of the Illinois Courts to collect case-level data on probation caseloads from county probation departments. POLARIS will provide a mechanism for individual departments to analyze trends, perform group comparisons, and provide an empirical basis for evaluating probation programs, strategies, and practices. Both the planned use of POLARIS and the use of other case management systems were highly concentrated in urban areas. Of the 18 probation departments that indicated they maintained an automated system, only three were located in rural areas.

An analysis of the exchanges of information between probation departments and circuit court clerks and between probation departments and state's attorneys'

offices indicates that 98 percent of the information exchange types to probation departments are paper-based. Of the five types of electronic transfers identified, one was sent in batch mode and four were real-time transfers. Four of the five electronic transfers occurred in urban areas. In addition, 87 percent of the information sent to court clerks, sheriffs, and state's attorneys by probation departments is also transmitted manually.

The reports most often received by probation departments include the notice of investigation order; the notice of supervision, conditional discharge, or probation; and the arrest report. The most common reports forwarded by probation departments include the pre-sentence investigation report, the petition for violation of probation, the motion for termination of probation, the pre-trial investigation report, and the probation progress report. The most common data elements exchanged are name, date of birth, court case number, SID, and charge.

Probation departments indicated that connectivity to circuit court clerks was their most important integration need. Of the total respondents, 52 percent (15) desired the ability to forward information to court clerks. Eight probation departments indicated that the ability to exchange information with the sheriff's office was important. Finally, seven probation departments indicated a need for integration with the state's attorney's office.

Summary

The Justice Information Management Survey was an attempt to describe both agency-level automation and the state of justice information sharing in Illinois. The following are some of the most important findings of this survey:

• Seventy-four percent of the responding agencies indicated that they maintained some form of computerized records management system.

• Connectivity to the circuit court clerk's office was the most frequently stated integration need.

• Of the 1,139 types of information exchanges between criminal justice agencies documented in this study, 91 percent were paper-based. Though urban areas accounted for most of the electronic transfers

uncovered, the percentage distribution of paper-based information exchanges remained fairly uniform statewide. For example, rural areas reported that 96 percent of the information types exchanged between justice agencies is manual. Similarly, Cook County, the collar counties, and other urban areas reported that 89 percent, 88 percent, and 86 percent, respectively, of the information types exchanged between justice agencies is paper-based.

• Of the 86 different categories of information surveyed, 24 of the data types accounted for 70 percent of the information transferred. These core data elements include: name, date of birth, state identification number, driver's license number, social security number, FBI number, and other information common to a booking such as an arrest report and criminal complaint.

These findings mirror those from an earlier study of justice information flow in Cook County that was conducted to determine the sources of criminal history reporting errors. That analysis revealed that certain subject identifiers and arrest charge data were redundantly entered, as many as 15 times, into several different systems including those used by the clerks' offices, prosecutors, social services personnel, pre-trial detention (jail) personnel, public defenders' offices, and probation departments. At every step in the justice process there was considerable data reentry. In some instances information was even manually reentered from one system to another within the same agency.

The repetitive nature of justice information supports the call for criminal justice integration. Systems that depend on reentered data from other systems can have severe data accuracy problems. Furthermore, manually reentering data, which was historically necessary because of the technological limitations on automated data sharing, is expensive. With the advent of enhanced systems integration, participating justice agencies can eliminate the disadvantages of duplicate data entry. While capital outlay will be required to implement integration solutions, the potential for savings by enabling electronic data exchange between agency systems is significant, and, in some cases, will quickly offset initial expenditures.

ICJIA

Illinois Criminal Justice Information Authority

120 S. Riverside Plaza, Suite 1016
Chicago, IL 60606
Phone: 312-793-8550, TDD: 312-793-4170, Fax: 312-793-8422

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